Committee Report

REGULAR CALENDAR

February 19, 2021

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Majority of the Committee on Science, Technology and Energy to which was referred HB 351,

AN ACT relative to the system benefits charge. Having considered the same, report the same with the recommendation that the bill OUGHT TO PASS.

Rep. Douglas Thomas

FOR THE MAJORITY OF THE COMMITTEE

Original: House Clerk
Cc: Committee Bill File

MAJORITY
COMMITTEE REPORT

Committee:	**Science, Technology and Energy**
Bill Number:	**HB 351**
Title:	**relative to the system benefits charge.**
Date:	**February 19, 2021**
Consent Calendar:	**REGULAR**
Recommendation:	**OUGHT TO PASS**

STATEMENT OF INTENT

This bill returns the authority for increases in the systems benefit charge (SBC) to the legislature, either by passage of legislation or by approval of the fiscal committee of the General Court. The SBC is one of several state-mandated surcharges added to electricity bills to pay for energy efficiency programs. An example of what can happen without legislative approval is the current 3-year Energy Efficiency Plan under review by the Public Utilities Commission (PUC). The majority does not dispute the value of energy efficiency but feels approval to raise the yearly surcharge from $62 million to nearly $280 million over a three-year span is the duty of the legislative body, which has a fiduciary responsibility to taxpayers, particularly during the current pandemic crisis. The majority believes the legislative body is well-equipped to review and approve any such requests from state agencies where the merits can be discussed and recommended.

Vote 11-9.

Rep. Douglas Thomas
FOR THE MAJORITY

Original: House Clerk
Cc: Committee Bill File

REGULAR CALENDAR

Science, Technology and Energy

HB 351, relative to the system benefits charge. **MAJORITY: OUGHT TO PASS. MINORITY: INEXPEDIENT TO LEGISLATE.**

Rep. Douglas Thomas for the **Majority** of Science, Technology and Energy. This bill returns the authority for increases in the systems benefit charge (SBC) to the legislature, either by passage of legislation or by approval of the fiscal committee of the General Court. The SBC is one of several state-mandated surcharges added to electricity bills to pay for energy efficiency programs. An example of what can happen without legislative approval is the current 3-year Energy Efficiency Plan under review by the Public Utilities Commission (PUC). The majority does not dispute the value of energy efficiency but feels approval to raise the yearly surcharge from $62 million to nearly $280 million over a three-year span is the duty of the legislative body, which has a fiduciary responsibility to taxpayers, particularly during the current pandemic crisis. The majority believes the legislative body is well-equipped to review and approve any such requests from state agencies where the merits can be discussed and recommended. **Vote 11-9.**

Original: House Clerk
Cc: Committee Bill File

REGULAR CALENDAR

February 19, 2021

HOUSE OF REPRESENTATIVES

REPORT OF COMMITTEE

The Minority of the Committee on Science, Technology and Energy to which was referred HB 351,

AN ACT relative to the system benefits charge. Having considered the same, and being unable to agree with the Majority, report with the following resolution: RESOLVED, that it is INEXPEDIENT TO LEGISLATE.

Rep. Kat McGhee

FOR THE MINORITY OF THE COMMITTEE

Original: House Clerk
Cc: Committee Bill File

MINORITY
COMMITTEE REPORT

Committee:	**Science, Technology and Energy**
Bill Number:	**HB 351**
Title:	**relative to the system benefits charge.**
Date:	**February 19, 2021**
Consent Calendar:	**REGULAR**
Recommendation:	**INEXPEDIENT TO LEGISLATE**

STATEMENT OF INTENT

This bill creates bureaucracy by taking the authority granted by the legislature to the Public Utilities Commission (PUC) for rate-setting of the System Benefits Charge (SBC) and moving it back to the House for approval. The bill says "prior approval by either the passage of legislation…or authorization by the House Fiscal Committee" is required before making changes to the SBC. So this bill upsets the natural rate-setting schedule between the PUC and the utilities by adding a potential need to pass a bill before a new rate can be adopted. The PUC's thorough, evidence-based proceedings are designed to keep schedule delays to a minimum. The language of this bill serves to undermine the intent of the SBC, which is to fund energy efficiency programs, creating uncertainty for everyone. This bill also supplies language that could derail the pending 3-year Energy Efficiency Plan, set to fund the 2021-2023 NHSaves. The recently completed Triennium Energy Efficiency Plan (TEEP) was estimated through PUC evidence to generate $619 million in net benefits to the NH economy. Over the lifetime of the measures put in place by the TEEP, residents would derive $1.3 billion in energy cost savings and up to 4,673 FTE jobs would be created. The minority remains in favor of funding for energy efficiency and the pending 3-year energy efficiency plan and its resulting economic stimulus in a recovering COVID-19 economy..

Rep. Kat McGhee
FOR THE MINORITY

Original: House Clerk
Cc: Committee Bill File

REGULAR CALENDAR

Science, Technology and Energy
HB 351, relative to the system benefits charge. **INEXPEDIENT TO LEGISLATE.**
Rep. Kat McGhee for the **Minority** of Science, Technology and Energy. This bill creates bureaucracy by taking the authority granted by the legislature to the Public Utilities Commission (PUC) for rate-setting of the System Benefits Charge (SBC) and moving it back to the House for approval. The bill says "prior approval by either the passage of legislation…or authorization by the House Fiscal Committee" is required before making changes to the SBC. So this bill upsets the natural rate-setting schedule between the PUC and the utilities by adding a potential need to pass a bill before a new rate can be adopted. The PUC's thorough, evidence-based proceedings are designed to keep schedule delays to a minimum. The language of this bill serves to undermine the intent of the SBC, which is to fund energy efficiency programs, creating uncertainty for everyone. This bill also supplies language that could derail the pending 3-year Energy Efficiency Plan, set to fund the 2021-2023 NHSaves. The recently completed Triennium Energy Efficiency Plan (TEEP) was estimated through PUC evidence to generate $619 million in net benefits to the NH economy. Over the lifetime of the measures put in place by the TEEP, residents would derive $1.3 billion in energy cost savings and up to 4,673 FTE jobs would be created. The minority remains in favor of funding for energy efficiency and the pending 3-year energy efficiency plan and its resulting economic stimulus in a recovering COVID-19 economy.

Original: House Clerk
Cc: Committee Bill File

Voting Sheets

STATE OF NEW HAMPSHIRE
OFFICE OF THE HOUSE CLERK

1/22/2021 10:09:50 AM
Roll Call Committee Registers Report

2021 SESSION

Science, Technology and Energy

Bill #: 351 **Motion:** OTP **AM #:** **Exec Session Date:** 2/19/21

Members	YEAS	Nays	NV
Vose, Michael Chairman	x		
Thomas, Douglas W. Vice Chairman	x		
Harrington, Michael D.	x		
Notter, Jeanine M.	x		
Merner, Troy E.	x		
Plett, Fred R. Clerk	x		
Berezhny, Lex	x		
Bernardy, JD	x		
Cambrils, Jose E.	x		
Ploszaj, Tom	x		
White, Nick D.	x		
Somssich, Peter F.		x	
Cali-Pitts, Jacqueline A.		x	
Mann, John E.		x	
Oxenham, Lee Walker		x	
Vincent, Kenneth S.			x
McGhee, Kat		x	
McWilliams, Rebecca J.		x	
Chretien, Jacqueline H.		x	
Pimentel, Roderick L.		x	
Parshall, Lucius		x	

STATE OF NEW HAMPSHIRE
OFFICE OF THE HOUSE CLERK

1/22/2021 10:09:50 AM
Roll Call Committee Registers Report

2021 SESSION

Science, Technology and Energy

Bill #: 351 **Motion:** OTP **AM #:** **Exec Session Date:** 2/19/21

TOTAL VOTE:	11	9	1

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

EXECUTIVE SESSION on HB 351

BILL TITLE: relative to the system benefits charge.

DATE: February 19, 2021

LOB ROOM: 206 Hybrid

MOTIONS: OUGHT TO PASS

Moved by Rep. Thomas Seconded by Rep. Berezhny Vote: 11-9

CONSENT CALENDAR: NO

Statement of Intent: Refer to Committee Report

Respectfully submitted,

Rep Fred Plett, Clerk

Hearing Minutes

HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY AND ENERGY

PUBLIC HEARING ON HB 351

BILL TITLE: **relative to the system benefits charge.**

DATE: **February 1, 2021**

LOB ROOM: **Hybrid** **Time Public Hearing Called to Order:** **4:04 p.m.**

Time Adjourned:

Committee Members: Reps. Vose, Thomas, Harrington, Notter, Merner, Berezhny, Bernardy, Cambrils, Ploszaj, White, Somssich, Cali-Pitts, Mann, Oxenham, Vincent, McGhee, McWilliams, Chretien, Pimental and Parshall, Homola

Bill Sponsors:
Rep. Harrington

TESTIMONY

* Use asterisk if written testimony and/or amendments are submitted.

- * Rep Harrington introduced the bill
- * Mari Brunner - City Planner of Keene opposes the bill
- *Anna Lake - Opposes the bill
- * Peter Hansel spoke against the bill
- * Emily Manns - Opposes bill
- * Donne Readon - Opposes bill
- * Donna Gamache - Eversource Rep - No stand on the bill. Talked about programs.

House Remote Testify

Science, Technology and Energy Committee Testify List for Bill HB351 on 2021-02-01

Support: 11 Oppose: 1 Neutral: 0 Total to Testify: 2

Name	Email Address	Phone	Title	Representing	Position	Testifying	Signed Up
Reardon, Donna	bugs42953@aol.com	603.224.8151	A Member of the Public	Myself	Oppose	Yes (3m)	1/31/2021 3:53 PM
Mineau, Madeleine	madeleine@cleanenergynh.org	607.592.6184	A Lobbyist	Clean Energy NH	Oppose	Yes (3m)	2/1/2021 8:19 AM
Montgomery, Huck	huck.montgomery@libertyutilities.com	603.391.5868	A Lobbyist	Liberty	Oppose	Yes (3m)	2/1/2021 12:28 PM
Kreis, Donald	donald.kreis@oca.nh.gov	603.271.1174	State Agency Staff	Office of the Consumer Advocate	Oppose	Yes (2m)	2/1/2021 11:15 AM
Gamache, Donna	donna.gamache@eversource.com	603.345.0994	A Lobbyist	Eversource Energy	Neutral	Yes (2m)	2/1/2021 7:15 AM
kwasnik, joseph	jkwasnik25@gmail.com	603.730.7148	A Member of the Public	Myself	Oppose	Yes (0m)	1/31/2021 12:47 PM
currier, dorothy	dorocurr@gmail.com	603.000.0000	A Member of the Public	Myself	Oppose	Yes (0m)	1/31/2021 8:39 PM
Lake, Anna	ALake763@gmail.com	603.313.5045	A Member of the Public	Myself	Oppose	Yes (0m)	1/28/2021 1:20 PM
Brunner, Mari	mbrunner@ci.keene.nh.us	603.352.5440	A Member of the Public	The City of Keene (staff person)	Oppose	Yes (0m)	1/27/2021 2:20 PM
Manns, Emily	ecmanns@gmail.com	603.924.3571	A Member of the Public	Myself	Oppose	Yes (0m)	1/27/2021 12:31 PM
Hansel, Peter	peterhansel61@twc.com	603.357.3656	A Member of the Public	Myself	Oppose	Yes (0m)	1/28/2021 9:14 AM
Rowntree, Kim	Rowntree.kimberly@gmail.com	603.903.4849	A Member of the Public	Myself	Oppose	No	1/28/2021 12:37 PM
Bass, Jonathan	jonathan@imbyenergy.com	603.831.6808	A Member of the Public	Myself	Oppose	No	1/27/2021 2:03 PM
Walker, Steve	steve@imbyenergy.com	603.231.2914	A Member of the Public	Myself	Oppose	No	1/27/2021 2:04 PM
Boyle, Mary	mary.n.boyle@gmail.com	603.252.7898	A Member of the Public	Myself	Oppose	No	1/25/2021 5:23 PM
Liebowitz, Susan	s.w.liebowitz@gmail.com	603.675.2414	A Member of the Public	Myself	Oppose	No	1/25/2021 8:49 PM
Burke, Raymond	rburke@nhla.org	800.921.1115	A Member of the Public	New Hampshire Legal Assistance	Oppose	No	1/26/2021 11:17 AM
Sharf, Joanna	josharf@gmail.com	603.477.6224	A Member of the Public	Myself	Oppose	No	1/26/2021 7:37 PM
Huberman, Anne	Anne.Huberman@gmail.com	603.924.0842	A Member of the Public	Myself	Oppose	No	1/27/2021 2:20 PM
Huberman, Joel	Joel.Huberman@gmail.com	603.924.0842	A Member of the Public	Myself	Oppose	No	1/27/2021 2:24 PM
Shedd, Ann	ladyleafy@gmail.com	603.759.0077	A Member of the Public	Myself	Oppose	No	1/27/2021 3:04 PM
Tucker, Bruce	bruce@2cker.com	805.338.1451	A Member of the Public	Myself	Oppose	No	1/27/2021 3:36 PM
Meess, Mark	1nhmoose@gmail.com	603.852.4194	A Member of the Public	Myself	Oppose	No	1/27/2021 6:29 PM
Jones, Carolyn	carolynj1947@gmail.com	603.357.0563	A Member of the Public	Myself	Oppose	No	1/27/2021 6:39 PM
Gillard, Nancy	ndgillard@ne.rr.com	603.357.0213	A Member of the Public	Myself	Oppose	No	1/27/2021 8:03 PM
Snowman-Shelley, Kris	ksnowmanshelley@gmail.com	5581429	A Member of the Public	Myself	Oppose	No	1/27/2021 8:22 PM
Wightman, Nancy	Nwlaststraw@gmail.com	603.542.4813	A Member of the Public	Myself	Oppose	No	1/28/2021 8:38 AM

Koning, Catherine	ckoning@ne.rr.com	603.732.2885	A Member of the Public	Myself	Oppose	No	1/28/2021 2:24 PM
Moore, Greg	gmoore@afphq.org	603.303.9297	A Lobbyist	Americans for Prosperity-New Hampshire	Support	No	1/28/2021 6:57 PM
Richman, Susan	susan7richman@gmail.com	603.868.2758	A Member of the Public	Myself	Oppose	No	1/28/2021 8:57 PM
Martin, Patricia	pmartin2894@yahoo.com	603.899.2894	A Member of the Public	Myself	Oppose	No	1/29/2021 1:36 AM
Chalice, Michele	michele.chalice@gmail.com	603.313.9153	A Member of the Public	Myself	Oppose	No	1/29/2021 7:31 AM
Weststrate, Nancy	usnancyjack@gmail.com	407.947.3976	A Member of the Public	Myself	Oppose	No	1/29/2021 9:50 AM
Lobdell, Sara	slobdell@antioch.edu	973.464.0703	A Member of the Public	Myself	Oppose	No	1/29/2021 12:52 PM
Corkery, Catherine	catherine.corkery@sierraclub.org	603.224.8222	A Lobbyist	NH Sierra Club	Oppose	No	1/29/2021 4:40 PM
Smith, Jennifer	jaycmd7699@gmail.com	603.485.4231	A Member of the Public	Myself	Oppose	No	1/30/2021 10:46 AM
Brunner, Christine	c_brunner@roadrunner.com	603.903.0000	A Member of the Public	Myself	Oppose	No	1/30/2021 12:15 PM
Dean, Mark	mdean@mdeanlaw.net	603.494.1032	A Lobbyist	New Hampshire Electric Cooperative	Oppose	No	1/31/2021 9:45 AM
Potucek, John	potucek1@comcast.net	603.432.9049	An Elected Official	Myself	Support	No	1/31/2021 10:12 AM
Ammon, Keith	keithammon@gmail.com	603.325.0083	An Elected Official	Myself	Oppose	No	2/1/2021 12:15 AM
Spencer, Louise	kentstusa@aol.com	603.491.1795	A Member of the Public	Myself	Oppose	No	1/31/2021 10:35 PM
Rathbun, Eric	ericsrathbun@gmail.com	860.912.3751	A Member of the Public	Myself	Support	No	1/31/2021 10:46 PM
Spielman, Kathy	jspielman@comcast.net	603.397.7879	A Member of the Public	Myself	Oppose	No	2/1/2021 6:15 AM
Spielman, James	jspielman@comcast.net	603.868.1626	A Member of the Public	Myself	Oppose	No	2/1/2021 6:16 AM
Fries, Maribeth	friesbeth@hotmail.com	603.852.6346	A Member of the Public	Myself	Oppose	No	1/31/2021 7:32 PM
Beck, Gerald	bentrimone@gmail.com	603.536.3561	A Member of the Public	Myself	Oppose	No	1/31/2021 7:43 PM
Garen, June	jzanesgaren@gmail.com	603.393.8134	A Member of the Public	Myself	Oppose	No	1/31/2021 8:19 PM
Damon, Claudia	cordsdamon@gmail.com	603.226.4561	A Member of the Public	Myself	Oppose	No	1/31/2021 8:28 PM
Podlipny, Ann	apodlipny57@comcast.net	603.370.1914	A Member of the Public	Myself	Oppose	No	2/1/2021 6:35 AM
Carter, Lilian	lcarter0914@gmail.com	603.560.7047	A Member of the Public	Myself	Oppose	No	2/1/2021 3:07 PM
Anderson, Keryn	kerynlanderson@gmail.com	603.731.6425	A Member of the Public	Myself	Oppose	No	2/1/2021 12:43 PM
Straiton, Marie	M.straiton@comcast.net	603.496.2717	A Member of the Public	Myself	Oppose	No	2/1/2021 1:55 PM
Lamb, Rhett	wrhettlamb@gmail.com	978.460.2768	A Member of the Public	Myself	Oppose	No	2/1/2021 4:19 PM
Corell, Elizabeth	Elizabeth.j.corell@gmail.com	603.545.9091	A Member of the Public	Myself	Oppose	No	2/1/2021 8:28 AM
Willing, Maura	Maura.Willing@Comcast.net	2252506	A Member of the Public	Myself	Oppose	No	2/1/2021 8:59 AM
Burdett-Lerner, claudia	cburdettlerner@gmail.com	603.361.8426	A Member of the Public	Myself	Oppose	No	2/1/2021 9:21 AM
Marks, Nisa	nisa.marks@gmail.com	703.217.3248	A Member of the Public	New Hampshire Audubon	Oppose	No	2/1/2021 10:15 AM
Torpey, Jeanne	jtorp51@comcast.net	603.493.8262	A Member of the Public	Myself	Oppose	No	2/1/2021 10:17 AM
Bourque, Kat	bourquek@unitil.com	603.770.3215	A Lobbyist	Unitil	Neutral	No	2/1/2021 11:11 AM
Harley, Tina	tina.harley@leg.state.nh.us	978.457.3004	An Elected Official	Myself	Support	No	2/1/2021 11:32 AM
Greene, Bob	bob.greene@leg.state.nh.us	603.880.3929	An Elected Official	Myself	Oppose	No	2/1/2021 11:44 AM
Brennan, Nancy	burningnan14@gmail.com	5291969	A Member of the Public	Myself	Oppose	No	2/1/2021 11:51 AM

Testimony

KSC Program Celebrates 25 Years Of Promoting Active Learning



Karen Blanchette and Janice Albano engaged in a small group discussion in a class titled Journalism and the NH Primary, taught by Rose Kundanis.
(Photo by Will Wrobel)

By Steve Kessler

The Cheshire Academy for Lifelong Learning (CALL) at Keene State College is celebrating its 25th year of promoting active aging with a spring schedule of classes that kicks off on Friday, March 13th and continues every Friday for eight weeks.

The program is designed to keep CALL members engaged, involved, and invested in lifelong learning. This spring's offerings include over 40 different classes on subjects as diverse as pottery making, music history, film studies, creative writing, and the cosmos.

According to program director Heather Jasmin, "Repeated studies show that keeping our minds and bodies active at every stage of life is critical to maintaining good health. But for many of us," Jasmin explains," the opportunities to be active, to learn, and to socialize diminish after retirement."

That's where the CALL program comes in. Run by the Keene State's Office of Continuing Education, CALL is a perfect opportunity for seniors to discover and pursue new interests in a dynamic atmosphere that encourages interaction and social engagement. The program boasts over 500 participants, and offers a wide variety of high-quality, non-credit courses at a low cost to citizens 55 and over in the Monadnock Region and beyond.

Classes are 75 minutes long and run throughout the day on Fridays; they are led by community experts, Keene State faculty, and CALL members themselves. And for those who remember their school years with something less than complete fondness, rest easy: "There's none of the drudgery of homework, tests, and grades in the CALL program," Jasmin advises, "– just learning and fun."

Registration for Spring semester CALL classes is open now, and will remain open until the first day of class. Jasmin recommends early registration, as many classes fill quickly, and some have limited enrollment. For more information about CALL and other educational opportunities available through Keene State Continuing Education go online to keene.edu/CALL, call the office at 603-358-2290, or stop by the office in the Elliot Center on Keene State's campus. The office is open 8am-6pm Monday through Thursday and 8am-5pm on Fridays.

Solar Fair Held On Saturday, March 14th



Pictured is solar homeowner Michele Chalice of Keene's Healthy Home Habitats.

SOLAR, Continued from page 1

This includes several short educational presentations, and local residents will be available to answer questions about their experiences with home solar.

Attendees can explore the solar potential of their homes using a unique mapping tool developed at Keene State College that rates the solar potential of rooftops throughout Keene. Information about the NHSaves energy efficiency and weatherization programs and incentives will be also available. There will be door prizes, a food truck, and other light refreshments. Learn more about solar, the Solarize campaign, and other events at www.SolarizeMonadnock.com and on the Solarize Monadnock Facebook page.

In case of inclement weather, notice of postponement of the Solar Fair will be posted on the website and Facebook page. The snow date will be Sunday, March 15 from noon to 4 p.m.

Dapper Dan

George Clooney was a Dapper Dan man. The moniker was adopted by Clooney's character, Everett, in the movie *Oh Brother Where Art Thou?* In 2011, a pomade by the same name was introduced in Sheffield, England.

But pomades date back much earlier than that, having been introduced in the early 1920s, giving way to a signature look for such Hollywood actors as James Dean, Cary Grant, Clark Gable, Gary Cooper, and Jimmy Stuart. As pomades go, Dapper Dan is a classic. It allows you to easily style your hair and maintain that look throughout the day with the hold and shine that suits your personal style. Water soluble, and made from all natural ingredients, with no artificial colors or preservatives, it won't flake or harden like modern day hair gels, and the masculine scent is unobtrusive and not overpowering. For those with dry or unruly hair, or for the man who simply wants to add shape to his hair, Dapper Dan is a simple and extremely cost-effective solution. And so I ask you, are you a Dapper Dan man?

Haberdasher's tip: pomade users can reinvigorate their hair with a foldable Rockwell hair styling comb and a few drops of water.

Ben Wichland is a professional haberdasher with Miller Bros.-Newton on Main Street in Keene. For more information about this topic, call 603-352-3039, or visit www.millerbrosnewton.com. To see previous articles, visit Miller Bros.-Newton on Facebook at: www.facebook.com/mbnmenswear.

Looking to Grow Your Business?
Creating Websites Since 1995
WordPress
Why not start with a website from KeeneWebWorks.com
603 357-0643

CASH PAID
For gold & silver jewelry, coins, watches, sterling silver items, stamp collections, military medals, objects of value.
Greg Walsh
603-903-3069 *call or text*
"MAKING HOUSE CALLS SINCE 1979"

The Nathan E. Cohen Lecture Series presents:
The History of Jewish Choral Music
Dr. Elaine Broad Ginsberg
Join Dr. Elaine "Lainee" Ginsberg for an informative and enjoyable journey through the world of Jewish Choral music! A variety of musical examples will be played, and the audience will get to participate in singing as well. An enjoyable time for all!
Lainee is the Music Director of Mak'hela, the Jewish Chorus of Western MA and has an extensive background in Jewish choral music, both as a conductor and as a lecturer at Keene State College. She earned collegiate degrees from Oberlin Conservatory and College (Music and Judaic Studies) and a Doctorate in music at the University of Cincinnati. Lainee is the Music Director at Congregation Ahavas Achim.
Free and open to the public.
Light refreshments will be served after the presentation.
Sunday, March 8, 2020 at 3:00pm
Congregation Ahavas Achim
84 Hastings Avenue
Keene, NH 03431
for more information, contact: secretary.ahavas.achim@gmail.com or call 603.352.6747

reality check
2nd ANNUAL SYMPOSIUM:
RECOVERY FRIENDLY EMPLOYERS
Wednesday, May 13, 2020
WHERE: Shattuck Golf Club
53 Dublin Rd, Jaffrey, NH
TIME: 9:00am - 2:00pm
AUDIENCE: NH EMPLOYERS
COST:
General: $135
Nonprofits: $ 85
To register go to:
realitychecknow.org/employers
or call 603.532.9888

The Monadnock Shopper News works for US!
"Advertising in The Monadnock Shopper just makes sense to me."
Jen Cormier
Jen's Fish Market

Go into business for yourself with:
No major investment • No overhead
No franchise fee
Great compensation potential
Ask me how!
Call: Matthew Snow
PRIMERICA
603-237-1344

Dutch Maid
Cleaning Service
APTS., HOMES, MOVE OUTS
Insured • Free Estimates
35 Yrs.' Experience
WE FURNISH OUR OWN EQUIPMENT
603-242-3811

The Clothing Minute
with Ben Wichland

Over 18 Years Experience
DG FRAME TO FINISH
Free Estimates
Specializing in
New Construction & Remodels
Financing Available • Senior & Veteran Discounts
(603) 903-5369

I'VE SAVED FOR A LIFETIME, AND NOW I COULD LOSE IT ALL?
- What if I lose my house and life savings to a nursing-home stay?
- What if after my death, my adult child divorces or dies? Will my estate transfer to their spouse? What about my grandchildren?
- What if my adult child is battling creditors or drug addiction and inherits the estate?
- Congress has killed the Stretch IRA. Learn the rules and how you can still use IRAs and Trusts to protect your children's inheritance
- Learn how to structure your trust and IRA to care for a disabled or special- needs child



Come relax and learn from the authors of
*Estate Planning for the Informed Consumer**
during this powerful, FREE educational session.
**Receive a free copy just for attending!*
Thursday, March 26th
Historical Society of Cheshire County
246 Main St., Keene, NH
1:00 – 3:00 pm
To register, call 1-800-370-5010
Beasley & Ferber
The Elder and Disability Law Firm
Concord, Bedford, Nashua, Exeter (NH) and North Andover (MA)
www.beasleyferber.com



Attorney Edward Beasley, former Chairman of the American Bar Association Elder Law Commitee
**Guest speaker Chuck Stephen*

Discipline Tools of the Trade
help your child find self-discipline
a workshop for families with young children
Sat Mar 14 9am-12pm
$5/ family ~ free childcare
SOPHIA'S HEARTH
700 Court St
Keene NH 03431
Financial Assistance available
sophiashearth.org
603.357.3755

KSC Program Celebrates 25 Years Of Promoting Active Learning



Karen Blanchette and Janice Albano engaged in a small group discussion in a class titled Journalism and the NH Primary, taught by Rose Kundanis.
(Photo by Will Wrobel)

By Steve Kessler

The Cheshire Academy for Lifelong Learning (CALL) at Keene State College is celebrating its 25th year of promoting active aging with a spring schedule of classes that kicks off on Friday, March 13th and continues every Friday for eight weeks.

The program is designed to keep CALL members engaged, involved, and invested in lifelong learning. This spring's offerings include over 40 different classes on subjects as diverse as pottery making, music history, film studies, creative writing, and the cosmos.

According to program director Heather Jasmin, "Repeated studies show that keeping our minds and bodies active at every stage of life is critical to maintaining good health. But for many of us," Jasmin explains," the opportunities to be active, to learn, and to socialize diminish after retirement."

That's where the CALL program comes in. Run by the Keene State's Office of Continuing Education, CALL is a perfect opportunity for seniors to discover and pursue new interests in a dynamic atmosphere that encourages interaction and social engagement. The program boasts over 500 participants, and offers a wide variety of high-quality, non-credit courses at a low cost to citizens 55 and over in the Monadnock Region and beyond.

Classes are 75 minutes long and run throughout the day on Fridays; they are led by community experts, Keene State faculty, and CALL members themselves. And for those who remember their school years with something less than complete fondness, rest easy: "There's none of the drudgery of homework, tests, and grades in the CALL program," Jasmin advises, "– just learning and fun."

Registration for Spring semester CALL classes is open now, and will remain open until the first day of class. Jasmin recommends early registration, as many classes fill quickly, and some have limited enrollment. For more information about CALL and other educational opportunities available through Keene State Continuing Education go online to keene.edu/CALL, call the office at 603-358-2290, or stop by the office in the Elliot Center on Keene State's campus. The office is open 8am-6pm Monday through Thursday and 8am-5pm on Fridays.

Solar Fair Held On Saturday, March 14th



Pictured is solar homeowner Michele Chalice of Keene's Healthy Home Habitats.

SOLAR, Continued from page 1

This includes several short educational presentations, and local residents will be available to answer questions about their experiences with home solar.

Attendees can explore the solar potential of their homes using a unique mapping tool developed at Keene State College that rates the solar potential of rooftops throughout Keene. Information about the NHSaves energy efficiency and weatherization programs and incentives will be also available. There will be door prizes, a food truck, and other light refreshments. Learn more about solar, the Solarize campaign, and other events at www.SolarizeMonadnock.com and on the Solarize Monadnock Facebook page.

In case of inclement weather, notice of postponement of the Solar Fair will be posted on the website and Facebook page. The snow date will be Sunday, March 15 from noon to 4 p.m.

Dapper Dan

George Clooney was a Dapper Dan man. The moniker was adopted by Clooney's character, Everett, in the movie *Oh Brother Where Art Thou?* In 2011, a pomade by the same name was introduced in Sheffield, England.

But pomades date back much earlier than that, having been introduced in the early 1920s, giving way to a signature look for such Hollywood actors as James Dean, Cary Grant, Clark Gable, Gary Cooper, and Jimmy Stuart. As pomades go, Dapper Dan is a classic. It allows you to easily style your hair and maintain that look throughout the day with the hold and shine that suits your personal style. Water soluble, and made from all natural ingredients, with no artificial colors or preservatives, it won't flake or harden like modern day hair gels, and the masculine scent is unobtrusive and not overpowering. For those with dry or unruly hair, or for the man who simply wants to add shape to his hair, Dapper Dan is a simple and extremely cost-effective solution. And so I ask you, are you a Dapper Dan man?

Haberdasher's tip: pomade users can reinvigorate their hair with a foldable Rockwell hair styling comb and a few drops of water.

Ben Wichland is a professional haberdasher with Miller Bros.-Newton on Main Street in Keene. For more information about this topic, call 603-352-3039, or visit www.millerbrosnewton.com. To see previous articles, visit Miller Bros.-Newton on Facebook at: www.facebook.com/mbnmenswear.

Looking to Grow Your Business?
Creating Websites Since 1995
WordPress
Why not start with a website from KeeneWebWorks.com
603 357-0643

CASH PAID
For gold & silver jewelry, coins, watches, sterling silver items, stamp collections, military medals, objects of value.
Greg Walsh
603-903-3069 *call or text*
"MAKING HOUSE CALLS SINCE 1979"

The Nathan E. Cohen Lecture Series presents:
The History of Jewish Choral Music
Dr. Elaine Broad Ginsberg
Join Dr. Elaine "Lainee" Ginsberg for an informative and enjoyable journey through the world of Jewish Choral music! A variety of musical examples will be played, and the audience will get to participate in singing as well. An enjoyable time for all!
Lainee is the Music Director of Mak'hela, the Jewish Chorus of Western MA and has an extensive background in Jewish choral music, both as a conductor and as a lecturer at Keene State College. She earned collegiate degrees from Oberlin Conservatory and College (Music and Judaic Studies) and a Doctorate in music at the University of Cincinnati. Lainee is the Music Director at Congregation Ahavas Achim.
Free and open to the public.
Light refreshments will be served after the presentation.
Sunday, March 8, 2020 at 3:00pm
Congregation Ahavas Achim
84 Hastings Avenue
Keene, NH 03431
for more information, contact: secretary.ahavas.achim@gmail.com or call 603.352.6747

reality check
2nd ANNUAL SYMPOSIUM:
RECOVERY FRIENDLY EMPLOYERS
Wednesday, May 13, 2020
WHERE: Shattuck Golf Club
53 Dublin Rd, Jaffrey, NH
TIME: 9:00am - 2:00pm
AUDIENCE: NH EMPLOYERS
COST:
General: $135
Nonprofits: $ 85
To register go to:
realitychecknow.org/employers
or call 603.532.9888

The Monadnock Shopper News works for US!
"Advertising in The Monadnock Shopper just makes sense to me."
Jen Cormier
Jen's Fish Market

Go into business for yourself with:
No major investment • No overhead
No franchise fee
Great compensation potential
Ask me how!
Call: Matthew Snow
PRIMERICA
603-237-1344

Dutch Maid
Cleaning Service
APTS., HOMES, MOVE OUTS
Insured • Free Estimates
35 Yrs.' Experience
WE FURNISH OUR OWN EQUIPMENT
603-242-3811

The Clothing Minute
with Ben Wichland

Over 18 Years Experience
DG FRAME TO FINISH
Free Estimates
Specializing in
New Construction & Remodels
Financing Available • Senior & Veteran Discounts
(603) 903-5369

I'VE SAVED FOR A LIFETIME, AND NOW I COULD LOSE IT ALL?
- What if I lose my house and life savings to a nursing-home stay?
- What if after my death, my adult child divorces or dies? Will my estate transfer to their spouse? What about my grandchildren?
- What if my adult child is battling creditors or drug addiction and inherits the estate?
- Congress has killed the Stretch IRA. Learn the rules and how you can still use IRAs and Trusts to protect your children's inheritance
- Learn how to structure your trust and IRA to care for a disabled or special- needs child



Come relax and learn from the authors of
*Estate Planning for the Informed Consumer**
during this powerful, FREE educational session.
**Receive a free copy just for attending!*
Thursday, March 26th
Historical Society of Cheshire County
246 Main St., Keene, NH
1:00 – 3:00 pm
To register, call 1-800-370-5010
Beasley & Ferber
The Elder and Disability Law Firm
Concord, Bedford, Nashua, Exeter (NH) and North Andover (MA)
www.beasleyferber.com



Attorney Edward Beasley, former Chairman of the American Bar Association Elder Law Commitee
**Guest speaker Chuck Stephen*

Discipline Tools of the Trade
help your child find self-discipline
a workshop for families with young children
Sat Mar 14 9am-12pm
$5/ family ~ free childcare
SOPHIA'S HEARTH
700 Court St
Keene NH 03431
Financial Assistance available
sophiashearth.org
603.357.3755

HEALTHY GARDENS, HEALTHY HABITS

By Avery Reekstin

Whether you have a big yard, or maybe no yard at all, Healthy Home Habitats in Keene offers insight and ideas on how to create eco-friendly spaces for you and your family.

Michele Chalice, a 25-year former environmental landscape designer and natural resource manager, felt strongly about helping the world recover ecologically and realized she had a lot of knowledge and experience to offer people. She created Healthy Home Habitats about a year ago with family food gardening in mind, but she also offers environmental gardening and home efficiency plans for clients to use in and around their homes.

Clients looking to create gardens — whether they are interested in pollinator gardens to support a healthier ecosystem or wanting to create a space to grow their own food and support their families — can meet with Chalice outside in their own yards, with plenty of space to social distance. Spending time outside on a client's property helps her look at what the property offers in terms of soil and sunlight.

Chalice takes the time to talk clients through what they are looking for and how much time they would like to spend, not only creating this space but also tending to it. She will discuss things like pets and children and how to incorporate any pre-existing ideas a client may have. Home efficiency plans are created in a similar way to the gardening plans and everything is catered specific to clients' needs and wants.

Though a lengthy interview process, Chalice said no stones are left unturned. Once she gets a good grasp on what a client is looking for, she creates a plan and makes a very detailed document filled with photos, outlines and plans as well as hot links for sources such as specific plants or materials to use that are available in the area, information on local contractors that are available for hire and more.

Clients can then use this information as they please. According to Chalice, some people dive right into their plans with a goal to finish as soon as possible, while others choose to chip away little by little, working on things as time and money allows.

When the pandemic first started, Chalice came up with an idea to create some video content for families to follow along and learn how to successfully grow their own pea pods. Called Easy Peasy, it provides simple guidance for people to grow vining vegetables with their children. When stuck at home and dealing with remote learning, Chalice felt these





Picture Above: Emily Chalice-Throop proudly displays cabbage she helped grow.
Picture to the Right: Michele Chalice shows off the fruits (and vegetables) of her labor.

videos were a great way to get families learning and bonding together over growing their own food.

The videos are still available on her website and are free for anyone to utilize. Chalice plans to create more videos and free content available to the public.

Healthy Home Habits offers workshops too. One held a few months ago at the Healthy Home Habitats house was all about bulbs. Another workshop is slated for the spring, when people can look at the bulbs that were planted and learn all about helpful ways in supporting the bumble bees.

Some other workshop ideas tentatively scheduled for this coming spring include:

- Sustainable Backyard: Is a rain barrel right for you?
- Friendly Bugs for Feeding Songbirds: Exploring what bugs songbirds need and how to avoid using lawn chemicals
- The Best Shade Trees: Which provide the best habitat for butterflies and caterpillars?
- Alternatives to Grass: Looking at different types of ground cover and low-maintenance perennial gardens
- Family Gardening: Using a plastic tub to create a trellis and planting different vegetables

Chalice hopes to collaborate with other local businesses and professionals who are passionate about creating a better environment.

For more information about Healthy Home Habitats and their workshops, or to book time to discuss gardening or home efficiency plans, visit healthyhomehabitats.com, email michele.chalice@gmail.com, or call (603) 313-9153. You can also find Healthy Home Habitats on Facebook (facebook.com/HealthyHomeHabitats).









Program Cost-Effectiveness - 2021 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.79	*0.18*	*1.85*	2,923.975	*288.886*	*3,023.074*	1,637.476	-	199.0	2,534.5	44.7	41.7	124	3,322.7	68,015.1
A1 - Energy Star Homes	3.23	*0.26*	*4.00*	1,397.207	*113.426*	*2,132.946*	432.655	101.125	64.6	1,464.8	16.7	2.5	120	1,654.0	39,310.0
A2 - Home Performance with Energy Star	1.80	*0.29*	*2.27*	918.942	*150.477*	*1,410.927*	510.435	110.976	74.1	1,252.6	24.2	19.3	54	1,379.0	27,622.0
A3 - Energy Star Products	2.30	*1.55*	*3.66*	3,480.545	*2,339.764*	*5,923.622*	1,513.474	106.436	3,332.3	19,705.6	655.5	549.5	61,666	2,371.6	35,182.4
A4 - Residential Behavior	1.01	*1.01*	*1.96*	201.145	*201.145*	*389.145*	198.183	-	1,749.0	1,749.0	377.6	243.5	22,700	-	-
A5 - Residential Active Demand Response	0.75	*0.75*	*0.83*	27.148	*27.148*	*29.863*	36.000	-	-	-	-	-	125	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	-	-	-	-	-	13.000	-	-	-	-	-	-	-	-
A6c - Res Education	-	-	-	-	-	-	26.950	-	-	-	-	-	-	-	-
A6d - Energy Optimization Pilot	-	-	-	-	-	-	65.500	-	-	-	-	-	-	-	-
Sub-Total Residential	**2.02**	***0.70***	***2.72***	**8,948.964**	***3,120.847***	***12,909.577***	**4,433.672**	**318.537**	**5,418.9**	**26,706.4**	**1,118.7**	**856.5**	**84,789**	**8,727.3**	**170,129.4**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	2.01	*2.00*	*2.04*	4,548.611	*4,525.608*	*7,515.698*	2,257.665	1,423.170	5,666.1	72,746.7	297.5	321.0	184	107.4	1,074.2
C2 - Small Business Energy Solutions	2.31	*2.30*	*2.29*	4,536.759	*4,514.429*	*7,566.605*	1,959.838	1,337.403	4,357.8	52,467.2	400.5	298.4	448	190.5	2,030.6
C3 - Municipal Energy Solutions	5.41	*5.16*	*6.56*	1,107.671	*1,055.562*	*1,593.021*	204.700	38.000	471.4	7,328.6	30.5	157.0	11	100.0	2,500.0
C5 - C&I Active Demand Response	3.20	*3.20*	*3.52*	442.871	*442.871*	*487.027*	138.250	-	-	-	-	-	19	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	-	-	-	-	-	19.000	-	-	-	-	-	-	-	-
C6c - C&I Education	-	-	-	-	-	-	57.500	-	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	**2.29**	***2.27***	***2.31***	**10,635.913**	***10,538.471***	***17,162.351***	**4,636.953**	**2,798.573**	**10,495.4**	**132,542.4**	**728.5**	**776.5**	**662**	**397.9**	**5,604.7**
C6e - Smart Start	-	-	-	-	-	-	-	-	-	-	-	-		-	-
Total	**2.16**	***1.51***	***2.47***	**19,584.877**	***13,659.317***	***30,071.928***	**9,070.625**	**3,117.110**	**15,914.3**	**159,248.9**	**1,847.2**	**1,633.0**	**85,451**	**9,125.2**	**175,734.2**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs in 2021 Dollars

Annual kWh Savings	15,914,330	85.6%	**kWh > 55%**	**Lifetime** kWh Savings	159,248,874	75.6%	**kWh > 55%**
Annual MMBTU Savings (in kWh)	2,674,319	14.4%		**Lifetime** MMBTU Savings (in kWh)	51,502,611	24.4%	
	18,588,649	100.0%			**210,751,484**	100.0%	

Annual Savings as a % of 2019 Sales	1.37%

Spending per Customer	Low-Income	$	360.28
	Residential	$	46.30
	C&I	$	416.73

Present Value Benefits - 2021 PLAN

	Total Benefits ($000)			Resource Benefits ($000)																Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric													Non-Electric						
				CAPACITY					ENERGY														
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																							
B1 - Home Energy Assistance	**$ 2,924**	*$ 289*	*$ 3,023*	$ 41	$ -	$ 44	$ 38	$ -	$ 49	$ 49	$ 31	$ 26	$ 11	**$ 289**	$ 1,780	$ 7	**$ 2,076**	$ 117	$ 731	**$ 848**	**$ 99**
A1 - Energy Star Homes	**$ 1,397**	*$ 113*	*$ 2,133*	$ 3	$ -	$ 3	$ 3	$ -	$ 45	$ 50	$ 3	$ 2	$ 4	**$ 113**	$ 1,218	$ -	**$ 1,331**	$ 66	$ 679	**$ 745**	**$ 57**
A2 - Home Performance with Energy Star	**$ 919**	*$ 150*	*$ 1,411*	$ 22	$ -	$ 22	$ 19	$ -	$ 28	$ 31	$ 14	$ 11	$ 4	**$ 150**	$ 718	$ 3	**$ 871**	$ 48	$ 443	**$ 491**	**$ 49**
A3 - Energy Star Products	**$ 3,481**	*$ 2,340*	*$ 5,924*	$ 270	$ -	$ 341	$ 295	$ -	$ 459	$ 417	$ 246	$ 186	$ 126	**$ 2,340**	$ 722	$ 371	**$ 3,432**	$ 48	$ 1,561	**$ 1,610**	**$ 882**
A4 - Residential Behavior	**$ 201**	*$ 201*	*$ 389*	$ 13	$ -	$ 24	$ 21	$ -	$ 49	$ 40	$ 23	$ 15	$ 16	**$ 201**	$ -	$ -	**$ 201**	$ -	$ 103	**$ 103**	**$ 85**
A5 - Residential Active Demand Response	**$ 27**	*$ 27*	*$ 30*	$ 1	$ -	$ 12	$ 11	$ -	$ -	$ -	$ -	$ -	$ 3	**$ 27**	$ -	$ -	**$ 27**	$ -	$ 3	**$ 3**	**$ -**
A6b - Res ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 8,949**	*$ 3,121*	*$ 12,910*	**$ 351**	**$ -**	**$ 447**	**$ 387**	**$ -**	**$ 629**	**$ 586**	**$ 317**	**$ 241**	**$ 164**	**$ 3,121**	**$ 4,438**	**$ 380**	**$ 7,940**	**$ 278**	**$ 3,520**	**$ 3,798**	**$ 1,172**
Commercial/Industrial Programs																							
C1 - Large Business Energy Solutions	**$ 4,549**	*$ 4,526*	*$ 7,516*	$ 327	$ -	$ 369	$ 319	$ -	$ 880	$ 668	$ 1,001	$ 704	$ 258	**$ 4,526**	$ 9	$ 13	**$ 4,548**	$ 1	$ 771	**$ 772**	**$ 2,196**
C2 - Small Business Energy Solutions	**$ 4,537**	*$ 4,514*	*$ 7,567*	$ 285	$ -	$ 326	$ 282	$ -	$ 1,089	$ 785	$ 928	$ 564	$ 256	**$ 4,514**	$ 14	$ 6	**$ 4,535**	$ 2	$ 770	**$ 772**	**$ 2,260**
C3 - Municipal Energy Solutions	**$ 1,108**	*$ 1,056*	*$ 1,593*	$ 191	$ -	$ 206	$ 178	$ -	$ 84	$ 44	$ 204	$ 121	$ 27	**$ 1,056**	$ 47	$ -	**$ 1,103**	$ 5	$ 187	**$ 192**	**$ 298**
C5 - C&I Active Demand Response	**$ 443**	*$ 443*	*$ 487*	$ 30	$ -	$ 187	$ 162	$ -	$ -	$ -	$ -	$ -	$ 64	**$ 443**	$ -	$ -	**$ 443**	$ -	$ 44	**$ 44**	**$ (0)**
C6b - C&I ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 10,636**	*$ 10,538*	*$ 17,162*	**$ 832**	**$ -**	**$ 1,087**	**$ 942**	**$ -**	**$ 2,053**	**$ 1,497**	**$ 2,134**	**$ 1,388**	**$ 605**	**$ 10,538**	**$ 70**	**$ 19**	**$ 10,628**	**$ 8**	**$ 1,772**	**$ 1,781**	**$ 4,754**
Total	**$ 19,585**	*$ 13,659*	*$ 30,072*	**$ 1,183**	**$ -**	**$ 1,534**	**$ 1,329**	**$ -**	**$ 2,682**	**$ 2,083**	**$ 2,451**	**$ 1,629**	**$ 769**	**$ 13,659**	**$ 4,509**	**$ 399**	**$ 18,567**	**$ 286**	**$ 5,293**	**$ 5,579**	**$ 5,926**

Portfolio Planned Versus Actual Performance - 2021

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime kWh Savings	159,248,874	*103,511,768*		-	1.925%	-	$ 174,610	$ *218,262*	$ -	Planned and Actual from Cost Eff Tab
2	Annual kWh Savings	15,914,330	*10,344,314*		-	0.550%	-	$ 49,888	$ *62,361*	$ -	Planned and Actual from Cost Eff Tab
3	Summer Peak Demand kW	1,633	*1,061*		-	0.495%	-	$ 44,900	$ *56,124*	$ -	Planned and Actual from Cost Eff Tab
4	Winter Peak Demand kW	1,847	*1,201*		-	0.330%	-	$ 29,933	$ *37,416*	$ -	Planned and Actual from Cost Eff Tab
5	Active Demand kW	2,025	*1,316*		-	0.275%	-	$ 24,944	$ *31,180*	$ -	Planned and Actual from ADR Cost Eff Tab
6	Total Resource Benefits	$ 18,567,423			-						Planned and Actual from Benefits Tab
7	Total Utility Costs[1]	$ 9,070,625			-						Planned and Actual from Cost Eff Tab
8	Net Benefits	$ 9,496,798	$ *6,172,919*	$ -	-	1.925%	-	$ 174,610	$ *218,262*	$ -	Line 5 minus line 6
9	Total					5.500%	-	$ 498,884	$ *623,605*	$ -	

		Granite State Test Planned	Actual	Source
10	Total Benefits	$ 19,584,877		Planned and Actual from Cost Eff Tab
11	Performance Incentive	$ 498,884	$ -	from row 8 above
12	Total Utility Costs	$ 9,070,625	$ -	from row 6 above
13	**Portfolio GST BCR**	**2.05**	**-**	row 9 divided by rows 10+11

Costs, Benefits, and PI Expressed in 2021 Dollars.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2022 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	2.04	*0.15*	*2.09*	4,069.1	*291.3*	*4,166.1*	1,991.2	-	280.5	2,533.0	55.8	47.8	168	4,584.4	94,137.5
A1 - Energy Star Homes	3.21	*0.29*	*3.85*	1,248.1	*112.9*	*1,910.0*	388.6	106.9	72.2	1,659.6	15.3	1.1	25	1,432.5	33,562.5
A2 - Home Performance with Energy Star	2.20	*0.30*	*2.77*	1,351.5	*181.7*	*2,060.6*	614.1	130.8	75.0	1,480.2	19.1	16.9	65	1,925.0	39,618.8
A3 - Energy Star Products	2.82	*1.77*	*4.02*	3,944.9	*2,471.8*	*6,566.2*	1,397.6	235.3	2,472.1	19,877.1	454.4	455.1	42,495	2,964.5	43,978.0
A4 - Residential Behavior	1.31	*1.31*	*2.55*	236.0	*236.0*	*459.6*	180.0	-	2,087.0	2,087.0	450.5	290.6	22,700	-	-
A5 - Residential Active Demand Response	1.02	*1.02*	*1.12*	41.580	*41.580*	*45.738*	40.9	-	-	-	-	-	188	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	-	-	-	-	-	23.7	-	-	-	-	-		-	-
A6c - Res Education	-	-	-	-	-	-	31.6	-	-	-	-	-		-	-
A6d - Energy Optimization Pilot	-	-	-	-	-	-	67.9	-	-	-	-	-		-	-
Sub-Total Residential	**2.30**	***0.70***	***2.92***	**10,891.2**	***3,335.2***	***15,208.3***	**4,735.7**	**473.0**	**4,986.8**	**27,636.9**	**995.2**	**811.4**	**65,641**	**10,906.4**	**211,296.8**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	1.84	*1.83*	*1.88*	5,491.6	*5,466.5*	*9,142.2*	2,983.9	1,889.0	7,421.4	96,979.1	296.4	315.1	170	123.9	1,239.4
C2 - Small Business Energy Solutions	1.85	*1.84*	*2.23*	4,151.8	*4,131.0*	*7,119.6*	2,248.2	942.6	4,431.7	51,975.7	223.7	145.4	356	83.2	1,538.0
C3 - Municipal Energy Solutions	5.30	*4.75*	*5.87*	1,039.6	*931.4*	*1,458.2*	196.1	52.3	310.0	6,310.0	-	111.2	11	200.0	5,000.0
C5 - C&I Active Demand Response	3.32	*3.32*	*3.65*	541.267	*541.267*	*595.261*	163.1	-	-	-	-	-	23	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	-	-	-	-	-	20.3	-	-	-	-	-		-	-
C6c - C&I Education	-	-	-	-	-	-	69.1	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**1.98**	***1.95***	***2.14***	**11,224.4**	***11,070.1***	***18,315.3***	**5,680.7**	**2,884.0**	**12,163.0**	**155,264.7**	**520.1**	**571.7**	**561**	**407.1**	**7,777.4**
Total	**2.12**	***1.38***	***2.43***	**22,115.5**	***14,405.3***	***33,523.6***	**10,416.4**	**3,357.0**	**17,149.8**	**182,901.6**	**1,515.3**	**1,383.2**	**66,202**	**11,313.5**	**219,074.2**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs in 2021 Dollars and will not equal the nominal costs presented in the Costs and Performance Incentive tabs.

Annual kWh Savings	17,149,843	83.8%	**kWh > 55%**	**Lifetime** kWh Savings	182,901,629	74.0%	**kWh > 55%**
Annual MMBTU Savings (in kWh)	3,315,669	16.2%		**Lifetime** MMBTU Savings (in kWh)	64,204,312	26.0%	
	20,465,513	100.0%			**247,105,941**	100.0%	

Annual Savings as a % of 2019 Sales	1.48%	**Spending per Customer**	Low-Income	$ 438.10
			Residential	$ 45.45
			C&I	$ 510.54

Present Value Benefits - 2022 PLAN

	Total Benefits ($000)			Resource Benefits ($000)																Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric												Non-Electric							
				CAPACITY					ENERGY														
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																							
B1 - Home Energy Assistance	**$ 4,069**	*$ 291*	*$ 4,166*	$ 43	$ -	$ 44	$ 38	$ -	$ 50	$ 46	$ 34	$ 26	$ 11	**$ 291**	$ 2,585	$ 8	**$ 2,884**	$ 174	$ 1,011	**$ 1,185**	**$ 97**
A1 - Energy Star Homes	**$ 1,248**	*$ 113*	*$ 1,910*	$ 2	$ -	$ 2	$ 2	$ -	$ 46	$ 54	$ 2	$ 1	$ 4	**$ 113**	$ 1,075	$ -	**$ 1,188**	$ 60	$ 606	**$ 666**	**$ 56**
A2 - Home Performance with Energy Star	**$ 1,352**	*$ 182*	*$ 2,061*	$ 27	$ -	$ 26	$ 23	$ -	$ 33	$ 37	$ 18	$ 13	$ 4	**$ 182**	$ 1,095	$ 1	**$ 1,278**	$ 74	$ 651	**$ 725**	**$ 58**
A3 - Energy Star Products	**$ 3,945**	*$ 2,472*	*$ 6,566*	$ 327	$ -	$ 372	$ 322	$ -	$ 456	$ 426	$ 253	$ 198	$ 119	**$ 2,472**	$ 936	$ 472	**$ 3,879**	$ 66	$ 1,738	**$ 1,804**	**$ 883**
A4 - Residential Behavior	**$ 236**	*$ 236*	*$ 460*	$ 15	$ -	$ 29	$ 25	$ -	$ 57	$ 46	$ 26	$ 17	$ 20	**$ 236**	$ -	$ -	**$ 236**	$ -	$ 120	**$ 120**	**$ 103**
A5 - Residential Active Demand Response	**$ 42**	*$ 42*	*$ 46*	$ 2	$ -	$ 19	$ 16	$ -	$ -	$ -	$ -	$ -	$ 4	**$ 42**	$ -	$ -	**$ 42**	$ -	$ 4	**$ 4**	**$ -**
A6b - Res ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 10,891**	*$ 3,335*	*$ 15,208*	**$ 417**	**$ -**	**$ 492**	**$ 426**	**$ -**	**$ 641**	**$ 608**	**$ 332**	**$ 256**	**$ 163**	**$ 3,335**	**$ 5,690**	**$ 481**	**$ 9,507**	**$ 374**	**$ 4,130**	**$ 4,504**	**$ 1,198**
Commercial/Industrial Programs																							
C1 - Large Business Energy Solutions	**$ 5,492**	*$ 5,466*	*$ 9,142*	$ 345	$ -	$ 370	$ 321	$ -	$ 1,065	$ 818	$ 1,290	$ 933	$ 325	**$ 5,466**	$ 11	$ 13	**$ 5,490**	$ 1	$ 931	**$ 932**	**$ 2,719**
C2 - Small Business Energy Solutions	**$ 4,152**	*$ 4,131*	*$ 7,120*	$ 150	$ -	$ 162	$ 141	$ -	$ 1,120	$ 804	$ 928	$ 564	$ 262	**$ 4,131**	$ 0	$ 19	**$ 4,150**	$ 2	$ 702	**$ 704**	**$ 2,266**
C3 - Municipal Energy Solutions	**$ 1,040**	*$ 931*	*$ 1,458*	$ 177	$ -	$ 175	$ 152	$ -	$ 39	$ 19	$ 222	$ 130	$ 18	**$ 931**	$ 97	$ -	**$ 1,029**	$ 11	$ 175	**$ 186**	**$ 244**
C5 - C&I Active Demand Response	**$ 541**	*$ 541*	*$ 595*	$ 35	$ -	$ 231	$ 200	$ -	$ -	$ -	$ -	$ -	$ 75	**$ 541**	$ -	$ -	**$ 541**	$ -	$ 54	**$ 54**	**$ (0)**
C6b - C&I ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 11,224**	*$ 11,070*	*$ 18,315*	**$ 708**	**$ -**	**$ 939**	**$ 813**	**$ -**	**$ 2,223**	**$ 1,641**	**$ 2,440**	**$ 1,627**	**$ 680**	**$ 11,070**	**$ 108**	**$ 32**	**$ 11,210**	**$ 14**	**$ 1,862**	**$ 1,877**	**$ 5,229**
Total	**$ 22,116**	*$ 14,405*	*$ 33,524*	**$ 1,125**	**$ -**	**$ 1,430**	**$ 1,239**	**$ -**	**$ 2,864**	**$ 2,249**	**$ 2,772**	**$ 1,883**	**$ 843**	**$ 14,405**	**$ 5,799**	**$ 513**	**$ 20,717**	**$ 388**	**$ 5,993**	**$ 6,380**	**$ 6,426**

	Portfolio Planned Versus Actual Performance - 2022											
	Portfolio	**Planned**	**Threshold**	**Actual**	**% of Plan**	**Design Coefficient**	**Actual Coefficient**	**Planned PI**	***125% of Planned PI***	**Actual PI**	**Source**
1	Lifetime kWh Savings	182,901,629	*118,886,059*		-	1.925%	-	$ 200,516	*$ 250,645*	$ -	Planned and Actual from Cost Eff Tab
2	Annual kWh Savings	17,149,843	*11,147,398*		-	0.550%	-	$ 57,290	*$ 71,613*	$ -	Planned and Actual from Cost Eff Tab
3	Summer Peak Demand kW	1,383	*899*		-	0.495%	-	$ 51,561	*$ 64,452*	$ -	Planned and Actual from Cost Eff Tab
4	Winter Peak Demand kW	1,515	*985*		-	0.330%	-	$ 34,374	*$ 42,968*	$ -	Planned and Actual from Cost Eff Tab
5	Active Demand kW	2,488	*1,617*		-	0.275%	-	$ 28,326	*$ 35,407*	$ -	Planned and Actual from ADR Cost Eff Tab
6	Total Resource Benefits	$ 20,716,751			-						Planned and Actual from Benefits Tab
7	Total Utility Costs[1]	$ 10,416,433			-						Planned and Actual from Cost Eff Tab
8	Net Benefits	$ 10,300,318	*$ 6,695,207*	$ -	-	1.925%	-	$ 200,516	*$ 250,645*	$ -	Line 5 minus line 6
9	Total					5.500%	-	$ 572,585	*$ 715,731*	$ -	

		Granite State Test		
		Planned	**Actual**	**Source**
10	Total Benefits	$ 22,115,506		Planned and Actual from Cost Eff Tab
11	Performance Incentive	$ 572,585	$ -	from row 8 above
12	Total Utility Costs	$ 10,416,433	$ -	from row 6 above
13	**Portfolio GST BCR**	**2.01**	**-**	row 9 divided by rows 10+11

Costs, Benefits, and PI Expressed in 2021 Dollars. Nominal PI (2022$) is $591,523.20.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2023 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	2.37	*0.16*	*2.42*	5,433.8	*365.5*	*5,550.0*	2,293.5	-	371.3	2,976.4	75.4	61.6	190	5,553.9	112,546.6
A1 - Energy Star Homes	2.64	*0.34*	*3.34*	1,039.0	*135.0*	*1,678.7*	392.9	110.2	80.8	1,868.8	16.9	1.2	31	1,133.5	25,877.5
A2 - Home Performance with Energy Star	2.38	*0.31*	*2.71*	1,679.1	*219.6*	*2,325.8*	706.3	151.2	80.6	1,748.6	16.4	15.8	77	2,342.7	47,837.4
A3 - Energy Star Products	3.54	*2.12*	*3.39*	4,535.4	*2,713.7*	*5,821.3*	1,281.0	436.7	2,042.1	20,886.7	346.3	417.4	18,312	3,557.4	52,773.6
A4 - Residential Behavior	1.74	*1.74*	*2.63*	308.2	*308.2*	*464.3*	176.9	-	3,116.0	3,116.0	377.6	243.5	22,700	-	-
A5 - Residential Active Demand Response	1.23	*1.23*	*1.36*	56.483	*56.483*	*62.131*	45.8	-	-	-	-	-	250	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	-	-	-	-	-	15.0	-	-	-	-	-		-	-
A6c - Res Education	-	-	-	-	-	-	30.7	-	-	-	-	-		-	-
A6d - Energy Optimization Pilot	-	-	-	-	-	-	71.3	-	-	-	-	-		-	-
Sub-Total Residential	**2.60**	***0.76***	***2.78***	**13,051.9**	***3,798.4***	***15,902.3***	**5,013.5**	**698.1**	**5,690.8**	**30,596.5**	**832.6**	**739.6**	**41,559**	**12,587.5**	**239,035.1**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	1.79	*1.79*	*1.78*	7,063.4	*7,030.1*	*11,264.1*	3,937.7	2,377.7	9,898.3	127,492.4	306.5	353.6	170	165.3	1,652.6
C2 - Small Business Energy Solutions	1.73	*1.72*	*2.40*	4,317.9	*4,286.6*	*7,184.9*	2,496.2	497.5	4,446.4	54,219.7	171.2	111.3	356	133.6	2,294.0
C3 - Municipal Energy Solutions	5.63	*5.05*	*5.84*	1,088.8	*976.6*	*1,314.0*	193.2	31.9	280.0	5,800.0	-	123.8	11	200.0	5,000.0
C5 - C&I Active Demand Response	3.95	*3.95*	*4.34*	641.918	*641.918*	*705.975*	162.7	-	-	-	-	-	27	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	-	-	-	-	-	22.5	-	-	-	-	-		-	-
C6c - C&I Education	-	-	-	-	-	-	79.7	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**1.90**	***1.88***	***2.09***	**13,112.0**	***12,935.2***	***20,468.9***	**6,892.1**	**2,907.0**	**14,624.7**	**187,512.2**	**477.7**	**588.6**	**565**	**498.9**	**8,946.6**
Total	**2.20**	***1.41***	***2.34***	**26,163.9**	***16,733.6***	***36,371.2***	**11,905.6**	**3,605.1**	**20,315.5**	**218,108.7**	**1,310.3**	**1,328.2**	**42,124**	**13,086.4**	**247,981.6**

Notes:

(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.

(2) Utility and Customer Costs in 2021 Dollars and will not equal the nominal costs presented in the Costs and Performance Incentive tabs.

Annual kWh Savings	20,315,482	84.1%	**kWh > 55%**	**Lifetime** kWh Savings	218,108,688	75.0%	**kWh > 55%**
Annual MMBTU Savings (in kWh)	3,835,241	15.9%		**Lifetime** MMBTU Savings (in kWh)	72,676,248	25.0%	
	24,150,723	100.0%			**290,784,937**	100.0%	

Annual Savings as a % of 2019 Sales	1.75%			

Spending per Cus	1.75%	Low-Income	$	504.62
		Residential	$	45.04
		C&I	$	619.40

Present Value Benefits - 2023 PLAN

	Total Benefits ($000)			Resource Benefits ($000)															Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric												Non-Electric						
				CAPACITY					ENERGY													
	Granite State Test	Utility Cost Test	Secondary Granite State Test	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																						
B1 - Home Energy Assistance	**$ 5,434**	*$ 365*	*$ 5,550*	$ 57	$ -	$ 56	$ 48	$ -	$ 62	$ 57	$ 41	$ 32	$ 13	**$ 365**	$ 3,169	$ 10	**$ 3,545**	$ 224	$ 1,665	**$ 1,889**	**$ 116**
A1 - Energy Star Homes	**$ 1,039**	*$ 135*	*$ 1,679*	$ 3	$ -	$ 2	$ 2	$ -	$ 54	$ 62	$ 4	$ 3	$ 5	**$ 135**	$ 854	$ -	**$ 989**	$ 50	$ 573	**$ 623**	**$ 66**
A2 - Home Performance with Energy Star	**$ 1,679**	*$ 220*	*$ 2,326*	$ 33	$ -	$ 31	$ 27	$ -	$ 41	$ 45	$ 22	$ 16	$ 5	**$ 220**	$ 1,362	$ 1	**$ 1,583**	$ 96	$ 578	**$ 674**	**$ 69**
A3 - Energy Star Products	**$ 4,535**	*$ 2,714*	*$ 5,821*	$ 397	$ -	$ 412	$ 357	$ -	$ 477	$ 456	$ 274	$ 219	$ 121	**$ 2,714**	$ 1,160	$ 576	**$ 4,450**	$ 85	$ 361	**$ 446**	**$ 925**
A4 - Residential Behavior	**$ 308**	*$ 308*	*$ 464*	$ 15	$ -	$ 25	$ 22	$ -	$ 89	$ 70	$ 38	$ 24	$ 25	**$ 308**	$ -	$ -	**$ 308**	$ -	$ -	**$ -**	**$ 156**
A5 - Residential Active Demand Response	**$ 56**	*$ 56*	*$ 62*	$ 3	$ -	$ 26	$ 22	$ -	$ -	$ -	$ -	$ -	$ 6	**$ 56**	$ -	$ -	**$ 56**	$ -	$ 6	**$ 6**	**$ -**
A6b - Res ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 13,052**	*$ 3,798*	*$ 15,902*	**$ 509**	**$ -**	**$ 552**	**$ 478**	**$ -**	**$ 722**	**$ 690**	**$ 379**	**$ 294**	**$ 174**	**$ 3,798**	**$ 6,545**	**$ 588**	**$ 10,931**	**$ 456**	**$ 3,182**	**$ 3,638**	**$ 1,333**
Commercial/Industrial Programs																						
C1 - Large Business Energy Solutions	**$ 7,063**	*$ 7,030*	*$ 11,264*	$ 420	$ -	$ 427	$ 370	$ -	$ 1,367	$ 1,054	$ 1,710	$ 1,249	$ 433	**$ 7,030**	$ 15	$ 17	**$ 7,061**	$ 2	$ 695	**$ 697**	**$ 3,506**
C2 - Small Business Energy Solutions	**$ 4,318**	*$ 4,287*	*$ 7,185*	$ 124	$ -	$ 128	$ 111	$ -	$ 1,195	$ 856	$ 998	$ 606	$ 268	**$ 4,287**	$ 0	$ 28	**$ 4,315**	$ 3	$ 498	**$ 501**	**$ 2,369**
C3 - Municipal Energy Solutions	**$ 1,089**	*$ 977*	*$ 1,314*	$ 203	$ -	$ 194	$ 168	$ -	$ 37	$ 18	$ 215	$ 125	$ 16	**$ 977**	$ 100	$ -	**$ 1,077**	$ 12	$ -	**$ 12**	**$ 225**
C5 - C&I Active Demand Response	**$ 642**	*$ 642*	*$ 706*	$ 41	$ -	$ 276	$ 239	$ -	$ -	$ -	$ -	$ -	$ 86	**$ 642**	$ -	$ -	**$ 642**	$ -	$ 64	**$ 64**	**$ (0)**
C6b - C&I ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 13,112**	*$ 12,935*	*$ 20,469*	**$ 789**	**$ -**	**$ 1,024**	**$ 887**	**$ -**	**$ 2,599**	**$ 1,928**	**$ 2,924**	**$ 1,981**	**$ 803**	**$ 12,935**	**$ 115**	**$ 45**	**$ 13,095**	**$ 17**	**$ 1,257**	**$ 1,274**	**$ 6,100**
Total	**$ 26,164**	*$ 16,734*	*$ 36,371*	**$ 1,297**	**$ -**	**$ 1,576**	**$ 1,365**	**$ -**	**$ 3,321**	**$ 2,618**	**$ 3,302**	**$ 2,276**	**$ 977**	**$ 16,733**	**$ 6,660**	**$ 633**	**$ 24,027**	**$ 472**	**$ 4,440**	**$ 4,912**	**$ 7,433**

Portfolio Planned Versus Actual Performance - 2023

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime kWh Savings	218,108,688	*141,770,647*		-	1.925%	-	$ 229,182	*$ 286,477*	$ -	Planned and Actual from Cost Eff Tab
2	Annual kWh Savings	20,315,482	*13,205,063*		-	0.550%	-	$ 65,481	*$ 81,851*	$ -	Planned and Actual from Cost Eff Tab
3	Summer Peak Demand kW	1,328	*863*		-	0.495%	-	$ 58,932	*$ 73,666*	$ -	Planned and Actual from Cost Eff Tab
4	Winter Peak Demand kW	1,310	*852*		-	0.330%	-	$ 39,288	*$ 49,110*	$ -	Planned and Actual from Cost Eff Tab
5	Active Demand kW	2,950	*1,918*		-	0.275%	-	$ 33,333	*$ 41,666*	$ -	Planned and Actual from ADR Cost Eff Tab
6	Total Resource Benefits	$ 24,026,617			-						Planned and Actual from Benefits Tab
7	Total Utility Costs[1]	$ 11,905,554			-						Planned and Actual from Cost Eff Tab
8	Net Benefits	$ 12,121,063	*$ 7,878,691*	$ -	-	1.925%	-	$ 229,182	*$ 286,477*	$ -	Line 5 minus line 6
9	Total					5.500%	-	$ 655,398	*$ 819,248*	$ -	

		Granite State Test Planned	Granite State Test Actual	Source
10	Total Benefits	$ 26,163,878		Planned and Actual from Cost Eff Tab
11	Performance Incentive	$ 655,398	$ -	from row 8 above
12	Total Utility Costs	$ 11,905,554	$ -	from row 6 above
13	**Portfolio GST BCR**	**2.08**	**-**	row 9 divided by rows 10+11

Costs, Benefits, and PI Expressed in 2021 Dollars. Nominal PI (2023$) is $698,059.45.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2021-2023 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	2.10	*0.16*	*2.15*	12,426.8	*945.6*	*12,739.2*	5,922.2	-	850.8	8,043.9	176.0	151.1	482	13,461.0	274,699.2
A1 - Energy Star Homes	3.03	*0.30*	*3.73*	3,684.4	*361.4*	*5,721.7*	1,214.2	318.3	217.5	4,993.2	49.0	4.8	176	4,220.0	98,750.0
A2 - Home Performance with Energy Star	2.16	*0.30*	*2.61*	3,949.5	*551.7*	*5,797.4*	1,830.8	393.0	229.7	4,481.4	59.8	52.0	196	5,646.7	115,078.2
A3 - Energy Star Products	2.85	*1.80*	*3.68*	11,960.8	*7,525.2*	*18,311.2*	4,192.1	778.4	7,846.5	60,469.3	1,456.2	1,421.9	122,473	8,893.5	131,933.9
A4 - Residential Behavior	1.34	*1.34*	*2.37*	745.3	*745.3*	*1,313.0*	555.1	-	6,952.0	6,952.0	1,205.7	777.7	22,700	-	-
A5 - Residential Active Demand Response	1.02	*1.02*	*1.12*	125.2	*125.2*	*137.7*	122.7	-	-	-	-	-	563	-	-
A6b - Res ISO Forward Capacity Market Expenses	-	-	-	-	-	-	51.7	-	-	-	-	-	-	-	-
A6c - Res Education	-	-	-	-	-	-	89.2	-	-	-	-	-	-	-	-
A6d - Energy Optimization Pilot	-	-	-	-	-	-	204.7	-	-	-	-	-	-	-	-
Sub-Total Residential	**2.32**	***0.72***	***2.81***	**32,892.0**	***10,254.5***	***44,020.2***	**14,182.9**	**1,489.7**	**16,096.6**	**84,939.8**	**2,946.5**	**2,407.5**	**146,589**	**32,221.2**	**620,461.3**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	1.86	*1.85*	*1.88*	17,103.6	*17,022.1*	*27,922.0*	9,179.2	5,689.9	22,985.8	297,218.2	900.4	989.7	524	396.6	3,966.2
C2 - Small Business Energy Solutions	1.94	*1.93*	*2.31*	13,006.5	*12,932.0*	*21,871.1*	6,704.3	2,777.5	13,235.9	158,662.6	795.4	555.1	1,161	407.3	5,862.6
C3 - Municipal Energy Solutions	5.45	*4.99*	*6.09*	3,236.1	*2,963.5*	*4,365.2*	594.1	122.2	1,061.4	19,438.6	30.5	392.0	33	500.0	12,500.0
C5 - C&I Active Demand Response	3.50	*3.50*	*3.85*	1,626.1	*1,626.1*	*1,788.3*	464.0	-	-	-	-	-	69	-	-
C6b - C&I ISO Forward Capacity Market Expenses	-	-	-	-	-	-	61.9	-	-	-	-	-	-	-	-
C6c - C&I Education	-	-	-	-	-	-	206.3	-	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	**2.03**	***2.01***	***2.17***	**34,972.2**	***34,543.7***	***55,946.6***	**17,209.8**	**8,589.6**	**37,283.1**	**475,319.4**	**1,726.3**	**1,936.8**	**1,787**	**1,303.9**	**22,328.8**
Total	**2.16**	***1.43***	***2.41***	**67,864.3**	***44,798.2***	***99,966.7***	**31,392.6**	**10,079.2**	**53,379.7**	**560,259.2**	**4,672.8**	**4,344.4**	**148,376**	**33,525.1**	**642,790.0**

Notes:

(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.

(2) Utility and Customer Costs in 2021 Dollars and will not equal the nominal costs presented in the Costs and Performance Incentive tabs.

Annual kWh Savings	53,379,655	84.5%	**kWh > 55%**	**Lifetime** kWh Savings	560,259,191	74.8%	**kWh > 55%**
Annual MMBTU Savings (in kWh)	9,825,230	15.5%		**Lifetime** MMBTU Savings (in kWh)	188,383,170	25.2%	
	63,204,885	100.0%			**748,642,362**	100.0%	

Cumulative Savings as a % of 2019 Sales	4.59%

Spending per Cus	1.75%	Low-Income	$ 1,303.01
		Residential	$ 136.79
		C&I	$ 1,546.67

Present Value Benefits - 2021-2023 PLAN

	Total Benefits ($000)			Resource Benefits ($000)															Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric												Non-Electric						
				CAPACITY					ENERGY													
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																						
B1 - Home Energy Assistance	**$ 12,427**	*$ 946*	*$ 12,739*	$ 141	$ -	$ 144	$ 125	$ -	$ 161	$ 152	$ 105	$ 84	$ 35	**$ 946**	$ 7,534	$ 26	**$ 8,505**	$ 515	$ 3,407	**$ 3,922**	**$ 312**
A1 - Energy Star Homes	**$ 3,684**	*$ 361*	*$ 5,722*	$ 8	$ -	$ 8	$ 7	$ -	$ 144	$ 166	$ 8	$ 6	$ 13	**$ 361**	$ 3,147	$ -	**$ 3,508**	$ 176	$ 1,858	**$ 2,034**	**$ 179**
A2 - Home Performance with Energy Star	**$ 3,950**	*$ 552*	*$ 5,797*	$ 83	$ -	$ 79	$ 69	$ -	$ 101	$ 113	$ 54	$ 40	$ 13	**$ 552**	$ 3,175	$ 5	**$ 3,732**	$ 217	$ 1,672	**$ 1,889**	**$ 176**
A3 - Energy Star Products	**$ 11,961**	*$ 7,525*	*$ 18,311*	$ 994	$ -	$ 1,125	$ 974	$ -	$ 1,391	$ 1,298	$ 773	$ 603	$ 366	**$ 7,525**	$ 2,818	$ 1,418	**$ 11,761**	$ 199	$ 3,660	**$ 3,859**	**$ 2,690**
A4 - Residential Behavior	**$ 745**	*$ 745*	*$ 1,313*	$ 44	$ -	$ 78	$ 68	$ -	$ 195	$ 156	$ 87	$ 57	$ 61	**$ 745**	$ -	$ -	**$ 745**	$ -	$ 223	**$ 223**	**$ 345**
A5 - Residential Active Demand Response	**$ 125**	*$ 125*	*$ 138*	$ 6	$ -	$ 57	$ 49	$ -	$ -	$ -	$ -	$ -	$ 13	**$ 125**	$ -	$ -	**$ 125**	$ -	$ 13	**$ 13**	**$ -**
A6b - Res ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 32,892**	*$ 10,254*	*$ 44,020*	**$ 1,276**	**$ -**	**$ 1,490**	**$ 1,291**	**$ -**	**$ 1,993**	**$ 1,884**	**$ 1,027**	**$ 791**	**$ 501**	**$ 10,254**	**$ 16,674**	**$ 1,449**	**$ 28,378**	**$ 1,107**	**$ 10,833**	**$ 11,940**	**$ 3,702**
Commercial/Industrial Programs																						
C1 - Large Business Energy Solutions	**$ 17,104**	*$ 17,022*	*$ 27,922*	$ 1,093	$ -	$ 1,166	$ 1,010	$ -	$ 3,311	$ 2,540	$ 4,001	$ 2,886	$ 1,016	**$ 17,022**	$ 35	$ 43	**$ 17,099**	$ 4	$ 2,397	**$ 2,401**	**$ 8,421**
C2 - Small Business Energy Solutions	**$ 13,007**	*$ 12,932*	*$ 21,871*	$ 559	$ -	$ 616	$ 533	$ -	$ 3,404	$ 2,446	$ 2,854	$ 1,734	$ 786	**$ 12,932**	$ 14	$ 53	**$ 12,999**	$ 7	$ 1,970	**$ 1,977**	**$ 6,895**
C3 - Municipal Energy Solutions	**$ 3,236**	*$ 2,963*	*$ 4,365*	$ 571	$ -	$ 575	$ 498	$ -	$ 160	$ 80	$ 641	$ 377	$ 61	**$ 2,963**	$ 245	$ -	**$ 3,208**	$ 28	$ 362	**$ 390**	**$ 767**
C5 - C&I Active Demand Response	**$ 1,626**	*$ 1,626*	*$ 1,788*	$ 106	$ -	$ 693	$ 601	$ -	$ -	$ -	$ -	$ -	$ 225	**$ 1,626**	$ -	$ -	**$ 1,626**	$ -	$ 163	**$ 163**	**$ (0)**
C6b - C&I ISO Forward Capacity Market Expenses	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 34,972**	*$ 34,544*	*$ 55,947*	**$ 2,329**	**$ -**	**$ 3,050**	**$ 2,642**	**$ -**	**$ 6,875**	**$ 5,066**	**$ 7,497**	**$ 4,997**	**$ 2,088**	**$ 34,543**	**$ 294**	**$ 96**	**$ 34,933**	**$ 39**	**$ 4,892**	**$ 4,931**	**$ 16,082**
Total	**$ 67,864**	*$ 44,798*	*$ 99,967*	**$ 3,606**	**$ -**	**$ 4,540**	**$ 3,933**	**$ -**	**$ 8,867**	**$ 6,950**	**$ 8,524**	**$ 5,788**	**$ 2,589**	**$ 44,798**	**$ 16,968**	**$ 1,545**	**$ 63,311**	**$ 1,146**	**$ 15,725**	**$ 16,871**	**$ 19,785**

Portfolio Planned Versus Actual Performance - 2021-2023

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime kWh Savings	560,259,191	*364,168,474*		-	1.925%	-	$ 604,308	*$ 755,385*	$ -	Planned and Actual from Cost Eff Tab
2	Annual kWh Savings	53,379,655	*34,696,776*		-	0.550%	-	$ 172,659	*$ 215,824*	$ -	Planned and Actual from Cost Eff Tab
3	Summer Peak Demand kW	4,344	*2,824*		-	0.495%	-	$ 155,393	*$ 194,242*	$ -	Planned and Actual from Cost Eff Tab
4	Winter Peak Demand kW	4,673	*3,037*		-	0.330%	-	$ 103,596	*$ 129,495*	$ -	Planned and Actual from Cost Eff Tab
5	Active Demand kW	7,285	*4,735*			0.275%		$ 87,775	*$ 109,719*	$ -	Planned and Actual from ADR Cost Eff Tab
6	Total Resource Benefits	$ 63,310,791			-						Planned and Actual from Benefits Tab
7	Total Utility Costs[1]	$ 31,392,612			-						Planned and Actual from Cost Eff Tab
8	Net Benefits	$ 31,918,179	*$ 20,746,817*	$ -	-	1.925%	-	$ 604,308	*$ 755,385*	$ -	Line 5 minus line 6
9	Total					5.500%	-	$ 1,728,039	*$ 2,160,049*	$ -	

		Granite State Test		
		Planned	Actual	Source
10	Total Benefits	$ 67,864,261		Planned and Actual from Cost Eff Tab
11	Performance Incentive	$ 1,728,039	$ -	from row 8 above
12	Total Utility Costs	$ 31,392,612	$ -	from row 6 above
13	**Portfolio GST BCR**	**2.05**	**-**	row 9 divided by rows 10+11

Costs, Benefits, and PI Expressed in 2021 Dollars. Nominal PI (2023$) is $1,420,443.51.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Home Enegy Assistance			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
B1a - HEA (Weatherization	Air Sealing, Electric	E21B1a002	4	4	5	3.6	4.0	4.4	54.6	60.1	66.1	1.2	1.3	1.4	-	-	-	-	-	-	-	-	-
B1a - HEA (Weatherization	Air Sealing, Gas	E21B1a003	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Air Sealing, Kerosene	E21B1a004	20	24	30	1.8	2.2	2.7	27.3	32.8	41.0	-	-	-	-	-	-	145.6	174.7	218.4	2,184.0	2,620.8	3,276.0
B1a - HEA (Weatherization	Air Sealing, Oil	E21B1a005	40	50	55	3.6	4.6	5.0	54.6	68.3	75.1	-	-	-	-	-	-	364.0	455.0	500.5	5,460.0	6,825.0	7,507.5
B1a - HEA (Weatherization	Air Sealing, Propane	E21B1a006	60	90	100	5.5	8.2	9.1	81.9	122.9	136.5	-	-	-	-	-	-	546.0	819.0	910.0	8,190.0	12,285.0	13,650.0
B1a - HEA (Weatherization	Air Sealing, Wood Pellets	E21B1a007	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Faucet Aerator, Electric	E21B1a009	30	45	60	1.3	1.9	2.6	9.0	13.4	17.9	0.3	0.4	0.5	0.1	0.1	0.2	-	-	-	-	-	-
B1a - HEA (Weatherization	Faucet Aerator, Gas	E21B1a010	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Faucet Aerator, Kerosene	E21B1a011	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Faucet Aerator, Oil	E21B1a012	50	60	80	-	-	-	-	-	-	-	-	-	-	-	-	7.1	8.5	11.4	49.7	59.6	79.5
B1a - HEA (Weatherization	Faucet Aerator, Propane	E21B1a013	65	50	55	-	-	-	-	-	-	-	-	-	-	-	-	9.2	7.1	7.8	64.6	49.7	54.7
B1a - HEA (Weatherization	Hand Held Showerhead, Electric	E21B1a016	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Hand Held Showerhead, Gas	E21B1a017	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Hand Held Showerhead, Kerosene	E21B1a018	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Hand Held Showerhead, Oil	E21B1a019	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Hand Held Showerhead, Propane	E21B1a020	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Insulation, Electric	E21B1a023	4	4	5	9.1	10.0	11.0	227.5	250.3	275.3	2.9	3.2	3.5	-	-	-	-	-	-	-	-	-
B1a - HEA (Weatherization	Insulation, Gas	E21B1a024	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Insulation, Kerosene	E21B1a025	20	24	30	2.7	3.3	4.1	68.3	81.9	102.4	-	-	-	1.5	1.8	2.3	218.4	262.1	327.6	5,460.0	6,552.0	8,190.0
B1a - HEA (Weatherization	Insulation, Oil	E21B1a026	40	50	55	5.5	6.8	7.5	136.5	170.6	187.7	-	-	-	3.0	3.8	4.1	546.0	682.5	750.8	13,650.0	17,062.5	18,768.8
B1a - HEA (Weatherization	Insulation, Propane	E21B1a027	60	90	100	8.2	12.3	13.7	204.8	307.1	341.3	-	-	-	4.5	6.8	7.5	819.0	1,228.5	1,365.0	20,475.0	30,712.5	34,125.0
B1a - HEA (Weatherization	Insulation, Wood Pellets	E21B1a028	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Low Flow Showerhead, Electric	E21B1a030	3	4	-	0.4	0.5		2.8	3.7		0.1	0.1		0.0	0.0		-	-	-	-	-	-
B1a - HEA (Weatherization	Low Flow Showerhead, Gas	E21B1a031	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Low Flow Showerhead, Kerosene	E21B1a032	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Low Flow Showerhead, Oil	E21B1a033	5	6	8	-	-	-	-	-	-	-	-	-	-	-	-	2.9	3.5	4.6	20.2	24.2	32.3
B1a - HEA (Weatherization	Low Flow Showerhead, Propane	E21B1a034	8	10	12	-	-	-	-	-	-	-	-	-	-	-	-	4.6	5.8	6.9	32.3	40.3	48.4
B1a - HEA (Weatherization	Pipe Insulation - Hot Water, Electric	E21B1a037	15	16	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1a - HEA (Weatherization	Pipe Insulation - Hot Water, Gas	E21B1a038	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Pipe Insulation - Hot Water, Kerosene	E21B1a039	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Pipe Insulation - Hot Water, Oil	E21B1a040	20	25	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1a - HEA (Weatherization	Pipe Insulation - Hot Water, Propane	E21B1a041	30	45	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1a - HEA (Weatherization	DHW Heat Pump Water Heater	E21B1a043	5	8	10	8.3	13.2	16.5	107.5	172.1	215.1	1.1	1.7	2.2	0.4	0.7	0.8	-	-	-	-	-	-
B1a - HEA (Weatherization	LED Bulb, General Service Lamps	E21B1a044	870	505	253	27.9	16.2	8.1	55.9	32.5	16.2	20.1	11.7	5.8	13.0	7.5	3.8	-	-	-	-	-	-
B1a - HEA (Weatherization	LED Bulb, Linear	E21B1a045	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	LED Bulb, Other Specialty	E21B1a046	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	LED Bulb, Reflector	E21B1a047	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	LED Fixture	E21B1a048	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Refrigerator	E21B1a049	150	75	75	106.5	53.2	53.2	1,277.6	638.8	638.8	12.2	6.1	6.1	14.9	7.5	7.5	-	-	-	-	-	-
B1a - HEA (Weatherization	Freezer	E21B1a050	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Clothes Washer	E21B1a051	10	11	15	0.8	0.9	1.2	8.9	9.8	13.4	0.1	0.1	0.2	0.1	0.1	0.2	2.4	2.7	3.7	26.9	29.6	40.4
B1a - HEA (Weatherization	Clothes Dryer	E21B1a052	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Dehumidifier	E21B1a053	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Room Air Conditioner	E21B1a054	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Triple Pane Window	E21B1a055	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Visual Audit	E21B1a056	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Baseload Audit - SF	E21B1a057	50	75	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B1a - HEA (Weatherization	Baseload Audit - MF	E21B1a058	-	-	-													-	-	-	-	-	-
B1a - HEA (Weatherization	Low Income Kits	E21B1a059	-	1,500	2,500		123.3	205.4		246.5	410.9		26.6	44.3		17.2	28.6	-	-	-	-	-	-

B1b - HEA (HVAC Systems	Boiler Replacement, Gas	E21B1b001	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Boiler Replacement, Kerosene	E21B1b002	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Boiler Replacement, Oil	E21B1b003	8	12	15	-	-	-	-	-	-	-	-	-	-	-	-	120.8	181.3	226.6	3,021.2	4,531.8	5,664.8
B1b - HEA (HVAC Systems	Boiler Replacement, Propane	E21B1b004	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Furnace Replacement, Gas	E21B1b005	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Furnace Replacement, Kerosene	E21B1b006	8	12	12	0.6	1.0	1.0	12.8	19.1	19.1	0.2	0.3	0.3	-	-	-	68.7	103.0	103.0	1,373.0	2,059.5	2,059.5
B1b - HEA (HVAC Systems	Furnace Replacement, Oil	E21B1b007	8	12	16	1.0	1.4	1.9	19.0	28.5	38.0	0.3	0.4	0.6	-	-	-	121.8	182.7	243.6	2,435.9	3,653.8	4,871.8
B1b - HEA (HVAC Systems	Furnace Replacement, Propane	E21B1b008	5	8	14	0.6	1.0	1.7	11.9	19.0	33.3	0.2	0.3	0.5	-	-	-	76.1	121.8	213.1	1,522.4	2,435.9	4,262.8
B1b - HEA (HVAC Systems	Programmable Thermostat, Electric	E21B1b009	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Programmable Thermostat, Gas	E21B1b010	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Programmable Thermostat, Kerosene	E21B1b011	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Programmable Thermostat, Oil	E21B1b012	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Programmable Thermostat, Propane	E21B1b013	5	8	10	0.1	0.2	0.2	1.8	2.9	3.7	-	-	-	0.1	0.1	0.1	15.9	25.5	31.9	238.9	382.2	477.8
B1b - HEA (HVAC Systems	Programmable Thermostat, Wood Pellets	E21B1b014	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Wifi Thermostat, Electric	E21B1b015	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Wifi Thermostat, Gas	E21B1b016	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Wifi Thermostat, Kerosene	E21B1b017	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Wifi Thermostat, Oil	E21B1b018	2	4	50	0.0	0.1	0.8	0.5	1.0	12.3	-	-	-	0.0	0.0	0.5	10.7	21.5	268.5	161.1	322.1	4,026.8
B1b - HEA (HVAC Systems	Wifi Thermostat, Propane	E21B1b019	3	5	8	0.0	0.1	0.1	0.7	1.2	2.0	-	-	-	0.0	0.0	0.1	15.8	26.4	42.2	237.5	395.9	633.4
B1b - HEA (HVAC Systems	Wifi Thermostat, Wood Pellets	E21B1b020	-	-	-													-	-	-	-	-	-
B1b - HEA (HVAC Systems	Mini Split HP (cooling)	E21B1b021	-	2	4		0.4	0.7		6.6	13.1		-	-		0.2	0.4	-	-	-	-	-	-
B1b - HEA (HVAC Systems	Mini Split HP (heating)	E21B1b022	-	2	4		2.2	4.4		39.3	78.6		0.7	1.4		-	-	-	-	-	-	-	-
Home Energy Assistance Subtotal						**199.0**	**280.5**	**371.3**	**2,534.5**	**2,533.0**	**2,976.4**	**44.7**	**55.8**	**75.4**	**41.7**	**47.8**	**61.6**	**3,322.7**	**4,584.4**	**5,553.9**	**68,015.1**	**94,137.5**	**112,546.6**

ES Homes			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A1a - ES Homes	Cooling, Electric, SF	E21A1a001	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Heating, Electric, SF	E21A1a002	2	3	4	4.0	5.7	7.2	100.0	142.5	180.0	1.1	1.5	2.2	-	-	-	-	-	-	-	-	-
A1a - ES Homes	Heating, Gas, SF	E21A1a003	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Heating, Oil, SF	E21A1a004	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Heating, Propane, SF	E21A1a005	18	22	27	-	-	-	-	-	-	-	-	-	-	-	-	450.0	412.5	337.5	11,250.0	10,312.5	8,437.5
A1a - ES Homes	Heating, Wood Pellets, SF	E21A1a006	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Hot Water, Electric, SF	E21A1a007	50	-	-	12.5			187.5			2.5			0.9			-	-	-	-	-	-
A1a - ES Homes	Hot Water, Gas, SF	E21A1a008	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Hot Water, Oil, SF	E21A1a009	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Hot Water, Propane, SF	E21A1a010	18	22	27	-	5.5	5.4	-	82.5	81.0	-	-	-	-	-	-	54.0	66.0	81.0	810.0	990.0	1,215.0
A1a - ES Homes	Hot Water, Wood Pellets, SF	E21A1a011	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Cooling, Electric, MF	E21A1a012	25	28	30	1.6	1.8	2.0	40.6	45.5	48.8	-	-	-	0.9	1.0	1.1	-	-	-	-	-	-
A1a - ES Homes	Heating, Electric, MF	E21A1a013	25	28	30	45.0	50.4	54.0	1,125.0	1,260.0	1,350.0	12.2	13.7	14.7	-	-	-	-	-	-	-	-	-
A1a - ES Homes	Heating, Gas, MF	E21A1a014	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Heating, Oil, MF	E21A1a015	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Heating, Propane, MF	E21A1a016	50	53	55	-	-	-	-	-	-	-	-	-	-	-	-	1,000.0	795.0	550.0	25,000.0	19,875.0	13,750.0
A1a - ES Homes	Heating, Wood Pellets, MF	E21A1a017	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Hot Water, Electric, MF	E21A1a018	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Hot Water, Gas, MF	E21A1a019	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Hot Water, Oil, MF	E21A1a020	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Hot Water, Propane, MF	E21A1a021	50	53	55	-	8.0	5.5	-	119.3	82.5	-	-	-	-	-	-	150.0	159.0	165.0	2,250.0	2,385.0	2,475.0
A1a - ES Homes	Hot Water, Wood Pellets, MF	E21A1a022	-	-	-													-	-	-	-	-	-
A1a - ES Homes	LED Bulb	E21A1a023	75	-	-	0.5			1.4			0.6			0.4			-	-	-	-	-	-
A1a - ES Homes	LED Fixture	E21A1a024	25	-	-	0.1			0.4			0.2			0.1			-	-	-	-	-	-
A1a - ES Homes	Refrigerator	E21A1a025	20	20	23	0.8	0.8	0.9	9.8	9.8	11.3	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-	-	-	-
A1a - ES Homes	Clothes Washer	E21A1a026	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Clothes Dryer	E21A1a027	-	-	-													-	-	-	-	-	-
A1a - ES Homes	HERS - Lighting and Appliances	E21A1a028	-	-	-													-	-	-	-	-	-
A1a - ES Homes	Residential New Construction Code Compli	E21A1a029	1	1	1	-	-	5.8	-	-	115.2	-	-	-	-	-	-	-	-	-	-	-	-
	ES Homes Subtotal					**64.6**	**72.2**	**80.8**	**1,464.8**	**1,659.6**	**1,868.8**	**16.7**	**15.3**	**16.9**	**2.5**	**1.1**	**1.2**	**1,654.0**	**1,432.5**	**1,133.5**	**39,310.0**	**33,562.5**	**25,877.5**

Home Performance with Energy Star			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A2a - HPwES (Weatherizat	Air Sealing, Electric	E21A2a002	6	7	9	11.9	14.3	17.1	178.2	213.8	256.6	3.8	4.5	5.4	-	-	-	-	-	-	-	-	-
A2a - HPwES (Weatherizat	Air Sealing, Gas	E21A2a003	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Air Sealing, Kerosene	E21A2a004	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Air Sealing, Oil	E21A2a005	30	36	43	3.2	3.8	4.6	47.5	57.0	68.4	-	-	-	1.7	2.1	2.5	297.0	356.4	427.7	4,455.0	5,346.0	6,415.2
A2a - HPwES (Weatherizat	Air Sealing, Propane	E21A2a006	18	22	25	1.9	2.3	2.6	28.5	34.8	39.6	-	-	-	1.0	1.3	1.5	178.2	217.8	247.5	2,673.0	3,267.0	3,712.5
A2a - HPwES (Weatherizat	Air Sealing, Wood Pellets	E21A2a007	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Faucet Aerator, Electric	E21A2a009	10	12	15	0.5	0.6	0.7	3.2	3.9	4.9	0.1	0.1	0.1	0.0	0.0	0.1	-	-	-	-	-	-
A2a - HPwES (Weatherizat	Faucet Aerator, Gas	E21A2a010	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Faucet Aerator, Kerosene	E21A2a011	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Faucet Aerator, Oil	E21A2a012	40	8	10	-	-	-	-	-	-	-	-	-	-	-	-	6.2	1.2	1.5	43.2	8.6	10.8
A2a - HPwES (Weatherizat	Faucet Aerator, Propane	E21A2a013	25	14	18	-	-	-	-	-	-	-	-	-	-	-	-	3.9	2.2	2.8	27.0	15.1	19.5
A2a - HPwES (Weatherizat	Hand Held Showerhead, Electric	E21A2a016	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Hand Held Showerhead, Gas	E21A2a017	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Hand Held Showerhead, Kerosene	E21A2a018	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Hand Held Showerhead, Oil	E21A2a019	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Hand Held Showerhead, Propane	E21A2a020	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Insulation, Electric	E21A2a023	6	7	9	23.8	28.5	34.2	594.0	712.8	855.4	7.5	9.1	10.9	-	-	-	-	-	-	-	-	-
A2a - HPwES (Weatherizat	Insulation, Gas	E21A2a024	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Insulation, Kerosene	E21A2a025	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Insulation, Oil	E21A2a026	30	36	43	8.9	10.7	12.8	222.8	267.3	320.8	-	-	-	4.9	5.9	7.1	415.8	499.0	598.8	10,395.0	12,474.0	14,968.8
A2a - HPwES (Weatherizat	Insulation, Propane	E21A2a027	18	22	25	5.3	6.5	7.4	133.7	163.4	185.6	-	-	-	2.9	3.6	4.1	249.5	304.9	346.5	6,237.0	7,623.0	8,662.5
A2a - HPwES (Weatherizat	Insulation, Wood Pellets	E21A2a028	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Low Flow Showerhead, Electric	E21A2a030	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Low Flow Showerhead, Gas	E21A2a031	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Low Flow Showerhead, Kerosene	E21A2a032	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Low Flow Showerhead, Oil	E21A2a033	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Low Flow Showerhead, Propane	E21A2a034	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Pipe Insulation - Hot Water, Electric	E21A2a037	3	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A2a - HPwES (Weatherizat	Pipe Insulation - Hot Water, Gas	E21A2a038	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Pipe Insulation - Hot Water, Kerosene	E21A2a039	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Pipe Insulation - Hot Water, Oil	E21A2a040	20	30	40	-	-	-	-	-	-	-	-	-	-	-	-	4.0	5.9	7.9	59.4	89.1	118.8
A2a - HPwES (Weatherizat	Pipe Insulation - Hot Water, Propane	E21A2a041	12	15	25	-	-	-	-	-	-	-	-	-	-	-	-	2.4	3.0	5.0	35.6	44.6	74.3
A2a - HPwES (Weatherizat	DHW Heat Pump Water Heater	E21A2a043	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	LED Bulb, General Service Lamps	E21A2a044	432	216	-	15.1	7.5		30.2	15.1		10.9	5.4		7.0	3.5		-	-	-	-	-	-
A2a - HPwES (Weatherizat	LED Bulb, Linear	E21A2a045	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	LED Bulb, Other Specialty	E21A2a046	30	-	-	1.5			3.0			1.3			0.8			-	-	-	-	-	-
A2a - HPwES (Weatherizat	LED Bulb, Reflector	E21A2a047	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	LED Fixture	E21A2a048	40	-	-	1.5			3.0			0.7			0.4			-	-	-	-	-	-
A2a - HPwES (Weatherizat	Refrigerator	E21A2a049	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Freezer	E21A2a053	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Clothes Washer	E21A2a054	-	-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Clothes Dryer	E21A2a055		-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Dehumidifier	E21A2a056		-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Room Air Conditioner	E21A2a057		-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Triple Pane Window	E21A2a058		-	-													-	-	-	-	-	-
A2a - HPwES (Weatherizat	Visual Audit Oil Savings	E21A2a050	40	60	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A2a - HPwES (Weatherizat	Visual Audit Propane Savings	E21A2a051	25	35	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A2a - HPwES (Weatherizat	Visual Audit Electric Savings	E21A2a052	-	-	-													-	-	-	-	-	-

A2b - HPwES (HVAC Syste	Boiler Replacement, Gas	E21A2b001	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Boiler Replacement, Kerosene	E21A2b002	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Boiler Replacement, Oil	E21A2b003	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Boiler Replacement, Propane	E21A2b004	2	15	18	-	-	-	-	-	-	-	-	-	-	-	36.4	273.2	327.9	910.8	6,831.0	8,197.2
A2b - HPwES (HVAC Syste	Furnace Replacement, Gas	E21A2b005	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Furnace Replacement, Kerosene	E21A2b006	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Furnace Replacement, Oil	E21A2b007	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Furnace Replacement, Propane	E21A2b008	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Programmable Thermostat, Electric	E21A2b009	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Programmable Thermostat, Gas	E21A2b010	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Programmable Thermostat, Kerosene	E21A2b011	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Programmable Thermostat, Oil	E21A2b012	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Programmable Thermostat, Propane	E21A2b013	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Programmable Thermostat, Wood Pellets	E21A2b014	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Wifi Thermostat, Electric	E21A2b015	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Wifi Thermostat, Gas	E21A2b016	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Wifi Thermostat, Kerosene	E21A2b017	-	-	-												-	-	-	-	-	-
A2b - HPwES (HVAC Syste	Wifi Thermostat, Oil	E21A2b018	20	30	40	0.4	0.5	0.7	5.3	8.0	10.7	-	-	-	0.2	0.3	0.4	116.8	175.2	233.6	1,752.3	2,628.5	3,504.6
A2b - HPwES (HVAC Syste	Wifi Thermostat, Propane	E21A2b019	12	15	25	0.2	0.3	0.4	3.2	4.0	6.7	-	-	-	0.1	0.1	0.2	68.9	86.1	143.6	1,033.6	1,292.0	2,153.3
A2b - HPwES (HVAC Syste	Wifi Thermostat, Wood Pellets	E21A2b020	-	-	-												-	-	-	-	-	-
	Home Performance with Energy Star Subtotal					**74.1**	**75.0**	**80.6**	**1,252.6**	**1,480.2**	**1,748.6**	**24.2**	**19.1**	**16.4**	**19.3**	**16.9**	**15.8**	**1,379.0**	**1,925.0**	**2,342.7**	**27,622.0**	**39,618.8**	**47,837.4**

ES Products			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A3a - ES Lighting	LED Bulb, General Service Lamps	E21A3a001	110,000	80,000	-	940.1	476.5		2,820.4	1,429.6		203.0	102.9		130.9	66.4		-	-	-	-	-	-
A3a - ES Lighting	LED Bulb, Linear	E21A3a002	1,000	500	250	2.8	1.0	0.3	27.9	9.7	2.5	0.6	0.2	0.1	0.4	0.1	0.0	-	-	-	-	-	-
A3a - ES Lighting	LED Bulb, Other Specialty	E21A3a003	36,000	20,000	10,000	344.9	133.5	37.7	1,034.6	400.6	75.5	74.4	28.8	8.1	48.0	18.6	5.3	-	-	-	-	-	-
A3a - ES Lighting	LED Bulb, Reflector	E21A3a004	40,000	10,000	-	424.0	73.9		848.0	147.8		91.5	15.9		59.0	10.3		-	-	-	-	-	-
A3a - ES Lighting	LED Bulb, General Service Lamps (Hard to	E21A3a005	12,000	8,000	5,000	164.7	89.1	42.7	494.2	267.3	85.5	35.6	19.2	9.2	22.9	12.4	6.0	-	-	-	-	-	-
A3a - ES Lighting	LED Bulb, Linear (Hard to Reach)	E21A3a006	-	-	-													-	-	-	-	-	-
A3a - ES Lighting	LED Bulb, Other Specialty (Hard to Reach)	E21A3a007	4,800	6,000	8,000	73.8	74.9	76.6	221.5	224.7	153.3	15.9	16.2	16.5	10.3	10.4	10.7	-	-	-	-	-	-
A3a - ES Lighting	LED Bulb, Reflector (Hard to Reach)	E21A3a008	2,400	3,000	3,500	40.9	41.4	37.1	81.7	82.9	37.1	8.8	8.9	8.0	5.7	5.8	5.2	-	-	-	-	-	-
A3a - ES Lighting	LED Fixture	E21A3a009	12,000	6,000	4,000	95.1	33.2	12.5	285.4	99.5	25.0	20.5	7.2	2.7	13.2	4.6	1.7	-	-	-	-	-	-
A3a - ES Lighting	LED Fixture (Hard to Reach)	E21A3a010	2,400	4,000	4,000	30.6	41.3	31.7	91.7	124.0	63.4	6.6	8.9	6.8	4.3	5.8	4.4	-	-	-	-	-	-
A3b - ES Appliances	Advanced Power Strip, Tier I	E21A3b001	250	313	375	19.9	24.9	29.9	99.6	124.5	149.4	1.6	2.0	2.4	1.1	1.4	1.6	-	-	-	-	-	-
A3b - ES Appliances	Advanced Power Strip, Tier II	E21A3b002	250	313	375	29.6	37.0	44.4	148.1	185.1	222.1	2.6	3.3	4.0	1.8	2.2	2.7	-	-	-	-	-	-
A3c - ES HVAC Systems	Air Source Heat Pump - Lost Opportunity (c	E21A3b003	4	5	6	0.9	1.1	1.3	15.8	19.8	23.8	-	-	-	0.5	0.6	0.7	-	-	-	-	-	-
A3c - ES HVAC Systems	Air Source Heat Pump - Lost Opportunity (h	E21A3b004	4	5	6	8.3	10.4	12.5	150.3	187.8	225.4	2.7	3.3	4.0	-	-	-	-	-	-	-	-	-
A3c - ES HVAC Systems	Mini Split HP - Lost Opportunity (cooling)	E21A3b005	325	406	488	33.5	41.8	50.2	602.1	752.7	903.2	-	-	-	29.0	36.2	43.5	-	-	-	-	-	-
A3c - ES HVAC Systems	Mini Split HP- Lost Opportunity (heating)	E21A3b006	325	406	488	106.7	133.4	160.0	1,920.6	2,400.7	2,880.8	89.6	112.0	134.4	-	-	-	-	-	-	-	-	-
A3c - ES HVAC Systems	DHW Heat Pump Water Heater 50 gal	E21A3b007	-	-	-													-	-	-	-	-	-
A3c - ES HVAC Systems	DHW Heat Pump Water Heater 80 gal	E21A3b008	-	-	-													-	-	-	-	-	-
A3c - ES HVAC Systems	Heat Pump Swimming Pool Heater	E21A3b009	-	-	-													-	-	-	-	-	-
A3b - ES Appliances	ES Clothes Dryers	E21A3b010	600	750	900	96.2	120.3	144.4	1,154.9	1,443.6	1,732.3	16.4	20.5	24.6	12.6	15.8	18.9	-	-	-	-	-	-
A3b - ES Appliances	Dryer Heat Pump	E21A3b011	10	13	15	4.2	5.3	6.3	50.5	63.2	75.8	0.7	0.9	1.1	0.6	0.7	0.8	-	-	-	-	-	-
A3b - ES Appliances	Dryer Hybrid	E21A3b012	35	44	53	7.5	9.3	11.2	89.6	112.0	134.4	1.3	1.6	1.9	1.0	1.2	1.5	-	-	-	-	-	-
A3c - ES HVAC Systems	ECM Motor for FWH Circulating Pump - Mid	E21A3b013	50	63	75	2.3	2.9	3.5	42.2	52.8	63.3	0.4	0.6	0.7	-	-	-	-	-	-	-	-	-
A3c - ES HVAC Systems	ECM Motors for FHA Furnace Fans	E21A3b014	-	-	-													-	-	-	-	-	-
A3c - ES HVAC Systems	ES AC (central) 3 ton	E21A3b015	8	10	12	1.6	2.0	2.4	22.4	28.0	33.6	-	-	-	1.4	1.8	2.2	-	-	-	-	-	-
A3c - ES HVAC Systems	Room Air Conditioner	E21A3b016	500	750	900	8.0	12.0	14.4	64.0	96.0	115.2	-	-	-	15.6	23.4	28.0	-	-	-	-	-	-
A3b - ES Appliances	ES Clothes Washers	E21A3b017	800	1,000	1,200	70.9	88.7	106.4	993.1	1,241.4	1,489.7	10.0	12.5	14.9	9.4	11.8	14.1	215.2	269.0	322.8	3,012.8	3,766.0	4,519.2
A3b - ES Appliances	Washer Tier CEE Tier 2+	E21A3b018	400	500	600	62.4	78.0	93.5	873.0	1,091.3	1,309.6	8.8	10.9	13.1	8.3	10.3	12.4	176.4	220.5	264.6	2,469.6	3,087.0	3,704.4
A3b - ES Appliances	ES Dehumidifier	E21A3b019	500	625	750	72.3	90.3	108.4	867.0	1,083.8	1,300.5	2.9	3.6	4.4	13.9	17.3	20.8	-	-	-	-	-	-
A3b - ES Appliances	ES Dishwasher	E21A3b020	-	-	-													-	-	-	-	-	-
A3b - ES Appliances	ES Freezers	E21A3b021	-	-	-													-	-	-	-	-	-
A3b - ES Appliances	Refrigerator	E21A3b022	1,000	1,100	1,200	41.0	45.1	49.2	492.0	541.2	590.4	4.7	5.2	5.6	5.7	6.3	6.9	-	-	-	-	-	-
A3b - ES Appliances	Refrigerator CEE Tier 2+	E21A3b023	300	375	450	28.9	36.2	43.4	347.0	433.8	520.6	3.3	4.1	5.0	4.1	5.1	6.1	-	-	-	-	-	-
A3b - ES Appliances	ES Pool Pumps (Variable Speed)	E21A3b024	150	188	225	159.3	199.1	239.0	1,593.0	1,991.3	2,389.5	-	-	-	92.1	115.1	138.1	-	-	-	-	-	-
A3b - ES Appliances	Room Air Purifier	E21A3b025	800	1,000	1,200	312.4	390.5	468.6	2,811.6	3,514.5	4,217.4	35.7	44.6	53.5	35.7	44.6	53.5	-	-	-	-	-	-
A3c - ES HVAC Systems	Wifi Thermostat (Heating & Cooling)	E21A3b026	300	375	450	7.5	9.3	11.2	111.9	139.8	167.8	-	-	-	4.1	5.1	6.2	1,980.0	2,475.0	2,970.0	29,700.0	37,125.0	44,550.0
A3b - ES Appliances	Primary Refrigerator Recycling	E21A3b027	150	188	225	73.7	92.2	110.6	589.9	737.4	884.9	8.4	10.5	12.6	10.3	12.9	15.5	-	-	-	-	-	-
A3b - ES Appliances	Secondary Refrigerator Recycling	E21A3b028	10	13	15	7.6	9.4	11.3	60.4	75.5	90.6	0.7	0.9	1.1	1.2	1.5	1.8	-	-	-	-	-	-
A3b - ES Appliances	Secondary Freezer Recycling	E21A3b029	25	31	38	16.5	20.6	24.7	131.6	164.5	197.4	1.6	2.0	2.4	2.2	2.7	3.3	-	-	-	-	-	-
A3b - ES Appliances	Room Air Conditioner Recycling	E21A3b030	45	56	68	0.7	0.9	1.1	3.6	4.6	5.5	-	-	-	0.4	0.5	0.6	-	-	-	-	-	-
A3c - ES HVAC Systems	Ductless Mini-split Heat Pump - Retrofit Res	E21A3b031	-	-	-													-	-	-	-	-	-
A3c - ES HVAC Systems	Ductless Mini-split Heat Pump - Retrofit HP	E21A3b032	-	-	-													-	-	-	-	-	-
A3c - ES HVAC Systems	Air-source Heat Pump – Retrofit HP	E21A3b033	-	-	-													-	-	-	-	-	-
A3c - ES HVAC Systems	Air-source Heat Pump – Retrofit Resistance	E21A3b034	-	-	-													-	-	-	-	-	-
A3b - ES Appliances	DHW Heat Pump Water Heater 50 gal - Mid	E21A3b035	50	63	75	37.0	46.6	55.5	481.0	606.0	721.5	6.1	7.7	9.1	3.4	4.2	5.0	-	-	-	-	-	-
A3b - ES Appliances	DHW Heat Pump Water Heater 80 gal - Mid	E21A3b036	15	-	-	6.5			84.8			1.1			0.6			-	-	-	-	-	-

Residential Behavior			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A4a - Residential Behavior	Home Energy Reports	E21A4a001	22,700	22,700	22,700	1,749.0	2,087.0	3,116.0	1,749.0	2,087.0	3,116.0	377.6	450.5	377.6	243.5	290.6	243.5	-	-	-	-	-	-

Large Business Energy Solutions			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
C1a - LCI Retrofit	Custom Large Compressed Air Retro	E21C1a001	3	4	5	228.3	289.2	342.5	2,968.5	3,760.0	4,452.7	37.3	49.8	62.2	44.6	59.4	74.3	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Hot Water Retro	E21C1a002	5	6	8	266.4	303.7	383.6	2,664.0	3,037.0	3,836.2	-	-	-	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large HVAC Retro	E21C1a003	1	2	3	69.9	132.9	799.2	1,049.0	1,993.0	7,992.0	-	-	-	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Lighting Retro - Interior	E21C1a004	15	18	20	399.6	455.5	479.5	3,996.0	4,555.4	4,795.2	-	-	-	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Lighting Retro - Exterior	E21C1a047	8	8	8	213.1	202.5	191.8	2,131.2	2,024.6	1,918.1	42.7	40.5	42.7	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Lighting Retro - Controls	E21C1a048	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Motors Retro	E21C1a005	3	4	6	214.1	271.2	385.3	2,782.9	3,525.0	5,009.3	35.7	47.6	71.4	35.7	47.6	71.4	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Process Retro	E21C1a006	5	6	9	555.0	632.7	899.1	7,215.0	8,225.1	11,688.3	5.6	6.7	10.0	45.4	54.4	81.7	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Refrigeration Retro	E21C1a007	4	5	8	399.6	474.5	719.3	5,194.8	6,168.8	9,350.6	-	-	-	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Other Retro	E21C1a008	15	25	37	1,498.5	2,372.6	3,326.7	19,480.5	30,844.1	43,246.7	-	-	-	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Daylight Dimming	E21C1a009	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Lighting Fixture - Exterior w/ Controls	E21C1a010	15	25	15	66.2	110.3	66.2	926.5	1,544.1	926.5	13.2	22.1	13.2	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Lighting Fixture - Exterior w/o Controls	E21C1a011	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Lighting Fixture - Interior w/ Controls	E21C1a012	2,000	1,500	1,200	894.7	671.1	536.8	10,736.8	8,052.6	6,442.1	109.2	81.9	65.5	143.2	107.4	85.9	-	-	-	-	-	-
C1a - LCI Retrofit	Lighting Fixture - Interior w/o Controls	E21C1a013	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Lighting Occupancy Sensors	E21C1a014	200	1,000	1,200	31.4	156.9	188.3	282.5	1,412.5	1,695.0	0.4	2.0	2.4	0.5	2.4	2.8	-	-	-	-	-	-
C1a - LCI Retrofit	Boiler Reset Controls, Electric	E21C1a015	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Case Motor Replacement	E21C1a016	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Cooler Night Cover	E21C1a017	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Demand Control Ventilation	E21C1a018	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Door Heater Controls	E21C1a019	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Dual Enthalpy Economizer Controls (DEEC	E21C1a020	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Duct Sealing, Electric	E21C1a021	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Ductless Mini Split Heat Pump	E21C1a022	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	ECM Evaporator Fan Motors for Walk-in Co	E21C1a023	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Electronic Defrost Control	E21C1a024	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Energy Management System, Electric	E21C1a025	2	3	4	79.5	87.4	122.4	1,033.1	1,136.4	1,590.9	-	-	-	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Energy Star Wifi Thermostat, Electric	E21C1a026	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Evaporator Fan Control	E21C1a027	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Faucet Aerator, Electric	E21C1a028	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Hotel Occupancy Sensor	E21C1a031	65	75	100	28.4	32.8	43.8	284.4	328.2	437.6	-	-	-	-	-	-	107.4	123.9	165.3	1,074.2	1,239.4	1,652.6
C1a - LCI Retrofit	Low Pressure Drop Filter	E21C1a032	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Low-Flow Showerhead With Thermostatic V	E21C1a033	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Low-Flow Showerhead, Electric	E21C1a034	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Motors, Open Drip	E21C1a035	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Motors, Totally Enclosed Fan Cooled	E21C1a036	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Novelty Cooler Shutoff	E21C1a037	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Pipe Wrap - Heating, Electric	E21C1a038	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Pipe Wrap - Hot Water, Electric	E21C1a039	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Pre Rinse Spray Valve, Electric	E21C1a040	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Programmable Thermostat, Electric	E21C1a041	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Steam Trap, Electric	E21C1a042	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Variable Frequency Drive	E21C1a043	5	8	10	0.5	0.8	1.0	7.5	12.0	15.0	-	-	-	-	-	-	-	-	-	-	-	-
C1a - LCI Retrofit	Variable Frequency Drive with Motor	E21C1a044	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Vending Miser	E21C1a045	-	-	-													-	-	-	-	-	-
C1a - LCI Retrofit	Zero Loss Condensate Drain	E21C1a046	-	-	-													-	-	-	-	-	-

C1b - LCI New Equipment a	Custom Large Compressed Air New	E21C1b001	2	3	4	133.2	189.8	239.8	1,598.4	2,277.7	2,877.1	-	-	-	-	-	-	-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Hot Water New	E21C1b002	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large HVAC New	E21C1b003	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Lighting New - Interior	E21C1b004	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Lighting New - Exterior	E21C1b054	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Lighting New - Controls	E21C1b055	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Motors New	E21C1b005	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Process New	E21C1b006	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Refrigeration New	E21C1b007	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Other New	E21C1b008	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Custom Large Comprehensive Design	E21C1b052	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Daylight Dimming	E21C1b009	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Performance Lighting - Exterior w/ Controls	E21C1b010	85	75	65	25.0	22.1	19.1	375.4	331.3	287.1	5.0	4.4	3.8	-	-	-	-	-	-	-	-
C1b - LCI New Equipment a	Performance Lighting - Exterior w/o Control	E21C1b011	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Performance Lighting - Interior w/ Controls	E21C1b012	100	100	75	50.0	50.0	37.5	750.0	750.0	562.5	6.1	6.1	4.6	8.0	8.0	6.0	-	-	-	-	-
C1b - LCI New Equipment a	Performance Lighting - Interior w/o Controls	E21C1b013	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Lighting Occupancy Sensors	E21C1b014	35	3,000	3,500	2.9	250.0	291.7	29.2	2,500.0	2,916.7	0.0	3.3	3.8	0.0	3.8	4.4	-	-	-	-	-
C1b - LCI New Equipment a	Advanced Power Strip	E21C1b015	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Air Compressor	E21C1b016	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Air Nozzle	E21C1b017	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Circulator Pump	E21C1b018	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Combination Oven, Electric	E21C1b019	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Compressor Storage	E21C1b020	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Convection Oven, Electric	E21C1b021	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - High Temp Door Type	E21C1b022	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - High Temp Multi Tank Convey	E21C1b023	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - High Temp Pot, Pan, Utensil	E21C1b024	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - High Temp Single Tank Conv	E21C1b025	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - High Temp Under Counter	E21C1b026	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - Low Temp Door Type	E21C1b027	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - Low Temp Multi Tank Convey	E21C1b028	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - Low Temp Single Tank Conve	E21C1b029	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Dishwasher - Low Temp Under Counter	E21C1b030	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Faucet Aerator, Electric	E21C1b031	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Fryer Large Vat, Electric	E21C1b032	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Fryer Standard Vat, Electric	E21C1b033	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Griddle, Electric	E21C1b034	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Ground Source Heat Pump	E21C1b035	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Hot Food Holding Cabinet 3/4 Size	E21C1b036	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Hot Food Holding Cabinet Full Size	E21C1b037	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Hot Food Holding Cabinet Half Size	E21C1b038	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Ice Machine - Ice Making Head	E21C1b039	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Ice Machine - Remote Cond./Split Unit - Ba	E21C1b040	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Ice Machine - Remote Cond./Split Unit - Co	E21C1b041	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Ice Machine - Self Contained	E21C1b042	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Low Pressure Drop Filter	E21C1b043	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Low-Flow Showerhead With Thermostatic V	E21C1b044	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Low-Flow Showerhead, Electric	E21C1b045	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Pre Rinse Spray Valve, Electric	E21C1b046	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Refrigerated Air Dryer	E21C1b047	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Steam Cooker, Electric	E21C1b048	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Unitary Air Conditioner	E21C1b049	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Water Source Heat Pump	E21C1b050	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	Zero Loss Condensate Drain	E21C1b051	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	High Efficiency Chiller - FL	E21C1b052	10	20	25	249.8	499.5	624.4	5,744.3	11,488.5	14,360.6	-	-	-	-	-	-	-	-	-	-	-
C1b - LCI New Equipment a	High Efficiency Chiller - IPLV	E21C1b053	-	-	-													-	-	-	-	-
C1b - LCI New Equipment a	C&I Large New Construction Code Complia	E21C1b057	1	1	1	-	-	17.8	-	-	355.0	-	-	-	-	-	-	-	-	-	-	-

C1c - LCI Midstream	Midstream Circulator Pump	E21C1c001	1	2	3	3.3	6.5	9.8	65.4	130.7	196.1	-	-	-	-	-	-	-	-	-	-	-
C1c - LCI Midstream	Midstream Demand Control Ventilation	E21C1c002	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream DMSHP Systems	E21C1c003	1	2	2	1.3	2.6	2.6	15.5	31.0	31.0	-	-	-	0.1	-	0.2	-	-	-	-	-
C1c - LCI Midstream	Midstream Dual Enthalpy Economizer Contr	E21C1c004	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream ECM Fan Motors	E21C1c005	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Heat Pump Systems	E21C1c006	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Unitary Air Conditioners	E21C1c007	2	2	2	6.4	7.1	6.4	77.0	84.7	77.0	-	-	-	0.5	0.5	0.5	-	-	-	-	-
C1c - LCI Midstream	Midstream VRF	E21C1c008	1	1	1	7.6	7.6	7.6	151.3	151.3	151.3	0.1	-	0.1	1.0	-	1.0	-	-	-	-	-
C1c - LCI Midstream	Midstream Water Source Heat Pump Syster	E21C1c009	1	1	1	0.6	0.6	0.6	6.8	6.8	6.8	-	-	-	-	-	-	-	-	-	-	-
C1c - LCI Midstream	Midstream LED Downlight	E21C1c010	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream LED Exterior	E21C1c011	30	23	15	9.1	6.4	3.8	89.0	62.5	37.1	2.1	1.5	0.9	-	-	-	-	-	-	-	-
C1c - LCI Midstream	Midstream LED High Bay/Low Bay	E21C1c012	150	113	75	108.7	75.0	45.3	1,364.8	942.5	568.7	20.3	13.1	8.4	22.2	14.8	9.2	-	-	-	-	-
C1c - LCI Midstream	Midstream LED Linear Fixture	E21C1c013	250	188	125	27.7	19.1	11.5	304.1	209.6	126.7	4.6	3.0	1.9	5.0	3.3	2.1	-	-	-	-	-
C1c - LCI Midstream	Midstream LED Linear Fixture with Controls	E21C1c014	25	19	13	3.3	2.3	1.4	36.8	25.6	15.3	0.2	0.0	0.1	0.2	0.0	0.1	-	-	-	-	-
C1c - LCI Midstream	Midstream LED Linear Lamp	E21C1c015	600	450	300	36.1	24.8	15.0	379.6	261.0	158.2	5.9	3.8	2.5	6.5	4.3	2.7	-	-	-	-	-
C1c - LCI Midstream	Midstream LED Screw In	E21C1c016	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream LED Stairwell Kit	E21C1c017	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Combination Oven, Electric	E21C1c018	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Convection Oven, Electric	E21C1c019	1	2	2	2.4	4.8	4.8	28.8	57.5	57.5	0.5	1.1	1.1	0.5	1.1	1.1	-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - High Temp Door T	E21C1c020	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - High Temp Multi T	E21C1c021	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - High Temp Pot, Pa	E21C1c022	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - High Temp Single	E21C1c023	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - High Temp Under	E21C1c024	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - Low Temp Door Ty	E21C1c025	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - Low Temp Multi Ta	E21C1c026	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - Low Temp Single T	E21C1c027	4	4	5	40.2	40.2	50.2	803.9	803.9	1,004.9	6.4	6.4	8.0	6.4	6.4	8.0	-	-	-	-	-
C1c - LCI Midstream	Midstream Dishwasher - Low Temp Under C	E21C1c028	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Freezer - Solid Door	E21C1c029	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Freezer -Glass Door	E21C1c030	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Fryer Large Vat, Electric	E21C1c031	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Fryer Standard Vat, Electric	E21C1c032	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Griddle, Electric	E21C1c033	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Hot Food Holding Cabinet 3/4 Si	E21C1c034	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Hot Food Holding Cabinet Full S	E21C1c035	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Hot Food Holding Cabinet Half S	E21C1c036	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Ice Machine Ice Making Head	E21C1c037	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Ice Machine Remote Cond/Split	E21C1c038	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Ice Machine Remote Cond/Split	E21C1c039	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Ice Machine Self Contained	E21C1c040	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Refrigerator - Glass Door	E21C1c041	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Refrigerator - Solid Door	E21C1c042	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Steam Cooker, Electric	E21C1c043	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Heat Pump Water Heater, 120 g	E21C1c044	-	-	-													-	-	-	-	-
C1c - LCI Midstream	Midstream Heat Pump Water Heater, 50 ga	E21C1c045	17	24	30	13.4	18.9	23.6	173.8	245.4	306.8	2.2	3.1	3.9	1.2	1.7	2.1	-	-	-	-	-
C1c - LCI Midstream	Midstream Heat Pump Water Heater, 80 ga	E21C1c046	-	-	-													-	-	-	-	-
	Large Business Energy Solutions Subtotal					**5,666.1**	**7,421.4**	**9,898.3**	**72,746.7**	**96,979.1**	**127,492.4**	**297.5**	**296.4**	**306.5**	**321.0**	**315.1**	**353.6**	**107.4**	**123.9**	**165.3**	**1,074.2**	**1,239.4**	**1,652.6**

Small Business Energy Solutions			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
C2a - SCI Retrofit	Custom Small Compressed Air Retro	E21C2a001	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Hot Water Retro	E21C2a002	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small HVAC Retro	E21C2a003	5	8	13	75.0	114.0	175.5	1,875.0	2,850.0	4,387.5	-	-	-	-	-	-	-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Lighting Retro - Interior	E21C2a004	25	70	75	476.2	1,266.7	1,071.4	4,761.9	12,666.7	10,714.3	-	-	-	-	-	-	-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Lighting Retro - Exterior	E21C2a047	15	15	10	400.0	380.0	200.0	3,600.0	3,420.0	1,800.0	80.0	76.0	53.3	-	-	-	-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Lighting Retro - Controls	E21C2a048	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Motors Retro	E21C2a005	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Process Retro	E21C2a006	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Refrigeration Retro	E21C2a007	12	15	25	48.0	57.0	90.0	576.0	684.0	1,080.0	-	-	-	-	-	-	-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Other Retro	E21C2a008	25	35	50	714.3	950.0	1,285.7	9,285.7	11,400.0	15,428.6	-	-	-	-	-	-	-	-	-	-	-	-
C2a - SCI Retrofit	Daylight Dimming	E21C2a009	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Lighting Fixture - Exterior w/ Controls	E21C2a010	100	5	5	20.3	1.0	1.0	283.7	14.2	14.2	4.1	0.2	0.2	-	-	-	-	-	-	-	-	-
C2a - SCI Retrofit	Lighting Fixture - Exterior w/o Controls	E21C2a011	200	4	4	201.6	4.0	4.0	2,822.4	56.4	56.4	40.3	0.8	0.8	-	-	-	-	-	-	-	-	-
C2a - SCI Retrofit	Lighting Fixture - Interior w/ Controls	E21C2a012	3,500	75	75	630.0	13.5	13.5	7,560.0	162.0	162.0	76.9	1.6	1.6	100.8	2.2	2.2	-	-	-	-	-	-
C2a - SCI Retrofit	Lighting Fixture - Interior w/o Controls	E21C2a013	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Lighting Occupancy Sensors	E21C2a014	500	-	-	78.5			706.3			1.0			1.2			-	-	-	-	-	-
C2a - SCI Retrofit	Boiler Reset Controls, Electric	E21C2a015	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Case Motor Replacement	E21C2a016	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Cooler Night Cover	E21C2a017	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Demand Control Ventilation	E21C2a018	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Door Heater Controls	E21C2a019	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Dual Enthalpy Economizer Controls (DEEC	E21C2a020	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Duct Sealing, Electric	E21C2a021	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Ductless Mini Split Heat Pump	E21C2a022	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	ECM Evaporator Fan Motors for Walk-in Co	E21C2a023	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Electronic Defrost Control	E21C2a024	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Energy Management System, Electric	E21C2a025	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Energy Star Wifi Thermostat, Electric	E21C2a026	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Evaporator Fan Control	E21C2a027	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Faucet Aerator, Electric	E21C2a028	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Hotel Occupancy Sensor	E21C2a031	100	-	-	43.8			438.0			-			-			165.3	-	-	1,652.6	-	-
C2a - SCI Retrofit	Low Pressure Drop Filter	E21C2a032	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Low-Flow Showerhead With Thermostatic V	E21C2a033	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Low-Flow Showerhead, Electric	E21C2a034	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Motors, Open Drip	E21C2a035	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Motors, Totally Enclosed Fan Cooled	E21C2a036	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Novelty Cooler Shutoff	E21C2a037	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Pipe Wrap - Heating, Electric	E21C2a038	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Pipe Wrap - Hot Water, Electric	E21C2a039	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Pre Rinse Spray Valve, Electric	E21C2a040	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Programmable Thermostat, Electric	E21C2a041	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Steam Trap, Electric	E21C2a042	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Variable Frequency Drive	E21C2a043	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Variable Frequency Drive with Motor	E21C2a044	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Vending Miser	E21C2a045	-	-	-													-	-	-	-	-	-
C2a - SCI Retrofit	Zero Loss Condensate Drain	E21C2a046	-	-	-													-	-	-	-	-	-

C2b - SCI New Equipment	Custom Small Compressed Air New	E21C2b001	2	3	4	59.3	88.9	118.5	770.4	1,155.6	1,540.7	-	-	-	-	-	-	-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Hot Water New	E21C2b002	4	5	6	53.3	63.3	64.0	800.0	950.0	960.0	10.5	12.5	15.7	4.0	4.8	6.1	-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small HVAC New	E21C2b003	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Lighting New - Interior	E21C2b004	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Lighting New - Exterior	E21C2b054	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Lighting New - Controls	E21C2b055	4	4	5	26.7	25.3	25.0	186.7	177.3	175.0	0.3	0.3	0.4	0.4	0.4	0.5	-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Motors New	E21C2b005	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Process New	E21C2b006	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Refrigeration New	E21C2b007	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Other New	E21C2b008	12	18	23	450.0	641.3	776.3	5,850.0	8,336.3	10,091.3	-	-	-	-	-	-	-	-	-	-	-	-
C2b - SCI New Equipment	Custom Small Comprehensive Design	E21C2b052	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Daylight Dimming	E21C2b009	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Performance Lighting - Exterior w/ Controls	E21C2b010	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Performance Lighting - Exterior w/o Control	E21C2b011	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Performance Lighting - Interior w/ Controls	E21C2b012	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Performance Lighting - Interior w/o Controls	E21C2b013	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Lighting Occupancy Sensors	E21C2b014	20	30	40	1.7	2.5	3.3	16.7	25.0	33.3	0.0	0.0	0.0	0.0	0.0	0.1	-	-	-	-	-	-
C2b - SCI New Equipment	Advanced Power Strip	E21C2b015	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Air Compressor	E21C2b016	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Air Nozzle	E21C2b017	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Circulator Pump	E21C2b018	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Combination Oven, Electric	E21C2b019	3	4	5	45.3	60.4	75.5	543.4	724.6	905.7	9.5	12.6	15.8	9.5	12.6	15.8	-	-	-	-	-	-
C2b - SCI New Equipment	Compressor Storage	E21C2b020	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Convection Oven, Electric	E21C2b021	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - High Temp Door Type	E21C2b022	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - High Temp Multi Tank Convey	E21C2b023	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - High Temp Pot, Pan, Utensil	E21C2b024	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - High Temp Single Tank Conv	E21C2b025	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - High Temp Under Counter	E21C2b026	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - Low Temp Door Type	E21C2b027	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - Low Temp Multi Tank Convey	E21C2b028	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - Low Temp Single Tank Conve	E21C2b029	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Dishwasher - Low Temp Under Counter	E21C2b030	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Faucet Aerator, Electric	E21C2b031	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Fryer Large Vat, Electric	E21C2b032	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Fryer Standard Vat, Electric	E21C2b033	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Griddle, Electric	E21C2b034	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Ground Source Heat Pump	E21C2b035	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Hot Food Holding Cabinet 3/4 Size	E21C2b036	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Hot Food Holding Cabinet Full Size	E21C2b037	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Hot Food Holding Cabinet Half Size	E21C2b038	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Ice Machine - Ice Making Head	E21C2b039	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Ice Machine - Remote Cond./Split Unit - Ba	E21C2b040	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Ice Machine - Remote Cond./Split Unit - Co	E21C2b041	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Ice Machine - Self Contained	E21C2b042	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Low Pressure Drop Filter	E21C2b043	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Low-Flow Showerhead With Thermostatic V	E21C2b044	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Low-Flow Showerhead, Electric	E21C2b045	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Pre Rinse Spray Valve, Electric	E21C2b046	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Refrigerated Air Dryer	E21C2b047	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Steam Cooker, Electric	E21C2b048	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Unitary Air Conditioner	E21C2b049	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Water Source Heat Pump	E21C2b050	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	Zero Loss Condensate Drain	E21C2b051	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	High Efficiency Chiller - FL	E21C2b052	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	High Efficiency Chiller - IPLV	E21C2b053	-	-	-													-	-	-	-	-	-
C2b - SCI New Equipment	C&I Small New Construction Code Compliar	E21C2b057	1	1	1	-	-	10.9	-	-	217.6	-	-	-	-	-	-	-	-	-	-	-	-

C2c - SCI Midstream	Midstream Circulator Pump	E21C2c001	7	8	9	2.7	3.1	3.5	54.2	61.9	69.7	0.0	-	0.0	0.3	-	0.3	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Demand Control Ventilation	E21C2c002	-	5	-		-			-			-			-		-	-	-	-	-	-
C2c - SCI Midstream	Midstream DMSHP Systems	E21C2c003	4	5	6	2.8	3.4	4.1	33.0	41.3	49.5	-	-	-	0.1	-	0.2	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dual Enthalpy Economizer Contr	E21C2c004	2	3	3	2.2	3.2	3.2	21.5	32.3	32.3	-	-	-	0.1	-	0.2	-	-	-	-	-	-
C2c - SCI Midstream	Midstream ECM Fan Motors	E21C2c005	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Heat Pump Systems	E21C2c006	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Unitary Air Conditioners	E21C2c007	8	9	10	25.7	28.9	32.1	308.0	346.5	385.0	-	-	-	1.3	1.5	1.6	-	-	-	-	-	-
C2c - SCI Midstream	Midstream VRF	E21C2c008	4	5	5	30.3	37.8	37.8	605.0	756.3	756.3	-	-	-	-	-	-	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Water Source Heat Pump Syste	E21C2c009	7	8	9	4.0	4.6	5.1	47.8	54.6	61.4	-	-	-	-	-	-	-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED Downlight	E21C2c010	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED Exterior	E21C2c011	175	131	88	53.3	36.6	22.2	519.0	356.1	216.2	12.2	8.4	5.1	-	-	-	-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED High Bay/Low Bay	E21C2c012	750	563	375	543.3	373.9	226.4	6,824.1	4,695.7	2,843.4	101.4	65.5	42.2	111.0	73.6	46.2	-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED Linear Fixture	E21C2c013	1,500	1,125	750	166.0	114.2	69.2	1,824.8	1,254.5	760.3	27.4	17.7	11.4	30.0	19.9	12.5	-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED Linear Fixture with Controls	E21C2c014	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED Linear Lamp	E21C2c015	3,000	2,250	1,500	180.3	123.9	75.1	1,898.2	1,305.0	790.9	29.7	19.2	12.4	32.5	21.6	13.6	-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED Screw In	E21C2c016	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream LED Stairwell Kit	E21C2c017	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Combination Oven, Electric	E21C2c018	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Convection Oven, Electric	E21C2c019	1	1	1	2.4	2.4	2.4	28.8	28.8	28.8	0.5	0.5	0.5	0.5	0.5	0.5	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dishwasher - High Temp Door T	E21C2c020	1	1	3	3.6	3.6	10.7	53.5	53.5	160.6	0.6	0.6	1.7	0.6	0.6	1.7	25.2	25.2	75.6	378.0	378.0	1,134.0
C2c - SCI Midstream	Midstream Dishwasher - High Temp Multi T	E21C2c021	-	1	1		8.3	8.3		165.6	165.6		1.3	1.3		1.3	1.3	-	58.0	58.0	-	1,160.0	1,160.0
C2c - SCI Midstream	Midstream Dishwasher - High Temp Pot, Pa	E21C2c022	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dishwasher - High Temp Single	E21C2c023	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dishwasher - High Temp Under	E21C2c024	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dishwasher - Low Temp Door Ty	E21C2c025	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dishwasher - Low Temp Multi Ta	E21C2c026	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dishwasher - Low Temp Single T	E21C2c027	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Dishwasher - Low Temp Under C	E21C2c028	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Freezer - Solid Door	E21C2c029	3	3	3	0.5	0.5	0.5	6.6	6.6	6.6	2.1	2.1	2.1	2.1	2.1	2.1	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Freezer -Glass Door	E21C2c030	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Fryer Large Vat, Electric	E21C2c031	3	3	6	7.3	7.3	14.7	88.0	88.0	175.9	1.2	1.2	2.3	1.2	1.2	2.3	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Fryer Standard Vat, Electric	E21C2c032	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Griddle, Electric	E21C2c033	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Hot Food Holding Cabinet 3/4 Si	E21C2c034	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Hot Food Holding Cabinet Full S	E21C2c035	-	1	2		2.4	4.7		28.2	56.5		0.4	0.8		0.4	0.8	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Hot Food Holding Cabinet Half S	E21C2c036	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Ice Machine Ice Making Head	E21C2c037	10	10	12	9.6	9.6	11.5	76.8	76.8	92.2	2.3	2.3	2.8	2.3	2.3	2.8	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Ice Machine Remote Cond/Split	E21C2c038	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Ice Machine Remote Cond/Split	E21C2c039	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Ice Machine Self Contained	E21C2c040	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Refrigerator - Glass Door	E21C2c041	1	1	1	0.1	0.1	0.1	1.8	1.8	1.8	0.5	0.5	0.5	0.5	0.5	0.5	-	-	-	-	-	-
C2c - SCI Midstream	Midstream Refrigerator - Solid Door	E21C2c042	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Steam Cooker, Electric	E21C2c043	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Heat Pump Water Heater, 120 g	E21C2c044	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Heat Pump Water Heater, 50 ga	E21C2c045	-	-	-													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Heat Pump Water Heater, 80 ga	E21C2c046	-	-	-													-	-	-	-	-	-
	Small Business Energy Solutions Subtotal					**4,357.8**	**4,431.7**	**4,446.4**	**52,467.2**	**51,975.7**	**54,219.7**	**400.5**	**223.7**	**171.2**	**298.4**	**145.4**	**111.3**	**190.5**	**83.2**	**133.6**	**2,030.6**	**1,538.0**	**2,294.0**

Municipal Energy Solutions			Quantity			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
C3a - Muni Retrofit	Custom Muni Compressed Air Retro	E21C3a001	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni Hot Water Retro	E21C3a002	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni HVAC Retro	E21C3a003	2	4	4	100.0	190.0	180.0	2,500.0	4,750.0	4,500.0	-	-	-	22.5	45.0	45.0	100.0	200.0	200.0	2,500.0	5,000.0	5,000.0
C3a - Muni Retrofit	Custom Muni Lighting Retro - Interior	E21C3a004	3	-	-	200.0			2,600.0			30.5			40.0			-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni Lighting Retro - Exterior	E21C3a091	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni Lighting Retro - Controls	E21C3a092	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni Motors Retro	E21C3a005	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni Process Retro	E21C3a006	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni Refrigeration Retro	E21C3a007	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Custom Muni Other Retro	E21C3a008	6	6	5	171.4	120.0	100.0	2,228.6	1,560.0	1,300.0	-	-	-	94.5	66.2	78.8	-	-	-	-	-	-
C3a - Muni Retrofit	Daylight Dimming	E21C3a009	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Lighting Fixture - Exterior w/ Controls	E21C3a010	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Lighting Fixture - Exterior w/o Controls	E21C3a011	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Lighting Fixture - Interior w/ Controls	E21C3a012	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Lighting Fixture - Interior w/o Controls	E21C3a013	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Lighting Occupancy Sensors	E21C3a014	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Air Sealing, Electric	E21C3a015	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Air Sealing, Gas	E21C3a016	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Air Sealing, Oil	E21C3a017	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Air Sealing, Propane	E21C3a018	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Boiler Reset Controls, Gas	E21C3a019	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Boiler Reset Controls, Oil	E21C3a020	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Boiler Reset Controls, Propane	E21C3a021	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Case Motor Replacement	E21C3a022	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Cooler Night Cover	E21C3a023	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Demand Control Ventilation	E21C3a024	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Door Heater Controls	E21C3a025	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Dual Enthalpy Economizer Controls (DEEC	E21C3a026	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Insulation, Electric	E21C3a027	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Insulation, Gas	E21C3a028	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Insulation, Oil	E21C3a029	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Insulation, Propane	E21C3a030	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Sealing, Electric	E21C3a031	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Sealing, Gas	E21C3a032	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Sealing, Oil	E21C3a033	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Duct Sealing, Propane	E21C3a034	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Ductless Mini Split Heat Pump	E21C3a035	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	ECM Evaporator Fan Motors for Walk-in Co	E21C3a036	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Electronic Defrost Control	E21C3a037	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Energy Management System, Electric	E21C3a038	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Energy Star Wifi Thermostat, Electric	E21C3a039	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Energy Star Wifi Thermostat, Gas	E21C3a040	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Energy Star Wifi Thermostat, Oil	E21C3a041	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Energy Star Wifi Thermostat, Propane	E21C3a042	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Evaporator Fan Control	E21C3a043	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Faucet Aerator, Electric	E21C3a044	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Faucet Aerator, Gas	E21C3a045	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Faucet Aerator, Oil	E21C3a046	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Faucet Aerator, Propane	E21C3a047	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Hotel Occupancy Sensor	E21C3a050	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Insulation, Electric	E21C3a051	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Insulation, Gas	E21C3a052	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Insulation, Oil	E21C3a053	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Insulation, Propane	E21C3a054	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low Pressure Drop Filter	E21C3a055	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low-Flow Showerhead With Thermostatic V	E21C3a056	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low-Flow Showerhead With Thermostatic V	E21C3a057	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low-Flow Showerhead With Thermostatic V	E21C3a058	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low-Flow Showerhead With Thermostatic V	E21C3a059	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low-Flow Showerhead, Electric	E21C3a060	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low-Flow Showerhead, Gas	E21C3a061	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Low-Flow Showerhead, Oil	E21C3a062	-	-	-													-	-	-	-	-	-

C3a - Muni Retrofit	Low-Flow Showerhead, Propane	E21C3a063	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Motors, Open Drip	E21C3a064	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Motors, Totally Enclosed Fan Cooled	E21C3a065	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Novelty Cooler Shutoff	E21C3a066	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Heating, Electric	E21C3a067	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Heating, Gas	E21C3a068	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Heating, Oil	E21C3a069	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Heating, Propane	E21C3a070	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Hot Water, Electric	E21C3a071	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Hot Water, Gas	E21C3a072	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Hot Water, Oil	E21C3a073	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pipe Wrap - Hot Water, Propane	E21C3a074	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pre Rinse Spray Valve, Electric	E21C3a075	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pre Rinse Spray Valve, Gas	E21C3a076	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pre Rinse Spray Valve, Oil	E21C3a077	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Pre Rinse Spray Valve, Propane	E21C3a078	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Programmable Thermostat, Electric	E21C3a079	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Programmable Thermostat, Gas	E21C3a080	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Programmable Thermostat, Oil	E21C3a081	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Programmable Thermostat, Propane	E21C3a082	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Steam Trap, Electric	E21C3a083	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Steam Trap, Gas	E21C3a084	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Steam Trap, Oil	E21C3a085	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Steam Trap, Propane	E21C3a086	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Variable Frequency Drive	E21C3a087	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Variable Frequency Drive with Motor	E21C3a088	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Vending Miser	E21C3a089	-	-	-													-	-	-	-	-	-
C3a - Muni Retrofit	Zero Loss Condensate Drain	E21C3a090	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Compressed Air New	E21C3b001	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Hot Water New	E21C3b002	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni HVAC New	E21C3b003	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Lighting New - Interior	E21C3b004	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Lighting New - Exterior	E21C3b085	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Lighting New - Controls	E21C3b086	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Motors New	E21C3b005	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Process New	E21C3b006	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Refrigeration New	E21C3b007	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Other New	E21C3b008	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Custom Muni Comprehensive Design	E21C3b083	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Daylight Dimming	E21C3b009	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Performance Lighting - Exterior w/ Controls	E21C3b010	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Performance Lighting - Exterior w/o Control	E21C3b011	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Performance Lighting - Interior w/ Controls	E21C3b012	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Performance Lighting - Interior w/o Controls	E21C3b013	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Lighting Occupancy Sensors	E21C3b014	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Advanced Power Strip	E21C3b015	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Air Compressor	E21C3b016	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Air Nozzle	E21C3b017	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 1000 to 1700 MBH 90 AFUE, Oil	E21C3b018	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 1000 to 1700 MBH 90 AFUE, Propan	E21C3b019	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 1701 to 2000 MBH 85 AFUE, Oil	E21C3b020	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 1701 to 2000 MBH 90 AFUE, Propan	E21C3b021	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 301 to 499 MBH 85 AFUE, Oil	E21C3b022	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 301 to 499 MBH 90 AFUE, Propane	E21C3b023	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 500 to 999 MBH 85 AFUE, Oil	E21C3b024	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler 500 to 999 MBH 90 AFUE, Propane	E21C3b025	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler to 300 MBH 85 AFUE, Oil	E21C3b026	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler to 300 MBH 87 AFUE, Oil	E21C3b027	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler to 300 MBH 90 AFUE, Propane	E21C3b028	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Boiler to 300 MBH 95 AFUE, Propane	E21C3b029	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Circulator Pump	E21C3b030	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Combination Oven, Electric	E21C3b031	-	-	-													-	-	-	-	-	-
C3b - Muni New Equipment	Compressor Storage	E21C3b032	-	-	-													-	-	-	-	-	-

C3b - Muni New Equipment	Condensing Unit Heater up to 300 MBH, Oil	E21C3b033	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Condensing Unit Heater up to 300 MBH, Pr	E21C3b034	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Convection Oven, Electric	E21C3b035	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - High Temp Door Type	E21C3b036	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - High Temp Multi Tank Convey	E21C3b037	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - High Temp Pot, Pan, Utensil	E21C3b038	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - High Temp Single Tank Conv	E21C3b039	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - High Temp Under Counter	E21C3b040	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - Low Temp Door Type	E21C3b041	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - Low Temp Multi Tank Convey	E21C3b042	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - Low Temp Single Tank Conve	E21C3b043	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Dishwasher - Low Temp Under Counter	E21C3b044	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Faucet Aerator, Electric	E21C3b045	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Faucet Aerator, Gas	E21C3b046	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Faucet Aerator, Oil	E21C3b047	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Faucet Aerator, Propane	E21C3b048	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Fryer Large Vat, Electric	E21C3b049	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Fryer Standard Vat, Electric	E21C3b050	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Furnace w/ ECM 85 AFUE up to 150 MBH,	E21C3b051	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Furnace w/ ECM 87 AFUE up to 150 MBH,	E21C3b052	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Furnace w/ ECM 95 AFUE up to 150 MBH,	E21C3b053	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Furnace w/ ECM 97 AFUE up to 150 MBH,	E21C3b054	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Griddle, Electric	E21C3b055	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Ground Source Heat Pump	E21C3b056	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Hot Food Holding Cabinet 3/4 Size	E21C3b057	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Hot Food Holding Cabinet Full Size	E21C3b058	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Hot Food Holding Cabinet Half Size	E21C3b059	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Ice Machine - Ice Making Head	E21C3b060	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Ice Machine - Remote Cond./Split Unit - Ba	E21C3b061	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Ice Machine - Remote Cond./Split Unit - Co	E21C3b062	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Ice Machine - Self Contained	E21C3b063	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Infrared Heater	E21C3b064	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low Pressure Drop Filter	E21C3b065	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead With Thermostatic V	E21C3b066	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead With Thermostatic V	E21C3b067	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead With Thermostatic V	E21C3b068	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead With Thermostatic V	E21C3b069	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead, Electric	E21C3b070	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead, Gas	E21C3b071	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead, Oil	E21C3b072	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Low-Flow Showerhead, Propane	E21C3b073	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Pre Rinse Spray Valve, Electric	E21C3b074	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Pre Rinse Spray Valve, Gas	E21C3b075	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Pre Rinse Spray Valve, Oil	E21C3b076	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Pre Rinse Spray Valve, Propane	E21C3b077	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Refrigerated Air Dryer	E21C3b078	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Steam Cooker, Electric	E21C3b079	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Unitary Air Conditioner	E21C3b080	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Water Source Heat Pump	E21C3b081	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	Zero Loss Condensate Drain	E21C3b082	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	High Efficiency Chiller - FL	E21C3b083	-	-	-													-	-	-	-	-	-	
C3b - Muni New Equipment	High Efficiency Chiller - IPLV	E21C3b084	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Compressed Air Direct Install	E21C3d001	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Hot Water Direct Install	E21C3d002	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni HVAC Direct Install	E21C3d003	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Lighting Direct Install - Interior	E21C3d004	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Lighting Direct Install - Exterio	E21C3d005	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Lighting Direct Install - Contro	E21C3d006	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Motors Direct Install	E21C3d007	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Process Direct Install	E21C3d008	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Refrigeration Direct Install	E21C3d009	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Custom Muni Other Direct Install	E21C3d010	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Daylight Dimming	E21C3d011	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Lighting Fixture - Exterior w/ Controls	E21C3d012	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Lighting Fixture - Exterior w/o Controls	E21C3d013	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Lighting Fixture - Interior w/ Controls	E21C3d014	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Lighting Fixture - Interior w/o Controls	E21C3d015	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Lighting Occupancy Sensors	E21C3d016	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Air Sealing, Electric	E21C3d017	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Air Sealing, Gas	E21C3d018	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Air Sealing, Oil	E21C3d019	-	-	-													-	-	-	-	-	-	
C3d - Muni Direct Install	Air Sealing, Propane	E21C3d020	-	-	-													-	-	-	-	-	-	

C3d - Muni Direct Install	Boiler Reset Controls, Gas	E21C3d021	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Boiler Reset Controls, Oil	E21C3d022	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Boiler Reset Controls, Propane	E21C3d023	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Case Motor Replacement	E21C3d024	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Cooler Night Cover	E21C3d025	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Demand Control Ventilation	E21C3d026	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Door Heater Controls	E21C3d027	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Dual Enthalpy Economizer Controls (DEEC	E21C3d028	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Insulation, Electric	E21C3d029	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Insulation, Gas	E21C3d030	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Insulation, Oil	E21C3d031	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Insulation, Propane	E21C3d032	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Sealing, Electric	E21C3d033	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Sealing, Gas	E21C3d034	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Sealing, Oil	E21C3d035	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Duct Sealing, Propane	E21C3d036	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Ductless Mini Split Heat Pump	E21C3d037	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	ECM Evaporator Fan Motors for Walk-in Co	E21C3d038	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Electronic Defrost Control	E21C3d039	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Energy Management System, Electric	E21C3d040	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Energy Star Wifi Thermostat, Electric	E21C3d041	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Energy Star Wifi Thermostat, Gas	E21C3d042	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Energy Star Wifi Thermostat, Oil	E21C3d043	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Energy Star Wifi Thermostat, Propane	E21C3d044	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Evaporator Fan Control	E21C3d045	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Faucet Aerator, Electric	E21C3d046	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Faucet Aerator, Gas	E21C3d047	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Faucet Aerator, Oil	E21C3d048	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Faucet Aerator, Propane	E21C3d049	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Hotel Occupancy Sensor	E21C3d050	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Insulation, Electric	E21C3d051	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Insulation, Gas	E21C3d052	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Insulation, Oil	E21C3d053	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Insulation, Propane	E21C3d054	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low Pressure Drop Filter	E21C3d055	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead With Thermostatic V	E21C3d056	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead With Thermostatic V	E21C3d057	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead With Thermostatic V	E21C3d058	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead With Thermostatic V	E21C3d059	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead, Electric	E21C3d060	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead, Gas	E21C3d061	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead, Oil	E21C3d062	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Low-Flow Showerhead, Propane	E21C3d063	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Motors, Open Drip	E21C3d064	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Motors, Totally Enclosed Fan Cooled	E21C3d065	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Novelty Cooler Shutoff	E21C3d066	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Heating, Electric	E21C3d067	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Heating, Gas	E21C3d068	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Heating, Oil	E21C3d069	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Heating, Propane	E21C3d070	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Hot Water, Electric	E21C3d071	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Hot Water, Gas	E21C3d072	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Hot Water, Oil	E21C3d073	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pipe Wrap - Hot Water, Propane	E21C3d074	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pre Rinse Spray Valve, Electric	E21C3d075	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pre Rinse Spray Valve, Gas	E21C3d076	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pre Rinse Spray Valve, Oil	E21C3d077	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Pre Rinse Spray Valve, Propane	E21C3d078	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Programmable Thermostat, Electric	E21C3d079	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Programmable Thermostat, Gas	E21C3d080	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Programmable Thermostat, Oil	E21C3d081	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Programmable Thermostat, Propane	E21C3d082	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Steam Trap, Electric	E21C3d083	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Steam Trap, Gas	E21C3d084	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Steam Trap, Oil	E21C3d085	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Steam Trap, Propane	E21C3d086	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Variable Frequency Drive	E21C3d087	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Variable Frequency Drive with Motor	E21C3d088	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Vending Miser	E21C3d089	-	-	-													-	-	-	-	-	-
C3d - Muni Direct Install	Zero Loss Condensate Drain	E21C3d090	-	-	-													-	-	-	-	-	-
	Municipal Energy Solutions Subtotal					**471.4**	**310.0**	**280.0**	**7,328.6**	**6,310.0**	**5,800.0**	**30.5**	**-**	**-**	**157.0**	**111.2**	**123.8**	**100.0**	**200.0**	**200.0**	**2,500.0**	**5,000.0**	**5,000.0**

Unitil Energy System, Inc.
System Benefits Charge ("SBC") Calculation

Residential Sector (includes Low-Income Residential)

Year	EE Total Budget	RGGI Revenues	FCM Revenues	Other Revenues	Prior Year Deferral with Interest	Current Year Interest	SBC Requirement	Forecasted Distribution (kWh)	SBC Rate EE Portion ($/kWh)	SBC Rate EAP Portion ($/kWh)	SBC Rate LBR Portion ($/kWh)	(Jan 1, 21 & 22 & 23) Total SBC Rate ($/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M
2021	$ 4,677,524	$ 56,687	$ 168,524	$ 963,228	$ (465,753)	$ (14,347)	$ 3,008,984	489,122,763	$0.00615	$0.00150	$0.00120	$0.00885
2022	$ 5,158,548	$ 54,463	$ 140,137	$ 1,239,115	$ 879	$ -	$ 3,725,713	482,005,817	$0.00773	$0.00150	$0.00145	$0.01068
2023	$ 5,344,652	$ 52,238	$ 133,129	$ 1,488,459	$ -	$ -	$ 3,670,826	478,409,950	$0.00767	$0.00150	$0.00186	$0.01103

Commercial & Industrial (C&I) Sector

Year	EE Total Budget	RGGI Revenues	FCM Revenues	Other Revenues	Prior Year Deferral with Interest	Current Year Interest	SBC Requirement	Forecasted Distribution (kWh)	SBC Rate EE Portion ($/kWh)	SBC Rate EAP Portion ($/kWh)	SBC Rate LBR Portion ($/kWh)	Total SBC Rate ($/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M
2021	$ 4,891,985	$ 228,000	$ 393,222	$ (963,228)	$ 122,445	$ (11,204)	$ 5,345,233	616,422,193	$0.00867	$0.00150	$0.00129	$0.01146
2022	$ 6,187,942	$ 228,000	$ 326,985	$ (1,239,115)	$ 852	$ -	$ 6,872,924	642,314,405	$0.01070	$0.00150	$0.00121	$0.01341
2023	$ 7,751,441	$ 228,000	$ 310,634	$ (1,488,459)	$ -	$ -	$ 8,701,266	652,689,123	$0.01333	$0.00150	$0.00130	$0.01613

Col. A: Effective year
Col. B: Company Forecast
Col. C: Company Forecast
Col. D: Company Forecast
Col. E: Company Forecast, C&I Funding for Low-Income Program
Col. F: Page 2, Line 15
Col. G: Page 3, Line 14
Col. H: Col. B - Col. C - Col. D - Col. E + Col. F + Col. G
Col. I: Company Forecast
Col. J: Col. H / Col. I
Col. K: EAP Portion of SBC Rate
Col. L: Page 4, Col. G
Col. M: Col. J + Col. K + Col. L

Unitil Energy Systems, Inc.
Energy Efficiency Expense & SBC Revenue Reconciliation
January 1, 2020 to December 31, 2020

		Jan-20 Recast	Feb-20 Recast	Mar-20 Recast	Apr-20 Recast	May-20 Recast	Jun-20 Recast	Jul-20 Estimate	Aug-20 Estimate	Sep-20 Estimate	Oct-20 Estimate	Nov-20 Estimate	Dec-20 Estimate	Total
1	Beginning Balance -- (Over)/Under Recovery	$ (1,154,187)	$ (1,583,066)	$ (1,788,235)	$ (1,888,553)	$ (2,113,676)	$ (2,316,469)	$ (2,565,452)	$ (2,265,308)	$ (1,979,172)	$ (1,723,117)	$ (1,234,261)	$ (805,341)	
2	**Total Costs**	183,721	396,761	490,271	280,126	356,701	336,778	$ 867,844	$ 897,534	$ 934,545	$ 947,018	$ 976,709	$ 1,023,616	$ 7,691,624
	Revenues													
3	Class Sales (Residential inc. LI) -- kWh	47,877,662	43,447,320	41,788,394	36,919,734	34,845,155	43,074,211	42,464,449	49,044,653	47,171,852	31,371,125	34,379,732	44,937,859	497,322,147
	Class Sales (C&I) -- kWh	57,648,909	57,361,500	56,685,607	45,265,444	44,359,715	53,888,841	53,039,214	54,887,862	56,213,703	43,874,345	44,670,644	50,365,956	618,261,740
	Total Class Sales - kWh	105,526,571	100,808,820	98,474,001	82,185,178	79,204,870	96,963,052	95,503,664	103,932,515	103,385,555	75,245,470	79,050,376	95,303,816	1,115,583,887
4	Charge -- $/kWh	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	$ 0.00528	
5	Energy Efficiency Revenues	$ 473,467	$ 532,633	$ 520,570	$ 434,496	$ 418,791	$ 512,651	$ 504,259	$ 548,764	$ 545,876	$ 397,296	$ 417,386	$ 503,204	$ 5,809,393
6	Forward Capacity Market Revenue	$ 62,522	$ 62,965	$ 62,639	$ 62,926	$ 62,996	$ 63,624	$ 56,801	$ 56,801	$ 56,801	$ 56,801	$ 56,801	$ 56,801	$ 718,476
7	RGGI Funding	$ 71,223	$ -	$ -	$ -	$ 68,813	$ -	$ -	$ -	$ 70,889	$ -	$ 70,889	$ -	$ 281,815
8	Other Revenues	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	**Total Revenues**	$ 607,212	$ 595,598	$ 583,209	$ 497,422	$ 550,601	$ 576,275	$ 561,060	$ 605,564	$ 673,565	$ 454,097	$ 545,076	$ 560,005	$ 6,809,684
10	(Over)/Under Recovery (excluding interest)	$ (1,577,677)	$ (1,781,903)	$ (1,881,172)	$ (2,105,849)	$ (2,307,576)	$ (2,555,967)	$ (2,258,668)	$ (1,973,338)	$ (1,718,192)	$ (1,230,196)	$ (802,628)	$ (341,730)	
	Interest Calculation													
11	Average Monthly Balance	$ (1,365,932)	$ (1,682,484)	$ (1,834,703)	$ (1,997,201)	$ (2,210,626)	$ (2,436,218)	$ (2,412,060)	$ (2,119,323)	$ (1,848,682)	$ (1,476,656)	$ (1,018,444)	$ (573,535)	
12	Interest Rate	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
13	Days per Month	31	29	31	30	31	30	31	31	30	31	30	31	366
14	Computed Interest	$ (5,388)	$ (6,331)	$ (7,381)	$ (7,827)	$ (8,894)	$ (9,485)	$ (6,640)	$ (5,834)	$ (4,925)	$ (4,065)	$ (2,713)	$ (1,579)	$ (71,062)
15	**Ending Balance**	$ (1,583,066)	$ (1,788,235)	$ (1,888,553)	$ (2,113,676)	$ (2,316,469)	$ (2,565,452)	$ (2,265,308)	$ (1,979,172)	$ (1,723,117)	$ (1,234,261)	$ (805,341)	$ (343,309)	

Line 1: Prior period ending balance.
Line 2: Page 1, Col. B
Line 3: Company Forecast
Line 4: Page 1, Col. J
Line 5: Line 3 * Line 4
Line 6: Page 1, Col. D
Line 7: Page 1, Col. C
Line 8: Page 1, Col. E.
Line 9: Sum of Lines 5 through 8
Line 10: Line 1 + Line 2 - Line 9
Line 11: (Line 1 + Line 10)/2
Line 12: Prime Rate
Line 14: Line 11 * ((Line 12/# days per year) * Line 13)). March includes interest adjustments for 2017 performance incentive true-ups.
Line 15: Line 10 + Line 14

Unitil Energy Systems, Inc.
Energy Efficiency Expense & SBC Revenue Reconciliation
Residential Sector
January 1, 2021 to December 31, 2021

		Jan-21 Estimate	Feb-21 Estimate	Mar-21 Estimate	Apr-21 Estimate	May-21 Estimate	Jun-21 Estimate	Jul-21 Estimate	Aug-21 Estimate	Sep-21 Estimate	Oct-21 Estimate	Nov-21 Estimate	Dec-21 Estimate	Total
1	Beginning Balance -- (Over)/Under Recovery	$ (465,753)	$ (604,706)	$ (777,581)	$ (826,429)	$ (543,931)	$ (595,652)	$ (462,215)	$ (137,870)	$ (315,128)	$ (324,439)	$ (239,023)	$ (269,826)	
2	**Total Residential Costs**	240,657	196,590	335,529	593,195	240,657	467,731	681,329	240,657	379,596	372,859	284,724	644,000	$ 4,677,524
	Revenues													
3	Class Sales (inc. LI) -- kWh	46,825,059	44,889,222	43,716,625	35,837,589	32,970,684	36,652,577	41,682,485	50,446,340	44,344,475	32,263,800	34,593,108	44,900,799	489,122,763
4	Charge -- $/kWh	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	$ 0.00615	
5	Energy Efficiency Revenues	$ 287,974	$ 276,069	$ 268,857	$ 220,401	$ 202,770	$ 225,413	$ 256,347	$ 310,245	$ 272,719	$ 198,422	$ 212,748	$ 276,140	$ 3,008,105
6	Forward Capacity Market Revenue	$ 14,401	$ 14,401	$ 14,401	$ 14,401	$ 14,401	$ 13,788	$ 13,788	$ 13,788	$ 13,788	$ 13,788	$ 13,788	$ 13,788	$ 168,524
7	RGGI Funding	$ -	$ -	$ 14,172	$ -	$ -	$ 14,172	$ -	$ -	$ 14,172	$ -	$ 14,172	$ -	$ 56,687
8	Other Revenues	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	Low-Income Funding From C&I Sector	$ 75,759	$ 77,274	$ 84,736	$ 74,067	$ 73,636	$ 79,509	$ 86,022	$ 93,258	$ 87,375	$ 74,456	$ 74,140	$ 82,996	$ 963,228
10	**Total Revenues**	$ 378,134	$ 367,744	$ 382,166	$ 308,869	$ 290,807	$ 332,883	$ 356,157	$ 417,291	$ 388,054	$ 286,667	$ 314,848	$ 372,924	$ 4,196,544
11	(Over)/Under Recovery (excluding interest)	$ (603,231)	$ (775,860)	$ (824,218)	$ (542,103)	$ (594,081)	$ (460,804)	$ (137,043)	$ (314,504)	$ (323,586)	$ (238,247)	$ (269,147)	$ 1,250	
	Interest Calculation													
12	Average Monthly Balance	$ (534,492)	$ (690,283)	$ (800,900)	$ (684,266)	$ (569,006)	$ (528,228)	$ (299,629)	$ (226,187)	$ (319,357)	$ (281,343)	$ (254,085)	$ (134,288)	
13	Interest Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
14	Days per Month	31	28	31	30	31	30	31	31	30	31	30	31	365
15	Computed Interest	$ (1,475)	$ (1,721)	$ (2,211)	$ (1,828)	$ (1,571)	$ (1,411)	$ (827)	$ (624)	$ (853)	$ (777)	$ (679)	$ (371)	$ (14,347)
16	**Ending Balance**	$ (604,706)	$ (777,581)	$ (826,429)	$ (543,931)	$ (595,652)	$ (462,215)	$ (137,870)	$ (315,128)	$ (324,439)	$ (239,023)	$ (269,826)	$ 879	

Line 1: Prior period ending balance
Line 2: Page 1, Col. B, Company budget
Line 3: Company Forecast
Line 4: Page 1, Col. J
Line 5: Line 3 * Line 4
Line 6: Page 1, Col. D
Line 7: Page 1, Col. C
Line 8: Page 1, Col. E
Line 9: Page 3a, C&I Funding, Line 12
Line 10: Sum of Lines 5 - 9
Line 11: Line 1 + Line 2 - Line 10
Line 12: (Line 1 + Line 11)/2
Line 13: Prime Rate
Line 15: Line 12 * ((Line 13/# days per year) * Line 14))
Line 16: Line 11 + Line 15

Unitil Energy Systems, Inc.
Energy Efficiency Expense & SBC Revenue Reconciliation
Commercial & Industrial (C&I) Sector
January 1, 2021 to December 31, 2021

		Jan-21 Estimate	Feb-21 Estimate	Mar-21 Estimate	Apr-21 Estimate	May-21 Estimate	Jun-21 Estimate	Jul-21 Estimate	Aug-21 Estimate	Sep-21 Estimate	Oct-21 Estimate	Nov-21 Estimate	Dec-21 Estimate	Total
1	Beginning Balance -- (Over)/Under Recovery	$ 122,445	$ (97,070)	$ (232,330)	$ (444,679)	$ (520,434)	$ (502,766)	$ (461,292)	$ (498,440)	$ (431,076)	$ (287,669)	$ (317,519)	$ (403,058)	
2	**Total C&I Costs**	158,636	250,225	264,600	296,020	387,609	493,573	387,609	524,993	630,957	341,814	341,814	814,135	$ 4,891,985
	Revenues													
3	Class Sales C&I kWh	47,826,525	48,805,207	53,583,677	46,759,599	46,468,649	50,221,509	54,412,029	59,025,743	55,255,824	46,990,413	46,794,308	52,460,383	608,603,868
4	Outdoor Lighting kWh	655,812	646,441	643,518	639,643	655,263	660,735	638,027	655,115	660,391	658,236	652,060	653,084	7,818,326
5	Total Sales	48,482,338	49,451,648	54,227,195	47,399,243	47,123,912	50,882,244	55,050,056	59,680,858	55,916,215	47,648,649	47,446,368	53,113,467	616,422,193
6	Charge -- $/kWh	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	$ 0.00867	
7	Energy Efficiency Revenues	$ 420,342	$ 428,746	$ 470,150	$ 410,951	$ 408,564	$ 441,149	$ 477,284	$ 517,433	$ 484,794	$ 413,114	$ 411,360	$ 460,494	$ 5,344,380
8	Forward Capacity Market Revenue	$ 33,603	$ 33,603	$ 33,603	$ 33,603	$ 33,603	$ 32,172	$ 32,172	$ 32,172	$ 32,172	$ 32,172	$ 32,172	$ 32,172	$ 393,222
9	RGGI Funding	$ -	$ -	$ 57,000	$ -	$ -	$ 57,000	$ -	$ -	$ 57,000	$ -	$ 57,000	$ -	$ 228,000
10	Other Revenues	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	**Total Revenues**	$ 453,945	$ 462,349	$ 560,753	$ 444,554	$ 442,167	$ 530,322	$ 509,456	$ 549,605	$ 573,966	$ 445,286	$ 500,532	$ 492,666	$ 5,965,602
12	Low-Income Funding	$ (75,759)	$ (77,274)	$ (84,736)	$ (74,067)	$ (73,636)	$ (79,509)	$ (86,022)	$ (93,258)	$ (87,375)	$ (74,456)	$ (74,140)	$ (82,996)	$ (963,228)
13	**Net Revenue**	$ 378,186	$ 385,075	$ 476,017	$ 370,488	$ 368,531	$ 450,812	$ 423,435	$ 456,347	$ 486,591	$ 370,830	$ 426,392	$ 409,670	$ 5,002,374
14	(Over)/Under Recovery (excluding interest)	$ (97,105)	$ (231,919)	$ (443,746)	$ (519,147)	$ (501,356)	$ (460,006)	$ (497,117)	$ (429,795)	$ (286,710)	$ (316,685)	$ (402,096)	$ 1,407	
	Interest Calculation													
15	Average Monthly Balance	$ 12,670	$ (164,495)	$ (338,038)	$ (481,913)	$ (510,895)	$ (481,386)	$ (479,205)	$ (464,118)	$ (358,893)	$ (302,177)	$ (359,808)	$ (200,825)	
16	Interest Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
17	Days per Month	31	28	31	30	31	30	31	31	30	31	30	31	365
18	Computed Interest	$ 35	$ (410)	$ (933)	$ (1,287)	$ (1,410)	$ (1,286)	$ (1,323)	$ (1,281)	$ (959)	$ (834)	$ (961)	$ (554)	$ (11,204)
19	**Ending Balance**	$ (97,070)	$ (232,330)	$ (444,679)	$ (520,434)	$ (502,766)	$ (461,292)	$ (498,440)	$ (431,076)	$ (287,669)	$ (317,519)	$ (403,058)	$ 852	

Line 1: Prior period ending balance
Line 2: Page 1, Col. B, Company budget
Lines 3 & 4: Company Forecast
Line 5: Line 3 + Line 4
Line 6: Page 1, Col. J
Line 7: Line 5 * Line 6
Line 8: Page 1, Col. D
Line 9: Page 1, Col. C
Line 11: Sum of Lines 5 through 8
Line 12: LI funding allocation based on sales
Line 13: Line 11- Line 12
Line 14: Line 1 + Line 2 - Line 13
Line 15: (Line 1 + Line 14)/2
Line 16: Prime Rate
Line 18: Line 15 * ((Line 16/# days per year) * Line 17))
Line 19: Line 14 + Line 18

Unitil Energy Systems, Inc.
2021 System Benefits Charge Calculation (LBR Component)

Residential Sector

Year	Forecasted LBR Revenue	Prior Year Deferral with Interest	Current Year Interest	Total LBR Revenue	Forecasted Distribution (kWh)	SBC Rate LBR Portion ($/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G
2021	$ 515,137	$ 71,235	$ 476	$ 586,848	489,122,763	$ 0.00120
2022	$ 700,148	$ (99)	$ -	$ 700,049	482,005,817	$ 0.00145
2023	$ 890,262	$ -	$ -	$ 890,262	478,409,950	$ 0.00186

Commercial & Industrial Sector (C&I)

Year	Forecasted LBR Revenue	Prior Year Deferral with Interest	Current Year Interest	Total LBR Revenue	Forecasted Distribution (kWh)	SBC Rate LBR Portion ($/kWh)
Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G
2021	$ 703,468	$ 88,558	$ 1,297	$ 793,322	616,422,193	$ 0.00129
2022	$ 780,288	$ (1,862)	$ -	$ 778,426	642,314,405	$ 0.00121
2023	$ 847,278	$ -	$ -	$ 847,278	652,689,123	$ 0.00130

Col. A: Effective year
Col. B: Page 5, Line 9, Col. P & Line 21, Col. P
Col. C: Page 7, Line 1, Col. B
Col. D: Page 7, Line 8, Col. O
Col. E: Col. B + Col. C + Col. D
Col. F: Company Forecast
Col. G: Col. E/Col. F

Unitil Energy System, Inc.
Estimated Monthly and Cumulative Savings (kWh& kW) and Lost Base Revenue
January 1, 2020 to December 31, 2020

Line	Description	12/31/2019	Forecast Jan-20	Forecast Feb-20	Forecast Mar-20	Forecast Apr-20	Forecast May-20	Forecast Jun-20	Forecast Jul-20	Forecast Aug-20	Forecast Sep-20	Forecast Oct-20	Forecast Nov-20	Forecast Dec-20	2020 Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Monthly Savings Installation Assumption		6.70%	7.00%	7.30%	7.60%	7.90%	8.20%	8.50%	8.80%	9.10%	9.30%	9.60%	10.00%	
2	Residential Annualized kWh Savings (2020)		215,359	225,002	234,645	244,287	253,930	263,573	273,216	282,859	292,502	298,931	308,574	321,431	3,214,309
3	C&I Annualized kWh Savings (2020)		719,221	751,425	783,629	815,833	848,037	880,241	912,445	944,649	976,853	998,322	1,030,526	1,073,464	10,734,644
4	Total		934,580	976,427	1,018,274	1,060,120	1,101,967	1,143,814	1,185,661	1,227,508	1,269,355	1,297,253	1,339,099	1,394,895	13,948,953
5	C&I Annualized kW Savings (2020)		92	92	92	92	92	92	92	92	92	92	92	92	1,101

			Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Cumulative LBR Savings
6	Monthly Residential kWh Savings		17,947	18,750	19,554	20,357	21,161	21,964	22,768	23,572	24,375	24,911	25,714	26,786	
7	Cumulative Residential kWh Savings	709,903	727,849	746,599	766,153	786,510	807,671	829,636	852,404	875,975	900,351	925,261	950,976	977,762	10,147,148
8	Average Residential Distribution Rate		0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	
9	Lost Residential Revenue		$ 25,897	$ 26,564	$ 27,260	$ 27,984	$ 28,737	$ 29,518	$ 30,329	$ 31,167	$ 32,034	$ 32,921	$ 33,836	$ 34,789	$ 361,036
10	Monthly C&I kWh Savings (2017 & 2018)	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	
11	Average C&I Distribution Rate		0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	
12	Lost C&I Revenue		$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 408,978
13	Monthly C&I kWh Savings (2020)		59,935	62,619	65,302	67,986	70,670	73,353	76,037	78,721	81,404	83,193	85,877	89,455	
14	Cumulative C&I kWh Savings (2019 & 2020)	534,180	594,115	656,733	722,036	790,022	860,692	934,045	1,010,082	1,088,803	1,170,207	1,253,401	1,339,278	1,428,733	
15	Average C&I Distribution Rate (kWh)		0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	
16	Lost C&I Revenue		$ 143	$ 158	$ 173	$ 190	$ 207	$ 224	$ 242	$ 261	$ 281	$ 301	$ 321	$ 343	$ 2,844
17	Monthly C&I kW Savings (2020)		46	46	46	46	46	46	46	46	46	46	46	46	
18	Cumulative C&I Savings (2019 & 2020)	1,140	1,186	1,278	1,370	1,462	1,553	1,645	1,737	1,829	1,921	2,012	2,104	2,196	
19	Average C&I Demand Rate		$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	
20	Lost C&I Demand Revenue		$ 10,867	$ 11,708	$ 12,549	$ 13,389	$ 14,230	$ 15,071	$ 15,911	$ 16,752	$ 17,593	$ 18,433	$ 19,274	$ 20,115	$ 185,892
21	**Total Lost Revenue**		**$ 70,988**	**$ 72,511**	**$ 74,063**	**$ 75,644**	**$ 77,255**	**$ 78,895**	**$ 80,564**	**$ 82,262**	**$ 83,990**	**$ 85,737**	**$ 87,513**	**$ 89,328**	**958,749**

Notes
Line 1: Company Estimate
Line 2: Estimated Savings per DE 17-136
Line 3: Estimated Savings per DE 17-136
Line 4: Line 2 + Line 3
Line 5: Estimated Savings per DE 17-136
Line 6: Line 2 / 12
Line 7: Prior Month Line 7 + Current Month Line 6. 2019 Cumulative savings shown in Col. N from 2019 Annual Report.
Line 8: Page 8, Line 1, Col. 5
Line 9: Line 7 x Line 8
Line 10: Prior Month Line 10. 12/31/18 Cumulative savings shown in Col. N from 2019 Annual Report.
Line 11: Page 8, line 2, column (b)
Line 12: Line 10 x Line 11
Line 13: Line 3/12
Line 14: Prior month Line 14 + current month Line 12. 2019 Cumulative savings shown in Col. N from 2019 Annual Report
Line 15: Page 8 Line 4, Column (a)
Line 16: Line 14 x Line 15
Line 17: Line 5 / 2
Line 18: Prior month Lines 18 + Current month Line 17. 2019 Cumulative savings shown in Col. N from 2019 Annual Report
Line 19: Page 8 Line 4 Column 6
Line 20: Line 18 x Line 19
Line 21: Line 9 + Line 12 + Line 16 + Line 20

Unitil Energy System, Inc.
Estimated Monthly and Cumulative Savings (kWh& kW) and Lost Base Revenue
January 1, 2020 to December 31, 2020
Unitil Energy System, Inc.
Estimated Monthly and Cumulative Savings (kWh& kW) and Lost Base Revenue
January 1, 2021 to December 31, 2021

Line	Description	12/31/2020	Forecast Jan-21	Forecast Feb-21	Forecast Mar-21	Forecast Apr-21	Forecast May-21	Forecast Jun-21	Forecast Jul-21	Forecast Aug-21	Forecast Sep-21	Forecast Oct-21	Forecast Nov-21	Forecast Dec-21	2021 Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Monthly Savings Installation Assumption		6.70%	7.00%	7.30%	7.60%	7.90%	8.20%	8.50%	8.80%	9.10%	9.30%	9.60%	10.00%	
2	Residential Annualized kWh Savings (2021)		363,069	379,326	395,583	411,839	428,096	444,353	460,610	476,867	493,123	503,961	520,218	541,894	5,418,938
3	C&I Annualized kWh Savings (2021)		703,191	734,677	766,164	797,650	829,136	860,622	892,108	923,594	955,081	976,071	1,007,558	1,049,539	10,495,391
4	Total		1,066,260	1,114,003	1,161,746	1,209,489	1,257,232	1,304,975	1,352,718	1,400,461	1,448,204	1,480,033	1,527,776	1,591,433	15,914,330
5	C&I Annualized kW Savings (2021)		65	65	65	65	65	65	65	65	65	65	65	65	776
			12 Jan-21	11 Feb-21	10 Mar-21	9 Apr-21	8 May-21	7 Jun-21	6 Jul-21	5 Aug-21	4 Sep-21	3 Oct-21	2 Nov-21	1 Dec-21	Cumulative LBR Savings
6	Monthly Residential kWh Savings		30,256	31,610	32,965	34,320	35,675	37,029	38,384	39,739	41,094	41,997	43,352	45,158	
7	Cumulative Residential kWh Savings	977,762	1,008,018	1,039,628	1,072,593	1,106,913	1,142,588	1,179,617	1,218,001	1,257,740	1,298,834	1,340,831	1,384,182	1,429,340	14,478,286
8	Average Residential Distribution Rate		0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	
9	Lost Residential Revenue		$ 35,865	$ 36,990	$ 38,163	$ 39,384	$ 40,653	$ 41,971	$ 43,336	$ 44,750	$ 46,213	$ 47,707	$ 49,249	$ 50,856	$ 515,137
10	Monthly C&I kWh Savings (2017 & 2018)	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	
11	Average C&I Distribution Rate		0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	
12	Lost C&I Revenue		$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 408,978
13	Monthly C&I kWh Savings (2021)		58,599	61,223	63,847	66,471	69,095	71,719	74,342	76,966	79,590	81,339	83,963	87,462	
14	Cumulative C&I kWh Savings (2019 to present)	1,428,733	1,487,332	1,548,556	1,612,403	1,678,873	1,747,968	1,819,687	1,894,029	1,970,995	2,050,585	2,131,924	2,215,888	2,303,349	
15	Average C&I Distribution Rate (kWh)		0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	
16	Lost C&I Revenue		$ 357	$ 372	$ 387	$ 403	$ 420	$ 437	$ 455	$ 473	$ 492	$ 512	$ 532	$ 553	$ 5,391
17	Monthly C&I kW Savings (2021)		32	32	32	32	32	32	32	32	32	32	32	32	
18	Cumulative C&I Savings (2019 to present)	2,242	2,274	2,339	2,404	2,468	2,533	2,598	2,662	2,727	2,792	2,857	2,921	2,986	
19	Average C&I Demand Rate		$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	
20	Lost C&I Demand Revenue		$ 20,832	$ 21,424	$ 22,017	$ 22,610	$ 23,203	$ 23,795	$ 24,388	$ 24,981	$ 25,573	$ 26,166	$ 26,759	$ 27,352	$ 289,099
21	Total Lost C&I Revenue		$ 55,270	$ 55,877	$ 56,486	$ 57,094	$ 57,704	$ 58,313	$ 58,924	$ 59,535	$ 60,147	$ 60,759	$ 61,372	$ 61,986	$ 703,468
22	**Total Lost Revenue**		**$ 91,135**	**$ 92,867**	**$ 94,648**	**$ 96,478**	**$ 98,357**	**$ 100,284**	**$ 102,260**	**$ 104,286**	**$ 106,360**	**$ 108,466**	**$ 110,621**	**$ 112,842**	**1,218,605**

Notes
Line 1: Company Estimate
Line 2: Estimated Savings per DE 20-092
Line 3: Estimated Savings per DE 20-092
Line 4: Line 2 + Line 3
Line 5: Estimated Savings per DE 20-092
Line 6: Line 2 / 12
Line 7: Prior Month Line 7 + Current Month Line 6. 2020 Cumulative savings from Page 5, Line 7, Col. N.
Line 8: Page 8, Line 1, Col. 5
Line 9: Line 7 x Line 8
Line 10: Prior Month Line 10. 12/31/18 Cumulative savings from Page 5, Line 10, Col. N.
Line 11: Page 8, line 2, column (b)
Line 12: Line 10 x Line 11
Line 13: Line 3/12
Line 14: Prior month Line 14 + current month Line 12. 2020 Cumulative savings from Page 5, Line 10, Col. N.
Line 15: Page 8 Line 4, Column (a)
Line 16: Line 14 x Line 15
Line 17: Line 5 / 2
Line 18: Prior month Lines 18 + Current month Line 17. 2020 Cumulative savings from Page 5, Line 18, Col. N + Page 5, Line 17, Col. N
Line 19: Page 8 Line 4 Column 6
Line 20: Line 18 x Line 19
Line 21: Line 12 + Line 16 + Line 20
Line 22: Line 9 + Line 21

Unitil Energy System, Inc.
Estimated Monthly and Cumulative Savings (kWh& kW) and Lost Base Revenue
January 1, 2020 to December 31, 2020
Unitil Energy System, Inc.
Estimated Monthly and Cumulative Savings (kWh& kW) and Lost Base Revenue
January 1, 2022 to December 31, 2022

Line	Description	12/31/2021	Forecast Jan-22	Forecast Feb-22	Forecast Mar-22	Forecast Apr-22	Forecast May-22	Forecast Jun-22	Forecast Jul-22	Forecast Aug-22	Forecast Sep-22	Forecast Oct-22	Forecast Nov-22	Forecast Dec-22	2022 Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Monthly Savings Installation Assumption		6.70%	7.00%	7.30%	7.60%	7.90%	8.20%	8.50%	8.80%	9.10%	9.30%	9.60%	10.00%	
2	Residential Annualized Savings (2022)		334,093	349,053	364,012	378,972	393,931	408,890	423,850	438,809	453,769	463,742	478,701	498,647	4,986,468
3	C&I Annualized Savings (2022)		814,921	851,410	887,899	924,388	960,877	997,366	1,033,855	1,070,344	1,106,834	1,131,160	1,167,649	1,216,301	12,163,006
4	Total		1,149,015	1,200,463	1,251,912	1,303,360	1,354,808	1,406,257	1,457,705	1,509,154	1,560,602	1,594,901	1,646,349	1,714,947	17,149,473
5	C&I Annualized kW Savings (2022)		48	48	48	48	48	48	48	48	48	48	48	48	572
			Jan-22	**Feb-22**	**Mar-22**	**Apr-22**	**May-22**	**Jun-22**	**Jul-22**	**Aug-22**	**Sep-22**	**Oct-22**	**Nov-22**	**Dec-22**	**Cumulative LBR Savings**
6	Monthly Residential kWh Savings		27,841	29,088	30,334	31,581	32,828	34,074	35,321	36,567	37,814	38,645	39,892	41,554	
7	Cumulative Residential kWh Savings	1,429,340	1,457,181	1,486,269	1,516,603	1,548,184	1,581,012	1,615,086	1,650,407	1,686,974	1,724,788	1,763,433	1,803,325	1,844,879	19,678,142
8	Average Residential Distribution Rate		0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	
9	Lost Residential Revenue		$ 51,847	$ 52,881	$ 53,961	$ 55,084	$ 56,252	$ 57,465	$ 58,721	$ 60,023	$ 61,368	$ 62,743	$ 64,162	$ 65,641	$ 700,148
10	Monthly C&I kWh Savings (2017 & 2018)	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	
11	Average C&I Distribution Rate		0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	
12	Lost C&I Revenue		$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 408,978
13	Monthly C&I kWh Savings (2022)		67,910	70,951	73,992	77,032	80,073	83,114	86,155	89,195	92,236	94,263	97,304	101,358	
14	Cumulative C&I kWh Savings (2019 to present)	2,303,349	2,371,259	2,442,210	2,516,202	2,593,234	2,673,307	2,756,421	2,842,576	2,931,771	3,024,007	3,118,271	3,215,575	3,316,933	
15	Average C&I Distribution Rate (kWh)		0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	
16	Lost C&I Revenue		$ 569	$ 586	$ 604	$ 622	$ 642	$ 662	$ 682	$ 704	$ 726	$ 748	$ 772	$ 796	$ 8,112
17	Monthly C&I kW Savings (2022)		24	24	24	24	24	24	24	24	24	24	24	24	
18	Cumulative C&I kW Savings (2019 to present)	3,018	3,042	3,090	3,137	3,185	3,233	3,280	3,328	3,376	3,423	3,471	3,519	3,566	
19	Average C&I Demand Rate		$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	
20	Lost C&I Demand Revenue		$ 27,866	$ 28,303	$ 28,739	$ 29,175	$ 29,612	$ 30,048	$ 30,485	$ 30,921	$ 31,358	$ 31,794	$ 32,230	$ 32,667	$ 363,198
21	Total Lost C&I Revenue		$ 62,517	$ 62,970	$ 63,424	$ 63,879	$ 64,335	$ 64,791	$ 65,248	$ 65,706	$ 66,165	$ 66,624	$ 67,084	$ 67,544	$ 780,288
22	**Total Lost Revenue**		**$ 114,363**	**$ 115,852**	**$ 117,385**	**$ 118,964**	**$ 120,587**	**$ 122,256**	**$ 123,970**	**$ 125,729**	**$ 127,533**	**$ 129,367**	**$ 131,246**	**$ 133,185**	**1,480,436**

Notes
Line 1: Company Estimate
Line 2: Estimated Savings per DE 20-092
Line 3: Estimated Savings per DE 20-092
Line 4: Line 2 + Line 3
Line 5: Estimated Savings per DE 20-092
Line 6: Line 2 / 12
Line 7: Prior Month Line 7 + Current Month Line 6. 2021 Cumulative savings from Page 5a, Line 7, Col. N.
Line 8: Page 8, Line 1, Col. 5
Line 9: Line 7 x Line 8
Line 10: Prior Month Line 10. 12/31/18 Cumulative savings from Page 5a, Line 10, Col. N.
Line 11: Page 8, line 2, column (b)
Line 12: Line 10 x Line 11
Line 13: Line 3/12
Line 14: Prior month Line 14 + current month Line 12. 2021 Cumulative savings from Page 5a, Line 10, Col. N.
Line 15: Page 8 Line 4, Column (a)
Line 16: Line 14 x Line 15
Line 17: Line 5 / 2
Line 18: Prior month Lines 18 + Current month Line 17. 2021 Cumulative savings from Page 5a, Line 18, Col. N + Page 5a, Line 17, Col. N
Line 19: Page 8 Line 4 Column 6
Line 20: Line 18 x Line 19
Line 21: Line 12 + Line 16 + Line 20
Line 22: Line 9 + Line 21

Unitil Energy System, Inc.
Estimated Monthly and Cumulative Savings (kWh& kW) and Lost Base Revenue
January 1, 2020 to December 31, 2020
Unitil Energy System, Inc.
Estimated Monthly and Cumulative Savings (kWh& kW) and Lost Base Revenue
January 1, 2023 to December 31, 2023

Line	Description	12/31/2022	Forecast Jan-23	Forecast Feb-23	Forecast Mar-23	Forecast Apr-23	Forecast May-23	Forecast Jun-23	Forecast Jul-23	Forecast Aug-23	Forecast Sep-23	Forecast Oct-23	Forecast Nov-23	Forecast Dec-23	2023 Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Monthly Savings Installation Assumption		6.70%	7.00%	7.30%	7.60%	7.90%	8.20%	8.50%	8.80%	9.10%	9.30%	9.60%	10.00%	
2	Residential Annualized Savings (2023)		381,284	398,356	415,429	432,501	449,574	466,646	483,718	500,791	517,863	529,245	546,317	569,081	5,690,806
3	C&I Annualized Savings (2023)		979,853	1,023,727	1,067,601	1,111,475	1,155,349	1,199,223	1,243,097	1,286,972	1,330,846	1,360,095	1,403,969	1,462,468	14,624,676
4	Total		1,361,137	1,422,084	1,483,030	1,543,977	1,604,923	1,665,870	1,726,816	1,787,762	1,848,709	1,889,340	1,950,286	2,031,548	20,315,482
5	C&I Annualized kW Savings (2023)		49	49	49	49	49	49	49	49	49	49	49	49	589

Line			Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Cumulative LBR Savings
6	Monthly Residential kWh Savings		31,774	33,196	34,619	36,042	37,464	38,887	40,310	41,733	43,155	44,104	45,526	47,423	
7	Cumulative Residential kWh Savings	1,844,879	1,876,653	1,909,849	1,944,468	1,980,510	2,017,974	2,056,862	2,097,171	2,138,904	2,182,059	2,226,163	2,271,689	2,319,113	25,021,415
8	Average Residential Distribution Rate		0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	0.03558	
9	Lost Residential Revenue		$ 66,771	$ 67,952	$ 69,184	$ 70,467	$ 71,800	$ 73,183	$ 74,617	$ 76,102	$ 77,638	$ 79,207	$ 80,827	$ 82,514	$ 890,262
10	Monthly C&I kWh Savings (2017 & 2018)	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	1,059,418	
11	Average C&I Distribution Rate		0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	0.03217	
12	Lost C&I Revenue		$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 34,081	$ 408,978
13	Monthly C&I kWh Savings (2023)		81,654	85,311	88,967	92,623	96,279	99,935	103,591	107,248	110,904	113,341	116,997	121,872	
14	Cumulative C&I kWh Savings (2019 to present)	3,316,933	3,398,587	3,483,898	3,572,865	3,665,488	3,761,767	3,861,702	3,965,294	4,072,541	4,183,445	4,296,786	4,413,784	4,535,656	
15	Average C&I Distribution Rate (kWh)		0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024	
16	Lost C&I Revenue		$ 816	$ 836	$ 857	$ 880	$ 903	$ 927	$ 952	$ 977	$ 1,004	$ 1,031	$ 1,059	$ 1,089	$ 11,331
17	Monthly C&I kW Savings (2023)		25	25	25	25	25	25	25	25	25	25	25	25	
18	Cumulative C&I kW Savings (2019 to present)	3,590	3,615	3,664	3,713	3,762	3,811	3,860	3,909	3,958	4,007	4,056	4,105	4,154	
19	Average C&I Demand Rate		$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	$ 9.16	
20	Lost C&I Demand Revenue		$ 33,110	$ 33,559	$ 34,008	$ 34,458	$ 34,907	$ 35,356	$ 35,805	$ 36,255	$ 36,704	$ 37,153	$ 37,603	$ 38,052	$ 426,969
21	Total Lost C&I Revenue		$ 68,007	$ 68,477	$ 68,947	$ 69,419	$ 69,891	$ 70,364	$ 70,839	$ 71,314	$ 71,790	$ 72,266	$ 72,743	$ 73,222	$ 847,278
22	**Total Lost Revenue**		**$ 134,778**	**$ 136,429**	**$ 138,131**	**$ 139,885**	**$ 141,691**	**$ 143,548**	**$ 145,456**	**$ 147,416**	**$ 149,427**	**$ 151,473**	**$ 153,570**	**$ 155,736**	**1,737,540**

Notes
Line 1: Company Estimate
Line 2: Estimated Savings per DE 20-092
Line 3: Estimated Savings per DE 20-092
Line 4: Line 2 + Line 3
Line 5: Estimated Savings per DE 20-092
Line 6: Line 2 / 12
Line 7: Prior Month Line 7 + Current Month Line 6. 2022 Cumulative savings from Page 5b, Line 7, Col. N.
Line 8: Page 8, Line 1, Col. 5
Line 9: Line 7 x Line 8
Line 10: Prior Month Line 10. 12/31/18 Cumulative savings from Page 5b, Line 10, Col. N.
Line 11: Page 8, line 2, column (b)
Line 12: Line 10 x Line 11
Line 13: Line 3/12
Line 14: Prior month Line 14 + current month Line 12. 2022 Cumulative savings from Page 5b, Line 10, Col. N.
Line 15: Page 8 Line 4, Column (a)
Line 16: Line 14 x Line 15
Line 17: Line 5 / 2
Line 18: Prior month Lines 18 + Current month Line 17. 2022 Cumulative savings from Page 5b, Line 18, Col. N + Page 5b, Line 17, Col. N
Line 19: Page 8 Line 4 Column 6
Line 20: Line 18 x Line 19
Line 21: Line 12 + Line 16 + Line 20
Line 22: Line 9 + Line 21

Unitil Energy System, Inc.
Lost Base Revenue Reconciliation
January 1, 2020 to December 31, 2020

Line	Description	Recast Jan-20	Recast Feb-20	Recast Mar-20	Recast Apr-20	Recast May-20	Recast Jun-20	Estimate Jul-20	Estimate Aug-20	Estimate Sep-20	Estimate Oct-20	Estimate Nov-20	Estimate Dec-20	2020 Total
Total		Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N
1	Beginning Balance	$ 13,489	$ 17,774	$ 15,688	$ 16,840	$ 31,669	$ 50,375	$ 57,608	$ 67,672	$ 73,217	$ 80,907	$ 111,226	$ 140,576	
2	Lost Revenues	$ 70,988	$ 72,511	$ 74,063	$ 75,644	$ 77,255	$ 78,895	$ 80,564	$ 82,262	$ 83,990	$ 85,737	$ 87,513	$ 89,328	$ 958,749
	REVENUE													
3	Revenue ($)	$ 66,767	$ 74,660	$ 72,976	$ 60,910	$ 58,713	$ 71,871	$ 70,673	$ 76,910	$ 76,505	$ 55,682	$ 58,497	$ 70,525	$ 814,689
4	Cumulative (Over)/Under Recovery	$ 17,711	$ 15,625	$ 16,775	$ 31,574	$ 50,210	$ 57,399	$ 67,500	$ 73,024	$ 80,702	$ 110,962	$ 140,241	$ 159,379	
	INTEREST													
5	Average Monthly Balance	$ 15,600	$ 16,699	$ 16,231	$ 24,207	$ 40,939	$ 53,887	$ 62,554	$ 70,348	$ 76,960	$ 95,934	$ 125,734	$ 149,978	
6	Interest Rate	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
7	Days per Month	31	29	31	30	31	30	31	31	30	31	30	31	366
8	Computed Interest	$ 63	$ 63	$ 65	$ 94	$ 165	$ 210	$ 172	$ 194	$ 205	$ 264	$ 335	$ 413	$ 2,242
9	**Ending Balance (Over)/Under Recovery**	$ 17,774	$ 15,688	$ 16,840	$ 31,669	$ 50,375	$ 57,608	$ 67,672	$ 73,217	$ 80,907	$ 111,226	$ 140,576	$ 159,792	
10	Class Sales (Residential inc. LI) -- kWh	47,877,662	43,447,320	41,788,394	36,919,734	34,845,155	43,074,211	42,464,449	49,044,653	47,171,852	31,371,125	34,379,732	44,937,859	497,322,147
11	Class Sales (C&I) -- kWh	57,648,909	57,361,500	56,685,607	45,265,444	44,359,715	53,888,841	53,039,214	54,887,862	56,213,703	43,874,345	44,670,644	50,365,956	618,261,740
12	Total Class Sales - kWh	105,526,571	100,808,820	98,474,001	82,185,178	79,204,870	96,963,052	95,503,664	103,932,515	103,385,555	75,245,470	79,050,376	95,303,816	1,115,583,887

Line 1: Prior period ending balance

Line 2: Page 5, Line 21

Line 3: Estimated revenue

Line 4: Line 1 + Line 2 - Line 3

Line 5: (Line 1 + Line 4)/2

Line 6: Prime Rate

Line 8: Line 7 * ((Line 5/# days per year) * Line 9))

Line 9: Line 4 + Line 8

Unitil Energy System, Inc.
Lost Base Revenue Reconciliation
January 1, 2021 to December 31, 2021

Line	Description	Estimate Jan-21	Estimate Feb-21	Estimate Mar-21	Estimate Apr-21	Estimate May-21	Estimate Jun-21	Estimate Jul-21	Estimate Aug-21	Estimate Sep-21	Estimate Oct-21	Estimate Nov-21	Estimate Dec-21	2021 Total
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N
Residential Sector														
1	Beginning Balance	$ 71,235	$ 51,078	$ 34,308	$ 20,086	$ 16,513	$ 17,649	$ 15,681	$ 9,032	$ (6,750)	$ (13,778)	$ (4,813)	$ 2,922	
2	Lost Revenues	$ 35,865	$ 36,990	$ 38,163	$ 39,384	$ 40,653	$ 41,971	$ 43,336	$ 44,750	$ 46,213	$ 47,707	$ 49,249	$ 50,856	$ 515,137
	REVENUE													
3	Revenue ($)	$ 56,190	$ 53,867	$ 52,460	$ 43,005	$ 39,565	$ 43,983	$ 50,019	$ 60,536	$ 53,213	$ 38,717	$ 41,512	$ 53,881	$ 586,947
4	Cumulative (Over)/Under Recovery	$ 50,910	$ 34,201	$ 20,011	$ 16,464	$ 17,602	$ 15,636	$ 8,998	$ (6,753)	$ (13,750)	$ (4,788)	$ 2,924	$ (103)	
	INTEREST													
5	Average Monthly Balance	$ 61,072	$ 42,640	$ 27,159	$ 18,275	$ 17,057	$ 16,643	$ 12,340	$ 1,140	$ (10,250)	$ (9,283)	$ (945)	$ 1,409	
6	Interest Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
7	Days per Month	31	28	31	30	31	30	31	31	30	31	30	31	365
8	Computed Interest	$ 169	$ 106	$ 75	$ 49	$ 47	$ 44	$ 34	$ 3	$ (27)	$ (26)	$ (3)	$ 4	$ 476
9	**Ending Balance (Over)/Under Recovery**	$ 51,078	$ 34,308	$ 20,086	$ 16,513	$ 17,649	$ 15,681	$ 9,032	$ (6,750)	$ (13,778)	$ (4,813)	$ 2,922	$ (99)	
10	Class Sales (Residential inc. LI) -- kWh	46,825,059	44,889,222	43,716,625	35,837,589	32,970,684	36,652,577	41,682,485	50,446,340	44,344,475	32,263,800	34,593,108	44,900,799	489,122,763

Line	Description	Estimate Jan-21	Estimate Feb-21	Estimate Mar-21	Estimate Apr-21	Estimate May-21	Estimate Jun-21	Estimate Jul-21	Estimate Aug-21	Estimate Sep-21	Estimate Oct-21	Estimate Nov-21	Estimate Dec-21	2021 Total
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N
Commercial & Industrial Sector (C&I)														
1	Beginning Balance	$ 88,558	$ 81,520	$ 73,798	$ 60,516	$ 56,621	$ 53,687	$ 46,496	$ 34,517	$ 17,135	$ 5,180	$ 4,486	$ 4,664	
2	Lost Revenues	$ 55,270	$ 55,877	$ 56,486	$ 57,094	$ 57,704	$ 58,313	$ 58,924	$ 59,535	$ 60,147	$ 60,759	$ 61,372	$ 61,986	$ 703,468
	REVENUE													
3	Revenue ($)	$ 62,542	$ 63,793	$ 69,953	$ 61,145	$ 60,790	$ 65,638	$ 71,015	$ 76,988	$ 72,132	$ 61,467	$ 61,206	$ 68,516	$ 795,185
4	Cumulative (Over)/Under Recovery	$ 81,285	$ 73,605	$ 60,331	$ 56,465	$ 53,535	$ 46,362	$ 34,405	$ 17,064	$ 5,150	$ 4,472	$ 4,652	$ (1,866)	
	INTEREST													
5	Average Monthly Balance	$ 84,922	$ 77,562	$ 67,064	$ 58,490	$ 55,078	$ 50,024	$ 40,451	$ 25,790	$ 11,143	$ 4,826	$ 4,569	$ 1,399	
6	Interest Rate	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
7	Days per Month	31	28	31	30	31	30	31	31	30	31	30	31	365
8	Computed Interest	$ 234	$ 193	$ 185	$ 156	$ 152	$ 134	$ 112	$ 71	$ 30	$ 13	$ 12	$ 4	$ 1,297
9	**Ending Balance**	$ 81,520	$ 73,798	$ 60,516	$ 56,621	$ 53,687	$ 46,496	$ 34,517	$ 17,135	$ 5,180	$ 4,486	$ 4,664	$ (1,862)	
10	Class Sales (C&I) -- kWh	48,482,338	49,451,648	54,227,195	47,399,243	47,123,912	50,882,244	55,050,056	59,680,858	55,916,215	47,648,649	47,446,368	53,113,467	616,422,193

Line 1: Prior period ending balance allocated by sales %
Line 2: Page 5, Line 12
Line 3: Estimated revenue
Line 4: Line 1 + Line 2 - Line 3
Line 5: (Line 1 + Line 4)/2
Line 6: Prime Rate
Line 8: Line 7 * ((Line 5/# days per year) * Line 9))
Line 9: Line 4 + Line 8

Unitil Energy Systems, Inc.
Calculation of Forecasted Average Distribution Rate for Lost Revenue
Based on Actual Billing Determinants for January - December 2019 and Distribution Rates effective May 1, 2019

		(1)	(2)	(3)	(4)	(5)	(6) = (1) / (4)	(7) = (2) / (5)	(8) = (3) / (5)
		Revenue*			Units				
	Rate Class	Demand Charges	kWh Charges	Total Demand and kWh Charges	Delivery kW	Delivery kWh	Average Distribution Rate $/kW	Average Distribution Rate $/kWh[(a)]	Average Distribution Rate $/kWh[(b)]
1	**Residential D**	$ -	$ 17,218,197	$ 17,218,197	-	483,929,101	**N/A**	**N/A**	**$ 0.03558**
2	Regular General G2	$ 13,817,475	$ 162,786	$ 13,980,261	1,316,550	342,782,066	10.50	$ 0.00047	$ 0.04078
3	Large General Service Rate G1	$ 7,590,823	$ -	$ 7,590,823	1,021,630	327,838,600	7.43	$ -	$ 0.02315
4	**Commercial and Industrial**	$ 21,408,298	$ 162,786	$ 21,571,084	2,338,180	670,620,666	**$ 9.16**	**$ 0.00024**	**$ 0.03217**

Note: See page 10 for details.
* Revenues include demand charges and kWh charges only.
Customer, meter and per luminaire charges are excluded.
(a) For 2019 & 2020 C&I Savings.
(b) For 2017 & 2018 C&I Savings (in 2020 calculation).

Bill Impacts of Changes in System Benefits Charge - Unitil Energy Systems, Inc.

Rates Proposed for Effect January 1, 2021, January 1, 2022 & January 1, 2023

	2020	2021	2022	2023
System Benefits Charge ($/kWh) Residential	$ 0.00752	$ 0.00885	$ 0.01068	$ 0.01103
System Benefits Charge ($/kWh) C&I	$ 0.00752	$ 0.01146	$ 0.01341	$ 0.01613
Bill per month, including UES Default Service Charge				
Residential Rate R (625 kWh/month)	$ 109.78	$ 110.61	$ 111.75	$ 111.97
General Service Rate G, three-phase service (40 kW, 10,000 kWh/month)	$ 1,479.39	$ 1,492.71	$ 1,511.01	$ 1,514.53
Change from previous rate level - $ per month				
Residential Rate R (625 kWh/month)		$ 0.83	$ 1.14	$ 0.22
General Service Rate G, three-phase service (40 kW, 10,000 kWh/month)		$ 13.32	$ 18.30	$ 3.52
Change from previous rate level - %				
Residential Rate R (625 kWh/month)		0.8%	1.0%	0.2%
General Service Rate G, three-phase service (40 kW, 10,000 kWh/month)		0.9%	1.2%	0.2%

Unitil Energy Systems, Inc.
Calculation of Distribution Revenue at the Rate Level Effective January 1, 2019 - December 31, 2019
Based on Billing Determinants for the Twelve Months Ending December 31, 2018

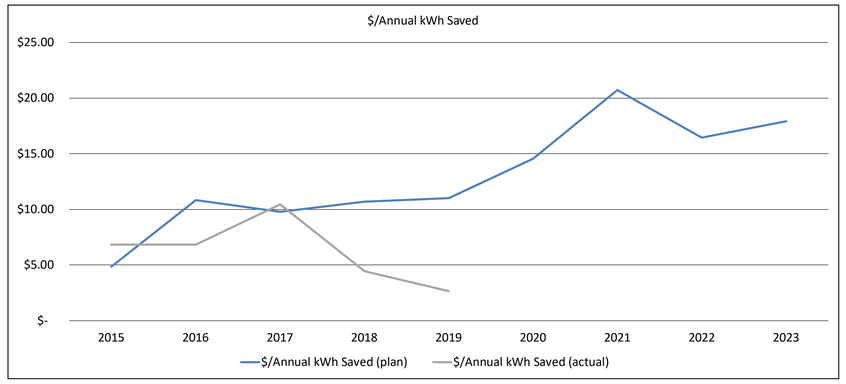
Rate Class	Customer Group		(a) 05/01/2019 Monthly Distribution Charge	(b) Jan - Dec Billing Determinants	(c) Calculated Revenue = (a) X (b) Customer/ Meter/ Luminaire	Demand	kWh	Total
Residential Rate R	Standard Rate	Customer Charge	$ 16.22	808,335	$ 13,111,194			
		All kWh	$ 0.03558	483,929,101			$ 17,218,197	$ 30,329,391
Total Rate R		**Customers**		**808,335**				
		Meters		**n/a**				
		KWH		**483,929,101**				
		Revenue			**$ 13,111,194**	**$ -**	**$ 17,218,197**	**$ 30,329,391**
General Rate G2	Standard Rate	Customer Charge	$ 29.19	125,661	$ 3,668,045			
		Demand charge (All KW)	$ 10.51	1,316,550		$ 13,836,941		
		All KWH	$ -	337,338,818			$ -	
		Transformer Ownership Credit, G2	$ (0.50000)	38,931		$ (19,466)		$ 17,485,520
	G2 - kWh Meter	Customer Charge	$ 18.38	4,726	$ 86,864			
		All KWH	$ 0.00883	500,439			$ 4,419	$ 91,283
QR Water Heating and/or Space Heat		Customer Charge	$ 9.73	3,107	$ 30,231			
		All KWH	$ 0.03204	4,942,809			$ 158,368	$ 188,599
Total Rate G2		**Customers**		**133,494**				
		Meters		**n/a**				
		Billing demand		**1,316,550**				
		KWH		**342,782,066**				
		Revenue			**$ 3,785,140**	**$ 13,817,475**	**$ 162,786**	**$ 17,765,401**
Large General Rate G1	Standard Rate	Customer Charge Secondary Voltage	$ 162.18	1,582	$ 256,569			
		Customer Charge Primary Voltage	$ 86.49	394	$ 34,077			
		All kVA	$ 7.60	1,021,630		$ 7,764,388		
		All KWH	$ -	327,838,600			$ -	
		Transformer Ownership Credit, G1	$ (0.50000)	347,131		$ (173,566)		$ 7,881,468
Total Rate G1		**Customers Secondary Voltage**		**1,582**				
		Customers Primary Voltage		**394**				
		Meters		**n/a**				
		Billing demand		**1,021,630**				
		KWH		**327,838,600**				
		Revenue			**$ 290,646**	**$ 7,590,823**	**$ -**	**$ 7,881,468**

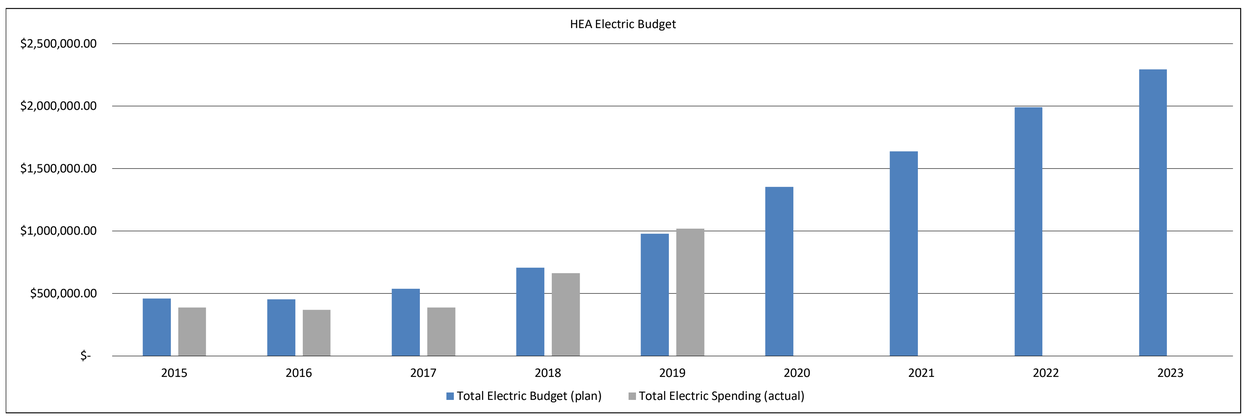
Outdoor Lighting Rate OL	100	Mercury Vapor Street			$13.28	10,729	$	142,484		
	175	Mercury Vapor Street			$15.75	545	$	8,586		
	250	Mercury Vapor Street			$17.85	576	$	10,284		
	400	Mercury Vapor Street			$21.25	1,061	$	22,551		
	1000	Mercury Vapor Street			$42.19	16	$	675		
	250	Mercury Vapor Flood			$19.02	488	$	9,281		
	400	Mercury Vapor Flood			$22.75	736	$	16,753		
	1000	Mercury Vapor Flood			$37.70	112	$	4,227		
	100	Mercury Vapor Power Bracket			$13.41	2,848	$	38,195		
	175	Mercury Vapor Power Bracket			$14.87	401	$	5,968		
	50	Sodium Vapor Street			$13.52	28,508	$	385,424		
	100	Sodium Vapor Street			$15.22	850	$	12,944		
	150	Sodium Vapor Street			$15.28	2,885	$	44,076		
	250	Sodium Vapor Street			$19.14	9,178	$	175,658		
	400	Sodium Vapor Street			$24.13	1,920	$	46,328		
	1000	Sodium Vapor Street			$41.66	1,089	$	45,368		
	150	Sodium Vapor Flood			$17.61	1,881	$	33,127		
	250	Sodium Vapor Flood			$20.76	2,576	$	53,485		
	400	Sodium Vapor Flood			$23.58	3,246	$	76,536		
	1000	Sodium Vapor Flood			$42.03	1,747	$	73,444		
	50	Sodium Vapor Power Bracket			$12.51	942	$	11,779		
	100	Sodium Vapor Power Bracket			$14.04	589	$	8,264		
	175	Metal Halide Street			$19.91	9	$	169		
	250	Metal Halide Street			$21.65	-	$	-		
	400	Metal Halide Street			$22.45	-	$	-		
	175	Metal Halide Flood			$23.00	-	$	-		
	250	Metal Halide Flood			$24.83	-	$	-		
	400	Metal Halide Flood			$24.88	-	$	-		
	1000	Metal Halide Flood			$32.22	-	$	-		
	175	Metal Halide Power Bracket			$18.63	-	$	-		
	250	Metal Halide Power Bracket			$19.81	-	$	-		
	400	Metal Halide Power Bracket			$21.17	296	$	6,269		
	42	LED Area Light Fixture			$13.16	-	$	-		
	57	LED Area Light Fixture			$13.21	-	$	-		
	25	LED Cobra Head Fixture			$13.11	-	$	-		
	88	LED Cobra Head Fixture			$13.30	-	$	-		
	108	LED Cobra Head Fixture			$13.36	-	$	-		
	193	LED Cobra Head Fixture			$13.62	-	$	-		
	123	LED Flood Light Fixture			$13.41	-	$	-		
	194	LED Flood Light Fixture			$13.62	-	$	-		
	297	LED Flood Light Fixture			$13.93	-	$	-		
Total Rate OL		**Luminaires**				**73,228**				
		Customers			n/a					
		Meters			**-**					
		KWH	$	-	**7,942,212**					
		Revenue					**$**	**1,231,875**	**$**	**-**	**$**	**1,231,875**
Total Retail		**Customers**			**943,411**					
		Meters			**n/a**					
		Luminaires			**73,228**					
		Billing Demand			**2,338,180**					
		KWH			**1,162,491,979**					
		Revenue				**$ 17,186,979**	**$**	**22,640,172**	**$**	**17,380,984**	**$**	**57,208,135**

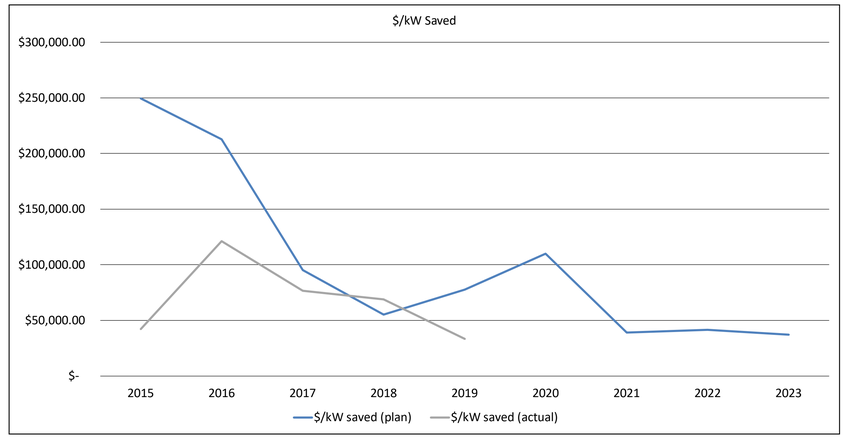
Home Energy Assistance

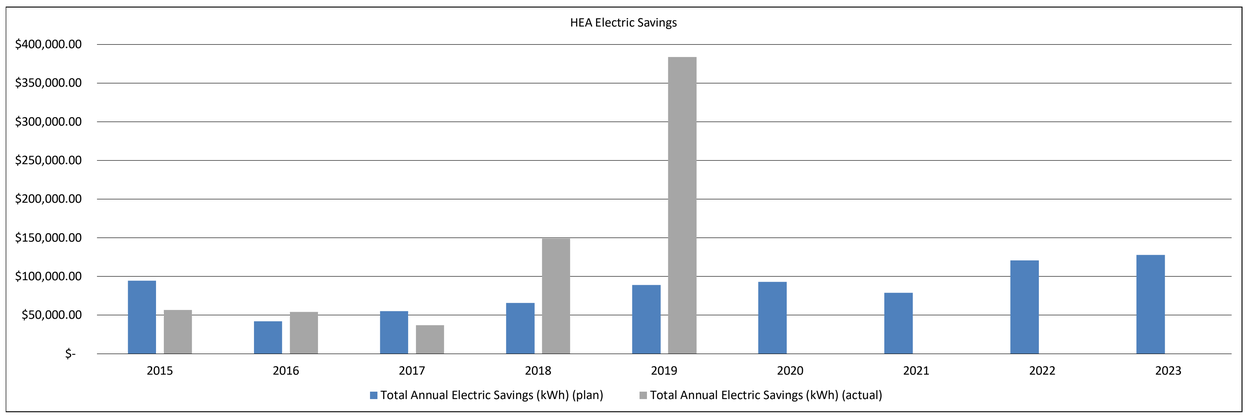
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Electric Budget (plan)	$ 459,624.42	$ 455,327.00	$ 538,873.80	$ 706,636.00	$ 980,094.04	$ 1,353,130.64	$ 1,637,475.76	$ 1,991,184.16	$ 2,293,499.04
	Total Annual Electric Savings (kWh) (plan)	$ 94,642.13	42,000.00	55,000.00	66,000.00	89,000.00	93,000.00	79,000.00	121,000.00	128,000.00
	$/Annual kWh Saved (plan)	$ 4.86	$ 10.84	$ 9.80	$ 10.71	$ 11.01	$ 14.55	$ 20.73	$ 16.46	$ 17.92
2)	Total Electric Budget	$ 459,624.42	$ 455,327.00	$ 538,873.80	$ 706,636.00	$ 980,094.04	$ 1,353,130.64	$ 1,637,475.76	$ 1,991,184.16	$ 2,293,499.04
	Total kW saved	$ 1.84	$ 2.14	$ 5.65	$ 12.81	$ 12.61	$ 12.29	$ 41.72	$ 47.78	$ 61.64
	$/kW saved (plan)	$ 249,518.52	$ 212,854.29	$ 95,350.21	$ 55,141.71	$ 77,735.31	$ 110,144.78	$ 39,248.59	$ 41,676.02	$ 37,210.50
3)	Total Electric Budget	$ 459,624.42	$ 455,327.00	$ 538,873.80	$ 706,636.00	$ 980,094.04	$ 1,353,130.64	$ 1,637,475.76	$ 1,991,184.16	$ 2,293,499.04
	Total Fuel Neutral MMBtu Saved	$ 1,261.63	$ 1,465.79	$ 1,892.00	$ 2,293.60	$ 3,102.63	$ 2,948.24	$ 3,322.67	$ 4,584.40	$ 5,553.93
	$/Total Fuel Neutral MMBtu Saved (plan)	$ 364.31	$ 310.64	$ 284.82	$ 308.09	$ 315.89	$ 458.96	$ 492.82	$ 434.34	$ 412.95

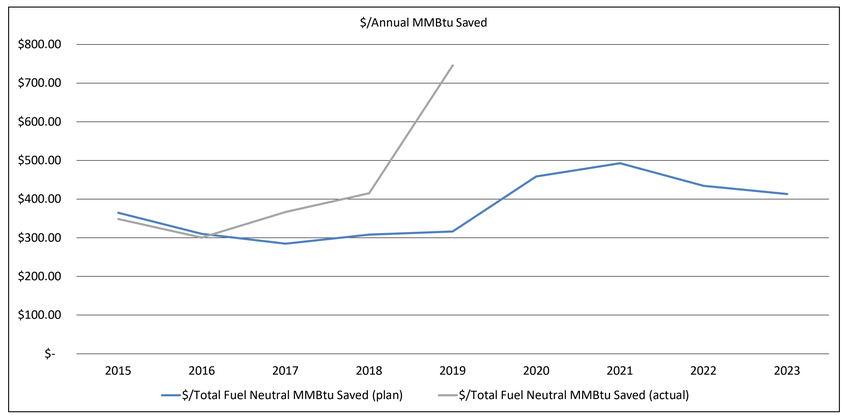
Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Electric Spending (actual)	$ 389,541.09	$ 369,329.15	$ 388,231.12	$ 662,392.08	$ 1,020,067.22
	Total Annual Electric Savings (kWh) (actual)	$ 56,811.45	$ 54,123.54	$ 37,139.55	$ 149,020.93	$ 383,834.11
	$/Annual kWh Saved (actual)	$ 6.86	$ 6.82	$ 10.45	$ 4.44	$ 2.66
2)	Total Electric Spending	$ 389,541.09	$ 369,329.15	$ 388,231.12	$ 662,392.08	$ 1,020,067.22
	Total kW saved	$ 9.19	$ 3.05	$ 5.07	$ 9.62	$ 30.50
	$/kW saved (actual)	$ 42,400.58	$ 121,244.48	$ 76,538.42	$ 68,882.77	$ 33,448.34
3)	Total Electric Spending	$ 389,541.09	$ 369,329.15	$ 388,231.12	$ 662,392.08	$ 1,020,067.22
	Total Fuel Neutral MMBtu Saved	$ 1,118.95	$ 1,228.97	$ 1,058.07	$ 1,595.98	$ 1,367.60
	$/Total Fuel Neutral MMBtu Saved (actual)	$ 348.13	$ 300.52	$ 366.92	$ 415.04	$ 745.88







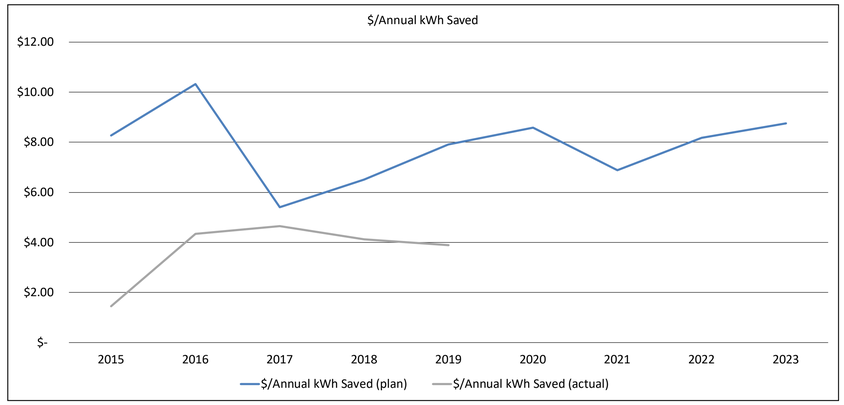


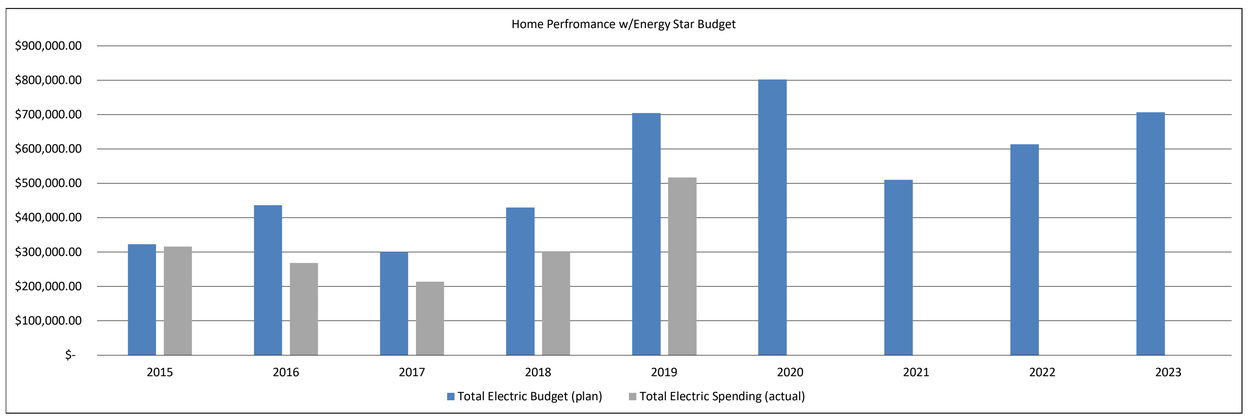


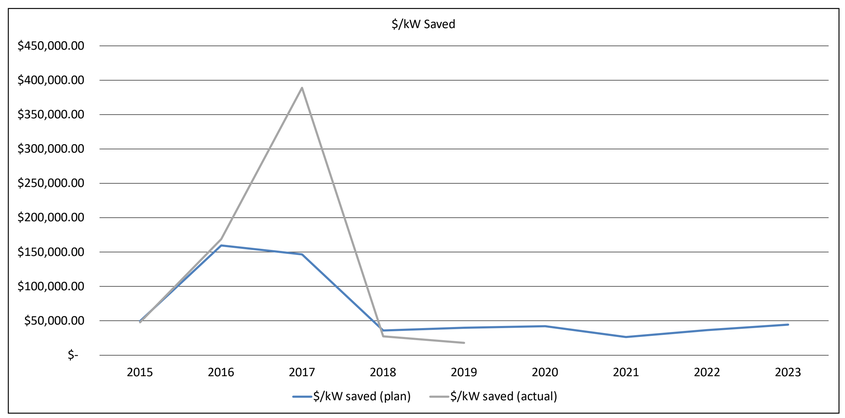
Home Performance w/Energy Star

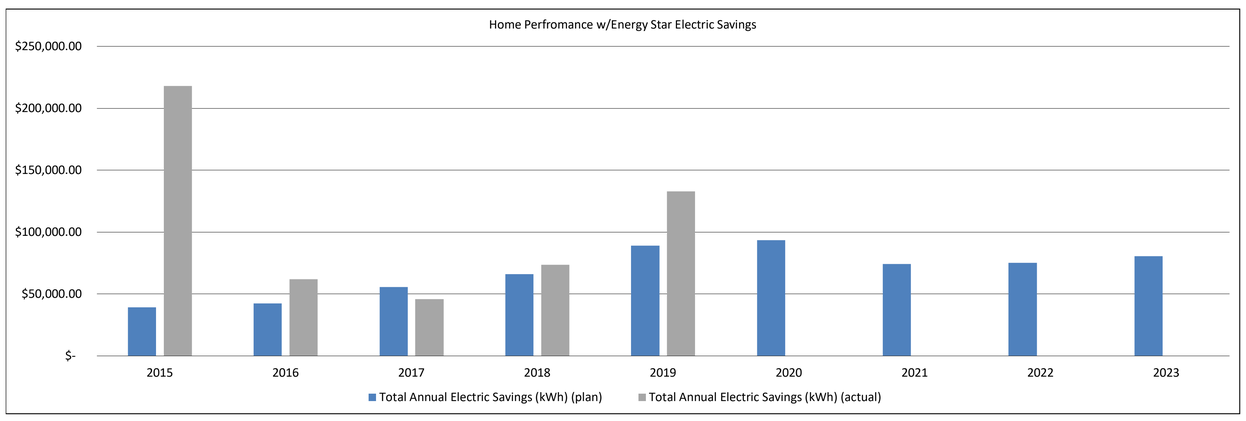
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Electric Budget (plan)	$ 322,989.57	$ 436,630.68	$ 299,999.99	$ 429,999.86	$ 704,299.65	$ 801,804.38	$ 510,435.00	$ 614,062.95	$ 706,308.88
	Total Annual Electric Savings (kWh) (plan)	$ 39,052.59	$ 42,288.52	$ 55,484.65	$ 66,052.08	$ 89,008.00	$ 93,440.33	$ 74,079.95	$ 75,025.98	$ 80,633.14
	$/Annual kWh Saved (plan)	$ 8.27	$ 10.33	$ 5.41	$ 6.51	$ 7.91	$ 8.58	$ 6.89	$ 8.18	$ 8.76
2)	Total Electric Budget	$ 322,989.57	$ 436,630.68	$ 299,999.99	$ 429,999.86	$ 704,299.65	$ 801,804.38	$ 510,435.00	$ 614,062.95	$ 706,308.88
	Total kW saved	$ 6.53	$ 2.73	$ 2.05	$ 11.94	$ 17.60	$ 19.01	$ 19.27	$ 16.87	$ 15.83
	$/kW saved (plan)	$ 49,489.06	$ 159,701.47	$ 146,686.52	$ 36,008.82	$ 40,012.62	$ 42,173.51	$ 26,488.98	$ 36,399.86	$ 44,611.69
3)	Total Electric Budget	$ 322,989.57	$ 436,630.68	$ 299,999.99	$ 429,999.86	$ 704,299.65	$ 801,804.38	$ 510,435.00	$ 614,062.95	$ 706,308.88
	Total Fuel Neutral MMBtu Saved	$ 1,759.57	$ 3,210.97	$ 1,717.60	$ 2,270.40	$ 3,291.00	$ 3,209.40	$ 1,379.01	$ 1,924.99	$ 2,342.70
	$/Total Fuel Neutral MMBtu Saved (plan)	$ 183.56	$ 135.98	$ 174.66	$ 189.39	$ 214.01	$ 249.83	$ 370.15	$ 319.00	$ 301.49

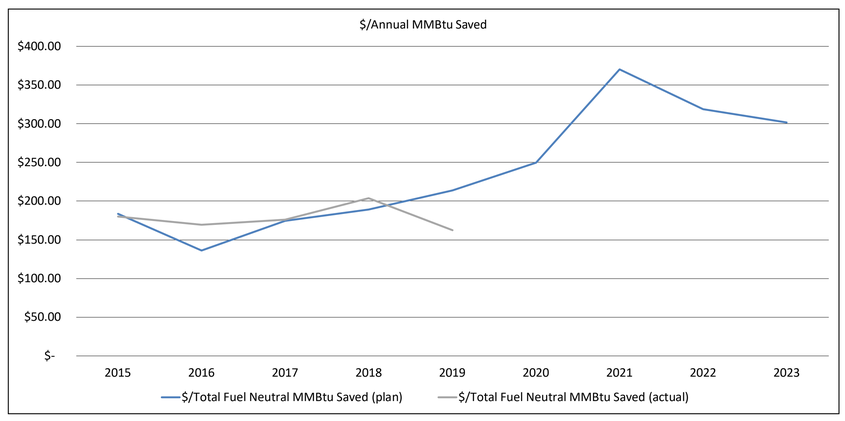
Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Electric Spending (actual)	$ 316,628.56	$ 268,193.38	$ 213,461.99	$ 302,725.58	$ 517,027.72
	Total Annual Electric Savings (kWh) (actual)	$ 218,041.56	$ 61,812.00	$ 45,885.13	$ 73,424.52	$ 132,836.00
	$/Annual kWh Saved (actual)	$ 1.45	$ 4.34	$ 4.65	$ 4.12	$ 3.89
2)	Total Electric Spending	$ 316,628.56	$ 268,193.38	$ 213,461.99	$ 302,725.58	$ 517,027.72
	Total kW saved	$ 6.63	$ 1.59	$ 0.55	$ 11.07	$ 28.69
	$/kW saved (actual)	$ 47,749.41	$ 168,737.76	$ 389,003.51	$ 27,348.88	$ 18,020.38
3)	Total Electric Spending	$ 316,628.56	$ 268,193.38	$ 213,461.99	$ 302,725.58	$ 517,027.72
	Total Fuel Neutral MMBtu Saved	$ 1,757.81	$ 1,583.90	$ 1,212.18	$ 1,486.46	$ 3,179.20
	$/Total Fuel Neutral MMBtu Saved (actual)	$ 180.13	$ 169.32	$ 176.10	$ 203.66	$ 162.63







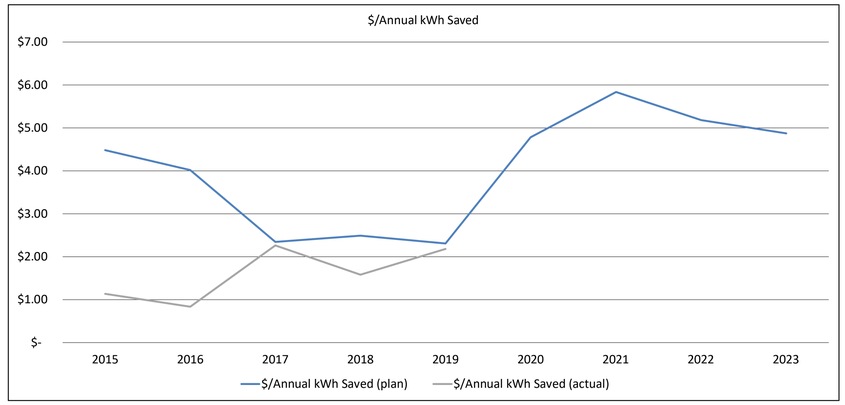


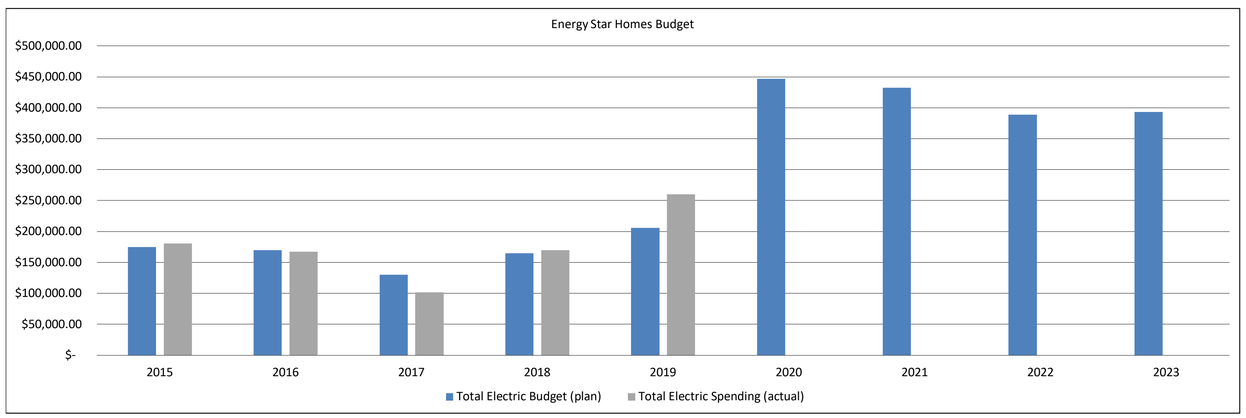


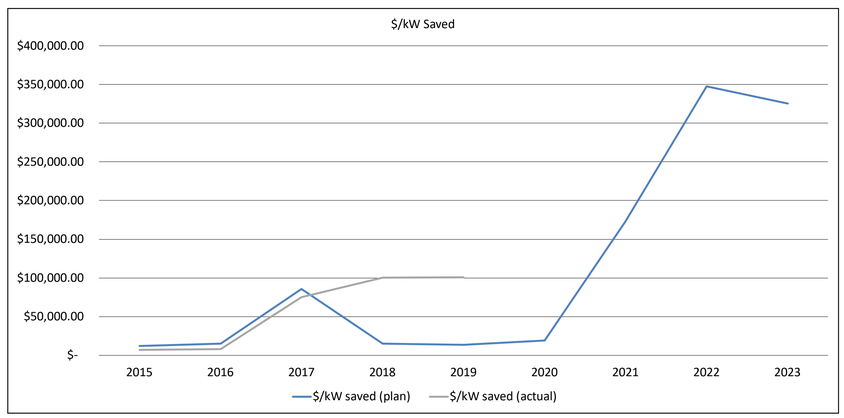
Energy Star Homes

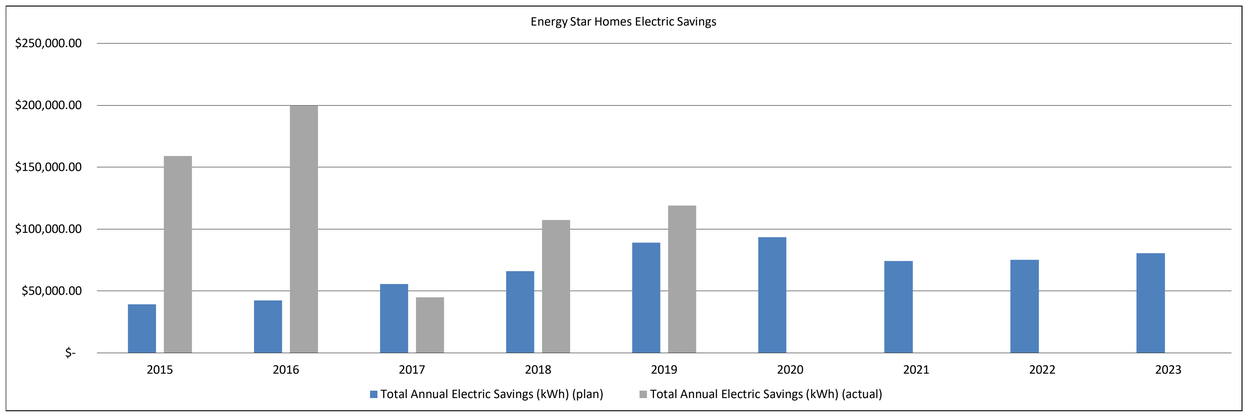
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Planned										
1)	Total Electric Budget (plan)	$ 175,000.00	$ 170,000.00	$ 130,000.28	$ 164,703.66	$ 205,783.48	$ 446,820.72	$ 432,654.50	$ 388,625.67	$ 392,937.05
	Total Annual Electric Savings (kWh) (plan)	$ 39,052.59	$ 42,288.52	$ 55,484.65	$ 66,052.08	$ 89,008.00	$ 93,440.33	$ 74,079.95	$ 75,025.98	$ 80,633.14
	$/Annual kWh Saved (plan)	$ 4.48	$ 4.02	$ 2.34	$ 2.49	$ 2.31	$ 4.78	$ 5.84	$ 5.18	$ 4.87
2)	Total Electric Budget	$ 175,000.00	$ 170,000.00	$ 130,000.28	$ 164,703.66	$ 205,783.48	$ 446,820.72	$ 432,654.50	$ 388,625.67	$ 392,937.05
	Total kW saved	$ 14.34	$ 11.26	$ 1.51	$ 11.06	$ 15.11	$ 23.71	$ 2.50	$ 1.12	$ 1.21
	$/kW saved (plan)	$ 12,206.20	$ 15,096.93	$ 85,871.19	$ 14,896.90	$ 13,620.32	$ 18,842.58	$ 173,135.34	$ 347,458.36	$ 325,440.96
3)	Total Electric Budget	$ 175,000.00	$ 170,000.00	$ 130,000.28	$ 164,703.66	$ 205,783.48	$ 446,820.72	$ 432,654.50	$ 388,625.67	$ 392,937.05
	Total Fuel Neutral MMBtu Saved	$ 951.23	$ 894.92	$ 665.27	$ 632.42	$ 436.04	$ 1,800.00	$ 1,654.00	$ 1,432.50	$ 1,133.50
	$/Total Fuel Neutral MMBtu Saved (plan)	$ 183.97	$ 189.96	$ 195.41	$ 260.43	$ 471.94	$ 248.23	$ 261.58	$ 271.29	$ 346.66

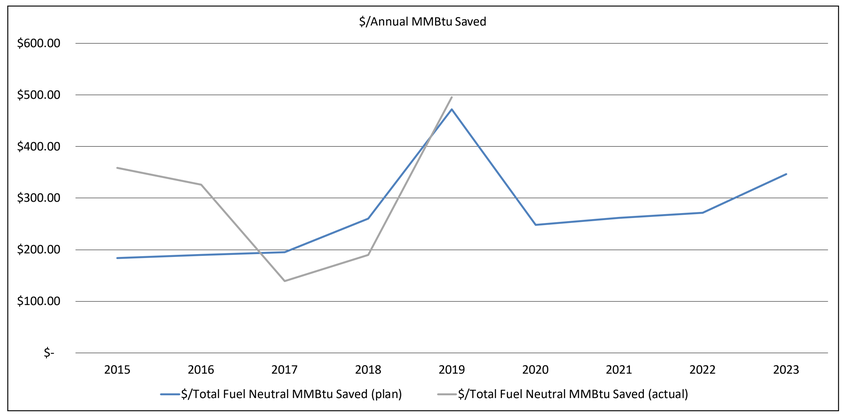
		2015	2016	2017	2018	2019
Actuals						
1)	Total Electric Spending (actual)	$ 180,414.15	$ 167,126.28	$ 101,427.40	$ 169,803.30	$ 259,859.59
	Total Annual Electric Savings (kWh) (actual)	$ 159,006.65	$ 199,654.84	$ 44,813.33	$ 107,316.03	$ 119,010.64
	$/Annual kWh Saved (actual)	$ 1.13	$ 0.84	$ 2.26	$ 1.58	$ 2.18
2)	Total Electric Spending	$ 180,414.15	$ 167,126.28	$ 101,427.40	$ 169,803.30	$ 259,859.59
	Total kW saved	$ 25.18	$ 21.15	$ 1.35	$ 1.69	$ 2.58
	$/kW saved (actual)	$ 7,166.00	$ 7,901.61	$ 75,145.19	$ 100,446.47	$ 100,759.00
3)	Total Electric Spending	$ 180,414.15	$ 167,126.28	$ 101,427.40	$ 169,803.30	$ 259,859.59
	Total Fuel Neutral MMBtu Saved	$ 503.05	$ 512.40	$ 728.51	$ 893.50	$ 523.90
	$/Total Fuel Neutral MMBtu Saved (actual)	$ 358.64	$ 326.16	$ 139.23	$ 190.04	$ 496.01







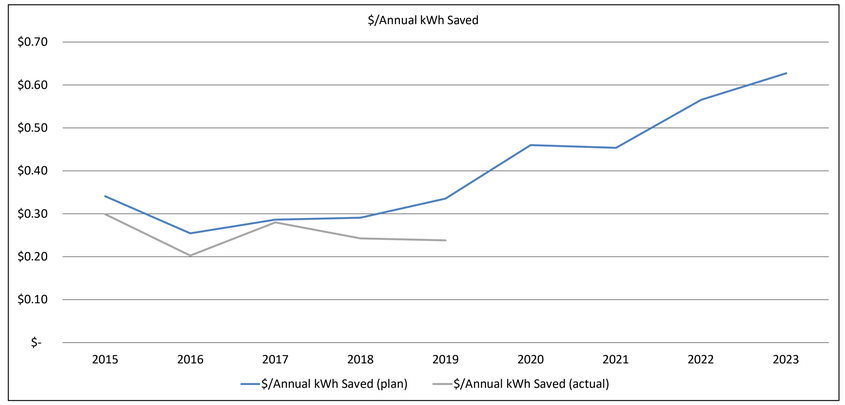


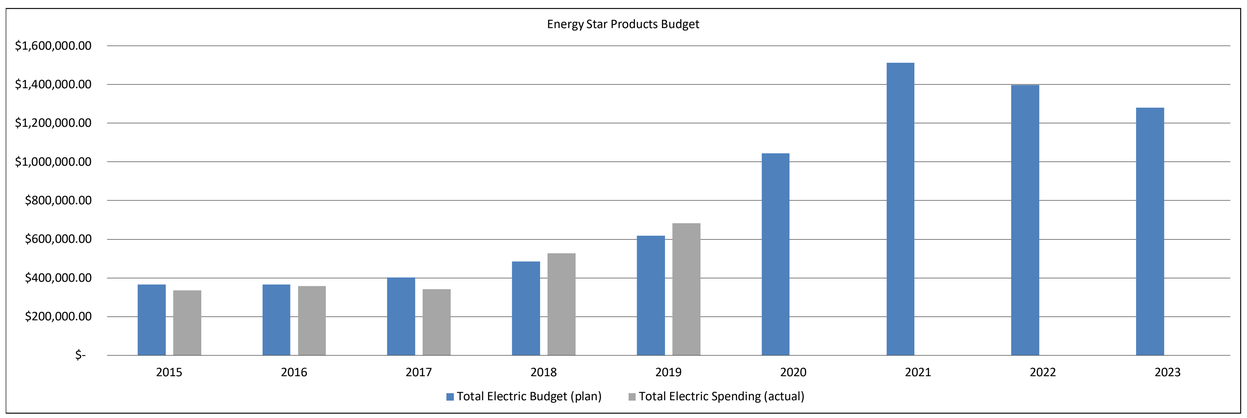


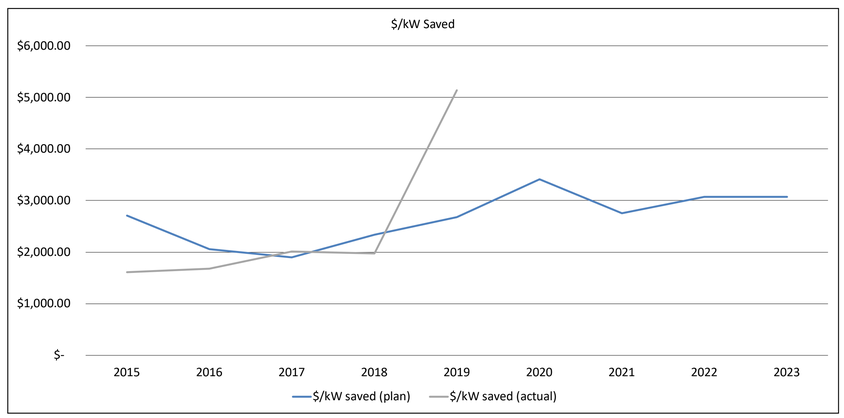
Energy Star Products

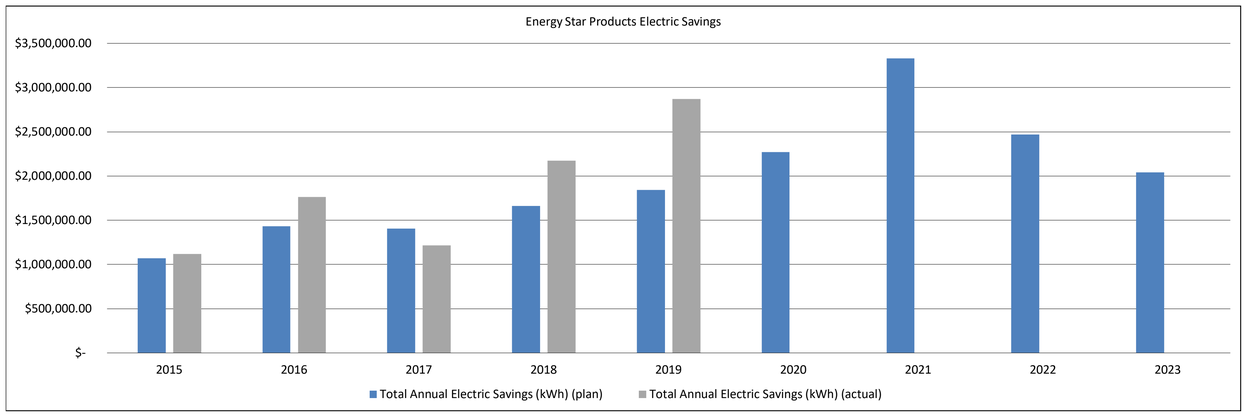
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Electric Budget (plan)	$ 365,000.00	$ 365,000.00	$ 402,825.70	$ 484,188.44	$ 617,955.09	$ 1,044,546.94	$ 1,513,473.66	$ 1,397,648.41	$ 1,281,002.13
	Total Annual Electric Savings (kWh) (plan)	$ 1,070,382.25	$ 1,433,378.24	$ 1,406,463.34	$ 1,662,668.24	$ 1,840,674.95	$ 2,269,568.82	$ 3,332,321.11	$ 2,472,125.72	$ 2,042,077.85
	$/Annual kWh Saved (plan)	$ 0.34	$ 0.25	$ 0.29	$ 0.29	$ 0.34	$ 0.46	$ 0.45	$ 0.57	$ 0.63
2)	Total Electric Budget	$ 365,000.00	$ 365,000.00	$ 402,825.70	$ 484,188.44	$ 617,955.09	$ 1,044,546.94	$ 1,513,473.66	$ 1,397,648.41	$ 1,281,002.13
	Total kW saved	$ 134.88	$ 177.23	$ 212.54	$ 207.29	$ 230.88	$ 306.11	$ 549.49	$ 455.06	$ 417.36
	$/kW saved (plan)	$ 2,706.16	$ 2,059.49	$ 1,895.31	$ 2,335.76	$ 2,676.48	$ 3,412.34	$ 2,754.35	$ 3,071.36	$ 3,069.33
3)	Total Electric Budget	$ 365,000.00	$ 365,000.00	$ 402,825.70	$ 484,188.44	$ 617,955.09	$ 1,044,546.94	$ 1,513,473.66	$ 1,397,648.41	$ 1,281,002.13
	Total Fuel Neutral MMBtu Saved	$ 147.48	$ 82.97	$ 394.63	$ 373.88	$ 485.14	$ 733.65	$ 2,371.60	$ 2,964.50	$ 3,557.40
	$/Total Fuel Neutral MMBtu Saved (plan)	$ 2,474.94	$ 4,399.03	$ 1,020.76	$ 1,295.04	$ 1,273.77	$ 1,423.77	$ 638.17	$ 471.46	$ 360.10

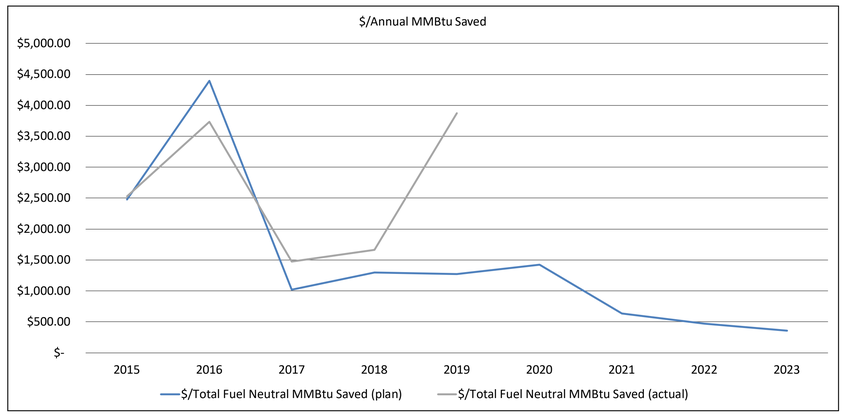
Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Electric Spending (actual)	$ 334,785.82	$ 358,236.26	$ 340,904.97	$ 528,286.52	$ 683,754.61
	Total Annual Electric Savings (kWh) (actual)	$ 1,120,563.80	$ 1,764,104.40	$ 1,216,379.86	$ 2,172,620.76	$ 2,874,060.02
	$/Annual kWh Saved (actual)	$ 0.30	$ 0.20	$ 0.28	$ 0.24	$ 0.24
2)	Total Electric Spending	$ 334,785.82	$ 358,236.26	$ 340,904.97	$ 528,286.52	$ 683,754.61
	Total kW saved	$ 208.01	$ 212.96	$ 169.71	$ 267.59	$ 132.96
	$/kW saved (actual)	$ 1,609.48	$ 1,682.16	$ 2,008.79	$ 1,974.22	$ 5,142.48
3)	Total Electric Spending	$ 334,785.82	$ 358,236.26	$ 340,904.97	$ 528,286.52	$ 683,754.61
	Total Fuel Neutral MMBtu Saved	$ 132.37	$ 95.90	$ 231.34	$ 317.87	$ 176.53
	$/Total Fuel Neutral MMBtu Saved (actual)	$ 2,529.16	$ 3,735.48	$ 1,473.64	$ 1,661.96	$ 3,873.33







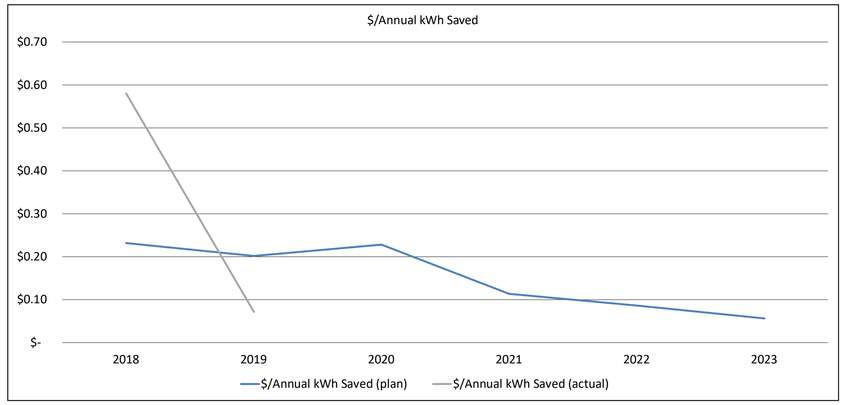


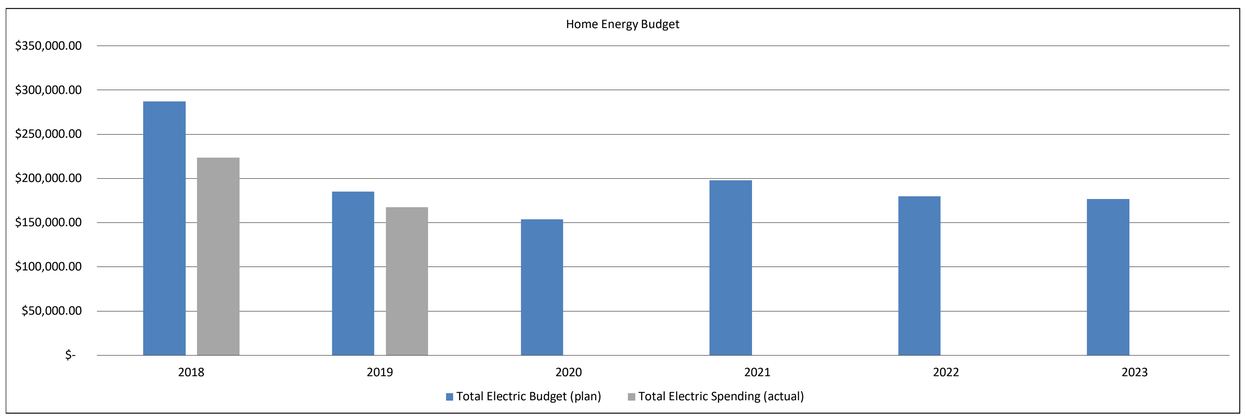


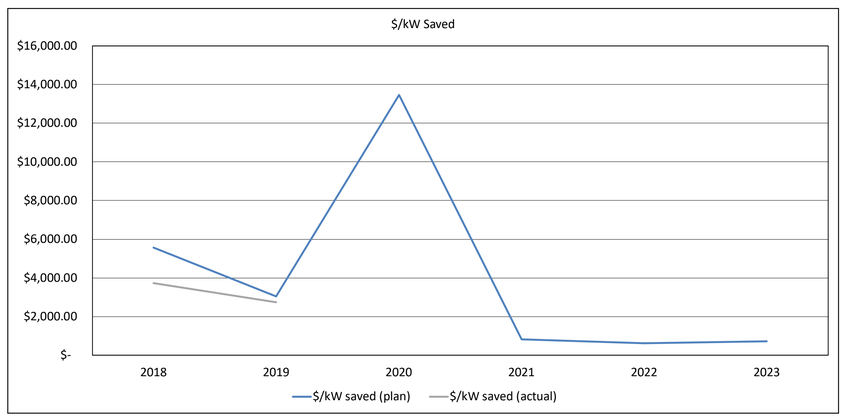
Home Energy Reports

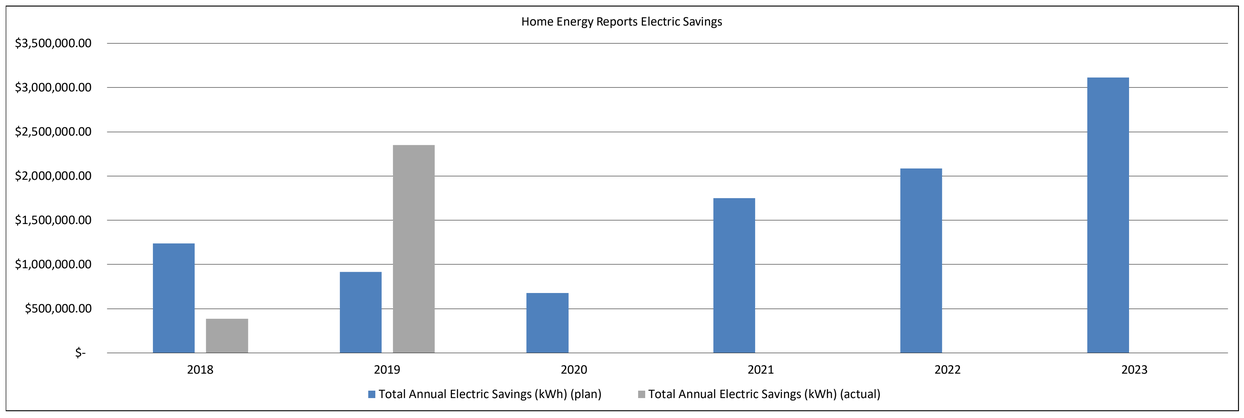
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Electric Budget (plan)	$ -	$ -	$ -	$ 286,984.00	$ 184,985.00	$ 153,784.00	$ 198,183.00	$ 180,048.43	$ 176,866.84
	Total Annual Electric Savings (kWh) (plan)	$ -	$ -	$ -	$ 1,237,012.99	$ 917,000.00	$ 675,000.00	$ 1,749,000.00	$ 2,087,000.00	$ 3,116,000.00
	$/Annual kWh Saved (plan)				$ 0.23	$ 0.20	$ 0.23	$ 0.11	$ 0.09	$ 0.06
2)	Total Electric Budget	$ -	$ -	$ -	$ 286,984.00	$ 184,985.00	$ 153,784.00	$ 198,183.00	$ 180,048.43	$ 176,866.84
	Total kW saved	$ -	$ -	$ -	$ 51.54	$ 60.71	$ 11.43	$ 243.55	$ 290.61	$ 243.55
	$/kW saved (plan)				$ 5,567.94	$ 3,046.80	$ 13,459.85	$ 813.74	$ 619.55	$ 726.21
3)	Total Electric Budget	$ -	$ -	$ -	$ 286,984.00	$ 184,985.00	$ 153,784.00	$ 198,183.00	$ 180,048.43	$ 176,866.84
	Total Fuel Neutral MMBtu Saved	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$/Total Fuel Neutral MMBtu Saved (plan)									

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Electric Spending (actual)				$ 223,784.50	$ 167,701.02
	Total Annual Electric Savings (kWh) (actual)				$ 385,562.00	$ 2,350,149.00
	$/Annual kWh Saved (actual)				$ 0.58	$ 0.07
2)	Total Electric Spending				$ 223,784.50	$ 167,701.02
	Total kW saved				$ 60.15	$ 61.26
	$/kW saved (actual)				$ 3,720.49	$ 2,737.36
3)	Total Electric Spending				$ 223,784.50	$ 167,701.02
	Total Fuel Neutral MMBtu Saved				$ -	$ -
	$/Total Fuel Neutral MMBtu Saved (actual)					





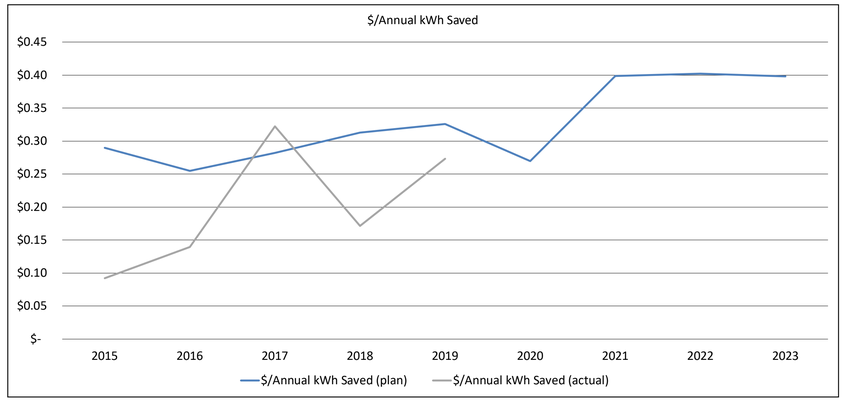


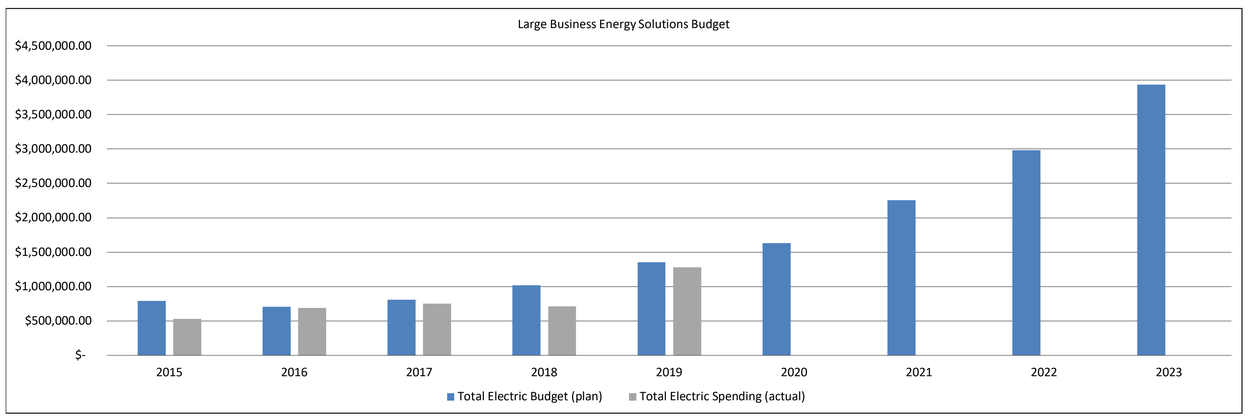


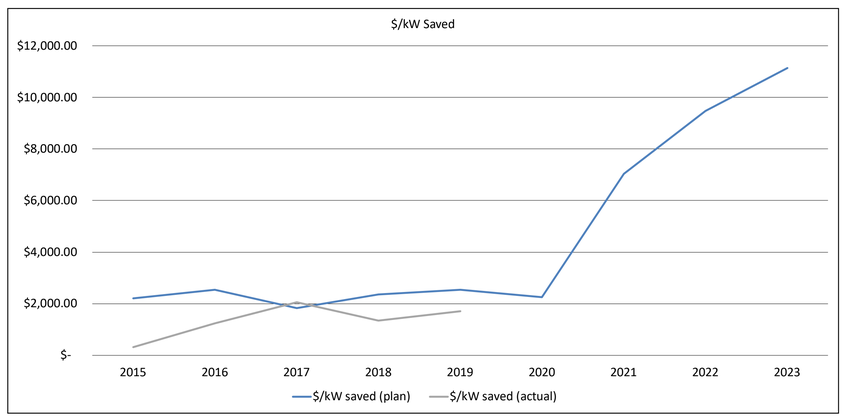
Large Business Energy Solutions

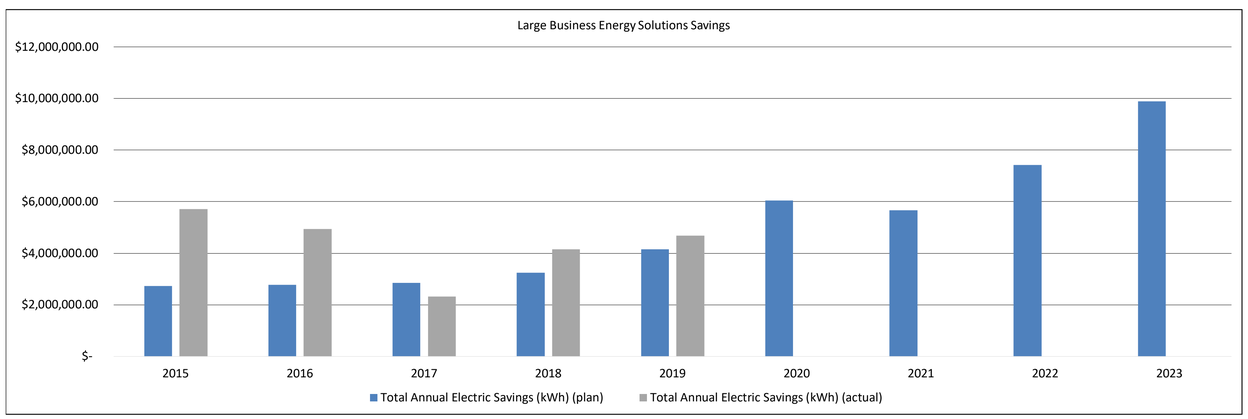
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Planned										
1)	Total Electric Budget (plan)	$ 792,417.96	$ 708,103.97	$ 804,855.80	$ 1,018,000.00	$ 1,353,124.06	$ 1,632,099.26	$ 2,257,664.54	$ 2,983,879.88	$ 3,937,680.07
	Total Annual Electric Savings (kWh) (plan)	$ 2,733,709.43	$ 2,778,532.48	$ 2,851,063.83	$ 3,251,317.98	$ 4,148,221.09	$ 6,050,964.32	$ 5,666,115.45	$ 7,421,355.59	$ 9,898,315.77
	$/Annual kWh Saved (plan)	$ 0.29	$ 0.25	$ 0.28	$ 0.31	$ 0.33	$ 0.27	$ 0.40	$ 0.40	$ 0.40
2)	Total Electric Budget	$ 792,417.96	$ 708,103.97	$ 804,855.80	$ 1,018,000.00	$ 1,353,124.06	$ 1,632,099.26	$ 2,257,664.54	$ 2,983,879.88	$ 3,937,680.07
	Total kW saved	$ 360.05	$ 279.38	$ 439.10	$ 432.43	$ 532.63	$ 725.53	$ 321.03	$ 315.13	$ 353.55
	$/kW saved (plan)	$ 2,200.88	$ 2,534.56	$ 1,832.96	$ 2,354.16	$ 2,540.48	$ 2,249.54	$ 7,032.62	$ 9,468.69	$ 11,137.40
3)	Total Electric Budget	$ 792,417.96	$ 708,103.97	$ 804,855.80	$ 1,018,000.00	$ 1,353,124.06	$ 1,632,099.26	$ 2,257,664.54	$ 2,983,879.88	$ 3,937,680.07
	Total Fuel Neutral MMBtu Saved	$ -	$ -	$ -	$ -	$ -	$ -	$ 107.42	$ 123.94	$ 165.26
	$/Total Fuel Neutral MMBtu Saved (plan)							$ 21,017.70	$ 24,074.60	$ 23,827.56

		2015	2016	2017	2018	2019
Actuals						
1)	Total Electric Spending (actual)	$ 527,212.31	$ 688,316.04	$ 748,208.39	$ 711,153.65	$ 1,280,014.05
	Total Annual Electric Savings (kWh) (actual)	$ 5,704,791.08	$ 4,938,617.74	$ 2,319,910.78	$ 4,152,747.70	$ 4,682,916.54
	$/Annual kWh Saved (actual)	$ 0.09	$ 0.14	$ 0.32	$ 0.17	$ 0.27
2)	Total Electric Spending	$ 527,212.31	$ 688,316.04	$ 748,208.39	$ 711,153.65	$ 1,280,014.05
	Total kW saved	$ 1,660.17	$ 554.89	$ 362.79	$ 532.27	$ 748.70
	$/kW saved (actual)	$ 317.56	$ 1,240.45	$ 2,062.36	$ 1,336.08	$ 1,709.64
3)	Total Electric Spending	$ 527,212.31	$ 688,316.04	$ 748,208.39	$ 711,153.65	$ 1,280,014.05
	Total Fuel Neutral MMBtu Saved	$ 186.80	$ 1,239.06	$ -	$ -	$ -
	$/Total Fuel Neutral MMBtu Saved (actual)	$ 2,822.34	$ 555.51			





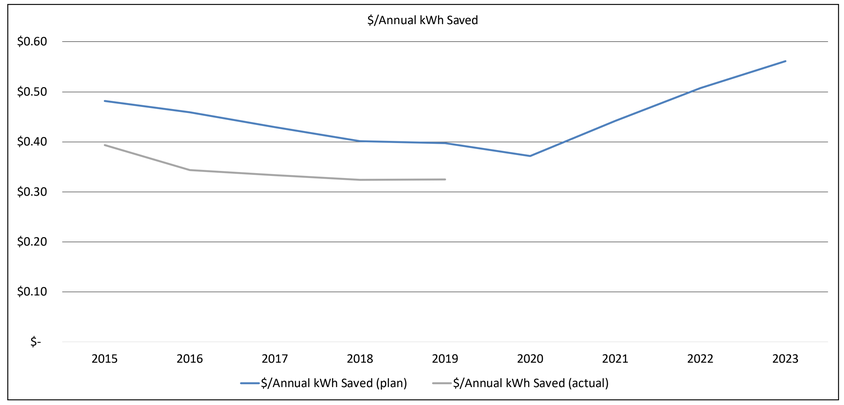


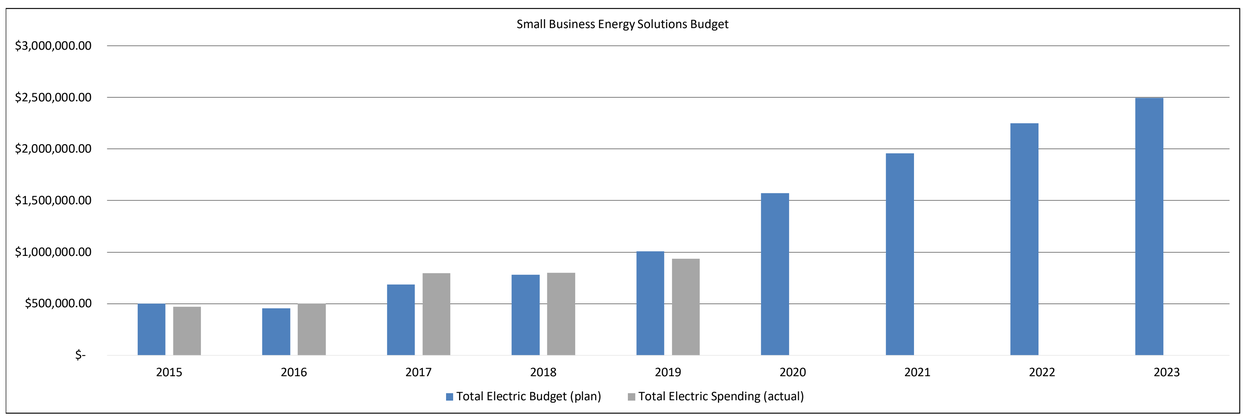


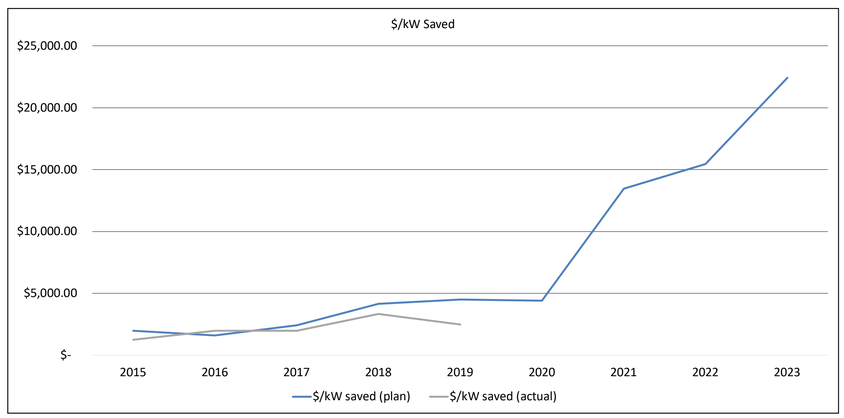
Small Business Energy Solutions

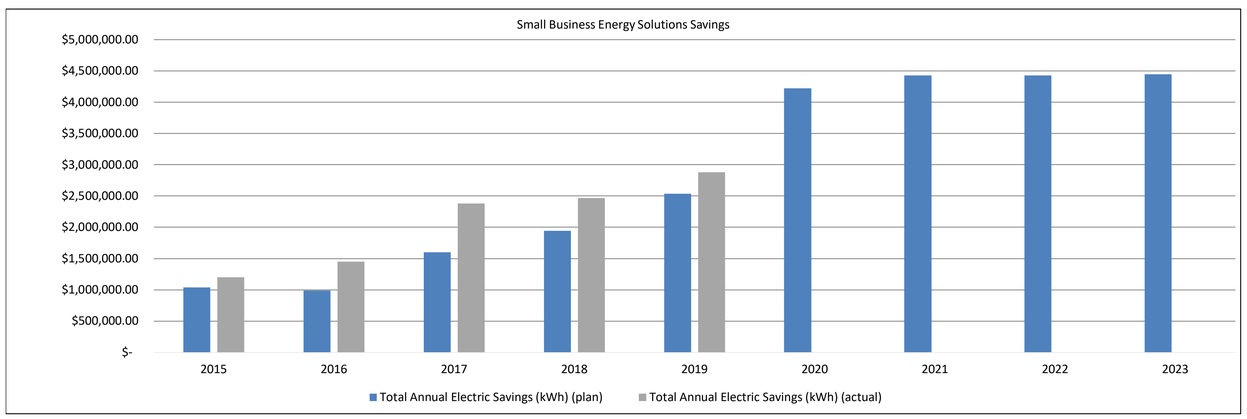
		2015	2016	2017	2018	2019	2020	2021	2022	2023
Planned										
1)	Total Electric Budget (plan)	$ 500,000.00	$ 455,000.50	$ 686,088.31	$ 779,755.65	$ 1,008,202.87	$ 1,570,429.81	$ 1,959,838.23	$ 2,248,248.82	$ 2,496,226.90
	Total Annual Electric Savings (kWh) (plan)	$ 1,037,376.46	$ 990,500.00	$ 1,597,407.41	$ 1,941,463.22	$ 2,535,529.86	$ 4,224,432.59	$ 4,431,650.02	$ 4,431,650.02	$ 4,446,360.53
	$/Annual kWh Saved (plan)	$ 0.48	$ 0.46	$ 0.43	$ 0.40	$ 0.40	$ 0.37	$ 0.44	$ 0.51	$ 0.56
2)	Total Electric Budget	$ 500,000.00	$ 455,000.50	$ 686,088.31	$ 779,755.65	$ 1,008,202.87	$ 1,570,429.81	$ 1,959,838.23	$ 2,248,248.82	$ 2,496,226.90
	Total kW saved	$ 250.94	$ 284.84	$ 282.22	$ 187.90	$ 224.44	$ 356.84	$ 145.43	$ 145.43	$ 111.27
	$/kW saved (plan)	$ 1,992.54	$ 1,597.39	$ 2,431.07	$ 4,149.95	$ 4,492.02	$ 4,400.97	$ 13,476.05	$ 15,459.19	$ 22,434.48
3)	Total Electric Budget	$ 500,000.00	$ 455,000.50	$ 686,088.31	$ 779,755.65	$ 1,008,202.87	$ 1,570,429.81	$ 1,959,838.23	$ 2,248,248.82	$ 2,496,226.90
	Total Fuel Neutral MMBtu Saved	$ -	$ -	$ -	$ -	$ -	$ -	$ 83.20	$ 83.20	$ 133.60
	$/Total Fuel Neutral MMBtu Saved (plan)									

		2015	2016	2017	2018	2019
Actuals						
1)	Total Electric Spending (actual)	$ 471,603.35	$ 499,144.45	$ 794,502.64	$ 799,496.85	$ 935,895.34
	Total Annual Electric Savings (kWh) (actual)	$ 1,198,433.94	$ 1,451,929.00	$ 2,381,724.69	$ 2,469,440.00	$ 2,879,216.42
	$/Annual kWh Saved (actual)	$ 0.39	$ 0.34	$ 0.33	$ 0.32	$ 0.33
2)	Total Electric Spending	$ 471,603.35	$ 499,144.45	$ 794,502.64	$ 799,496.85	$ 935,895.34
	Total kW saved	$ 379.92	$ 253.82	$ 398.49	$ 238.83	$ 377.59
	$/kW saved (actual)	$ 1,241.32	$ 1,966.51	$ 1,993.77	$ 3,347.58	$ 2,478.60
3)	Total Electric Spending	$ 471,603.35	$ 499,144.45	$ 794,502.64	$ 799,496.85	$ 935,895.34
	Total Fuel Neutral MMBtu Saved	$ -	$ -	$ -	$ -	$ -
	$/Total Fuel Neutral MMBtu Saved (actual)					





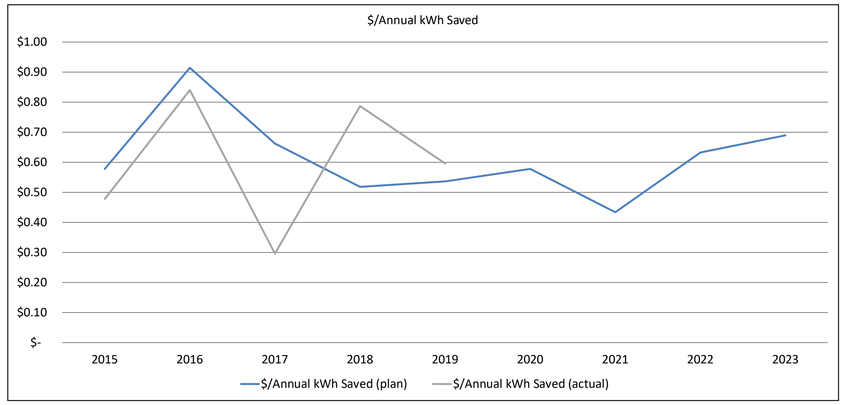


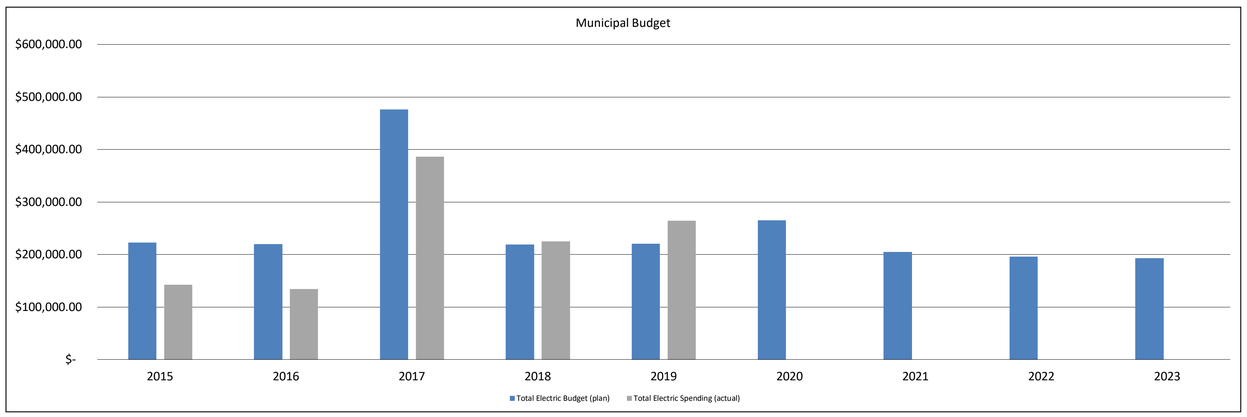


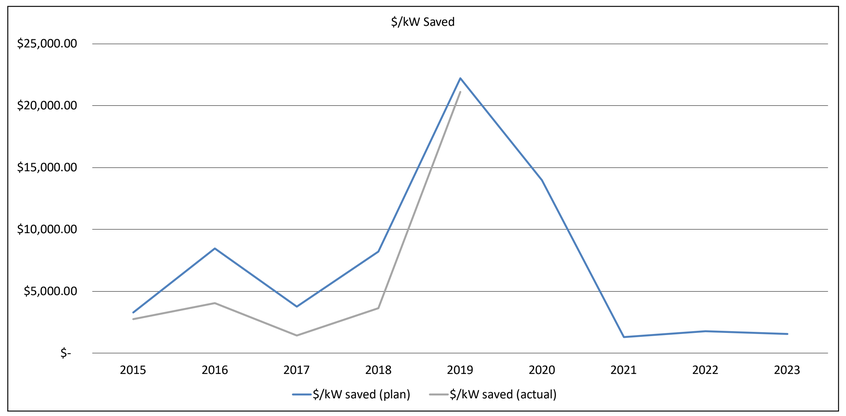
Municipal

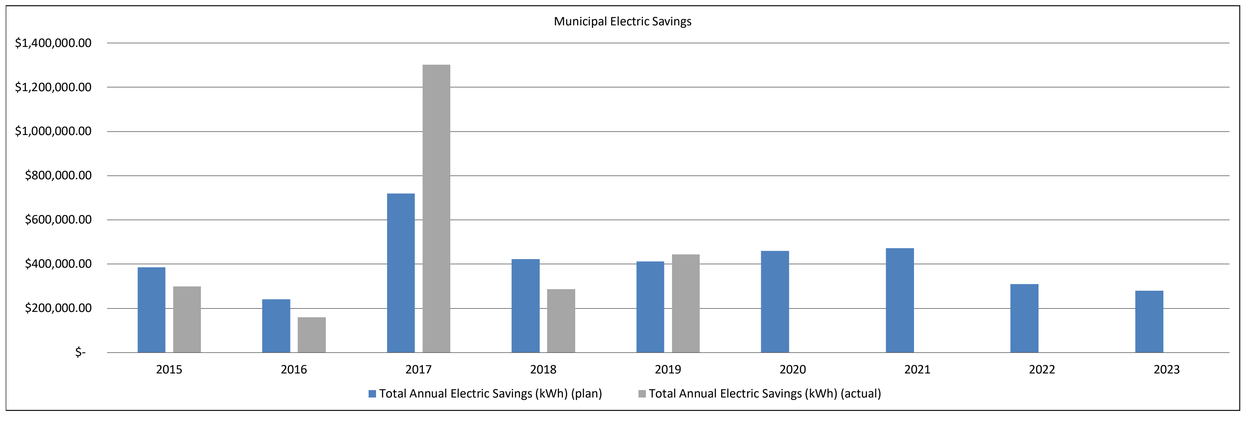
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Electric Budget (plan)	$ 222,573.69	$ 219,875.76	$ 476,528.53	$ 218,878.38	$ 220,642.18	$ 265,229.65	$ 204,700.00	$ 196,125.91	$ 193,235.58
	Total Annual Electric Savings (kWh) (plan)	$ 385,143.71	$ 240,506.33	$ 718,947.37	$ 422,166.66	$ 411,529.39	$ 459,247.22	$ 471,428.57	$ 310,000.00	$ 280,000.00
	$/Annual kWh Saved (plan)	$ 0.58	$ 0.91	$ 0.66	$ 0.52	$ 0.54	$ 0.58	$ 0.43	$ 0.63	$ 0.69
2)	Total Electric Budget	$ 222,573.69	$ 219,875.76	$ 476,528.53	$ 218,878.38	$ 220,642.18	$ 265,229.65	$ 204,700.00	$ 196,125.91	$ 193,235.58
	Total kW saved	$ 67.76	$ 26.00	$ 126.85	$ 26.69	$ 9.93	$ 18.98	$ 157.03	$ 111.17	$ 123.78
	$/kW saved (plan)	$ 3,284.93	$ 8,458.38	$ 3,756.54	$ 8,200.67	$ 22,229.35	$ 13,976.44	$ 1,303.56	$ 1,764.17	$ 1,561.17
3)	Total Electric Budget	$ 222,573.69	$ 219,875.76	$ 476,528.53	$ 218,878.38	$ 220,642.18	$ 265,229.65	$ 204,700.00	$ 196,125.91	$ 193,235.58
	Total Fuel Neutral MMBtu Saved	$ 161.40	$ 231.00	$ 300.00	$ 90.00	$ 90.00	$ 50.00	$ 100.00	$ 200.00	$ 200.00
	$/Total Fuel Neutral MMBtu Saved (plan)	$ 1,379.02	$ 951.84	$ 1,588.43	$ 2,431.98	$ 2,451.58	$ 5,304.59	$ 2,047.00	$ 980.63	$ 966.18

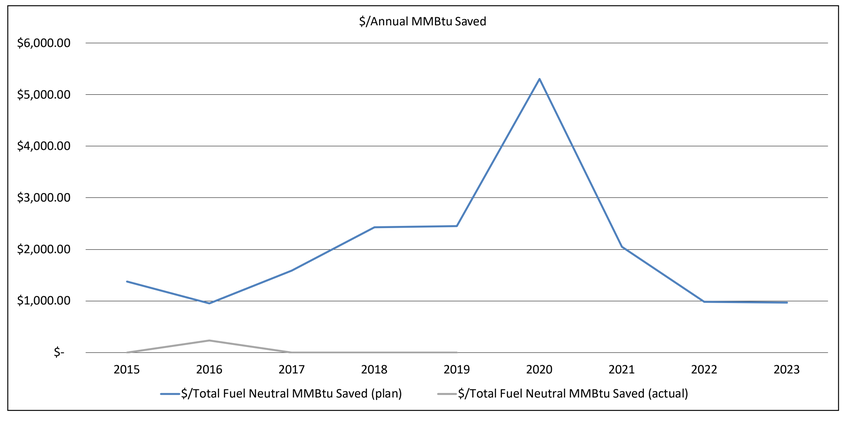
Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Electric Spending (actual)	$ 142,709.48	$ 134,368.59	$ 386,763.00	$ 224,879.42	$ 264,183.17
	Total Annual Electric Savings (kWh) (actual)	$ 298,503.00	$ 159,791.00	$ 1,303,245.00	$ 285,855.00	$ 443,486.44
	$/Annual kWh Saved (actual)	$ 0.48	$ 0.84	$ 0.30	$ 0.79	$ 0.60
2)	Total Electric Spending	$ 142,709.48	$ 134,368.59	$ 386,763.00	$ 224,879.42	$ 264,183.17
	Total kW saved	$ 51.68	$ 33.15	$ 269.98	$ 61.96	$ 12.51
	$/kW saved (actual)	$ 2,761.20	$ 4,053.33	$ 1,432.55	$ 3,629.30	$ 21,118.97
3)	Total Electric Spending	$ 142,709.48	$ 134,368.59	$ 386,763.00	$ 224,879.42	$ 264,183.17
	Total Fuel Neutral MMBtu Saved	$ -	$ 579.10	$ -	$ -	$ -
	$/Total Fuel Neutral MMBtu Saved (actual)		$ 232.03			











Program Cost-Effectiveness - 2021 PLAN

	Benefit/Cost Ratios			Benefits ($000)											
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.08	*0.87*	*1.08*	1,646.7	*1,331.1*	*1,646.7*	1,523.6	-	-	-	-	-	369	7,107.8	154,908.8
A1 - Energy Star Homes	1.07	*0.91*	*0.80*	1,110.3	*945.0*	*1,364.9*	1,039.3	673.4	-	-	-	-	98	4,465.7	111,641.9
A2 - Home Performance with Energy Star	1.70	*1.47*	*1.90*	2,055.1	*1,775.5*	*2,546.4*	1,205.8	133.5	6.4	142.3	-	3.5	768	11,064.2	200,161.9
A3 - Energy Star Products	1.92	*1.66*	*1.33*	1,869.2	*1,620.5*	*2,330.7*	975.8	780.0	24.7	407.9	8.3	(0.3)	1,623	11,065.6	187,594.4
A4 - Home Energy Reports	0.76	*0.70*	*0.95*	140.0	*130.1*	*175.1*	185.0	-	-	-	-	-	30,000	13,169.1	13,169.1
A6c - Res Education	-	-	-	-	-	-	60.2	-	-	-	-	-		-	-
A7 - Aerial Infrared Mapping	0.12	*0.11*	*0.14*	53.2	*49.4*	*66.5*	460.3	-	-	-	-	-	33,000	5,000.0	5,000.0
Sub-Total Residential	**1.26**	***1.07***	***1.16***	**6,874.6**	***5,851.6***	***8,130.3***	**5,449.9**	**1,586.9**	**31.0**	**550.1**	**8.3**	**3.2**	**98,858**	**51,872.2**	**672,476.1**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	4.55	*4.00*	*2.56*	8,278.6	*7,277.5*	*9,874.1*	1,818.5	2,037.6	-	-	-	-	207	76,164.6	913,272.3
C2 - Small Business Energy Solutions	2.63	*2.08*	*1.83*	4,296.2	*3,400.6*	*5,051.8*	1,633.1	1,121.5	9.5	152.2	1.9	1.7	1,080	25,848.9	453,388.5
C6c - C&I Education	-	-	-	-	-	-	60.6	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**3.58**	***3.04***	***2.24***	**12,574.7**	***10,678.2***	***14,925.8***	**3,512.3**	**3,159.1**	**9.5**	**152.2**	**1.9**	**1.7**	**1,287**	**102,013.5**	**1,366,660.8**
Total	**2.17**	***1.84***	***1.68***	**19,449.3**	***16,529.8***	***23,056.2***	**8,962.2**	**4,745.9**	**40.5**	**702.3**	**10.2**	**4.9**	**100,144**	**153,885.7**	**2,039,136.9**

Notes:

(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.

(2) Utility and Customer Costs Expressed in 2021 Dollars

Annual kWh Savings	40,534	0.1%	**kWh < 55%**	**Lifetime** kWh Savings	702,306	0.1%	**kWh < 55%**
Annual MMBTU Savings (in kWh)	45,099,455	99.9%		**Lifetime** MMBTU Savings (in kWh)	597,612,058	99.9%	
	45,139,989	100.0%			**598,314,364**	100.0%	

Annual Savings as a % of 2019 Sales	0.88%

Spending per Customer	Low-Income	$ 283.40
	Residential	$ 44.12
	C&I	$ 240.27

Present Value Benefits - 2021 PLAN

	Total Benefits ($000)			Resource Benefits ($000)																Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric													Non-Electric							
				CAPACITY					ENERGY														
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																							
B1 - Home Energy Assistance	**$ 1,647**	*$ 1,331*	*$ 1,647*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,331	$ 8	**$ 1,340**	$ 212	$ 95	**$ 307**	**$ -**
A1 - Energy Star Homes	**$ 1,110**	*$ 945*	*$ 1,365*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 945	$ 3	**$ 948**	$ 162	$ 255	**$ 417**	**$ -**
A2 - Home Performance with Energy Star	**$ 2,055**	*$ 1,775*	*$ 2,546*	$ 7	$ -	$ 7	$ 6	$ -	$ 1	$ 0	$ 4	$ 3	$ 0	**$ 28**	$ 1,775	$ 4	**$ 1,808**	$ 248	$ 486	**$ 733**	**$ 5**
A3 - Energy Star Products	**$ 1,869**	*$ 1,621*	*$ 2,331*	$ (0)	$ -	$ (0)	$ (0)	$ -	$ 14	$ 17	$ (1)	$ (1)	$ 2	**$ 29**	$ 1,621	$ -	**$ 1,649**	$ 220	$ 444	**$ 664**	**$ 17**
A4 - Home Energy Reports	**$ 140**	*$ 130*	*$ 175*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 130	$ -	**$ 130**	$ 10	$ 35	**$ 45**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A7 - Aerial Infrared Mapping	**$ 53**	*$ 49*	*$ 66*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 49	$ -	**$ 49**	$ 4	$ 13	**$ 17**	**$ -**
Sub-Total Residential	**$ 6,875**	*$ 5,852*	*$ 8,130*	**$ 6**	**$ -**	**$ 6**	**$ 5**	**$ -**	**$ 14**	**$ 17**	**$ 3**	**$ 3**	**$ 2**	**$ 57**	**$ 5,852**	**$ 16**	**$ 5,924**	**$ 855**	**$ 1,328**	**$ 2,183**	**$ 23**
Commercial/Industrial Programs																							
C1 - Large Business Energy Solutions	**$ 8,279**	*$ 7,278*	*$ 9,874*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 7,278	$ -	**$ 7,278**	$ 1,001	$ 1,596	**$ 2,597**	**$ -**
C2 - Small Business Energy Solutions	**$ 4,296**	*$ 3,401*	*$ 5,052*	$ 2	$ -	$ 2	$ 2	$ -	$ 4	$ 4	$ 1	$ 1	$ 1	**$ 17**	$ 3,401	$ 320	**$ 3,737**	$ 559	$ 749	**$ 1,308**	**$ 6**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 12,575**	*$ 10,678*	*$ 14,926*	**$ 2**	**$ -**	**$ 2**	**$ 2**	**$ -**	**$ 4**	**$ 4**	**$ 1**	**$ 1**	**$ 1**	**$ 17**	**$ 10,678**	**$ 320**	**$ 11,015**	**$ 1,560**	**$ 2,345**	**$ 3,905**	**$ 6**
Total	**$ 19,449**	*$ 16,530*	*$ 23,056*	**$ 8**	**$ -**	**$ 8**	**$ 7**	**$ -**	**$ 18**	**$ 21**	**$ 5**	**$ 4**	**$ 2**	**$ 74**	**$ 16,530**	**$ 336**	**$ 16,939**	**$ 2,415**	**$ 3,673**	**$ 6,088**	**$ 29**

Portfolio Planned Versus Actual Performance - 2021												
	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime MMBtu Savings	2,039,137	*1,325,439*		-	2.475%	-	$ 221,813	$ *277,267*	$ -	Program Cost Effectiveness (Page 1 of 3)
2	Annual MMBtu Savings	153,886	*100,026*		-	1.100%	-	$ 98,584	$ *123,230*	$ -	Program Cost Effectiveness (Page 1 of 3)
3	Total Resource Benefits	$ 16,939,053			-						Present Value Benefits (Page 2 of 3)
4	Total Utility Costs[1]	$ 8,962,156			-						Program Cost Effectiveness (Page 1 of 3)
5	Net Benefits	$ 7,976,897	$ *5,184,983*	$ -	-	1.925%	-	$ 172,522	$ *215,652*	$ -	Line 5 minus line 6
6	Total					5.500%	-	$ 492,919	$ *616,148*	$ -	Sum of Rows 1, 2 & 5

		Granite State Test		
		Planned	Actual	Source
7	Total Benefits	$ 19,449,324		Present Value Benefits (Page 2 of 3)
8	Performance Incentive	$ 492,919	$ -	Row 6
9	Total Utility Costs	$ 8,962,156	$ -	Row 4
10	**Portfolio GST BCR**	**2.06**	**-**	Row 7 Divided by Rows 8+9

Costs, Benefits, and PI Expressed in 2021 Dollars.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2022 PLAN

	Benefit/Cost Ratios			Benefits ($000)											
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.14	*0.92*	*1.14*	1,799.2	*1,443.8*	*1,799.2*	1,576.2	-	-	-	-	-	385	7,520.7	164,504.2
A1 - Energy Star Homes	1.24	*1.05*	*0.97*	1,406.2	*1,186.4*	*1,725.9*	1,131.8	646.4	-	-	-	-	116	5,488.1	137,202.3
A2 - Home Performance with Energy Star	1.81	*1.56*	*2.02*	2,296.2	*1,969.7*	*2,841.1*	1,266.2	142.3	6.9	153.0	-	3.8	802	12,031.8	217,262.4
A3 - Energy Star Products	2.05	*1.76*	*1.41*	2,085.2	*1,792.8*	*2,597.3*	1,017.6	819.3	28.4	471.1	9.5	(0.3)	1,743	11,961.2	203,036.5
A4 - Home Energy Reports	1.04	*0.97*	*1.30*	187.0	*173.0*	*233.6*	179.2	-	-	-	-	-	30,000	17,325.4	17,325.4
A6c - Res Education	-	-	-	-	-	-	65.1	-	-	-	-	-		-	-
A7 - Aerial Infrared Mapping	1.10	*1.02*	*1.38*	299.0	*276.5*	*373.5*	271.4	-	-	-	-	-	33,000	27,700.0	27,700.0
Sub-Total Residential	**1.47**	***1.24***	***1.35***	**8,072.8**	***6,842.1***	***9,570.6***	**5,507.5**	**1,608.0**	**35.3**	**624.1**	**9.5**	**3.5**	**66,046**	**82,027.3**	**767,030.8**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	4.87	*4.24*	*2.76*	9,399.3	*8,188.0*	*11,194.4*	1,930.9	2,123.4	-	-	-	-	218	81,402.1	1,005,446.2
C2 - Small Business Energy Solutions	2.74	*2.16*	*1.92*	4,836.3	*3,820.0*	*5,684.2*	1,768.0	1,191.0	9.7	155.6	2.0	1.7	1,127	28,289.5	498,466.6
C6c - C&I Education	-	-	-	-	-	-	65.2	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**3.78**	***3.19***	***2.38***	**14,235.6**	***12,008.0***	***16,878.6***	**3,764.1**	**3,314.4**	**9.7**	**155.6**	**2.0**	**1.7**	**1,345**	**109,691.6**	**1,503,912.8**
Total	**2.41**	***2.03***	***1.86***	**22,308.4**	***18,850.2***	***26,449.2***	**9,271.6**	**4,922.4**	**45.0**	**779.7**	**11.5**	**5.2**	**67,391**	**191,718.8**	**2,270,943.6**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs Expressed in 2021 Dollars

Annual kWh Savings	44,979	0.1%	**kWh < 55%**	**Lifetime** kWh Savings	779,690	0.1%	**kWh < 55%**
Annual MMBTU Savings (in kWh)	56,187,246	99.9%		**Lifetime** MMBTU Savings (in kWh)	665,547,887	99.9%	
	56,232,225	100.0%			**666,327,577**	100.0%	

Annual Savings as a % of 2019 Sales	1.09%

Spending per Customer	Low-Income	$ 293.19
	Residential	$ 44.17
	C&I	$ 257.50

Present Value Benefits - 2022 PLAN

	Total Benefits ($000)			Resource Benefits ($000)															Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric												Non-Electric						
				CAPACITY					ENERGY													
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																					
B1 - Home Energy Assistance	**$ 1,799**	*$ 1,444*	*$ 1,799*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,444	$ 9	**$ 1,453**	$ 244	$ 102	**$ 346**	**$ -**
A1 - Energy Star Homes	**$ 1,406**	*$ 1,186*	*$ 1,726*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,186	$ 4	**$ 1,191**	$ 216	$ 320	**$ 535**	**$ -**
A2 - Home Performance with Energy Star	**$ 2,296**	*$ 1,970*	*$ 2,841*	$ 8	$ -	$ 7	$ 6	$ -	$ 1	$ 0	$ 5	$ 4	$ 0	**$ 31**	$ 1,970	$ 4	**$ 2,005**	$ 291	$ 539	**$ 830**	**$ 6**
A3 - Energy Star Products	**$ 2,085**	*$ 1,793*	*$ 2,597*	$ (1)	$ -	$ (1)	$ (0)	$ -	$ 16	$ 19	$ (1)	$ (1)	$ 2	**$ 34**	$ 1,793	$ -	**$ 1,827**	$ 258	$ 492	**$ 750**	**$ 20**
A4 - Home Energy Reports	**$ 187**	*$ 173*	*$ 234*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 173	$ -	**$ 173**	$ 14	$ 47	**$ 61**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A7 - Aerial Infrared Mapping	**$ 299**	*$ 277*	*$ 373*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 277	$ -	**$ 277**	$ 22	$ 74	**$ 97**	**$ -**
Sub-Total Residential	**$ 8,073**	*$ 6,842*	*$ 9,571*	**$ 7**	**$ -**	**$ 7**	**$ 6**	**$ -**	**$ 17**	**$ 20**	**$ 4**	**$ 3**	**$ 2**	**$ 65**	**$ 6,842**	**$ 18**	**$ 6,925**	**$ 1,046**	**$ 1,574**	**$ 2,619**	**$ 26**
Commercial/Industrial Programs																					
C1 - Large Business Energy Solutions	**$ 9,399**	*$ 8,188*	*$ 11,194*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 8,188	$ -	**$ 8,188**	$ 1,211	$ 1,795	**$ 3,006**	**$ -**
C2 - Small Business Energy Solutions	**$ 4,836**	*$ 3,820*	*$ 5,684*	$ 2	$ -	$ 2	$ 2	$ -	$ 4	$ 4	$ 1	$ 1	$ 1	**$ 17**	$ 3,820	$ 332	**$ 4,169**	$ 667	$ 841	**$ 1,509**	**$ 7**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 14,236**	*$ 12,008*	*$ 16,879*	**$ 2**	**$ -**	**$ 2**	**$ 2**	**$ -**	**$ 4**	**$ 4**	**$ 1**	**$ 1**	**$ 1**	**$ 17**	**$ 12,008**	**$ 332**	**$ 12,357**	**$ 1,878**	**$ 2,636**	**$ 4,515**	**$ 7**
Total	**$ 22,308**	*$ 18,850*	*$ 26,449*	**$ 9**	**$ -**	**$ 9**	**$ 8**	**$ -**	**$ 21**	**$ 24**	**$ 5**	**$ 4**	**$ 3**	**$ 83**	**$ 18,850**	**$ 349**	**$ 19,283**	**$ 2,924**	**$ 4,210**	**$ 7,134**	**$ 32**

Portfolio Planned Versus Actual Performance - 2022

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime MMBtu Savings	2,270,944	*1,476,113*		-	2.475%	-	$ 229,472	*$ 286,840*	$ -	Program Cost Effectiveness (Page 1 of 3)
2	Annual MMBtu Savings	191,719	*124,617*		-	1.100%	-	$ 101,988	*$ 127,484*	$ -	Program Cost Effectiveness (Page 1 of 3)
3	Total Resource Benefits	$ 19,282,528			-						Present Value Benefits (Page 2 of 3)
4	Total Utility Costs[1]	$ 9,271,591			-						Program Cost Effectiveness (Page 1 of 3)
5	Net Benefits	$ 10,010,937	*$ 6,507,109*	$ -	-	1.925%	-	$ 178,478	*$ 223,098*	$ -	Line 5 minus line 6
6	Total					5.500%	-	$ 509,938	*$ 637,422*	$ -	Sum of Rows 1, 2 & 5

		Granite State Test Planned	Granite State Test Actual	Source
7	Total Benefits	$ 22,308,421		Present Value Benefits (Page 2 of 3)
8	Performance Incentive	$ 509,938	$ -	Row 6
9	Total Utility Costs	$ 9,271,591	$ -	Row 4
10	**Portfolio GST BCR**	**2.28**	**-**	Row 7 Divided by Rows 8+9

Costs, Benefits, and PI Expressed in 2021 Dollars. Nominal PI (2022$) is $526,510.49.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2023 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test [1]*	**Utility Costs ($000 - 2021$)[2]**	**Customer Costs ($000 - 2021$)[2]**	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.20	*0.95*	*1.20*	2,018.8	*1,606.6*	*2,018.8*	1,683.1	-	-	-	-	-	410	8,138.1	179,184.7
A1 - Energy Star Homes	1.65	*1.38*	*1.24*	1,972.4	*1,655.6*	*2,418.4*	1,196.2	753.2	-	-	-	-	126	7,895.0	188,136.6
A2 - Home Performance with Energy Star	1.91	*1.63*	*2.12*	2,628.2	*2,235.9*	*3,247.0*	1,373.8	158.9	7.7	172.6	-	4.3	843	13,319.0	241,288.2
A3 - Energy Star Products	2.15	*1.84*	*1.49*	2,215.4	*1,889.0*	*2,755.9*	1,028.1	827.4	30.3	503.7	10.0	(0.3)	1,779	12,310.1	209,230.1
A4 - Home Energy Reports	1.81	*1.67*	*2.26*	313.9	*289.1*	*391.8*	173.5	-	-	-	-	-	30,000	28,410.0	28,410.0
A6c - Res Education	-	-	-	-	-	-	71.0	-	-	-	-	-		-	-
A7 - Aerial Infrared Mapping	1.16	*1.07*	*1.45*	306.0	*281.9*	*382.0*	262.9	-	-	-	-	-	33,000	27,700.0	27,700.0
Sub-Total Residential	**1.63**	***1.37***	***1.49***	**9,454.6**	***7,958.1***	***11,213.9***	**5,788.7**	**1,739.5**	**38.1**	**676.4**	**10.0**	**4.0**	**66,158**	**97,772.2**	**873,949.5**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	5.14	*4.44*	*2.93*	10,655.2	*9,214.4*	*12,675.3*	2,073.2	2,247.2	-	-	-	-	234	90,438.8	1,103,797.3
C2 - Small Business Energy Solutions	2.81	*2.21*	*2.01*	5,532.2	*4,349.7*	*6,496.6*	1,967.9	1,265.6	9.9	159.3	2.0	1.7	1,194	31,363.4	554,760.8
C6c - C&I Education	-	-	-	-	-	-	70.6	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**3.94**	***3.30***	***2.51***	**16,187.4**	***13,564.1***	***19,171.9***	**4,111.7**	**3,512.8**	**9.9**	**159.3**	**2.0**	**1.7**	**1,428**	**121,802.2**	**1,658,558.1**
Total	**2.59**	***2.17***	***2.01***	**25,642.0**	***21,522.2***	***30,385.8***	**9,900.4**	**5,252.3**	**48.0**	**835.7**	**12.0**	**5.7**	**67,586**	**219,574.4**	**2,532,507.6**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs Expressed in 2021 Dollars

Annual kWh Savings	47,972	0.1%	**kWh < 55%**	**Lifetime** kWh Savings	835,732	0.1%	**kWh < 55%**
Annual MMBTU Savings (in kWh)	64,350,897	99.9%		**Lifetime** MMBTU Savings (in kWh)	742,204,727	99.9%	
	64,398,869	100.0%			**743,040,459**	100.0%	

Annual Savings as a % of 2019 Sales	1.25%

Spending per Customer	Low-Income	$ 313.07
	Residential	$ 46.13
	C&I	$ 281.28

Present Value Benefits - 2023 PLAN

	Total Benefits ($000)			Resource Benefits ($000)															Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric												Non-Electric						
				CAPACITY					ENERGY													
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																					
B1 - Home Energy Assistance	**$ 2,019**	*$ 1,607*	*$ 2,019*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,607	$ 10	**$ 1,617**	$ 289	$ 113	**$ 402**	**$ -**
A1 - Energy Star Homes	**$ 1,972**	*$ 1,656*	*$ 2,418*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 1,656	$ 5	**$ 1,661**	$ 312	$ 446	**$ 758**	**$ -**
A2 - Home Performance with Energy Star	**$ 2,628**	*$ 2,236*	*$ 3,247*	$ 9	$ -	$ 8	$ 7	$ -	$ 1	$ 0	$ 6	$ 4	$ 0	**$ 37**	$ 2,236	$ 5	**$ 2,277**	$ 351	$ 612	**$ 963**	**$ 7**
A3 - Energy Star Products	**$ 2,215**	*$ 1,889*	*$ 2,756*	$ (1)	$ -	$ (0)	$ (0)	$ -	$ 18	$ 21	$ (1)	$ (1)	$ 2	**$ 38**	$ 1,889	$ -	**$ 1,927**	$ 289	$ 519	**$ 808**	**$ 22**
A4 - Home Energy Reports	**$ 314**	*$ 289*	*$ 392*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 289	$ -	**$ 289**	$ 25	$ 78	**$ 103**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A7 - Aerial Infrared Mapping	**$ 306**	*$ 282*	*$ 382*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 282	$ -	**$ 282**	$ 24	$ 76	**$ 100**	**$ -**
Sub-Total Residential	**$ 9,455**	*$ 7,958*	*$ 11,214*	**$ 8**	**$ -**	**$ 8**	**$ 7**	**$ -**	**$ 18**	**$ 22**	**$ 5**	**$ 4**	**$ 2**	**$ 74**	**$ 7,958**	**$ 20**	**$ 8,052**	**$ 1,290**	**$ 1,844**	**$ 3,133**	**$ 28**
Commercial/Industrial Programs																					
C1 - Large Business Energy Solutions	**$ 10,655**	*$ 9,214*	*$ 12,675*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 9,214	$ -	**$ 9,214**	$ 1,441	$ 2,020	**$ 3,461**	**$ -**
C2 - Small Business Energy Solutions	**$ 5,532**	*$ 4,350*	*$ 6,497*	$ 2	$ -	$ 2	$ 2	$ -	$ 4	$ 4	$ 1	$ 1	$ 1	**$ 18**	$ 4,350	$ 357	**$ 4,725**	$ 807	$ 958	**$ 1,765**	**$ 7**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 16,187**	*$ 13,564*	*$ 19,172*	**$ 2**	**$ -**	**$ 2**	**$ 2**	**$ -**	**$ 4**	**$ 4**	**$ 1**	**$ 1**	**$ 1**	**$ 18**	**$ 13,564**	**$ 357**	**$ 13,940**	**$ 2,248**	**$ 2,978**	**$ 5,226**	**$ 7**
Total	**$ 25,642**	*$ 21,522*	*$ 30,386*	**$ 11**	**$ -**	**$ 10**	**$ 9**	**$ -**	**$ 23**	**$ 26**	**$ 6**	**$ 5**	**$ 3**	**$ 92**	**$ 21,522**	**$ 377**	**$ 21,992**	**$ 3,537**	**$ 4,822**	**$ 8,359**	**$ 35**

Portfolio Planned Versus Actual Performance - 2023

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime MMBtu Savings	2,532,508	*1,646,130*		-	2.475%	-	$ 245,035	*$ 306,294*	$ -	Program Cost Effectiveness (Page 1 of 3)
2	Annual MMBtu Savings	219,574	*142,723*		-	1.100%	-	$ 108,905	*$ 136,131*	$ -	Program Cost Effectiveness (Page 1 of 3)
3	Total Resource Benefits	$ 21,991,998			-						Present Value Benefits (Page 2 of 3)
4	Total Utility Costs[1]	$ 9,900,418			-						Program Cost Effectiveness (Page 1 of 3)
5	Net Benefits	$ 12,091,579	*$ 7,859,526*	$ -	-	1.925%	-	$ 190,583	*$ 238,229*	$ -	Line 5 minus line 6
6	Total					5.500%	-	$ 544,523	*$ 680,654*	$ -	Sum of Rows 1, 2 & 5

		Granite State Test Planned	Granite State Test Actual	Source
7	Total Benefits	$ 25,642,001		Present Value Benefits (Page 2 of 3)
8	Performance Incentive	$ 544,523	$ -	Row 6
9	Total Utility Costs	$ 9,900,418	$ -	Row 4
10	**Portfolio GST BCR**	**2.45**	**-**	Row 7 Divided by Rows 8+9

Costs, Benefits, and PI Expressed in 2021 Dollars. Nominal PI (2023$) is $580,492.17.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2021-2023 PLAN

	Benefit/Cost Ratios			Benefits ($000)											
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.14	*0.92*	*1.14*	5,464.7	*4,381.4*	*5,464.7*	4,782.8	-	-	-	-	-	1,165	22,766.5	498,597.6
A1 - Energy Star Homes	1.33	*1.12*	*1.01*	4,489.0	*3,787.1*	*5,509.2*	3,367.3	2,072.9	-	-	-	-	340	17,848.8	436,980.8
A2 - Home Performance with Energy Star	1.81	*1.56*	*2.02*	6,979.5	*5,981.0*	*8,634.5*	3,845.8	434.7	21.0	467.9	-	11.6	2,412	36,414.9	658,712.5
A3 - Energy Star Products	2.04	*1.75*	*1.41*	6,169.8	*5,302.3*	*7,684.0*	3,021.5	2,426.8	83.4	1,382.7	27.8	(0.9)	5,144	35,336.9	599,860.9
A4 - Home Energy Reports	1.19	*1.10*	*1.49*	640.9	*592.2*	*800.4*	537.7	-	-	-	-	-	90,000	58,904.5	58,904.5
A6c - Res Education	-	-	-	-	-	-	196.3	-	-	-	-	-	-	-	-
A7 - Aerial Infrared Mapping	0.66	*0.61*	*0.83*	658.2	*607.8*	*821.9*	994.6	-	-	-	-	-	99,000	60,400.0	60,400.0
Sub-Total Residential	**1.46**	***1.23***	***1.33***	**24,402.0**	***20,651.8***	***28,914.8***	**16,746.1**	**4,934.4**	**104.4**	**1,850.6**	**27.8**	**10.7**	**198,061**	**231,671.7**	**2,313,456.3**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	4.87	*4.24*	*2.76*	28,333.0	*24,679.9*	*33,743.8*	5,822.7	6,408.1	-	-	-	-	659	248,005.5	3,022,515.8
C2 - Small Business Energy Solutions	2.73	*2.16*	*1.93*	14,664.7	*11,570.4*	*17,232.6*	5,369.1	3,578.1	29.1	467.1	5.9	5.0	3,401	85,501.7	1,506,615.8
C6c - C&I Education	-	-	-	-	-	-	196.4	-	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	**3.78**	***3.18***	***2.38***	**42,997.7**	***36,250.3***	***50,976.4***	**11,388.1**	**9,986.3**	**29.1**	**467.1**	**5.9**	**5.0**	**4,060**	**333,507.3**	**4,529,131.7**
Total	**2.40**	***2.02***	***1.86***	**67,399.7**	***56,902.1***	***79,891.2***	**28,134.2**	**14,920.7**	**133.5**	**2,317.7**	**33.7**	**15.7**	**202,121**	**565,178.9**	**6,842,588.0**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs Expressed in 2021 Dollars

Annual kWh Savings	133,486	0.1%	**kWh < 55%**	**Lifetime** kWh Savings	2,317,728	0.1%	**kWh < 55%**
Annual MMBTU Savings (in kWh)	165,637,597	99.9%		**Lifetime** MMBTU Savings (in kWh)	2,005,364,672	99.9%	
	165,771,083	100.0%			**2,007,682,399**	100.0%	

Cumulative Savings as a % of 2019 Sales	3.22%

Spending per Customer	Low-Income	$ 889.66
	Residential	$ 134.42
	C&I	$ 779.05

Present Value Benefits - 2021-2023 PLAN

	Total Benefits ($000)			Resource Benefits ($000)																Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric													Non-Electric							
				CAPACITY					ENERGY														
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Summer Generation	Winter Generation	Transmission	Distribution	Reliability	Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak	Electric DRIPE	Total Electric Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs																							
B1 - Home Energy Assistance	**$ 5,465**	*$ 4,381*	*$ 5,465*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 4,381	$ 28	**$ 4,410**	$ 746	$ 309	**$ 1,055**	**$ -**
A1 - Energy Star Homes	**$ 4,489**	*$ 3,787*	*$ 5,509*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 3,787	$ 12	**$ 3,800**	$ 689	$ 1,020	**$ 1,710**	**$ -**
A2 - Home Performance with Energy Star	**$ 6,979**	*$ 5,981*	*$ 8,635*	$ 23	$ -	$ 22	$ 19	$ -	$ 2	$ 1	$ 15	$ 11	$ 1	**$ 96**	$ 5,981	$ 13	**$ 6,090**	$ 889	$ 1,637	**$ 2,526**	**$ 18**
A3 - Energy Star Products	**$ 6,170**	*$ 5,302*	*$ 7,684*	$ (1)	$ -	$ (1)	$ (1)	$ -	$ 47	$ 57	$ (3)	$ (2)	$ 5	**$ 100**	$ 5,302	$ -	**$ 5,403**	$ 767	$ 1,455	**$ 2,223**	**$ 59**
A4 - Home Energy Reports	**$ 641**	*$ 592*	*$ 800*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 592	$ -	**$ 592**	$ 49	$ 160	**$ 208**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
A7 - Aerial Infrared Mapping	$ 658	*$ 608*	*$ 822*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 608	$ -	$ 608	$ 50	$ 164	$ 214	$ -
Sub-Total Residential	**$ 24,402**	*$ 20,652*	*$ 28,915*	**$ 22**	**$ -**	**$ 21**	**$ 18**	**$ -**	**$ 49**	**$ 58**	**$ 12**	**$ 9**	**$ 7**	**$ 196**	**$ 20,652**	**$ 54**	**$ 20,902**	**$ 3,191**	**$ 4,746**	**$ 7,936**	**$ 77**
Commercial/Industrial Programs																							
C1 - Large Business Energy Solutions	**$ 28,333**	*$ 24,680*	*$ 33,744*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ 24,680	$ -	**$ 24,680**	$ 3,653	$ 5,411	**$ 9,064**	**$ -**
C2 - Small Business Energy Solutions	**$ 14,665**	*$ 11,570*	*$ 17,233*	$ 7	$ -	$ 7	$ 6	$ -	$ 11	$ 13	$ 4	$ 3	$ 2	**$ 53**	$ 11,570	$ 1,009	**$ 12,632**	$ 2,033	$ 2,548	**$ 4,581**	**$ 20**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 42,998**	*$ 36,250*	*$ 50,976*	**$ 7**	**$ -**	**$ 7**	**$ 6**	**$ -**	**$ 11**	**$ 13**	**$ 4**	**$ 3**	**$ 2**	**$ 53**	**$ 36,250**	**$ 1,009**	**$ 37,312**	**$ 5,686**	**$ 7,959**	**$ 13,645**	**$ 20**
Total	**$ 67,400**	*$ 56,902*	*$ 79,891*	**$ 28**	**$ -**	**$ 28**	**$ 24**	**$ -**	**$ 61**	**$ 71**	**$ 16**	**$ 13**	**$ 8**	**$ 249**	**$ 56,902**	**$ 1,062**	**$ 58,214**	**$ 8,877**	**$ 12,705**	**$ 21,581**	**$ 96**

Portfolio Planned Versus Actual Performance - 2021-2023

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime MMBtu Savings	6,842,588	*4,447,682*		-	2.475%	-	$ 696,321	$ *870,401*	$ -	Program Cost Effectiveness (Page 1 of 3)
2	Annual MMBtu Savings	565,179	*367,366*		-	1.100%	-	$ 309,476	$ *386,845*	$ -	Program Cost Effectiveness (Page 1 of 3)
3	Total Resource Benefits	$ 58,213,578			-						Present Value Benefits (Page 2 of 3)
4	Total Utility Costs[1]	$ 28,134,166			-						Program Cost Effectiveness (Page 1 of 3)
5	Net Benefits	$ 30,079,413	$ *19,551,618*	$ -	-	1.925%	-	$ 541,583	$ *676,978*	$ -	Line 5 minus line 6
6	Total					5.500%	-	$ 1,547,379	$ *1,934,224*	$ -	Sum of Rows 1, 2 & 5

		Granite State Test Planned	Granite State Test Actual	Source
7	Total Benefits	$ 67,399,747		Present Value Benefits (Page 2 of 3)
8	Performance Incentive	$ 1,547,379	$ -	Row 6
9	Total Utility Costs	$ 28,134,166	$ -	Row 4
10	**Portfolio GST BCR**	**2.27**	**-**	Row 7 Divided by Rows 8+9

Costs, Benefits, and PI Expressed in 2021 Dollars. Three-year nominal PI is $1,599,921.24.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Summary - 2021 - 2023 PLAN

			Quantity			Measure Life			Net to Gross			In Service Rate			kWh Realization Rate			Net Annual MWh Savings			Net Lifetime MWh Savings			Annual Net Winter kW			Annual Net Summer kW			Total Net Annual MMBTU			Total Net Lifetime MMBTU		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
B1a - HEA (Weatherization)	Air Sealing, Gas	G21B1a001	20	22	24	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			194.9	208.8	231.3	2,923.6	3,131.3	3,469.7
B1a - HEA (Weatherization)	Faucet Aerator, Gas	G21B1a002	64	68	75	7	7	7	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			9.0	9.7	10.7	63.1	67.6	74.9
B1a - HEA (Weatherization)	Hand Held Showerhead, Gas	G21B1a003	29	31	34	7	7	7	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			16.6	17.8	19.7	116.4	124.7	138.1
B1a - HEA (Weatherization)	Insulation, Gas	G21B1a004	219	235	260	25	25	25	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-									4,407.0	4,720.1	5,230.3	110,175.9	118,002.5	130,756.9
B1a - HEA (Weatherization)	LED Bulb, General Service Lamps	G21B1a005	14	15	17	5	5	5	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			-	-	-	-	-	-
B1a - HEA (Weatherization)	LED Bulb, Linear	G21B1a006	-	-	-	10	10	10	100%	100%	100%	100%	100%	100%	91%	91%	91%													-	-	-	-	-	-
B1a - HEA (Weatherization)	LED Bulb, Other Specialty	G21B1a007	-	-	-	2	2	2	100%	100%	100%	100%	100%	100%	91%	91%	91%													-	-	-	-	-	-
B1a - HEA (Weatherization)	LED Bulb, Reflector	G21B1a008	-	-	-	2	2	2	100%	100%	100%	100%	100%	100%	91%	91%	91%													-	-	-	-	-	-
B1a - HEA (Weatherization)	LED Fixture	G21B1a009	-	-	-	2	2	2	100%	100%	100%	100%	100%	100%	91%	91%	91%													-	-	-	-	-	-
B1a - HEA (Weatherization)	Low Flow Showerhead, Gas	G21B1a010	78	83	92	7	7	7	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-									44.9	48.1	53.3	314.3	336.6	373.0
B1a - HEA (Weatherization)	Pipe Insulation - Hot Water, Gas	G21B1a011	110	117	130	20	20	20	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			440.2	471.5	522.4	8,869.8	9,499.9	10,526.8
B1a - HEA (Weatherization)	Visual Audit	G21B1a012	150	150	150	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			-	-	-	-	-	-
B1a - HEA (Weatherization)	Baseload Audit - SF	G21B1a013	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-									-	-	-	-	-	-
B1a - HEA (Weatherization)	Baseload Audit - MF	G21B1a014	1	1	1	1	1	1	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-									-	-	-	-	-	-
B1b - HEA (HVAC Systems)	Boiler Replacement, Gas	G21B1b001	19	20	21	20	20	20	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			420.5	440.2	461.6	8,410.0	8,804.9	9,232.2
B1b - HEA (HVAC Systems)	Furnace Replacement, Gas	G21B1b002	12	13	13	18	18	18	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			139.0	156.0	160.6	2,502.1	2,807.2	2,891.5
B1b - HEA (HVAC Systems)	Programmable Thermostat, Gas	G21B1b003	58	62	62	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			183.9	196.9	196.4	2,758.1	2,954.0	2,946.0
B1b - HEA (HVAC Systems)	Wifi Thermostat, Gas	G21B1b004	237	237	237	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	-			-			-			-			1,251.7	1,251.7	1,251.7	18,775.6	18,775.6	18,775.6
	Home Energy Assistance Subtotal																	-	-	-	-	-	-	-	-	-	-	-	-	**7,108**	**7,521**	**8,138**	**154,909**	**164,504**	**179,185**

Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A1a - ES Homes	Cooling, Electric, SF	E21A1a001	1	1	1	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	-	-	-	-	-
A1a - ES Homes	Heating, Gas, SF	G21A1a002	61	79	88	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			3,254.1	4,180.9	4,679.1	81,353.0	104,522.7	116,977.2
A1a - ES Homes	Hot Water, Gas, SF	G21A1a003	56	73	81	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			282.0	362.3	405.4	7,049.3	9,057.0	10,136.2
A1a - ES Homes	Cooling, Electric, MF	E21A1a002	1	1	1	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	-	-	-	-	-
A1a - ES Homes	Heating, Gas, MF	G21A1a005	36	37	38	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			920.6	935.7	953.4	23,013.9	23,393.3	23,835.8
A1a - ES Homes	Hot Water, Gas, MF	G21A1a006	11	11	11	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			9.0	9.2	9.3	225.6	229.4	233.7
A1a - ES Homes	LED Bulb - SF	G21A1a007	60	77	87	5	5	5	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	-	-	-	-	-
A1a - ES Homes	LED Bulb (MF)	G21A1a008	36	37	38	5	5	5	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	-	-	-	-	-
A1a - ES Homes	Clothes Washer	G21A1a009	14	17	19	14	14	14	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	-	-	-	-	-
A1a - ES Homes	Residential New Construction Code Compliance	G21A1a010	1	1	1	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	-	1,847.7	-	-	36,953.7
		ES Homes Subtotal																-	-	-	-	-	-	-	-	-	-	-	-	**4,466**	**5,488**	**7,895**	**111,642**	**137,202**	**188,137**

Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A2a - HPwES (Weatherization)	Air Sealing, Gas	G21A2a001	56	60	68	15	15	15	100%	100%	100%	99%	99%	99%	100%	100%	100%	0.6	0.6	0.7	8.5	9.1	10.3	-	-	-	0.3	0.3	0.4	787.9	847.5	956.2	12,101.8	13,016.9	14,686.5
A2a - HPwES (Weatherization)	Faucet Aerator, Gas	G21A2a002	1	1	1	7	7	7	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-									0.2	0.2	0.2	1.3	1.4	1.6
A2a - HPwES (Weatherization)	Hand Held Showerhead, Gas	G21A2a003	56	60	68	7	7	7	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-									35.0	37.6	42.4	244.8	263.3	297.1
A2a - HPwES (Weatherization)	Insulation, Gas	G21A2a004	118	127	143	23	23	23	100%	100%	100%	99%	99%	99%	100%	100%	100%	5.8	6.3	7.1	133.8	143.9	162.4	-	-	-	3.2	3.5	3.9	4,289.8	4,614.2	5,206.0	98,536.8	105,987.3	119,581.9
A2a - HPwES (Weatherization)	LED Bulb, General Service Lamps	G21A2a005	6	7	7	5	5	5	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-			-			-			4.5	4.8	5.4	22.3	23.9	27.0
A2a - HPwES (Weatherization)	LED Bulb, Linear	G21A2a006	-	-	-	-			100%	100%	100%	99%	99%	99%	100%	100%	100%				-									-	-	-	-	-	-
A2a - HPwES (Weatherization)	LED Bulb, Other Specialty	G21A2a007	1	1	1	5	5	5	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-			-			-			1.8	2.0	2.2	9.1	9.8	11.1
A2a - HPwES (Weatherization)	LED Bulb, Reflector	G21A2a008	1	1	1	5	5	5	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-			-			-			2.0	2.1	2.4	9.8	10.6	12.0
A2a - HPwES (Weatherization)	LED Fixture	G21A2a009	-	-	-	-			100%	100%	100%	99%	99%	99%	100%	100%	100%													-	-	-	-	-	-
A2a - HPwES (Weatherization)	Low Flow Showerhead, Gas	G21A2a010	2	3	3	7	7	7	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-									1.5	1.6	1.8	10.6	11.4	12.9
A2a - HPwES (Weatherization)	Pipe Insulation - Hot Water, Gas	G21A2a011	7	8	9	20	20	20	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-									4.8	5.1	5.8	95.1	102.3	115.4
A2a - HPwES (Weatherization)	Baseload Audit - Electric Savings	G21A2a012	650	675	700	5	5	5	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-			-			-			-	-	-	-	-	-
A2a - HPwES (Weatherization)	Baseload Audit - Thermal Savings	G21A2a013	650	675	700	12	12	12	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-									-	-	-	-	-	-
A2a - HPwES (Weatherization)	Visual Audit kW Savings	G21A2a014	-	-	-	1	1	1	100%	100%	100%	99%	99%	99%	100%	100%	100%													-	-	-	-	-	-
A2b - HPwES (HVAC Systems)	Boiler Replacement, Gas	G21A2b001	-	-	-	25	25	25	100%	100%	100%	99%	99%	99%	100%	100%	100%													-	-	-	-	-	-
A2b - HPwES (HVAC Systems)	Furnace Replacement, Gas	G21A2b002	-	-	-	20	20	20	100%	100%	100%	99%	99%	99%	100%	100%	100%													-	-	-	-	-	-
A2b - HPwES (HVAC Systems)	Programmable Thermostat, Gas	G21A2b003	51	52	53	15	15	15	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-			-			-			175.4	179.7	182.6	2,630.8	2,695.1	2,738.4
A2b - HPwES (HVAC Systems)	Wifi Thermostat, Gas	G21A2b004	1,000	1,100	1,200	15	15	15	100%	100%	100%	99%	99%	99%	100%	100%	100%	-			-			-			-			5,742.0	6,316.2	6,890.4	86,130.0	94,743.0	103,356.0
	Home Performance with Energy Star Subtotal																	**6.4**	**6.9**	**7.7**	**142.3**	**153.1**	**172.7**	**-**	**-**	**-**	**3.5**	**3.8**	**4.3**	**11,064.2**	**12,031.8**	**13,319.0**	**200,161.9**	**217,262.4**	**241,288.2**

Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A3b - ES Appliances	Early Replacement Boiler, FHW - EE 90 AFUE (80%-90%)	G21A3b001	-	-	-	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
A3b - ES Appliances	Early Replacement Boiler, FHW - Retirement: 90 AFUE (65%-90%)	G21A3b002	-	-	-	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
A3b - ES Appliances	Early Replacement Boiler, Steam - EE: 82%+ AFUE	G21A3b003	-	-	-	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
A3b - ES Appliances	Early Replacement Boiler, Steam - Retirement: 82%+ AFUE	G21A3b004	-	-	-	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
A3b - ES Appliances	Boiler Reset Controls	G21A3b005	1	1	1	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										5.1	5.1	5.1	76.5	76.5	76.5
A3b - ES Appliances	Condensing Boiler >= 90% AFUE (Up to 300 MBH)	G21A3b006	15	18	21	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										181.5	217.8	254.1	3,267.0	3,920.4	4,573.8
A3b - ES Appliances	Condensing Boiler >= 95% AFUE (Up to 300 MBH)	G21A3b007	110	120	124	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										1,628.0	1,776.0	1,835.2	30,932.0	33,744.0	34,868.8
A3b - ES Appliances	Furnace 95+ AFUE (<150) w/ECM Motor	G21A3b008	100	115	111	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	16.8	19.3	18.6	285.6	328.4	317.0	4.9	5.6	5.4	-	-	-	980.0	1,127.0	1,087.8	16,660.0	19,159.0	18,492.6
A3b - ES Appliances	Furnace 97+ AFUE (<150) w/ECM Motor	G21A3b009	80	90	104	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	13.4	15.1	17.5	228.5	257.0	297.0	3.9	4.4	5.1	-	-	-	824.0	927.0	1,071.2	14,008.0	15,759.0	18,210.4
A3b - ES Appliances	Heat Recovery Ventilator (-133 kWh penalty)	G21A3b010	1	1	1	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										7.7	7.7	7.7	154.0	154.0	154.0
A3b - ES Appliances	Programmable Thermostat	G21A3b011	100	110	111	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										350.0	385.0	388.5	5,250.0	5,775.0	5,827.5
A3b - ES Appliances	Indirect Water Heater (attached to ES FHW Boiler; Combined eff rating >=85% (EF=.82)	G21A3b012	20	24	26	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										80.0	95.7	104.0	1,600.0	1,915.0	2,080.0
A3b - ES Appliances	Integrated Water Heater w/Condensing Boiler >= 90% AFUE	G21A3b013	5	7	8	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										42.0	58.8	67.2	798.0	1,117.2	1,276.8
A3b - ES Appliances	Integrated Water Heater w/Condensing Boiler >= 95% AFUE	G21A3b014	170	180	190	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										1,870.0	1,980.0	2,090.0	35,530.0	37,620.0	39,710.0
A3b - ES Appliances	Condensing Water Heater, UEF of .80+	G21A3b015	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
A3b - ES Appliances	ES Storage Water Heater, Med Draw UEF .64+, High Draw UEF .68+	G21A3b016	-	-	-	13	13	13	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										-	-	-	-	-	-
A3b - ES Appliances	Tankless On-Demand Water Heater, >= .82	G21A3b017	-	-	-	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
A3b - ES Appliances	Tankless On-Demand Water Heater, UEF .87+	G21A3b018	130	140	135	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	(5.6)	(6.0)	(5.8)	(106.2)	(114.4)	(110.3)	(0.5)	(0.6)	(0.5)	(0.3)	(0.3)	(0.3)	715.0	770.0	742.5	13,585.0	14,630.0	14,107.5
A3b - ES Appliances	WiFi Thermostat (Heating Only)	G21A3b019	891	937	947	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-										4,382.3	4,611.1	4,656.8	65,733.9	69,166.4	69,852.2
A3b - ES Appliances	WiFi Thermostat (Heating & Cooling)	G21A3b020	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
	ES Products Subtotal																	**24.7**	**28.4**	**30.3**	**407.9**	**471.1**	**503.7**	**8.3**	**9.5**	**10.0**	**(0.3)**	**(0.3)**	**(0.3)**	**11,065.6**	**11,961.2**	**12,310.1**	**187,594.4**	**203,036.5**	**209,230.1**

Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A4a - Home Energy Reports	Home Energy Reports	G21A4a001	30,000	30,000	30,000	1	1	1	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-			13,169.1	17,325.4	28,410.0	13,169.1	17,325.4	28,410.0
	Residential Behavior Subtotal																		**-**	**2,047.5**	**2,322.7**	**2,378.7**	**2,416.5**	**2,028.8**	**2,030.9**	**2,032.5**	**2,020.4**	**2,021.4**	**2,022.4**	**31,352.9**	**36,689.8**	**48,142.4**	**282,103.3**	**306,180.3**	**323,622.8**

Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
	Residential Aerial Infrared Mapping Subtotal																			-	**6,123.8**	**6,772.5**	**6,893.8**	**6,966.2**	**6,079.1**	**6,084.4**	**6,088.4**	**6,062.2**	**6,065.1**	**6,068.1**	**64,629.6**	**97,720.4**	**120,608.5**	**491,908.8**	**558,286.2**	**593,008.8**

Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
C1a - LCI Retrofit	Custom Large Hot Water Retro	G21C1a001	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large HVAC Retro	G21C1a002	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Custom Large Other Retro	G21C1a003	19	19	20	13	13	13	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			28,966.1	28,966.1	30,680.2	366,130.9	366,130.9	387,797.8
C1a - LCI Retrofit	Custom Large Process Retro	G21C1a004	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Faucet Aerator, Gas	G21C1a005	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Low Flow Showerhead With Thermostatic Valve, Gas	G21C1a006	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Low Flow Showerhead, Gas	G21C1a007	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Pipe Wrap - Hot Water, Gas	G21C1a008	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Pre Rinse Spray Valve, Gas	G21C1a009	-	-	-	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Boiler Reset Controls, Gas	G21C1a010	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Boiler Tune-Ups	G21C1a011	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Energy Management System, Gas	G21C1a012	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Pipe Insulation - Heating, Gas	G21C1a013	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	Steam Trap, Gas	G21C1a014	17	18	21	6	6	6	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									27,618.2	28,430.5	33,304.3	165,709.2	170,583.0	199,825.8
C1a - LCI Retrofit	Programmable Thermostat, Gas	G21C1a015	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1a - LCI Retrofit	WiFi Thermostat (Heating & Cooling)	G21C1a016	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Custom Large Hot Water New	G21C1b001	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Custom Large HVAC New	G21C1b002	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Custom Large Other New	G21C1b003	8	10	11	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			15,193.5	19,213.8	20,965.8	306,102.5	387,101.1	422,397.6
C1b - LCI New Equipment and Construction	Custom Large Process New	G21C1b004	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Boiler 1701 to 2000 MBH 90 AFUE, Gas	G21C1b005	5	5	5	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									826.5	826.5	826.5	20,662.5	20,662.5	20,662.5
C1b - LCI New Equipment and Construction	Boiler 1000 to 1700 MBH 90 AFUE, Gas	G21C1b006	2	3	4	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									189.0	283.5	378.0	4,725.0	7,087.5	9,450.0
C1b - LCI New Equipment and Construction	Boiler 500 to 999 MBH 90 AFUE, Gas	G21C1b007	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Boiler 301 to 499 MBH 90 AFUE, Gas	G21C1b008	6	6	7	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									168.0	168.0	196.0	4,200.2	4,200.0	4,900.1
C1b - LCI New Equipment and Construction	Boiler to 300 MBH 90 AFUE, Gas	G21C1b009	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Boiler to 300 MBH 95 AFUE, Gas	G21C1b010	2	2	2	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									35.4	35.4	35.4	885.0	885.0	885.0
C1b - LCI New Equipment and Construction	Combo Condensing Boiler / Water Heater, Gas	G21C1b011	-	-	-	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Combo Furnace / Water Heater, Gas	G21C1b012	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Condensing Unit Heater, Gas	G21C1b013	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Furnace w/ ECM 95 AFUE, Gas	G21C1b014	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Furnace w/ ECM 97 AFUE, Gas	G21C1b015	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Infrared Heater, Gas	G21C1b016	19	19	20	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									228.0	228.0	240.0	3,876.0	3,876.0	4,080.0
C1b - LCI New Equipment and Construction	Faucet Aerator, Gas	G21C1b017	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Low Flow Showerhead With Thermostatic Valve, Gas	G21C1b018	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Low Flow Showerhead, Gas	G21C1b019	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Pre Rinse Spray Valve, Gas	G21C1b020	-	-	-	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Combination Oven, Gas	G21C1b021	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Convection Oven, Gas	G21C1b022	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Conveyor Oven, Gas	G21C1b023	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Fryer, Gas	G21C1b024	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Griddle, Gas	G21C1b025	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Rack Oven, Gas	G21C1b026	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	Steam Cooker, Gas	G21C1b027	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1b - LCI New Equipment and Construction	C&I Large New Construction Code Compliance	G21A1a028	1	1	1	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	240.9	-	-	4,817.1
C1c - LCI Midstream	Midstream Combination Oven, Gas	G21C1c001	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1c - LCI Midstream	Midstream Convection Oven, Gas	G21C1c002	3	4	5	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									84.5	112.6	140.8	1,013.6	1,351.5	1,689.3
C1c - LCI Midstream	Midstream Conveyor Oven, Gas	G21C1c003	2	3	4	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									257.1	385.6	514.1	3,084.8	4,627.1	6,169.5
C1c - LCI Midstream	Midstream Fryer, Gas	G21C1c004	6	7	8	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									406.2	456.6	521.8	4,874.4	5,478.8	6,261.5
C1c - LCI Midstream	Midstream Griddle, Gas	G21C1c005	1	2	3	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									31.6	63.1	94.7	378.8	757.7	1,136.5
C1c - LCI Midstream	Midstream Pre-Rinse Spray Valve, Gas	G21C1c006	-	-	-	8	8	8	83%	83%	83%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1c - LCI Midstream	Midstream Rack Oven, Gas	G21C1c007	1	1	1	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									176.0	176.0	176.0	2,112.2	2,112.2	2,112.2
C1c - LCI Midstream	Midstream Steam Cooker, Gas	G21C1c008	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1c - LCI Midstream	Midstream Indirect Water Heater, Gas	G21C1c009	116	120	124	15	15	15	89%	89%	89%	100%	100%	100%	100%	100%	100%	-			-									1,966.6	2,038.3	2,106.3	29,499.2	30,574.8	31,594.2
C1c - LCI Midstream	Midstream On Demand Tankless Water Heater, Gas	G21C1c010	-	-	-	20	20	20	89%	89%	89%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C1c - LCI Midstream	Midstream Volume Water Heater, Gas	G21C1c011	-	-	-	15	15	15	89%	89%	89%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
	Large Business Energy Solutions Subtotal																	-	-	-	-	-	-	-	-	-	-	-	-	**76,164.6**	**81,402.1**	**90,438.8**	**913,272.3**	**1,005,446.2**	**1,103,797.3**

Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
C2a - SCI Retrofit	Custom Small Hot Water Retro	G21C2a001	22	23	24	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									121.4	127.0	132.5	2,166.5	2,265.0	2,363.4
C2a - SCI Retrofit	Custom Small HVAC Retro	G21C2a002	-	1	1	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Custom Small Other Retro	G21C2a003	22	23	24	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			4,542.3	4,748.8	4,955.3	78,809.6	82,391.6	85,973.8
C2a - SCI Retrofit	Custom Small Process Retro	G21C2a004	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Faucet Aerator, Gas	G21C2a005	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Low Flow Showerhead With Thermostatic Valve, Gas	G21C2a006	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Low Flow Showerhead, Gas	G21C2a007	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Pipe Wrap - Hot Water, Gas	G21C2a008	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Pre Rinse Spray Valve, Gas	G21C2a009	-	-	-	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Boiler Reset Controls, Gas	G21C2a010	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Boiler Tune-Ups	G21C2a011	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Energy Management System, Gas	G21C2a012	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Pipe Insulation - Heating, Gas	G21C2a013	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Steam Trap, Gas	G21C2a014	-	-	-	6	6	6	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2a - SCI Retrofit	Programmable Thermostat, Gas	G21C2a015	323	330	337	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									1,130.5	1,155.0	1,179.5	16,957.5	17,325.0	17,692.5
C2a - SCI Retrofit	WiFi Thermostat (Heating & Cooling)	G21C2a016	254	255	257	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	6.3	6.3	6.4	94.7	95.1	95.8	1.0	1.0	1.0	1.7	1.7	1.7	889.0	892.5	899.5	13,335.0	13,387.5	13,492.5
C2b - SCI New Equipment and Construction	Custom Small Hot Water New	E21C2b001	24	26	29	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			42.4	46.0	51.3	1,060.9	1,149.3	1,281.9
C2b - SCI New Equipment and Construction	Custom Small HVAC New	E21C2b002	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Custom Small Other New	E21C2b003	29	33	36	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			7,744.4	8,904.9	9,530.4	157,209.2	180,765.2	193,463.4
C2b - SCI New Equipment and Construction	Custom Small Process New	E21C2b004	-	-	-	-			100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Boiler 1701 to 2000 MBH 90 AFUE, Gas	E21C2b005	7	7	8	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									1,157.1	1,157.1	1,322.4	28,927.5	28,927.5	33,060.0
C2b - SCI New Equipment and Construction	Boiler 1000 to 1700 MBH 90 AFUE, Gas	E21C2b006	4	5	6	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									378.0	472.5	567.0	9,450.0	11,812.5	14,175.0
C2b - SCI New Equipment and Construction	Boiler 500 to 999 MBH 90 AFUE, Gas	E21C2b007	16	18	22	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									822.4	925.2	1,130.8	20,560.0	23,130.0	28,270.0
C2b - SCI New Equipment and Construction	Boiler 301 to 499 MBH 90 AFUE, Gas	E21C2b008	17	18	22	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									476.0	504.0	616.0	11,900.0	12,600.0	15,400.0
C2b - SCI New Equipment and Construction	Boiler to 300 MBH 90 AFUE, Gas	E21C2b009	18	18	22	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									264.6	264.6	323.4	4,762.8	4,762.8	5,821.2
C2b - SCI New Equipment and Construction	Boiler to 300 MBH 95 AFUE, Gas	E21C2b010	40	45	57	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									708.0	796.5	1,008.9	17,700.0	19,912.5	25,222.5
C2b - SCI New Equipment and Construction	Combo Condensing Boiler / Water Heater, Gas	E21C2b011	6	7	8	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									183.0	213.5	244.0	3,660.0	4,270.0	4,880.0
C2b - SCI New Equipment and Construction	Combo Furnace / Water Heater, Gas	E21C2b012	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Condensing Unit Heater, Gas	E21C2b013	7	7	7	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									286.3	286.3	286.3	5,153.4	5,153.4	5,153.4
C2b - SCI New Equipment and Construction	Furnace w/ ECM 95 AFUE, Gas	E21C2b014	17	18	19	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	2.9	3.0	3.2	51.4	54.4	57.5	0.8	0.9	0.9	-	-	-	96.9	102.6	108.3	1,744.2	1,846.8	1,949.4
C2b - SCI New Equipment and Construction	Furnace w/ ECM 97 AFUE, Gas	E21C2b015	2	2	2	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	0.3	0.3	0.3	6.0	6.0	6.0	0.1	0.1	0.1	-	-	-	13.4	13.4	13.4	241.2	241.2	241.2
C2b - SCI New Equipment and Construction	Infrared Heater, Gas	E21C2b016	47	49	51	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									564.0	588.0	612.0	9,588.0	9,996.0	10,404.0
C2b - SCI New Equipment and Construction	Faucet Aerator, Gas	E21C2b017	130	132	134	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									2,632.4	2,672.9	2,713.4	26,323.7	26,728.7	27,133.7
C2b - SCI New Equipment and Construction	Low Flow Showerhead With Thermostatic Valve, Gas	E21C2b018	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Low Flow Showerhead, Gas	E21C2b019	47	48	49	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-									1,538.3	1,571.0	1,603.8	15,383.1	15,710.4	16,037.7
C2b - SCI New Equipment and Construction	Pre Rinse Spray Valve, Gas	E21C2b020	-	-	-	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Combination Oven, Gas	E21C2b021	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Convection Oven, Gas	E21C2b022	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Conveyor Oven, Gas	E21C2b023	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Fryer, Gas	E21C2b024	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Griddle, Gas	E21C2b025	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Rack Oven, Gas	E21C2b026	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	Steam Cooker, Gas	E21C2b027	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2b - SCI New Equipment and Construction	C&I Small New Construction Code Complaince	G21C2b028	1	1	1	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-			-			-			-			-	-	197.1	-	-	3,941.3
C2c - SCI Midstream	Midstream Combination Oven, Gas	G21C2c001	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Convection Oven, Gas	G21C2c002	10	13	16	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									281.6	366.0	436.4	3,378.8	4,392.2	5,237.1
C2c - SCI Midstream	Midstream Conveyor Oven, Gas	G21C2c003	1	1	2	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									128.5	185.3	257.1	1,542.4	2,223.3	3,084.8
C2c - SCI Midstream	Midstream Fryer, Gas	G21C2c004	12	16	22	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									782.7	1,043.6	1,434.9	9,392.8	12,523.3	17,219.3
C2c - SCI Midstream	Midstream Griddle, Gas	G21C2c005	1	1	2	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									31.6	31.6	63.1	378.8	378.8	757.7
C2c - SCI Midstream	Midstream Pre-Rinse Spray Valve, Gas	G21C2c006	-	-	-	8	8	8	83%	83%	83%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Rack Oven, Gas	G21C2c007	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%													-	-	-	-	-	-
C2c - SCI Midstream	Midstream Steam Cooker, Gas	G21C2c008	2	2	3	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-			-									617.6	617.6	926.4	7,411.0	7,411.0	11,116.6
C2c - SCI Midstream	Midstream Indirect Water Heater, Gas	G21C2c009	7	7	8	15	15	15	31%	31%	31%	100%	100%	100%	100%	100%	100%	-			-									41.2	41.2	47.1	618.5	618.5	706.8
C2c - SCI Midstream	Midstream On Demand Tankless Water Heater, Gas	G21C2c010	4	4	5	20	20	20	60%	60%	60%	100%	100%	100%	100%	100%	100%	-			-									21.4	21.4	26.7	427.2	427.2	534.0
C2c - SCI Midstream	Midstream Volume Water Heater, Gas	G21C2c011	5	7	9	15	15	15	60%	60%	60%	100%	100%	100%	100%	100%	100%	-			-									245.4	360.5	441.7	3,681.0	5,407.7	6,626.8
	Small Business Energy Solutions Subtotal																	**9.5**	**9.7**	**9.9**	**152.2**	**155.6**	**159.3**	**1.9**	**2.0**	**2.0**	**1.7**	**1.7**	**1.7**	**25,848.9**	**28,289.5**	**31,363.4**	**453,388.5**	**498,466.6**	**554,760.8**

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Energy Efficiency Programs
For Residential Non-Heating and Heating Classes
November 1, 2020 - October 31, 2021
Energy Efficiency Charge

Month	Actual or Forecast	Beginning Balance (Over)/Under	Residential DSM Rate Per Therm	DSM Collections	Forecasted DSM Expenditures	Actual DSM Expenditures Residential	Actual DSM Expenditures Low-Income	Incentive	Ending Balance (Over)/Under	Average Balance (Over)/Under	Interest Monthly Federal Prime Rate	Interest @ Fed Reserve Bank Loan Rate	Ending Bal. Plus Interest (Over)/Under	Forecasted Residential Therm Sales	Residential Therm Sales	# of Days
May 20	Actual	(110,032)	($0.0640)	(308,762)	316,259	109,664	57,347	15,562	(236,221)	(173,126)	3.25%	(1,204)	(237,425)	4,066,455	4,824,165	31
June 20	Actual	(237,425)	($0.0640)	(140,008)	316,259	229,611	9,424	15,562	(122,836)	(180,131)	3.25%	(1,207)	(124,043)	1,969,131	2,187,747	30
July 20	Forecast	(124,043)	($0.0640)	(71,801)	316,259	0	0	0	120,415	(1,814)	3.25%	(5)	120,410	1,121,890		31
August 20	Forecast	120,410	($0.0640)	(69,431)	316,259	0	0	0	367,239	243,825	3.25%	673	367,912	1,084,856	0	31
September 20	Forecast	367,912	($0.0640)	(102,761)	316,259	0	0	0	581,411	474,661	3.25%	1,268	582,679	1,605,635	0	30
October 20	Forecast	582,679	($0.0640)	(181,622)	316,259	0	0	0	717,316	649,997	3.25%	1,794	719,110	2,837,843	0	31
November 20	Forecast	719,110	($0.0831)	(573,541)	316,259	0	0	0	461,828	590,469	3.25%	1,577	463,405	6,901,820	0	30
December 20	Forecast	463,405	($0.0831)	(835,401)	316,259	0	0	0	(55,736)	203,835	3.25%	563	(55,173)	10,052,958	0	31
January 21	Forecast	(55,173)	($0.0831)	(960,762)	398,237	0	0	0	(617,698)	(336,436)	3.25%	(929)	(618,627)	11,561,514	0	31
February 21	Forecast	(618,627)	($0.0831)	(750,240)	398,237	0	0	0	(970,630)	(794,628)	3.25%	(1,981)	(972,611)	9,028,156	0	28
March 21	Forecast	(972,611)	($0.0831)	(727,444)	398,237	0	0	0	(1,301,819)	(1,137,215)	3.25%	(3,139)	(1,304,958)	8,753,844	0	31
April 21	Forecast	(1,304,958)	($0.0831)	(432,798)	398,237	0	0	0	(1,339,519)	(1,322,238)	3.25%	(3,532)	(1,343,051)	5,208,158	0	30
May 21	Forecast	(1,343,051)	($0.0831)	(241,118)	398,237	0	0	0	(1,185,932)	(1,264,492)	3.25%	(3,490)	(1,189,423)	2,901,545	0	31
June 21	Forecast	(1,189,423)	($0.0831)	(109,497)	398,237	0	0	0	(900,683)	(1,045,053)	3.25%	(2,792)	(903,475)	1,317,656	0	30
July 21	Forecast	(903,475)	($0.0831)	(80,574)	398,237	0	0	0	(585,812)	(744,643)	3.25%	(2,055)	(587,867)	969,602	0	31
August 21	Forecast	(587,867)	($0.0831)	(82,771)	398,237	0	0	0	(272,401)	(430,134)	3.25%	(1,187)	(273,588)	996,041	0	31
September 21	Forecast	(273,588)	($0.0831)	(149,205)	398,237	0	0	0	(24,556)	(149,072)	3.25%	(398)	(24,955)	1,795,484	0	30
October 21	Forecast	(24,955)	($0.0831)	(370,009)	398,237	0	0	0	3,273	(10,841)	3.25%	(30)	3,243	4,452,576	0	31
November 21	Forecast	3,243	($0.0831)	(573,541)	398,237	0	0	0	(172,061)	(84,409)	3.25%	(225)	(172,287)	6,901,820	0	30
December 21	Forecast	(172,287)	($0.0831)	(835,401)	398,237	0	0	0	(609,451)	(390,869)	3.25%	(1,079)	(610,529)	10,052,958	0	31

Estimated Residential Conservation Charge Effective November 1, 2020 - October 31, 2021		
Beginning Balance	$	719,110
Program Budget Nov 2020-Oct 2021		**4,614,887**
Projected Interest		(17,532)
Projected Budget with Interest	$	5,316,465
Total Charges	**$**	**5,316,465**
Projected Therm Sales		**63,939,354**
Residential Rate		**$0.0831**
Total Charges with Interest	**$**	**5,316,465**
Projected Therm Sales		**63,939,354**
Residential Rate		**$0.0831**

Residential Non Heating Therm Sales	0%	**711,615**	**699,327**	0%
Residential Heating Therm Sales	34%	**63,227,739**	**63,382,533**	36%
C&I Therm Sales	66%	**121,652,799**	**112,542,801**	64%
Total Therms	100%	**185,592,152**	**176,624,661**	100%
		Budget	Budget	
		2020	**2021**	
Low-Income Program Budget		**$ 1,676,441**	**$ 1,523,570**	
Other Refund		-	-	
Total Shared Budget		**$ 1,676,441**	**$ 1,523,570**	
Residential Program Budget		**$ 2,962,415**	**$ 3,926,326**	
Residential Program Incentive		**$ 255,137**	**$ 299,744**	
Total Residential Program Budget		**$ 3,217,552**	**$ 4,226,070**	
Commercial/Industrial Program Budget		**$ 4,083,759**	**$ 3,512,260**	
Commercial/Industrial Program Incentive		**$ 224,607**	**$ 193,174**	
Total Commercial/Industrial Program Budget		**$ 4,308,366**	**$ 3,705,434**	
Total Program Budget		**$ 9,202,359**	**$ 9,455,074**	
Shared Expenses Allocation to Residential		$ 577,560	$ 552,772	
Shared Expenses Allocation to C&I		1,098,881	970,798	
Total Allocated Shared Expenses		**$ 1,676,441**	**$ 1,523,570**	
Total Residential (including allocation of Shared Budget)		$ 3,795,112	$ 4,778,842	
Total C&I (including allocation of Shared Budget)		5,407,247	4,676,232	
Total Budget		**$ 9,202,359**	**$ 9,455,074**	

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Energy Efficiency Programs
For Commercial/Industrial Classes
November 1, 2020 - October 31, 2021
Energy Efficiency Charge

Month	Actual or Forecast	Beginning Balance (Over)/Under	DSM Rate Per Therm	DSM Collections	Forecasted DSM Expenditures	Actual DSM Expenditures		Incentive	Ending Balance (Over)/Under	Average Balance (Over)/Under	Interest Fed Reserve Prime Rate	Interest @ Fed Reserve Bank Loan Rate	Ending Bal. Plus Interest (Over)/Under	Forecasted Commercial/ Industrial Therm Sales	Actual Commercial/ Industrial Therm Sales	# of Days
						C&I	Low-Income									
May 20	Actual	(628,844)	($0.0426)	(349,588)	455,607	177,056	76,019	14,422	(710,935)	(669,889)	3.25%	(1,116)	(712,051)	8,443,740	8,205,951	31
June 20	Actual	(712,051)	($0.0426)	(216,372)	455,607	227,776	12,493	14,422	(673,733)	(692,892)	3.25%	(1,119)	(674,851)	5,816,016	5,079,339	30
July 20	Forecast	(674,851)	($0.0426)	(188,185)	455,607	0	0		(407,429)	(541,140)	3.25%	(1,494)	(408,923)	4,417,480	0	31
August 20	Forecast	(408,923)	($0.0426)	(183,699)	455,607	0	0		(137,015)	(272,969)	3.25%	(753)	(137,768)	4,312,181	0	31
September 20	Forecast	(137,768)	($0.0426)	(203,791)	455,607	0	0		114,047	(11,861)	3.25%	(32)	114,015	4,783,833	0	30
October 20	Forecast	114,015	($0.0426)	(270,127)	455,607	0	0		299,495	206,755	3.25%	571	300,066	6,340,998	0	31
November 20	Forecast	300,066	($0.0441)	(504,827)	455,607	0	0		250,846	275,456	3.25%	736	251,582	11,447,324	0	30
December 20	Forecast	251,582	($0.0441)	(678,482)	455,607	0	0		28,707	140,144	3.25%	387	29,094	15,385,075	0	31
January 21	Forecast	29,094	($0.0441)	(768,610)	389,686	0	0		(349,831)	(160,369)	3.25%	(443)	(350,273)	17,428,801	0	31
February 21	Forecast	(350,273)	($0.0441)	(659,265)	389,686	0	0		(619,852)	(485,063)	3.25%	(1,209)	(621,062)	14,949,322	0	28
March 21	Forecast	(621,062)	($0.0441)	(580,130)	389,686	0	0		(811,506)	(716,284)	3.25%	(1,977)	(813,483)	13,154,881	0	31
April 21	Forecast	(813,483)	($0.0441)	(399,341)	389,686	0	0		(823,138)	(818,311)	3.25%	(2,186)	(825,324)	9,055,353	0	30
May 21	Forecast	(825,324)	($0.0441)	(294,904)	389,686	0	0		(730,542)	(777,933)	3.25%	(2,147)	(732,689)	6,687,163	0	31
June 21	Forecast	(732,689)	($0.0441)	(213,144)	389,686	0	0		(556,148)	(644,419)	3.25%	(1,721)	(557,869)	4,833,207	0	30
July 21	Forecast	(557,869)	($0.0441)	(200,426)	389,686	0	0		(368,609)	(463,239)	3.25%	(1,279)	(369,887)	4,544,800	0	31
August 21	Forecast	(369,887)	($0.0441)	(208,090)	389,686	0	0		(188,291)	(279,089)	3.25%	(770)	(189,062)	4,718,593	0	31
September 21	Forecast	(189,062)	($0.0441)	(241,904)	389,686	0	0		(41,279)	(115,171)	3.25%	(308)	(41,587)	5,485,342	0	30
October 21	Forecast	(41,587)	($0.0441)	(350,395)	389,686	0	0		(2,296)	(21,942)	3.25%	(61)	(2,357)	7,945,466	0	31
November 21	Forecast	(2,357)	($0.0441)	(504,827)	389,686	0	0		(117,498)	(59,927)	3.25%	(160)	(117,658)	11,447,324	0	30
December 21	Forecast	(117,658)	($0.0441)	(678,482)	389,686	0	0		(406,454)	(262,056)	3.25%	(723)	(407,177)	15,385,075	0	31

Estimated C&I Conservation Charge November 1, 2020 - October 31, 2021	
Beginning Balance	300,066
Program Budget Nov 2020-Oct 2021	**4,808,073**
Projected Interest	(10,978)
Program Budget with Interest	5,097,161
Total Charges	**$5,097,161**
Projected Therm Sales	**115,635,325**
C&I Rate	$0.0441
Total Charges with Interest	**$5,099,518**
Projected Therm Sales	**115,635,325**
C&I Rate	**$0.0441**

Liberty Utilities (EnergyNorth Natural Gas) Corp.
Energy Efficiency Programs
For Residential and Commercial/Industrial Classes
November 1, 2020 - October 31, 2021
Energy Efficiency Charge

Month	Actual or Forecast	Beginning Balance (Over)/Under	DSM Rate Per Therm	DSM Collections	Forecasted DSM Expenditures	Actual DSM Expenditures				Incentive	Ending Balance (Over)/Under	Average Balance (Over)/Under	Interest Plus Interest Prime Rate	Interest @ Fed Reserve Bank Loan Rate	Ending Bal. Plus Interest (Over)/Under	Forecasted Therm Sales	Actual Therm Sales	# of Days
						Residential	C&I	Low-Income	Total									
May 20	Actual	(738,875)	n/a	(658,351)	771,866	109,664	177,056	133,366	420,086	29,984	(947,156)	(843,016)	3.25%	(2,327)	(949,483)	12,333,808	12,290,578	31
June 20	Actual	(949,477)	n/a	(356,380)	771,866	229,611	227,776	21,917	479,305	29,984	(796,568)	(873,023)	3.25%	(2,332)	(798,901)	7,703,669	7,740,734	30
July 20	Forecast	(798,894)	n/a	(259,986)	771,866	0	0	0	0		(287,014)	(542,954)	3.25%	(1,499)	(288,512)	5,471,615	2,303,736	31
August 20	Forecast	(288,512)	n/a	(253,130)	771,866	0	0	0	0		230,224	(29,144)	3.25%	(80)	230,143	5,317,216	0	31
September 20	Forecast	230,143	n/a	(306,552)	771,866	0	0	0	0		695,458	462,801	3.25%	1,236	696,694	6,269,177	0	30
October 20	Forecast	696,694	n/a	(451,748)	771,866	0	0	0	0		1,016,811	856,753	3.25%	2,365	1,019,176	9,068,225	0	31
November 20	Forecast	1,019,176	n/a	(1,078,368)	771,866	0	0	0	0		712,674	865,925	3.25%	2,313	714,987	13,857,797	0	30
December 20	Forecast	714,987	n/a	(1,513,883)	771,866	0	0	0	0		(27,029)	343,979	3.25%	949	(26,080)	21,185,695	0	31
January 21	Forecast	(26,080)	n/a	(1,729,372)	787,923	0	0	0	0		(967,529)	(496,804)	3.25%	(1,371)	(968,900)	28,674,991	0	31
February 21	Forecast	(968,900)	n/a	(1,409,505)	787,923	0	0	0	0		(1,590,482)	(1,279,691)	3.25%	(3,190)	(1,593,673)	30,438,317	0	28
March 21	Forecast	(1,593,673)	n/a	(1,307,575)	787,923	0	0	0	0		(2,113,325)	(1,853,499)	3.25%	(5,116)	(2,118,441)	26,349,344	0	31
April 21	Forecast	(2,118,441)	n/a	(832,139)	787,923	0	0	0	0		(2,162,657)	(2,140,549)	3.25%	(5,718)	(2,168,375)	19,706,228	0	30
May 21	Forecast	(2,168,375)	n/a	(536,022)	787,923	0	0	0	0		(1,916,474)	(2,042,425)	3.25%	(5,638)	(1,922,112)	12,611,378	0	31
June 21	Forecast	(1,922,112)	n/a	(322,642)	787,923	0	0	0	0		(1,456,831)	(1,689,471)	3.25%	(4,513)	(1,461,344)	7,850,220	0	30
July 21	Forecast	(1,461,344)	n/a	(281,000)	787,923	0	0	0	0		(954,420)	(1,207,882)	3.25%	(3,334)	(957,755)	5,539,370	0	31
August 21	Forecast	(957,755)	n/a	(290,861)	787,923	0	0	0	0		(460,693)	(709,224)	3.25%	(1,958)	(462,650)	5,397,037	0	31
September 21	Forecast	(462,650)	n/a	(391,108)	787,923	0	0	0	0		(65,836)	(264,243)	3.25%	(706)	(66,542)	6,389,467	0	30
October 21	Forecast	(66,542)	n/a	(720,404)	787,923	0	0	0	0		977	(32,782)	3.25%	(90)	887	9,178,841	0	31
November 21	Forecast	887	n/a	(1,078,368)	787,923	0	0	0	0		(289,559)	(144,336)	3.25%	(386)	(289,944)	13,857,797	0	30
December 21	Forecast	(289,944)	n/a	(1,513,883)	787,923	0	0	0	0		(1,015,904)	(652,924)	3.25%	(1,802)	(1,017,707)	21,185,695	0	31

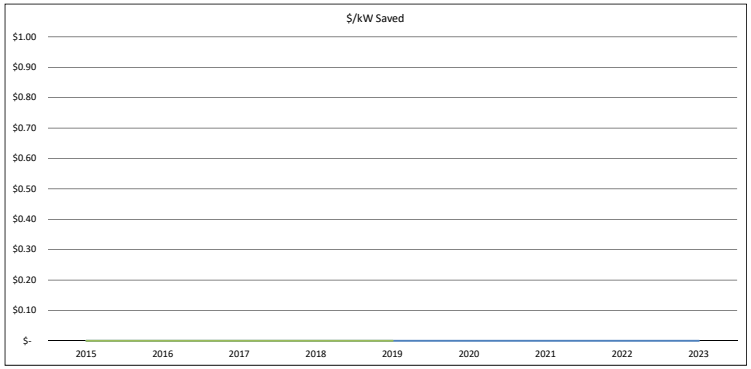
Residential (R-1 & R-3) and C & I Conservation Charge **November 1, 2020 - October 31, 2021**		
Beginning Balance	$	1,019,176
Program Budget Nov 2020-Oct 2021	$	9,422,960
Projected Interest	$	(28,510)
Program Budget with Interest	$	10,413,627
Total Charges		**$10,413,627**

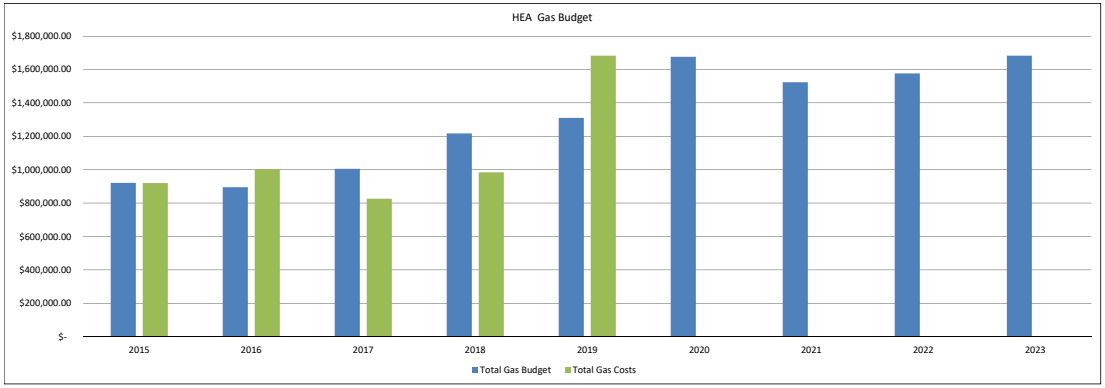
Home Energy Assistance

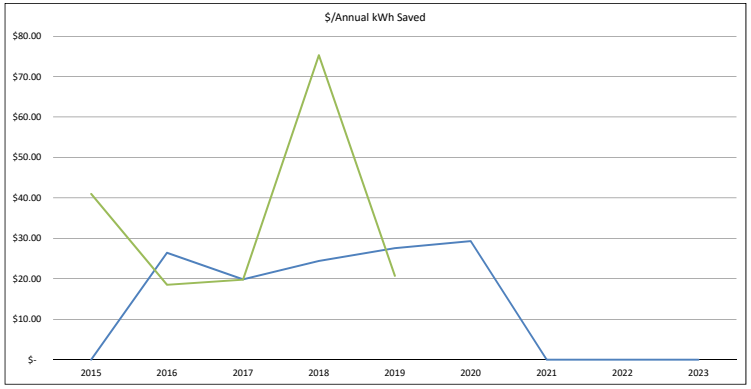
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	$ 921,250.00	$ 895,000.00	$ 1,005,700.00	$ 1,217,300.00	$ 1,310,342.19	$ 1,676,441.36	$ 1,523,570.00	$ 1,576,174.33	$ 1,683,072.54
	Annual Electric Savings Plan (kWh)	-	33,878.44	50,719.26	49,935.01	47,538.87	57,178.54	-	-	-
	$/Annual kWh Plan	$ -	$ 26.42	$ 19.83	$ 24.38	$ 27.56	$ 29.32	$ -	$ -	$ -
2)	Total Gas Budget	$ 921,250.00	$ 895,000.00	$ 1,005,700.00	$ 1,217,300.00	$ 1,310,342.19	$ 1,676,441.36	$ 1,523,570.00	$ 1,576,174.33	$ 1,683,072.54
	Total summer peak kW Plan	-	-	-	-	-	-	-	-	-
	$/kW Plan	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Budget	$ 921,250.00	$ 895,000.00	$ 1,005,700.00	$ 1,217,300.00	$ 1,310,342.19	$ 1,676,441.36	$ 1,523,570.00	$ 1,576,174.33	$ 1,683,072.54
	Total Annual MMBtu Plan	6,650.66	6,338.51	5,302.03	7,252.46	7,636.96	8,460.12	7,107.75	7,520.70	8,138.08
	$/Annual MMBtu Plan	$ 138.52	$ 141.20	$ 189.68	$ 167.85	$ 171.58	$ 198.16	$ 214.35	$ 209.58	$ 206.81

Home Energy Assistance

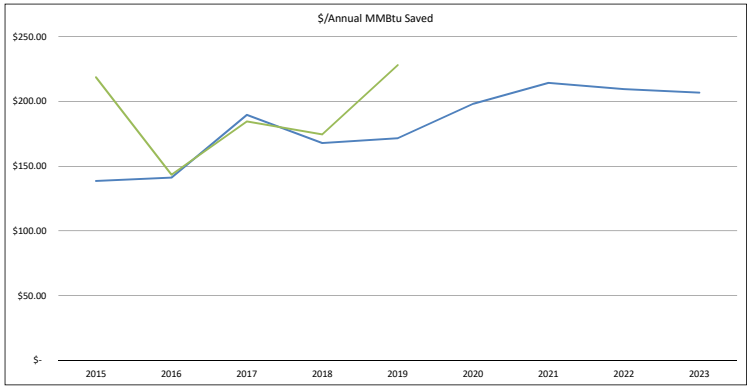
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	$ 919,750.53	$ 1,003,642.21	$ 826,371.23	$ 984,076.99	$ 1,683,151.63
	Annual Electric Savings Actual (kWh)	22,452.20	54,303.44	41,805.90	13,069.01	81,247.30
	$/Annual kWh Actual	$ 40.96	$ 18.48	$ 19.77	$ 75.30	$ 20.72
2)	Total Gas Costs	$ 919,750.53	$ 1,003,642.21	$ 826,371.23	$ 984,076.99	$ 1,683,151.63
	Total summer peak kW Actual	-	-	-	-	-
	$/kW Actual	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Costs	$ 919,750.53	$ 1,003,642.21	$ 826,371.23	$ 984,076.99	$ 1,683,151.63
	Total Annual MMBtu Actual	4,206.13	6,997.88	4,476.14	5,636.02	7,377.76
	$/Annual MMBtu Actual	$ 218.67	$ 143.42	$ 184.62	$ 174.60	$ 228.14









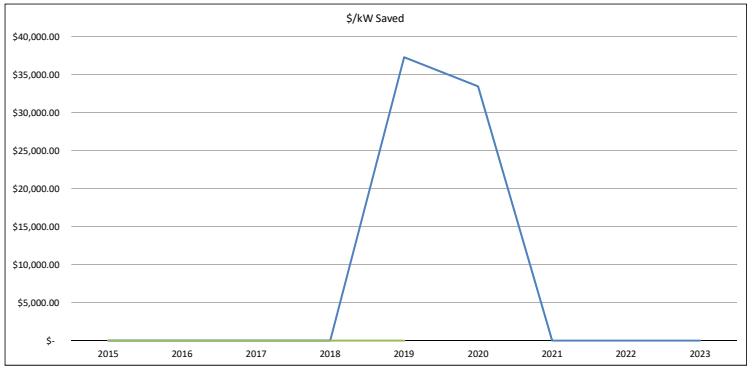


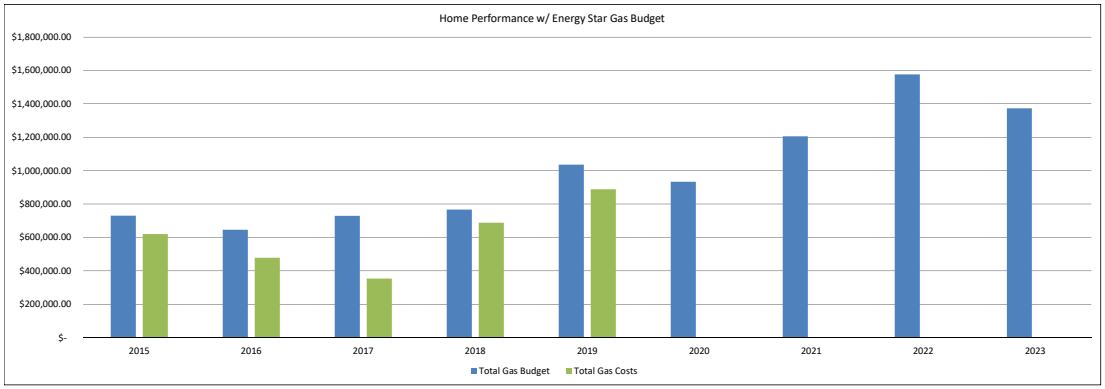
Home Performance w/Energy Star

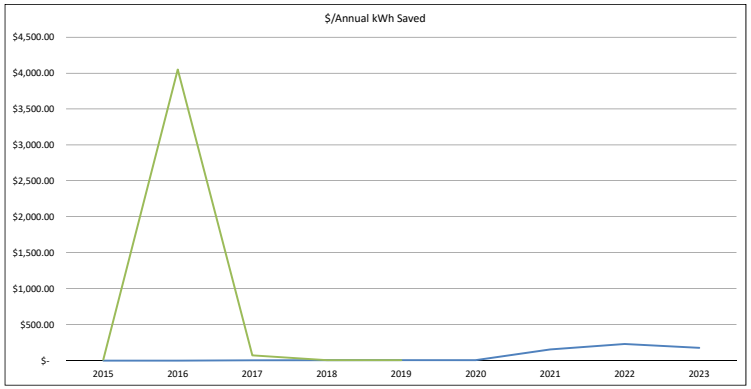
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	$ 730,157.00	$ 645,815.00	$ 729,200.00	$ 767,160.00	$ 1,035,751.28	$ 933,161.78	$ 1,205,798.00	$ 1,576,174.33	$ 1,373,780.23
	Annual Electric Savings Plan (kWh)	-	-	185,369.92	119,725.12	177,985.24	178,695.06	7,740.04	6,860.12	7,740.04
	$/Annual kWh Plan	$ -	$ -	$ 3.93	$ 6.41	$ 5.82	$ 5.22	$ 155.79	$ 229.76	$ 177.49
2)	Total Gas Budget	$ 730,157.00	$ 645,815.00	$ 729,200.00	$ 767,160.00	$ 1,035,751.28	$ 933,161.78	$ 1,205,798.00	$ 1,576,174.33	$ 1,373,780.23
	Total summer peak kW Plan	-	-	-	-	27.77	27.88	-	-	-
	$/kW Plan	$ -	$ -	$ -	$ -	$ 37,302.35	$ 33,474.12	$ -	$ -	$ -
3)	Total Gas Budget	$ 730,157.00	$ 645,815.00	$ 729,200.00	$ 767,160.00	$ 1,035,751.28	$ 933,161.78	$ 1,205,798.00	$ 1,576,174.33	$ 1,373,780.23
	Total Annual MMBtu Plan	11,681.19	15,257.70	7,369.27	8,247.88	10,825.20	11,796.09	13,318.97	12,031.80	13,318.97
	$/Annual MMBtu Plan	$ 62.51	$ 42.33	$ 98.95	$ 93.01	$ 95.68	$ 79.11	$ 90.53	$ 131.00	$ 103.14

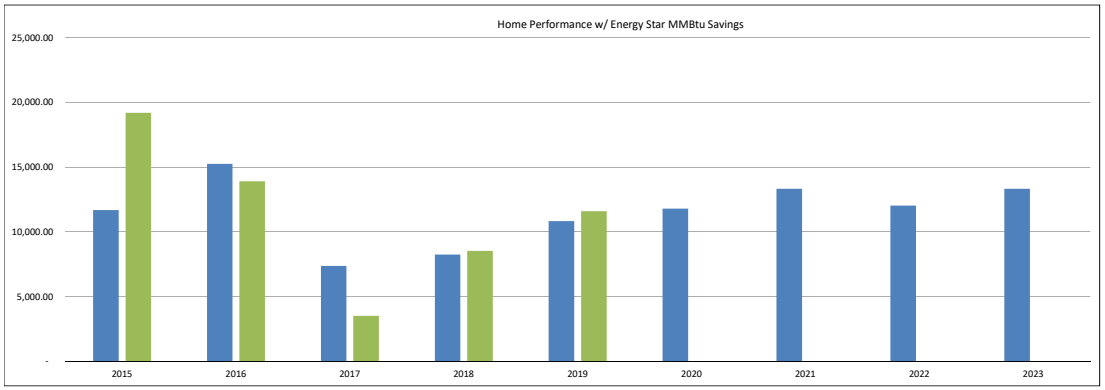
Home Energy Assistance

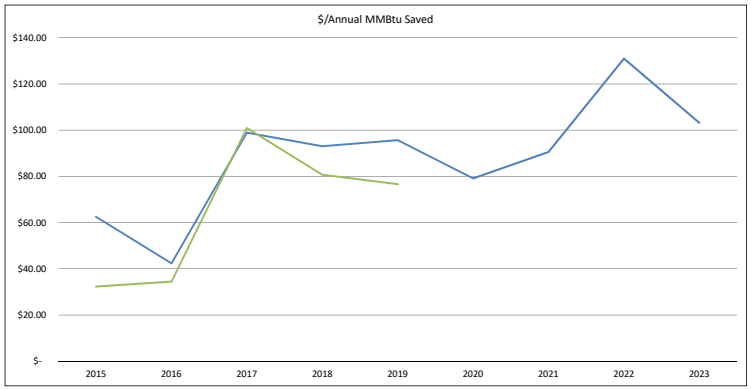
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	$ 619,872.77	$ 478,819.12	$ 354,067.20	$ 688,212.32	$ 888,594.74
	Annual Electric Savings Actual (kWh)	45,640.00	118.28	4,817.00	116,260.00	192,555.62
	$/Annual kWh Actual	$ 13.58	$ 4,048.30	$ 73.50	$ 5.92	$ 4.61
2)	Total Gas Costs	$ 619,872.77	$ 478,819.12	$ 354,067.20	$ 688,212.32	$ 888,594.74
	Total summer peak kW Actual	-	-	-	-	-
	$/kW Actual	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Costs	$ 619,872.77	$ 478,819.12	$ 354,067.20	$ 688,212.32	$ 888,594.74
	Total Annual MMBtu Actual	19,203.20	13,900.99	3,507.99	8,527.40	11,592.83
	$/Annual MMBtu Actual	$ 32.28	$ 34.44	$ 100.93	$ 80.71	$ 76.65









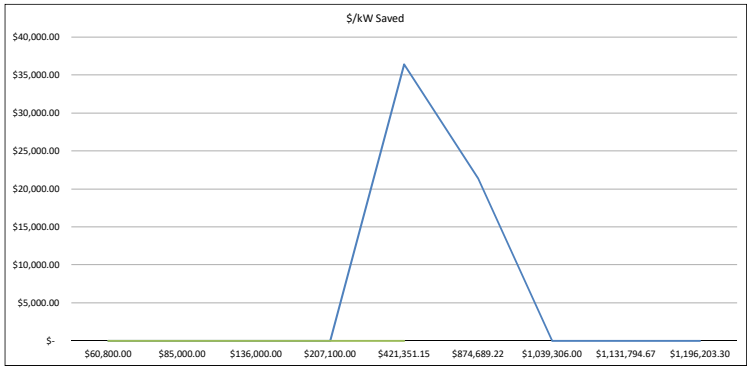


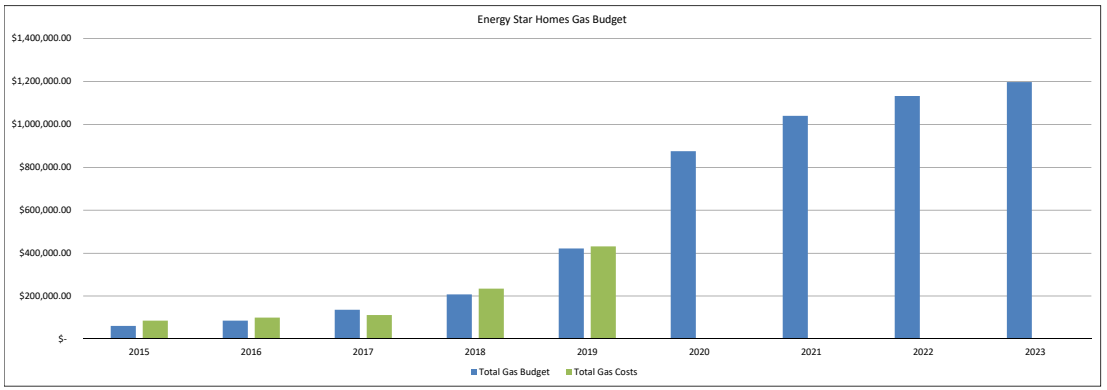
Energy Star Homes

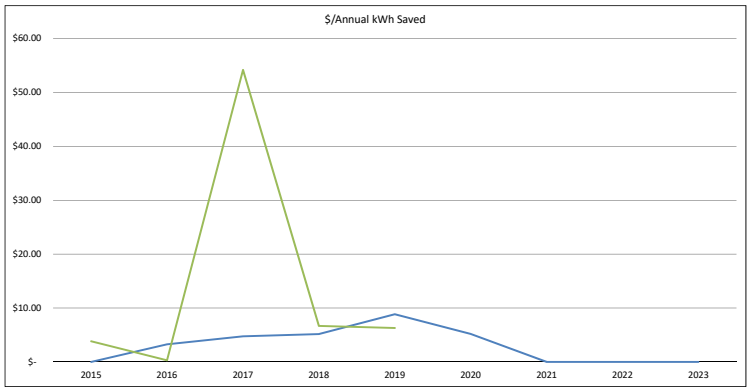
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	$ 60,800.00	$ 85,000.00	$ 136,000.00	$ 207,100.00	$ 421,351.15	$ 874,689.22	$ 1,039,306.00	$ 1,131,794.67	$ 1,196,203.30
	Annual Electric Savings Plan (kWh)	-	26,098.44	28,722.49	40,277.27	47,700.96	168,486.15	-	-	-
	$/Annual kWh Plan	$ -	$ 3.26	$ 4.73	$ 5.14	$ 8.83	$ 5.19	$ -	$ -	$ -
2)	Total Gas Budget	$ 60,800.00	$ 85,000.00	$ 136,000.00	$ 207,100.00	$ 421,351.15	$ 874,689.22	$ 1,039,306.00	$ 1,131,794.67	$ 1,196,203.30
	Total summer peak kW Plan	-	-	-	-	11.57	40.88	-	-	-
	$/kW Plan	$ -	$ -	$ -	$ -	$ 36,404.46	$ 21,395.73	$ -	$ -	$ -
3)	Total Gas Budget	$ 60,800.00	$ 85,000.00	$ 136,000.00	$ 207,100.00	$ 421,351.15	$ 874,689.22	$ 1,039,306.00	$ 1,131,794.67	$ 1,196,203.30
	Total Annual MMBtu Plan	989.66	1,599.35	1,828.65	1,582.72	2,576.78	12,724.41	4,465.68	5,488.09	7,895.00
	$/Annual MMBtu Plan	$ 61.44	$ 53.15	$ 74.37	$ 130.85	$ 163.52	$ 68.74	$ 232.73	$ 206.23	$ 151.51

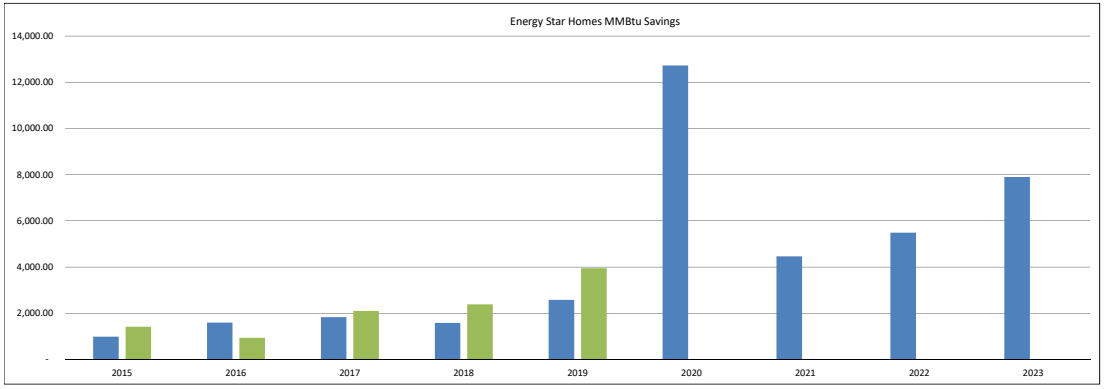
Home Energy Assistance

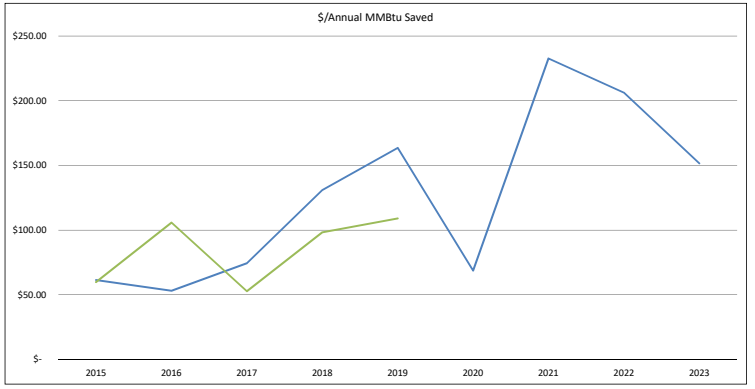
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	$ 84,958.18	$ 99,239.80	$ 111,025.37	$ 234,317.20	$ 430,693.18
	Annual Electric Savings Actual (kWh)	22,296.00	348,784.00	2,050.64	35,232.50	68,607.90
	$/Annual kWh Actual	$ 3.81	$ 0.28	$ 54.14	$ 6.65	$ 6.28
2)	Total Gas Costs	$ 84,958.18	$ 99,239.80	$ 111,025.37	$ 234,317.20	$ 430,693.18
	Total summer peak kW Actual	-	-	-	-	-
	$/kW Actual	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Costs	$ 84,958.18	$ 99,239.80	$ 111,025.37	$ 234,317.20	$ 430,693.18
	Total Annual MMBtu Actual	1,419.50	937.50	2,103.50	2,384.90	3,952.99
	$/Annual MMBtu Actual	$ 59.85	$ 105.86	$ 52.78	$ 98.25	$ 108.95









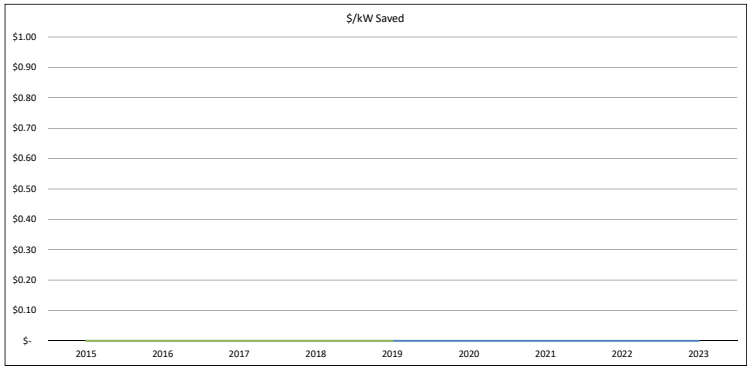


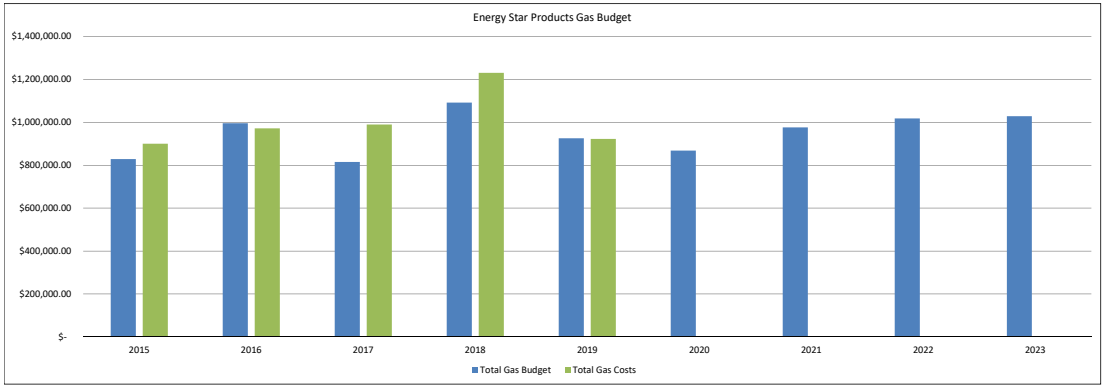
Energy Star Products

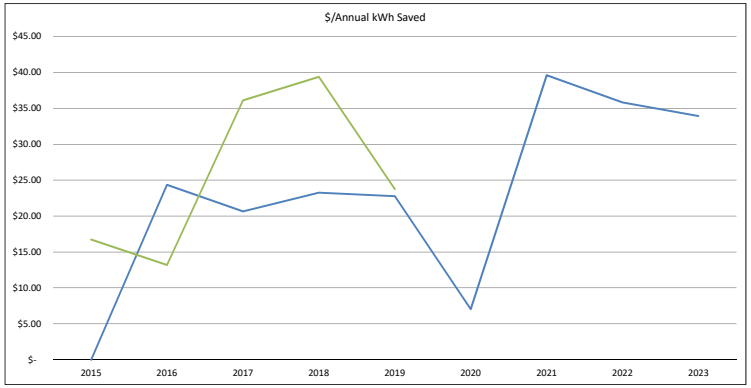
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	$ 828,043.00	$ 995,000.00	$ 815,220.00	$ 1,091,674.00	$ 925,001.00	$ 867,569.00	$ 975,798.00	$ 1,017,591.28	$ 1,028,147.44
	Annual Electric Savings Plan (kWh)	-	40,875.38	39,480.00	46,959.26	40,628.00	123,094.00	24,650.00	28,420.00	30,315.00
	$/Annual kWh Plan	$ -	$ 24.34	$ 20.65	$ 23.25	$ 22.77	$ 7.05	$ 39.59	$ 35.81	$ 33.92
2)	Total Gas Budget	$ 828,043.00	$ 995,000.00	$ 815,220.00	$ 1,091,674.00	$ 925,001.00	$ 867,569.00	$ 975,798.00	$ 1,017,591.28	$ 1,028,147.44
	Total summer peak kW Plan	-	-	-	-	-	-	(0.28)	(0.30)	(0.29)
	$/kW Plan	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Budget	$ 828,043.00	$ 995,000.00	$ 815,220.00	$ 1,091,674.00	$ 925,001.00	$ 867,569.00	$ 975,798.00	$ 1,017,591.28	$ 1,028,147.44
	Total Annual MMBtu Plan	14,005.99	15,590.22	10,383.60	14,078.80	11,989.98	11,161.38	11,065.56	11,961.24	12,310.11
	$/Annual MMBtu Plan	$ 59.12	$ 63.82	$ 78.51	$ 77.54	$ 77.15	$ 77.73	$ 88.18	$ 85.07	$ 83.52

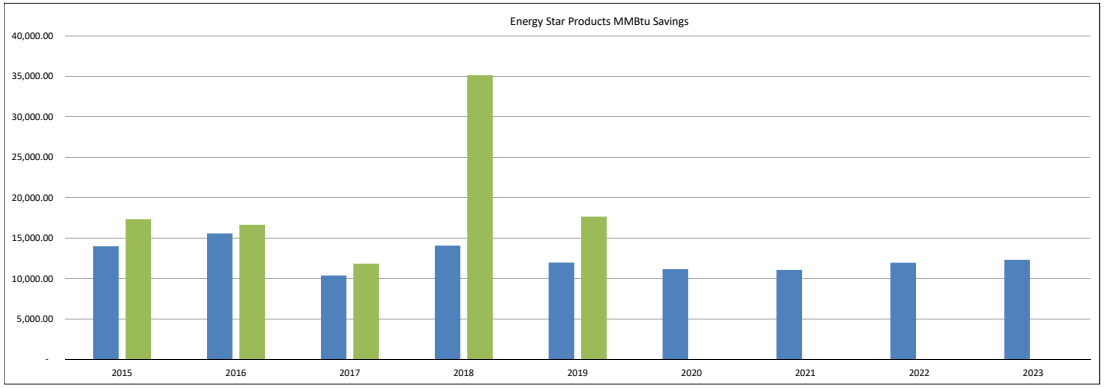
Home Energy Assistance

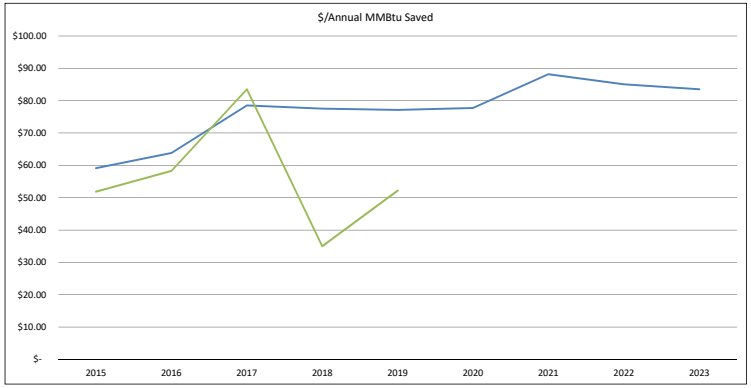
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	$ 899,813.80	$ 970,998.20	$ 989,619.28	$ 1,230,077.32	$ 921,922.15
	Annual Electric Savings Actual (kWh)	53,802.80	73,636.72	27,419.00	31,248.00	38,843.00
	$/Annual kWh Actual	$ 16.72	$ 13.19	$ 36.09	$ 39.36	$ 23.73
2)	Total Gas Costs	$ 899,813.80	$ 970,998.20	$ 989,619.28	$ 1,230,077.32	$ 921,922.15
	Total summer peak kW Actual	-	-	-	-	-
	$/kW Actual	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Costs	$ 899,813.80	$ 970,998.20	$ 989,619.28	$ 1,230,077.32	$ 921,922.15
	Total Annual MMBtu Actual	17,351.10	16,657.70	11,845.70	35,151.30	17,650.50
	$/Annual MMBtu Actual	$ 51.86	$ 58.29	$ 83.54	$ 34.99	$ 52.23









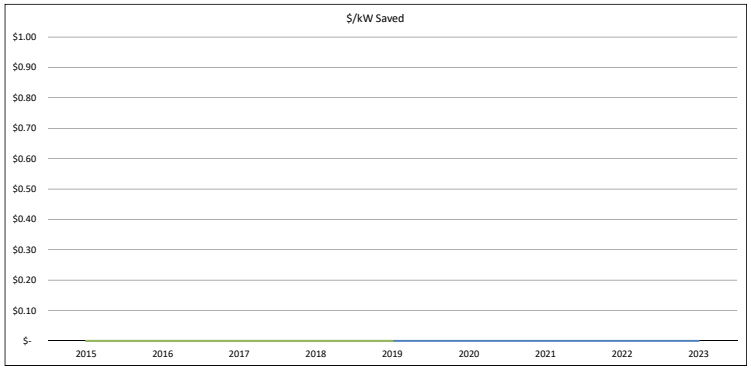


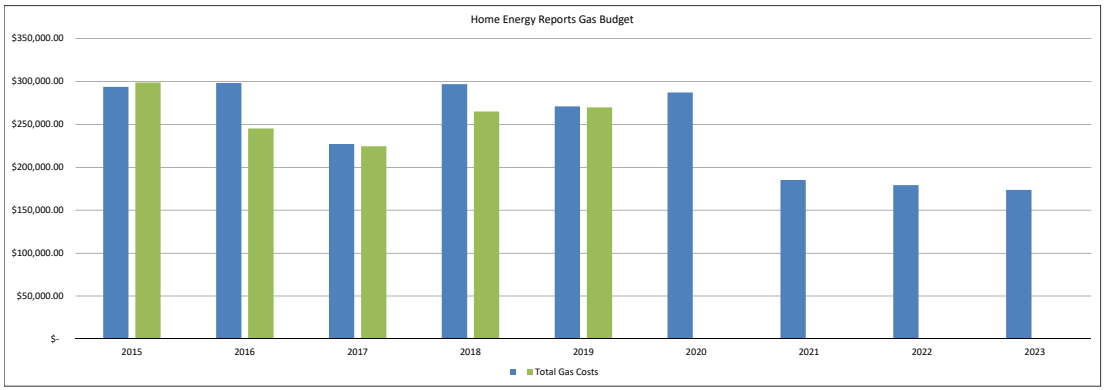
Home Energy Reports

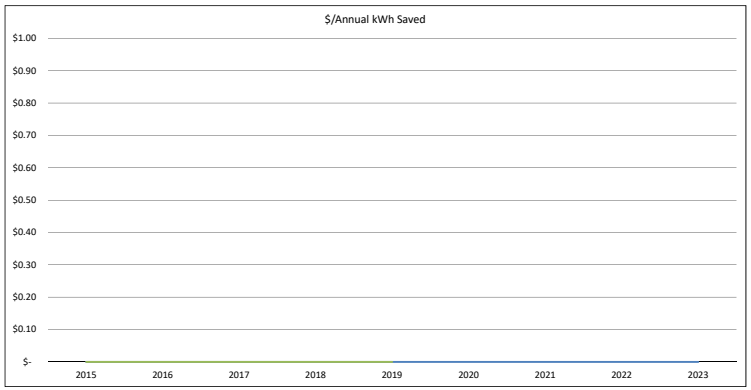
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	$ 293,550.00	$ 298,000.00	$ 227,000.00	$ 296,600.00	$ 270,764.00	$ 286,994.54	$ 185,000.00	$ 179,176.76	$ 173,536.81
	Annual Electric Savings Plan (kWh)	-	-	-	-	-	-	-	-	-
	$/Annual kWh Plan	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2)	Total Gas Budget	$ 293,550.00	$ 298,000.00	$ 227,000.00	$ 296,600.00	$ 270,764.00	$ 286,994.54	$ 185,000.00	$ 179,176.76	$ 173,536.81
	Total summer peak kW Plan	-	-	-	-	-	-	-	-	-
	$/kW Plan	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Budget	$ 293,550.00	$ 298,000.00	$ 227,000.00	$ 296,600.00	$ 270,764.00	$ 286,994.54	$ 185,000.00	$ 179,176.76	$ 173,536.81
	Total Annual MMBtu Plan	18,440.10	18,440.10	9,700.00	7,480.00	7,384.00	7,438.20	13,169.10	17,325.42	28,410.00
	$/Annual MMBtu Plan	$ 15.92	$ 16.16	$ 23.40	$ 39.65	$ 36.67	$ 38.58	$ 14.05	$ 10.34	$ 6.11

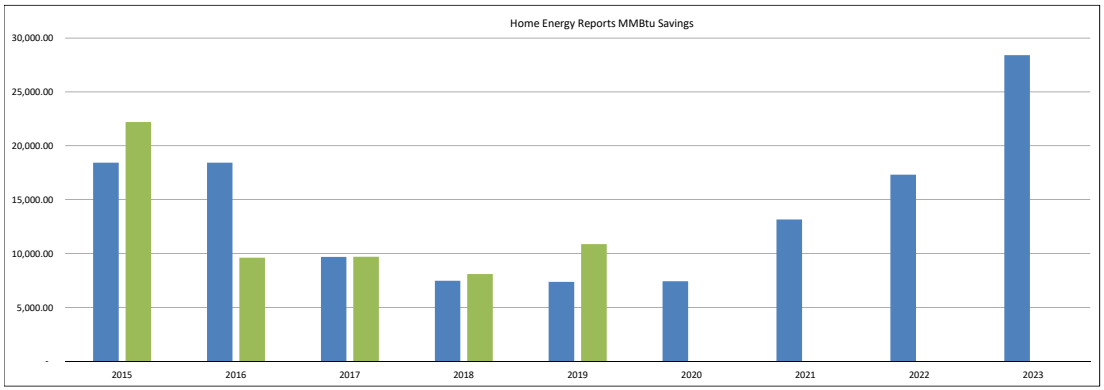
Home Energy Assistance

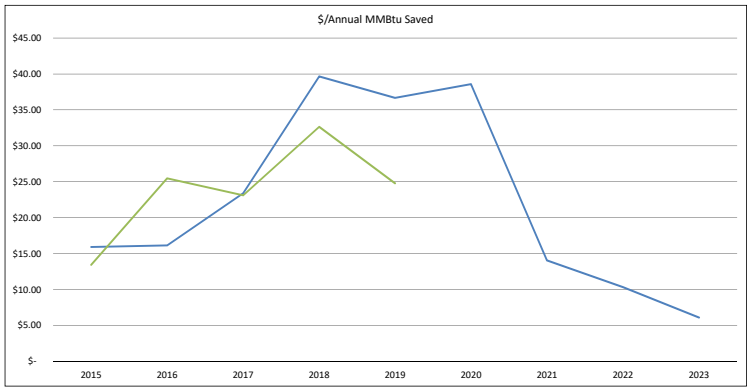
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	$ 298,541.76	$ 245,049.37	$ 224,349.60	$ 264,913.58	$ 269,754.70
	Annual Electric Savings Actual (kWh)	-	-	-	-	-
	$/Annual kWh Actual	$ -	$ -	$ -	$ -	$ -
2)	Total Gas Costs	$ 298,541.76	$ 245,049.37	$ 224,349.60	$ 264,913.58	$ 269,754.70
	Total summer peak kW Actual	-	-	-	-	-
	$/kW Actual	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Costs	$ 298,541.76	$ 245,049.37	$ 224,349.60	$ 264,913.58	$ 269,754.70
	Total Annual MMBtu Actual	22,213.10	9,622.40	9,708.30	8,115.51	10,883.50
	$/Annual MMBtu Actual	$ 13.44	$ 25.47	$ 23.11	$ 32.64	$ 24.79









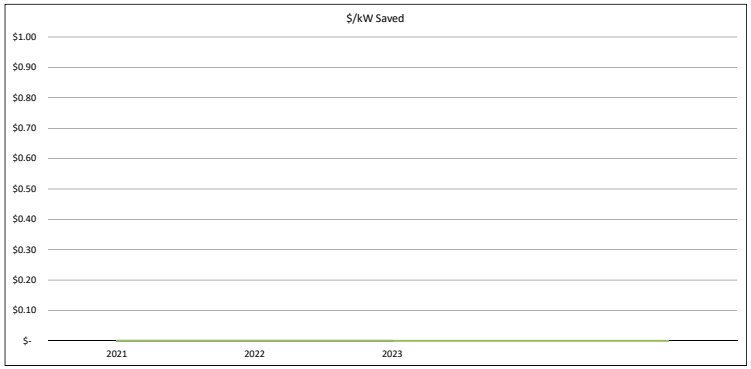


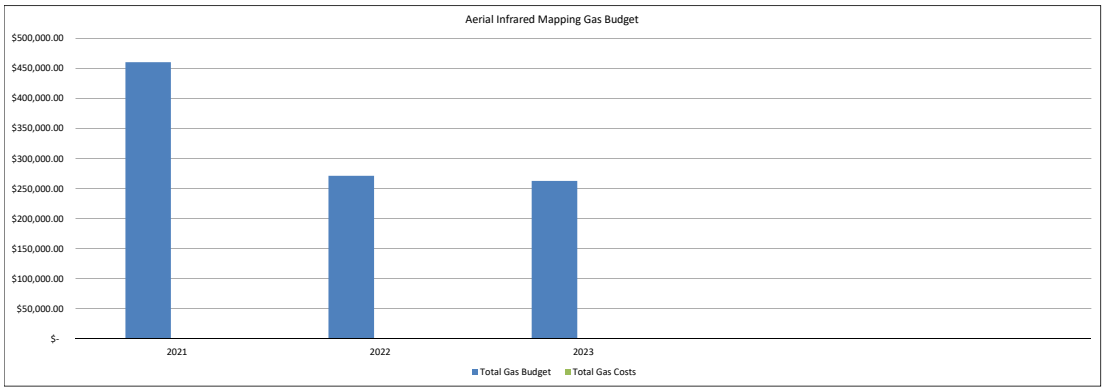
Aerial Infrared Mapping

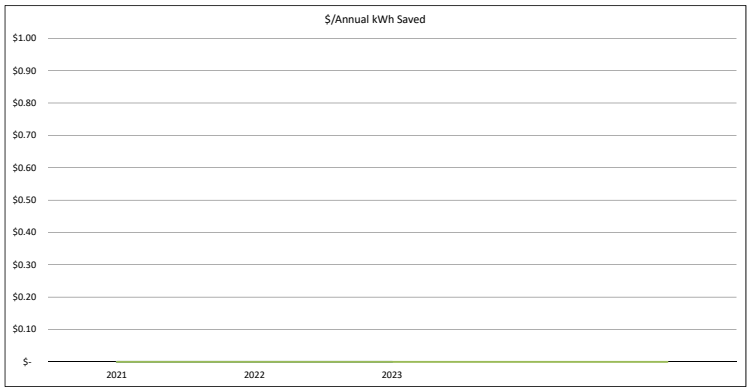
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	n/a	n/a	n/a	n/a	n/a	n/a	$ 460,250.00	$ 271,428.57	$ 262,884.81
	Annual Electric Savings Plan (kWh)	n/a	n/a	n/a	n/a	n/a	n/a	-	-	-
	$/Annual kWh Plan	n/a	n/a	n/a	n/a	n/a	n/a	$ -	$ -	$ -
2)	Total Gas Budget	n/a	n/a	n/a	n/a	n/a	n/a	$ 460,250.00	$ 271,428.57	$ 262,884.81
	Total summer peak kW Plan	n/a	n/a	n/a	n/a	n/a	n/a	5.01	-	-
	$/kW Plan	n/a	n/a	n/a	n/a	n/a	n/a	$ -	$ -	$ -
3)	Total Gas Budget	n/a	n/a	n/a	n/a	n/a	n/a	$ 460,250.00	$ 271,428.57	$ 262,884.81
	Total Annual MMBtu Plan	n/a	n/a	n/a	n/a	n/a	n/a	5,000.00	27,700.00	27,700.00
	$/Annual MMBtu Plan	n/a	n/a	n/a	n/a	n/a	n/a	$ 92.05	$ 9.80	$ 9.49

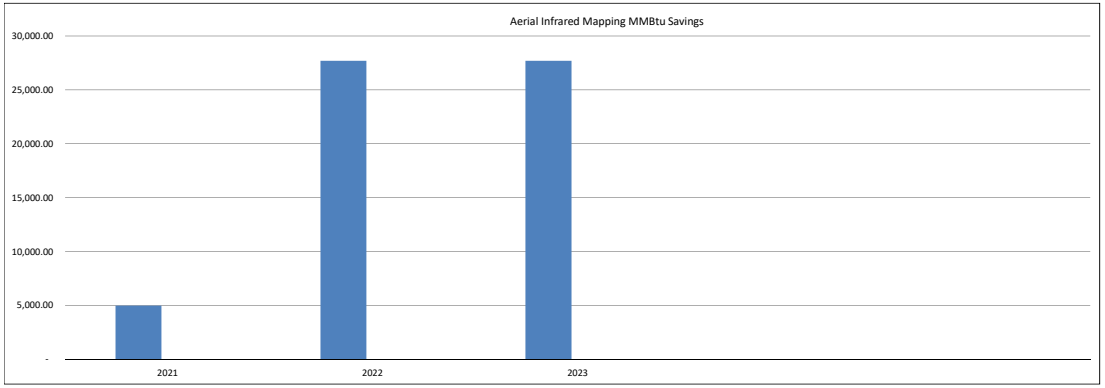
Home Energy Assistance

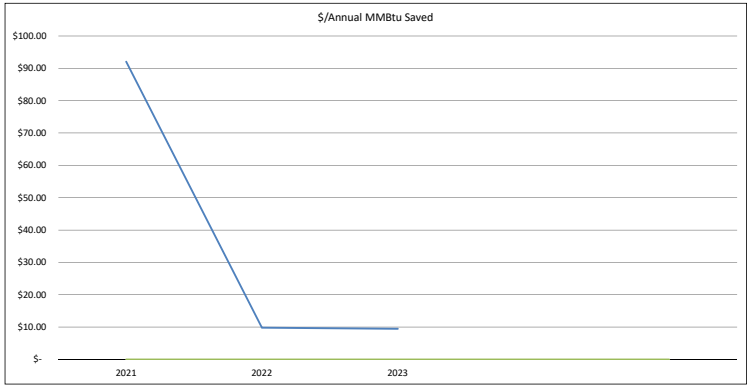
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	n/a	n/a	n/a	n/a	n/a
	Annual Electric Savings Actual (kWh)	n/a	n/a	n/a	n/a	n/a
	$/Annual kWh Actual	n/a	n/a	n/a	n/a	n/a
2)	Total Gas Costs	n/a	n/a	n/a	n/a	n/a
	Total summer peak kW Actual	n/a	n/a	n/a	n/a	n/a
	$/kW Actual	n/a	n/a	n/a	n/a	n/a
3)	Total Gas Costs	n/a	n/a	n/a	n/a	n/a
	Total Annual MMBtu Actual	n/a	n/a	n/a	n/a	n/a
	$/Annual MMBtu Actual	n/a	n/a	n/a	n/a	n/a









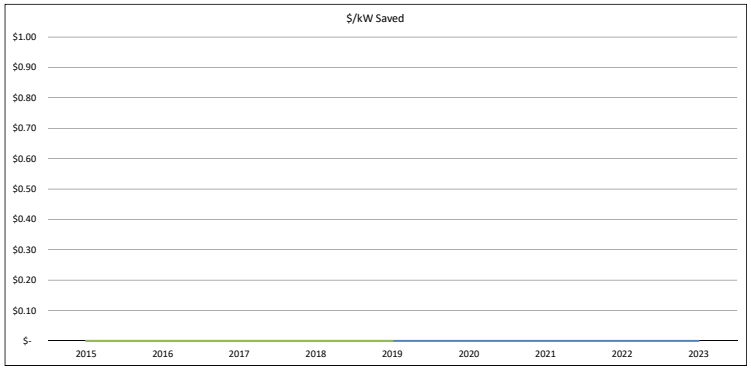


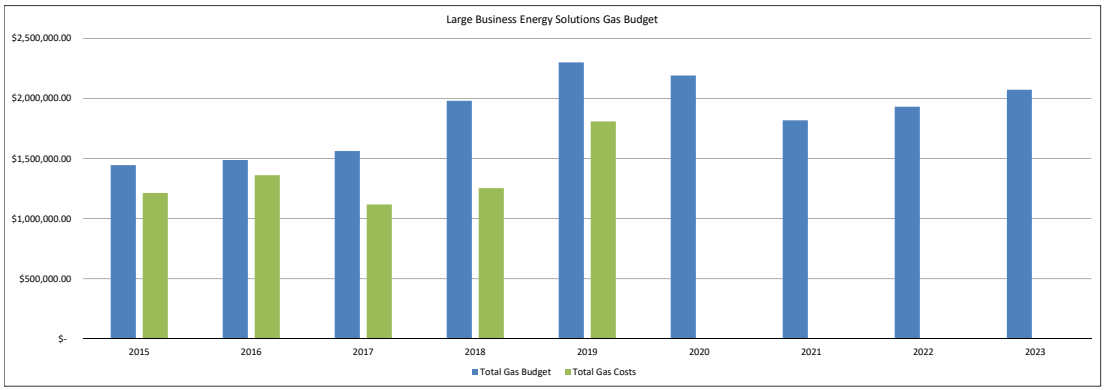
Large Business Energy Solutions

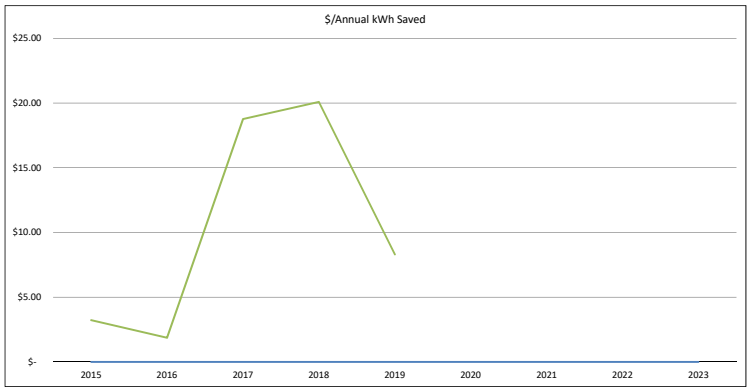
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	$ 1,445,300.00	$ 1,488,000.00	$ 1,563,100.00	$ 1,981,418.00	$ 2,300,303.00	$ 2,190,676.00	$ 1,818,540.00	$ 1,930,920.10	$ 2,073,193.60
	Annual Electric Savings Plan (kWh)	-	-	-	-	-	-	-	-	-
	$/Annual kWh Plan	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2)	Total Gas Budget	$ 1,445,300.00	$ 1,488,000.00	$ 1,563,100.00	$ 1,981,418.00	$ 2,300,303.00	$ 2,190,676.00	$ 1,818,540.00	$ 1,930,920.10	$ 2,073,193.60
	Total summer peak kW Plan	-	-	-	-	-	-	-	-	-
	$/kW Plan	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Budget	$ 1,445,300.00	$ 1,488,000.00	$ 1,563,100.00	$ 1,981,418.00	$ 2,300,303.00	$ 2,190,676.00	$ 1,818,540.00	$ 1,930,920.10	$ 2,073,193.60
	Total Annual MMBtu Plan	35,112.28	47,470.90	50,253.00	56,640.57	65,862.90	65,052.48	76,164.60	81,402.11	90,438.81
	$/Annual MMBtu Plan	$ 41.16	$ 31.35	$ 31.10	$ 34.98	$ 34.93	$ 33.68	$ 23.88	$ 23.72	$ 22.92

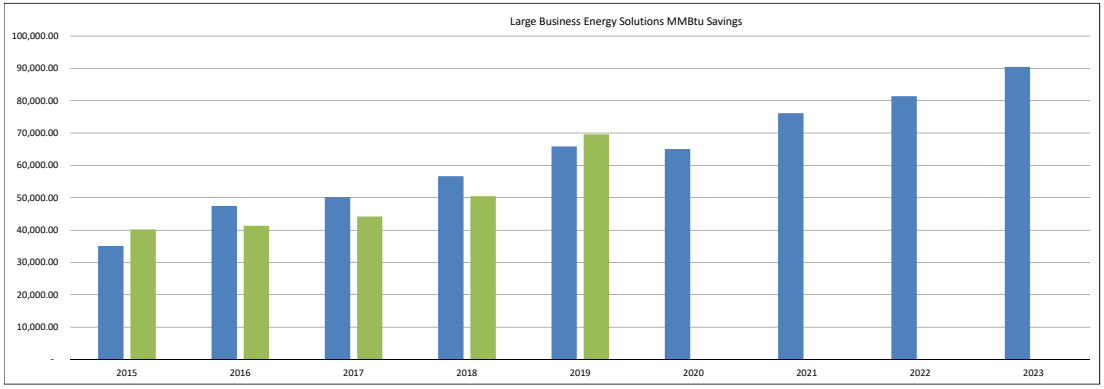
Home Energy Assistance

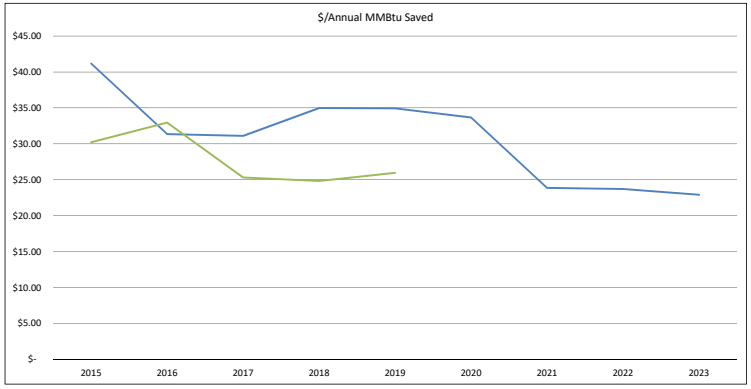
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	$ 1,213,707.03	$ 1,362,062.88	$ 1,118,669.97	$ 1,253,657.27	$ 1,808,918.19
	Annual Electric Savings Actual (kWh)	376,025.00	730,766.77	59,599.14	62,399.00	217,971.00
	$/Annual kWh Actual	$ 3.23	$ 1.86	$ 18.77	$ 20.09	$ 8.30
2)	Total Gas Costs	$ 1,213,707.03	$ 1,362,062.88	$ 1,118,669.97	$ 1,253,657.27	$ 1,808,918.19
	Total summer peak kW Actual	-	-	-	-	-
	$/kW Actual	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Costs	$ 1,213,707.03	$ 1,362,062.88	$ 1,118,669.97	$ 1,253,657.27	$ 1,808,918.19
	Total Annual MMBtu Actual	40,175.50	41,329.60	44,189.10	50,500.29	69,643.09
	$/Annual MMBtu Actual	$ 30.21	$ 32.96	$ 25.32	$ 24.82	$ 25.97









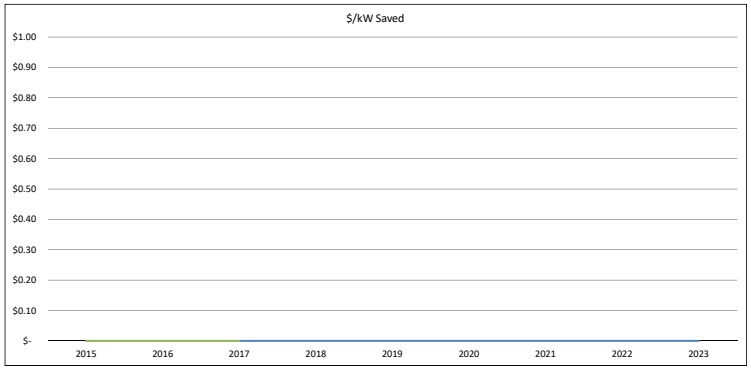


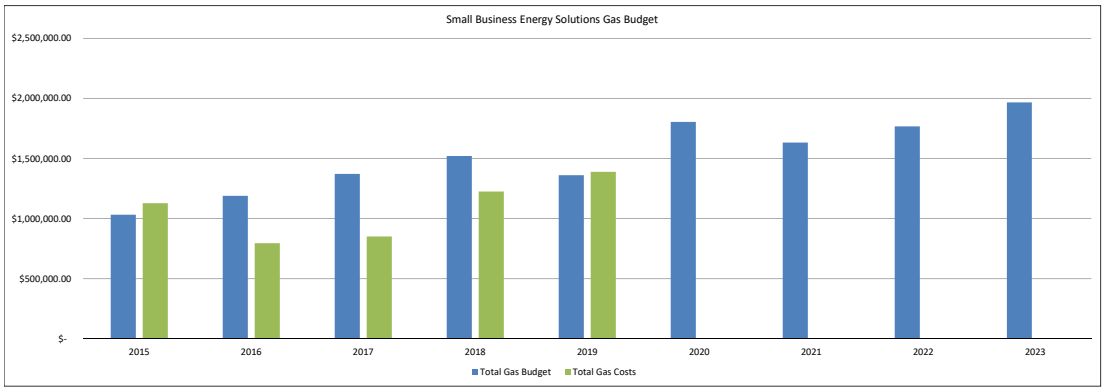
Small Business Energy Solutions

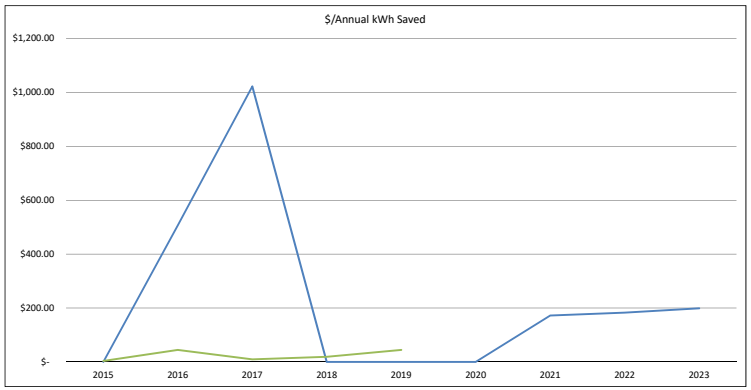
Planned		2015	2016	2017	2018	2019	2020	2021	2022	2023
1)	Total Gas Budget	$ 1,032,710.00	$ 1,190,000.00	$ 1,373,000.00	$ 1,521,323.00	$ 1,361,981.00	$ 1,805,139.00	$ 1,633,120.00	$ 1,768,008.72	$ 1,967,937.43
	Annual Electric Savings Plan (kWh)	-	2,352.00	1,344.00	-	-	-	9,506.44	9,699.30	9,917.02
	$/Annual kWh Plan	$ -	$ 505.95	$ 1,021.58	$ -	$ -	$ -	$ 171.79	$ 182.28	$ 198.44
2)	Total Gas Budget	$ 1,032,710.00	$ 1,190,000.00	$ 1,373,000.00	$ 1,521,323.00	$ 1,361,981.00	$ 1,805,139.00	$ 1,633,120.00	$ 1,768,008.72	$ 1,967,937.43
	Total summer peak kW Plan	-	-	-	-	-	-	-	-	-
	$/kW Plan	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
3)	Total Gas Budget	$ 1,032,710.00	$ 1,190,000.00	$ 1,373,000.00	$ 1,521,323.00	$ 1,361,981.00	$ 1,805,139.00	$ 1,633,120.00	$ 1,768,008.72	$ 1,967,937.43
	Total Annual MMBtu Plan	19,194.68	17,647.10	38,717.41	34,789.57	31,804.20	30,789.02	25,848.88	28,289.47	31,363.40
	$/Annual MMBtu Plan	$ 53.80	$ 67.43	$ 35.46	$ 43.73	$ 42.82	$ 58.63	$ 63.18	$ 62.50	$ 62.75

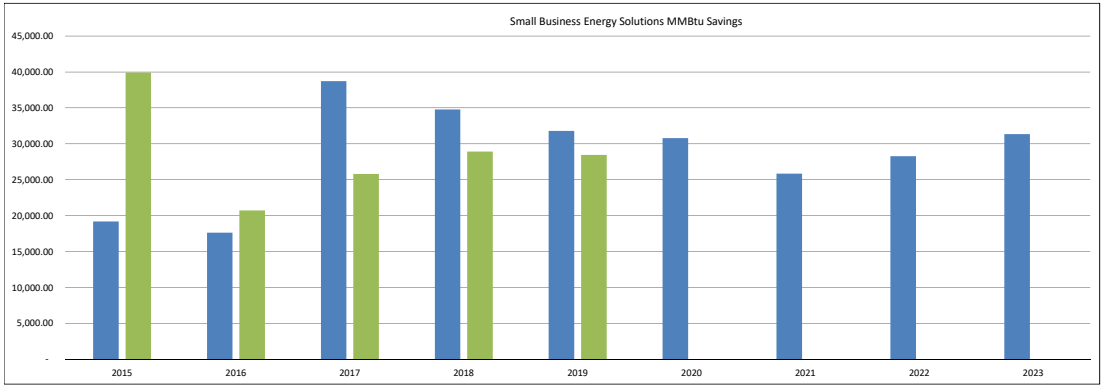
Home Energy Assistance

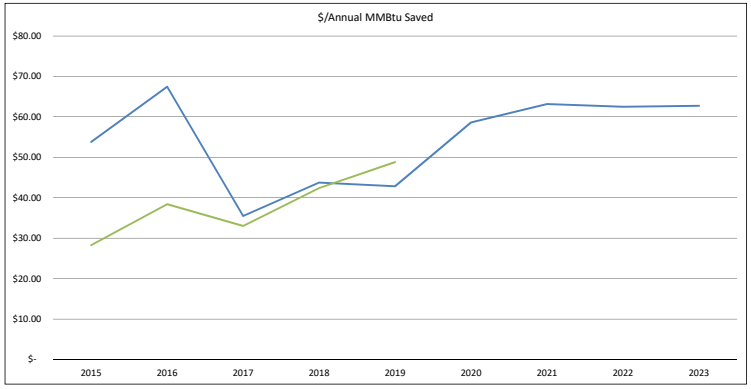
Actuals		2015	2016	2017	2018	2019
1)	Total Gas Costs	$ 1,129,097.52	$ 795,988.77	$ 852,560.30	$ 1,226,552.32	$ 1,389,859.77
	Annual Electric Savings Actual (kWh)	316,732.00	17,924.79	90,646.55	66,362.00	31,344.00
	$/Annual kWh Actual	$ 3.56	$ 44.41	$ 9.41	$ 18.48	$ 44.34
2)	Total Gas Costs	$ 1,129,097.52	$ 795,988.77	$ 852,560.30	$ 1,226,552.32	$ 1,389,859.77
	Total summer peak kW Actual	-	-	-		-
	$/kW Actual	$ -	$ -	$ -		$ -
3)	Total Gas Costs	$ 1,129,097.52	$ 795,988.77	$ 852,560.30	$ 1,226,552.32	$ 1,389,859.77
	Total Annual MMBtu Actual	39,916.08	20,731.54	25,814.51	28,935.00	28,467.30
	$/Annual MMBtu Actual	$ 28.29	$ 38.40	$ 33.03	$ 42.39	$ 48.82













STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DG 20-XXX

Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities
Winter 2020/2021 Cost of Gas
Summer 2021 Cost of Gas

DIRECT TESTIMONY

OF

DAVID B. SIMEK

AND

CATHERINE A. MCNAMARA

September 1, 2020

I. INTRODUCTION

Q. Please state your full name and business address.

A. (DS) My name is David B. Simek. My business address is 15 Buttrick Road, Londonderry, New Hampshire.

(CM) My name is Catherine A. McNamara. My business address is 15 Buttrick Road, Londonderry, New Hampshire.

Q. Please state by whom you are employed.

A. We are employed by Liberty Utilities Service Corp. ("Liberty"), which provides service to Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities ("EnergyNorth" or "the Company").

Q. Please describe your educational background and your business and professional experience.

A. (DS) I graduated from Ferris State University in 1993 with a Bachelor of Science in Finance. I received a Master's of Science in Finance from Walsh College in 2000. I also received a Master's of Business Administration from Walsh College in 2001. In 2006, I earned a Graduate Certificate in Power Systems Management from Worcester Polytechnic Institute. In August 2013, I joined Liberty as a Utility Analyst and I was promoted to Manager, Rates and Regulatory Affairs in August 2017. Prior to my employment at Liberty, I was employed by NSTAR Electric & Gas ("NSTAR") as a Senior Analyst in Energy Supply from 2008 to 2012. Prior to my position in Energy

Supply at NSTAR, I was a Senior Financial Analyst within the NSTAR Investment Planning group from 2004 to 2008.

(CM) I graduated from the University of Massachusetts, Boston, in 1993 with a Bachelor of Science in Management with a concentration in Accounting. In November 2017, I joined Liberty as an Analyst in Rates and Regulatory Affairs. Prior to my employment at Liberty, I was employed by Eversource as a Senior Analyst in the Investment Planning group from 2015 to 2017. From 2008 to 2015, I was a Supervisor in the Plant Accounting department. Prior to my position in Plant Accounting, I was a Financial Analyst/General Ledger System Administrator within the Accounting group from 2000 to 2008.

Q. Have you previously testified in regulatory proceedings before the New Hampshire Public Utilities Commission (the "Commission")?

A. (DS) Yes. I have testified on numerous occasions before the Commission.

(CM) Yes. I have testified on multiple occasions before the Commission.

Q. What is the purpose of your testimony?

A. The purpose of our testimony is to explain the Company's proposed firm sales cost of gas rates for the 2020/2021 Winter (Peak) Period and the Company's proposed 2020/2021 Local Delivery Adjustment Clause, both effective November 1, 2020. Our testimony also explains the Company's proposed firm sales cost of gas rates for the 2021 Summer (Off-Peak) Period.

II. WINTER 2020/2021 COST OF GAS FACTOR

Q. What are the proposed firm Winter sales and firm transportation cost of gas rates?

A. The Company proposes a firm sales cost of gas rate of $0.5571 per therm for residential customers, $0.5552 per therm for commercial/industrial high winter use customers, and $0.5660 per therm for commercial/industrial low winter use customers as shown on Proposed Eleventh Revised Page 92 (Bates 047). The Company proposes a firm transportation cost of gas rate of $0.0001 per therm as shown on Proposed Fourth Revised Page 94 (Bates 049).

Q. Please explain tariff page and Proposed Eleventh Revised Page 92 (Bates 047).

A. Proposed Eleventh Revised Page 92 contains the calculation of the 2020/2021 Winter Period Cost of Gas Rate and summarize the Company's forecast of firm gas costs and firm gas sales. As shown on Page 92, the proposed 2020/2021 Average Cost of Gas of $0.5571 per therm is derived by adding the Direct Cost of Gas Rate of $0.5319 per therm to the Indirect Cost of Gas Rate of $0.0252 per therm. The estimated total Anticipated Direct Cost of Gas, derived on Page 92, is $46,922,854. The estimated Indirect Cost of Gas, also derived on Page 92, is $2,220,114. The Direct Cost of Gas Rate of $0.5319 and the Indirect Cost of Gas Rate of $0.0252 are determined by dividing each of these total cost figures by the projected winter period firm sales volumes of 88,213,529 therms.

To calculate the total Anticipated Direct Cost of Gas, the Company adds a list of allowable adjustments from deferred gas cost accounts to the projected demand and commodity costs for the winter period supply portfolio. These allowable adjustments, shown on Page 92.1, total $1,012,447. These adjustments are added to the Unadjusted

Anticipated Cost of Gas of $45,910,407 to determine the Total Anticipated Direct Cost of Gas of $46,922,854.

Q. What are the components of the Unadjusted Anticipated Cost of Gas?

A. The Unadjusted Anticipated Cost of Gas shown on Proposed Original Page 92.1 consists of the following components:

1.	Purchased Gas Demand Costs	$12,022,922
2.	Purchased Gas Commodity Costs	28,276,980
3.	Storage Demand and Capacity Costs	955,766
4.	Storage Commodity Costs	3,064,149
5.	Produced Gas Cost	1,590,589
	Total	**$45,910,406

**Slightly off due to rounding

Q. What are the components of the allowable adjustments to the Cost of Gas?

A. The allowable adjustments to gas costs, listed on Proposed Original Page 92.1, are as follows:

1.	Deferred Gas Cost Prior Period Under Collection	$2,227,421
2.	Interest	72,812
3.	Fuel Inventory Revenue Requirement	441,037
4.	Broker Revenues	(32,725)
5.	Transportation COG Revenue	(4,516)
6.	Capacity Release Margin	(1,736,581)
7.	Fixed Price Administrative Cost	45,000
	Total Adjustments	**$1,012,448

**Slightly off due to rounding

These allowable adjustments are standard adjustments made to the deferred gas cost balance through the operation of the Company's cost of gas adjustment clause. We discuss the factors contributing to the prior period under collection later in this testimony.

Q. How does the proposed average cost of gas rate in this filing compare to the average cost of gas rate approved by the Commission in Docket No. DG 19-145 for the 2019/2020 winter period?

A. The average cost of gas rate proposed in this filing of $0.5571 per therm is $0.0632 per therm less than the initial rate of $0.6203 per therm approved by the Commission in Order No. 26,306 (October 31, 2019) in Docket No. DG 19-145. The $0.0632 per therm decrease in the rate reflects a $6,025,265 decrease in the Total Unadjusted Direct Cost of Gas.

Q. How does the proposed firm transportation winter cost of gas rate compare to the rate approved by the Commission for the 2019/2020 winter period?

A. The proposed firm transportation winter cost of gas rate is $0.0001 per therm. The rate approved in Docket No. DG 19-145 was $0.0009 per therm. The decrease in the rate relates primarily to an estimated $29,483 decrease in commodity costs and the difference between the winter season 2019/2020 beginning balance of $29,161 (an over-collection) and the winter season 2020/2021 beginning balance of $40,053 (an over-collection).

Q. In the calculation of its firm transportation winter cost of gas rate, has the Company updated the estimated percentage used for pressure support purposes?

A. No. The Company used, for pressure support purposes, a rate of 8.7% based on the marginal cost study used for the rate design approved in Docket No. DG 17-048.

Q. Did the Company include a fuel inventory revenue requirement calculation in this filing?

A. Yes (Bates 198). The Company is proposing to collect $441,037 in fuel inventory revenue requirement consistent with Order No. 26,156 (July 10, 2018) in Docket No. DG 17-048. The impact of this amount to the overall Cost of Gas rate is $0.0050 per therm which is determined by dividing the $441,037 by the estimated November 2019 through October 2020 COG sales volumes of 87,788,508 therms.

Q. How was the statutory tax rate of 27.08% calculated (Bates 198)?

A. The statutory rate of 27.08% was calculated by using a 21% federal tax rate and a 7.7% tax rate for the State of New Hampshire (0.21 + 0.077 – (0.21 x 0.077) = 0.27083).

Q. How was the common equity pre-tax rate of 6.280% calculated (Bates 198)?

A. The common equity pre-tax rate of 6.280% was calculated by dividing the 9.30% rate of return on common equity, approved in Docket No. DG 17-048, by 0.72917 (1 – 0.27083) [statutory tax rate – see previous question]) and multiplied by 49.20% (equity component of the capital structure approved in DG 17-048) [0.093 / 0.72917 x 0.4920 = 0.0628].

Q. Has the bad debt percentage in this filing of 1.11% changed from the bad debt percentage calculated in the Winter 2019/2020 Cost of Gas Reconciliation?

A. No. The bad debt percentage of 1.11% used in this filing is the calculated rate for the period of May 2019–April 2020.

Q. What was the actual weighted average firm sales cost of gas rate for the 2019/2020 winter period?

A. The weighted average cost of gas rate was $0.4632 per therm (Bates 085 Line 54). This was calculated by applying the actual monthly cost of gas rates for November 2019 through April 2020 to the monthly therm usage of an average residential heating customer using 667 therms for the six winter period months.

III. PRIOR WINTER PERIOD UNDER-COLLECTION

Q. Please explain the prior period under collection of $1,863,956.

A. The prior period under-collection is detailed in the 2019/2020 winter period reconciliation that was filed with the Commission on July 31, 2020. The $1,863,956 under-collection is the sum of the deferred gas cost, bad debt, and working capital over- and under-collection balances as of April 30, 2020. The under-collection was driven mainly by the lag in the timing of monthly cost of gas rate adjustments as compared to changes in the underlying costs.

IV. FIXED PRICE OPTION

Q. Has the Company established a winter period fixed price pursuant to its Fixed Price Option Program?

A. Yes. Pursuant to Order No. 24,515 in Docket No. DG 05-127, the Fixed Price Option Program ("FPO") rates are set at $0.0200 per therm higher than the initial proposed COG rate. Proposed Third Revised Page 91 (Bates 046) contains the FPO rate for the 2020/2021 winter period, which is $0.5771 per therm for residential customers. This compares to the FPO rate approved for the 2019/2020 winter period of $0.6403 per therm for residential customers. This represents a $0.0632 per therm or 9.87% decrease in the residential FPO rate. The total bill impact on the winter period bills for an average FPO heating customer using 667 therms is a decrease of approximately $34.21 or 3.67% compared to last winter. The total bill impact reflects the overall rates in effect following implementation of the increases approved in Docket No. DG 20-049, effective July 1, 2020, relating to the cast iron/bare steel main replacement program. The estimated winter period bill for an average residential heating customer opting for the FPO would be approximately $13.32 (or 1.51%) higher than the bill under the proposed cost of gas rates, assuming no monthly adjustments to the COG rate during the course of the winter. Schedule 23 (Bates 195) contains the historical results of the FPO program.

V. LOCAL DELIVERY ADJUSTMENT CLAUSE ("LDAC")

Q. What are the surcharges that will be billed under the LDAC?

A. As shown on Proposed Third Revised Page 97 (Bates 052), the Company is submitting for approval an LDAC of $0.0603 per therm for the residential non-heating class and

residential heating class, and $0.0549 per therm for the commercial/industrial bundled sales classes, effective November 1, 2020. The surcharges proposed to be billed under the LDAC are the Energy Efficiency Charge, the Revenue Decoupling Adjustment Factor, the Environmental Surcharge for Manufactured Gas Plant ("MGP") remediation, the Residential Gas Assistance Program charge, and the rate case expense reconciliation surcharge from Docket No. DG 17-048.

Q. Which customers are billed an LDAC?

A. All EnergyNorth customers including those in Keene are billed an LDAC charge. When calculating the LDAC charge, the November 1, 2020, through October 31, 2021, forecasted Keene therm sales of 1,442,013 are added to the EnergyNorth therm sales forecast of 178,132,666 for a total therm sales forecast of 179,574,679.

Q. Please explain the Energy Efficiency Charge.

A. The Energy Efficiency Charge is designed to recover the projected expenses associated with the Company's energy efficiency programs for the November 2020–October 2021 period that will be filed with the Commission in the near future. In the calculation of the Energy Efficiency Charge, the Company has also included the projected prior period under-recovery of the Company's residential and commercial energy efficiency programs as of October 2020. As shown on Schedule 19 Energy Efficiency (Bates 124-126), the proposed Energy Efficiency charge is $0.0831 per therm for Residential customers and $0.0441 per therm for commercial and industrial customers.

Q. Please explain the Revenue Decoupling Adjustment Factor ("RDAF").

A. The purpose of the RDAF is to recover or refund, on an annual basis, the difference between the Actual Base Revenue per Customer and the Benchmark Base Revenue per Customer. Schedule 19 RDAF (Bates 109-123) shows the proposed Actual Base Revenue per Customer and the Benchmark Base Revenue per Customer calculation of a total over-collection of $4,965,947 effective November 1, 2020, through October 31, 2021. Schedule 19 RDAF also includes a proposed September 2019 through August 2020 reconciliation. The reconciliation is new to this filing and calculates a remaining refund of $1,010,099 effective November 1, 2020, through October 31, 2021.

Q. What is the proposed Residential Gas Assistance Program charge?

A. As shown on Schedule 19 Gas Assistance (Bates 127-128), the proposed Residential Gas Assistance charge is $0.0121 per therm. It is designed to recover administrative costs, revenue shortfall, and the prior period reconciliation adjustment relating to this program. For the 2020/2021 winter period, the Company is providing a 45% base rate and cost of gas discount, consistent with the settlement agreement approved by the Commission in Order No. 26,397 (August 27, 2020) in Docket No. DG 20-013. The proposed Residential Gas Assistance charge is designed to recover $2,165,954, of which $1,689,200 is for the revenue shortfall resulting from 4,880 customers receiving a 45% discount off their base and cost of gas rates, and $476,754 for the prior year reconciling adjustment.

Q. In Order No. 24,824 (Feb. 29, 2008) in Docket No. DG 06-122 relating to short-term debt issues, the Company agreed to adjust its short-term debt limits each year as

part of the Company's Winter Period Cost of Gas filing. Did the Company calculate the short-term debt limit for fuel and non-fuel purposes in accordance with this settlement?

A. Yes, the Company included in Schedule 24 (Bates 196) the short-term debt limit for fuel and non-fuel purposes for the 2020/2021 winter period. As shown, the short-term debt limit for fuel inventory financing for the period November 1, 2020, through October 31, 2021, is calculated to be $14,702,768 and the limit for non-fuel purposes is calculated to be $105,567,204.

Q. Has the Company updated the Environmental Surcharge (Tariff Page 95)?

A. Yes, it has. The costs submitted for recovery through the MGP remediation cost recovery mechanism, as well as the third party recoveries, are included in the Environmental Cost Summary in Schedule 20 (Bates 130) of this filing. The environmental investigation and remediation costs that underlie these expenses are the result of efforts by the Company to respond to its legal obligations with regard to these sites, as described by Ms. Casey in her pre-filed direct testimony in this proceeding and as set forth in the MGP site summaries included in this filing under Schedule 20. The Summary included in Schedule 20 shows the remediation cost pools for the Concord Pond, Concord MGP, Manchester, Nashua, and Laconia sites, and a General Pool for costs that cannot be directly assigned to a specific site.

A summary sheet and detailed backup spreadsheets that support the 2019/2020 costs are provided in Schedule 20 of this filing. Ms. Casey's testimony describes the Company's activities with regard to all five sites.

Q. Please describe how the Company calculated the Environmental Surcharge included in this filing.

A. The proposed Manufactured Gas Plant Remediation surcharge for the period beginning November 1, 2020, and ending October 31, 2021, is $0.0197 per therm. Consistent with filings made over the past few years, this surcharge will recover a total of $2,864,179 in amortized remediation costs. New to this filing are amortized actual to forecast true-up recovery costs through June 2019 of $341,389 (total amount is $1,024,167 which is proposed to be amortized over three years). The $1,024,167 is the recommended amount provided by Audit Staff in the DG 19-145 Final Audit Report dated April 9, 2020. Also, new to this filing are actual to forecast true-up recovery cost for the period July 2019 through June 2020 of $338,564. The costs submitted for recovery are shown in the Environmental Cost Summary included in Schedule 20 of this filing.

Q. Did the Company include a Rate Case Expense (RCE) surcharge in this filing?

A. Yes. As shown on Schedule 19 RCE (Bates 107-108), the Company is proposing to collect $44,619 in uncollected rate case expense consistent with Order No. 26,122 (April 27, 2018) in Docket No. DG 17-048. The RCE rate of $0.0002 per therm is determined by dividing the $44,619 by the estimated November 2020 through October 2021 sales volumes of 179,574,679 therms.

Q. Has the Company also updated its Company Allowance percentage for the period November 2020 through October 2021 in accordance with Section 8 of the Company's Delivery Terms and Condition?

A. Yes, in Schedule 25 (Bates 197) the Company has recalculated its Company Allowance for the period November 2020 through October 2021. The Company calculated the Company Allowance of 1.61% based on sendout and throughput data for the twelve-month period ending June 2020. The Company proposes to apply this recalculated Company Allowance to all supplier deliveries beginning in November 2020.

VI. CUSTOMER BILL IMPACTS

Q. What are the estimated impacts of the proposed firm sales cost of gas rate and proposed LDAC surcharges on an average heating customer's winter bill as compared to the winter rates in effect last year?

A. The bill impact analysis is presented in Schedule 8 (Bates 085) of this filing. These bill impacts reflect the implementation of the increases approved in Docket No. DG 20-049 effective July 1, 2020, relating to the cast iron/bare steel main replacement program. The total bill impact over the winter period for an average residential heating customer is an increase of approximately $91.21 or 11.51%. The total bill impact over the winter period for an average commercial/industrial G-41 customer is an increase of approximately $223.46, or 11.0% (Bates 086). Schedule 8 of this filing provides more detail of the impact of the proposed rate adjustments on heating customers.

VII. OTHER TARIFF CHANGES

Q. Is the Company updating its Delivery Terms and Conditions in the filing?

A. Yes. The Company is submitting Proposed Third Revised Page 147 (Bates 053) relating to Supplier Balancing and Peaking Demand Charges and Proposed Third Revised Page 148 (Bates 054) relating to Capacity Allocation.

Q. Please describe the changes to tariff Page 147.

A. In Proposed Third Revised Page 147, the Company is updating the Peaking Demand Charge from $18.12 per MMBtu of Peak MDQ to $17.32 per MMBtu of Peak MDQ. This calculation is also presented in Schedule 21 (Bates 178-188).

Q. Please describe the changes to tariff Page 148.

A. Proposed Second Revised Page 148 updates the Capacity Allocator percentages used to allocate pipeline, storage, and local peaking capacity to high and low load factor customers under the mandatory capacity assignment requirement for firm transportation service. Schedule 22 (Bates 189-194) contains the six-page worksheet that backs up the calculations for the updated allocators.

VIII. SUMMER 2020 COST OF GAS FACTOR

Q. What are the proposed 2020 summer firm sales cost of gas rates?

A. The Company proposes a firm sales cost of gas rate of $0.3148 per therm for residential customers, $0.3109 per therm for commercial/industrial high winter use customers, and $0.3199 per therm for commercial/industrial low winter use customers as shown on Proposed Eighth Revised Page 89 (Bates 207).

Q. Please explain tariff pages Proposed Third Revised Page 88 and Proposed Thirteenth Revised Page 89.

A. Proposed Third Revised Page 88 (Bates 206) and Proposed Thirteenth Revised Page 89 (Bates 207) contain the calculation of the 2020 Summer Period Cost of Gas Rate and summarize the Company's forecast of firm gas sales, firm gas sendout, and gas costs. On Proposed Thirteenth Revised Page 89, the 2021 Average Cost of Gas of $0.3148 per therm is derived by adding the Direct Cost of Gas Rate of $0.3257 per therm to the Indirect Cost of Gas Rate of ($0.0109) per therm. The estimated total Anticipated Direct Cost of gas is $7,386,965 and the estimated Indirect Cost of Gas is ($246,190). The Direct Cost of Gas Rate and the Indirect Cost of Gas Rates are determined by dividing each of these total cost figures by the projected Summer firm sales volumes of 22,681,422 therms. Proposed Thirteenth Revised Page 89 further shows that the Residential Cost of Gas Rate of $0.3148 per therm is equal to the Average Cost of Gas for all firm sales customers. It also shows the calculation of the Commercial/Industrial High Winter Use Cost of Gas Rate of $0.3109 per therm and the Commercial/Industrial Low Winter Use Cost of Gas Rate of $0.3199 per therm.

The calculation of the Anticipated Direct Cost of Gas is shown on Proposed Third Revised Page 88. To derive the total Anticipated Direct Cost of Gas of $7,386,965, the Company starts with the Unadjusted Anticipated Cost of Gas of $7,284,571 and adds the Net Adjustment totaling $102,394.

Q. What are the components of the Unadjusted Anticipated Cost of Gas?

A. The Unadjusted Anticipated Cost of Gas consists of the following:

1. Purchased Gas Demand Costs	$2,868,280
2. Purchased Gas Supply Costs	4,387,278
3. Produced Gas Costs	29,014
Total Unadjusted Anticipated Cost of Gas	**$7,284,572

**Slightly off due to rounding

Q. What are the components of the adjustments to the cost of gas?

A. The adjustments to gas costs, listed on proposed Third Revised Page 88, are as follows:

1. Prior Period (Over)/Under Collection	$105,886
2. Interest	$(3,492)
Total Adjustments	$102,394

Q. How does the proposed average Residential Summer cost of gas rate in this filing compare to the initial cost of gas rate approved by the Commission for the 2020 Summer Period?

A. The cost of gas rate proposed in this filing is $0.1372 per therm lower than the initial rate approved by the Commission for the 2019 Summer Period ($0.4520 vs. $0.3148) (Schedule 8, Bates 229). This decrease is primarily due to a $1,779,560 lower estimated under-collection compared to the under-collection from the prior summer period.

Q. Does this conclude your testimony?

A. Yes, it does.

Program Cost-Effectiveness - 2021 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.70	*0.83*	*1.57*	921.3	*451.9*	*850.1*	542.7	-	-	-	-	-	84	2,442.2	52,284.1
A1 - Energy Star Homes	2.17	*1.85*	*1.82*	665.8	*569.6*	*729.0*	307.4	93.8	-	-	-	-	100	2,748.5	66,927.5
A2 - Home Performance with Energy	1.29	*1.06*	*1.19*	311.8	*256.9*	*348.6*	242.3	51.4	2.4	55.4	-	1.3	75	1,407.8	29,706.1
A3 - Energy Star Products	2.19	*1.94*	*1.30*	1,067.6	*945.1*	*1,200.2*	488.0	436.1	(3.4)	(65.4)	(0.3)	(0.2)	9,593	6,427.0	109,021.0
A4 - Residential Behavior	1.09	*1.02*	*1.30*	34.3	*31.8*	*40.8*	31.3	-	-	-	-	-	9,100	3,221.6	3,221.6
A6c - Res Education	-	-	-	-	-	-	26.8	-	-	-	-	-	-	-	-
A6e - Res Financing	-	-	-	-	-	-	7.5	-	-	-	-	-	-	-	-
Sub-Total Residential	**1.82**	***1.37***	***1.42***	**3,000.7**	***2,255.3***	***3,168.7***	**1,646.1**	**581.3**	**(1.1)**	**(9.9)**	**(0.3)**	**1.1**	**18,952**	**16,247.1**	**261,160.3**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	2.90	*2.49*	*2.11*	2,514.8	*2,157.1*	*2,759.7*	867.1	437.8	-	-	-	-	84	19,613.2	281,808.3
C2 - Small Business Energy Solutions	2.09	*1.74*	*1.54*	1,121.2	*934.4*	*1,225.2*	537.5	256.5	0.5	7.5	0.1	0.1	131	8,289.8	121,478.0
C6c - C&I Education	-	-	-	-	-	-	25.6	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**2.54**	***2.16***	***1.88***	**3,636.0**	***3,091.5***	***3,984.9***	**1,430.2**	**694.3**	**0.5**	**7.5**	**0.1**	**0.1**	**215**	**27,903.0**	**403,286.3**
Total	**2.16**	***1.74***	***1.64***	**6,636.7**	***5,346.8***	***7,153.6***	**3,076.3**	**1,275.6**	**(0.6)**	**(2.5)**	**(0.2)**	**1.3**	**19,167**	**44,150.1**	**664,446.5**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs in 2021 Dollars

Annual Savings as a % of 2018 Sales	0.58%

Spending per Customer	Low-Income	$	428.68
	Residential	$	43.38
	C&I	$	203.94

Present Value Benefits - 2021 PLAN

	Total Benefits ($000)			Resource Benefits ($000)						Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric	Gas Benefit			Other Benefit					
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Total Electric Benefit	Gas Benefit	Gas DRIPE	Total Gas Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs														
B1 - Home Energy Assistance	**$ 921**	*$ 452*	*$ 850*	**$ -**	$ 440	$ 12	$ 452	$ 452	$ 3	**$ 455**	$ 71	$ 395	**$ 466**	**$ -**
A1 - Energy Star Homes	**$ 666**	*$ 570*	*$ 729*	**$ -**	$ 556	$ 14	$ 570	$ 570	$ -	**$ 570**	$ 96	$ 159	**$ 256**	**$ -**
A2 - Home Performance with Energy Star	**$ 312**	*$ 257*	*$ 349*	**$ 11**	$ 250	$ 7	$ 257	$ 257	$ 3	**$ 271**	$ 40	$ 75	**$ 115**	**$ 2**
A3 - Energy Star Products	**$ 1,068**	*$ 945*	*$ 1,200*	**$ (5)**	$ 916	$ 29	$ 945	$ 945	$ -	**$ 940**	$ 128	$ 263	**$ 391**	**$ (3)**
A4 - Residential Behavior	**$ 34**	*$ 32*	*$ 41*	**$ -**	$ 30	$ 2	$ 32	$ 32	$ -	**$ 32**	$ 2	$ 9	**$ 11**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 3,001**	*$ 2,255*	*$ 3,169*	**$ 6**	**$ 2,191**	**$ 64**	**$ 2,255**	**$ 2,255**	**$ 6**	**$ 2,268**	**$ 338**	**$ 902**	**$ 1,240**	**$ (1)**
Commercial/Industrial Programs														
C1 - Large Business Energy Solutions	**$ 2,515**	*$ 2,157*	*$ 2,760*	**$ -**	$ 2,075	$ 82	$ 2,157	$ 2,157	$ 42	**$ 2,199**	$ 316	$ 561	**$ 877**	**$ -**
C2 - Small Business Energy Solutions	**$ 1,121**	*$ 934*	*$ 1,225*	**$ 1**	$ 901	$ 34	$ 934	$ 934	$ 46	**$ 982**	$ 140	$ 243	**$ 383**	**$ 0**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 3,636**	*$ 3,092*	*$ 3,985*	**$ 1**	**$ 2,976**	**$ 115**	**$ 3,092**	**$ 3,092**	**$ 88**	**$ 3,181**	**$ 455**	**$ 804**	**$ 1,260**	**$ 0**
Total	**$ 6,637**	*$ 5,347*	*$ 7,154*	**$ 7**	**$ 5,168**	**$ 179**	**$ 5,347**	**$ 5,347**	**$ 94**	**$ 5,448**	**$ 794**	**$ 1,706**	**$ 2,499**	**$ (0)**

	Portfolio Planned Versus Actual Performance - 2021											
	Portfolio	**Planned**	**Threshold**	**Actual**	**% of Plan**	**Design Coefficient**	**Actual Coefficient**	**Planned PI**	***125% of Planned PI***	**Actual PI**	**Source**
1	Lifetime MMBtu Savings	664,447	*431,890*		-	2.475%	-	$ 76,139	*$ 95,174*	$ -	Planned and Actual from Cost Eff Tab
2	Annual MMBtu Savings	44,150	*28,698*		-	1.100%	-	$ 33,840	*$ 42,300*	$ -	Planned and Actual from Cost Eff Tab
3	Total Resource Benefits	$ 5,448,112			-						Planned and Actual from Benefits Tab
4	Total Utility Costs[1]	$ 3,076,332			-						Planned and Actual from Cost Eff Tab
5	Net Benefits	$ 2,371,781	*$ 1,541,657*	$ -	-	1.925%	-	$ 59,219	*$ 74,024*	$ -	Line 5 minus line 6
6	**Total**					**5.500%**	**-**	**$ 169,198**	***$ 211,498***	**$ -**	

		Granite State Test		
		Planned	**Actual**	**Source**
7	Total Benefits (GST)	$ 6,636,722		Planned and Actual from Cost Eff Tab
8	Performance Incentive	$ 169,198	$ -	from row 6 above
9	Total Utility Costs	$ 3,076,332	$ -	from row 4 above
10	**Portfolio GST BCR**	**2.04**	**-**	Row 7 Divided by Rows 8+9

Utility Costs expressed in 2021 dollars.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2022 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.64	*0.83*	*1.50*	1,154.1	*583.8*	*1,056.6*	705.7	-	-	-	-	-	105	3,085.4	66,078.4
A1 - Energy Star Homes	2.33	*1.98*	*1.94*	955.3	*810.3*	*1,037.2*	410.1	124.9	-	-	-	-	140	3,825.0	93,175.0
A2 - Home Performance with Energy	1.24	*1.01*	*1.15*	352.9	*287.6*	*392.5*	284.2	56.9	7.0	68.8	3.2	3.5	85	1,552.5	32,524.4
A3 - Energy Star Products	2.35	*2.07*	*1.38*	1,328.9	*1,168.1*	*1,484.1*	565.5	508.1	(3.9)	(73.5)	(0.4)	(0.2)	11,187	7,829.4	131,753.2
A4 - Residential Behavior	1.44	*1.34*	*1.71*	45.1	*41.7*	*53.4*	31.2	-	-	-	-	-	9,100	4,177.5	4,177.5
A6c - Res Education	-	-	-	-	-	-	26.9	-	-	-	-	-	-	-	-
A6e - Res Financing	-	-	-	-	-	-	8.0	-	-	-	-	-	-	-	-
Sub-Total Residential	**1.89**	***1.42***	***1.48***	**3,836.3**	***2,891.5***	***4,023.9***	**2,031.7**	**689.9**	**3.2**	**(4.7)**	**2.9**	**3.3**	**20,617**	**20,469.8**	**327,708.5**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	3.13	*2.66*	*2.23*	4,061.6	*3,448.4*	*4,432.4*	1,298.6	685.9	-	-	-	-	167	31,335.6	438,083.7
C2 - Small Business Energy Solutions	2.21	*1.83*	*1.61*	1,420.4	*1,177.8*	*1,541.7*	644.0	314.9	0.6	9.3	0.1	0.2	160	10,132.3	149,164.2
C6c - C&I Education	-	-	-	-	-	-	29.1	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**2.78**	***2.35***	***2.01***	**5,482.0**	***4,626.3***	***5,974.1***	**1,971.6**	**1,000.8**	**0.6**	**9.3**	**0.1**	**0.2**	**327**	**41,467.9**	**587,248.0**
Total	**2.33**	***1.88***	***1.76***	**9,318.4**	***7,517.8***	***9,997.9***	**4,003.3**	**1,690.8**	**3.8**	**4.6**	**3.0**	**3.5**	**20,943**	**61,937.8**	**914,956.4**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs in 2021 Dollars and will not equal the nominal costs presented in the Costs and Performance Incentive tabs.

Annual Savings as a % of 2018 Sales	0.82%

Spending per Customer	Low-Income	$	557.44
	Residential	$	52.14
	C&I	$	281.13

Present Value Benefits - 2022 PLAN

	Total Benefits ($000)			Resource Benefits ($000)						Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric	Gas Benefit			Non-Electric					
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Total Electric Benefit	Gas Benefit	Gas DRIPE	Total Gas Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs														
B1 - Home Energy Assistance	**$ 1,154**	*$ 584*	*$ 1,057*	**$ -**	$ 568	$ 16	$ 584	$ 584	$ 3	**$ 587**	$ 97	$ 469	**$ 567**	**$ -**
A1 - Energy Star Homes	**$ 955**	*$ 810*	*$ 1,037*	**$ -**	$ 791	$ 19	$ 810	$ 810	$ -	**$ 810**	$ 145	$ 227	**$ 372**	**$ -**
A2 - Home Performance with Energy Star	**$ 353**	*$ 288*	*$ 392*	**$ 14**	$ 280	$ 8	$ 288	$ 288	$ 4	**$ 305**	$ 48	$ 84	**$ 132**	**$ 3**
A3 - Energy Star Products	**$ 1,329**	*$ 1,168*	*$ 1,484*	**$ (6)**	$ 1,132	$ 36	$ 1,168	$ 1,168	$ -	**$ 1,162**	$ 167	$ 325	**$ 492**	**$ (3)**
A4 - Residential Behavior	**$ 45**	*$ 42*	*$ 53*	**$ -**	$ 40	$ 2	$ 42	$ 42	$ -	**$ 42**	$ 3	$ 12	**$ 15**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 3,836**	*$ 2,892*	*$ 4,024*	**$ 8**	**$ 2,810**	**$ 81**	**$ 2,892**	**$ 2,892**	**$ 7**	**$ 2,906**	**$ 461**	**$ 1,118**	**$ 1,578**	**$ (0)**
Commercial/Industrial Programs														
C1 - Large Business Energy Solutions	**$ 4,062**	*$ 3,448*	*$ 4,432*	**$ -**	$ 3,316	$ 133	$ 3,448	$ 3,448	$ 87	**$ 3,536**	$ 526	$ 897	**$ 1,422**	**$ -**
C2 - Small Business Energy Solutions	**$ 1,420**	*$ 1,178*	*$ 1,542*	**$ 1**	$ 1,135	$ 42	$ 1,178	$ 1,178	$ 56	**$ 1,235**	$ 186	$ 307	**$ 492**	**$ 0**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 5,482**	*$ 4,626*	*$ 5,974*	**$ 1**	**$ 4,451**	**$ 175**	**$ 4,626**	**$ 4,626**	**$ 143**	**$ 4,771**	**$ 712**	**$ 1,203**	**$ 1,915**	**$ 0**
Total	**$ 9,318**	*$ 7,518*	*$ 9,998*	**$ 9**	**$ 7,261**	**$ 257**	**$ 7,518**	**$ 7,518**	**$ 150**	**$ 7,677**	**$ 1,172**	**$ 2,321**	**$ 3,493**	**$ 0**

	Portfolio Planned Versus Actual Performance - 2022											
	Portfolio	**Planned**	**Threshold**	**Actual**	**% of Plan**	**Design Coefficient**	**Actual Coefficient**	**Planned PI**	***125% of Planned PI***	**Actual PI**	**Source**
1	Lifetime MMBtu Savings	914,956	*594,722*		-	2.475%	-	$ 99,083	*$ 123,853*	$ -	Planned and Actual from Cost Eff Tab
2	Annual MMBtu Savings	61,938	*40,260*		-	1.100%	-	$ 44,037	*$ 55,046*	$ -	Planned and Actual from Cost Eff Tab
3	Total Resource Benefits	$ 7,676,935			-						Planned and Actual from Benefits Tab
4	Total Utility Costs[1]	$ 4,003,345			-						Planned and Actual from Cost Eff Tab
5	Net Benefits	$ 3,673,590	*$ 2,387,833*	$ -	-	1.925%	-	$ 77,064	*$ 96,330*	$ -	Line 5 minus line 6
6	**Total**					**5.500%**	**-**	**$ 220,184**	***$ 275,230***	**$ -**	

		Granite State Test		
		Planned	**Actual**	**Source**
7	Total Benefits (GST)	$ 9,318,374		Planned and Actual from Cost Eff Tab
8	Performance Incentive	$ 220,184	$ -	from row 6 above
9	Total Utility Costs	$ 4,003,345	$ -	from row 4 above
10	**Portfolio GST BCR**	**2.21**	**-**	Row 7 Divided by Rows 8+9

Costs, Benefits and PI Expressed in 2021 dollars. Nominal PI (2022$) is $227,339.95.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2023 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.71	*0.87*	*1.55*	1,471.5	*752.3*	*1,339.7*	862.6	-	1.2	22.0	0.4	-	130	3,889.9	83,213.0
A1 - Energy Star Homes	2.70	*2.28*	*2.27*	1,389.6	*1,169.9*	*1,497.4*	514.1	144.4	-	-	-	-	180	5,524.4	131,913.3
A2 - Home Performance with Energy	1.28	*1.04*	*0.81*	393.3	*319.1*	*433.3*	306.7	230.2	2.8	64.4	-	1.5	104	1,693.7	35,275.5
A3 - Energy Star Products	2.38	*2.08*	*1.49*	1,593.4	*1,390.2*	*1,766.9*	668.2	519.9	(4.3)	(81.7)	(0.4)	(0.2)	11,453	9,146.2	153,257.7
A4 - Residential Behavior	2.30	*2.12*	*2.71*	71.8	*66.1*	*84.7*	31.2	-	-	-	-	-	9,100	6,500.0	6,500.0
A6c - Res Education	-	-	-	-	-	-	18.6	-	-	-	-	-	-	-	-
A6e - Res Financing	-	-	-	-	-	-	8.0	-	-	-	-	-	-	-	-
Sub-Total Residential	**2.04**	***1.53***	***1.55***	**4,919.5**	***3,697.6***	***5,122.0***	**2,409.4**	**894.6**	**(0.3)**	**4.7**	**(0.0)**	**1.3**	**20,967**	**26,754.2**	**410,159.5**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	3.19	*2.70*	*2.53*	5,779.7	*4,891.9*	*6,265.9*	1,810.8	669.1	-	-	-	-	200	43,109.6	603,542.6
C2 - Small Business Energy Solutions	1.82	*1.51*	*1.78*	1,798.1	*1,484.6*	*1,936.0*	986.4	101.3	-	-	-	-	189	12,450.3	183,538.8
C6c - C&I Education	-	-	-	-	-	-	30.5	-	-	-	-	-		-	-
Sub-Total Commercial & Industrial	**2.68**	***2.26***	***2.28***	**7,577.9**	***6,376.5***	***8,201.9***	**2,827.7**	**770.4**	**-**	**-**	**-**	**-**	**389**	**55,559.9**	**787,081.4**
Total	**2.39**	***1.92***	***1.93***	**12,497.4**	***10,074.1***	***13,323.9***	**5,237.1**	**1,665.0**	**(0.3)**	**4.7**	**(0.0)**	**1.3**	**21,356**	**82,314.1**	**1,197,240.9**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs in 2021 Dollars and will not equal the nominal costs presented in the Costs and Performance Incentive tabs.

Annual Savings as a % of 2018 Sales	1.09%

Spending per Customer	Low-Income	$	681.35
	Residential	$	60.82
	C&I	$	403.21

Present Value Benefits - 2023 PLAN

	Total Benefits ($000)			Resource Benefits ($000)						Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric	Gas Benefit			Non-Electric					
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Total Electric Benefit	Gas Benefit	Gas DRIPE	Total Gas Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs														
B1 - Home Energy Assistance	**$ 1,471**	*$ 752*	*$ 1,340*	**$ 2**	$ 732	$ 20	$ 752	$ 752	$ 4	**$ 758**	$ 133	$ 581	**$ 714**	**$ 1**
A1 - Energy Star Homes	**$ 1,390**	*$ 1,170*	*$ 1,497*	**$ -**	$ 1,142	$ 28	$ 1,170	$ 1,170	$ -	**$ 1,170**	$ 220	$ 328	**$ 547**	**$ -**
A2 - Home Performance with Energy Star	**$ 393**	*$ 319*	*$ 433*	**$ 14**	$ 310	$ 9	$ 319	$ 319	$ 4	**$ 338**	$ 56	$ 93	**$ 149**	**$ 2**
A3 - Energy Star Products	**$ 1,593**	*$ 1,390*	*$ 1,767*	**$ (7)**	$ 1,347	$ 43	$ 1,390	$ 1,390	$ -	**$ 1,383**	$ 210	$ 387	**$ 598**	**$ (3)**
A4 - Residential Behavior	**$ 72**	*$ 66*	*$ 85*	**$ -**	$ 63	$ 3	$ 66	$ 66	$ -	**$ 66**	$ 6	$ 19	**$ 24**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 4,920**	*$ 3,698*	*$ 5,122*	**$ 9**	**$ 3,594**	**$ 104**	**$ 3,698**	**$ 3,698**	**$ 8**	**$ 3,714**	**$ 624**	**$ 1,408**	**$ 2,032**	**$ 0**
Commercial/Industrial Programs														
C1 - Large Business Energy Solutions	**$ 5,780**	*$ 4,892*	*$ 6,266*	**$ -**	$ 4,702	$ 190	$ 4,892	$ 4,892	$ 102	**$ 4,994**	$ 786	$ 1,272	**$ 2,058**	**$ -**
C2 - Small Business Energy Solutions	**$ 1,798**	*$ 1,485*	*$ 1,936*	**$ -**	$ 1,432	$ 53	$ 1,485	$ 1,485	$ 65	**$ 1,550**	$ 248	$ 386	**$ 634**	**$ -**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 7,578**	*$ 6,377*	*$ 8,202*	**$ -**	**$ 6,134**	**$ 243**	**$ 6,377**	**$ 6,377**	**$ 167**	**$ 6,544**	**$ 1,034**	**$ 1,658**	**$ 2,692**	**$ -**
Total	**$ 12,497**	*$ 10,074*	*$ 13,324*	**$ 9**	**$ 9,728**	**$ 346**	**$ 10,074**	**$ 10,074**	**$ 175**	**$ 10,258**	**$ 1,658**	**$ 3,066**	**$ 4,724**	**$ 0**

	Portfolio Planned Versus Actual Performance - 2023											
	Portfolio	**Planned**	**Threshold**	**Actual**	**% of Plan**	**Design Coefficient**	**Actual Coefficient**	**Planned PI**	***125% of Planned PI***	**Actual PI**	**Source**
1	Lifetime MMBtu Savings	1,197,241	*778,207*		-	2.475%	-	$ 129,617	*$ 162,022*	$ -	Planned and Actual from Cost Eff Tab
2	Annual MMBtu Savings	82,314	*53,504*		-	1.100%	-	$ 57,608	*$ 72,010*	$ -	Planned and Actual from Cost Eff Tab
3	Total Resource Benefits	$ 10,258,176			-						Planned and Actual from Benefits Tab
4	Total Utility Costs[1]	$ 5,237,061			-						Planned and Actual from Cost Eff Tab
5	Net Benefits	$ 5,021,115	*$ 3,263,725*	$ -	-	1.925%	-	$ 100,813	*$ 126,017*	$ -	Line 5 minus line 6
6	**Total**					**5.500%**	**-**	**$ 288,038**	***$ 360,048***	**$ -**	

		Granite State Test		
		Planned	**Actual**	**Source**
7	Total Benefits (GST)	$ 12,497,391		Planned and Actual from Cost Eff Tab
8	Performance Incentive	$ 288,038	$ -	from row 8 above
9	Total Utility Costs	$ 5,237,061	$ -	from row 6 above
10	**Portfolio GST BCR**	**2.26**	**-**	Row 7 Divided by Rows 8+9

Costs, Benefits and PI Expressed in 2021 dollars. Nominal PI (2023$) is $307,065.08.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Cost-Effectiveness - 2021-2023 PLAN

	Benefit/Cost Ratios			Benefits ($000)										
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	**Granite State Test**	*Utility Cost Test*	*Secondary Granite State Test* [1]	**Utility Costs ($000 - 2021$)** [2]	**Customer Costs ($000 - 2021$)** [2]	**Annual MWh Savings**	**Lifetime MWh Savings**	**Winter kW Savings**	**Summer kW Savings**	**Number of Customers Served**	**Annual MMBTU Savings**	**Lifetime MMBTU Savings**
Residential Programs															
B1 - Home Energy Assistance	1.68	*0.85*	*1.54*	3,546.9	*1,788.0*	*3,246.4*	2,111.005	-	1.2	22.0	0.4	-	319	9,417.5	201,575.5
A1 - Energy Star Homes	2.44	*2.07*	*2.05*	3,010.6	*2,549.8*	*3,263.7*	1,231.678	363.1	-	-	-	-	420	12,097.9	292,015.8
A2 - Home Performance with Energy	1.27	*1.04*	*1.00*	1,058.1	*863.5*	*1,174.4*	833.290	338.6	12.2	188.6	3.2	6.3	264	4,654.0	97,506.0
A3 - Energy Star Products	2.32	*2.03*	*1.40*	3,989.8	*3,503.4*	*4,451.3*	1,721.646	1,464.1	(11.6)	(220.6)	(1.1)	(0.6)	32,232	23,402.7	394,031.8
A4 - Residential Behavior	1.61	*1.49*	*1.91*	151.154	*139.7*	*178.8*	93.771	-	-	-	-	-	9,100	13,899.1	13,899.1
A6c - Res Education	-	-	-	-	-	-	72.298	-	-	-	-	-	-	-	-
Sub-Total Residential	**1.93**	***1.45***	***1.49***	**11,756.6**	***8,844.4***	***12,314.5***	**6,087.199**	**2,165.8**	**1.8**	**(10.0)**	**2.5**	**5.8**	**42,335**	**63,471.2**	**999,028.2**
Commercial, Industrial & Municipal															
C1 - Large Business Energy Solutions	3.11	*2.64*	*2.33*	12,356.2	*10,497.4*	*13,458.0*	3,976.533	1,792.9	-	-	-	-	451	94,058.4	1,323,434.6
C2 - Small Business Energy Solutions	2.00	*1.66*	*1.66*	4,339.7	*3,596.9*	*4,702.8*	2,167.914	672.7	1.1	16.8	0.2	0.3	480	30,872.4	454,181.0
C6c - C&I Education	-	-	-	-	-	-	85.092	-	-	-	-	-	-	-	-
Sub-Total Commercial & Industrial	**2.68**	***2.26***	***2.09***	**16,695.9**	***14,094.3***	***18,160.8***	**6,229.539**	**2,465.6**	**1.1**	**16.8**	**0.2**	**0.3**	**931**	**124,930.8**	**1,777,615.6**
Total	**2.31**	***1.86***	***1.80***	**28,452.5**	***22,938.7***	***30,475.4***	**12,316.738**	**4,631.4**	**2.9**	**6.8**	**2.7**	**6.0**	**43,266**	**188,402.0**	**2,776,643.9**

Notes:
(1) For the Secondary Granite State Test a 10% NEI adder is applied to total benefits excluding water.
(2) Utility and Customer Costs in 2021 Dollars and will not equal the nominal costs presented in the Costs and Performance Incentive tabs.

ulative Savings as a % of 2019 Sales	2.49%

Spending per Customer	Low-Income	$ 1,667.46
	Residential	$ 156.34
	C&I	$ 888.28

Present Value Benefits - 2021-2023 PLAN

	Total Benefits ($000)			Resource Benefits ($000)							Non-Resource Benefits ($000)			Environ-mental Benefits ($000)
				Electric	Gas Benefit			Non-Electric						
	Granite State Test	*Utility Cost Test*	*Secondary Granite State Test*	Total Electric Benefit	Gas Benefit	Gas DRIPE	Total Gas Benefit	Other Fuels	Water Benefit	Total Resource Benefits	Fossil Emissions	Other Non-Resource Benefits	Total Non-Resource Benefits	
Residential Programs														
B1 - Home Energy Assistance	**$ 3,547**	*$ 1,788*	*$ 3,246*	**$ 2**	$ 1,740	$ 48	$ 1,788	$ 1,788	$ 10	**$ 1,800**	$ 301	$ 1,446	**$ 1,747**	**$ 1**
A1 - Energy Star Homes	**$ 3,011**	*$ 2,550*	*$ 3,264*	**$ -**	$ 2,489	$ 61	$ 2,550	$ 2,550	$ -	**$ 2,550**	$ 461	$ 714	**$ 1,175**	**$ -**
A2 - Home Performance with Energy Star	**$ 1,058**	*$ 864*	*$ 1,174*	**$ 40**	$ 840	$ 24	$ 864	$ 864	$ 11	**$ 914**	$ 144	$ 253	**$ 397**	**$ 7**
A3 - Energy Star Products	**$ 3,990**	*$ 3,503*	*$ 4,451*	**$ (19)**	$ 3,394	$ 109	$ 3,503	$ 3,503	$ -	**$ 3,485**	$ 505	$ 976	**$ 1,481**	**$ (9)**
A4 - Residential Behavior	**$ 151**	*$ 140*	*$ 179*	**$ -**	$ 133	$ 7	$ 140	$ 140	$ -	**$ 140**	$ 11	$ 39	**$ 51**	**$ -**
A6c - Res Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Residential	**$ 11,757**	*$ 8,844*	*$ 12,315*	**$ 23**	**$ 8,595**	**$ 249**	**$ 8,844**	**$ 8,844**	**$ 21**	**$ 8,888**	**$ 1,423**	**$ 3,427**	**$ 4,850**	**$ (1)**
Commercial/Industrial Programs														
C1 - Large Business Energy Solutions	**$ 12,356**	*$ 10,497*	*$ 13,458*	**$ -**	$ 10,093	$ 404	$ 10,497	$ 10,497	$ 231	**$ 10,729**	$ 1,627	$ 2,729	**$ 4,357**	**$ -**
C2 - Small Business Energy Solutions	**$ 4,340**	*$ 3,597*	*$ 4,703*	**$ 2**	$ 3,468	$ 129	$ 3,597	$ 3,597	$ 167	**$ 3,766**	$ 573	$ 936	**$ 1,509**	**$ 1**
C6c - C&I Education	**$ -**	*$ -*	*$ -*	**$ -**	$ -	$ -	$ -	$ -	$ -	**$ -**	$ -	$ -	**$ -**	**$ -**
Sub-Total Commercial & Industrial	**$ 16,696**	*$ 14,094*	*$ 18,161*	**$ 2**	**$ 13,561**	**$ 533**	**$ 14,094**	**$ 14,094**	**$ 398**	**$ 14,495**	**$ 2,201**	**$ 3,665**	**$ 5,866**	**$ 1**
Total	**$ 28,452**	*$ 22,939*	*$ 30,475*	**$ 25**	**$ 22,157**	**$ 782**	**$ 22,939**	**$ 22,939**	**$ 420**	**$ 23,383**	**$ 3,624**	**$ 7,092**	**$ 10,716**	**$ (0)**

Portfolio Planned Versus Actual Performance - 2021-2023

	Portfolio	Planned	Threshold	Actual	% of Plan	Design Coefficient	Actual Coefficient	Planned PI	*125% of Planned PI*	Actual PI	Source
1	Lifetime MMBtu Savings	2,776,644	*1,804,819*		-	2.475%	-	$ 304,839	*$ 381,049*	$ -	Planned and Actual from Cost Eff Tab
2	Annual MMBtu Savings	188,402	*122,461*		-	1.100%	-	$ 135,484	*$ 169,355*	$ -	Planned and Actual from Cost Eff Tab
3	Total Resource Benefits	$ 23,383,223			-						Planned and Actual from Benefits Tab
4	Total Utility Costs[1]	$ 12,316,738			-						Planned and Actual from Cost Eff Tab
5	Net Benefits	$ 11,066,485	*$ 7,193,215*	$ -	-	1.925%	-	$ 237,097	*$ 296,371*	$ -	Line 5 minus line 6
6	**Total**					**5.500%**	**-**	**$ 677,421**	***$ 846,776***	**$ -**	

		Granite State Test		
		Planned	**Actual**	**Source**
7	Total Benefits (GST)	$ 28,452,488		Planned and Actual from Cost Eff Tab
8	Performance Incentive	$ 677,421	$ -	from row 8 above
9	Total Utility Costs	$ 12,316,738	$ -	from row 6 above
10	**Portfolio GST BCR**	**2.19**	**-**	Row 7 Divided by Rows 8+9

Costs, Benefits and PI Expressed in 2021 dollars. Nominal PI is $703,603.28.

[1] Note that in order to avoid a circular reference in the calculation of performance incentive, "Total Utility Costs" does not include the value of PI.

Program Summary - 2021 - 2023 PLAN

Home Energy Assistance			Quantity			Measure Life			Net to Gross			In Service Rate			Non-Electric Realization Rate			Net Annual MMBtu Savings			Net Lifetime MMBtu Savings		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
B1a - HEA (Weatherization)	Air Sealing, Gas	G21B1a001	67	84	104	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	610	764	946	9,146	11,466	14,196
B1a - HEA (Weatherization)	Faucet Aerator, Gas	G21B1a002	100	110	115	7	7	7	100%	100%	100%	100%	100%	100%	91%	91%	91%	14	16	16	99	109	114
B1a - HEA (Weatherization)	Hand Held Showerhead, Gas	G21B1a003	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	Insulation, Gas	G21B1a004	67	84	104	25	25	25	100%	100%	100%	100%	100%	100%	91%	91%	91%	1,524	1,911	2,366	38,106	47,775	59,150
B1a - HEA (Weatherization)	LED Bulb, General Service Lamps	G21B1a005	-	-	-	2	2	2	100%	100%	100%	98%	98%	98%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	LED Bulb, Linear	G21B1a006	-	-	-	10	10	10	100%	100%	100%	98%	98%	98%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	LED Bulb, Other Specialty	G21B1a007	-	-	-	2	2	2	100%	100%	100%	98%	98%	98%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	LED Bulb, Reflector	G21B1a008	-	-	-	2	2	2	100%	100%	100%	98%	98%	98%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	LED Fixture	G21B1a009	-	-	-	2	2	2	100%	100%	100%	98%	98%	98%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	Low Flow Showerhead, Gas	G21B1a010	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	Pipe Insulation - Hot Water, Gas	G21B1a011	34	40	45	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	93	109	123	1,392	1,638	1,843
B1a - HEA (Weatherization)	Visual Audit	G21B1a012	-	-	-	1	1	1	100%	100%	100%	100%	100%	100%	91%	91%	91%	-	-	-			
B1a - HEA (Weatherization)	Baseload Audit - SF	G21B1a013	50	60	70	1	1	1	100%	100%	100%	100%	100%	100%	91%	91%	91%	-	-	-	-	-	-
B1a - HEA (Weatherization)	Baseload Audit - MF	G21B1a014	-	-	-	1	1	1	100%	100%	100%	100%	100%	100%	91%	91%	91%	-	-	-			
B1b - HEA (HVAC Systems)	Boiler Replacement, Gas	G21B1b001	4	6	10	20	20	20	100%	100%	100%	100%	100%	100%	91%	91%	91%	71	106	177	1,412	2,118	3,531
B1b - HEA (HVAC Systems)	Furnace Replacement, Gas	G21B1b002	3	5	8	18	18	18	100%	100%	100%	100%	100%	100%	91%	91%	91%	57	94	151	1,017	1,695	2,713
B1b - HEA (HVAC Systems)	Programmable Thermostat, Gas	G21B1b003	4	5	6	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	24	30	36	360	450	541
B1b - HEA (HVAC Systems)	Wifi Thermostat, Gas	G21B1b004	10	11	15	15	15	15	100%	100%	100%	100%	100%	100%	91%	91%	91%	50	55	75	751	826	1,126
Home Energy Assistance Subtotal																		**2,442**	**3,085**	**3,890**	**52,284**	**66,078**	**83,213**

Energy Star Homes			Quantity			Measure Life			Net to Gross			In Service Rate			Non-Electric Realization Rate			Net Annual MMBtu Savings			Net Lifetime MMBtu Savings		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A1a - ES Homes	Cooling, Electric, SF	G21A1a001	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A1a - ES Homes	Heating, Gas, SF	G21A1a002	35	40	50	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	945	1,080	1,350	23,625	27,000	33,750
A1a - ES Homes	Hot Water, Gas, SF	G21A1a003	18	20	25	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	63	70	88	945	1,050	1,313
A1a - ES Homes	Cooling, Electric, MF	G21A1a002	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A1a - ES Homes	Heating, Gas, MF	G21A1a005	65	100	130	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,625	2,500	3,250	40,625	62,500	81,250
A1a - ES Homes	Hot Water, Gas, MF	G21A1a006	33	50	65	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	116	175	228	1,733	2,625	3,413
A1a - ES Homes	LED Bulb	G21A1a007	-	-	-	5	5	5	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A1a - ES Homes	LED Fixture	G21A1a008	-	-	-	5	5	5	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A1a - ES Homes	Clothes Washer	G21A1a009	-	-	-	14	14	14	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A1a - ES Homes	Residential New Construction Code Comp	G21A1a010	1	1	1	20	20	20	100%	100%	100%	100%	100%	100%	35%	100%	35%	-	-	609	-	-	12,188
	Energy Star Homes Subtotal																	**2,749**	**3,825**	**5,524**	**66,928**	**93,175**	**131,913**

Home Performance with Energy Star			Quantity			Measure Life			Net to Gross			In Service Rate			Non-Electric Realization Rate			Net Annual MMBtu Savings			Net Lifetime MMBtu Savings		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A2a - HPwES (Weatherization)	Air Sealing, Gas	G21A2a001	40	45	50	15	15	15	100%	100%	100%	99%	99%	99%	100%	100%	100%	317	356	396	4,752	5,346	5,940
A2a - HPwES (Weatherization)	Faucet Aerator, Gas	G21A2a002	100	100	120	7	7	7	100%	100%	100%	99%	99%	99%	100%	104%	100%	15	16	19	108	112	130
A2a - HPwES (Weatherization)	Hand Held Showerhead, Gas	G21A2a003	-	-	-	7	7	7	100%	100%	100%	99%	99%	99%	100%	104%	100%	-	-	-			
A2a - HPwES (Weatherization)	Insulation, Gas	G21A2a004	40	43	46	25	25	25	100%	100%	100%	99%	99%	99%	100%	100%	100%	871	937	1,002	21,780	23,414	25,047
A2a - HPwES (Weatherization)	LED Bulb, General Service Lamps	G21A2a005	-	129	-	2	2	2	100%	100%	100%	98%	98%	98%	100%	100%	100%	-	-	-		-	
A2a - HPwES (Weatherization)	LED Bulb, Linear	G21A2a006	-	-	-	10	10	10	100%	100%	100%	98%	98%	98%	100%	100%	100%	-	-	-			
A2a - HPwES (Weatherization)	LED Bulb, Other Specialty	G21A2a007	-	-	-	2	2	2	100%	100%	100%	98%	98%	98%	100%	100%	100%	-	-	-			
A2a - HPwES (Weatherization)	LED Bulb, Reflector	G21A2a008	-	-	-	2	2	2	100%	100%	100%	98%	98%	98%	100%	100%	100%	-	-	-			
A2a - HPwES (Weatherization)	LED Fixture	G21A2a009	-	-	-	2	2	2	100%	100%	100%	98%	98%	98%	100%	100%	100%	-	-	-			
A2a - HPwES (Weatherization)	Low Flow Showerhead, Gas	G21A2a010	-	-	-	7	7	7	100%	100%	100%	99%	99%	99%	100%	104%	100%	-	-	-			
A2a - HPwES (Weatherization)	Pipe Insulation - Hot Water, Gas	G21A2a011	20	23	25	15	15	15	100%	100%	100%	99%	99%	99%	100%	104%	100%	59	69	74	891	1,042	1,114
A2a - HPwES (Weatherization)	Baseload Audit - Electric Savings	G21A2a012	-	-	-	1	1	1	100%	100%	100%	99%	99%	99%	100%	100%	100%	-	-	-			
A2a - HPwES (Weatherization)	Baseload Audit - Thermal Savings	G21A2a013	-	-	-	1	1	1	100%	100%	100%	99%	99%	99%	100%	100%	100%	-	-	-			
A2a - HPwES (Weatherization)	Visual Audit	G21A2a014	35	40	54	15	15	15	100%	100%	100%	99%	99%	99%	100%	100%	100%	-	-	-	-	-	-
			-	-	-	-	-	-	100%	0%	100%	99%	0%	99%	100%	0%	100%	-	-	-			
A2b - HPwES (HVAC Systems)	Boiler Replacement, Gas	G21A2b001	-	-	-	25	25	25	100%	100%	100%	99%	99%	99%	100%	100%	100%	-	-	-			
A2b - HPwES (HVAC Systems)	Furnace Replacement, Gas	G21A2b002	-	-	-	20	20	20	100%	100%	100%	99%	99%	99%	100%	100%	100%	-	-	-			
A2b - HPwES (HVAC Systems)	Programmable Thermostat, Gas	G21A2b003	-	-	-	15	15	15	100%	100%	100%	99%	99%	99%	100%	100%	100%	-	-	-			
A2b - HPwES (HVAC Systems)	Wifi Thermostat, Gas	G21A2b004	25	30	35	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	145	174	203	2,175	2,610	3,045
	Home Performance with Energy Star Subtotal																	**1,408**	**1,552**	**1,694**	**29,706**	**32,524**	**35,275**

Energy Start Appliances			Quantity			Measure Life			Net to Gross			In Service Rate			Non-Electric Realization Rate			Net Annual MMBtu Savings			Net Lifetime MMBtu Savings		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A3b - ES Appliances	Early Replacement Boiler, FHW - EE 90 A	G21A3b001	-	-	-	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A3b - ES Appliances	Early Replacement Boiler, FHW - Retirem	G21A3b002	-	-	-	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A3b - ES Appliances	Early Replacement Boiler, Steam - EE: 82	G21A3b003	-	-	-	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A3b - ES Appliances	Early Replacement Boiler, Steam - Retiren	G21A3b004	-	-	-	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A3b - ES Appliances	Boiler Reset Controls	G21A3b005	4	6	10	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	20	31	51	306	459	765
A3b - ES Appliances	Condensing Boiler >= 90% AFUE (Up to 3	G21A3b006	15	18	20	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	182	218	242	3,267	3,920	4,356
A3b - ES Appliances	Condensing Boiler >= 95% AFUE (Up to 3	G21A3b007	65	75	80	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	962	1,110	1,184	18,278	21,090	22,496
A3b - ES Appliances	Furnace 95+ AFUE (<150) w/ECM Motor	G21A3b008	60	77	85	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	588	755	830	9,996	12,828	14,111
A3b - ES Appliances	Furnace 97+ AFUE (<150) w/ECM Motor	G21A3b009	50	20	22	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	515	204	224	8,755	3,467	3,814
A3b - ES Appliances	Heat Recovery Ventilator (-133 kWh pena	G21A3b010	7	8	8	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	54	59	65	1,078	1,186	1,304
A3b - ES Appliances	Programmable Thermostat	G21A3b011	50	80	100	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	175	280	350	2,625	4,200	5,250
A3b - ES Appliances	Indirect Water Heater (attached to ES FH	G21A3b012	15	22	24	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	60	88	97	1,200	1,760	1,936
A3b - ES Appliances	Integrated Water Heater w/Condensing Bo	G21A3b013	5	6	6	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	42	46	51	798	878	966
A3b - ES Appliances	Integrated Water Heater w/Condensing Bo	G21A3b014	80	100	120	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	880	1,100	1,320	16,720	20,900	25,080
A3b - ES Appliances	Condensing Water Heater (EF 0.95)	G21A3b015	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A3b - ES Appliances	Stand Alone Storage Tank Water Heater (	G21A3b016	-	-	-	13	13	13	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A3b - ES Appliances	Tankless On-Demand Water Heater, >= .8	G21A3b017	-	-	-	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
A3b - ES Appliances	Tankless On-Demand Water Heater, >= .9	G21A3b018	80	90	100	19	19	19	100%	100%	100%	100%	100%	100%	100%	100%	100%	440	495	550	8,360	9,405	10,450
A3b - ES Appliances	WiFi Thermostat (Heating Only)	G21A3b019	510	700	850	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	2,509	3,444	4,182	37,638	51,660	62,730
A3b - ES Appliances	WiFi Thermostat (Heating & Cooling)	G21A3b020	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
	Energy Star Appliances Subtotal																	**6,427**	**7,829**	**9,146**	**109,021**	**131,753**	**153,258**

Home Energy Reports			Quantity			Measure Life			Net to Gross			In Service Rate			Non-Electric Realization Rate			Net Annual MMBtu Savings			Net Lifetime MMBtu Savings		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
A4a - Residential Behavior	Home Energy Reports	G21A4a001	9,100	9,100	9,100	1	1	1	100%	100%	100%	100%	100%	100%	100%	100%	100%	3,222	4,178	6,500	3,222	4,178	6,500
	Home Energy Reports Subtotal																	**3,222**	**4,178**	**6,500**	**3,222**	**4,178**	**6,500**

Large Commercial and Industrial			Quantity			Measure Life			Net to Gross			In Service Rate			Non-Electric Realization Rate			Net Annual MMBtu Savings			Net Lifetime MMBtu Savings		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
C1a - LCI Retrofit	Custom Large Hot Water Retro	G21C1a001	4	5	6	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,600	1,900	2,208	16,000	19,000	22,080
C1a - LCI Retrofit	Custom Large HVAC Retro	G21C1a002	4	6	8	20	20	20	100%	100%	100%	100%	100%	100%	100%	100%	100%	2,667	3,800	4,907	53,333	76,000	98,133
C1a - LCI Retrofit	Custom Large Other Retro	G21C1a003	6	10	17	13	13	13	100%	100%	100%	100%	100%	100%	100%	100%	100%	5,373	8,507	14,006	69,851	110,597	182,078
C1a - LCI Retrofit	Custom Large Process Retro	G21C1a004	3	4	6	13	13	13	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,800	2,280	3,312	23,400	29,640	43,056
C1a - LCI Retrofit	Faucet Aerator, Gas	G21C1a005	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Low Flow Showerhead With Thermostatic	G21C1a006	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Low Flow Showerhead, Gas	G21C1a007	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Pipe Wrap - Hot Water, Gas	G21C1a008	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Pre Rinse Spray Valve, Gas	G21C1a009	-	-	-	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Boiler Reset Controls, Gas	G21C1a010	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Boiler Tune-Ups	G21C1a011	-	-	-	1	1	1	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Energy Management System, Gas	G21C1a012	-	1	2	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	750	1,500		11,250	22,500
C1a - LCI Retrofit	Pipe Insulation - Heating, Gas	G21C1a013	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	Steam Trap, Gas	G21C1a014	30	35	45	6	6	6	100%	100%	100%	100%	100%	100%	100%	100%	100%	366	427	549	2,196	2,562	3,294
C1a - LCI Retrofit	Programmable Thermostat, Gas	G21C1a015	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1a - LCI Retrofit	WiFi Thermostat (Heating & Cooling)	G21C1a016	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Custom Large Hot Water New	G21C1b001	1	4	5	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%	600	2,280	2,760	6,000	22,800	27,600
C1b - LCI New Equipment and Cons	Custom Large HVAC New	G21C1b002	2	3	4	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,200	1,710	2,208	21,600	30,780	39,744
C1b - LCI New Equipment and Cons	Custom Large Other New	G21C1b003	2	4	5	13	13	13	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,200	2,280	2,760	15,600	29,640	35,880
C1b - LCI New Equipment and Cons	Custom Large Process New	G21C1b004	-	-	-	13	13	13	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Boiler 1701 to 2000 MBH 90 AFUE, Gas	G21C1b005	1	1	2	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	165	165	331	4,133	4,133	8,265
C1b - LCI New Equipment and Cons	Boiler 1000 to 1700 MBH 90 AFUE, Gas	G21C1b006	2	2	2	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	189	208	229	4,725	5,198	5,717
C1b - LCI New Equipment and Cons	Boiler 500 to 999 MBH 90 AFUE, Gas	G21C1b007	4	4	6	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	206	226	308	5,140	5,654	7,710
C1b - LCI New Equipment and Cons	Boiler 301 to 499 MBH 90 AFUE, Gas	G21C1b008	8	8	10	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	224	224	280	5,600	5,600	7,000
C1b - LCI New Equipment and Cons	Boiler to 300 MBH 90 AFUE, Gas	G21C1b009	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Boiler to 300 MBH 95 AFUE, Gas	G21C1b010	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Combo Condensing Boiler / Water Heater	G21C1b011	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Combo Furnace / Water Heater, Gas	G21C1b012	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Condensing Unit Heater, Gas	G21C1b013	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Furnace w/ ECM 95 AFUE, Gas	G21C1b014	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Furnace w/ ECM 97 AFUE, Gas	G21C1b015	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Infrared Heater, Gas	G21C1b016	8	9	10	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	96	106	116	1,632	1,795	1,975
C1b - LCI New Equipment and Cons	Faucet Aerator, Gas	G21C1b017	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Low Flow Showerhead With Thermostatic	G21C1b018	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Low Flow Showerhead, Gas	G21C1b019	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Pre Rinse Spray Valve, Gas	G21C1b020	-	55	61	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	627	690		5,016	5,518
C1b - LCI New Equipment and Cons	Combination Oven, Gas	G21C1b021	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Convection Oven, Gas	G21C1b022	2	2	1	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	68	68	34	811	811	406
C1b - LCI New Equipment and Cons	Conveyor Oven, Gas	G21C1b023	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Fryer, Gas	G21C1b024	4	4	4	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	313	313	313	3,758	3,758	3,758
C1b - LCI New Equipment and Cons	Griddle, Gas	G21C1b025	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Rack Oven, Gas	G21C1b026	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	Steam Cooker, Gas	G21C1b027	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C1b - LCI New Equipment and Cons	C&I Large New Construction Code Compl	G21C1b028	1	1	1	20	20	20	100%	100%	100%	100%	100%	100%	36%	100%	36%	-	-	42	-	-	839
C1c - LCI Midstream	Midstream Water Heater, Condensing Ga	G21C1c012	6	-	10	20	-	20	60%	0%	60%	100%	0%	100%	100%	0%	100%	108	-	181	2,167		3,612
C1c - LCI Midstream	Midstream Combination Oven, Gas	G21C1c001	8	12	14	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	747	1,121	1,307	8,964	13,447	15,688
C1c - LCI Midstream	Midstream Convection Oven, Gas	G21C1c002	6	9	10	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	169	253	282	2,027	3,041	3,379
C1c - LCI Midstream	Midstream Conveyor Oven, Gas	G21C1c003	-	-	2	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	257			3,085
C1c - LCI Midstream	Midstream Fryer, Gas	G21C1c004	18	20	22	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	1,174	1,304	1,435	14,088	15,654	17,219
C1c - LCI Midstream	Midstream Griddle, Gas	G21C1c005	-	2	2	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	63	63		758	758
C1c - LCI Midstream	Midstream Pre-Rinse Spray Valve, Gas	G21C1c006	-	-	-	8	8	8	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	-			
C1c - LCI Midstream	Midstream Rack Oven, Gas	G21C1c007	-	1	2	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	176	352		2,112	4,224
C1c - LCI Midstream	Midstream Steam Cooker, Gas	G21C1c008	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	-			
C1c - LCI Midstream	Midstream Indirect Water Heater, Gas	G21C1c009	6	9	10	15	15	15	89%	89%	89%	100%	100%	100%	100%	100%	100%	102	149	164	1,529	2,242	2,466
C1c - LCI Midstream	Midstream On Demand Tankless Water H	G21C1c010	14	16	18	20	20	20	89%	89%	89%	100%	100%	100%	100%	100%	100%	111	127	143	2,228	2,546	2,864
C1c - LCI Midstream	Midstream Volume Water Heater, Gas	G21C1c011	4	8	9	15	15	15	89%	89%	89%	100%	100%	100%	100%	100%	100%	1,135	2,270	2,554	17,025	34,051	38,307
	Large Commercial & Industrial Subtotal																	**19,613**	**31,336**	**43,290**	**281,808**	**438,084**	**607,155**

Small Commercial and Industrial			Quantity			Measure Life			Net to Gross			In Service Rate			Non-Electric Realization Rate			Net Annual MMBtu Savings			Net Lifetime MMBtu Savings		
Subprogram	Measure	Measure ID	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023
C2a - SCI Retrofit	Custom Small Hot Water Retro	G21C2a001	4	3	6	10	10	10	100%	100%	100%	100%	100%	100%	100%	100%	100%	462	329	637	4,615	3,288	6,369
C2a - SCI Retrofit	Custom Small HVAC Retro	G21C2a002	6	9	12	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,500	2,138	2,760	22,500	32,063	41,400
C2a - SCI Retrofit	Custom Small Other Retro	G21C2a003	-	-	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Custom Small Process Retro	G21C2a004	-	-	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Faucet Aerator, Gas	G21C2a005	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Low Flow Showerhead With Thermostatic	G21C2a006	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Low Flow Showerhead, Gas	G21C2a007	35	40	45	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	93	106	119	649	742	835
C2a - SCI Retrofit	Pipe Wrap - Hot Water, Gas	G21C2a008	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Pre Rinse Spray Valve, Gas	G21C2a009	-	-	-	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Boiler Reset Controls, Gas	G21C2a010	12	15	18	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	426	533	639	6,390	7,988	9,585
C2a - SCI Retrofit	Boiler Tune-Ups	G21C2a011	-	-	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Energy Management System, Gas	G21C2a012	-	-	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Pipe Insulation - Heating, Gas	G21C2a013	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	Steam Trap, Gas	G21C2a014	35	39	42	6	6	6	100%	100%	100%	100%	100%	100%	100%	100%	100%	294	323	356	1,764	1,940	2,134
C2a - SCI Retrofit	Programmable Thermostat, Gas	G21C2a015	-	-	-	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2a - SCI Retrofit	WiFi Thermostat (Heating & Cooling)	G21C2a016	20	25	30	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	62	78	93	933	1,166	1,400
C2b - SCI New Equipment and Cons	Custom Small Hot Water New	G21C2b001	20	28	35	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,067	1,419	1,717	12,800	17,024	20,608
C2b - SCI New Equipment and Cons	Custom Small HVAC New	G21C2b002	3	4	5	15	15	15	100%	100%	100%	100%	100%	100%	100%	100%	100%	1,050	1,330	1,610	15,750	19,950	24,150
C2b - SCI New Equipment and Cons	Custom Small Other New	G21C2b003	-	-	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Custom Small Process New	G21C2b004	-	-	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Boiler 1701 to 2000 MBH 90 AFUE, Gas	G21C2b005	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Boiler 1000 to 1700 MBH 90 AFUE, Gas	G21C2b006	3	3	5	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	284	312	473	7,088	7,796	11,813
C2b - SCI New Equipment and Cons	Boiler 500 to 999 MBH 90 AFUE, Gas	G21C2b007	8	9	10	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	411	452	498	10,280	11,308	12,439
C2b - SCI New Equipment and Cons	Boiler 301 to 499 MBH 90 AFUE, Gas	G21C2b008	4	4	5	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	112	123	136	2,800	3,080	3,388
C2b - SCI New Equipment and Cons	Boiler to 300 MBH 90 AFUE, Gas	G21C2b009	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Boiler to 300 MBH 95 AFUE, Gas	G21C2b010	15	20	25	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	266	354	443	6,638	8,850	11,063
C2b - SCI New Equipment and Cons	Combo Condensing Boiler / Water Heater	G21C2b011	-	-	-	25	25	25	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Combo Furnace / Water Heater, Gas	G21C2b012	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Condensing Unit Heater, Gas	G21C2b013	4	4	5	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	164	180	198	2,945	3,239	3,563
C2b - SCI New Equipment and Cons	Furnace w/ ECM 95 AFUE, Gas	G21C2b014	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Furnace w/ ECM 97 AFUE, Gas	G21C2b015	-	-	-	18	18	18	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Infrared Heater, Gas	G21C2b016	15	18	20	17	17	17	100%	100%	100%	100%	100%	100%	100%	100%	100%	180	216	240	3,060	3,672	4,080
C2b - SCI New Equipment and Cons	Faucet Aerator, Gas	G21C2b017	100	120	140	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	170	204	238	1,190	1,428	1,666
C2b - SCI New Equipment and Cons	Low Flow Showerhead With Thermostatic	G21C2b018	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Low Flow Showerhead, Gas	G21C2b019	-	-	-	7	7	7	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Pre Rinse Spray Valve, Gas	G21C2b020	-	-	-	8	8	8	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Combination Oven, Gas	G21C2b021	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Convection Oven, Gas	G21C2b022	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Conveyor Oven, Gas	G21C2b023	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Fryer, Gas	G21C2b024	1	2	3	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	78	157	235	940	1,879	2,819
C2b - SCI New Equipment and Cons	Griddle, Gas	G21C2b025	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Rack Oven, Gas	G21C2b026	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	Steam Cooker, Gas	G21C2b027	-	-	-	12	12	12	100%	100%	100%	100%	100%	100%	100%	100%	100%	-	-	-			
C2b - SCI New Equipment and Cons	C&I Small New Construction Code Compl	G21C2b028	1	1	1	20	20	20	100%	100%	100%	100%	100%	100%	36%	100%	36%	-	-	23	-	-	452
C2c - SCI Midstream	Midstream Combination Oven, Gas	G21C2c001	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	-			
C2c - SCI Midstream	Midstream Convection Oven, Gas	G21C2c002	8	9	10	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	225	248	273	2,703	2,973	3,271
C2c - SCI Midstream	Midstream Conveyor Oven, Gas	G21C2c003	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	-			
C2c - SCI Midstream	Midstream Fryer, Gas	G21C2c004	15	17	18	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	978	1,109	1,184	11,740	13,306	14,206
C2c - SCI Midstream	Midstream Griddle, Gas	G21C2c005	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	-			
C2c - SCI Midstream	Midstream Pre-Rinse Spray Valve, Gas	G21C2c006	-	-	-	8	8	8	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	-			
C2c - SCI Midstream	Midstream Rack Oven, Gas	G21C2c007	1	1	1	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	176	194	213	2,112	2,323	2,556
C2c - SCI Midstream	Midstream Steam Cooker, Gas	G21C2c008	-	-	-	12	12	12	83%	83%	83%	100%	100%	100%	100%	100%	100%	-	-	-			
C2c - SCI Midstream	Midstream Indirect Water Heater, Gas	G21C2c009	-	-	-	15	15	15	31%	31%	31%	100%	100%	100%	100%	100%	100%	-	-	-			
C2c - SCI Midstream	Midstream On Demand Tankless Water H	G21C2c010	7	8	8	20	20	20	60%	60%	60%	100%	100%	100%	100%	100%	100%	37	41	45	748	822	905
C2c - SCI Midstream	Midstream Volume Water Heater, Gas	G21C2c011	3	3	4	15	15	15	60%	60%	60%	100%	100%	100%	100%	100%	100%	147	162	178	2,209	2,429	2,672
C2c - SCI Midstream	Midstream Water Heater, Condensing Ga	G21C2c012	6	7	8	15	15	15	60%	60%	60%	100%	100%	100%	100%	100%	100%	108	126	144	1,625	1,896	2,167
	Small Commercial & Industrial Subtotal																	**8,290**	**10,132**	**12,450**	**121,478**	**149,164**	**183,539**

Northern Utilities, Inc. -- New Hampshire Division

EEC Budget

	Residential	Low-Income	Gen Service	Total
July-20	$51,728	$9,161	$58,020	$118,909
August-20	$59,199	$33,463	$66,401	$159,063
September-20	$66,096	$37,362	$80,013	$183,471
October-20	$73,568	$41,585	$82,518	$197,671
November-20	$81,040	$45,809	$90,898	$217,747
December-20	$88,512	$50,032	$105,155	$243,699
January-21	$33,101	$16,281	$57,210	$106,592
February-21	$55,169	$27,135	$57,210	$139,514
March-21	$66,203	$32,562	$85,815	$184,580
April-21	$77,237	$37,989	$100,117	$215,343
May-21	$77,237	$37,989	$57,210	$172,436
June-21	$132,406	$65,125	$71,512	$269,043
July-21	$143,440	$70,552	$100,117	$314,108
August-21	$77,237	$37,989	$157,327	$272,553
September-21	$154,473	$75,979	$171,629	$402,082
October-21	$110,338	$54,271	$185,932	$350,541
Total	$1,346,983	$673,283	$1,527,084	$3,547,351

Budget with Low-Income Costs Allocated to Residential and General Service Classes

	Residential	Low-Income	Gen Service	Total
July-20	$56,539	0	$62,370	$118,909
August-20	$63,760	0	$95,304	$159,063
September-20	$71,689	0	$111,782	$183,471
October-20	$80,185	0	$117,486	$197,671
November-20	$92,872	0	$124,875	$217,747
December-20	$104,446	0	$139,252	$243,699
January-21	$38,314	0	$68,279	$106,592
February-21	$64,133	0	$75,381	$139,514
March-21	$76,417	0	$108,163	$184,580
April-21	$88,503	0	$126,840	$215,343
May-21	$86,905	0	$85,531	$172,436
June-21	$145,513	0	$123,530	$269,043
July-21	$154,320	0	$159,788	$314,108
August-21	$82,237	0	$190,316	$272,553
September-21	$165,211	0	$236,870	$402,082
October-21	$118,650	0	$231,891	$350,541
Total	$1,489,693	$0	$2,057,658	$3,547,351

EEC Charge Factor Calculation

EEC Charge Factors for Residential Customers	**Effective**			
	November 1, 2020	November 1, 2021	November 1, 2022	
EEC Reconciliation Adjustment	$276,963	($7,185)	$0	Attachment J3 Page 3 Nov '20 Beginning Balance; Oct '21 Ending Balance
EEC Costs	$1,096,392	$1,326,609	$1,604,183	Attachment J3 Page 3 Nov '20 - Oct '21 Totals; Company Budget
EEC Performance Incentive	$56,430	$72,866	$88,127	Attachment J3 Page 3 Nov '20 - Oct '21 Totals; Company Budget-
EEC Low-Income Costs	$121,129	$147,759	$189,074	Attachment J3 Page 3 Nov '20 - Oct '21 Totals; Company Budget-
EEC Allocated Low-Income Performance Incentive	$6,532	$8,943	$11,401	Attachment J3 Page 3 Nov '20 - Oct '21 Totals; Company Budget-
Total	$1,557,446	$1,548,992	$1,892,786	
Forecasted Annual Throughput Volumes for Residential Customers	20,133,234	20,341,869	20,727,239	Attachment J3 Page 3 Nov '20 - Oct '21 Totals; Company Forecast
Energy Efficiency Charge Factor for Residential Customers	**$0.0774**	**$0.0761**	**$0.0913**	

EEC Charge Factors for Commercial and Industrial Customers (C&I				
EEC Reconciliation Adjustment	($60,459)	($10,794)	$0	Attachment J3 Page 4 Nov '20 Beginning Balance; Oct '21 Ending Balance
EEC Costs	$1,240,133	$1,872,209	$2,750,204	Attachment J3 Page 4 Nov '20 - Oct '21 Totals; Company Budget
EEC Performance Incentive	$73,557	$106,412	$156,824	Attachment J3 Page 4 Nov '20 - Oct '21 Totals; Company Budget
EEC Low-Income Costs	$430,584	$551,139	$699,944	Attachment J3 Page 4 Nov '20 - Oct '21 Totals; Company Budget
EEC Allocated Low-Income Performance Incentive	$21,181	$29,428	$37,425	Attachment J3 Page 4 Nov '20 - Oct '21 Totals; Company Budget
Total	$1,704,995	$2,548,396	$3,644,397	
Forecasted Annual Throughput Volumes for C&I Customers	52,446,711	54,440,281	55,734,520	Attachment J3 Page 4 Nov '20 - Oct '21 Totals; Company Forecast
Energy Efficiency Charge Factor for C&I Customers	**$0.0337**	**$0.0470**	**$0.0654**	

Northern Utilities, Inc.

New Hampshire Division

Calculation of the EEC Charge, a Component of the Local Distribution Adjustment Charge

To Be Effective November 1, 2020 through October 31, 2021

Residential Customers

		Beginning Balance (Over)/Under		EEC Rate per Therm	EEC Collections	EEC Costs	DSM PI	Allocated Low Income Costs	Allocated Low Income PI	Ending Balance (Over)/Under	Average Balance (Over)/Under	Interest Prime Rate	Interest @ Prime Rate	Ending Balance plus Interest (Over)/Under	Therm Sales	# of Days
August-19	Actual	$107,098		$0.0501	$16,801	$37,242	$3,633	$1,184	$69	$132,424	$119,761	5.50%	$559.430	$132,983	335,427	31
September-19	Actual	$132,983		$0.0501	$16,810	$21,383	$3,633	$11,591	$675	$153,455	$143,219	5.50%	$647.430	$154,102	335,597	30
October-19	Actual	$154,102		$0.0501	$30,568	$57,526	$3,633	$1,339	$78	$186,110	$170,106	5.25%	$758.490	$186,868	610,233	31
November-19	Actual	$186,868		$0.0499	$68,678	$20,599	$3,633	$20,128	$1,171	$163,721	$175,295	5.25%	$1,262.240	$164,984	1,373,589	30
December-19	Actual	$164,984		$0.0499	$137,485	$32,245	$3,633	$4,023	$234	$67,634	$116,309	5.25%	$518.610	$68,152	2,755,471	31
January-20	Actual	$68,152		$0.0499	$154,006	$19,025	$3,906	$3,272	$190	($59,461)	$4,346	4.75%	$17.480	($59,444)	3,086,303	31
February-20	Actual	$556		$0.0499	$156,856	$111,389	$3,906	$7,729	$450	($32,826)	($16,135)	4.75%	$3,668.730	($29,158)	3,143,380	29
March-20	Actual	$45,842		$0.0499	$133,675	$132,910	$15,890	$25,651	$1,493	$88,111	$66,977	4.75%	$1,674.790	$89,786	2,678,854	31
April-20	Actual	$89,786		$0.0499	$93,387	$84,604	$3,906	$11,124	$647	$96,680	$93,233	4.75%	$413.570	$97,093	1,871,517	30
May-20	Actual	$97,093		$0.0499	$66,832	$18,542	($976)	$3,996	$233	$52,056	$74,575	4.75%	$300.030	$52,356	1,339,252	31
June-20	Actual	$52,356		$0.0499	$28,689	$43,423	$2,929	$1,527	$89	$71,635	$61,996	4.75%	$241.380	$71,877	574,945	30
July-20	Forecast	$71,877		$0.0499	$20,894	$51,728	$2,929	$4,811	$234	$110,685	$91,281	3.25%	$251.270	$110,936	418,711	31
August-20	Forecast	$110,936		$0.0499	$16,527	$59,199	$2,929	$4,560	$193	$161,292	$136,114	3.25%	$374.690	$161,666	331,195	31
September-20	Forecast	$161,666		$0.0499	$18,846	$66,096	$2,929	$5,592	$212	$217,651	$189,659	3.25%	$505.240	$218,156	377,676	30
October-20	Forecast	$218,156		$0.0499	$25,214	$73,568	$2,929	$6,617	$226	$276,283	$247,219	3.25%	$680.530	$276,963	505,288	31
November-20	Forecast	$276,963		$0.0774	$115,178	$81,040	$2,929	$11,832	$367	$257,953	$267,458	3.25%	$712.490	$258,665	1,488,092	30
December-20	Forecast	$258,665		$0.0774	$212,948	$88,512	$2,929	$15,935	$452	$153,546	$206,105	3.25%	$567.350	$154,113	2,751,261	31
January-21	Forecast	$154,113		$0.0774	$261,213	$33,101	$5,057	$5,212	$796	($62,933)	$45,590	3.25%	$125.840	($62,807)	3,374,845	31
February-21	Forecast	($62,807)		$0.0774	$291,762	$55,169	$5,057	$8,964	$822	($284,557)	($173,682)	3.25%	($433.020)	($284,990)	3,769,530	28
March-21	Forecast	($284,990)		$0.0774	$245,174	$66,203	$5,057	$10,214	$780	($447,910)	($366,450)	3.25%	($1,011.500)	($448,921)	3,167,624	31
April-21	Forecast	($448,921)		$0.0774	$165,238	$77,237	$5,057	$11,267	$738	($519,861)	($484,391)	3.25%	($1,293.920)	($521,155)	2,134,862	30
May-21	Forecast	($521,155)		$0.0774	$93,796	$77,237	$5,057	$9,668	$633	($522,357)	($521,756)	3.25%	($1,440.190)	($523,797)	1,211,836	31
June-21	Forecast	($523,797)		$0.0774	$48,120	$132,406	$5,057	$13,107	$501	($420,846)	($472,321)	3.25%	($1,261.680)	($422,108)	621,702	30
July-21	Forecast	($422,108)		$0.0774	$30,763	$143,440	$5,057	$10,880	$384	($293,110)	($357,609)	3.25%	($987.100)	($294,097)	397,455	31
August-21	Forecast	($294,097)		$0.0774	$26,040	$77,237	$5,057	$5,000	$327	($232,516)	($263,306)	3.25%	($726.800)	($233,243)	336,440	31
September-21	Forecast	($233,243)		$0.0774	$28,829	$154,473	$5,057	$10,738	$352	($91,451)	($162,347)	3.25%	($433.670)	($91,885)	372,462	30
October-21	Forecast	($91,885)		$0.0774	$39,252	$110,338	$5,057	$8,312	$381	($7,049)	($49,467)	3.25%	($136.540)	($7,185)	507,126	31
Nov 20 thru Oct 21 Totals					$1,558,312	$1,096,392	$56,430	$121,129	$6,532						20,133,234	

Forecast therm Sales from Company Forecast as seen in Attachment 2 to Schedule 10 B, Page 2 of 3, filed on September 17, 2019 in the Cost of Gas Docket.
Actual Performance Incentives includes reconciliations from prior year(s).
footnote transfers

Northern Utilities, Inc.

New Hampshire Division

Calculation of the EEC Charge, a Component of the Local Distribution Adjustment Charge

To Be Effective November 1, 2020 through October 31, 2021

General Service Customers

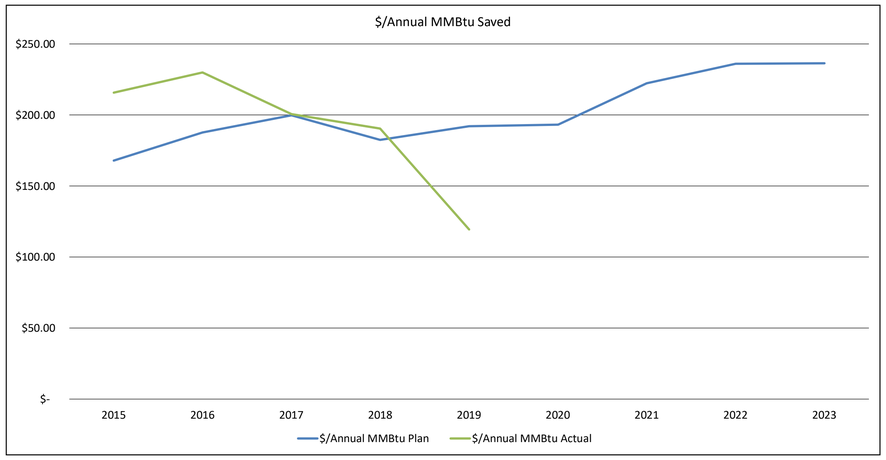
		Beginning Balance (Over)/Under		EEC Rate per Therm	EEC Collections	EEC Costs	DSM PI	Allocated Low Income Costs	Allocated Low Income PI	Ending Balance (Over)/Under	Average Balance (Over)/Under	Interest Prime Rate	Interest @ Prime Rate	Ending Balance plus Interest (Over)/Under	Therm Sales	# of Days
August-19	Actual	($704,375)		$0.0264	$63,986	$29,331	$4,684	$8,553	$498	($725,295)	($714,835)	5.50%	($3,339.16)	($728,634)	2,423,706	31
September-19	Actual	($728,634)		$0.0264	$62,483	$110,426	$4,684	$81,746	$4,758	($589,503)	($659,069)	5.50%	($2,979.35)	($592,483)	2,366,753	30
October-19	Actual	($592,483)		$0.0264	$83,920	$220,316	$4,684	$6,982	$406	($444,015)	($518,249)	5.25%	($2,310.82)	($446,326)	3,182,362	31
November-19	Actual	($446,326)		$0.0247	$114,869	$248,775	$4,684	$66,982	$3,898	($236,854)	($341,590)	5.25%	($1,458.61)	($238,312)	4,571,040	30
December-19	Actual	($238,312)		$0.0247	$158,016	$190,099	$4,684	$9,339	$544	($191,662)	($214,987)	5.25%	($958.61)	($192,621)	6,397,368	31
January-20	Actual	($192,621)		$0.0247	$177,242	$53,455	$5,336	$7,606	$443	($303,024)	($247,822)	4.75%	($997.04)	($304,021)	7,174,996	31
February-20	Actual	($198,021)		$0.0247	$177,778	$72,005	$5,336	$17,680	$1,029	($279,749)	($238,885)	4.75%	$4,653.65	($275,096)	7,197,470	29
March-20	Actual	($125,096)		$0.0247	$155,281	$54,638	($3,397)	$60,197	$3,504	($165,435)	($145,265)	4.75%	$564.14	($164,871)	6,286,658	31
April-20	Actual	($164,871)		$0.0247	$112,351	$30,445	$5,336	$27,036	$1,574	($212,832)	($188,852)	4.75%	($735.28)	($213,567)	4,548,589	30
May-20	Actual	($213,567)		$0.0247	$87,004	$71,762	($1,334)	$10,511	$612	($219,021)	($216,294)	4.75%	($870.20)	($219,891)	3,522,410	31
June-20	Actual	($219,891)		$0.0247	$60,861	$41,870	$4,002	$6,546	$381	($227,954)	($223,923)	4.75%	($871.83)	($228,826)	2,463,920	30
July-20	Forecast	($228,826)		$0.0247	$65,835	$58,020	$4,002	$4,350	$253	($228,035)	($228,431)	3.25%	($628.81)	($228,664)	2,125,963	31
August-20	Forecast	($228,664)		$0.0247	$51,849	$66,401	$4,002	$28,903	$1,226	($179,981)	($204,323)	3.25%	($562.45)	($180,544)	2,099,142	31
September-20	Forecast	($180,544)		$0.0247	$52,996	$80,013	$4,002	$31,769	$1,207	($116,548)	($148,546)	3.25%	($395.72)	($116,944)	2,145,572	30
October-20	Forecast	($116,944)		$0.0247	$65,953	$82,518	$4,002	$34,968	$1,194	($60,216)	($88,580)	3.25%	($243.84)	($60,459)	2,670,168	31
November-20	Forecast	($60,459)		$0.0325	$138,874	$90,898	$4,002	$33,976	$1,053	($69,404)	($64,932)	3.25%	($172.97)	($69,577)	4,273,046	30
December-20	Forecast	($69,577)		$0.0325	$191,330	$105,155	$4,002	$34,097	$968	($116,685)	($93,131)	3.25%	($256.36)	($116,941)	5,887,088	31
January-21	Forecast	($116,941)		$0.0325	$232,929	$57,210	$6,555	$11,069	$1,691	($273,345)	($195,143)	3.25%	($538.65)	($273,884)	7,167,043	31
February-21	Forecast	($273,884)		$0.0325	$248,358	$57,210	$6,555	$18,172	$1,666	($438,639)	($356,262)	3.25%	($888.21)	($439,528)	7,641,797	28
March-21	Forecast	($439,528)		$0.0325	$225,235	$85,815	$6,555	$22,348	$1,707	($548,338)	($493,933)	3.25%	($1,363.39)	($549,701)	6,930,321	31
April-21	Forecast	($549,701)		$0.0325	$164,566	$100,117	$6,555	$26,723	$1,750	($579,122)	($564,412)	3.25%	($1,507.68)	($580,630)	5,063,577	30
May-21	Forecast	($580,630)		$0.0325	$115,374	$57,210	$6,555	$28,321	$1,854	($602,063)	($591,346)	3.25%	($1,632.28)	($603,695)	3,549,981	31
June-21	Forecast	($603,695)		$0.0325	$80,188	$71,512	$6,555	$52,018	$1,987	($551,811)	($577,753)	3.25%	($1,543.31)	($553,354)	2,467,336	30
July-21	Forecast	($553,354)		$0.0325	$70,840	$100,117	$6,555	$59,671	$2,104	($455,747)	($504,551)	3.25%	($1,392.70)	($457,140)	2,179,685	31
August-21	Forecast	($457,140)		$0.0325	$72,143	$157,327	$6,555	$32,989	$2,160	($330,251)	($393,695)	3.25%	($1,086.71)	($331,338)	2,219,780	31
September-21	Forecast	($331,338)		$0.0325	$73,543	$171,629	$6,555	$65,241	$2,136	($159,320)	($245,329)	3.25%	($655.33)	($159,975)	2,262,857	30
October-21	Forecast	($159,975)		$0.0325	$91,136	$185,932	$6,555	$45,959	$2,106	($10,558)	($85,267)	3.25%	($235.36)	($10,794)	2,804,200	31
Nov 20 thru Oct 21 Totals					$1,704,516	$1,240,133	$73,557	$430,584	$21,181						52,446,710	

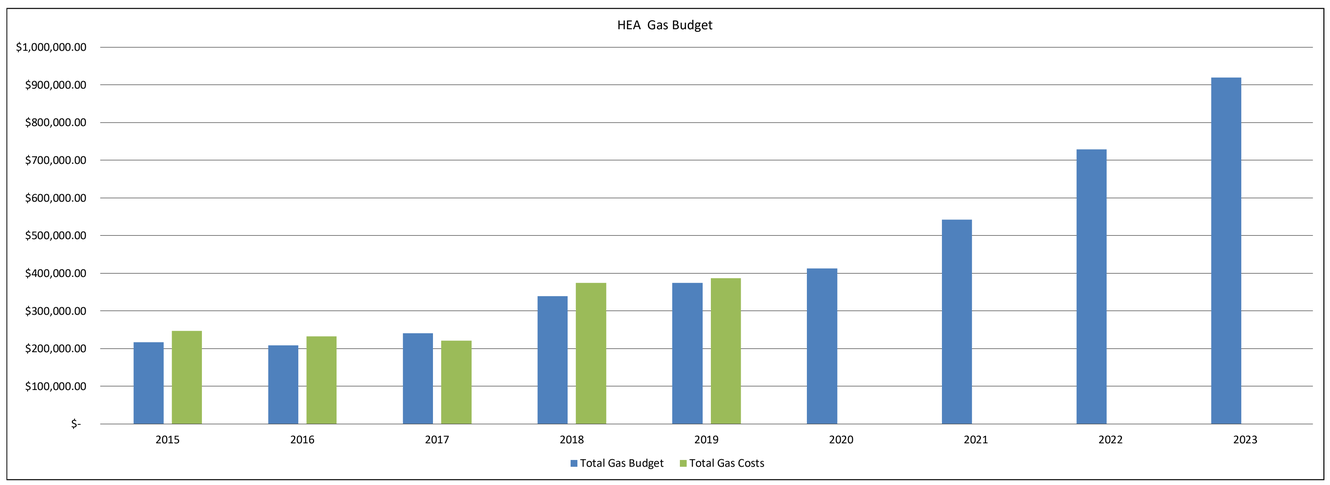
Forecast therm Sales from Company Forecast as seen in Attachment 2 to Schedule 10 B, Page 2 of 3, filed on September 17, 2019 in the Cost of Gas Docket. Does not include Special Contracts.
Actual Performance Incentives includes reconciliations from prior year(s).

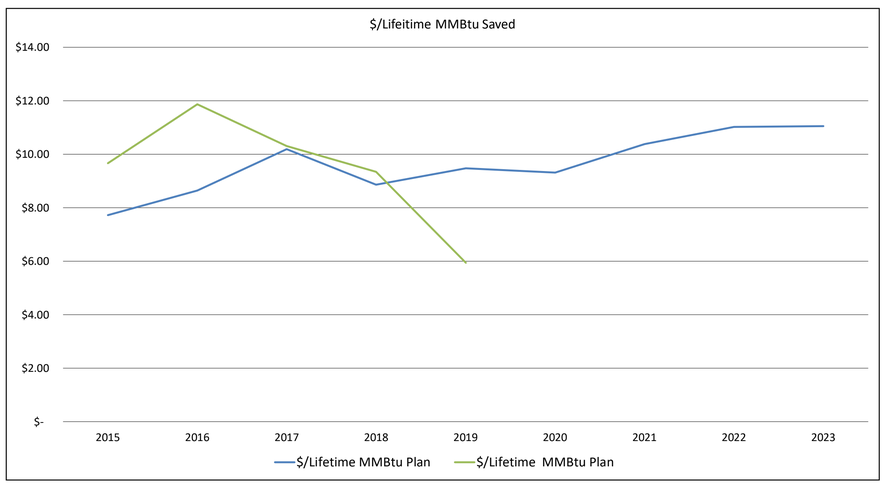
Home Energy Assistance

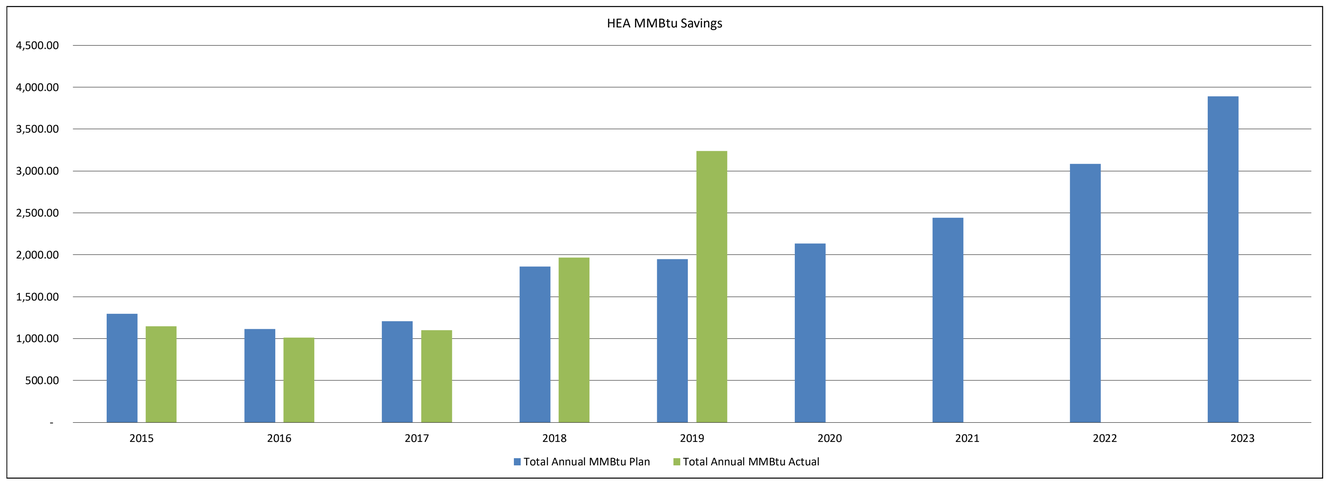
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Gas Budget	$ 217,299.34	$ 208,884.45	$ 241,100.00	$ 339,500.00	$ 374,026.00	$ 413,000.00	$ 542,705.00	$ 728,650.00	$ 919,565.00
	Annual Electric Savings Plan (kWh)	$ -	$ -	$ 19,500.00	$ 19,100.00	$ 11,828.83	$ 12,266.80	$ -	$ -	$ 1,223.04
2)	Total Gas Budget	$ 217,299.34	$ 208,884.45	$ 241,100.00	$ 339,500.00	$ 374,026.00	$ 413,000.00	$ 542,705.00	$ 728,650.00	$ 919,565.00
	Total Lifetime MMBtu Plan	28,134.50	24,183.30	23,672.00	38,285.30	39,469.68	44,343.14	52,284.05	66,078.39	83,213.02
	$/Lifetime MMBtu Plan	$ 7.72	$ 8.64	$ 10.19	$ 8.87	$ 9.48	$ 9.31	$ 10.38	$ 11.03	$ 11.05
3)	Total Gas Budget	$ 217,299.34	$ 208,884.45	$ 241,100.00	$ 339,500.00	$ 374,026.00	$ 413,000.00	$ 542,705.00	$ 728,650.00	$ 919,565.00
	Total Annual MMBtu Plan	1,294.23	1,112.44	1,206.60	1,859.40	1,947.41	2,136.81	2,442.17	3,085.41	3,889.92
	$/Annual MMBtu Plan	$ 167.90	$ 187.77	$ 199.82	$ 182.59	$ 192.06	$ 193.28	$ 222.22	$ 236.16	$ 236.40

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Gas Costs	$ 246,875.44	$ 232,458.52	$ 221,117.77	$ 374,000.00	$ 386,835.96
	Annual Electric Savings Actual (kWh)	-	-	4.01	16.90	4.28
2)	Total Gas Costs	$ 246,875.44	$ 232,458.52	$ 221,117.77	$ 374,000.00	$ 386,835.96
	Total Lifetime MMBtu Actual	25,542.87	19,593.06	21,454.20	40,000.90	65,090.20
	$/Lifetime MMBtu Plan	$ 9.67	$ 11.86	$ 10.31	$ 9.35	$ 5.94
3)	Total Gas Costs	$ 246,875.44	$ 232,458.52	$ 221,117.77	$ 374,000.00	$ 386,835.96
	Total Annual MMBtu Actual	1,145.08	1,010.97	1,101.86	1,964.60	3,239.38
	$/Annual MMBtu Actual	$ 215.60	$ 229.94	$ 200.68	$ 190.37	$ 119.42





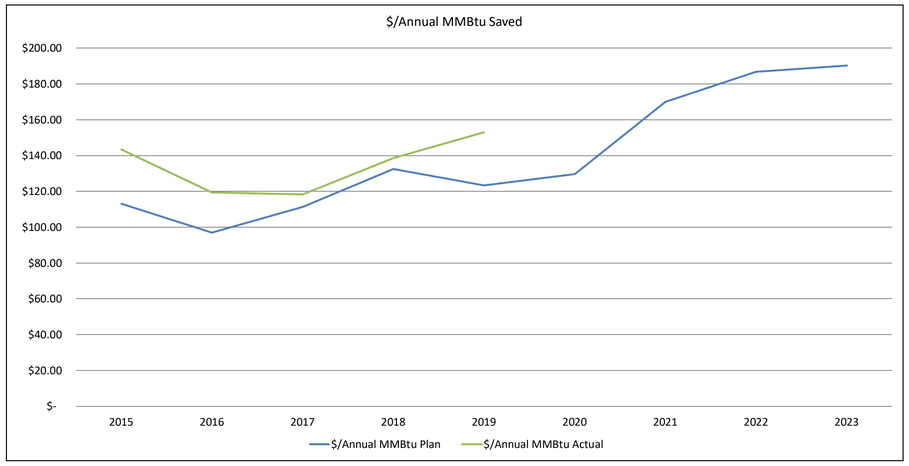


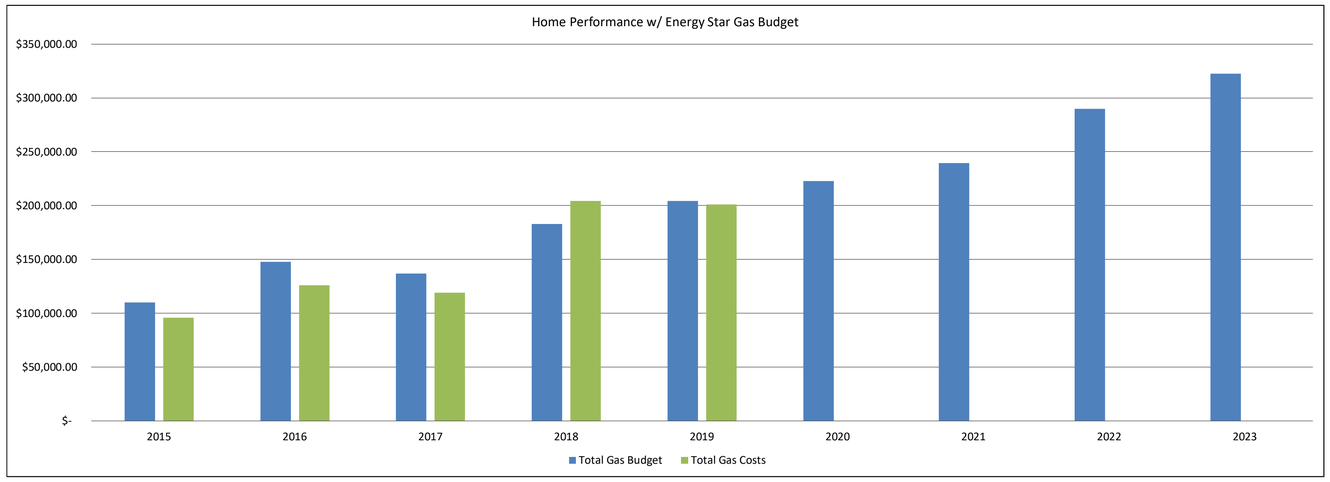


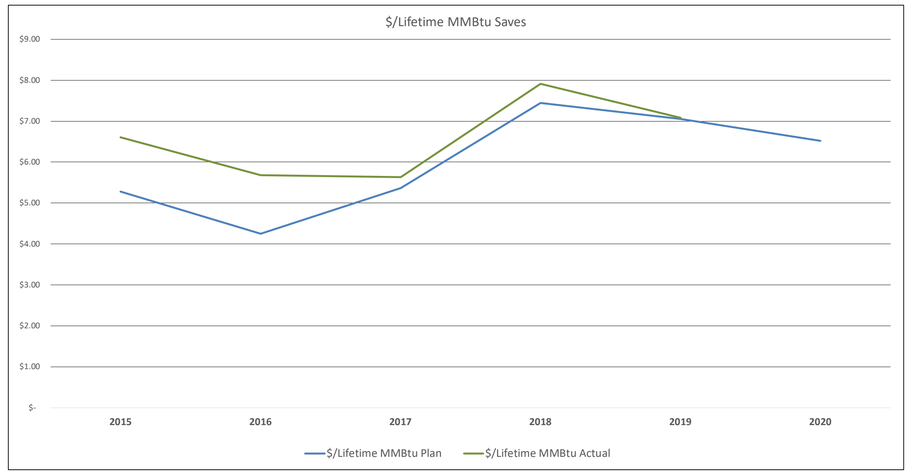
Home Performance w/Energy Star

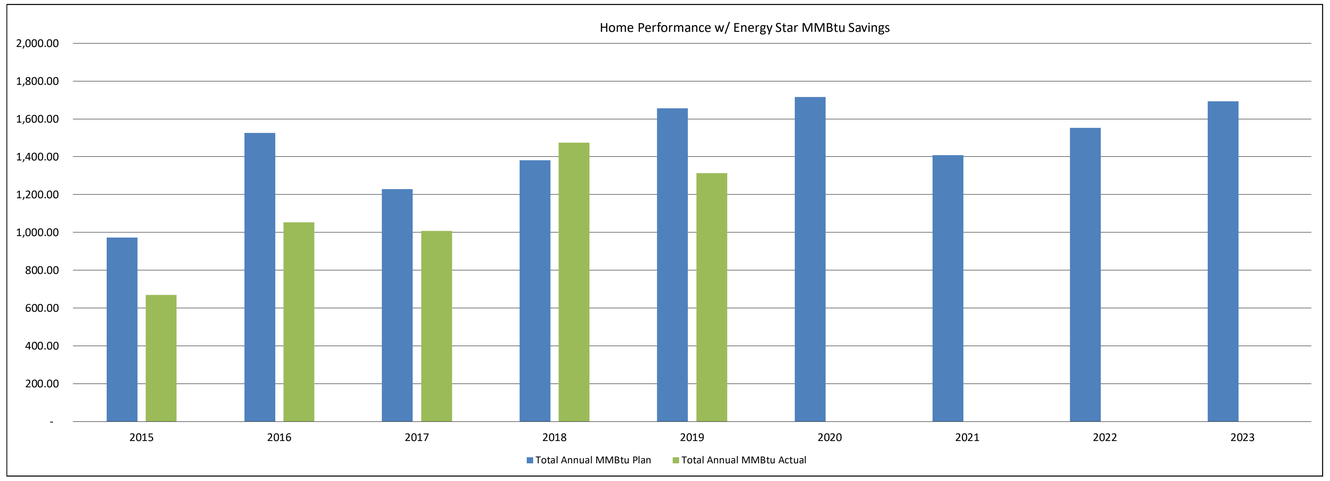
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Gas Budget	$ 110,000.00	$ 147,740.00	$ 136,800.00	$ 183,000.00	$ 204,236.93	$ 222,642.42	$ 239,330.00	$ 289,874.25	$ 322,364.00
	Annual Electric Savings Plan (kWh)	$ -	$ -	$ 10,800.00	$ 23,300.00	$ 24,354.00	$ 20,591.60	$ 2,376.00	$ 7,036.63	$ 2,772.00
2)	Total Gas Budget	$ 110,000.00	$ 147,740.00	$ 136,800.00	$ 183,000.00	$ 204,236.93	$ 222,642.42	$ 239,330.00	$ 289,874.25	$ 322,364.00
	Total Lifetime MMBtu Plan	20,824.99	34,783.42	25,504.00	24,573.30	28,946.40	34,137.18	29,706.11	32,524.40	35,275.48
	$/Lifetime MMBtu Plan	$ 5.28	$ 4.25	$ 5.36	$ 7.45	$ 7.06	$ 6.52	$ 8.06	$ 8.91	$ -
3)	Total Gas Budget	$ 110,000.00	$ 147,740.00	$ 136,800.00	$ 183,000.00	$ 204,236.93	$ 222,642.42	$ 239,330.00	$ 289,874.25	$ 322,364.00
	Total Annual MMBtu Plan	972.51	1,525.46	1,228.80	1,381.30	1,655.20	1,716.46	1,407.84	1,552.50	1,693.66
	$/Annual MMBtu Plan	$ 113.11	$ 96.85	$ 111.33	$ 132.48	$ 123.39	$ 129.71	$ 170.00	$ 186.71	$ 190.34

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Gas Costs	$ 95,886.98	$ 125,902.87	$ 119,165.42	$ 204,200.00	$ 201,021.15
	Annual Electric Savings Actual (kWh)	-	-	3.27	19.40	17.21
2)	Total Gas Costs	$ 95,886.98	$ 125,902.87	$ 119,165.42	$ 204,200.00	$ 201,021.15
	Total Lifetime MMBtu Actual	14,511.75	22,180.00	21,156.43	25,814.40	28,383.14
	$/Lifetime MMBtu Actual	$ 6.61	$ 5.68	$ 5.63	$ 7.91	$ 7.08
3)	Total Gas Costs	$ 95,886.98	$ 125,902.87	$ 119,165.42	$ 204,200.00	$ 201,021.15
	Total Annual MMBtu Actual	668.83	1,053.80	1,007.09	1,473.70	1,314.25
	$/Annual MMBtu Actual	$ 143.37	$ 119.48	$ 118.33	$ 138.56	$ 152.96





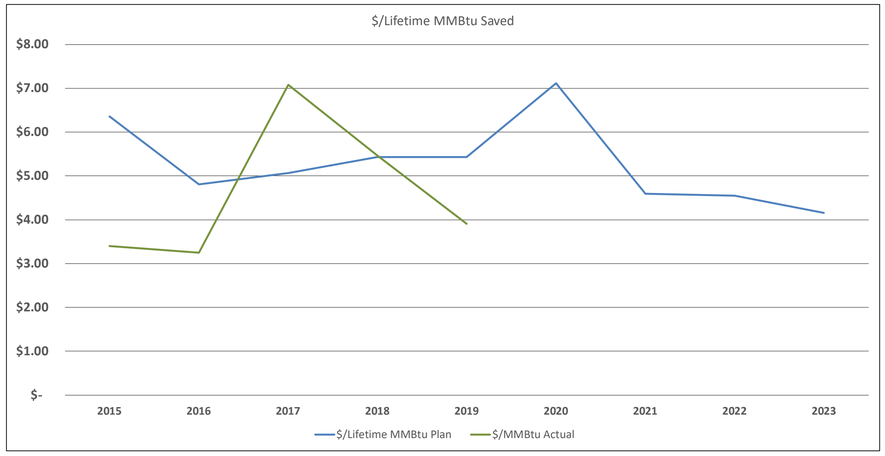


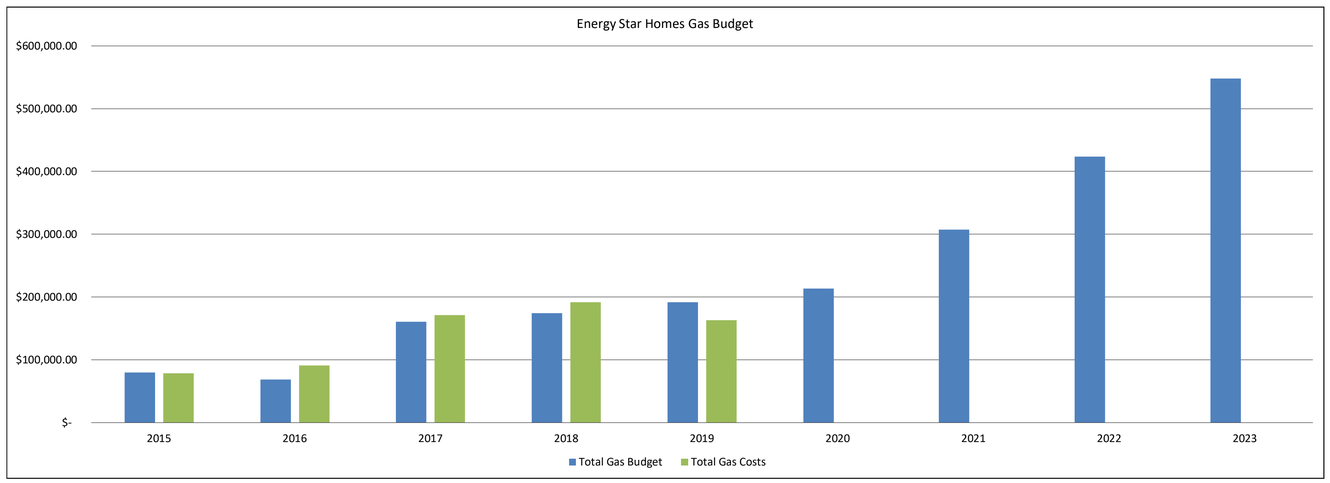


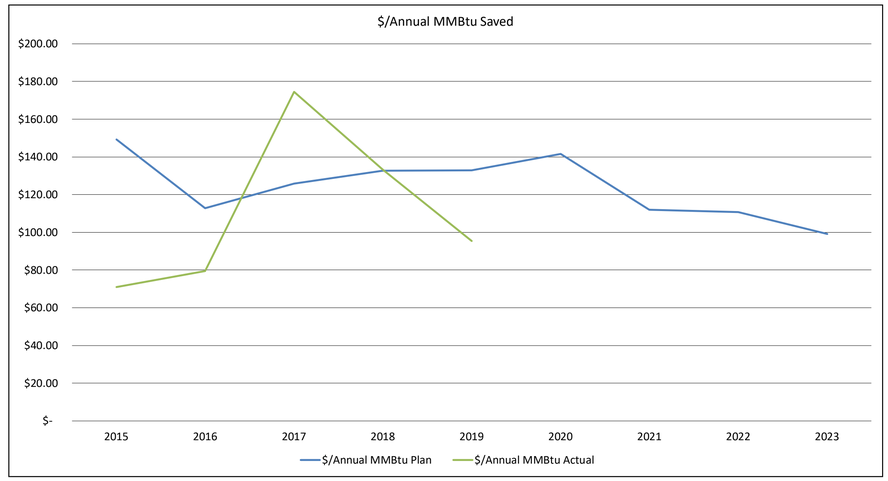
Energy Star Homes

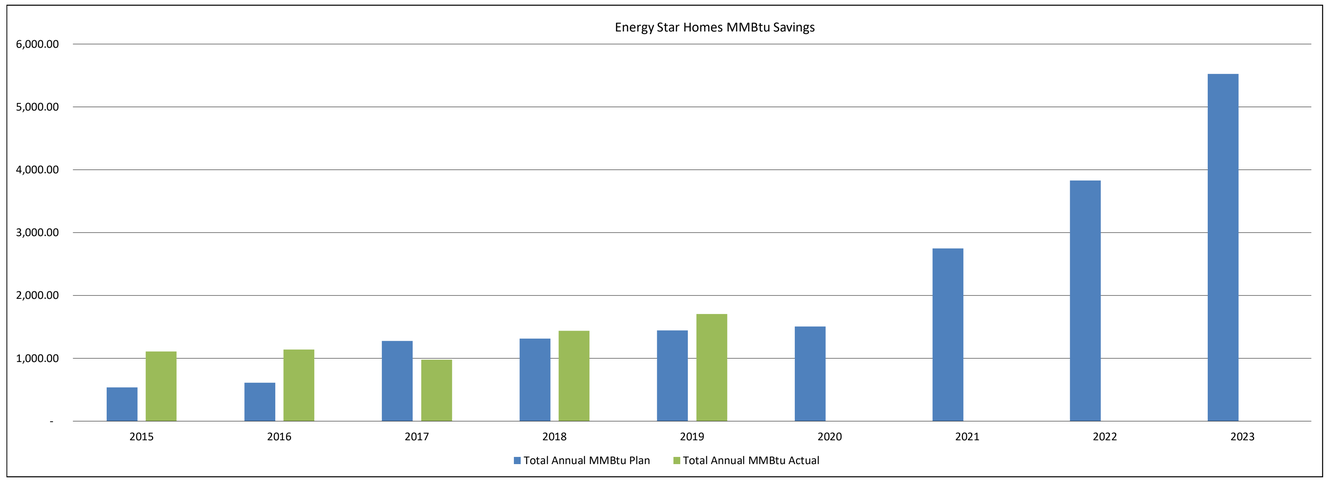
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Gas Budget	$ 80,000.00	$ 68,750.00	$ 160,500.00	$ 174,000.00	$ 191,400.00	$ 213,187.00	$ 307,438.00	$ 423,477.00	$ 548,051.55
	Annual Electric Savings Plan (kWh)	$ -	$ -	$ 42,500.00	$ 7,200.00	$ 5,443.00	$ 10,119.24	$ -	$ -	$ -
2)	Total Gas Budget	$ 80,000.00	$ 68,750.00	$ 160,500.00	$ 174,000.00	$ 191,400.00	$ 213,187.00	$ 307,438.00	$ 423,477.00	$ 548,051.55
	Total Lifetime MMBtu Plan	12,588.69	14,308.80	31,681.50	32,046.00	35,260.00	29,950.00	66,927.50	93,175.00	131,913.33
	$/Lifetime MMBtu Plan	$ 6.35	$ 4.80	$ 5.07	$ 5.43	$ 5.43	$ 7.12	$ 4.59	$ 4.54	$ 4.15
3)	Total Gas Budget	$ 80,000.00	$ 68,750.00	$ 160,500.00	$ 174,000.00	$ 191,400.00	$ 213,187.00	$ 307,438.00	$ 423,477.00	$ 548,051.55
	Total Annual MMBtu Plan	536.48	610.00	1,276.50	1,312.50	1,440.50	1,506.50	2,748.50	3,825.00	5,524.42
	$/Annual MMBtu Plan	$ 149.12	$ 112.70	$ 125.73	$ 132.57	$ 132.87	$ 141.51	$ 111.86	$ 110.71	$ 99.21

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Gas Costs	$ 78,324.02	$ 90,656.30	$ 170,911.27	$ 191,400.00	$ 162,869.30
	Annual Electric Savings Actual (kWh)	-	-	65.33	9.20	27.45
2)	Total Gas Costs	$ 78,324.02	$ 90,656.30	$ 170,911.27	$ 191,400.00	$ 162,869.30
	Total Lifetime MMBtu Actual	23,054.30	27,939.00	24,140.00	35,031.00	41,663.42
	$/MMBtu Actual	$ 3.40	$ 3.24	$ 7.08	$ 5.46	$ 3.91
3)	Total Gas Costs	$ 78,324.02	$ 90,656.30	$ 170,911.27	$ 191,400.00	$ 162,869.30
	Total Annual MMBtu Actual	1,104.98	1,141.00	979.00	1,436.10	1,706.18
	$/Annual MMBtu Actual	$ 70.88	$ 79.45	$ 174.58	$ 133.28	$ 95.46





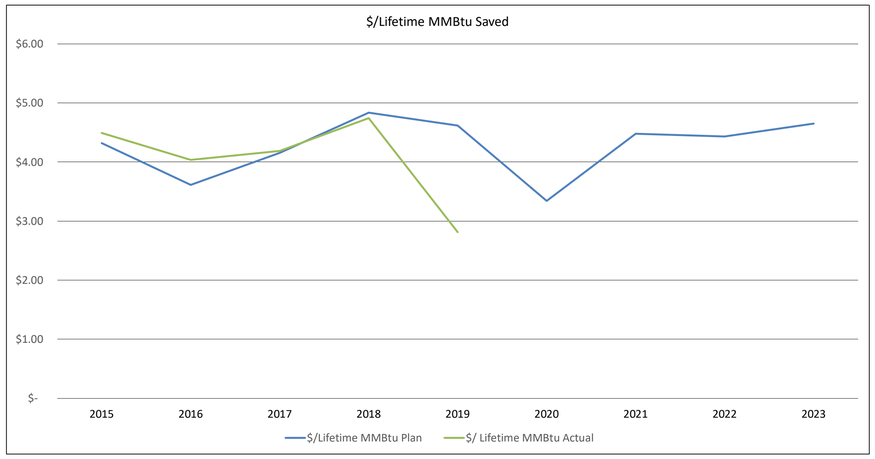


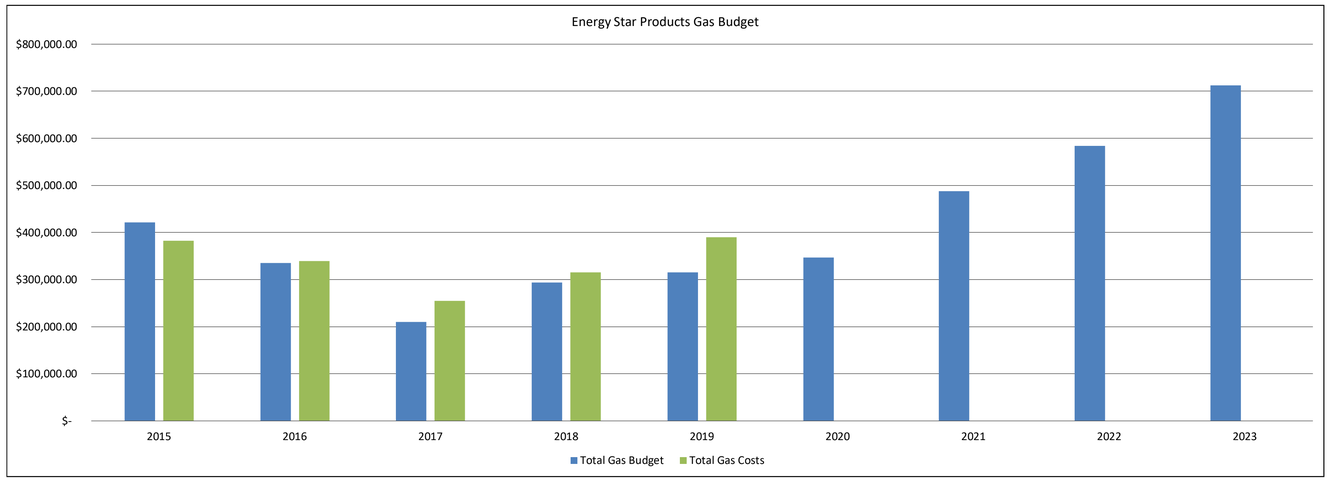


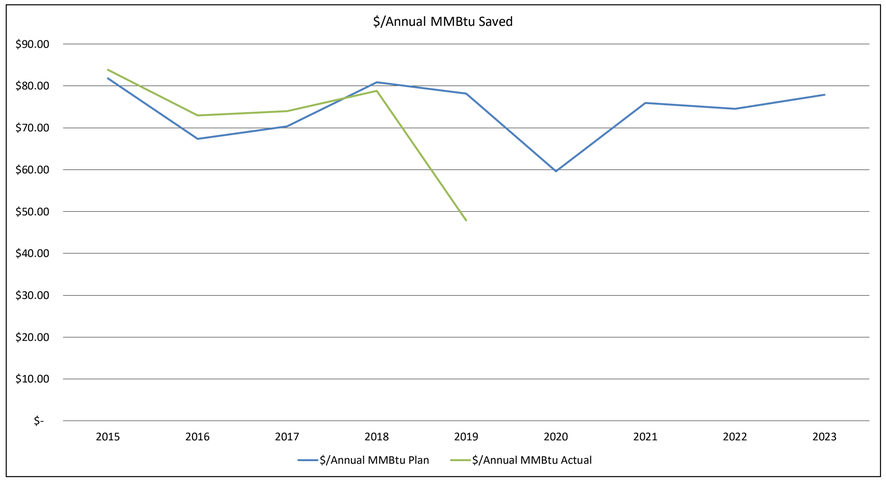
Energy Star Products

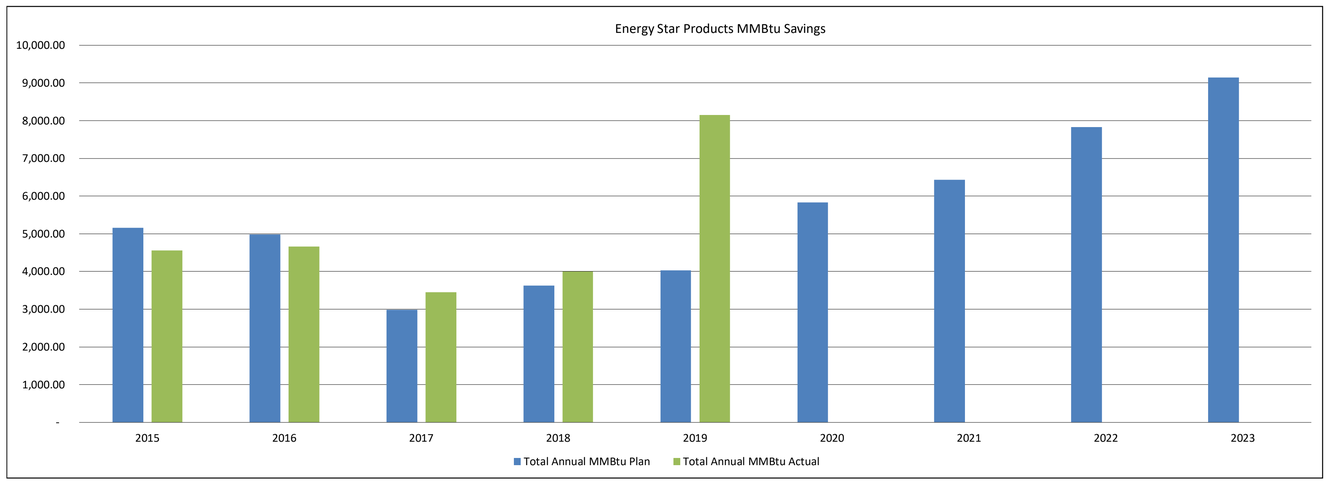
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Gas Budget	$ 421,694.96	$ 335,242.65	$ 210,000.00	$ 293,600.00	$ 315,235.70	$ 347,114.00	$ 488,013.00	$ 583,827.00	$ 712,320.00
	Annual Electric Savings Plan (kWh)	$ -	$ -	$ 18,500.00	$ 17,000.00	$ 22,628.00	$ 12,455.00	$ (3,440.00)	$ (3,870.00)	$ (4,300.00)
2)	Total Gas Budget	$ 421,694.96	$ 335,242.65	$ 210,000.00	$ 293,600.00	$ 315,235.70	$ 347,114.00	$ 488,013.00	$ 583,827.00	$ 712,320.00
	Total Lifetime MMBtu Plan	97,573.24	92,742.44	50,524.90	60,691.60	68,316.20	103,963.60	109,021.00	131,753.18	153,257.66
	$/Lifetime MMBtu Plan	$ 4.32	$ 3.61	$ 4.16	$ 4.84	$ 4.61	$ 3.34	$ 4.48	$ 4.43	$ 4.65
3)	Total Gas Budget	$ 421,694.96	$ 335,242.65	$ 210,000.00	$ 293,600.00	$ 315,235.70	$ 347,114.00	$ 488,013.00	$ 583,827.00	$ 712,320.00
	Total Annual MMBtu Plan	5,157.75	4,977.47	2,987.70	3,629.40	4,032.40	5,826.80	6,427.00	7,829.43	9,146.23
	$/Annual MMBtu Plan	$ 81.76	$ 67.35	$ 70.29	$ 80.89	$ 78.18	$ 59.57	$ 75.93	$ 74.57	$ 77.88

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Gas Costs	$ 382,505.12	$ 339,472.62	$ 254,638.91	$ 315,200.00	$ 390,115.90
	Annual Electric Savings Actual (kWh)	-	-	-	-	-
2)	Total Gas Costs	$ 382,505.12	$ 339,472.62	$ 254,638.91	$ 315,200.00	$ 390,115.90
	Total Lifetime MMBtu Actual	85,116.50	84,115.20	60,838.90	66,448.60	138,776.10
	$/ Lifetime MMBtu Actual	$ 4.49	$ 4.04	$ 4.19	$ 4.74	$ 2.81
3)	Total Gas Costs	$ 382,505.12	$ 339,472.62	$ 254,638.91	$ 315,200.00	$ 390,115.90
	Total Annual MMBtu Actual	4,559.70	4,655.70	3,444.20	4,000.80	8,154.30
	$/Annual MMBtu Actual	$ 83.89	$ 72.92	$ 73.93	$ 78.78	$ 47.84





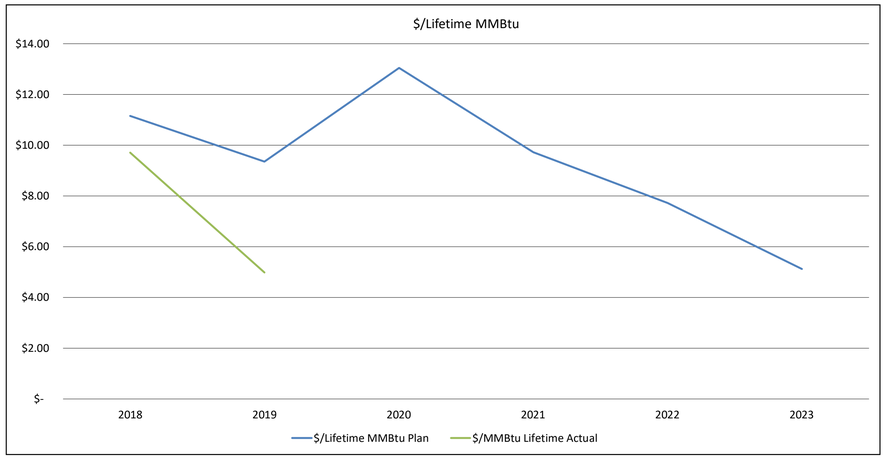


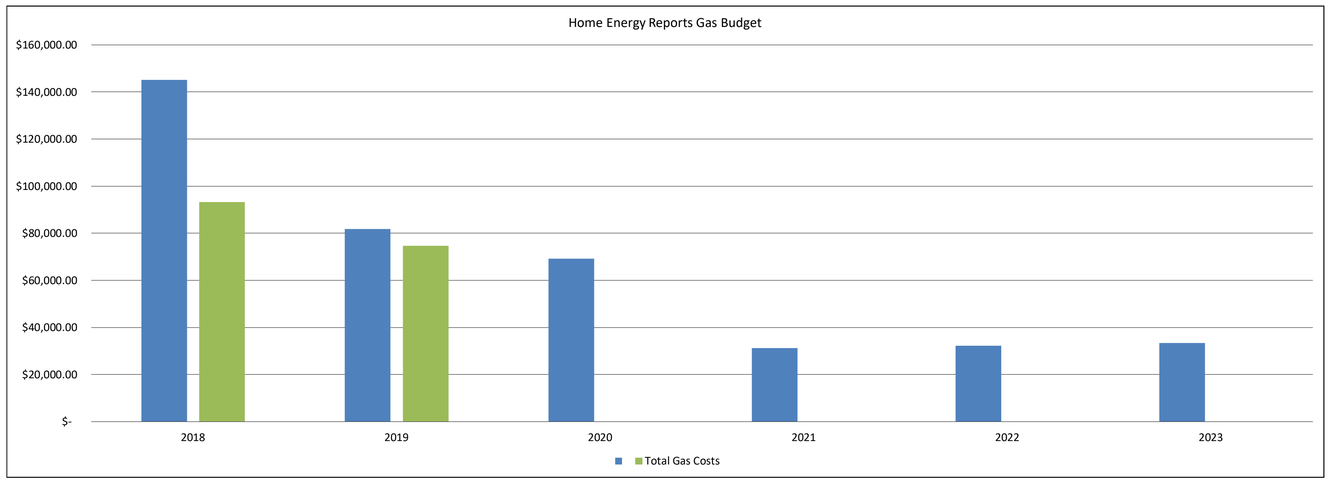


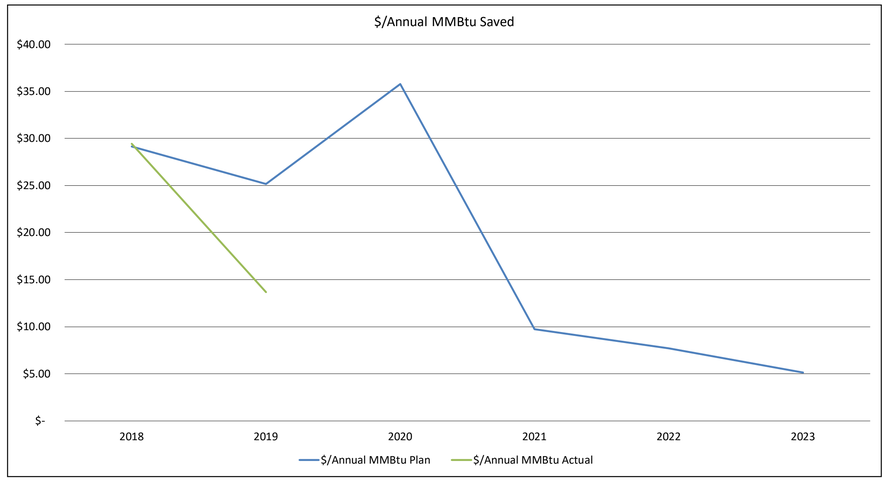
Home Energy Reports

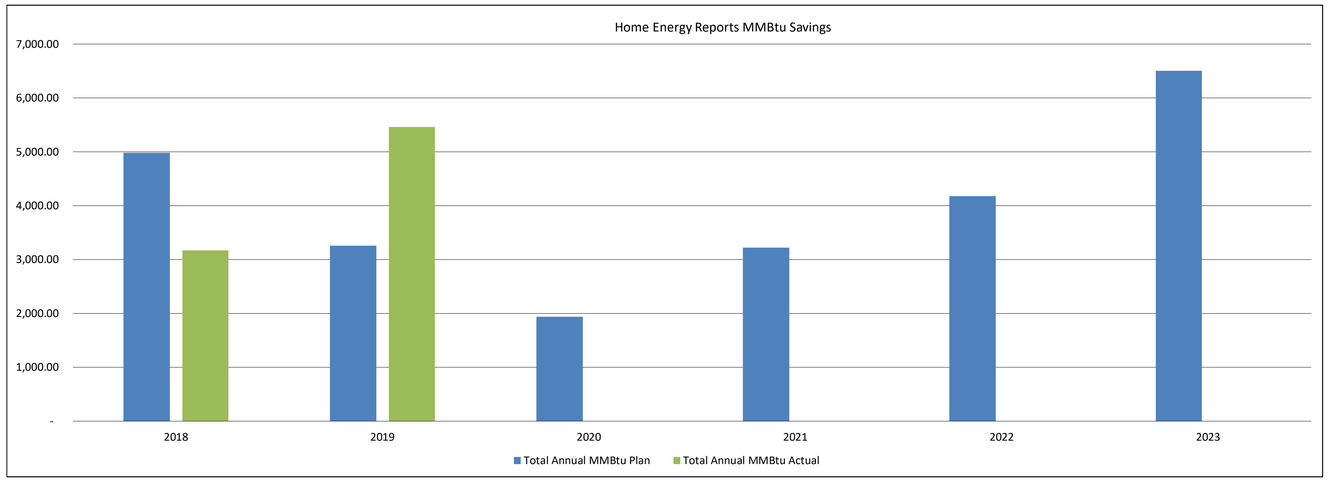
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Gas Budget	$ -	$ -	$ -	$ 145,100.00	$ 81,756.00	$ 69,206.00	$ 31,300.00	$ 32,250.00	$ 33,300.00
	Annual Electric Savings Plan (kWh)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2)	Total Gas Budget	$ -	$ -	$ -	$ 145,100.00	$ 81,756.00	$ 69,206.00	$ 31,300.00	$ 32,250.00	$ 33,300.00
	Total Lifetime MMBtu Plan	-	-	-	13,010.00	8,745.59	5,304.47	3,221.60	4,177.50	6,500.00
	$/Lifetime MMBtu Plan				$ 11.15	$ 9.35	$ 13.05	$ 9.72	$ 7.72	$ 5.12
3)	Total Gas Budget	$ -	$ -	$ -	$ 145,100.00	$ 81,756.00	$ 69,206.00	$ 31,300.00	$ 32,250.00	$ 33,300.00
	Total Annual MMBtu Plan	-	-	-	4,980.00	3,252.00	1,934.00	3,221.60	4,177.50	6,500.00
	$/Annual MMBtu Plan				$ 29.14	$ 25.14	$ 35.78	$ 9.72	$ 7.72	$ 5.12

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Gas Costs	$ -	$ -	$ -	$ 93,300.00	$ 74,676.41
	Annual Electric Savings Actual (kWh)	-	-	-	-	-
2)	Total Gas Costs	$ -	$ -	$ -	$ 93,300.00	$ 74,676.41
	Total Lifetime MMBtu Actual	-	-	-	9,620.00	14,978.10
	$/MMBtu Lifetime Actual				$ 9.70	$ 4.99
3)	Total Gas Costs	$ -	$ -	$ -	$ 93,300.00	$ 74,676.41
	Total Annual MMBtu Actual	-	-	-	3,170.00	5,461.00
	$/Annual MMBtu Actual				$ 29.43	$ 13.67





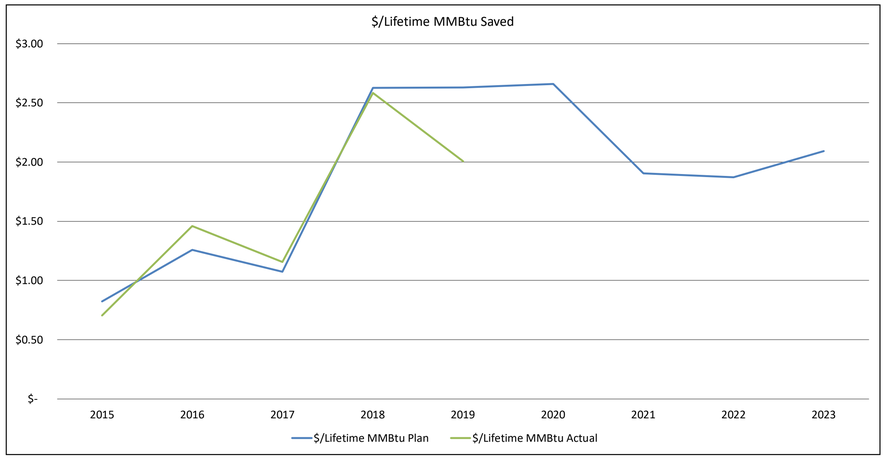


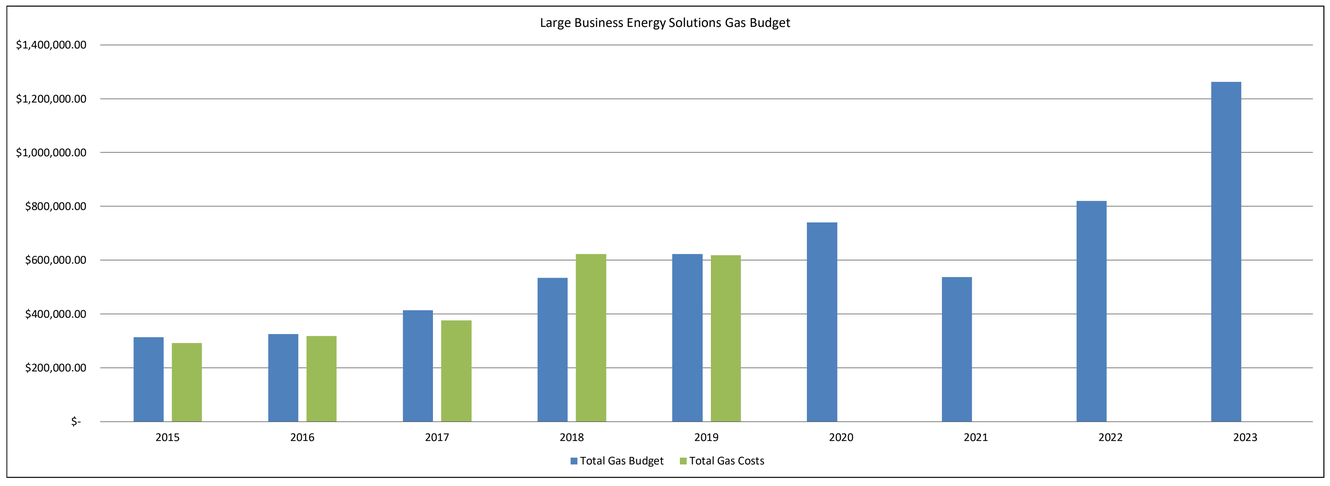


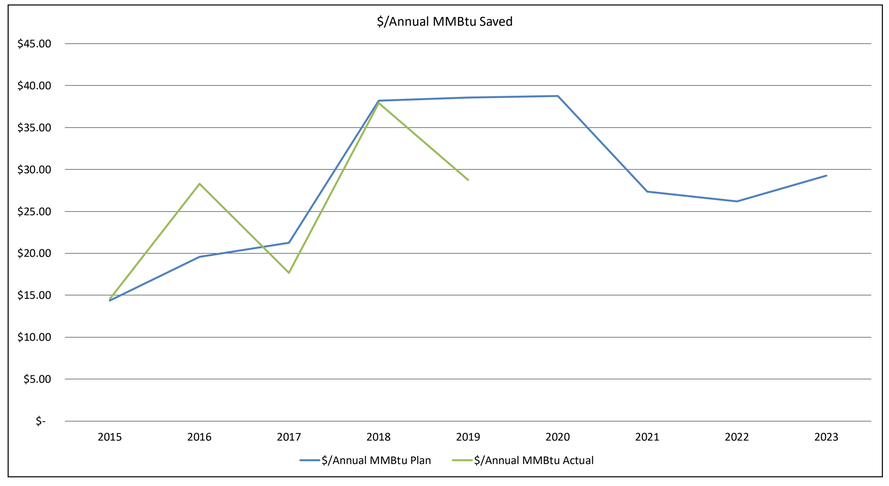
Large Business Energy Solutions

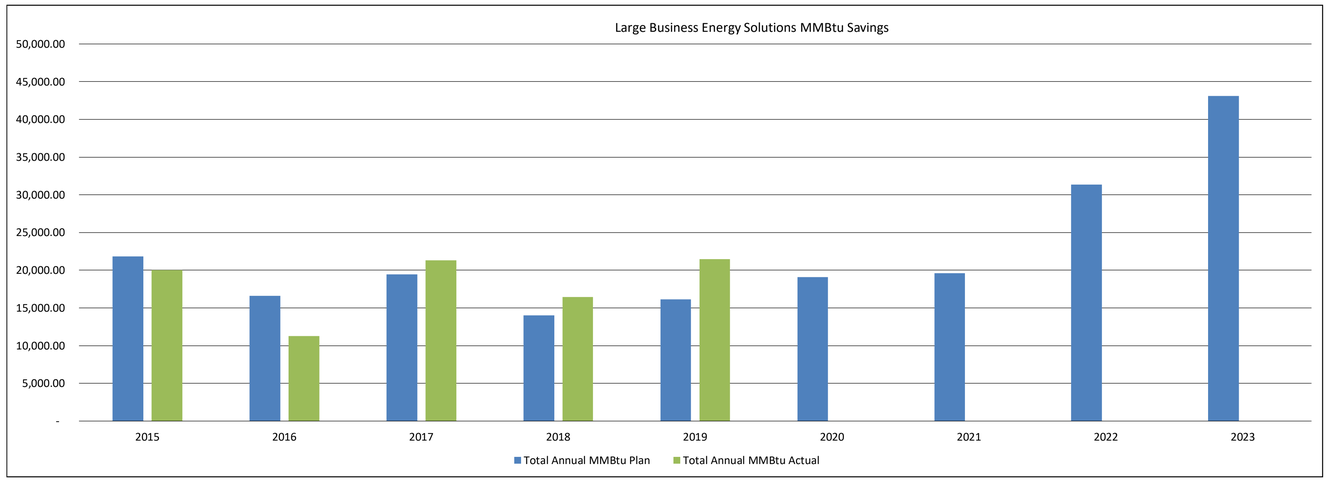
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Gas Budget	$ 313,214.41	$ 325,307.89	$ 413,800.00	$ 535,000.00	$ 623,034.90	$ 740,393.00	$ 536,980.60	$ 820,534.80	$ 1,262,746.00
	Annual Electric Savings Plan (kWh)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
2)	Total Gas Budget	$ 313,214.41	$ 325,307.89	$ 413,800.00	$ 535,000.00	$ 623,034.90	$ 740,393.00	$ 536,980.60	$ 820,534.80	$ 1,262,746.00
	Total Lifetime MMBtu Plan	381,065.08	258,334.09	385,820.20	203,586.70	236,973.53	278,343.20	281,808.27	438,083.74	603,542.64
	$/Lifetime MMBtu Plan	$ 0.82	$ 1.26	$ 1.07	$ 2.63	$ 2.63	$ 2.66	$ 1.91	$ 1.87	$ 2.09
3)	Total Gas Budget	$ 313,214.41	$ 325,307.89	$ 413,800.00	$ 535,000.00	$ 623,034.90	$ 740,393.00	$ 536,980.60	$ 820,534.80	$ 1,262,746.00
	Total Annual MMBtu Plan	21,825.29	16,625.84	19,472.30	14,000.20	16,150.29	19,094.24	19,613.19	31,335.63	43,109.61
	$/Annual MMBtu Plan	$ 14.35	$ 19.57	$ 21.25	$ 38.21	$ 38.58	$ 38.78	$ 27.38	$ 26.19	$ 29.29

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Gas Costs	$ 291,699.33	$ 318,457.75	$ 376,625.30	$ 623,000.00	$ 618,081.86
	Annual Electric Savings Actual (kWh)	-	-	-	-	-
2)	Total Gas Costs	$ 291,699.33	$ 318,457.75	$ 376,625.30	$ 623,000.00	$ 618,081.86
	Total Lifetime MMBtu Actual	414,162.70	218,055.92	325,854.48	241,209.70	307,893.58
	$/Lifetime MMBtu Actual	$ 0.70	$ 1.46	$ 1.16	$ 2.58	$ 2.01
3)	Total Gas Costs	$ 291,699.33	$ 318,457.75	$ 376,625.30	$ 623,000.00	$ 618,081.86
	Total Annual MMBtu Actual	20,038.00	11,251.91	21,305.39	16,432.70	21,486.38
	$/Annual MMBtu Actual	$ 14.56	$ 28.30	$ 17.68	$ 37.91	$ 28.77





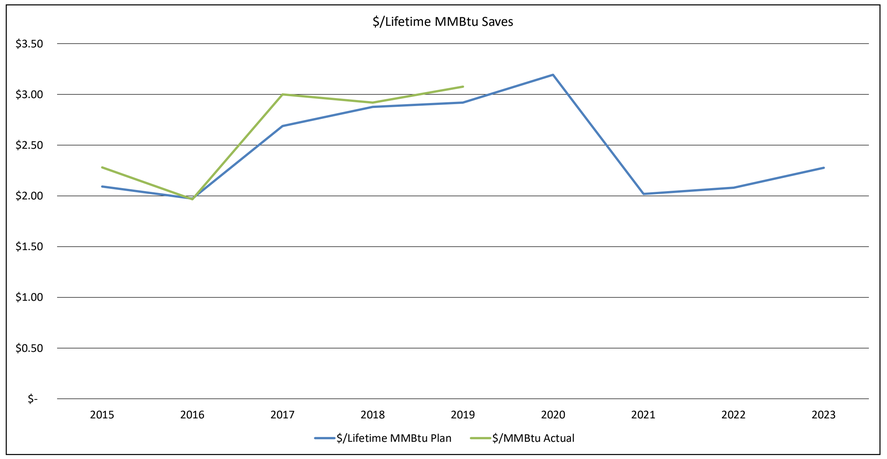


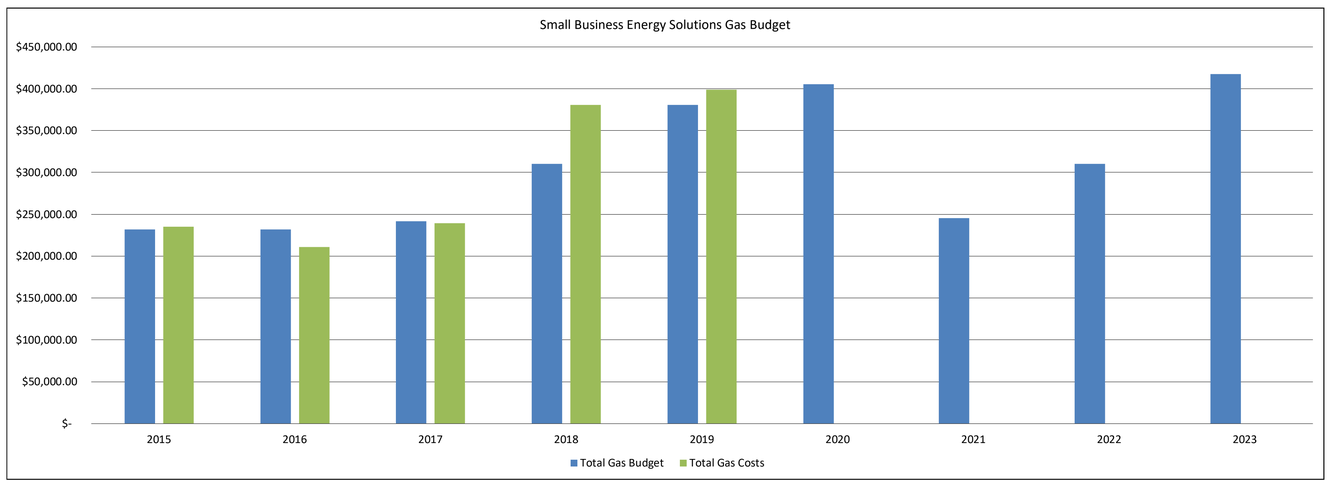


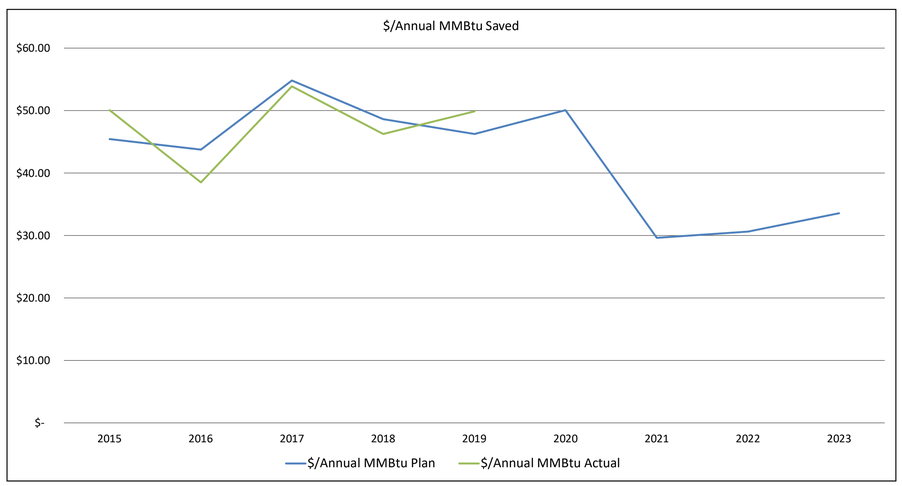
Small Business Energy Solutions

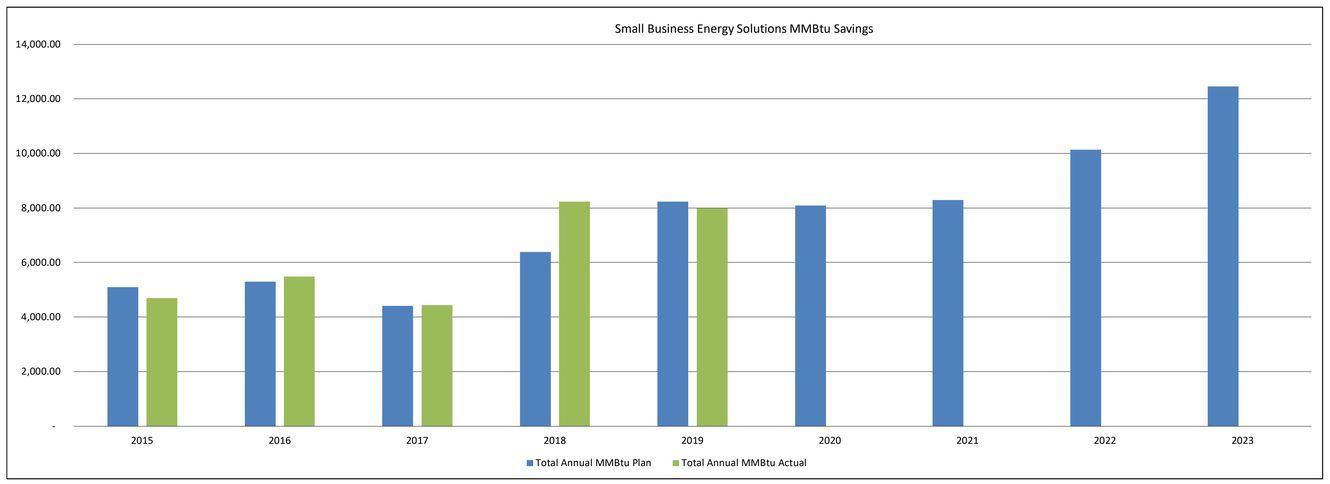
Planned		**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
1)	Total Gas Budget	$ 231,722.47	$ 231,722.47	$ 241,500.00	$ 310,300.00	$ 380,546.00	$ 405,248.00	$ 245,413.80	$ 310,213.00	$ 417,690.25
	Annual Electric Savings Plan (kWh)	$ -	$ -	$ -	$ 1,500.00	$ 1,512.00	$ 1,905.96	$ 497.20	$ 621.50	$ -
2)	Total Gas Budget	$ 231,722.47	$ 231,722.47	$ 241,500.00	$ 310,300.00	$ 380,546.00	$ 405,248.00	$ 245,413.80	$ 310,213.00	$ 417,690.25
	Total Lifetime MMBtu Plan	110,728.17	117,452.34	89,832.30	107,870.90	130,383.66	126,923.40	121,478.01	149,164.22	183,538.77
	$/Lifetime MMBtu Plan	$ 2.09	$ 1.97	$ 2.69	$ 2.88	$ 2.92	$ 3.19	$ 2.02	$ 2.08	$ 2.28
3)	Total Gas Budget	$ 231,722.47	$ 231,722.47	$ 241,500.00	$ 310,300.00	$ 380,546.00	$ 405,248.00	$ 245,413.80	$ 310,213.00	$ 417,690.25
	Total Annual MMBtu Plan	5,102.50	5,296.72	4,403.60	6,380.90	8,229.14	8,096.40	8,289.85	10,132.28	12,450.27
	$/Annual MMBtu Plan	$ 45.41	$ 43.75	$ 54.84	$ 48.63	$ 46.24	$ 50.05	$ 29.60	$ 30.62	$ 33.55

Actuals		**2015**	**2016**	**2017**	**2018**	**2019**
1)	Total Gas Costs	$ 234,948.98	$ 210,948.60	$ 239,187.58	$ 380,500.00	$ 398,639.86
	Annual Electric Savings Actual (kWh)	-	-	-	-	-
2)	Total Gas Costs	$ 234,948.98	$ 210,948.60	$ 239,187.58	$ 380,500.00	$ 398,639.86
	Total Lifetime MMBtu Actual	103,109.60	107,297.74	79,748.31	130,383.70	129,608.20
	$/MMBtu Actual	$ 2.28	$ 1.97	$ 3.00	$ 2.92	$ 3.08
3)	Total Gas Costs	$ 234,948.98	$ 210,948.60	$ 239,187.58	$ 380,500.00	$ 398,639.86
	Total Annual MMBtu Actual	4,694.80	5,482.74	4,439.84	8,229.10	7,988.66
	$/Annual MMBtu Actual	$ 50.04	$ 38.48	$ 53.87	$ 46.24	$ 49.90









Northern Utilities, Inc.
Calculation of Lost Revenue Rate (LRR)

Line	Sector	Effective November 1, 2020	Effective November 1, 2021	Effective November 1, 2022	Reference
	Residential Classes- R5, R6, R10, R11				
1	Sector Ending Balance-October 31	$ 98,805	$ (452)	$ (55)	Page 2, Ln 2
2	Lost Distribution Revenue-November through October	344,524	458,582	604,191	Page 2, Ln 4, Total
3	Interest- November through October	(850)	(2,527)	(3,314)	Page 2, Ln 17, Total
4	**Total to be recovered**	**$ 442,479**	**$ 455,603**	**$ 600,821**	Line 1 + Line 2 + Line 3
5	Sector Sales - Therms- November through October	20,133,234	20,341,869	20,727,239	Page 2, Line 7
6	**Lost Revenue Rate ($ per therm)**	**$0.0220**	**$0.0224**	**$0.0290**	Line 4 / Line 5
	Commercial & Industrial Classes-G40/T40, G50/T50, G41/T41, G51/T51, G42/T42, G-52/T52				
7	Sector Ending Balance-October 31	(5,831)	(1,123)	(2,171)	Page 2, Ln 21
8	Lost Distribution Revenue-November through October	$ 162,437	$ 211,707	$ 282,490	Page 2, Ln 24, Total
9	Interest- November through October	$ (388)	$ (438)	$ (542)	Page 2, Ln 37, Total
10	**Total to be recovered**	**$ 156,217**	**$ 210,146**	**$ 279,777**	Line 7 + Line 8 + Line 9
11	Sector Sales - Therms- November through October	52,446,710	54,440,281	55,734,520	Page 2, Line 27
12	**Lost Revenue Rate ($ per therm)**	**$0.0030**	**$0.0039**	**$0.0050**	Line 10 / Line 11

Northern Utilities, Inc.
Lost Revenue Reconciliation
2020

Line	Sector / Description	Unit	Actual Nov-19	Actual Dec-19	Estimate Jan-20	Estimate Feb-20	Estimate Mar-20	Estimate Apr-20	Estimate May-20	Estimate Jun-20	Estimate Jul-20	Estimate Aug-20	Estimate Sep-20	Estimate Oct-20	Total
1	**RESIDENTIAL**														
2	**Beginning Balance - (Over)/Under**	$'s	$ 51,276	$ 58,859	$ 47,805	$ 33,086	$ 18,072	$ 8,767	$ 9,173	$ 13,589	$ 27,557	$ 44,192	$ 62,340	$ 80,938	
3	**COSTS**														
4	Lost Distribution Revenue	**$'s**	$ 20,120	$ 20,120	$ 20,348	$ 20,726	$ 21,180	$ 21,709	$ 19,640	$ 20,442	$ 21,310	$ 21,777	$ 22,712	$ 23,380	**$ 253,465**
5															
6	**REVENUE**														
7	Sector Sales	Therms	1,373,589	2,755,471	3,086,303	3,143,380	2,678,854	1,871,517	1,339,252	574,945	418,712	331,195	377,676	505,288	18,456,181
8	Lost Revenue Rate	$/Therm	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	$0.0114	
9	Revenue	**$'s**	$ 12,774	$ 31,411	$ 35,229	$ 35,836	$ 30,539	$ 21,338	$ 15,270	$ 6,554	$ 4,773	$ 3,776	$ 4,306	$ 5,760	**$ 207,566**
10															
11	(Over)/Under-Recovery (Exc interest)		$ 58,622	$ 47,568	$ 32,924	$ 17,976	$ 8,713	$ 9,138	$ 13,543	$ 27,477	$ 44,093	$ 62,194	$ 80,747	$ 98,558	
12															
13	**INTEREST**														
14	Average Monthly Balance		$ 54,949	$ 53,213	$ 40,364	$ 25,531	$ 13,393	$ 8,952	$ 11,358	$ 20,533	$ 35,825	$ 53,193	$ 71,544	$ 89,748	
15	Interest Rate-WSJ Prime Rate	Annual %	5.25%	5.25%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	3.25%	3.25%	3.25%	3.25%	
16	Days per Month		30	31	31	29	31	30	31	30	31	31	30	31	366
17	Computed Interest	$'s	$ 237	$ 237	$ 162	$ 96	$ 54	$ 35	$ 46	$ 80	$ 99	$ 146	$ 191	$ 247	$ 1,630
18															
19	**Ending Balance**	**$'s**	$ 58,859	$ 47,805	$ 33,086	$ 18,072	$ 8,767	$ 9,173	$ 13,589	$ 27,557	$ 44,192	$ 62,340	$ 80,938	$ 98,805	
20	**COMMERCIAL & INDUSTRIAL**														
21	**Beginning Balance - (Over)/Under**	**$'s**	$ (27,418)	$ (24,343)	$ (25,195)	$ (27,303)	$ (29,281)	$ (29,268)	$ (25,626)	$ (24,861)	$ (21,939)	$ (18,150)	$ (13,999)	$ (9,598)	
22															
23	**COSTS**														
24	Lost Distribution Revenue	**$'s**	$ 11,295	$ 11,413	$ 11,624	$ 11,804	$ 12,075	$ 12,391	$ 7,558	$ 7,694	$ 7,884	$ 8,183	$ 8,509	$ 8,862	**$ 119,293**
25															
26	**REVENUE**														
27	Sector Sales	Therms	4,571,040	6,397,368	7,174,996	7,197,471	6,286,658	4,548,589	3,522,410	2,463,920	2,125,963	2,099,142	2,145,572	2,670,168	51,203,298
28	Lost Revenue Rate	$/Therm	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	$0.0019	
29	Revenue	**$'s**	$ 8,108	$ 12,155	$ 13,627	$ 13,675	$ 11,945	$ 8,643	$ 6,692	$ 4,682	$ 4,039	$ 3,988	$ 4,077	$ 5,073	**$ 96,704**
30															
31	(Over)/Under-Recovery (Exc interest)	$'s	$ (24,231)	$ (25,084)	$ (27,198)	$ (29,175)	$ (29,151)	$ (25,519)	$ (24,760)	$ (21,849)	$ (18,095)	$ (13,955)	$ (9,567)	$ (5,810)	
32															
33	**INTEREST**														
34	Average Monthly Balance		$ (25,825)	$ (24,714)	$ (26,196)	$ (28,239)	$ (29,216)	$ (27,394)	$ (25,193)	$ (23,355)	$ (20,017)	$ (16,052)	$ (11,783)	$ (7,704)	
35	Interest Rate-WSJ Prime Rate	Annual %	5.25%	5.25%	4.75%	4.75%	4.75%	4.75%	4.75%	4.75%	3.25%	3.25%	3.25%	3.25%	
36	Days per Month		30	31	31	29	31	30	31	30	31	31	30	31	366
37	Computed Interest	$'s	$ (111)	$ (110)	$ (105)	$ (106)	$ (118)	$ (107)	$ (101)	$ (91)	$ (55)	$ (44)	$ (31)	$ (21)	$ (1,002)
38															
39	**Ending Balance**	**$'s**	$ (24,343)	$ (25,195)	$ (27,303)	$ (29,281)	$ (29,268)	$ (25,626)	$ (24,861)	$ (21,939)	$ (18,150)	$ (13,999)	$ (9,598)	$ (5,831)	

NOTES:
Line 1: DE 17-136 2019 Annual Report
Line 4: Page 3, Line 7
Line 21: DE 17-136 2019 Annual Report
Line 24: Page 3, Line 11

Northern Utilities, Inc.
Lost Revenue Reconciliation
2021

Line	Sector / Description	Unit	Estimate Nov-20	Estimate Dec-20	Estimate Jan-21	Estimate Feb-21	Estimate Mar-21	Estimate Apr-21	Estimate May-21	Estimate Jun-21	Estimate Jul-21	Estimate Aug-21	Estimate Sep-21	Estimate Oct-21	Total
1	**RESIDENTIAL**														
2	**Beginning Balance - (Over)/Under**	$'s	$ 98,805	$ 93,400	$ 60,767	$ 14,588	$ (39,942)	$ (80,803)	$ (98,360)	$ (98,527)	$ (84,693)	$ (64,811)	$ (42,951)	$ (20,662)	
3	**COSTS**														
4	Lost Distribution Revenue	**$'s**	$ 27,078	$ 27,683	$ 27,963	$ 28,432	$ 28,993	$ 29,649	$ 26,764	$ 27,757	$ 28,832	$ 29,410	$ 30,568	$ 31,395	$344,524
5															
6	**REVENUE**														
7	Sector Sales	Therms	1,488,092	2,751,261	3,374,845	3,769,530	3,167,624	2,134,862	1,211,836	621,702	397,455	336,440	372,462	507,126	20,133,234
8	Lost Revenue Rate	$/Therm	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	$0.0220	
9	Revenue	**$'s**	$ 32,738	$ 60,528	$ 74,247	$ 82,930	$ 69,688	$ 46,967	$ 26,660	$ 13,677	$ 8,744	$ 7,402	$ 8,194	$ 11,157	442,931
10															
11	(Over)/Under-Recovery (Exc interest)	**$**	$ 93,144	$ 60,555	$ 14,484	$ (39,910)	$ (80,636)	$ (98,121)	$ (98,256)	$ (84,448)	$ (64,605)	$ (42,802)	$ (20,577)	$ (423)	
12															
13	**INTEREST**														
14	Average Monthly Balance		$ 95,975	$ 76,978	$ 37,625	$ (12,661)	$ (60,289)	$ (89,462)	$ (98,308)	$ (91,488)	$ (74,649)	$ (53,807)	$ (31,764)	$ (10,543)	
15	Interest Rate-WSJ Prime Rate	Annual %	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
16	Days per Month		30	31	31	28	31	30	31	30	31	31	30	31	365
17	Computed Interest	$'s	$ 256	$ 212	$ 104	$ (32)	$ (166)	$ (239)	$ (271)	$ (244)	$ (206)	$ (149)	$ (85)	$ (29)	$ (850)
18															
19	**Ending Balance**	**$'s**	$ 93,400	$ 60,767	$ 14,588	$ (39,942)	$ (80,803)	$ (98,360)	$ (98,527)	$ (84,693)	$ (64,811)	$ (42,951)	$ (20,662)	$ (452)	
20	**COMMERCIAL & INDUSTRIAL**														
21	**Beginning Balance - (Over)/Under**	**$'s**	$ (5,831)	$ (3,380)	$ (5,094)	$ (10,471)	$ (17,100)	$ (21,336)	$ (19,648)	$ (20,061)	$ (17,081)	$ (13,036)	$ (8,793)	$ (4,332)	
22															
23	**COSTS**														
24	Lost Distribution Revenue	**$'s**	$ 15,282	$ 15,960	$ 16,145	$ 16,331	$ 16,609	$ 16,933	$ 10,292	$ 10,431	$ 10,626	$ 10,933	$ 11,267	$ 11,629	162,437
25															
26	**REVENUE**														
27	Sector Sales	Therms	4,273,046	5,887,088	7,167,043	7,641,797	6,930,321	5,063,577	3,549,981	2,467,336	2,179,685	2,219,780	2,262,857	2,804,200	52,446,710
28	Lost Revenue Rate	$/Therm	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	$0.0030	
29	Revenue	**$'s**	$ 12,819	$ 17,661	$ 21,501	$ 22,925	$ 20,791	$ 15,191	$ 10,650	$ 7,402	$ 6,539	$ 6,659	$ 6,789	$ 8,413	157,340
30															
31	(Over)/Under-Recovery (Exc interest)	$'s	$ (3,368)	$ (5,082)	$ (10,450)	$ (17,066)	$ (21,283)	$ (19,593)	$ (20,006)	$ (17,032)	$ (12,994)	$ (8,763)	$ (4,314)	$ (1,115)	
32															
33	**INTEREST**														
34	Average Monthly Balance		$ (4,600)	$ (4,231)	$ (7,772)	$ (13,768)	$ (19,191)	$ (20,464)	$ (19,827)	$ (18,546)	$ (15,038)	$ (10,899)	$ (6,554)	$ (2,724)	
35	Interest Rate-WSJ Prime Rate	Annual %	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
36	Days per Month		30	31	31	28	31	30	31	30	31	31	30	31	365
37	Computed Interest	$'s	$ (12)	$ (12)	$ (21)	$ (34)	$ (53)	$ (55)	$ (55)	$ (50)	$ (42)	$ (30)	$ (18)	$ (8)	$ (388)
38															
39	**Ending Balance**	**$'s**	$ (3,380)	$ (5,094)	$ (10,471)	$ (17,100)	$ (21,336)	$ (19,648)	$ (20,061)	$ (17,081)	$ (13,036)	$ (8,793)	$ (4,332)	$ (1,123)	

NOTES:

Line 1: Page 2, Line 19
Line 4: Page 3a, Line 7
Line 21: Page 2, Line 39
Line 24: Page 3a, Line 11

Northern Utilities, Inc.
Lost Revenue Reconciliation
2022

Line	Sector / Description	Unit	Estimate Nov-21	Estimate Dec-21	Estimate Jan-22	Estimate Feb-22	Estimate Mar-22	Estimate Apr-22	Estimate May-22	Estimate Jun-22	Estimate Jul-22	Estimate Aug-22	Estimate Sep-22	Estimate Oct-22	Total
1	**RESIDENTIAL**														
2	**Beginning Balance - (Over)/Under**	$'s	$ (452)	$ 1,361	$ (23,579)	$ (61,594)	$ (108,923)	$ (142,508)	$ (150,961)	$ (143,405)	$ (121,509)	$ (92,583)	$ (61,583)	$ (29,880)	
3	**COSTS**														
4	Lost Distribution Revenue	**$'s**	$ 36,297	$ 37,046	$ 37,400	$ 37,990	$ 38,697	$ 39,523	$ 35,636	$ 36,886	$ 38,240	$ 38,970	$ 40,428	$ 41,470	$458,582
5															
6	**REVENUE**														
7	Sector Sales	Therms	1,539,490	2,765,843	3,361,516	3,799,359	3,211,440	2,124,312	1,235,437	653,425	402,658	346,257	384,100	518,031	20,341,869
8	Lost Revenue Rate	$/Therm	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	$0.0224	
9	Revenue	**$'s**	$ 34,485	$ 61,955	$ 75,298	$ 85,106	$ 71,936	$ 47,585	$ 27,674	$ 14,637	$ 9,020	$ 7,756	$ 8,604	$ 11,604	455,658
10															
11	(Over)/Under-Recovery (Exc interest)	**$**	$ 1,360	$ (23,548)	$ (61,477)	$ (108,710)	$ (142,161)	$ (150,569)	$ (142,999)	$ (121,156)	$ (92,288)	$ (61,370)	$ (29,758)	$ (14)	
12															
13	**INTEREST**														
14	Average Monthly Balance		$ 454	$ (11,094)	$ (42,528)	$ (85,152)	$ (125,542)	$ (146,539)	$ (146,980)	$ (132,280)	$ (106,899)	$ (76,977)	$ (45,670)	$ (14,947)	
15	Interest Rate-WSJ Prime Rate	Annual %	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
16	Days per Month		30	31	31	28	31	30	31	30	31	31	30	31	365
17	Computed Interest	$'s	$ 1	$ (31)	$ (117)	$ (212)	$ (347)	$ (391)	$ (406)	$ (353)	$ (295)	$ (212)	$ (122)	$ (41)	$ (2,527)
18															
19	**Ending Balance**	**$'s**	$ 1,361	$ (23,579)	$ (61,594)	$ (108,923)	$ (142,508)	$ (150,961)	$ (143,405)	$ (121,509)	$ (92,583)	$ (61,583)	$ (29,880)	$ (55)	
20	**COMMERCIAL & INDUSTRIAL**														
21	**Beginning Balance - (Over)/Under**	**$'s**	$ (1,123)	$ 1,377	$ (1,560)	$ (9,297)	$ (18,875)	$ (25,492)	$ (24,052)	$ (25,381)	$ (22,000)	$ (17,138)	$ (11,846)	$ (6,203)	
22															
23	**COSTS**														
24	Lost Distribution Revenue	**$'s**	$ 19,900	$ 20,595	$ 20,870	$ 21,146	$ 21,559	$ 22,041	$ 13,417	$ 13,624	$ 13,914	$ 14,369	$ 14,866	$ 15,405	211,707
25															
26	**REVENUE**														
27	Sector Sales	Therms	4,461,453	6,033,757	7,331,503	7,868,875	7,209,005	5,265,433	3,763,681	2,610,132	2,307,251	2,317,233	2,358,947	2,913,010	54,440,281
28	Lost Revenue Rate	$/Therm	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	$0.0039	
29	Revenue	**$'s**	$ 17,400	$ 23,532	$ 28,593	$ 30,689	$ 28,115	$ 20,535	$ 14,678	$ 10,180	$ 8,998	$ 9,037	$ 9,200	$ 11,361	212,317
30															
31	(Over)/Under-Recovery (Exc interest)	$'s	$ 1,377	$ (1,559)	$ (9,282)	$ (18,840)	$ (25,431)	$ (23,986)	$ (25,313)	$ (21,937)	$ (17,084)	$ (11,806)	$ (6,179)	$ (2,159)	
32															
33	**INTEREST**														
34	Average Monthly Balance		$ 127	$ (91)	$ (5,421)	$ (14,068)	$ (22,153)	$ (24,739)	$ (24,682)	$ (23,659)	$ (19,542)	$ (14,472)	$ (9,013)	$ (4,181)	
35	Interest Rate-WSJ Prime Rate	Annual %	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	Total
36	Days per Month		30	31	31	28	31	30	31	30	31	31	30	31	365
37	Computed Interest	$'s	$ 0	$ (0)	$ (15)	$ (35)	$ (61)	$ (66)	$ (68)	$ (63)	$ (54)	$ (40)	$ (24)	$ (12)	$ (438)
38															
39	**Ending Balance**	**$'s**	$ 1,377	$ (1,560)	$ (9,297)	$ (18,875)	$ (25,492)	$ (24,052)	$ (25,381)	$ (22,000)	$ (17,138)	$ (11,846)	$ (6,203)	$ (2,171)	

NOTES:

Line 1: Page 2a, Line 19
Line 4: Page 3b, Line 7
Line 21: Page 2a, Line 39
Line 24: Page 3b, Line 11

Northern Utilities, Inc.
Lost Revenue Reconciliation
2023

Line	Sector / Description	Unit	Estimate Nov-22	Estimate Dec-22	Estimate Jan-23	Estimate Feb-23	Estimate Mar-23	Estimate Apr-23	Estimate May-23	Estimate Jun-23	Estimate Jul-23	Estimate Aug-23	Estimate Sep-23	Estimate Oct-23	Total
1	**RESIDENTIAL**														
2	**Beginning Balance - (Over)/Under**	$'s	$ (55)	$ 2,206	$ (31,015)	$ (80,930)	$ (141,611)	$ (186,291)	$ (198,289)	$ (188,551)	$ (159,817)	$ (121,832)	$ (81,065)	$ (39,385)	
3	**COSTS**														
4	Lost Distribution Revenue	**$'s**	$ 47,899	$ 48,843	$ 49,305	$ 50,076	$ 51,001	$ 52,081	$ 46,950	$ 48,584	$ 50,354	$ 51,308	$ 53,214	$ 54,576	$604,191
5															
6	**REVENUE**														
7	Sector Sales	Therms	1,573,826	2,828,417	3,416,061	3,809,640	3,283,798	2,191,915	1,264,781	668,473	413,139	353,796	392,198	531,196	20,727,239
8	Lost Revenue Rate	$/Therm	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	$0.0290	
9	Revenue	**$'s**	$ 45,641	$ 82,024	$ 99,066	$ 110,480	$ 95,230	$ 63,566	$ 36,679	$ 19,386	$ 11,981	$ 10,260	$ 11,374	$ 15,405	601,090
10															
11	(Over)/Under-Recovery (Exc interest)	**$**	$ 2,203	$ (30,976)	$ (80,776)	$ (141,334)	$ (185,839)	$ (197,776)	$ (188,018)	$ (159,353)	$ (121,444)	$ (80,785)	$ (39,224)	$ (214)	
12															
13	**INTEREST**														
14	Average Monthly Balance		$ 1,074	$ (14,385)	$ (55,896)	$ (111,132)	$ (163,725)	$ (192,034)	$ (193,154)	$ (173,952)	$ (140,631)	$ (101,309)	$ (60,144)	$ (19,799)	
15	Interest Rate-WSJ Prime Rate	Annual %	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	
16	Days per Month		30	31	31	28	31	30	31	30	31	31	30	31	365
17	Computed Interest	$'s	$ 3	$ (40)	$ (154)	$ (277)	$ (452)	$ (513)	$ (533)	$ (465)	$ (388)	$ (280)	$ (161)	$ (55)	$ (3,314)
18															
19	**Ending Balance**	**$'s**	$ 2,206	$ (31,015)	$ (80,930)	$ (141,611)	$ (186,291)	$ (198,289)	$ (188,551)	$ (159,817)	$ (121,832)	$ (81,065)	$ (39,385)	$ (269)	
20	**COMMERCIAL & INDUSTRIAL**														
21	**Beginning Balance - (Over)/Under**	**$'s**	$ (2,171)	$ 1,168	$ (2,814)	$ (12,710)	$ (24,710)	$ (33,178)	$ (30,910)	$ (32,131)	$ (27,193)	$ (20,255)	$ (12,779)	$ (4,797)	
22															
23	**COSTS**														
24	Lost Distribution Revenue	**$'s**	$ 26,450	$ 27,483	$ 27,852	$ 28,222	$ 28,775	$ 29,421	$ 17,910	$ 18,188	$ 18,576	$ 19,186	$ 19,852	$ 20,574	282,490
25															
26	**REVENUE**														
27	Sector Sales	Therms	4,621,894	6,292,648	7,545,388	8,035,087	7,432,800	5,413,466	3,808,871	2,634,146	2,314,395	2,332,967	2,369,358	2,933,500	55,734,520
28	Lost Revenue Rate	$/Therm	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	$0.0050	
29	Revenue	**$'s**	$ 23,109	$ 31,463	$ 37,727	$ 40,175	$ 37,164	$ 27,067	$ 19,044	$ 13,171	$ 11,572	$ 11,665	$ 11,847	$ 14,667	278,673
30															
31	(Over)/Under-Recovery (Exc interest)	$'s	$ 1,170	$ (2,812)	$ (12,688)	$ (24,664)	$ (33,099)	$ (30,824)	$ (32,044)	$ (27,114)	$ (20,189)	$ (12,733)	$ (4,773)	$ 1,109	
32															
33	**INTEREST**														
34	Average Monthly Balance		$ (501)	$ (822)	$ (7,751)	$ (18,687)	$ (28,904)	$ (32,001)	$ (31,477)	$ (29,622)	$ (23,691)	$ (16,494)	$ (8,776)	$ (1,844)	
35	Interest Rate-WSJ Prime Rate	Annual %	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	3.25%	Total
36	Days per Month		30	31	31	28	31	30	31	30	31	31	30	31	365
37	Computed Interest	$'s	$ (1)	$ (2)	$ (21)	$ (47)	$ (80)	$ (85)	$ (87)	$ (79)	$ (65)	$ (46)	$ (23)	$ (5)	$ (542)
38															
39	**Ending Balance**	**$'s**	$ 1,168	$ (2,814)	$ (12,710)	$ (24,710)	$ (33,178)	$ (30,910)	$ (32,131)	$ (27,193)	$ (20,255)	$ (12,779)	$ (4,797)	$ 1,104	

NOTES:

Line 1: Page 2b, Line 19
Line 4: Page 3c, Line 7
Line 21: Page 2b, Line 39
Line 24: Page 3c, Line 11

Northern Utilities
Monthly and Cumulative Savings (Therms) and Lost Base Revenue
November 1, 2019 to October 31, 2020

Line	Description	10/31/2019	Actual Nov-19	Actual Dec-19	Estimate Jan-20	Estimate Feb-20	Estimate Mar-20	Estimate Apr-20	Estimate May-20	Estimate Jun-20	Estimate Jul-20	Estimate Aug-20	Estimate Sep-20	Estimate Oct-20	Period Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Residential Annualized Savings	349,140	-	-	3,936	6,560	7,872	9,184	9,184	15,745	17,057	9,184	18,369	13,121	110,213
2	C&I Annualized Savings	616,273	65,423	7,159	10,876	10,876	16,314	19,033	10,876	13,595	19,033	29,910	32,629	35,348	271,073
3	Total		65,423	7,159	14,812	17,437	24,187	28,218	20,061	29,340	36,090	39,094	50,998	48,468	381,286

			Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Period LBR
4	Monthly Residential Savings		-	-	328	547	656	765	765	1,312	1,421	765	1,531	1,093	9,184
5	Cumulative Residential Savings	29,095	29,095	29,095	29,423	29,970	30,626	31,391	32,156	33,468	34,890	35,655	37,186	38,279	391,235
6	Average Residential Distribution Rate		0.6915	0.6915	0.6916	0.6916	0.6916	0.6916	0.6108	0.6108	0.6108	0.6108	0.6108	0.6108	
7	Lost Residential Revenue		$ 20,120	$ 20,120	$ 20,348	$ 20,726	$ 21,180	$ 21,709	$ 19,640	$ 20,442	$ 21,310	$ 21,777	$ 22,712	$ 23,380	$ 253,465
8	Monthly C&I Savings		5,452	597	906	906	1,360	1,586	906	1,133	1,586	2,492	2,719	2,946	22,589
9	Cumulative C&I Savings	51,356	56,808	57,405	58,311	59,217	60,577	62,163	63,069	64,202	65,788	68,281	71,000	73,946	760,767
10	Average C&I Distribution Rate		0.1988	0.1988	0.1993	0.1993	0.1993	0.1993	0.1198	0.1198	0.1198	0.1198	0.1198	0.1198	
11	Lost C&I Revenue		$ 11,295	$ 11,413	$ 11,624	$ 11,804	$ 12,075	$ 12,391	$ 7,558	$ 7,694	$ 7,884	$ 8,183	$ 8,509	$ 8,862	$ 119,293
12	**Total Lost Revenue**		**$ 31,414**	**$ 31,533**	**$ 31,972**	**$ 32,530**	**$ 33,255**	**$ 34,100**	**$ 27,199**	**$ 28,136**	**$ 29,194**	**$ 29,960**	**$ 31,221**	**$ 32,242**	**372,758**

Line 1: Page 4, Line 15
Line 1: Page 4, Line 21
Line 3: Line 1 + Line 2
Line 4: Line 1 / 12
Line 5: Prior Month Line 5 + Current Month Line 4
Line 6: Page 5, Line 30, Col. 3; Page 5, Line 30, Col. 3
Line 7: Line 5 x Line 6
Line 8: Line 2 / 12
Line 9: Prior Month Line 9 + Current Month Line 8
Line 10: Page 5, Line 37, Col. 3; Page 5, Line 52, Col. 3
Line 11: Line 9 x Line 10
Line 12: Line 7 + Line 11

Northern Utilities
Monthly and Cumulative Savings (Therms) and Lost Base Revenue
November 1, 2020 to October 31, 2021

Line	Description	10/31/2020	Estimate Nov-20	Estimate Dec-20	Estimate Jan-21	Estimate Feb-21	Estimate Mar-21	Estimate Apr-21	Estimate May-21	Estimate Jun-21	Estimate Jul-21	Estimate Aug-21	Estimate Sep-21	Estimate Oct-21	Period Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Residential Annualized Savings	459,352	10,496	10,496	4,874	8,124	9,748	11,373	11,373	19,497	21,121	11,373	22,746	16,247	157,469
2	C&I Annualized Savings	887,347	32,629	40,786	11,161	11,161	16,742	19,532	11,161	13,952	19,532	30,693	33,484	36,274	277,107
3	Total		43,125	51,282	16,035	19,285	26,490	30,905	22,534	33,448	40,653	42,066	56,230	52,521	434,576

			Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Period LBR
4	Monthly Residential Savings		875	875	406	677	812	948	948	1,625	1,760	948	1,895	1,354	13,122
5	Cumulative Residential Savings	38,279	39,154	40,029	40,435	41,112	41,924	42,872	43,820	45,444	47,205	48,152	50,048	51,402	531,597
6	Average Residential Distribution Rate		0.6916	0.6916	0.6916	0.6916	0.6916	0.6916	0.6108	0.6108	0.6108	0.6108	0.6108	0.6108	
7	Lost Residential Revenue		$ 27,078	$ 27,683	$ 27,963	$ 28,432	$ 28,993	$ 29,649	$ 26,764	$ 27,757	$ 28,832	$ 29,410	$ 30,568	$ 31,395	$ 344,524
8	Monthly C&I Savings		2,719	3,399	930	930	1,395	1,628	930	1,163	1,628	2,558	2,790	3,023	23,092
9	Cumulative C&I Savings	73,946	76,665	80,063	80,994	81,924	83,319	84,946	85,877	87,039	88,667	91,225	94,015	97,038	1,031,771
10	Average C&I Distribution Rate		0.1993	0.1993	0.1993	0.1993	0.1993	0.1993	0.1198	0.1198	0.1198	0.1198	0.1198	0.1198	
11	Lost C&I Revenue		$ 15,282	$ 15,960	$ 16,145	$ 16,331	$ 16,609	$ 16,933	$ 10,292	$ 10,431	$ 10,626	$ 10,933	$ 11,267	$ 11,629	$ 162,437
12	**Total Lost Revenue**		**$ 42,360**	**$ 43,642**	**$ 44,109**	**$ 44,762**	**$ 45,602**	**$ 46,582**	**$ 37,056**	**$ 38,188**	**$ 39,458**	**$ 40,343**	**$ 41,835**	**$ 43,024**	**506,960**

Line 1: Page 4, Line 15
Line 1: Page 4, Line 21
Line 3: Line 1 + Line 2
Line 4: Line 1 / 12
Line 5: Prior Month Line 5 + Current Month Line 4
Line 6: Page 5, Line 30, Col. 3; Page 5, Line 30, Col. 3
Line 7: Line 5 x Line 6
Line 8: Line 2 / 12
Line 9: Prior Month Line 9 + Current Month Line 8
Line 10: Page 5, Line 37, Col. 3; Page 5, Line 52, Col. 3
Line 11: Line 9 x Line 10
Line 12: Line 7 + Line 11

Northern Utilities
Monthly and Cumulative Savings (Therms) and Lost Base Revenue
November 1, 2021 to October 31, 2022

Line	Description	10/31/2021	Estimate Nov-21	Estimate Dec-21	Estimate Jan-22	Estimate Feb-22	Estimate Mar-22	Estimate Apr-22	Estimate May-22	Estimate Jun-22	Estimate Jul-22	Estimate Aug-22	Estimate Sep-22	Estimate Oct-22	Period Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Residential Annualized Savings	616,821	12,998	12,998	6,141	10,235	12,282	14,329	14,329	24,564	26,611	14,329	28,658	20,470	197,942
2	C&I Annualized Savings	1,164,454	33,484	41,855	16,587	16,587	24,881	29,028	16,587	20,734	29,028	45,615	49,761	53,908	378,054
3	Total		46,481	54,852	22,728	26,822	37,163	43,356	30,916	45,298	55,638	59,944	78,419	74,378	575,996

			Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Period LBR
4	Monthly Residential Savings		1,083	1,083	512	853	1,023	1,194	1,194	2,047	2,218	1,194	2,388	1,706	16,495
5	Cumulative Residential Savings	51,402	52,485	53,568	54,080	54,933	55,956	57,150	58,344	60,391	62,609	63,803	66,191	67,897	707,407
6	Average Residential Distribution Rate		0.6916	0.6916	0.6916	0.6916	0.6916	0.6916	0.6108	0.6108	0.6108	0.6108	0.6108	0.6108	
7	Lost Residential Revenue		$ 36,297	$ 37,046	$ 37,400	$ 37,990	$ 38,697	$ 39,523	$ 35,636	$ 36,886	$ 38,240	$ 38,970	$ 40,428	$ 41,470	$ 458,582
8	Monthly C&I Savings		2,790	3,488	1,382	1,382	2,073	2,419	1,382	1,728	2,419	3,801	4,147	4,492	31,504
9	Cumulative C&I Savings	97,038	99,828	103,316	104,698	106,081	108,154	110,573	111,955	113,683	116,102	119,903	124,050	128,542	1,346,885
10	Average C&I Distribution Rate		0.1993	0.1993	0.1993	0.1993	0.1993	0.1993	0.1198	0.1198	0.1198	0.1198	0.1198	0.1198	
11	Lost C&I Revenue		$ 19,900	$ 20,595	$ 20,870	$ 21,146	$ 21,559	$ 22,041	$ 13,417	$ 13,624	$ 13,914	$ 14,369	$ 14,866	$ 15,405	$ 211,707
12	**Total Lost Revenue**		**$ 56,196**	**$ 57,641**	**$ 58,270**	**$ 59,136**	**$ 60,257**	**$ 61,565**	**$ 49,052**	**$ 50,510**	**$ 52,154**	**$ 53,339**	**$ 55,295**	**$ 56,875**	**670,289**

Line 1: Page 4, Line 15
Line 1: Page 4, Line 21
Line 3: Line 1 + Line 2
Line 4: Line 1 / 12
Line 5: Prior Month Line 5 + Current Month Line 4
Line 6: Page 5, Line 30, Col. 3; Page 5, Line 30, Col. 3
Line 7: Line 5 x Line 6
Line 8: Line 2 / 12
Line 9: Prior Month Line 9 + Current Month Line 8
Line 10: Page 5, Line 37, Col. 3; Page 5, Line 52, Col. 3
Line 11: Line 9 x Line 10
Line 12: Line 7 + Line 11

Northern Utilities
Monthly and Cumulative Savings (Therms) and Lost Base Revenue
November 1, 2022 to October 31, 2023

Line	Description	10/31/2022	Estimate Nov-22	Estimate Dec-22	Estimate Jan-23	Estimate Feb-23	Estimate Mar-23	Estimate Apr-23	Estimate May-23	Estimate Jun-23	Estimate Jul-23	Estimate Aug-23	Estimate Sep-23	Estimate Oct-23	Period Annual Savings
	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I	Col. J	Col. K	Col. L	Col. M	Col. N	Col. O
1	Residential Annualized Savings	814,763	16,376	16,376	8,026	13,377	16,053	18,728	18,728	32,105	34,781	18,728	37,456	26,754	257,487
2	C&I Annualized Savings	1,542,508	49,761	62,202	22,224	22,224	33,336	38,892	22,224	27,780	38,892	61,116	66,672	72,228	517,550
3	Total		66,137	78,578	30,250	35,601	49,388	57,620	40,952	59,885	73,672	79,844	104,128	98,982	775,038

			Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Period LBR
4	Monthly Residential Savings		1,365	1,365	669	1,115	1,338	1,561	1,561	2,675	2,898	1,561	3,121	2,230	21,457
5	Cumulative Residential Savings	67,897	69,262	70,626	71,295	72,410	73,748	75,308	76,869	79,544	82,443	84,003	87,125	89,354	931,987
6	Average Residential Distribution Rate		0.6916	0.6916	0.6916	0.6916	0.6916	0.6916	0.6108	0.6108	0.6108	0.6108	0.6108	0.6108	
7	Lost Residential Revenue		$ 47,899	$ 48,843	$ 49,305	$ 50,076	$ 51,001	$ 52,081	$ 46,950	$ 48,584	$ 50,354	$ 51,308	$ 53,214	$ 54,576	$ 604,191
8	Monthly C&I Savings		4,147	5,183	1,852	1,852	2,778	3,241	1,852	2,315	3,241	5,093	5,556	6,019	43,129
9	Cumulative C&I Savings	128,542	132,689	137,873	139,725	141,577	144,355	147,596	149,448	151,763	155,004	160,097	165,653	171,672	1,797,447
10	Average C&I Distribution Rate		0.1993	0.1993	0.1993	0.1993	0.1993	0.1993	0.1198	0.1198	0.1198	0.1198	0.1198	0.1198	
11	Lost C&I Revenue		$ 26,450	$ 27,483	$ 27,852	$ 28,222	$ 28,775	$ 29,421	$ 17,910	$ 18,188	$ 18,576	$ 19,186	$ 19,852	$ 20,574	$ 282,490
12	**Total Lost Revenue**		**$ 74,349**	**$ 76,326**	**$ 77,158**	**$ 78,298**	**$ 79,777**	**$ 81,502**	**$ 64,860**	**$ 66,772**	**$ 68,930**	**$ 70,494**	**$ 73,066**	**$ 75,149**	**886,681**

Line 1: Page 4, Line 15
Line 1: Page 4, Line 21
Line 3: Line 1 + Line 2
Line 4: Line 1 / 12
Line 5: Prior Month Line 5 + Current Month Line 4
Line 6: Page 5, Line 30, Col. 3; Page 5, Line 30, Col. 3
Line 7: Line 5 x Line 6
Line 8: Line 2 / 12
Line 9: Prior Month Line 9 + Current Month Line 8
Line 10: Page 5, Line 37, Col. 3; Page 5, Line 52, Col. 3
Line 11: Line 9 x Line 10
Line 12: Line 7 + Line 11

Northern Utilities, Inc.
Gas Savings for LRR Calculation

Planned Gas Savings - 2020	Annual Therms
1. Residential Programs	
2. Home Energy Assistance	21,368
3. EnergyStar Homes	15,065
4. Home Performance w/EnergyStar	17,165
5. EnergyStar Products	58,268
6. Residential Behavior	19,340
7. Residential	131,206
8.	
9. Commercial & Industrial Programs	
10. Large Business Energy Solutions	190,942
11. Small Business Energy Solutions	80,964
12. Education (Gas)	-
13. Commercial & Industrial	271,906

LBR Savings Allocation	Unit	Actual Nov-19	Actual Dec-19	Estimate Jan-20	Estimate Feb-20	Estimate Mar-20	Estimate Apr-20	Estimate May-20	Estimate Jun-20	Estimate Jul-20	Estimate Aug-20	Estimate Sep-20	Estimate Oct-20	Estimate Nov-20	Estimate Dec-20	Nov-19 to Oct-20 Total	Jan-20 to Dec-20 Total
14. Residential Programs				3.0%	5.0%	6.0%	7.0%	7.0%	12.0%	13.0%	7.0%	14.0%	10.0%	8.0%	8.0%		100.0%
15. Annualized Therms	Therms	0	0	3,936	6,560	7,872	9,184	9,184	15,745	17,057	9,184	18,369	13,121	10,496	10,496	110,213	131,206
16.																	
17. Monthly Incremental	Therms	0	0	328	547	656	765	765	1,312	1,421	765	1,531	1,093	875	875	9,184	10,934
18. Monthly Cumulative	Therms	29,095	29,095	29,423	29,970	30,626	31,391	32,156	33,468	34,890	35,655	37,186	38,279	39,154	40,029	391,235	412,228
19.																	
20. Commercial & Industrial Programs				4.0%	4.0%	6.0%	7.0%	4.0%	5.0%	7.0%	11.0%	12.0%	13.0%	12.0%	15.0%		100.0%
21. Annualized Therms	Therms	65,423	7,159	10,876	10,876	16,314	19,033	10,876	13,595	19,033	29,910	32,629	35,348	32,629	40,786	271,073	271,906
22.																	
23. Monthly Incremental	Therms	5,452	597	906	906	1,360	1,586	906	1,133	1,586	2,492	2,719	2,946	2,719	3,399	22,589	22,659
24. Monthly Cumulative	Therms	56,808	57,405	58,311	59,217	60,577	62,163	63,069	64,202	65,788	68,281	71,000	73,946	76,665	80,063	760,767	803,281

Northern Utilities, Inc.
Gas Savings for LRR Calculation

	Planned Gas Savings - 2021	Annual Therms
1.	Residential Programs	
2.	Home Energy Assistance	24,422
3.	EnergyStar Homes	27,485
4.	Home Performance w/EnergyStar	14,078
5.	EnergyStar Products	64,270
6.	Residential Behavior	32,216
7.	Residential	162,471
8.		
9.	Commercial & Industrial Programs	
10.	Large Business Energy Solutions	196,132
11.	Small Business Energy Solutions	82,898
12.	Education (Gas)	-
13.	Commercial & Industrial	279,030

	LBR Savings Allocation	Unit	Estimate Nov-20	Estimate Dec-20	Estimate Jan-21	Estimate Feb-21	Estimate Mar-21	Estimate Apr-21	Estimate May-21	Estimate Jun-21	Estimate Jul-21	Estimate Aug-21	Estimate Sep-21	Estimate Oct-21	Estimate Nov-21	Estimate Dec-21	Nov-20 to Oct-21 Total	Jan-21 to Dec-21 Total
14.	Residential Programs		8.0%	8.0%	3.0%	5.0%	6.0%	7.0%	7.0%	12.0%	13.0%	7.0%	14.0%	10.0%	8.0%	8.0%		100.0%
15.	Annualized Therms	Therms	10,496	10,496	4,874	8,124	9,748	11,373	11,373	19,497	21,121	11,373	22,746	16,247	12,998	12,998	157,469	162,471
16.																		
17.	Monthly Incremental	Therms	875	875	406	677	812	948	948	1,625	1,760	948	1,895	1,354	1,083	1,083	13,122	13,539
18.	Monthly Cumulative	Therms	39,154	40,029	40,435	41,112	41,924	42,872	43,820	45,444	47,205	48,152	50,048	51,402	52,485	53,568	531,597	558,467
19.																		
20.	Commercial & Industrial Programs		12.0%	15.0%	4.0%	4.0%	6.0%	7.0%	4.0%	5.0%	7.0%	11.0%	12.0%	13.0%	12.0%	15.0%		100.0%
21.	Annualized Therms	Therms	32,629	40,786	11,161	11,161	16,742	19,532	11,161	13,952	19,532	30,693	33,484	36,274	33,484	41,855	277,107	279,030
22.																		
23.	Monthly Incremental	Therms	2,719	3,399	930	930	1,395	1,628	930	1,163	1,628	2,558	2,790	3,023	2,790	3,488	23,092	23,253
24.	Monthly Cumulative	Therms	76,665	80,063	80,994	81,924	83,319	84,946	85,877	87,039	88,667	91,225	94,015	97,038	99,828	103,316	1,031,771	1,078,186

Northern Utilities, Inc.
Gas Savings for LRR Calculation

	Planned Gas Savings - 2022	Annual Therms
1.	Residential Programs	
2.	Home Energy Assistance	30,854
3.	EnergyStar Homes	38,250
4.	Home Performance w/EnergyStar	15,525
5.	EnergyStar Products	78,294
6.	Residential Behavior	41,775
7.	Residential	204,698
8.		
9.	Commercial & Industrial Programs	
10.	Large Business Energy Solutions	313,356
11.	Small Business Energy Solutions	101,323
12.	Education (Gas)	-
13.	Commercial & Industrial	414,679

LBR Savings Allocation	Unit	Estimate Nov-21	Estimate Dec-21	Estimate Jan-22	Estimate Feb-22	Estimate Mar-22	Estimate Apr-22	Estimate May-22	Estimate Jun-22	Estimate Jul-22	Estimate Aug-22	Estimate Sep-22	Estimate Oct-22	Estimate Nov-22	Estimate Dec-22	Nov-21 to Oct-22 Total	Jan-22 to Dec-22 Total
14. Residential Programs		8.0%	8.0%	3.0%	5.0%	6.0%	7.0%	7.0%	12.0%	13.0%	7.0%	14.0%	10.0%	8.0%	8.0%		100.0%
15. Annualized Therms	Therms	12,998	12,998	6,141	10,235	12,282	14,329	14,329	24,564	26,611	14,329	28,658	20,470	16,376	16,376	197,942	204,698
16.																	
17. Monthly Incremental	Therms	1,083	1,083	512	853	1,023	1,194	1,194	2,047	2,218	1,194	2,388	1,706	1,365	1,365	16,495	17,058
18. Monthly Cumulative	Therms	52,485	53,568	54,080	54,933	55,956	57,150	58,344	60,391	62,609	63,803	66,191	67,897	69,262	70,626	707,407	741,242
19.																	
20. Commercial & Industrial Programs		12.0%	15.0%	4.0%	4.0%	6.0%	7.0%	4.0%	5.0%	7.0%	11.0%	12.0%	13.0%	12.0%	15.0%		100.0%
21. Annualized Therms	Therms	33,484	41,855	16,587	16,587	24,881	29,028	16,587	20,734	29,028	45,615	49,761	53,908	49,761	62,202	378,054	414,679
22.																	
23. Monthly Incremental	Therms	2,790	3,488	1,382	1,382	2,073	2,419	1,382	1,728	2,419	3,801	4,147	4,492	4,147	5,183	31,504	34,557
24. Monthly Cumulative	Therms	99,828	103,316	104,698	106,081	108,154	110,573	111,955	113,683	116,102	119,903	124,050	128,542	132,689	137,873	1,346,885	1,414,302

Northern Utilities, Inc.
Gas Savings for LRR Calculation

Planned Gas Savings - 2023	Annual Therms
1. Residential Programs	
2. Home Energy Assistance	38,899
3. EnergyStar Homes	55,244
4. Home Performance w/EnergyStar	16,937
5. EnergyStar Products	91,462
6. Residential Behavior	65,000
7. Residential	267,542
8.	
9. Commercial & Industrial Programs	
10. Large Business Energy Solutions	431,096
11. Small Business Energy Solutions	124,503
12. Education (Gas)	-
13. Commercial & Industrial	555,599

LBR Savings Allocation	Unit	Estimate Nov-22	Estimate Dec-22	Estimate Jan-23	Estimate Feb-23	Estimate Mar-23	Estimate Apr-23	Estimate May-23	Estimate Jun-23	Estimate Jul-23	Estimate Aug-23	Estimate Sep-23	Estimate Oct-23	Estimate Nov-23	Estimate Dec-23	Nov-22 to Oct-23 Total	Jan-23 to Dec-23 Total
14. Residential Programs		8.0%	8.0%	3.0%	5.0%	6.0%	7.0%	7.0%	12.0%	13.0%	7.0%	14.0%	10.0%	8.0%	8.0%		100.0%
15. Annualized Therms	Therms	16,376	16,376	8,026	13,377	16,053	18,728	18,728	32,105	34,781	18,728	37,456	26,754	21,403	21,403	257,487	267,542
16.																	
17. Monthly Incremental	Therms	1,365	1,365	669	1,115	1,338	1,561	1,561	2,675	2,898	1,561	3,121	2,230	1,784	1,784	21,457	22,295
18. Monthly Cumulative	Therms	69,262	70,626	71,295	72,410	73,748	75,308	76,869	79,544	82,443	84,003	87,125	89,354	91,138	92,921	931,987	976,158
19.																	
20. Commercial & Industrial Programs		12.0%	15.0%	4.0%	4.0%	6.0%	7.0%	4.0%	5.0%	7.0%	11.0%	12.0%	13.0%	12.0%	15.0%		100.0%
21. Annualized Therms	Therms	49,761	62,202	22,224	22,224	33,336	38,892	22,224	27,780	38,892	61,116	66,672	72,228	66,672	83,340	517,550	555,599
22.																	
23. Monthly Incremental	Therms	4,147	5,183	1,852	1,852	2,778	3,241	1,852	2,315	3,241	5,093	5,556	6,019	5,556	6,945	43,129	46,300
24. Monthly Cumulative	Therms	132,689	137,873	139,725	141,577	144,355	147,596	149,448	151,763	155,004	160,097	165,653	171,672	177,228	184,172	1,797,447	1,888,285

Northern Utilities, Inc.

Summary of Average Distribution Rate for Lost Revenue

Calculation of Average Distribution Rate for Lost Revenue (Detail)

Line		(1) Number of Customers	(2) Customer Charge	(3)=(1)X(2) Calculated Customer Charge	(4) Billing Determinants - Winter First Therms	(4) Billing Determinants - Winter Excess Therms	(5) Winter Distribution Rates First Therms $/thm	(5) Winter Distribution Rates Excess Therms $/thm	(6) = (4) X (5) Winter Distribution Revenue	(7) Billing Determinants - Summer First Therms	(7) Billing Determinants - Summer Excess Therms	(8) Summer Distribution Rates First Therms $/thm	(8) Summer Distribution Rates Excess Therms $/thm	(9) = (7) X (8) Summer Distribution Revenue
8	R-5 Residential, Heating	298,631	$22.20	$6,629,608	6,478,926	9,001,237	$ 0.6920	$ 0.6920	$10,712,273	2,834,361	443,163	$ 0.6099	$ 0.6099	$1,998,962
9	R-10 Residential Heating, Low Income	8,632	$8.88	$76,652	220,721	233,658	$ 0.6920	$ 0.6920	$314,430	76,929	10,603	$ 0.6099	$ 0.6099	$53,386
10	R-6 Residential, Non-Heating	15,334	$22.20	$340,415	52,030	102,959	$ 0.6470	$ 0.6470	$100,278	50,338	31,354	$ 0.6470	$ 0.6470	$52,855
11	Total Residential Service	322,597		$7,046,675	6,751,677	9,337,854			$11,126,981	2,961,628	485,120			$2,105,202
12														
13	G-40 Low Annual, High Winter Use	60,426	$75.09	$4,537,388	1,992,261	7,546,425	$ 0.1865	$ 0.1865	$1,778,965	764,224	873,989	$ 0.1865	$ 0.1865	$305,527
14	G-50 Low Annual, Low Winter Use	9,931	$75.09	$745,719	222,671	971,369	$ 0.1865	$ 0.1865	$222,688	215,924	504,561	$ 0.1865	$ 0.1865	$134,370
15	G-41 Medium Annual, High Winter Use	8,238	$222.64	$1,834,108	11,812,715		$ 0.2425		$2,864,583	2,550,957		$ 0.1895		$483,406
16	G-51 Medium Annual, Low Winter Use	3,357	$222.64	$747,402	1,848,039	1,299,553	$ 0.1712	$ 0.1399	$498,192	1,394,554	800,973	$ 0.1337	$ 0.1087	$273,518
17	G-42 High Annual, High Winter Use	377	$1,335.81	$503,600	4,461,198		$ 0.1984		$885,102	1,555,205		$ 0.1206		$187,558
18	G-52 High Annual, Low Winter Use	395	$1,335.81	$527,645	8,729,046		$ 0.1720		$1,501,396	8,525,494		$ 0.0792		$675,219
19	Total General Service	82,724		$8,895,863	29,065,930	9,817,347			$7,750,926	15,006,358	2,179,523			$2,059,598
20														
21	Total Company	405,321		$15,942,538	35,817,607	19,155,201			$18,877,907	17,967,986	2,664,643			$4,164,800

Notes:
Column (1),Column (4) and Column (7): 2018 actual billing determinants.
Column (2), Column (5) and Column (8): Winter and Summer distribution rates effective May 1, 2019.

R-11 Rate Class is closed May 1, 2017. R-11 Rate Class Customers migrated to R-6 Rate Class.

Calculation of Average Distribution Rate for Lost Revenue Winter and Summer (Summary)

	(10)=(3) Total Calculated Customer Revenue	(11) = (6) + (9) Total Volumetric Revenue	12=(10+(11) Total Distribution Revenue	(13)=(4)+(7) Total Annual Therms
R-5	$6,629,608	$12,711,235	$19,340,843	18,757,687
R-10	$76,652	$367,816	$444,468	541,911
R-6	$340,415	$153,133	$493,547	236,681
Total Residential Service	$7,046,675	$13,232,183	$20,278,858	19,536,279
G-40	$4,537,388	$2,084,492	$6,621,880	11,176,899
G-50	$745,719	$357,059	$1,102,778	1,914,525
G-41	$1,834,108	$3,347,990	$5,182,098	14,363,672
G-51	$747,402	$771,709	$1,519,112	5,343,119
G-42	$503,600	$1,072,659	$1,576,260	6,016,403
G-52	$527,645	$2,176,615	$2,704,260	17,254,540
Total General Service	$8,895,863	$9,810,524	$18,706,387	56,069,158
Total Company	$15,942,538	**$23,042,707**	$38,985,246	**75,605,437**

Based on Actual Billing Determinants for 2019 at Current Distribution Rates- Winter

	(1) Total Volumetric Revenue	(2) Total Winter therms	(3)=(1)X(2) Average Distribution Rate $/therm
R-5	$10,712,273	15,480,163	$0.6920
R-10	$314,430	454,379	$0.6920
R-6	$100,278	154,989	$0.6470
Total Residential Service	$11,126,981	16,089,531	**$0.6916**
G-40	$1,778,965	9,538,686	$0.1865
G-50	$222,688	1,194,040	$0.1865
G-41	$2,864,583	11,812,715	$0.2425
G-51	$498,192	3,147,592	$0.1583
G-42	$885,102	4,461,198	$0.1984
G-52	$1,501,396	8,729,046	$0.1720
Total General Service	$7,750,926	38,883,277	**$0.1993**

Based on Actual Billing Determinants for 2019 at Current Distribution Rates- Summer

	(1) Total Volumetric Revenue	(2) Total Summer therms	(3)=(1)X(2) Average Distribution Rate $/therm
R-5	$1,998,962	3,277,524	$0.6099
R-10	$53,386	87,532	$0.6099
R-6	$52,855	81,692	$0.6470
Total Residential Service	$2,105,202	3,446,748	**$0.6108**
G-40	$305,527	1,638,213	$0.1865
G-50	$134,370	720,485	$0.1865
G-41	$483,406	2,550,957	$0.1895
G-51	$273,518	2,195,527	$0.1246
G-42	$187,558	1,555,205	$0.1206
G-52	$675,219	8,525,494	$0.0792
Total General Service	$2,059,598	17,185,881	**$0.1198**
Total	**$ 23,042,707**	**75,605,437**	

NORTHERN UTILITIES, INC. - NEW HAMPSHIRE DIVISION

Summary of EEC/LRR Typical Bill Analysis

Energy Efficiency Charge/Lost Revenue Rate ($/therm)	2019-2020	2020-2021	2021-2022	2022-2023
Residential	$0.0613	$0.0994	$0.0985	$0.1203
Commercial & Industrial	$0.0266	$0.0367	$0.0509	$0.0704

Bill per period	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer
Residential Heat - R-5	$965.88	$253.49	$989.78	$258.50	$989.22	$258.38	$1,002.89	$261.24
Residential Non-Heat - R-6	$293.77	$190.71	$298.54	$193.02	$298.43	$192.97	$301.16	$194.29
G-40 Commercial & Industrial	$1,883.32	$595.65	$1,901.21	$598.63	$1,926.36	$602.81	$1,960.89	$608.57
G-41 Commercial & Industrial	$15,873.32	$3,247.96	$16,042.98	$3,287.04	$16,281.51	$3,341.98	$16,609.07	$3,417.42
G-51 Commercial & Industrial	$8,115.57	$4,059.16	$8,217.05	$4,135.37	$8,359.72	$4,242.53	$8,555.63	$4,389.67
Change from prior period - $ per period								
Residential Heat - R-5			$23.90	$5.01	($0.56)	($0.12)	$13.68	$2.86
Residential Non-Heat - R-6			$4.77	$2.31	($0.11)	($0.05)	$2.73	$1.32
G-40 Commercial & Industrial			$17.89	$2.98	$25.15	$4.19	$34.53	$5.75
G-41 Commercial & Industrial			$169.66	$39.08	$238.53	$54.94	$327.56	$75.45
G-51 Commercial & Industrial			$101.47	$76.21	$142.67	$107.15	$195.92	$147.15
Change from prior period - %								
Residential Heat - R-5			2.47%	1.97%	-0.06%	-0.05%	1.38%	1.11%
Residential Non-Heat - R-6			1.62%	1.21%	-0.04%	-0.03%	0.91%	0.69%
G-40 Commercial & Industrial			0.95%	0.50%	1.32%	0.70%	1.79%	0.95%
G-41 Commercial & Industrial			1.07%	1.20%	1.49%	1.67%	2.01%	2.26%
G-51 Commercial & Industrial			1.25%	1.88%	1.74%	2.59%	2.34%	3.47%

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DE 20-092

2021-2023 Triennial Energy Efficiency Plan
System Benefits Charge Testimony

DIRECT TESTIMONY

OF

CHRISTOPHER J. GOULDING,

ERICA L. MENARD,

HEATHER M. TEBBETTS,

AND

CAROL M. WOODS

September 1, 2020

TABLE OF CONTENTS

I. INTRODUCTION AND BACKGROUND 1

II. EE COMPONENT OF THE SBC 6

III. LBR COMPONENT OF THE SBC 11

IV. TOTAL SBC AND BILL IMPACTS 14

V. NORTHERN'S EEC AND LRR 15

VI. CONCLUSION 18

I. INTRODUCTION AND BACKGROUND

Q. Mr. Goulding, please state your full name, business address, and position.

A. My name is Christopher J. Goulding. My business address is 6 Liberty Lane West, Hampton, New Hampshire 03842. I am the Director of Rates and Revenue Requirements for Unitil Service Corp. ("Unitil Service"), a subsidiary of Unitil Corporation that provides managerial, financial, regulatory and engineering services to Unitil Corporation's utility subsidiaries including Fitchburg Gas and Electric Light Company d/b/a Unitil (hereinafter referred to as "Unitil", the "Company", or "FG&E", as appropriate). My responsibilities include all rate and regulatory filings related to the financial requirements of FG&E and Unitil's other subsidiaries.

Q. Please describe your educational background and training.

A. I earned a Bachelor of Science degree in Business Administration with a concentration in Accounting from Northeastern University in 2000 and a Master's in Business Administration from Boston College in 2009.

Q. Please describe your professional experience.

A. In 2000 I was hired by NSTAR Electric & Gas Company ("NSTAR," now Eversource Energy) and held various positions with increasing responsibilities in Accounting, Corporate Finance and Regulatory. I was hired by Unitil Service Corp. in early 2019 to perform my current job responsibilities.

Q. Have you previously testified before the New Hampshire Public Utilities Commission?

A. Yes, I have testified on multiple occasions before the New Hampshire Public Utilities Commission ("Commission").

Q. Ms. Menard, please state your full name, business address, and position.

A. My name is Erica L. Menard. My business address is 780 North Commercial Street, Manchester, NH. I am employed by Eversource Energy Service Company as the Manager of New Hampshire Revenue Requirements and in that position, I provide rate calculations and regulatory services to Public Service Company of New Hampshire d/b/a Eversource Energy ("Eversource" or the "Company").

Q. Please state your educational background and training.

A. I graduated from the University of Maine in 1997 with a Bachelor of Arts degree in Economics and Business Administration with a concentration in Finance and from the University of New Hampshire in 2007 with a Master's in Business Administration.

Q. Please describe your professional experience.

A. I was hired by Public Service Company of New Hampshire (now Eversource) in 2003 and have held various positions in the Company with increasing levels of responsibility. I was appointed to my current position of Manager, Revenue Requirements –NH in April 2019. Prior to my current role, I held positions in the Financial Planning & Analysis, Business Planning, Economic Development and Load Forecasting areas. Prior to joining Eversource, I held various positions at ICF Consulting in Fairfax, Virginia with

responsibilities for implementing load profiling and load settlement software at various utilities around the world.

Q. Have you previously testified before the Commission?

A. Yes, I have testified on multiple occasions before the Commission.

Q. Ms. Tebbetts, please state your full name, business address, and position.

A. My name is Heather M. Tebbetts and my business address is 15 Buttrick Road, Londonderry, New Hampshire. I am Manager of Rates and Regulatory Affairs for Liberty and am responsible for providing rate-related services for EnergyNorth and Liberty Utilities (Granite State Electric) Corp. d/b/a Liberty Utilities ("Granite State").

Q. Please describe your educational background and training.

A. I graduated from Franklin Pierce University in 2004 with a Bachelor of Science degree in Finance. I received a Master of Business Administration from Southern New Hampshire University in 2007.

Q. Please describe your professional background.

A. I joined Liberty in October 2014. Prior to my employment at Liberty, I was employed by Public Service Company of New Hampshire ("PSNH") as a Senior Analyst in NH Revenue Requirements from 2010 to 2014. Prior to my position in NH Revenue Requirements, I was a Staff Accountant in PSNH's Property Tax group from 2007 to 2010 and a Customer Service Representative III in PSNH's Customer Service Department from 2004 to 2007.

Q. Have you previously testified before the Commission?

A. Yes, I have testified on numerous occasions before the Commission, most recently in Docket No. DE 19-064, which was Granite State's most recent distribution rate case.

Q. Ms. Woods, please state your full name, business address, and position.

A. My name is Carol M. Woods and my business address is 579 Tenney Mountain Highway Plymouth, New Hampshire. I am an Energy Solutions Executive for New Hampshire Electric Cooperative. My responsibilities include management of planning and regulatory support for the company's energy efficiency programs.

Q. Please describe your educational background and training.

A. I graduated from Plymouth State University in 1996 with a Bachelor of Science Degree in Accounting. I received a Master of Business Administration from Southern New Hampshire University in 2008.

Q. Please describe your professional experience.

A. I was hired by New Hampshire Electric Cooperative in 2001 to perform my current job responsibilities.

Q. Have you previously testified before the New Hampshire Public Utilities Commission?

A. Yes, I have testified on multiple occasions before the Commission.

Q. What is the purpose of your testimony?

A. The purpose of our testimony is: (1) to present and support the calculation of the annual rates for the Energy Efficiency ("EE") component of the System Benefits Charge ("SBC") proposed for effect on January 1, 2021, January 1, 2022, and January 1, 2023; and (2) to present and support the calculation of the annual rates for the lost base revenue ("LBR") component of the SBC proposed for effect January 1, 2021, January 1, 2022, and January 1, 2023. Our testimony explains what is contained in Attachments E3, F3, G3, and H3, which provide the calculations of the EE and LBR rate components for each electric distribution utility. In addition, the testimony will also present the Energy Efficiency Charge ("EEC") and Lost Revenue Rate ("LRR") for Northern. These rate calculations are presented in Attachments J3 (EEC) and J5 (LRR) and are being provided for informational purposes. The proposed EEC and LRR will be filed in Northern's upcoming annual Cost of Gas filing that will be submitted to the Commission on or before September 15, 2020.

EnergyNorth is providing a reconciliation of lost revenues in Attachment I4 as the Company's decoupling mechanism approved in Order No. 26,122 in Docket No. DG 17-048, thus the lost revenue mechanism is no longer effective outside of the reconciliation of previous periods.

II. EE COMPONENT OF THE SBC

Q. Please explain the changes to the EE component of the SBC rate for the 2021-2023 plan.

A. The 2021-2023 plan will now provide an EE component separated by sector, residential and commercial, rather than continue with a single rate for all sectors. The utilities are also filing separate EE component rates, contrary to the filings of the past. Table 1 provides a snapshot of EE component rates by utility:

Table 1. Energy Efficiency Component Rates ($/kWh)

2021	Eversource	NHEC	Liberty	Unitil
Residential	$0.00651	$0.00838	$0.00568	$0.00615
Commercial	$0.01029	$0.00906	$0.00561	$0.00867
2022	Eversource	NHEC	Liberty	Unitil
Residential	$0.00646	$0.00873	$0.00864	$0.00773
Commercial	$0.01498	$0.01036	$0.00843	$0.01070
2023	Eversource	NHEC	Liberty	Unitil
Residential	$0.00673	$0.08530	$0.00922	$0.00767
Commercial	$0.02062	$0.01004	$0.01061	$0.01333

Q. How was the EE rate calculated?

A. With a statewide savings target of 5% of 2019 sales to be achieved over the course of the 2021-2023 triennium, translating to 525,333 MWh in expected annual savings across the term and 6.7 billion lifetime kWh, the total required funding is $369.787 million. Please see the table below providing a breakdown of funding mechanisms for each utility. These calculations are further broken down by each utility on page 1 of Attachments E3 (Eversource), F3 (Liberty), G3 (NHEC), and H3 (Unitil).

Table 2. Funding by Program

2021	Sector	Carryover	HEA Carryover	RGGI	FCM	SBC Funds	Total
Eversource	Residential	$0	$0	$377,341	$1,557,889	$20,673,489	$22,608,719
	C&I	$0	$0	$1,531,542	$3,635,073	$46,577,169	$51,743,785
NHEC	Residential	$407,827	$0	$34,612	$30,000	$3,934,561	$4,407,000
	C&I	$28,157	$0	$172,873	$70,000	$2,710,970	$2,982,000
Liberty	Residential	$598,262	$19,796	$44,153	$263,079	$1,636,452	$2,561,742
	C&I	$755,404	$0	$177,584	$348,732	$3,571,782	$4,853,502
Unitil	Residential	$480,100	$0	$56,687	$168,524	$3,972,213	$4,677,524
	C&I	($111,241)	$0	$228,000	$393,222	$4,382,004	$4,891,985

2022	Sector	Carryover	HEA Carryover	RGGI	FCM	SBC Funds	Total
Eversource	Residential	$0	$0	$362,535	$1,433,201	$20,620,060	$22,415,796
	C&I	$0	$0	$1,531,542	$3,344,136	$67,090,791	$71,966,469
NHEC	Residential	$0	$0	$34,612	$30,000	$4,100,388	$4,165,000
	C&I	$0	$0	$172,873	$70,000	$3,100,127	$3,343,000
Liberty	Residential	$0	$0	$42,420	$233,584	$2,496,480	$2,772,483
	C&I	$0	$0	$177,584	$309,634	$5,398,895	$5,886,113
Unitil	Residential	($879)	$0	$54,463	$140,137	$4,964,828	$5,158,548
	C&I	($852)	$0	$228,000	$326,985	$5,633,809	$6,187,942

2023	Sector	Carryover	HEA Carryover	RGGI	FCM	SBC Funds	Total
Eversource	Residential	$0	$0	$347,726	$1,198,252	$21,735,949	$23,281,927
	C&I	$0	$0	$1,531,542	$2,795,920	$91,149,205	$95,476,667
NHEC	Residential	$0	$0	$34,612	$30,000	$4,006,388	$4,071,000
	C&I	$0	$0	$172,873	$70,000	$3,005,127	$3,248,000
Liberty	Residential	$0	$0	$40,687	$150,966	$2,651,629	$2,843,282
	C&I	$0	$0	$177,584	$200,117	$6,770,979	$7,148,680
Unitil	Residential	$0	$0	$52,238	$133,129	$5,159,285	$5,344,652
	C&I	$0	$0	$228,000	$310,634	$7,212,807	$7,751,441

Page 2 of Attachments E3 (Eversource) and H3 (Unitil) provides actual and forecasted monthly revenues and expenses for the 2020 program year. The forecasted monthly revenue and expenses for the 2021 through 2023 program years are provided on pages 3 through 8 of Attachment E3 (Eversource), pages 2 through 4 of Attachment F3 (Liberty),

pages 2 through 7 of Attachment G3 (NHEC). Page 3 of Attachment H3 (Unitil) provides forecasted monthly revenue and expenses for 2021.

Q. Please explain why the utilities are filing a three-year plan with set EE component SBC rates for each year.

A. In previous plans, the utilities filed an Annual Update to the triennial plan each year which included updated and reconciled SBC rate components. In this three-year plan, the structure of the EERS is moving further toward the cumulative achievement of goals over the course of the 36 month triennium, without the start and stop of an annual plan update filing. Therefor the utilities are proposing the EE component of SBC rates for each of the three years for approval in this 2021-2023 Energy Efficiency Plan filing.

Q. Why are there differences in EE component rates between sectors and between utilities?

A. The primary goal of the EERS and the 2021-2023 Plan is a three-year statewide energy savings goal, measured as a percentage of the 2019 Annual kWh sales for the electric programs and as a percentage of the 2019 Annual Therm sales for the natural gas programs. Different utility territories and sectors have a varying ability to contribute toward the statewide energy savings targets. The utilities have targeted their plans and budgets to accomplish the joint goal based on analysis of where the savings can be achieved.

Q. Is there precedent for setting different EE rates between sectors and utilities?

A. Yes. The Natural Gas programs have used this approach for many years.

Q. How will the utilities maintain receiving enough funding each year for their programs if the EE component of the SBC rate was set too low?

A. The utilities are proposing an annual "trigger mechanism" to allow the EE component of the SBC rate to be increased or decreased by no greater than ten percent over the approved rate for a given year if needed based on reconciliation of actual sales and revenues compared to forecast, or if the budget is increased for the upcoming year to accommodate increased program costs.

Q. Is this trigger mechanism a new concept?

A. No. EnergyNorth Natural Gas utilizes this same type of mechanism during the winter months for when the cost of gas rate is projected to be over or under collection for the period no greater than 25 percent and has since 1998.

Q. How does the annual update filing using the trigger mechanism work?

A. In Docket No. DR 98-015, the Commission approved in Order No. 22,890, a monthly adjustment to the cost of gas that does not require a filing for rate approval. It provides the ability to adjust the approved cost of gas rate upward or downward monthly based on the Company's calculation of the projected over or under collection for the period and applied on a bills rendered basis. The adjusted cost of gas rate would not increase or decrease more than plus or minus ten percent of the approved unit cost of gas. In 2000, Order No. 23,580 increased that maximum allowed to 20 percent. In 2009, Order No. 24,963 increased that maximum to 25 percent.

Utilizing this same structure for the EE component of the SBC rate would provide flexibility for the utilities to increase or decrease the rate by no more than ten percent of the approved rate without the need for a formal procedure and hearing. It also provides the opportunity to avoid a high over or under collection after the three year plan is completed. The trigger mechanism is not a requirement, meaning if the EE component of the SBC rate is sufficient to continue approved funding requirements for the following year, the rate does not need to be changed. In addition, Puc 1203.02(f) affords rates to be adjusted as frequently as determined by the Commission. While the practice has been for a full adjudicated process annually for the SBC rate, given that the utilities are filing a rate up to three years in advance, this potential yearly adjustment is consistent with the Commission's statutory obligations and administrative rules.

If there is reason to change the rate and the rate is within the ten percent threshold, the requirement would be the utility requesting the change will file a technical statement with the projected over or under calculation, along with the resulting EE portion of the SBC rate by December 10 each year as the SBC rate goes in to effect January 1 of the following year. The utility will also file a revised tariff page reflecting the change.

At the end of the three-year period, a final reconciliation will be filed to reconcile the final three-year program budget and expenses.

Q. What if the budget requirements are such that the ten percent increase to the rate is not sufficient?

A. If there is reason to change the rate and the rate is outside of the ten percent threshold, the utility will need to make a full reconciliation filing, similar to how it was filed in the annual reconciliations in Docket No. 17-136, by October 10. A formal adjudicative process will be conducted to receive approval of the EE portion of the SBC rate.

III. LBR COMPONENT OF THE SBC

Q. What is the proposed LBR Component of the SBC?

A. The proposed LBR rates differ by utility as shown in the table below. Eversource and Unitil are both proposing a separate LBR rate for Residential and C&I sectors for all three years, similar to the EE portion of the SBC rate and aligns the LBR rate with the sector where the savings are being achieved. Lost revenues do not apply to NHEC; therefore, an LBR rate is not utilized by NHEC.

Table 3. Total Lost Base Revenue (LBR) Charge ($/kWh)

2021	Eversource	NHEC	Liberty	Unitil
Residential	$0.00065	N/A	$0.00068	$0.00120
C&I	$0.00091	N/A	$0.00068	$0.00129
2022	Eversource	NHEC	Liberty	Unitil
Residential	$0.00102	N/A	N/A	$0.00145
C&I	$0.00159	N/A	N/A	$0.00121
2023	Eversource	NHEC	Liberty	Unitil
Residential	$0.00118	N/A	N/A	$0.00186
C&I	$0.00220	N/A	N/A	$0.00130

Q. Has Liberty included an LBR rate in this filing?

A. Yes, but only to collect an under recovery for 2019 and recover LBR for 2020. In Docket No. DE 17-136, Liberty's 2020 LBR rate was not approved. Subsequently in the Company's rate case, Docket No. DE 19-064, the Settlement Agreement provided that

> In return for Liberty agreeing to a later date to implement decoupling, the parties agree that Liberty shall be permitted to continue the Lost Revenue Adjustment Mechanism (LRAM) for calendar years 2019 and 2020. Final determination of the LRAM and SBC for billing will be made in DE 17-136, or subsequent energy efficiency dockets. The Settling Parties shall review and approve tariff language implementing the decoupling mechanism prior to Liberty's submission of the decoupling tariff to the Commission in sufficient time for the scheduled July 1, 2021, implementation.

The Company is providing the calculation of LBR in compliance with the Agreement and the order approving it.

Q. Please explain how the LBR rate was calculated?

A. As shown on page 9 of Attachment E3 (Eversource) and page 4 of Attachment H3 (Unitil), the sum of the forecast lost base revenue, plus the prior year balance, plus current year interest, is divided by the forecast deliveries to arrive at the proposed rate. Pages 10 through 13 of Attachment E3 (Eversource) and page 5 of Attachment H3 (Unitil) provides the supporting savings calculations for the 2020 through 2023 projected lost revenues. Page 14 of Attachment E3 (Eversource) and page 6 of Attachment H3 (Unitil) provides a reconciliation of the actual and forecasted monthly revenues collected from the LBR rate during 2020. Pages 15 and 16 of Attachment E3 (Eversource) provides a reconciliation of the actual and forecasted monthly revenues collected from

the LBR rate during 2021. Page 17 of Attachment E3 (Eversource) and page 8 of Attachment H3 (Unitil) provides a computation of the average sector distribution rates for use in the lost revenue calculation. Additional details supporting the average rate calculation starts on page 19 of Attachment E3 (Eversource) and page 10 of Attachment H3 (Unitil).

Q. Are there changes in the way that lost base revenue is calculated in the 2020-2023 time period?

A. The 2021-2023 LBR is calculated consistent with the methodology used in the 2020 LBR calculation. However, Eversource and Unitil are proposing a separate LBR calculation for the Residential and C&I sectors to align the LBR rate with the sector producing the lost revenues. As demonstrated on pages 10 through 13 of Attachments E3 (Eversource) and page 5 of Attachment H3 (Unitil), measures installed after 2018 have their lost base revenue calculated by adding two "separate" calculations; the kWh savings are multiplied by the sector's kWh LBR Average Distribution Rate, then the kW savings are multiplied by the sector's kW LBR Average Distribution Rate. The addition of these two calculations results in the total lost base revenue for measures installed. For all measures installed on or after January 1, 2019, this method is used to calculate lost base revenue for the life of the measure. Further details are provided within the August 29, 2018 NH LBR Working Group Report[1].

[1] August 29, 2018 Working Group Report in Docket No. DE 17-136 EERS LBR Working Group https://www.puc.nh.gov/EESE%20Board/EERS_WG/20180829-EERS-WG-LBR-Report-On-LBR.docx

Q. Is a specific annual LBR rate being proposed for approval for the 2021-2023 period, consistent with the EE portion of the SBC rate?

A. Yes, a specific rate for LBR by sector is being proposed for Eversource and Unitil. The LBR portion of the SBC rate would utilize an annual "trigger mechanism" approach, similar to the EE portion of the SBC rate. If the LBR rate increases or decreases by ten percent, the utility would file a technical statement on December 10 without an adjudicative process. If the LBR rate changes by more than plus or minus ten percent, the utility would make a formal filing by October 10 and an adjudicative process would be conducted to approve the increase or decrease in the rate for effect January 1 of the following year.

IV. TOTAL SBC AND BILL IMPACTS

Q. What is the total proposed SBC?

A. Table 4 below provides the total proposed SBC with Attachments E3 (Eversource), F3 (Liberty), G3 (NHEC), and H3 (Unitil) providing the full calculation of the rates, including the EE, EAP and LBR components of the SBC rate.

Table 4. Total System Benefits Charge ($/kWh)				
2021	Eversource	NHEC	Liberty	Unitil
Residential	$0.00866	$0.00988	$0.00719	$0.00885
Commercial	$0.01270	$0.01056	$0.00712	$0.01146
2022	Eversource	NHEC	Liberty	Unitil
Residential	$0.00898	$0.01023	$0.01014	$0.01068
Commercial	$0.01807	$0.01186	$0.00993	$0.01341
2023	Eversource	NHEC	Liberty	Unitil
Residential	$0.00941	$0.01003	$0.01072	$0.01103
Commercial	$0.02432	$0.01155	$0.01211	$0.01613

Q. Have you provided bill impacts associated with the proposed SBC?

A. Yes. The bill impact for a typical residential and C&I customer is provided on Page 18 of Attachment E3 (Eversource), Page 6 of Attachment F3 (Liberty), Page 8 of Attachment G3 (NHEC), and Page 9 of Attachment H3 (Unitil).

Q. Do the utilities require Commission approval of the SBC billed to customers by a specific date?

A. Yes, the utilities request approval of the SBC by December 28, 2020, in order to implement the new rate for service rendered on and after January 1, 2021.

V. NORTHERN'S EEC AND LRR

Q. Turning to gas, what is Northern presenting for the EEC and LRR?

A. Northern is presenting the EEC and LRR in Attachments J3 (EEC) and J5 (LRR). These attachments are being provided for informational purposes only at this time. The final proposed rates will be filed in Northern's upcoming Annual Cost of Gas filing due on or before September 15, 2020.

Q. What is the purpose of the EEC?

A. The purpose of the EEC is to recover from firm ratepayers Energy Efficiency program costs and performance incentives.

Q. What are the changes to the EEC?

A. The EEC for the residential classes is projected to increase from $0.0499 per therm to $0.0774 per therm, and the EEC is projected to increase from $0.0247 per therm to $0.0337 per therm for the commercial and industrial customer classes effective November 1, 2020. The rate calculation is provided on Attachment J3, Page 2 of 4.

Q. Please describe the reason for these changes to and describe the derivation of the EEC.

A. The changes to the EEC are necessitated by the implementation of Northern's calendar year 2020 energy efficiency program budget. That budget is provided in Attachment J3, Page 1 of 4. The EEC is provided on Page 2 of 4. As shown, the rate is derived by customer class and includes an annual reconciliation of the program costs and performance incentives with an adjustment for the low-income discount costs. The projected reconciliation of costs and revenues is provided on Pages 3 and 4 for the residential classes and commercial and industrial classes, respectively.

Q. What is the LRR calculated for effect November 1, 2020?

A. The calculated LRR for the residential classes is $0.0220 per therm and the LRR for the Commercial classes is $0.0030. This is an increase of $0.0106 from the currently

effective rate of $0.0114 for Residential Customers and an increase of $0.0011 from the currently effective rate of $0.0019 for C&I Customers.

Q. Please explain the calculation of the proposed LRR?

A. The calculation of the LRR is provided on Attachment J5. As shown on Page 1 of 6, the LRR for each sector (residential and commercial/industrial) is derived by dividing the projected annual lost revenue, plus the reconciliation balance, plus projected interest, by forecast firm annual throughput. Page 2 of 6 provides the projected reconciliation of costs and revenue for the period November 2019 through October 2020. Pages 2a through 2c provide forecast reconciliations of November through October, 2020 – 2021, 2021 – 2022 and 2022 – 2023. Pages 3-3c provide the calculation of estimated lost distribution revenue based on estimated savings. Page 4 of 6 provides further detail for the estimated savings that are used in the calculation of lost revenue on Page 2 of 6. Page 5 of 6 provides the calculation of the Company's average distribution rates by sector that is used in the calculation of estimated lost revenue beginning January 1, 2020 Page 6 of 6 provides bill impacts for the 2021 – 2023 period.

Q. Will Northern be updating the EEC and LRR?

A. Yes. As previously indicated, Northern is providing the EEC and LRR schedules for informational purposes only and is not seeking approval the EEC and LLR through this docket. The EEC and LRR will be filed in the upcoming Annual 2020 Cost of Gas Filing that will be submitted to the Commission on, or before, September 15, 2020.

VI. CONCLUSION

Q. Does this conclude your testimony?

A. Yes, it does.

PSNH d/b/a Eversource Energy

C&I Savings - New Component for Year 2021

Line	Description	Eversource
1	Gross Annualized kWh Savings	93,121,456
2	Maximum Demand Factor (MDF)	Varies based on measure mix
3	Extended Max. Load Reduction kW	16,535.5
4	% kW Demand Reduction at Customer Peak	Varies based on measure mix
5	Sub-Total Customer Peak kW Reduction	11,141.1
6	% Net to Gross	Varies based on measure mix
7	Sub-Total Customer Peak kW Reduction	10,721.6
8	% In-Service Rate	Varies based on measure mix
9	Sub-Total Customer Peak kW Reduction	10,662.8
10	% kW Realization Rate	Varies based on measure mix
11	Sub-Total Customer Peak kW Reduction	10,637.5
12	% Billing Adjustment to Reflect Ratchets (1)	100.00%
13	Sub-Total Customer Peak kW Reduction	10,637.5
14	% Retirement Adjustment	100.00%
15	Total Customer Peak kW Reduction, Full Year	10,637.5
16	% Annual Savings Achieved in First Year	50.00%
17	Total Customer Peak Red. in First Year	10,194
18	Annualized (x12)	127,650
19	Average Distribution Rate (ADR)	$ 6.46
20	Total C&I kW LBR	$ 412,233

Comments:
Above schedule mirrors the Template recommended by the LBRWG Report (p.6)

PSNH d/b/a Eversource Energy

C&I Savings - New Component for Year 2022

Line	Description	Eversource
1	Gross Annualized kWh Savings	118,548,300
2	Maximum Demand Factor (MDF)	Varies based on measure mix
3	Extended Max. Load Reduction kW	20,447.4
4	% kW Demand Reduction at Customer Peak	Varies based on measure mix
5	Sub-Total Customer Peak kW Reduction	13,499.8
6	% Net to Gross	Varies based on measure mix
7	Sub-Total Customer Peak kW Reduction	13,017.8
8	% In-Service Rate	Varies based on measure mix
9	Sub-Total Customer Peak kW Reduction	12,976.3
10	% kW Realization Rate	Varies based on measure mix
11	Sub-Total Customer Peak kW Reduction	12,958.1
12	% Billing Adjustment to Reflect Ratchets (1)	100.00%
13	Sub-Total Customer Peak kW Reduction	12,958.1
14	% Retirement Adjustment	100.00%
15	Total Customer Peak kW Reduction, Full Year	12,958.1
16	% Annual Savings Achieved in First Year	50.00%
17	Total Customer Peak Red. in First Year	12,418
18	Annualized (x12)	155,497
19	Average Distribution Rate (ADR)	$ 6.46
20	Total C&I kW LBR	$ 502,161

Comments:
Above schedule mirrors the Template recommended by the LBRWG Report (p.6)

PSNH d/b/a Eversource Energy

C&I Savings - New Component for Year 2023

Line	Description	Eversource
1	Gross Annualized kWh Savings	149,242,141
2	Maximum Demand Factor (MDF)	Varies based on measure mix
3	Extended Max. Load Reduction kW	25,290.7
4	% kW Demand Reduction at Customer Peak	Varies based on measure mix
5	Sub-Total Customer Peak kW Reduction	16,408.9
6	% Net to Gross	Varies based on measure mix
7	Sub-Total Customer Peak kW Reduction	16,009.3
8	% In-Service Rate	Varies based on measure mix
9	Sub-Total Customer Peak kW Reduction	15,987.8
10	% kW Realization Rate	Varies based on measure mix
11	Sub-Total Customer Peak kW Reduction	15,822.3
12	% Billing Adjustment to Reflect Ratchets (1)	100.00%
13	Sub-Total Customer Peak kW Reduction	15,822.3
14	% Retirement Adjustment	100.00%
15	Total Customer Peak kW Reduction, Full Year	15,822.3
16	% Annual Savings Achieved in First Year	50.00%
17	Total Customer Peak Red. in First Year	15,163
18	Annualized (x12)	189,868
19	Average Distribution Rate (ADR)	$ 6.46
20	Total C&I kW LBR	$ 613,160

Comments:
Above schedule mirrors the Template recommended by the LBRWG Report (p.6)

PSNH d/b/a Eversource Energy

Calculation for LBR New Methodology for Year 2021

Line	Description	Residential kWh	Commercial kWh	C&I kW	Total	Reference
	Legacy (Measures Installed in 2017 and 2018): (1)					
1	Program Year 2017 LBR Savings (2)	-	-	-		Company Records
2	Average Distribution Rate (ADR)	$ 0.04400	$ 0.02798	N/A		Attachment E3
3	Sub-Total LBR	$ -	$ -	$ -	$ -	Line 1 * Line 2
4	Program Year 2018 LBR Savings (2)	7,121,114	38,157,478	-		Company Records
5	Average Distribution Rate (ADR)	$ 0.04400	$ 0.02798	N/A		Attachment E3
6	Sub-Total LBR	$ 313,354	$ 1,067,675	$ -	$ 1,381,029	Line 4 * Line 5
7	Sub-Total Legacy Methodology LBR	$ 313,354	$ 1,067,675	$ -	$ 1,381,029	Line 3 + Line 6
	New Methodology (Measures Installed in 2019 and forward): (3)					
8	Program Year 2019 LBR Savings	18,035,905	70,845,870	127,768		Company Records
9	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
10	Sub-Total LBR	$ 793,642	$ 794,264	$ 825,226	$ 2,413,132	Line 8 * Line 9
11	Program Year 2020 LBR Savings estimated	26,377,578	58,915,156	117,072		Company Forecast
12	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
13	Sub-Total LBR	$ 1,160,705	$ 660,507	$ 756,144	$ 2,577,356	Line 11 * Line 12
14	Program Year 2021 LBR Savings estimated (annualized)	18,910,761	91,761,370	127,650		Company Forecast
15	Program Year 2021 LBR Savings in 2021	9,455,380	45,880,685	63,825		Company Forecast
16	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
17	Sub-Total LBR	$ 416,069	$ 514,375	$ 412,233	$ 1,342,678	Line 15 * Line 16
18	Sub-Total New Methodology LBR	$ 2,370,417	$ 1,969,146	$1,993,604	$ 6,333,166	Line 10 + Line 13 + Line 17
19	Total LBR - Year 2021	$ 2,683,770	$ 3,036,821	$1,993,604	$ 7,714,195	Line 7 + Line 18

*Numbers may not add due to rounding.

Comments
(1) Legacy portion utilizes old methodology for calculating LBR i.e. it utilizes a combined ADR for measures installed in 2017 and 2018.
(2) Actual LBR Savings reset as part of DE 19-057 Rate Case
(3) New metholody disaggregates kWh and kW components as specified in the Settlement Agreement in DE 17-136 (Order No. 26,095)

PSNH d/b/a Eversource Energy

Calculation for LBR New Methodology for Year 2022

Line	Description	Residential kWh	Commercial kWh	C&I kW	Total	Reference
	Legacy (Measures Installed in 2017 and 2018): (1)					
1	Program Year 2017 LBR Savings (2)	-	-	-		Company Records
2	Average Distribution Rate (ADR)	$ 0.04400	$ 0.02798	N/A		Attachment E3
3	Sub-Total LBR	$ -	$ -	$ -	$ -	Line 1 * Line 2
4	Program Year 2018 LBR Savings (2)	6,795,031	38,157,478	-		Company Records
5	Average Distribution Rate (ADR)	$ 0.04400	$ 0.02798	N/A		Attachment E3
6	Sub-Total LBR	$ 299,005	$ 1,067,675	$ -	$ 1,366,680	Line 4 * Line 5
7	Sub-Total Legacy Methodology LBR	$ 299,005	$ 1,067,675	$ -	$ 1,366,680	Line 3 + Line 6
	New Methodology (Measures Installed in 2019 and forward): (3)					
8	Program Year 2019 LBR Savings	14,909,999	70,845,870	127,768		Company Records
9	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
10	Sub-Total LBR	$ 656,092	$ 794,264	$ 825,226	$ 2,275,582	Line 8 * Line 9
11	Program Year 2020 LBR Savings estimated	26,377,578	58,915,156	117,072		Company Forecast
12	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
13	Sub-Total LBR	$ 1,160,705	$ 660,507	$ 756,144	$ 2,577,356	Line 11 * Line 12
14	Program Year 2021 LBR Savings estimated	18,910,761	91,761,370	127,650		Company Forecast
15	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
16	Sub-Total LBR	$ 832,139	$ 1,028,751	$ 824,466	$ 2,685,356	Line 14 * Line 15
17	Program Year 2022 LBR Savings estimated (annualized)	14,193,803	116,764,842	155,497		Company Forecast
18	Program Year 2022 LBR Savings in 2022	7,096,901	58,382,421	77,748		Company Forecast
19	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
20	Sub-Total LBR	$ 312,288	$ 654,534	$ 502,161	$ 1,468,984	Line 18 * Line 19
21	Sub-Total New Methodology LBR	$ 2,961,224	$ 3,138,055	$2,907,998	$ 9,007,277	Line 10 + Line 13 + Line 16 + Line 20
22	Total LBR - Year 2022	$ 3,260,229	$ 4,205,731	$2,907,998	$10,373,957	Line 7 + Line 21

*Numbers may not add due to rounding.

Comments
(1) Legacy portion utilizes old methodology for calculating LBR i.e. it utilizes a combined ADR for measures installed in 2017 and 2018.
(2) Actual LBR Savings reset as part of DE 19-057 Rate Case
(3) New metholody disaggregates kWh and kW components as specified in the Settlement Agreement in DE 17-136 (Order No. 26,095)

PSNH d/b/a Eversource Energy

Calculation for LBR New Methodology for Year 2023

Line	Description	Residential kWh	Commercial kWh	C&I kW	Total	Reference
	Legacy (Measures Installed in 2017 and 2018): (1)					
1	Program Year 2017 LBR Savings (2)	-	-	-		Company Records
2	Average Distribution Rate (ADR)	$ 0.04400	$ 0.02798	N/A		Attachment E3
3	Sub-Total LBR	$ -	$ -	$ -	$ -	Line 1 * Line 2
4	Program Year 2018 LBR Savings (2)	6,684,435	38,157,478	-		Company Records
5	Average Distribution Rate (ADR)	$ 0.04400	$ 0.02798	N/A		Attachment E3
6	Sub-Total LBR	$ 294,138	$ 1,067,675	$ -	$ 1,361,814	Line 4 * Line 5
7	Sub-Total Legacy Methodology LBR	$ 294,138	$ 1,067,675	$ -	$ 1,361,814	Line 3 + Line 6
	New Methodology (Measures Installed in 2019 and forward): (3)					
8	Program Year 2019 LBR Savings	13,767,029	70,845,870	127,768		Company Records
9	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
10	Sub-Total LBR	$ 605,797	$ 794,264	$ 825,226	$ 2,225,287	Line 8 * Line 9
11	Program Year 2020 LBR Savings estimated	26,377,578	58,915,156	117,072		Company Forecast
12	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
13	Sub-Total LBR	$ 1,160,705	$ 660,507	$ 756,144	$ 2,577,356	Line 11 * Line 12
14	Program Year 2021 LBR Savings estimated	18,910,761	91,761,370	127,650		Company Forecast
15	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
16	Sub-Total LBR	$ 832,139	$ 1,028,751	$ 824,466	$ 2,685,356	Line 14 * Line 15
17	Program Year 2022 LBR Savings estimated	14,193,803	116,764,842	155,497		Company Forecast
18	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
19	Sub-Total LBR	$ 624,576	$ 1,309,068	$1,004,323	$ 2,937,968	Line 17 * Line 18
20	Program Year 2023 LBR Savings estimated (annualized)	13,211,175	147,526,270	189,868		Company Forecast
21	Program Year 2023 LBR Savings in 2023	6,605,587	73,763,135	94,934		Company Forecast
22	Average Distribution Rate (ADR)	$ 0.04400	$ 0.01121	$ 6.46		Attachment E3
23	Sub-Total LBR	$ 290,669	$ 826,970	$ 613,160	$ 1,730,798	Line 21 * Line 22
24	Sub-Total New Methodology LBR	$ 3,513,886	$ 4,619,559	$4,023,319	$12,156,765	Line 10 + Line 13 + Line 16 + Line 19 + Line 23
25	Total LBR - Year 2023	$ 3,808,024	$ 5,687,235	$4,023,319	$13,518,578	Line 7 + Line 24

*Numbers may not add due to rounding.

Comments
(1) Legacy portion utilizes old methodology for calculating LBR i.e. it utilizes a combined ADR for measures installed in 2017 and 2018.
(2) Actual LBR Savings reset as part of DE 19-057 Rate Case
(3) New metholody disaggregates kWh and kW components as specified in the Settlement Agreement in DE 17-136 (Order No. 26,095)

Unitil Energy Systems, Inc.

C&I Savings - New Component for Year 2021

Line	Description	Unitil
1	Gross Annualized kWh Savings	10,616,063
2	Maximum Demand Factor (MDF)	Varies based on measure mix
3	Extended Max. Load Reduction kW	1,440.2
4	% kW Demand Reduction at Customer Peak	Varies based on measure mix
5	Sub-Total Customer Peak kW Reduction	816.0
6	% Net to Gross	Varies based on measure mix
7	Sub-Total Customer Peak kW Reduction	766.5
8	% In-Service Rate	Varies based on measure mix
9	Sub-Total Customer Peak kW Reduction	766.5
10	% kW Realization Rate	Varies based on measure mix
11	Sub-Total Customer Peak kW Reduction	766.5
12	% Billing Adjustment to Reflect Ratchets (1)	100.00%
13	Sub-Total Customer Peak kW Reduction	766.5
14	% Retirement Adjustment	100.00%
15	Total Customer Peak kW Reduction, Full Year	766.5
16	% Annual Savings Achieved in First Year	51%
17	Total Customer Peak Red. in First Year	388.2
18	Annualized (x12)	4,659.0
19	Average Distribution Rate (ADR)	$ 9.16
20	Total C&I kW LBR	$ 42,676

Comments:
Above schedule mirrors the Template recommended by the LBRWG Report (p.6)

Unitil Energy Systems, Inc.

C&I Savings - New Component for Year 2022

Line	Description	Unitil
1	Gross Annualized kWh Savings	12,339,688
2	Maximum Demand Factor (MDF)	Varies based on measure mix
3	Extended Max. Load Reduction kW	1,166.2
4	% kW Demand Reduction at Customer Peak	Varies based on measure mix
5	Sub-Total Customer Peak kW Reduction	612.8
6	% Net to Gross	Varies based on measure mix
7	Sub-Total Customer Peak kW Reduction	571.7
8	% In-Service Rate	Varies based on measure mix
9	Sub-Total Customer Peak kW Reduction	571.7
10	% kW Realization Rate	Varies based on measure mix
11	Sub-Total Customer Peak kW Reduction	571.7
12	% Billing Adjustment to Reflect Ratchets (1)	100.00%
13	Sub-Total Customer Peak kW Reduction	571.7
14	% Retirement Adjustment	100.00%
15	Total Customer Peak kW Reduction, Full Year	571.7
16	% Annual Savings Achieved in First Year	50%
17	Total Customer Peak Red. in First Year	285.9
18	Annualized (x12)	3,430.4
19	Average Distribution Rate (ADR)	$ 9.16
20	Total C&I kW LBR	$ 31,423

Comments:
Above schedule mirrors the Template recommended by the LBRWG Report (p.6)

Unitil Energy Systems, Inc.

C&I Savings - New Component for Year 2023

Line	Description	Unitil
1	Gross Annualized kWh Savings	14,862,555
2	Maximum Demand Factor (MDF)	Varies based on measure mix
3	Extended Max. Load Reduction kW	1,236.5
4	% kW Demand Reduction at Customer Peak	Varies based on measure mix
5	Sub-Total Customer Peak kW Reduction	625.6
6	% Net to Gross	Varies based on measure mix
7	Sub-Total Customer Peak kW Reduction	588.6
8	% In-Service Rate	Varies based on measure mix
9	Sub-Total Customer Peak kW Reduction	588.6
10	% kW Realization Rate	Varies based on measure mix
11	Sub-Total Customer Peak kW Reduction	588.6
12	% Billing Adjustment to Reflect Ratchets (1)	100.00%
13	Sub-Total Customer Peak kW Reduction	588.6
14	% Retirement Adjustment	100.00%
15	Total Customer Peak kW Reduction, Full Year	588.6
16	% Annual Savings Achieved in First Year	50%
17	Total Customer Peak Red. in First Year	294.3
18	Annualized (x12)	3,531.6
19	Average Distribution Rate (ADR)	$ 9.16
20	Total C&I kW LBR	$ 32,349

Comments:
Above schedule mirrors the Template recommended by the LBRWG Report (p.6)

	Description		Residential kWh	Commercial kWh	C&I kW	Total	Reference
	Legacy (Measures Installed in 2017 and 2018):	(Note 1)					
1.	Program Year 2017 Actual LBR Savings		1,344,216	6,004,884	-	7,349,100	DE 14-216, 2017 Annual Report, P. 3
2.	Average Distribution Rate (ADR)		$0.03558	$0.03217	-		DE 20-092, Attachment H3 Page 8
3.	Sub-Total LBR		$ 47,827	$ 193,177	$ -	$ 241,004	Line 1 * Line 2
4.	Program Year 2018 Actual LBR Savings	(Note 2)	2,868,216	6,708,144	-	9,576,360	DE 17-136, 2018 Annual Report, P. 3
5.	Program Year 2018 Actual Retired LBR Savings		(385,652)	-	-	(385,652)	DE 17-136, 2019 Annual Report, P. 3
6.	Average Distribution Rate (ADR)		$0.03558	$0.03217	-		DE 20-092, Attachment H3 Page 8
7.	Sub-Total LBR		$ 88,330	$ 215,801	$ -	$ 304,130	(Line 4 + Line 5) * Line 6
8.	**Sub-Total Legacy Savings (Measures Installed in 2017 and 2018)**		**$ 136,157**	**$ 408,978**	**$ -**	**$ 545,135**	**Line 3 + Line 7**
	New Methodology (Measures Installed in 2019 and forward):	(Note 3)					
9.	Program Year 2019 Actual LBR Savings		4,692,054	6,410,154	13,686	11,115,894	DE 17-136, 2019 Annual Report, P. 3
10.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
11.	Sub-Total LBR		$ 166,943	$ 1,538	$ 125,362	$ 293,843	Line 9 * Line 10
12.	Program Year 2020 Estimated LBR Savings		3,214,309	10,734,644	13,216	13,962,169	DE 17-136, 2020 Planned Savings
13.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
14.	Sub-Total LBR		$ 114,365	$ 2,576	$ 121,061	$ 238,003	Line 12 * Line 13
15.	Program Year 2021 Estimated LBR Savings (annualized)		5,418,938	10,495,391	9,318	15,923,647	DE 20-092 Planned Savings
16.	Program Year 2021 Estimated LBR Savings in 2021		2,745,144	5,316,790	4,659	8,066,593	DE 20-092 Attachment H3
17.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
18.	Sub-Total LBR		$ 97,672	$ 1,276	$ 42,676	$ 141,624	Line 16 * Line 17
19.	**Sub-Total "New Method" LBR - 2019 Forward**		**$ 378,981**	**$ 5,391**	**$ 289,099**	**$ 673,470**	**Line 11 + Line 14 + Line 18**
20.	**Total 2021 Estimated LBR**		**$ 515,137**	**$ 414,369**	**$ 289,099**	**$ 1,218,605**	**Line 8 + Line 19**

Comments

1. Legacy portion utilizes old methodology for calculating LBR - i.e. it utilizes a combined ADR for measures installed in 2017 and 2018.
2. Actual LBR Savings differ from program savings as the 110% LBR cap was reached
3. New methodoly disaggregates kWh and kW components as specified in the Settlement Agreement in DE 17-136 (Order No. 26,095).

	Description		Residential kWh	Commercial kWh	C&I kW	Total	Reference
	Legacy (Measures Installed in 2017 and 2018):	(Note 1)					
1.	Program Year 2017 Actual LBR Savings		1,344,216	6,004,884	-	7,349,100	DE 14-216, 2017 Annual Report, P. 3
2.	Average Distribution Rate (ADR)		$0.03558	$0.03217	-		DE 20-092, Attachment H3 Page 8
3.	Sub-Total LBR		$ 47,827	$ 193,177	$ -	$ 241,004	Line 1 * Line 2
4.	Program Year 2018 Actual LBR Savings	(Note 2)	2,868,216	6,708,144	-	9,576,360	DE 17-136, 2018 Annual Report, P. 3
5.	Program Year 2018 Actual Retired LBR Savings		(385,652)	-	-	(385,652)	DE 17-136, 2019 Annual Report, P. 3
6.	Average Distribution Rate (ADR)		$0.03558	$0.03217	-		DE 20-092, Attachment H3 Page 8
7.	Sub-Total LBR		$ 88,330	$ 215,801	$ -	$ 304,130	(Line 4 + Line 5) * Line 6
8.	**Sub-Total Legacy Savings (Measures Installed in 2017 and 2018)**		**$ 136,157**	**$ 408,978**	**$ -**	**$ 545,135**	**Line 3 + Line 7**
	New Methodology (Measures Installed in 2019 and forward):	(Note 3)					
9.	Program Year 2019 Actual LBR Savings		4,692,054	6,410,154	13,686	11,115,894	DE 17-136, 2019 Annual Report, P. 3
10.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
11.	Sub-Total LBR		$ 166,943	$ 1,538	$ 125,362	$ 293,843	Line 9 * Line 10
12.	Program Year 2020 Estimated LBR Savings		3,214,309	10,734,644	13,216	13,962,169	DE 17-136, 2020 Planned Savings
13.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
14.	Sub-Total LBR		$ 114,365	$ 2,576	$ 121,061	$ 238,003	Line 12 * Line 13
15.	Program Year 2021 Estimated LBR Savings		5,418,938	10,495,391	9,318	15,923,647	DE 20-092 Planned Savings
16.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
17.	Sub-Total LBR		$ 192,806	$ 2,519	$ 85,352	$ 280,677	Line 15 * Line 16
18.	Program Year 2022 Estimated LBR Savings (annualized)		4,986,468	12,163,006	6,861	17,156,334	DE 20-092 Planned Savings
19.	Program Year 2022 Estimated LBR Savings in 2022		2,526,062	6,161,576	3,430	8,691,068	DE 20-092 Attachment H3
20.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
21.	Sub-Total LBR		$ 89,877	$ 1,479	$ 31,423	$ 122,779	Line 19 * Line 20
22.	**Sub-Total "New Method" LBR - 2019 Forward**		**$ 563,991**	**$ 8,112**	**$ 363,198**	**$ 935,302**	**Line 11 + Line 14 + Line 17 + Line 21**
23.	**Total 2022 Estimated LBR**		**$ 700,148**	**$ 417,090**	**$ 363,198**	**$ 1,480,436**	**Line 8 + Line 22**

Comments

1. Legacy portion utilizes old methodology for calculating LBR - i.e. it utilizes a combined ADR for measures installed in 2017 and 2018.
2. Actual LBR Savings differ from program savings as the 110% LBR cap was reached
3. New metholody disaggregates kWh and kW components as specified in the Settlement Agreement in DE 17-136 (Order No. 26,095).

	Description		Residential kWh	Commercial kWh	C&I kW	Total	Reference
	Legacy (Measures Installed in 2017 and 2018):	(Note 1)					
1.	Program Year 2017 Actual LBR Savings		1,344,216	6,004,884	-	7,349,100	DE 14-216, 2017 Annual Report, P. 3
2.	Average Distribution Rate (ADR)		$0.03558	$0.03217	-		DE 20-092, Attachment H3 Page 8
3.	Sub-Total LBR		$ 47,827	$ 193,177	$ -	$ 241,004	Line 1 * Line 2
4.	Program Year 2018 Actual LBR Savings	(Note 2)	2,868,216	6,708,144	-	9,576,360	DE 17-136, 2018 Annual Report, P. 3
5.	Program Year 2018 Actual Retired LBR Savings		(385,652)	-	-	(385,652)	DE 17-136, 2019 Annual Report, P. 3
6.	Average Distribution Rate (ADR)		$0.03558	$0.03217	-		DE 20-092, Attachment H3 Page 8
7.	Sub-Total LBR		$ 88,330	$ 215,801	$ -	$ 304,130	(Line 4 + Line 5) * Line 6
8.	**Sub-Total Legacy Savings (Measures Installed in 2017 and 2018)**		**$ 136,157**	**$ 408,978**	**$ -**	**$ 545,135**	**Line 3 + Line 7**
	New Methodology (Measures Installed in 2019 and forward):	(Note 3)					
9.	Program Year 2019 Actual LBR Savings	(Note 2)	4,692,054	6,410,154	13,686	11,115,894	DE 17-136, 2019 Annual Report, P. 3
10.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
11.	Sub-Total LBR		$ 166,943	$ 1,538	$ 125,362	$ 293,843	Line 9 * Line 10
12.	Program Year 2020 Estimated LBR Savings		3,214,309	10,734,644	13,216	13,962,169	DE 17-136, 2020 Planned Savings
13.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
14.	Sub-Total LBR		$ 114,365	$ 2,576	$ 121,061	$ 238,003	Line 12 * Line 13
15.	Program Year 2021 Estimated LBR Savings		5,418,938	10,495,391	9,318	15,923,647	DE 20-092 Planned Savings
16.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
17.	Sub-Total LBR		$ 192,806	$ 2,519	$ 85,352	$ 280,677	Line 15 * Line 16
18.	Program Year 2022 Estimated LBR Savings		4,986,468	12,163,006	6,861	17,156,334	DE 20-092 Planned Savings
19.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
20.	Sub-Total LBR		$ 177,419	$ 2,919	$ 62,845	$ 243,183	Line 18 * Line 19
21.	Program Year 2023 Estimated LBR Savings (annualized)		5,690,806	14,624,676	7,063	20,322,545	DE 20-092 Planned Savings
22.	Program Year 2023 Estimated LBR Savings in 2023		2,882,867	7,408,617	3,532	10,295,016	DE 20-092 Attachment H3
23.	Average Distribution Rate (ADR)		$0.03558	$0.00024	$9.16		DE 20-092, Attachment H3 Page 8
24.	Sub-Total LBR		$ 102,572	$ 1,778	$ 32,349	$ 136,700	Line 22 * Line 23
25.	**Sub-Total "New Method" LBR - 2019 Forward**		**$ 754,105**	**$ 11,331**	**$ 426,969**	**$ 1,192,405**	**Line 11 + Line 14 + Line 17 + Line 20**
26.	**Total 2023 Estimated LBR**		**$ 890,262**	**$ 420,309**	**$ 426,969**	**$ 1,737,540**	**Line 8 + Line 25**

Comments

1. Legacy portion utilizes old methodology for calculating LBR - i.e. it utilizes a combined ADR for measures installed in 2017 and 2018.
2. Actual LBR Savings differ from program savings as the 110% LBR cap was reached
3. New metholody disaggregates kWh and kW components as specified in the Settlement Agreement in DE 17-136 (Order No. 26,095).

	Description	Therm Savings Residential	C&I	Total	Ref.
	Measures Installed in 2017:				
1.	Program Year 2017 Actual Therm Savings (Nov - Apr)	35,378	132,787	168,165	2017 Annual Report, P2, Annualized Savings/12*6
2.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
3.	Sub-Total LBR	$ 24,466	$ 26,470	$ 50,936	Ln 1 * Ln 2
4.	Program Year 2017 Actual Therm Savings (May - Oct)	35,378	132,787	168,165	2017 Annual Report, P2, Annualized Savings/12*6
5.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
6.	Sub-Total LBR	$ 21,608	$ 15,914	$ 37,522	Ln 4 * Ln 5
7.	**Total LBR (Measures Installed in 2017)**	$ 46,074	$ 42,383	$ 88,458	Ln 3 + Ln 6
	Measures Installed in 2018:				
8.	Program Year 2018 Actual Therm Savings (Nov - Apr)	57,884	91,060	148,944	2018 Annual Reports, P2, Annualized Savings/12*6
9.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
10.	Sub-Total LBR	$ 40,031	$ 18,152	$ 58,182	Ln 8 * Ln 9
11.	Program Year 2018 Actual Therm Savings (May - Oct)	57,884	91,060	148,944	2018 Annual Reports, P2, Annualized Savings/12*6
12.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
13.	Sub-Total LBR	$ 35,354	$ 10,913	$ 46,267	Ln 11 * Ln 12
14.	**Total LBR (Measures Installed in 2018)**	$ 75,385	$ 29,065	$ 104,450	Ln 10 + Ln 13
	Measures Installed in 2019				
15.	Program Year 2019 Estimated Therm Savings (Nov - Apr)	81,308	120,580	201,888	2019 Annual Reports, P2, Annualized Savings/12*6
16.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
17.	Sub-Total LBR	$ 56,230	$ 24,036	$ 80,266	Ln 15 * Ln 16
18.	Program Year 2019 Estimated Therm Savings (May - Oct)	81,308	120,580	201,888	2019 Update, Att J5, P4 & P5, Annualized Therms
19.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
20.	Sub-Total LBR	$ 49,661	$ 14,451	$ 64,112	Ln 18 * Ln 19
21.	**Total LBR (Measures Installed in 2019)**	$ 105,891	$ 38,487	$ 144,378	Ln 17 + Ln 20
	Measures Installed in 2020				
22.	Program Year 2020 Estimated Therm Savings (Nov - Apr)	64,728	132,554	197,283	Attachment J5, P4
23.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
24.	Sub-Total LBR	$ 44,764	$ 26,423	$ 71,187	Ln 22 * Ln 23
25.	Program Year 2020 Estimated Therm Savings (May - Oct)	65,603	135,953	201,556	Attachment J5, P4
26.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
27.	Sub-Total LBR	$ 40,069	$ 16,293	$ 56,362	Ln 25 * Ln 26
28.	**Total LBR (Measures Installed in 2020)**	$ 84,833	$ 42,716	$ 127,549	Ln 24 + Ln 27
	Measures Installed in 2021				
29.	Program Year 2021 Estimated Therm Savings (Nov - Apr)	6,228	10,929	17,157	Attachment J5, P4
30.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
31.	Sub-Total LBR	$ 4,307	$ 2,179	$ 6,486	Ln 29 * Ln 30
32.	Program Year 2021 Estimated Therm Savings (May - Oct)	45,898	63,479	109,378	Attachment J5, P4
33.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
34.	Sub-Total LBR	$ 28,034	$ 7,608	$ 35,641	Ln 32 * Ln 33
35.	**Total LBR (Measures Installed in 2021)**	$ 32,341	$ 9,786	$ 42,127	Ln 31 + Ln 34
36.	**Grand Total Forecasted LBR (Nov 2020 to Oct 2021)**	**$ 344,524**	**$ 162,437**	**$ 506,960**	**Ln 7 + Ln 14 + Ln 21 + Ln 28 + Ln 35**

*November 2020 through October 2021

	Description	Therm Savings Residential	C&I	Total	Ref.
	Measures Installed in 2017:				
1.	Program Year 2017 Actual Therm Savings (Nov - Apr)	35,378	132,787	168,165	2017 Annual Report, P2, Annualized Savings/12*6
2.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
3.	Sub-Total LBR	$ 24,466	$ 26,470	$ 50,936	Ln 1 * Ln 2
4.	Program Year 2017 Actual Therm Savings (May - Oct)	35,378	132,787	168,165	2017 Annual Report, P2, Annualized Savings/12*6
5.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
6.	Sub-Total LBR	$ 21,608	$ 15,914	$ 37,522	Ln 4 * Ln 5
7.	**Total LBR (Measures Installed in 2017)**	$ 46,074	$ 42,383	$ 88,458	Ln 3 + Ln 6
	Measures Installed in 2018:				
8.	Program Year 2018 Actual Therm Savings (Nov - Apr)	57,884	91,060	148,944	2018 Annual Reports, P2, Annualized Savings/12*6
9.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
10.	Sub-Total LBR	$ 40,031	$ 18,152	$ 58,182	Ln 8 * Ln 9
11.	Program Year 2018 Actual Therm Savings (May - Oct)	57,884	91,060	148,944	2018 Annual Reports, P2, Annualized Savings/12*6
12.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
13.	Sub-Total LBR	$ 35,354	$ 10,913	$ 46,267	Ln 11 * Ln 12
14.	**Total LBR (Measures Installed in 2018)**	$ 75,385	$ 29,065	$ 104,450	Ln 10 + Ln 13
	Measures Installed in 2019				
15.	Program Year 2019 Estimated Therm Savings (Nov - Apr)	81,308	120,580	201,888	2019 Annual Reports, P2, Annualized Savings/12*6
16.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
17.	Sub-Total LBR	$ 56,230	$ 24,036	$ 80,266	Ln 15 * Ln 16
18.	Program Year 2019 Estimated Therm Savings (May - Oct)	81,308	120,580	201,888	2019 Update, Att J5, P4 & P5, Annualized Therms
19.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
20.	Sub-Total LBR	$ 49,661	$ 14,451	$ 64,112	Ln 18 * Ln 19
21.	**Total LBR (Measures Installed in 2019)**	$ 105,891	$ 38,487	$ 144,378	Ln 17 + Ln 20
	Measures Installed in 2020				
22.	Program Year 2020 Estimated Therm Savings (Nov - Apr)	65,603	135,953	201,556	Attachment J5, P4
23.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
24.	Sub-Total LBR	$ 45,369	$ 27,101	$ 72,469	Ln 22 * Ln 23
25.	Program Year 2020 Estimated Therm Savings (May - Oct)	65,603	135,953	201,556	Attachment J5, P4
26.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
27.	Sub-Total LBR	$ 40,069	$ 16,293	$ 56,362	Ln 25 * Ln 26
28.	**Total LBR (Measures Installed in 2020)**	$ 85,438	$ 43,394	$ 128,831	Ln 24 + Ln 27
	Measures Installed in 2021				
29.	Program Year 2021 Estimated Therm Savings (Nov - Apr)	80,152	136,027	216,180	Attachment J5, P4
30.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
31.	Sub-Total LBR	$ 55,431	$ 27,115	$ 82,546	Ln 29 * Ln 30
32.	Program Year 2021 Estimated Therm Savings (May - Oct)	81,236	139,515	220,751	Attachment J5, P4
33.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
34.	Sub-Total LBR	$ 49,617	$ 16,720	$ 66,337	Ln 32 * Ln 33
35.	**Total LBR (Measures Installed in 2021)**	$ 105,048	$ 43,835	$ 148,883	Ln 31 + Ln 34
	Measures Installed in 2022				
36.	Program Year 2022 Estimated Therm Savings (Nov - Apr)	7,847	16,242	24,088	Attachment J5, P4
37.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
38.	Sub-Total LBR	$ 5,427	$ 3,238	$ 8,664	Ln 36 * Ln 37
39.	Program Year 2022 Estimated Therm Savings (May - Oct)	57,827	94,340	152,167	Attachment J5, P4
40.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
41.	Sub-Total LBR	$ 35,320	$ 11,306	$ 46,626	Ln 39 * Ln 40
42.	**Total LBR (Measures Installed in 2022)**	$ 40,746	$ 14,543	$ 55,290	Ln 38 + Ln 41
43.	**Grand Total Forecasted LBR (Nov 2021 to Oct 2022)**	**$ 458,582**	**$ 211,707**	**$ 670,289**	**Ln 7 + Ln 14 + Ln 21 + Ln 28 + Ln 35 + Ln 42**

*November 2021 through October 2022

	Description	Therm Savings Residential	C&I	Total	Ref.
	Measures Installed in 2017:				
1.	Program Year 2017 Actual Therm Savings (Nov - Apr)	35,378	132,787	168,165	2017 Annual Report, P2, Annualized Savings/12*6
2.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
3.	Sub-Total LBR	$ 24,466	$ 26,470	$ 50,936	Ln 1 * Ln 2
4.	Program Year 2017 Actual Therm Savings (May - Oct)	35,378	132,787	168,165	2017 Annual Report, P2, Annualized Savings/12*6
5.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
6.	Sub-Total LBR	$ 21,608	$ 15,914	$ 37,522	Ln 4 * Ln 5
7.	**Total LBR (Measures Installed in 2017)**	$ 46,074	$ 42,383	$ 88,458	Ln 3 + Ln 6
	Measures Installed in 2018:				
8.	Program Year 2018 Actual Therm Savings (Nov - Apr)	57,884	91,060	148,944	2018 Annual Reports, P2, Annualized Savings/12*6
9.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
10.	Sub-Total LBR	$ 40,031	$ 18,152	$ 58,182	Ln 8 * Ln 9
11.	Program Year 2018 Actual Therm Savings (May - Oct)	57,884	91,060	148,944	2018 Annual Reports, P2, Annualized Savings/12*6
12.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
13.	Sub-Total LBR	$ 35,354	$ 10,913	$ 46,267	Ln 11 * Ln 12
14.	**Total LBR (Measures Installed in 2018)**	$ 75,385	$ 29,065	$ 104,450	Ln 10 + Ln 13
	Measures Installed in 2019				
15.	Program Year 2019 Estimated Therm Savings (Nov - Apr)	81,308	120,580	201,888	2019 Annual Reports, P2, Annualized Savings/12*6
16.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
17.	Sub-Total LBR	$ 56,230	$ 24,036	$ 80,266	Ln 15 * Ln 16
18.	Program Year 2019 Estimated Therm Savings (May - Oct)	81,308	120,580	201,888	2019 Update, Att J5, P4 & P5, Annualized Therms
19.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
20.	Sub-Total LBR	$ 49,661	$ 14,451	$ 64,112	Ln 18 * Ln 19
21.	**Total LBR (Measures Installed in 2019)**	$ 105,891	$ 38,487	$ 144,378	Ln 17 + Ln 20
	Measures Installed in 2020				
22.	Program Year 2020 Estimated Therm Savings (Nov - Apr)	65,603	135,953	201,556	Attachment J5, P4
23.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
24.	Sub-Total LBR	$ 45,369	$ 27,101	$ 72,469	Ln 22 * Ln 23
25.	Program Year 2020 Estimated Therm Savings (May - Oct)	65,603	135,953	201,556	Attachment J5, P4
26.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
27.	Sub-Total LBR	$ 40,069	$ 16,293	$ 56,362	Ln 25 * Ln 26
28.	**Total LBR (Measures Installed in 2020)**	$ 85,438	$ 43,394	$ 128,831	Ln 24 + Ln 27
	Measures Installed in 2021				
29.	Program Year 2021 Estimated Therm Savings (Nov - Apr)	81,236	139,515	220,751	Attachment J5, P4
30.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
31.	Sub-Total LBR	$ 56,180	$ 27,811	$ 83,991	Ln 29 * Ln 30
32.	Program Year 2021 Estimated Therm Savings (May - Oct)	81,236	139,515	220,751	Attachment J5, P4
33.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
34.	Sub-Total LBR	$ 49,617	$ 16,720	$ 66,337	Ln 32 * Ln 33
35.	**Total LBR (Measures Installed in 2021)**	$ 105,797	$ 44,531	$ 150,327	Ln 31 + Ln 34
	Measures Installed in 2022				
36.	Program Year 2022 Estimated Therm Savings (Nov - Apr)	100,985	202,156	303,141	Attachment J5, P4
37.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
38.	Sub-Total LBR	$ 69,838	$ 40,297	$ 110,135	Ln 36 * Ln 37
39.	Program Year 2022 Estimated Therm Savings (May - Oct)	102,349	207,340	309,689	Attachment J5, P4
40.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
41.	Sub-Total LBR	$ 62,513	$ 24,848	$ 87,361	Ln 39 * Ln 40
42.	**Total LBR (Measures Installed in 2022)**	$ 132,350	$ 65,146	$ 197,496	Ln 38 + Ln 41
	Measures Installed in 2023				
43.	Program Year 2023 Estimated Therm Savings (Nov - Apr)	10,256	21,761	32,017	Attachment J5, P4
44.	Average Distribution Rates (ADR) (Nov - Apr)	$0.6916	$0.1993		Attachment J5, P3
45.	Sub-Total LBR	$ 7,093	$ 4,338	$ 11,430	Ln 43 * Ln 44
46.	Program Year 2023 Estimated Therm Savings (May - Oct)	75,581	126,399	201,979	Attachment J5, P4
47.	Average Distribution Rates (ADR) (May - Oct)	$0.6108	$0.1198		Attachment J5, P3
48.	Sub-Total LBR	$ 46,163	$ 15,148	$ 61,311	Ln 46 * Ln 47
49.	**Total LBR (Measures Installed in 2023)**	$ 53,256	$ 19,486	$ 72,741	Ln 45 + Ln 48
43.	**Grand Total Forecasted LBR (Nov 2022 to Oct 2023)**	**$ 604,191**	**$ 282,490**	**$ 886,681**	**Ln 7 + Ln 14 + Ln 21 + Ln 28 + Ln 35 + Ln 42**
		$ 604,191	$ 282,490	***$ 886,681***	

*November 2022 through October 2023

Attachment M: Bill and Rate Impacts of 2021-2023 Plan

The regulated utilities estimated the following bill and rate impacts of the 2021-2023 plan using Synapse Energy Economics' bill and rate impact model, which is still in the process of being finalized, and is meant to calculate the impacts of the proposed energy efficiency programs relative to a scenario with no energy efficiency programs. As proposed, the 2021- 2023 energy efficiency programs are expected to reduce the regulated electric utilities' revenue requirements by -1.36% on average, or -$410.4M in total, over the life of the measures installed during the 2021-2023 term and across all programs. The regulated gas utilities' revenue requirements are expected to reduce by -2.24% on average, or -$72.5M in total. Table 1 provides changes in revenue requirements by utility.

This rate and bill impact analysis reflects changes in electric and gas utility rates and bills and does not account for the significant fuel neutral savings to customers consuming oil, propane, or other unregulated fuels.

Table 1. Long-term Revenue Requirement Changes due to 2021-2023 Plan, by Utility

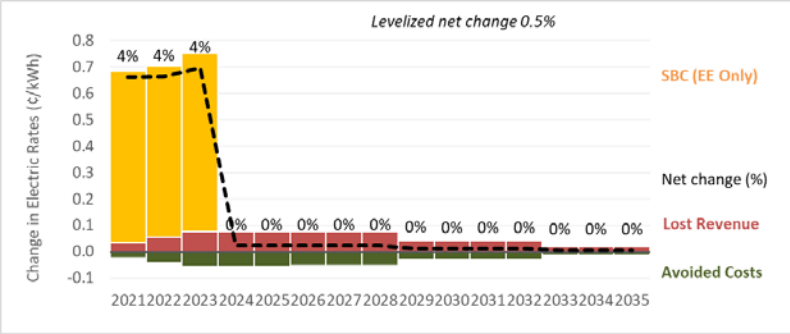
Utility	**Percent Change**	**Dollar Change** (millions)
Eversource	-1.5%	-$348.4
Liberty Electric	-1.7%	-$50.1
Unitil Electric	-0.3%	-$11.9
Electric Total	**-1.36%**	**-$410.4**
Liberty Gas	-2.3%	-$51.5
Unitil Gas	-2.2%	-$21.0
Gas Total	**-2.27%**	**-$72.5**

The graphs below show long-term bill and rate impacts over the life of the installed measures for each of four customer segments: residential, low-income, small C&I, and large C&I. Bill impacts are shown separately for the following types of customers:

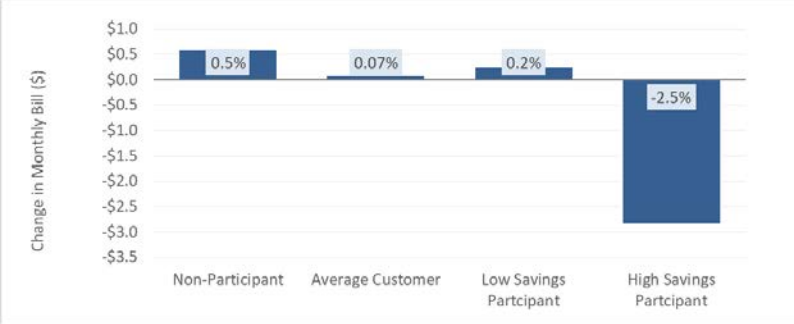
- non-participant—customers who do not participate in any year of the term
- low savings participant—For Electric – an illustrative residential participant (e.g. a customer swapping out their lighting for LEDs) who saves 1% of usage, or C&I participant (e.g. a customer performing a few off-the shelf offerings) who saves 5% of usage during year 1 of the plan; For Gas, an illustrative low savings residential participant would save 1% of their usage, and a low savings C&I participant would save 5% of their usage.
- high savings participant— For Electric – an illustrative residential participant (e.g. a customer performing a comprehensive HPwES project including weatherization and HVAC) who saves 10% of usage, or C&I participant (e.g. a customer performing a comprehensive custom project) who saves 20% of usage during year 1 of the plan; For Gas, an illustrative high savings residential participant would save 7% of their usage, and a high savings C&I participant would save 10% of their usage.
- average customer—a hypothetical blend between non-participants and participants, calculated based on the segment's program savings divided by the segment's total customers.

Eversource Electric

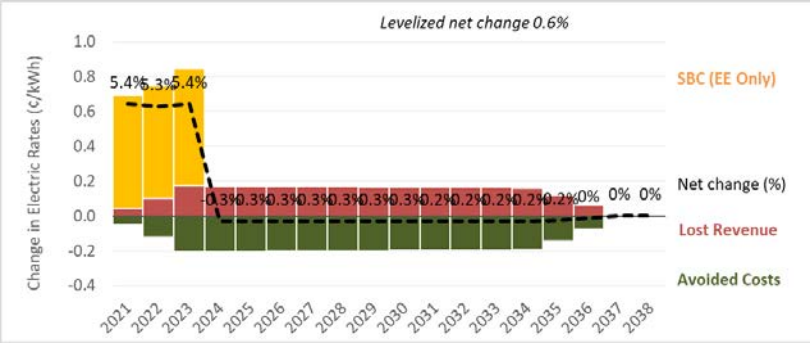
Residential, Change in Rates Over the Life of the Measures



Residential, Long-Term Average Change in Bills Over the Life of the Measures



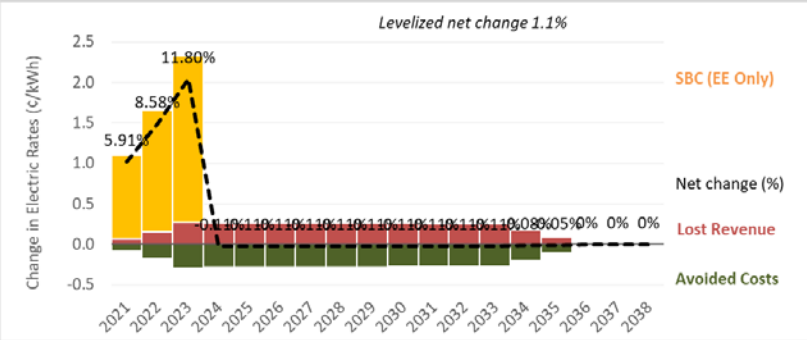
Low-Income, Change in Rates Over the Life of the Measures



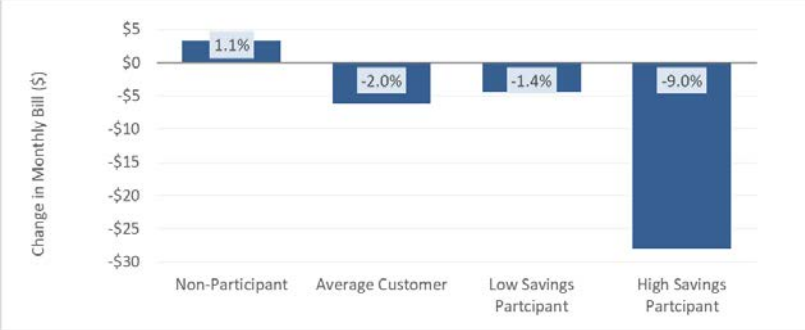
Low-Income, Long-Term Average Change in Bills Over the Life of the Measures



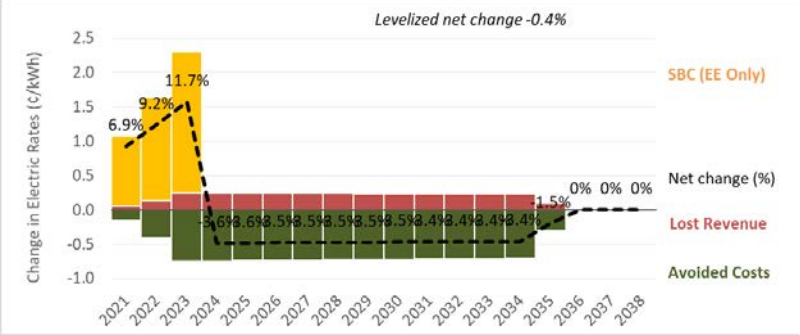
Small C&I, Change in Rates Over the Life of the Measures



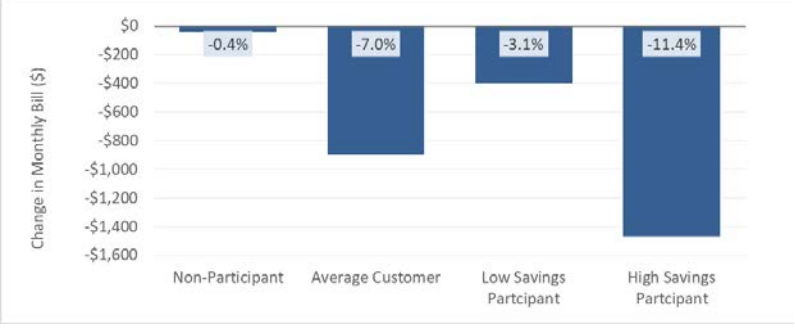
Small C&I, Long-Term Average Change in Bills Over the Life of the Measures



Large C&I, Change in Rates Over the Life of the Measures

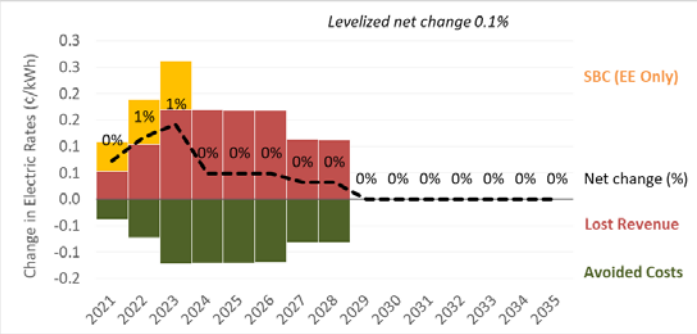


Large C&I, Long-Term Average Change in Bills Over the Life of the Measures



Liberty Electric

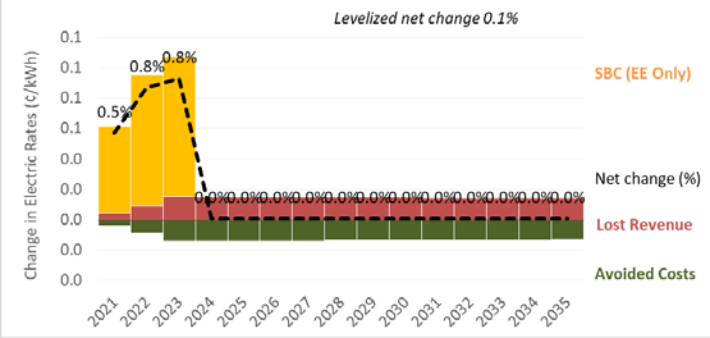
Residential, Change in Rates Over the Life of the Measures



Residential, Long-Term Average Change in Bills Over the Life of the Measures



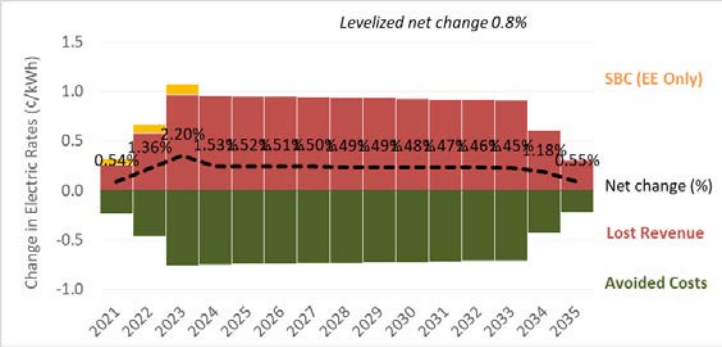
Low-Income, Change in Rates Over the Life of the Measures



Low-Income, Long-Term Average Change in Bills Over the Life of the Measures



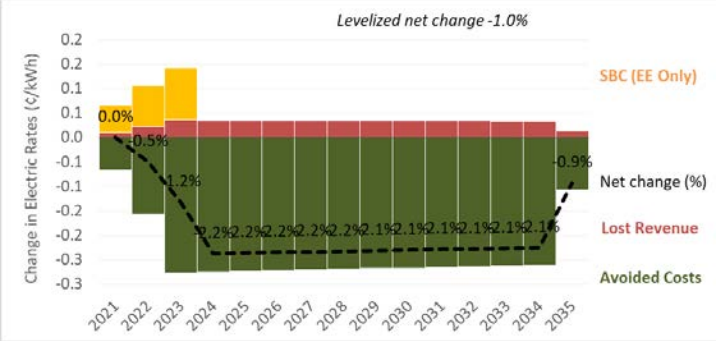
Small C&I, Change in Rates Over the Life of the Measures



Small C&I, Long-Term Average Change in Bills Over the Life of the Measures



Large C&I, Change in Rates Over the Life of the Measures

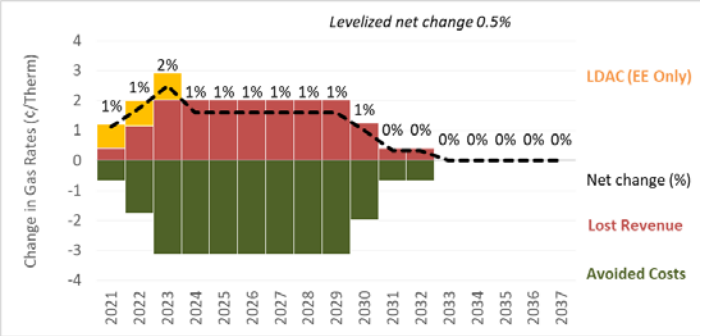


Large C&I, Long-Term Average Change in Bills Over the Life of the Measures



Liberty Gas

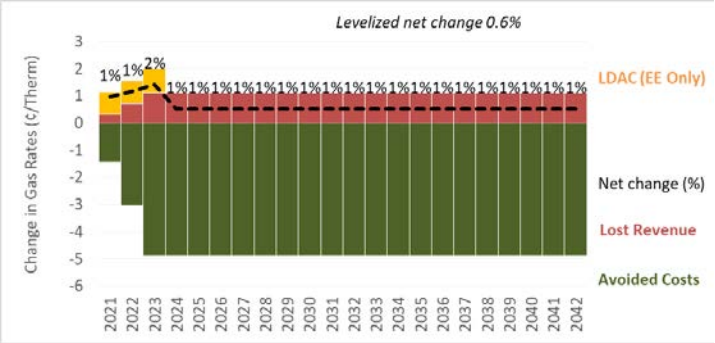
Residential, Change in Rates Over the Life of the Measures



Residential, Long-Term Average Change in Bills Over the Life of the Measures



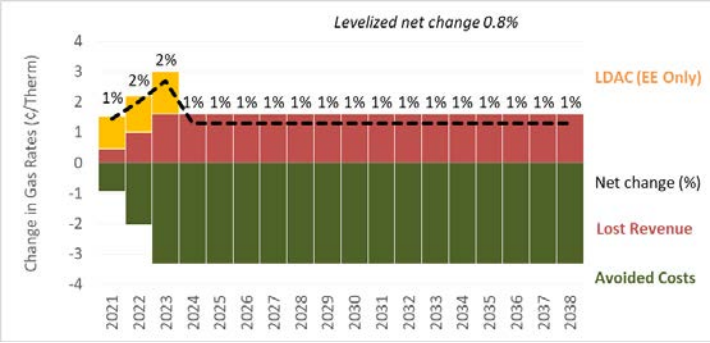
Low-Income, Change in Rates Over the Life of the Measures



Low-Income, Long-Term Average Change in Bills Over the Life of the Measures



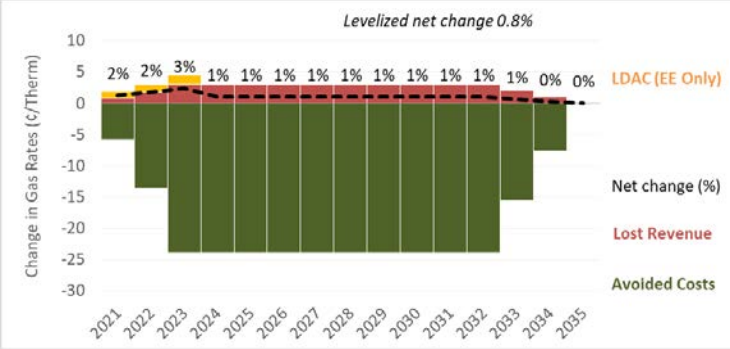
Small C&I, Change in Rates Over the Life of the Measures



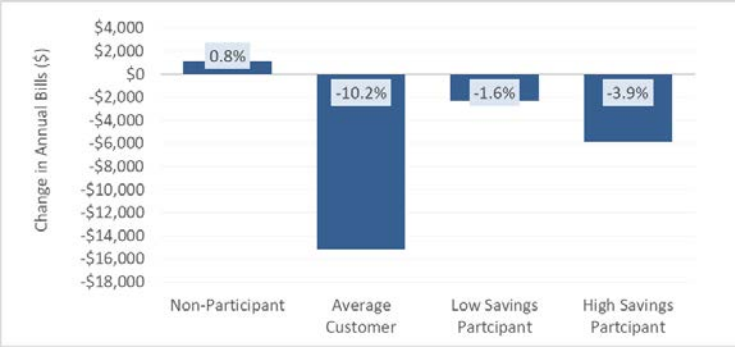
Small C&I, Long-Term Average Change in Bills Over the Life of the Measures



Large C&I, Change in Rates Over the Life of the Measures

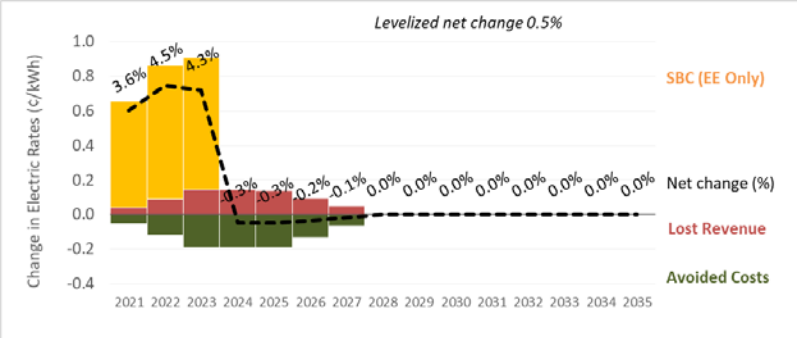


Large C&I, Long-Term Average Change in Bills Over the Life of the Measures

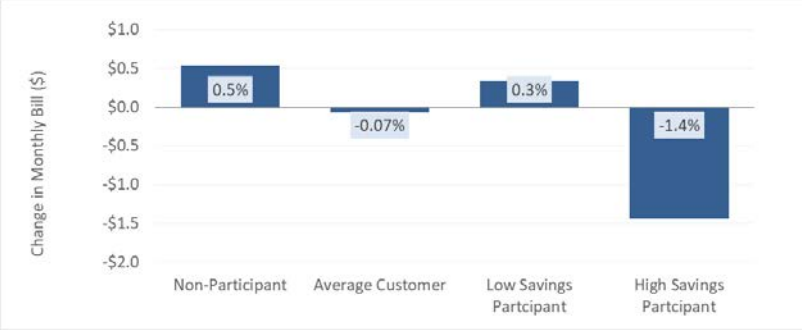


Unitil Energy Systems, Inc.

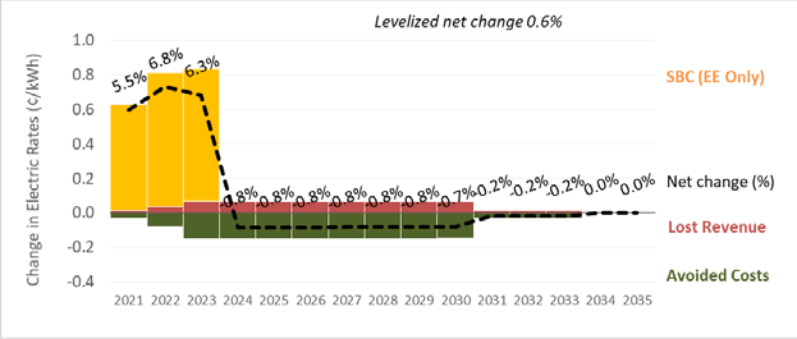
Residential, Change in Rates Over the Life of the Measures



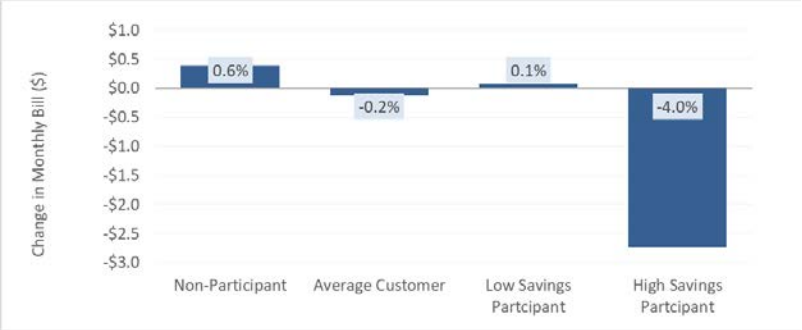
Residential, Long-Term Average Change in Bills Over the Life of the Measures



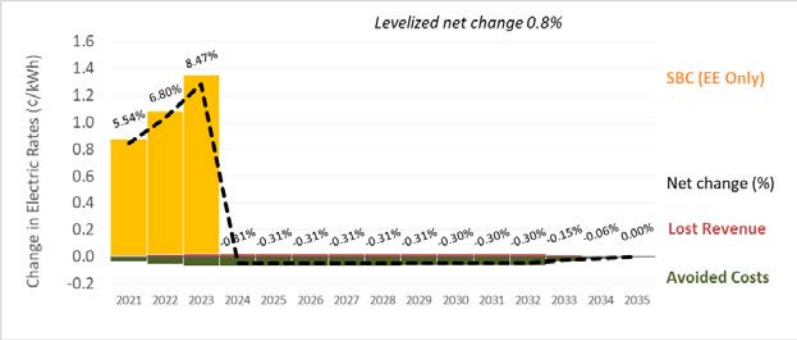
Low Income, Change in Rates Over the Life of the Measures



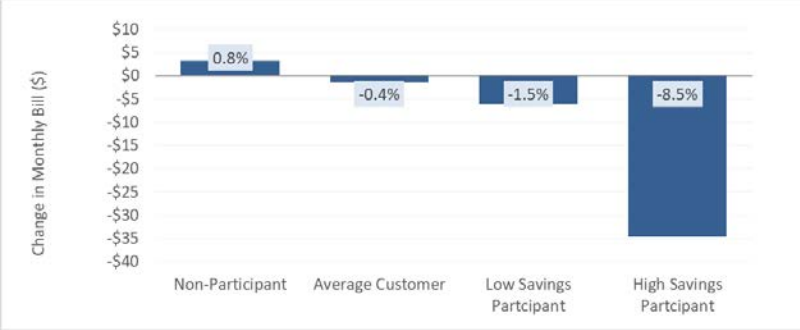
Low-Income, Long-Term Average Change in Bills Over the Life of the Measures



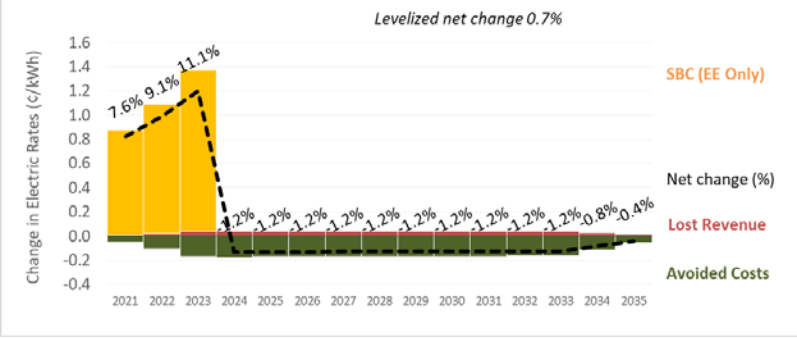
Small Commercial & Industrial, Change in Rates Over the Life of the Measures



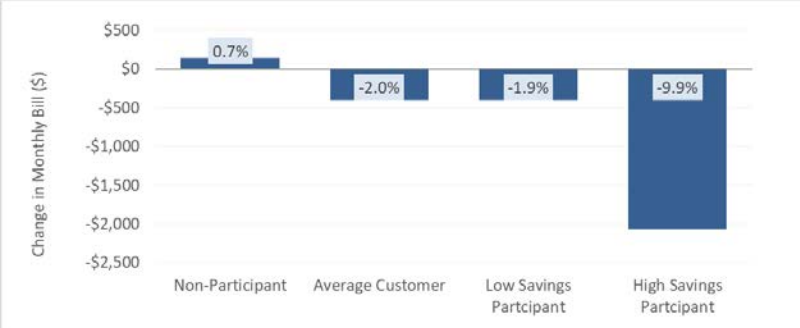
Small Commercial & Industrial, Long-Term Average Change in Bills Over the Life of the Measures



Large Commercial & Industrial, Change in Rates Over the Life of the Measures

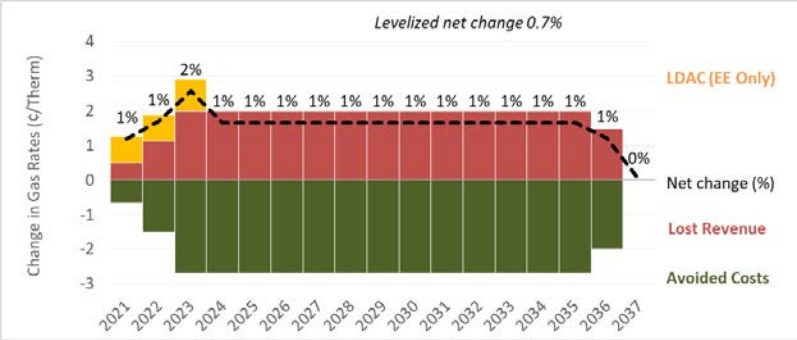


Large Commercial & Industrial, Long-Term Average Change in Bills Over the Life of the Measures

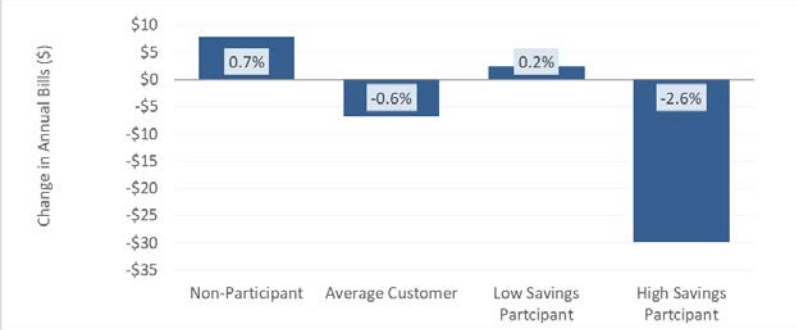


Northern Utilities, Inc.

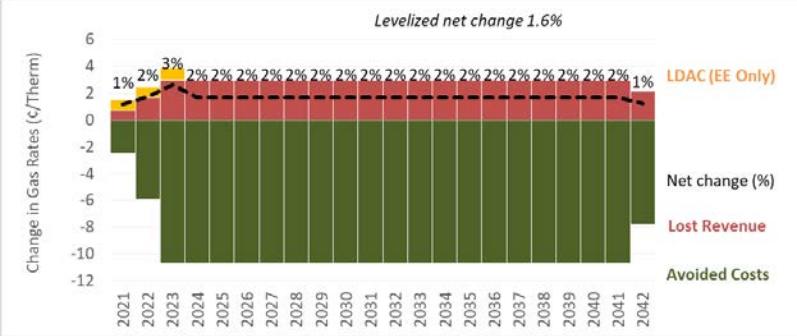
Residential, Change in Rates Over the Life of the Measures



Residential, Long-Term Average Change in Bills Over the Life of the Measures



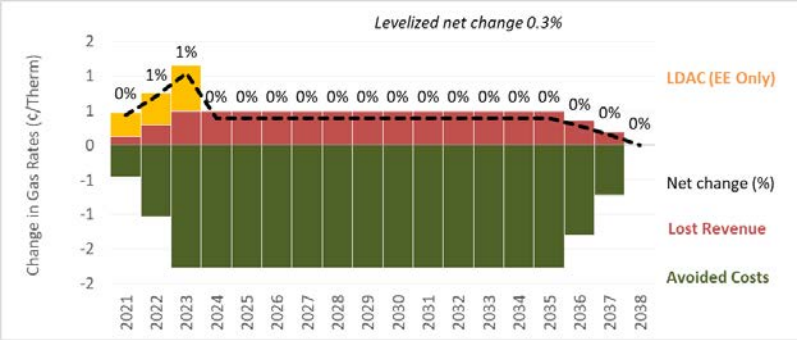
Low Income, Change in Rates Over the Life of the Measures



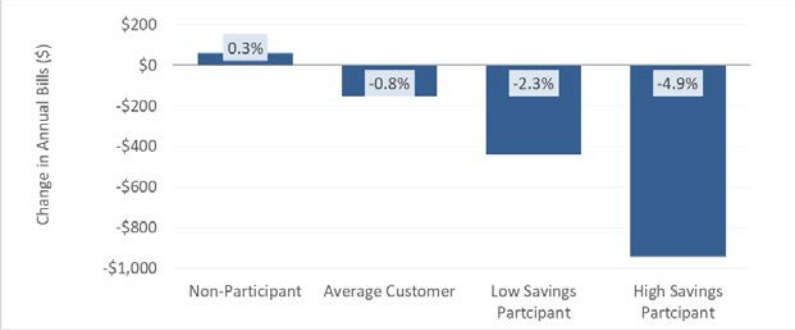
Low Income, Long-Term Average Change in Bills Over the Life of the Measures



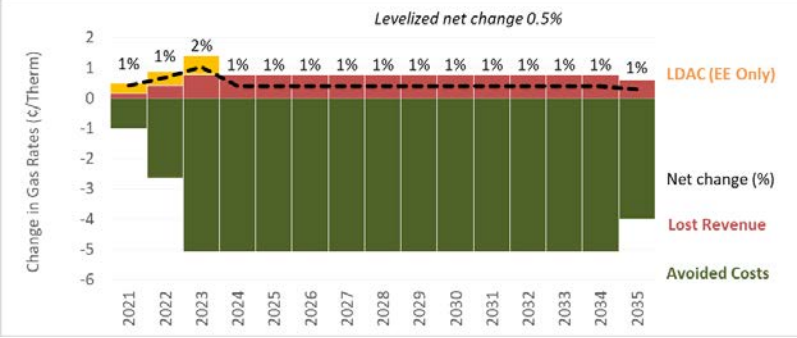
Small Commercial & Industrial, Change in Rates Over the Life of the Measures



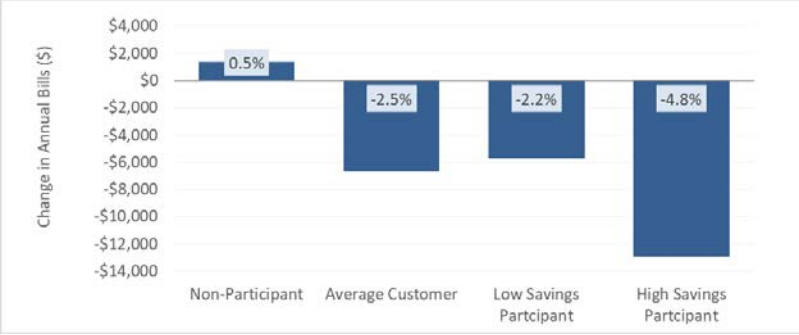
Small Commercial & Industrial, Long-Term Average Change in Bills Over the Life of the Measures



Large Commercial & Industrial, Change in Rates Over the Life of the Measures



Large Commercial & Industrial, Long-Term Average Change in Bills Over the Life of the Measures



NOTICE: This opinion is subject to motions for rehearing under Rule 22 as well as formal revision before publication in the New Hampshire Reports. Readers are requested to notify the Reporter, Supreme Court of New Hampshire, One Charles Doe Drive, Concord, New Hampshire 03301, of any editorial errors in order that corrections may be made before the opinion goes to press. Errors may be reported by E-mail at the following address: reporter@courts.state.nh.us. Opinions are available on the Internet by 9:00 a.m. on the morning of their release. The direct address of the court's home page is: http://www.courts.state.nh.us/supreme.

THE SUPREME COURT OF NEW HAMPSHIRE

Public Utilities Commission
No. 2017-0007

APPEAL OF ALGONQUIN GAS TRANSMISSION, LLC
APPEAL OF PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE d/b/a EVERSOURCE ENERGY
(New Hampshire Public Utilities Commission)

Argued: September 27, 2017
Opinion Issued: May 22, 2018

Robinson & Cole LLP, of Hartford, Connecticut and Providence, Rhode Island (Joey Lee Miranda and Dana M. Horton on the brief), and Jennifer R. Rinker, of Houston, Texas, by brief, for appellant Algonquin Gas Transmission, LLC.

McLane Middleton, Professional Association, of Manchester (Wilbur A. Glahn, III on the brief and orally), and Robert A. Bersak and Matthew J. Fossum, of Manchester, by brief, for appellant Public Service Company of New Hampshire d/b/a Eversource Energy.

Orr & Reno, P.A., of Concord (Douglas L. Patch on the brief and orally), for appellee NextEra Energy Resources, LLC.

Thomas F. Irwin, of Concord, by brief, for appellee Conservation Law Foundation.

D. Maurice Kreis, consumer advocate, by brief and orally, for appellee Office of the Consumer Advocate.

Robert Backus, Burt Cohen, Richard Russman, and Clifton Below, self-represented parties, by brief, as amicus curiae.

LYNN, C.J. The appellants, Algonquin Gas Transmission, LLC (Algonquin) and Public Service Company of New Hampshire d/b/a Eversource Energy (Eversource), appeal an order of the New Hampshire Public Utilities Commission (PUC) dismissing Eversource's petition for approval of a proposed contract for natural gas capacity, as well as a program to set parameters for the release of capacity and the sale of liquefied natural gas made available to electric generators, and/or an associated tariff. The appellees, NextEra Energy Resources, LLC (NextEra), Conservation Law Foundation (CLF), and the Office of the Consumer Advocate (OCA), appear in opposition to this appeal. We reverse and remand.

I

The following facts are supported by the record. Eversource is a public utility company operating under New Hampshire law as an electric distribution company (EDC). Algonquin is an owner-operator of a gas pipeline located in New England.

In April 2015, the PUC issued an Order of Notice announcing an investigation "into potential approaches involving New Hampshire's [EDCs] to address cost and price volatility issues currently affecting wholesale electricity markets in New Hampshire." As background, the PUC explained that in 1996 the legislature enacted RSA chapter 374-F, the electric utility restructuring chapter, with the "overall public policy goal" of developing "a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment." (Quoting RSA 374-F:1 (2009).) The PUC noted that over the two decades following the chapter's enactment, "competitive electricity markets have developed in New Hampshire, at both the wholesale and retail levels," and that, "[u]ntil recently,

market competition at the wholesale and retail levels has tended to keep electricity prices at reasonable levels for New Hampshire consumers."

The PUC observed, however, that the previous two years had "seen significant transitions in New Hampshire's wholesale and retail electricity markets, and those of the New England region generally," including "an increasing dependence on natural gas-fueled generation plants within the region . . . as aging coal, oil, and nuclear plants have been retired." According to the PUC, "[d]uring recent winters, significant constraints on natural gas resources have emerged in New England, despite abundant natural gas commodity production in the Mid-Atlantic States and elsewhere," leading to "extreme price volatility in gas markets in the winter months in our region, which, in turn, have resulted in sharply higher wholesale electricity prices." The PUC stated that, "[o]verall, the average retail price of electricity in New England is the highest in the continental United States, posing a threat to our region's economic competitiveness."

Recognizing that it has "a fundamental duty to ensure that the rates and charges assessed by EDCs are just and reasonable," the PUC acknowledged that "the potential development of additional natural gas resources for the benefit of the electricity supply in our region should be carefully considered," and that "[a] targeted Staff investigation to examine the gas-resource constraint problem that is affecting New Hampshire's EDCs and electricity consumers generally may yield potential solutions to these market issues." Accordingly, the PUC directed PUC Staff (Staff) to, among other things, "inquire with the EDCs . . . regarding potential means of addressing these market problems" and provide the PUC with a report no later than September 15, 2015.

In the context of that investigation, certain stakeholders asked whether RSA chapter 374-F prohibits EDCs from acquiring gas capacity. In response, Staff issued a memorandum on July 10, 2015, opining that the PUC

> may find that a proposal by an EDC to acquire incremental gas capacity, for the use of gas-fired generators, could enhance power system reliability (especially in winter when existing gas capacity is constrained), and thus help the EDC meet its duty to provide reliable service under RSA 374:1; provide public benefits related to the provision of electricity (e.g., less price volatility, enhanced winter reliability, etc.); and serve as an element of New England-wide cooperation to reduce gas capacity constraints in order to provide for the displacement of oil and coal-fired electric generation by cleaner gas-fired electric generation. If the [PUC] were to decide that these goals were congruent with various Restructuring Policy Principles [in RSA 374-F:3], and that these principles were not overridden by the single principle of generation-distribution

separation in RSA 374-F:3, III, it could conclude that RSA Chapter 374-F does not preclude such an EDC capacity purchase. Furthermore, an EDC making such a proposal could argue that provision of gas capacity to unaffiliated merchant generators does not violate the functional separation principle of RSA 374-F:3, III in the first instance, in that New Hampshire EDCs would not actually acquire the gas capacity for their own use, but rather, would make such capacity available for the use of merchant generators in a bilateral transaction.

On September 15, 2015, Staff issued a 49-page report on its investigation into potential approaches to mitigate wholesale electricity prices.[1] Staff reiterated that the policy principle in RSA 374:F-3, III (2009), that generation services should be "at least functionally separated from transmission and distribution services," RSA 374-F:3, III, should be read in concert with other restructuring policy principles set forth in the statute that are "of similar importance to the functional separation principle." In doing so, Staff concluded that the PUC "could rule, in response to a proposal being made by a New Hampshire EDC, that the potential benefits of a gas-capacity acquisition project would foster the overall goals of the Restructuring Policy Principles of RSA [chapter] 374-F," which include "cost savings for distribution customers of EDCs; enhanced reliability for New England's increasingly gas-dependent electric generation fleet and electric transmission system; and environmental benefits from the displacement of inefficient coal and oil generation units by highly efficient gas generation units." Staff noted "that quality evidence of such benefits will be of critical importance in gauging the appropriateness of a given proposal under RSA [chapter] 374-F."

In January 2016, the PUC accepted the Staff report "as compliant with the directives" it had set out. The PUC noted that, although the Staff report set forth Staff's view that "there exists a path under New Hampshire law for the approval of acquisitions of natural gas capacity resources by New Hampshire EDCs for the economic benefit of their customers and the customers of other regional EDCs," it was clear to the PUC "that no consensus exists regarding the potential legality of such an acquisition of gas capacity by a New Hampshire EDC" and the PUC expected "that such a capacity acquisition would be highly controversial."

[1] Staff noted that it had received responses to its July 10 memorandum from seven stakeholders presenting "a wide diversity of views" on the issue of the authority of EDCs "acquiring gas pipeline capacity for the ultimate use of gas generators." After reviewing those responses, "and having considered the matter further," Staff re-adopted the conclusions set forth in its July memorandum.

Accordingly, the PUC stated its intention "to rule on the question of whether a New Hampshire EDC has the legal authority to acquire natural gas capacity resources to positively impact electricity market conditions, only within the context of a full adjudicative proceeding . . . , and only in response to an actual (as opposed to hypothetical) petition." The PUC explained that, in such a circumstance, it would consider a petition "in separate phases." In the first phase, the PUC "would review briefs submitted by the petitioner EDC, Staff, and other parties regarding whether such capacity procurement is allowed under New Hampshire law." If the PUC were to rule against the legality of such a petition, the petition would be dismissed, but, if not, a second phase of the proceeding would take place "to examine the appropriate economic, engineering, environmental, cost recovery, and other factors presented by the actual proposal." In doing so, the PUC would allow "discovery, testimony, rebuttal testimony, and cross-examination."

In February 2016, Eversource petitioned the PUC "for approval of a Precedent Agreement for firm gas transportation and storage services between Eversource and Algonquin . . . relative to the proposed Access Northeast ('Access Northeast' or 'ANE') pipeline project (the 'ANE Contract')." Eversource requested the PUC's approval of: (1) "the ANE Contract, which is a 20-year interstate pipeline transportation and storage contract providing natural gas capacity for use by electric generation facilities"; (2) "an Electric Reliability Service Program . . . to set parameters for the release of capacity and the sale of liquefied natural gas . . . supply available by virtue of the ANE Contract"; and (3) "a Long-Term Gas Transportation and Storage Contract . . . tariff, which allows for recovery of costs associated with the ANE Contract."[2]

In March 2016, the PUC issued an Order of Notice of its receipt of Eversource's petition. The PUC noted that "[t]he filing raises, inter alia, issues related to whether" the contract "would violate the Restructuring Principles of RSA Chapter 374-F." Accordingly, the PUC opened the first phase of its proceeding to "review briefs submitted by Eversource, Staff and other parties regarding whether the Access Northeast Contract, and affiliated program elements, is allowed under New Hampshire law."

In October 2016, the PUC dismissed Eversource's petition, concluding as a matter of law that Eversource's proposal conflicted with the principles and requirements of RSA chapter 374-F. After reviewing the stated purposes of the statute set forth in RSA 374-F:1, I and II, and the so-called "functional separation" restructuring policy principle set forth in RSA 374-F:3, III, the PUC ruled that "the overriding purpose of the Restructuring Statute is to introduce

[2] According to Eversource, the ANE pipeline project "is designed to provide increased natural gas deliverability to the New England region to support electric generation, including most directly, the gas-fired electric generating plants on the Algonquin and [Maritimes & Northeast Pipeline] systems."

competition to the generation of electricity," with the "long-term results [to] be lower prices and a more productive economy." It explained that "[t]o achieve that purpose, RSA 374-F:3, III directs the restructuring of the industry, separating generation activities from transmission and distribution activities, and unbundling the rates associated with each of the separate services." Thus, the PUC concluded that "the proposal brought forward by Eversource is fundamentally inconsistent with the purposes of restructuring." The PUC subsequently denied Eversource's and Algonquin's motions for reconsideration, and this appeal followed.

II

On appeal, Eversource argues that the PUC's determination that "the overriding purpose of the Restructuring Statute was to introduce competition to the generation of electricity" resulted from an interpretation of the statute that fails to "comport with the stated purpose of the law, ignores nearly all of the interdependent policy principles enumerated in it, and undermines the authority the Commission has been granted relative to the implementation of the law." (Quotation omitted.) According to Eversource, the PUC "was wrong as to both the expressed purpose of the law and in finding a mandate or directive for the separation of generation and transmission and distribution services within it." Because the PUC's order failed to properly construe RSA chapter 374-F and because that failure "colored the entire order," Eversource contends that it should be reversed. (Capitalization and bolding omitted.)

Algonquin agrees with Eversource that the PUC erred when it concluded that the fundamental purpose of RSA chapter 374-F is to encourage competition in the generation of electricity, arguing that this finding "directly contravenes the plain language of the Restructuring Statute, is inconsistent with its legislative history, and confuses the goals of the Restructuring Statute with the methods by which to achieve those goals." Algonquin asserts that the PUC's analysis "conflate[d] the purpose of the Restructuring Statute with the methods employed by the Restructuring Statute," and, in doing so, "leapt to the unsupported conclusion that the goal of the Restructuring Statute is competition for its own sake."

The parties that appear in opposition to this appeal disagree with Eversource and Algonquin. CLF argues that the PUC correctly interpreted RSA chapter 374-F to conclude that Eversource's proposal "would violate the Act's overriding purpose of establishing competition in the generation of electricity by separating electric generation from electric distribution and protecting ratepayers from generation-related risks." According to CLF, the PUC's interpretation of the statute "is owed deference, [and] is supported by the unambiguous language of the Act, including its purposes to restructure the industry to reduce costs for consumers 'by harnessing the power of competitive

markets,' RSA 374-F:1, I, and to serve the 'essential right of the people' to have '[f]ree and fair competition' and be 'protected against all monopolies and conspiracies which tend to hinder or destroy it.'" (Quoting N.H. CONST. pt. II, art. 83.) (Quotations omitted.)

OCA asserts that the PUC "did not . . . apply one of the policy principles to the inappropriate exclusion of others," nor did it "read too much into the Legislature's use of the word 'should' in the so-called functional separation principle." Rather, it contends, the PUC "kept faith with its instructions in the implementation section, RSA 374-F[:]4," that "the Legislature has declared that in its restructured state New Hampshire's electric industry now relies on the competitive market for everything related to generation."

Likewise, NextEra argues that "there would have been no electric utility restructuring . . . without the extraction of generation and subjecting it to the market" and, therefore, the PUC's "decision to dismiss the Eversource Petition because it violated the Separation and Unbundling Requirements is supported by the Commission's discernment that the overriding purpose of the Restructuring Statute was the introduction of generation to competition." Furthermore, NextEra asserts that "the fact that the Commission used its informed judgment to focus on the one interdependent policy principle most directly implicated, and cross-referenced in many of the other principles, was reasonable and consistent with the express language of the Restructuring Statute."

III

A party seeking to set aside an order of the PUC has the burden of demonstrating that the order is contrary to law or, by a clear preponderance of the evidence, that the order is unjust or unreasonable. RSA 541:13 (2007); see Appeal of Pennichuck Water Works, 160 N.H. 18, 26 (2010). Although we give the PUC's policy choices "considerable deference" in reviewing its decisions rendered on the merits, we do not defer to its statutory interpretation. Pennichuck, 160 N.H. at 26. Where, as here, the issue presented is purely a question of law, we review the PUC's statutory interpretation de novo. See id.; see also Appeal of Town of Seabrook, 163 N.H. 635, 644 (2012) (explaining that while an interpretation of a statute by the agency charged with its administration is entitled to some deference, we are still the final arbiter of the legislature's intent and are not bound by an agency's interpretation of a statute); Appeal of Bretton Woods Tel. Co., 164 N.H. 379, 386 (2012).[3]

[3] We note that no party suggests that the PUC's construction of the restructuring statute in the present case follows a consistent pattern by that agency of interpreting the statute in a similar fashion. Thus, this case does not present the situation wherein long-standing agency practice has placed an administrative gloss on an ambiguous statute that the legislature has not seen fit to alter. See Petition of Kalar, 162 N.H. 314, 321 (2011); DHB v. Town of Pembroke, 152 N.H. 314,

"In matters of statutory interpretation, we are the final arbiter of the intent of the legislature as expressed in the words of a statute considered as a whole." Roy v. Quality Pro Auto, 168 N.H. 517, 519 (2016) (quotation omitted). "We first look to the language of the statute itself, and, if possible, construe that language according to its plain and ordinary meaning." Id. (quotation omitted). We interpret legislative intent from the statute as written and will not consider what the legislature might have said or add language that the legislature did not see fit to include. LLK Trust v. Town of Wolfeboro, 159 N.H. 734, 736 (2010). We construe all parts of a statute together to effectuate its overall purpose and avoid an absurd or unjust result. Id. Moreover, we do not consider words and phrases in isolation, but rather within the context of the statute as a whole. Id. This enables us to better discern the legislature's intent and to interpret statutory language in light of the policy or purpose sought to be advanced by the statutory scheme. Id.

IV

The issue we address is a narrow one — whether the PUC erred when it determined as a matter of law that, on its face, "the proposal brought forward by Eversource is fundamentally inconsistent with the purposes of restructuring" and, thus, is prohibited under RSA chapter 374-F. In denying Eversource's petition, the PUC first ruled "that the overriding purpose of the Restructuring Statute is to introduce competition to the generation of electricity" with the "long-term results [to] be lower prices and a more productive economy." The PUC then further ruled that "[t]o achieve that purpose, RSA 374-F:3, III directs the restructuring of the industry, separating generation activities from transmission and distribution activities, and unbundling the rates associated with each of the separate services." (Emphasis added.) Given these rulings, the PUC concluded that "the basic premise of Eversource's proposal — having an EDC purchase long-term gas capacity to be used by electric generators — runs afoul of the Restructuring Statute's functional separation requirement." We disagree.

In 1996, the legislature found that "New Hampshire has the highest average electric rates in the nation and such rates are unreasonably high." Laws 1996, 129:1, I. These high electric rates, combined with the findings "that electric rates for most citizens may further increase" and "that there is a wide rate disparity in electric rates both within New Hampshire and as compared to the region," were found to have "a particularly adverse impact on New Hampshire citizens." Laws 1996, 129:1, I. The legislature further found that the effects of the state's "extraordinarily high electric rates disadvantage

---

321 (2005). The absence of this factor undermines the appellees' argument for deference to the PUC's construction of the statute.

all classes of customers," were "causing businesses to consider relocating or expanding out of state," and were "a significant impediment to economic growth and new job creation in this state." Laws 1996, 129:1, II. Accordingly, the legislature determined that "New Hampshire must aggressively pursue restructuring and increased consumer choice in order to provide electric service at lower and more competitive rates." Laws 1996, 129:1, III. To address these concerns, the legislature enacted RSA chapter 374-F. See RSA 374-F:1.

As set forth in the statute, "[t]he most compelling reason to restructure the New Hampshire electric utility industry is to reduce costs for all consumers of electricity by harnessing the power of competitive markets." RSA 374-F:1, I (emphasis added). "The overall public policy goal of restructuring is to develop a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment." Id. (emphasis added).

To that end, the statute identifies "interdependent policy principles" that "are intended to guide the New Hampshire public utilities commission in implementing a statewide electric utility industry restructuring plan, . . . and in regulating a restructured electric utility industry." RSA 374-F:1, III. These 15 "Restructuring Policy Principles" (policy principles) include: "System Reliability"; "Customer Choice"; "Regulation and Unbundling of Services and Rates"; "Open Access to Transmission and Distribution Facilities"; "Universal Service"; "Benefits for All Consumers"; "Full and Fair Competition"; "Environmental Improvement"; "Renewable Energy Resources"; "Energy Efficiency"; "Near Term Rate Relief"; "Recovery of Stranded Costs"; "Regionalism"; "Administrative Processes"; and "Timetable." RSA 374-F:3, I-XV (2009 & Supp. 2017) (bolding and capitalization omitted).

The specific policy principle at issue before us, the so-called "functional separation" principle, provides in pertinent part:

> III. Regulation and Unbundling of Services and Rates. When customer choice is introduced, services and rates should be unbundled to provide customers clear price information on the cost components of generation, transmission, distribution, and any other ancillary charges. Generation services should be subject to market competition and minimal economic regulation and at least functionally separated from transmission and distribution services which should remain regulated for the foreseeable future. However, distribution service companies should not be absolutely precluded from owning small scale distributed generation

> resources as part of a strategy for minimizing transmission and distribution costs.

RSA 374-F:3, III (capitalization omitted). Algonquin and Eversource both argue that the proposed ANE Contract does not violate this provision of the statute because a gas contract for the purchase of capacity on a natural gas pipeline does not constitute "generation services." (Quotation omitted.) Eversource contends that it "is not proposing to combine any generation and distribution functions, nor is it proposing the ANE Contract as a means to engage in 'generation services' described in RSA 374-F:3, III," but, rather, "it is seeking to ensure long-term electric system reliability by supporting the delivery of adequate natural gas supplies to, among other end-users, the region's competitive gas-fired electric generators." Algonquin concurs that "Eversource's sole and critical role would be making primary firm natural gas capacity available—Eversource would not be providing or engaged in the generation of electricity." The appellees, on the other hand, contend that the purchase of gas capacity should be considered a component of electricity generation. We conclude that this issue cannot be decided as a matter of law, and, therefore, we decline to address it at this juncture.

However, even assuming that Eversource's proposal could be considered to involve generation, that would not end the inquiry. The chapter does not prioritize the 15 restructuring policy principles contained in section 3. Nor does the chapter reflect any legislative intent that the "functional separation" policy principle is meant to "direct" the PUC in the exercise of its authority in implementing the chapter to the exclusion of the 14 remaining principles. The policy principles are identified as being "interdependent." RSA 374-F:1, III. The common definition of "interdependent" is "mutually dependent." Webster's Third New International Dictionary 1177 (unabridged ed. 2002); see Woolf v. Fuller, 87 N.H 64, 68 (1934) (explaining that two provisions of law were "interdependent," meaning that "one qualif[ied] and limit[ed] the other; otherwise . . . due effect could not be given to both at the same time"). As Algonquin points out, the PUC's order "does not . . . discuss any of the other" policy principles, and, "by erroneously focusing on the Functional Separation Principle," the PUC did not consider whether "many, if not all, of the other fourteen [policy principles] would be advanced" by the proposed agreement.

Furthermore, RSA 374-F:3 expressly states when such policy principles establish directives to the PUC. See, e.g., RSA 374-F:3, I (2009) ("[r]eliable electricity service must be maintained" (emphasis added)); RSA 374-F:3, V(a) (2009) ("[a] utility providing distribution services must have an obligation to connect all customers in its service territory to the distribution system" (emphasis added)); RSA 374-F:3, V(c) (2009) ("[a]ny prudently incurred costs arising from compliance with the renewable portfolio standards . . . for default service or purchased power agreements shall be recovered through the default

service charge" (emphasis added)); RSA 374-F:3, XII(a) (2009) ("in addressing claims for stranded cost recovery and fulfilling its responsibility to determine rates which are equitable, appropriate, and balanced and in the public interest . . . , the [PUC] shall balance the interests of ratepayers and utilities during and after the restructuring process" (emphasis added)).

By contrast, other policy principles state only that the PUC "should" take certain factors into consideration, including that "[g]eneration services should be . . . at least functionally separated from transmission and distribution services," RSA 374-F:3, III. See also, e.g., RSA 374-F:3, II (2009) ("[c]ustomers should be able to choose among options such as levels of service reliability, real time pricing, and generation sources" (emphasis added)); RSA 374-F:3, IV (2009) ("[n]on-discriminatory open access to the electric system for wholesale and retail transactions should be promoted" (emphasis added)); RSA 374-F:3, V(a) (2009) ("[e]lectric service is essential and should be available to all customers" and a "restructured electric utility industry should provide adequate safeguards to assure universal service" (emphasis added)); RSA 374-F:3, VII (2009) ("[t]he rules that govern market activity should apply to all buyers and sellers in a fair and consistent manner" (emphasis added)); RSA 374-F:3, VIII ("environmental protection and long term environmental sustainability should be encouraged" and "[i]ncreased competition in the electric industry should be implemented in a manner that supports and furthers the goals of environmental improvement" (emphasis added)); RSA 374-F:3, IX (2009) ("[i]ncreased future commitments to renewable energy resources should be consistent with the New Hampshire energy policy" and "should be balanced against the impact on generation prices" (emphasis added)); RSA 374-F:3, X (2009) ("[r]estructuring should be designed to reduce market barriers to investments in energy efficiency" (emphasis added)); RSA 374-F:3, XIII (2009) ("New Hampshire should work with other New England and northeastern states to accomplish the goals of restructuring" and "should assert maximum state authority over the entire electric industry restructuring process" (emphasis added)).

The use of the word "should" allows the PUC to exercise its discretion and judgment; in contrast, the word "shall" establishes a mandatory duty. See Ford v. N.H. Dep't of Transp., 163 N.H. 284, 296 (2012); Appeal of Psychiatric Institutes of America, 132 N.H. 177, 183 (1989). Had the legislature intended to require the PUC to prioritize the "functional separation" policy principle above all other principles identified in the statute, and to require "functional separation" in all circumstances, it would have said so. "Where the legislature fails to include in a statute a provision for mandatory enforcement that it has incorporated in other, similar contexts, we presume that it did not intend the law to have that effect and will not judicially engraft such a term." In the Matter of Bazemore & Jack, 153 N.H. 351, 354 (2006); see LLK Trust, 159 N.H.

at 736 (stating that we "will not consider what the legislature might have said or add language that the legislature did not see fit to include").

Pursuant to its plain language, and reading the statute as a whole, we discern that the primary intent of the legislature in enacting RSA chapter 374-F was to reduce electricity costs to consumers. See RSA 374-F:1, I. We disagree with the PUC's ruling that the legislature's "overriding purpose" was "to introduce competition to the generation of electricity." Rather, as the statute provides, the legislature intended to "harness[ ] the power of competitive markets," RSA 374-F:1, I, as a means to reduce costs to consumers, not as an end in itself.[4] See Appeal of Campaign for Ratepayers Rights, 145 N.H. 671, 673 (2001) (explaining that "the goal of restructuring was to create competitive markets that would produce lower prices for all customers than would have been paid under the then-current regulatory system" (quotation and brackets omitted)). Likewise, we disagree with the PUC's ruling that RSA 374-F:3, III directs the "functional separation" of generation services from transmission and distribution services and elevates that single policy principle over the others identified in the statute.

We acknowledge that the Massachusetts Supreme Judicial Court has interpreted that state's restructuring law differently than we do New Hampshire's statute. See ENGIE Gas v. Dep't of Public Utilities, 56 N.E.3d 740 (Mass. 2016). However, we disagree with the conclusion reached in that case for the reasons stated herein.

We hold that the PUC erred in dismissing Eversource's petition as a matter of law. In light of our decision, we need not address the appellant's remaining arguments. Accordingly, we reverse the PUC's dismissal of the petition and remand to the agency for further proceedings consistent with this opinion.

Reversed and remanded.

HANTZ MARCONI, J., concurred; DALIANIS, C.J., retired, specially assigned under RSA 490:3, concurred; HICKS, J., dissented.

[4] Under the PUC's construction, the restructuring statute would preclude approval of Eversource's petition based upon the functional separation principle even if the agency were to conclude, following a full hearing, that the other policy principles identified in the statute clearly outweighed functional separation and that the proposal would produce more reliable electric service at lower rates for New Hampshire consumers than presently exists without any significant adverse consequences. We do not believe that RSA chapter 374-F can sensibly be construed in this fashion.

HICKS, J., dissenting. Because I agree with the Public Utilities Commission (PUC) that Eversource's proposal "is fundamentally inconsistent with the purposes of restructuring," I respectfully dissent.

The majority disagrees with the PUC's determination that "the overriding purpose of the Restructuring Statute," RSA chapter 374-F, "is to introduce competition to the generation of electricity," and instead concludes that "the primary intent of the legislature in enacting RSA chapter 374-F was to reduce electricity costs to consumers." It therefore interprets RSA chapter 374-F (the Restructuring Statute) to authorize the PUC to expressly undermine competition and to reintegrate electricity generation costs and services with those of transmission and distribution should the PUC find that "other policy principles identified in the statute clearly outweighed functional separation and that the proposal would produce more reliable electric service at lower rates for New Hampshire consumers than presently exists without any significant adverse consequences."

In reaching its construction of the Restructuring Statute, the majority applies a number of admittedly well-recognized tools of statutory construction to interpret selected terms within the statute — for example, consulting a dictionary to define the term "interdependent" and interpreting the term "shall" to "establish[] a mandatory duty," in contrast to "should," which the majority construes to permit discretion. In doing so, however, the majority misses the forest for the trees.

I begin with the recognition that when "we examine . . . statutory language, we do not merely look at isolated words or phrases, but instead we consider the statute as a whole." In the Matter of Maves & Moore, 166 N.H. 564, 566-67 (2014). "In so doing, we are better able to discern the legislature's intent, and therefore better able to understand the statutory language in light of the policy sought to be advanced by the entire statutory scheme." Id. at 567. "Our goal is to apply statutes in light of the legislature's intent in enacting them, and in light of the policy sought to be advanced by the entire statutory scheme." State Employees Assoc. of N.H. v. N.H. Div. of Personnel, 158 N.H. 338, 343 (2009) (quotation omitted).

Read as a whole, the Restructuring Statute clearly evinces that, while the reduction of consumer electricity costs was both the impetus for the Restructuring Statute and the anticipated result of its enactment and implementation, see RSA 374-F:1 (2009), it was not an end to be obtained by any means the PUC should think appropriate. Indeed, even assuming the majority's point that "the primary intent of the legislature in enacting RSA chapter 374-F was to reduce electricity costs to consumers," it would be "quite mistaken to assume . . . that whatever might appear to further the statute's primary objective must be the law." Henson v. Santander Consumer USA Inc.,

137 S. Ct. 1718, 1725 (2017) (quotations and brackets omitted); see also State v. Dor, 165 N.H. 198, 205 (2013) (noting same).

In RSA chapter 374-F, the legislature did not simply mandate rate reduction, but clearly expressed the means by which it sought to achieve that result. The statute's statement of purpose, for instance, provides:

> The most compelling reason to restructure the New Hampshire electric utility industry is to reduce costs for all consumers of electricity by harnessing the power of competitive markets. The overall public policy goal of restructuring is to develop a more efficient industry structure and regulatory framework that results in a more productive economy by reducing costs to consumers while maintaining safe and reliable electric service with minimum adverse impacts on the environment. Increased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that will require unbundling of prices and services and at least functional separation of centralized generation services from transmission and distribution services.

RSA 374-F:1, I (emphases added). The legislature sought to reduce electricity costs, to be sure, but sought to do so by restructuring the industry to introduce competition into the market for electricity generation. See Appeal of Campaign for Ratepayers Rights, 145 N.H. 671, 673 (2001) (noting that Restructuring Statute "directed the PUC to design a restructuring plan in which electric generation services and rates would be extracted from the traditional regulatory scheme, unbundled, and subjected to market competition" (quotations omitted)).

The term "restructuring" occurs, in some form, throughout RSA chapter 374-F, including, notably, in the statute's title: "Electric Utility Restructuring." See Greenland Conservation Comm'n v. N.H. Wetlands Council, 154 N.H. 529, 534 (2006) ("The title of a statute is not conclusive of its interpretation, but it is a significant indication of the intent of the legislature in enacting a statute." (citations omitted)). It is not a term the legislature used without context. As the legislature noted in its findings preceding the sections codified as the Restructuring Statute: "Restructuring of electric utilities to provide greater competition and more efficient regulation is a nationwide phenomenon and New Hampshire must aggressively pursue restructuring and increased customer choice in order to provide electric service at lower and more competitive rates." Laws 1996, 129:1, III.

By way of background, "[u]ntil relatively recently, most state energy markets were vertically integrated monopolies," Hughes v. Talen Energy

Marketing, LLC, 136 S. Ct. 1288, 1292 (2016), in which "electricity was sold by vertically integrated utilities that had constructed their own power plants, transmission lines, and local delivery systems," New York v. FERC, 535 U.S. 1, 5 (2002). Such a utility's "sales were 'bundled,' meaning that consumers paid a single charge that included both the cost of the electric energy and the cost of its delivery." Id. In the 1990s, the Federal Energy Regulatory Commission "commenced a program of deregulating and 'unbundling' the wholesale electric power industry by restructuring and separating electrical generation, transmission, and distribution." MPS Merchant Services, Inc. v. F.E.R.C., 836 F.3d 1155, 1160 (9th Cir. 2016). Subsequently, many states restructured and deregulated their own electric energy markets. See, e.g., id.; Northeast Energy v. Mahar Regional School, 971 N.E.2d 258, 264 n.14 (Mass. 2012) (noting that "[a]doption of the [Massachusetts] restructuring act followed similar changes in Federal law that created competition within the wholesale electric power industry").

Critical to interpreting the Restructuring Statute is the recognition that in the context of this "nationwide phenomenon," Laws 1996, 129:1, III, restructuring is inextricably tied to competition: "Restructuring is nothing short of a complete reordering of the famously staid electric utility industry" and "[t]he raison d'etre of restructuring is to bring about free market-like competition in the industry." Joel B. Eisen, The Environmental Responsibility of the Regionalizing Electric Utility Industry, 15 Duke Envtl. L. & Pol'y F. 295, 313 (2005). Our state legislature clearly used the term in that context. It found that although "[m]onopoly utility regulation has historically substituted as a proxy for competition in the supply of electricity[,] . . . market forces can now play the principal role in organizing electricity supply for all customers instead of monopoly regulation." Laws 1996, 129:1, IV. The legislature therefore concluded that "[i]t is in the best interests of all the citizens of New Hampshire that the general court, the executive branch, and the public utilities commission work together to establish a competitive market for retail access to electric power as soon as is practicable." Laws 1996, 129:1, V. Moreover, the legislature explicitly linked the Restructuring Statute's "transition to competitive markets for electricity" to the "directives of part II, article 83 of the New Hampshire constitution" to protect the people's "inherent and essential right" to "[f]ree and fair competition in the trades and industries." RSA 374-F:1, II.

The Restructuring Statute, which uses some form of the word "compete" (e.g., "competition," "competitive") no fewer than 55 times, was clearly enacted "to create competitive markets that are expected to produce lower prices for all customers than would have been paid under the current regulatory system." RSA 374-F:3, XI (Supp. 2017) (emphasis added). Eversource itself recognizes that fact, but asserts that "twenty years later, the [PUC] and ISO-NE[, the regional electricity market administrator,] have recognized that competition has

not achieved its stated purposes." Even assuming that to be the case, however, if the legislature's chosen solution has not achieved the anticipated results, it is neither the PUC's nor this court's place to rewrite the statute. See Appeal of THI of NH at Derry, LLC, 168 N.H. 504, 512 (2016) (noting that when statute's plain language reflects that the asserted statutory goal of keeping nursing home beds in service "is to be accomplished only in the narrow circumstances to which the statute applies[,] . . . the [Health Services Planning and Review] Board had no authority to ignore this requirement to further an arguably more general statutory objective"). The type of policy about-face that would be required to authorize Eversource's proposal should be made, if at all, by the legislature. See, e.g., Dolbeare v. City of Laconia, 168 N.H. 52, 57 (2015) (declining to consider public policy argument in construing statute because "matters of public policy are reserved for the legislature").

Similarly, the contention that the PUC impermissibly elevated the importance of the functional separation principle over RSA 374-F:3's other policy principles — or that functional separation itself was merely a suggestion that the legislature thought the PUC ought to consider — ignores the importance that insisting upon "at least functional separation" plays in implementing and maintaining competition in a formerly vertically integrated industry in which some components remain regulated monopolies. The term "functional separation," while not explicitly defined in the Restructuring Statute, see RSA 374-F:2 (Supp. 2017) (definitions section), may generally be understood to mean "requiring utilities to separate their competitive generation functions from their regulated transmission and distribution functions." Sonnet C. Edmonds, Retail Electric Competition in Kansas: A Utility Perspective, 37 Washburn L.J. 603, 632 (1998). It may also be seen as a less drastic alternative to divestiture, under which "a utility would have to divest itself of all or a portion of its generating assets to another entity or entities in order to remain in the distribution business." Id. at 631; see also Paul L. Joskow & Roger G. Noll, The Bell Doctrine: Applications in Telecommunications, Electricity, and Other Network Industries, 51 Stan. L. Rev. 1249, 1304 (1999) (noting that an alternative approach to "structural separation," i.e., divestiture, "involves functional separation of generation, transmission, and distribution (i.e., costs separations and certain operational separations between competitive and regulated segments) within existing vertically integrated firms, combined with open access and pricing rules for use of the transmission and distribution networks by competing suppliers of generation" (emphases omitted)).

The importance of at least functionally separating generation services from transmission and distribution services is that achieving and maintaining a competitive market in generation services depends upon it. As Professors Joskow and Noll explain, "vertical integration between [the monopolistic transmission and distribution functions] and the [competitive] generation

function effectively turns the supply of generating service into a monopoly as well," despite the existence of competitors in the generation market. Joskow & Noll, supra at 1298. Thus, the Supreme Judicial Court of Massachusetts similarly explained that functionally separating generation services from transmission and distribution services in that state's restructuring act "was regarded as a necessary first step in moving toward a fully competitive generation market" because such separation "limit[s] a company's ability to provide itself an undue advantage in buying or selling services in competitive markets." Northeast Energy, 971 N.E.2d at 265 (quotations omitted).

I acknowledge that the legislature used the term "should" in RSA 374-F:3, III (Supp. 2017). I would not, however, "consider [that] word[] . . . in isolation." Appeal of Michele, 168 N.H. 98, 102 (2015) (noting that "we do not consider words and phrases in isolation, but rather within the context of the statute as a whole" (quotation omitted)). To conclude, as the majority does, that "[h]ad the legislature intended to require the PUC to prioritize the 'functional separation' policy principle above all other principles identified in the statute, and to require 'functional separation' in all circumstances, it would have said so," turns a blind eye to the legislature's manifest intent to "transition to competitive markets for electricity." RSA 374-F:1, II.

I note that the Massachusetts Supreme Judicial Court, in ENGIE Gas v. Department of Public Utilities, 56 N.E.3d 740 (Mass. 2016), vacated an order of the Massachusetts Department of Public Utilities in which "the department determined that the plain language of [the Massachusetts restructuring act] provides the department with the statutory authority to approve gas capacity contracts entered into by electric distribution companies, so long as the department first determines that such long-term contracts are in the public interest" and "further concluded that it could properly allow cost recovery for the contracts, including the cost of building the necessary pipeline infrastructure, through electric distribution rates." ENGIE Gas, 56 N.E.3d at 744. The court noted that the language of the statutory provision at issue neither "expressly forbid [the department] from reviewing and approving contracts by electric distribution companies for gas . . . [n]or . . . clearly permit[ted] such activity." Id. at 748. Nevertheless, the court concluded that the department's order was "invalid in light of the statutory language and purpose of [that provision], as amended by the restructuring act, because, among other things, it would undermine the main objectives of the act and reexpose ratepayers to the types of financial risks from which the Legislature sought to protect them." Id. at 742 (emphases added).

Similarly, here, the PUC determined that Eversource's proposal "is fundamentally inconsistent with the purposes of restructuring." The PUC concluded — sustainably, I believe — that "the Capacity Contract is a component of 'generation services' under RSA 374-F:3, III," and that

"[i]ncluding such a generation-related cost in distribution rates would combine an element of generation costs with distribution rates and conflict with the functional separation [principle]." In other words, the PUC implicitly concluded (notwithstanding the use of an arguably permissive "should," as opposed to a directive "shall," in a single provision of the Restructuring Statute) that Eversource's proposal ran directly contrary to the legislature's manifest intent, expressed throughout the statute, to extricate generation from transmission and distribution and to establish a competitive market for the former. RSA 374-F:3, III. But see RSA 374-F:1, I ("Increased customer choice and the development of competitive markets for wholesale and retail electricity services are key elements in a restructured industry that will require unbundling of prices and services and at least functional separation of centralized generation services from transmission and distribution services." (emphases added)). I believe that the PUC's decision is correct, and, in any event, was well within the discretion the legislature delegated to the PUC by providing a set of "interdependent policy principles . . . to guide the [PUC] in implementing a statewide electric utility industry restructuring plan . . . and in regulating a restructured electric utility industry." RSA 374-F:1, III (emphasis added). I respectfully dissent.

CLEAN ENERGY NH
Your Voice in All Energy Matters

February 1, 2021

Representative Michael Vose, Chair
House Science, Technology, & Energy Committee
Submitted via email

Testimony on HB351, relative to the system benefits charge

Dear Chairman Vose and members of the Committee,

Clean Energy NH (CENH) is a non-profit member-based organization. We are New Hampshire's leading clean energy advocate that is dedicated to supporting policies and programs that strengthen our state's economy by encouraging a transition to renewable energy and promoting energy efficiency.

CENH strongly opposes HB351 because we believe the System Benefits Charge (SBC) should be approved by the Public Utilities Commission (PUC), not the legislature.

As stated in previous testimony before the Committee, CENH firmly believes that the SBC is a utility rate and, like all other utility rates, is best reviewed, regulated, and approved by the regulators at the PUC. The PUC has the staff, resources, and expertise to properly evaluate proposed changes to the SBC. Furthermore, the PUC has been clearly charged by the legislature as the authority responsible for regulating utility rates such as the SBC. As a utility rate, changes to the SBC are accompanied by extensive, highly technical supporting documentation that requires highly skilled, trained utility analysts to review. It is CENH's understanding that the legislature does not have the same access to these resources and is therefore not in a position to effectively evaluate proposed changes. The 2021-2023 Energy Efficiency Resource Standard (EERS) plan was developed during a year long public process with multiple opportunities for public input followed by a PUC docket process. The plan filing for the utilities alone was 969 pages followed by expert witness testimony from multiple parties. This material was presented and reviewed during roughly 28 hours of hearings. The legislature has delegated the review and approval of utility rates because the PUC is best equipped to give these complex issues the detailed review, expert evaluation, and time needed to make informed decisions.

CENH also finds the language in this bill vague as to the specific body that will be approving changes to the SBC. The bill's language "***Prior*** *approval [of]* ***by either the passage of legislation by*** *the New Hampshire general court* ***or authorization by the fiscal committee of the general court*** *shall be required to increase the system benefits charge*" does not provide clear direction as to whether it is the general court as a whole or the fiscal committee which is responsible for the action. Furthermore, would the PUC be responsible for requesting a SBC change or could any person or legislator propose or request SBC changes under this approach?

This could lead to unanticipated delays in review and approval which could be harmful to the state's energy efficiency programs, as described more below.

In addition, proposed changes to the SBC are often made with the need for a timely review and approval process. The PUC has the well-established guidelines for review through a clear and transparent docket system that involves ample opportunity for public comment. The legislative schedule may not allow for such timely review and approval process and therefore CENH is concerned certain programs, such as the state's energy efficiency programs, which rely on SBC funding, may suffer if review and approval are unnecessarily delayed.

The triennial EERS plan approach was formed in part to alleviate program start-stops due to budget approval delays or running out of funding that used to cause significant problems for customers and energy efficiency contractors. Having the flexibility to evaluate the SBC on an ongoing basis as necessary is an asset to the state's energy efficiency programs and is not be possible due to the legislature's limited time in session.

CENH also opposes the addition in this bill of the following: "*Such benefits, as approved by regulators, may include,[but not necessarily be limited to,] programs for low-income customers, energy efficiency programs* ***whose main purpose is to reduce the consumption of electricity and not some other form of energy…"*** CENH supports a diverse range of energy efficiency programs that benefit NH residents and businesses and including fuel neutral weatherization which significantly reduces energy burdens and improves public health.. CENH would like to highlight that all SBC dollars spent on energy efficiency program are evaluated with PUC oversight by a stringent cost-benefit analysis to ensure that even non-participants benefit. Dollars spent on low-income weatherization or other programs, not all of which focus on reducing electricity alone, are authorized by statute (RSA 374-F:3, VI): *"no less than 20 percent of the portion of the funds collected for energy efficiency shall be expended on low-income energy efficiency programs."*

Therefore, Clean Energy NH kindly requests that you oppose HB351 and return the authority to approve changes to the SBC to the PUC.
Sincerely,



Madeleine Mineau
Executive Director
Clean Energy NH
madeleine@cleanenergynh.org
607-592-6184

STATE OF NEW HAMPSHIRE

CONSUMER ADVOCATE
Donald M. Kreis

ASSISTANT CONSUMER ADVOCATE
Pradip K. Chattopadhyay

TDD Access: Relay NH
1-800-735-2964

Tel. (603) 271-1172

OFFICE OF THE CONSUMER ADVOCATE
21 S. Fruit St., Suite 18
Concord, N.H. 03301-2429

Website:
www.oca.nh.gov

February 12, 2021

TESTIMONY OF CONSUMER ADVOCATE DONALD M. KREIS
BEFORE THE HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY, AND ENERGY
IN OPPOSITION TO
HOUSE BILL 315, RELATIVE TO THE AGGREGATION OF ELECTRIC CUSTOMERS

Chairman Vose and Honorable Members of the Committee:

The Office of the Consumer Advocate, which (as you know) represents the interests of residential utility customers pursuant to RSA 363:28, respectfully requests that you report HB 315 to the floor of the House with an "inexpedient to legislate" (ITL) recommendation.

New Hampshire's residential customers have paid dearly -- hundreds of millions in stranded cost recovery charges -- for the electric industry restructuring that required our formerly vertically integrated utilities to divest their generation assets. The *quid pro quo*, of course, was the opportunity to purchase electricity from unregulated competitive suppliers.

To the best of my knowledge, commercial and industrial customers – particularly the larger ones – have been able to take advantage of this opportunity and save money by using competitive suppliers. But residential customers have been left in the dust, or worse. An analysis commissioned by the ratepayer advocate in Massachusetts determined that from 2015 through 2018, residential customers migrating to competitive suppliers in that state paid $258 million more than they would have paid by simply purchasing default service from their legacy utility.[1] Of particular note: The report found that low-income customers are more likely to migrate than the general population and paid *especially* high prices.

Although the Office of the Consumer Advocate lacks the resources to commission a similar study for New Hampshire, many of the same competitive suppliers operating in Massachusetts are also present here and there is no reason to suppose the results would be any different in the Granite State. The reasons for the results observed in Massachusetts are intuitively obvious. An individual residential customer does not use enough electricity to be attractive to competitive suppliers – except, perhaps, to the bad actors whose business strategy focuses on exploiting vulnerable populations.

[1] The analysis, conducted by consultant Susan Baldwin, is available at https://www.mass.gov/doc/2019-ago-competitive-electric-supply-report/download.

What should be done to address this problem? At the New Hampshire Energy Summit held in September 2018, when the results of the first two years of the Massachusetts study were under discussion, the lead counsel for Eversource Energy spontaneously blurted out that we should simply eliminate retail choice for our state's residential customers (a suggestion his employer promptly walked back). That would, in effect, return residential customers to the bad old days when their local utility had a lock on a total electric service monopoly.

There is a better idea: Community Power Aggregation (CPA). Under CPA, each New Hampshire municipality is statutorily authorized to become the wholesale electric buying agent for the energy customers within its border.

You should keep in mind that Community Power Aggregation has *always* been part of New Hampshire's plan for electric industry restructuring. The General Court added CPA authority to RSA 53-E via Chapter 129 of the 1996 New Hampshire Laws, the same enacted bill that gave us the Restructuring Act (RSA 374-F).

Nevertheless, CPA did not become a 'thing' because, as authorized in 1996, it was an "opt-in" program. In other words, a municipality seeking to aggregate its electric load was required to obtain the affirmative permission of every participating customer – a completely unworkable proposition. That changed two years ago, when the General Court passed and Governor Sununu signed into law Chapter 316 of the 2019 New Hampshire Laws, which authorized opt-*out* municipal aggregation.

Now, as has been widely reported, several New Hampshire cities and towns are actively developing CPA initiatives. The most ambitious of them would use aggregation as the basis for a comprehensive municipal energy program which would include the provision of a suite of initiatives and services intended to "green" the municipality and save customers money. There is even an effort to establish a joint action agency – a multi-municipal initiative that could actually vault past our two smaller electric utilities in terms of load and, thus, buying power. I am referring to the Community Power Coalition of New Hampshire (CPCNH), whose lead participants are the Town of Hanover and the City of Lebanon. According to the CPCNH web site, its purpose is "to enable New Hampshire communities to take control of their energy future."

Via HB 315, the empire strikes back.

In other words, investor-owned electric utilities are seeking to impose restrictions and constraints that would make Community Power Aggregation an impossibility. To the extent they would suffer municipal aggregation at all, the utilities would limit cities and towns to contracting the whole venture out to third-party aggregators, as has been common in Massachusetts. I recently heard one such aggregator deride the more robust approach I describe above as the "California model" (because it has succeeded there).

What the "California model" threatens to prove is that the natural monopoly in electricity – the slice of the business that should continue to be the province of fully regulated utilities – is poles and wires, nothing more. Among other things, CPA paves the way for utilities to yield their absolute control over meters. That's a scary prospect for utilities, because high-tech meters beyond their control (but

still "utility grade") open up possibilities (e.g., for innovative time-varying rates) that threaten their business model.

Frankly, I don't blame the utilities for seeking to thwart Community Power Aggregation. If I were them and their shareholders, I too would want to keep as many residential customers as possible on their "default" energy service. Though the utilities don't make a profit on default service (which they procure at wholesale via periodic competitive solicitations), they benefit by retaining the entire residential class on a plenary basis. I'm sure that's the reason Eversource's attorney blurted out his proposal in 2018 to end retail competition for residential customers, an improvident disclosure of what is usually said only behind closed doors at corporate headquarters.

Earlier this week, eight community choice aggregators in northern and central California announced the formation of California Community Power. It is similar in structure and purposes to CPCNH. According to the trade publication *RTO Insider*, California Community Power represents 2.6 million customer accounts – load equivalent to about 40 percent of the service provided by California's largest utility, Pacific Gas and Electric.

Whether it's California or New Hampshire, migration of that magnitude would transform the electric industry, particularly if it occurs in the context of municipalities jointly pursuing a coordinated set of energy policies, procurement strategies, and innovations in customer service. Imagine if Eversource were no longer the dominant voice in our state on matters of electricity. Imagine if local municipal actors, accountable to voters rather than distant and return-maximizing shareholders, were not artificially limited to farming out their load to profit-seeking aggregators but could, instead, pursue a full menu of coordinated energy initiatives.

I would like to close with a request. Before you vote on HB 315, please read the 2018 decision of the New Hampshire Supreme Court in a case captioned *Appeal of Algonquin Gas Transmission, LLC*.[2]

In the *Algonquin* case, the Court had its first (and, so far, only) opportunity to discuss the reasons your predecessors decided in 1996 to restructure New Hampshire's electric utilities. Unfortunately, and with all due respect to the state's highest court, they got it wrong.

What the majority decided in *Algonquin* was that the purpose of the Restructuring Act was to make electricity cheaper for customers. But former Chief Justice Lynn (who wrote the opinion) missed the point. Keeping electricity as inexpensive as possible (without compromising safety and reliability) has *always* been the reason for *any* state oversight of the industry. What changed thanks to the Restructuring Act is who bears the risk that investment and other business decisions related to electricity would go bad.

[2] For your convenience, I am transmitting a copy of the decision with this testimony. The majority and dissenting opinions were reported at 170 N.H. 763 (2018).

Pre-restructuring, the risk fell almost entirely on customers. After restructuring, the risk was transferred to where it belongs – investors. Justice Hicks, in his dissenting opinion, clearly understood what the Legislature was really up to via the Restructuring Act.[3]

If you agree with Justice Hicks – and I think you should – then you ought not let utilities or anyone else convince you to hobble Community Power Aggregation. You should, instead, do all you can to help CPA initiatives thrive and give the utilities' default energy service the competition it deserves.

On the other hand, if you think Chief Justice Lynn was right, then you should do everything you can to keep default service as cheap as possible. Community Power Aggregation threatens that objective – indeed, it is calculated to make default service wither on the vine. I think it would be really great for residential customers if default service truly became a seldom-used backstop, and Community Power Aggregation offers the first real opportunity to make that happen for residential customers. It's been a long time coming.

I therefore earnestly hope you will ITL House Bill 315. Thank you for considering my views.

[3] Refer, in particular, to that part of Justice Hicks' dissent that begins with the last paragraph on page 13 and continues through the following page.

February 1, 2021

The Honorable Chair, Representative Michael Vose
House Science, Technology and Energy Committee
Legislative Office Building Room 304
Concord, NH 03301

HB 351 – An act relative to the system benefits charge

Dear Chairman Vose and Members of the Committee:

New Hampshire Electric Cooperative (NHEC) appreciates this opportunity to provide comments on HB 351, an act relative to the system benefits charge (SBC). NHEC is a non-profit, member-owned rural electric cooperative that provides 85,000 members with electric distribution service in 118 communities throughout New Hampshire. Along with the other electric and gas utilities, NHEC is also an administrator of New Hampshire's energy efficiency programs, collectively known as NHSaves.

While NHEC appreciates the sponsor's goal of thorough oversight of SBC changes and Energy Efficiency Resource Standard (EERS) plans, NHEC believes that the current regulatory review process provides for significant stakeholder participation, followed by a rigorous investigation of the costs and benefits of proposed EERS plans. In light of the strength of the current rate setting process, and more importantly because HB 351 as introduced would impact and likely delay implementation of the currently proposed EERS plan, which has been more than a year in the making and which was designed to start a month ago, NHEC respectfully urges the committee to find HB 351 inexpedient to legislate.

In 2016 the New Hampshire Public Utilities Commission (the Commission) issued Order 25,932, which created the EERS. This order also set forth the process by which future EERS plans would be developed. The Commission was clear in its order that stakeholder participation was critical to the success of the EERS. To ensure adequate stakeholder involvement, the Commission directed the Energy Efficiency and Sustainable Energy Board (EESE) to actively participate in the development of future energy efficiency plans. The EESE Board's members represent a broad cross section of energy interests, including legislators, the business community, low-income and residential advocates, municipalities, environmental and conservation groups, and state agencies.

New Hampshire's EERS sets electricity and gas reduction goals over three-year planning horizons. The existing EERS plan set goals to the end of 2020. Fifteen (15) months ago the EERS Committee of the EESE Board began its work on the development of the EERS plan for 2021 to 2023. Over the course of several months, numerous stakeholders worked to develop and refine the new EERS plan. In August 2020, the EERS Committee and EESE Board voted to approve the proposed plan. This work was only the first step in the approval process for the new EERS plan.

On September 1, 2020, New Hampshire's gas and electric utilities, including NHEC, filed the proposed plan with the Commission. The plan was subjected to scrutiny by numerous organizations and a settlement agreement was reached between nine of the parties. Five days of public hearings were held during which the settlement agreement was presented and interrogated by the parties and PUC Commissioners. The Commission is currently considering the proposed plan and settlement agreement. Implementation of the plan now awaits commission approval.

While some aspects of the state-wide plan and settlement agreement were the subjects of dispute during the stakeholder plan development process and the lengthy Commission hearings, parties and public commentators did not object to NHEC's proposed system benefits charges or many of the other NHEC-specific aspects of the plan now being considered by the Commission.

NHEC believes that the EERS plan currently under consideration by the Commission is in the best interests of NHEC's members. NHEC is concerned that adding additional approval requirements at this late stage of the already lengthy and rigorous review process will create delays and uncertainty and will negatively impact NHEC's ability to meet the goals set by the proposed EERS plan.

While NHEC respects and appreciates the goal of legislative oversight and is sensitive to the financial impacts of any increase in its members' rates, it opposes HB 351 as introduced. NHEC also stands ready to work with the bill's sponsor and the committee on any issues related to these important programs.

Thank you for your consideration.

NHEC's General Counsel, Mark Dean, is available at: mdean@mdeanlaw.net
to answer any questions the committee may have.

STATE OF NEW HAMPSHIRE

CONSUMER ADVOCATE
Donald M. Kreis

ASSISTANT CONSUMER ADVOCATE
Pradip K. Chattopadhyay

TDD Access: Relay NH
1-800-735-2964

Tel. (603) 271-1172

OFFICE OF THE CONSUMER ADVOCATE
21 S. Fruit St., Suite 18
Concord, N.H. 03301-2429

Website:
www.oca.nh.gov

February 1, 2021

TESTIMONY OF CONSUMER ADVOCATE DONALD M. KREIS
BEFORE THE HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY, AND ENERGY
IN OPPOSITION TO
HOUSE BILL 351, RELATIVE TO THE SYSTEM BENEFITS CHARGE

Chairman Vose and Honorable Members of the Committee:

The Office of the Consumer Advocate, which (as you know) represents the interests of residential utility customers pursuant to RSA 363:28, respectfully requests that you report HB 315 to the floor of the House with an "inexpedient to legislate" (ITL) recommendation.

Five years ago, acting pursuant to its plenary authority over public utilities pursuant to RSA 365 and its responsibility pursuant to RSA 378 to assure that public utility rates are "just and reasonable," the Public Utilities Commission (PUC) approved the concept of an Energy Efficiency Resource Standard (EERS). A year later, the PUC approved the first EERS triennial plan, which guided the EERS through a very successful 2018, 2019, and 2020.

What is an EERS? It is simply a directive to the state's electric and natural gas utilities that they pursue "all cost effective energy efficiency." Energy efficiency is the process of using available technology to squeeze more work (whether it's heat, light, motion, &c.) out of every unit of energy consumed. "Cost effective" in this context means that all ratepayers – not just those adopting energy efficiency in their homes and businesses – save money as the result of any program funded by the EERS.[1]

House Bill 351 concerns the mechanism used to fund much, but not all, of the EERS – the "System Benefits Charge" that appears on the bills of electric customers. The energy efficiency portion of the SBC is presently authorized but not required under provisions of the Electric Industry Restructuring Act, RSA 374-F. The General Court has not *required* the PUC to adopt an EERS nor to fund energy efficiency programs by approving its inclusion in the SBC (which also pays for low-income bill assistance[2]) or the natural gas equivalent of the SBC (known as the LDAC, "local distribution adjustment clause").

---

[1] *See* Order No. 26,322, adopted by the PUC on December 19, 2019 in Docket No. DE 17-136, approving the new "Granite State" cost-benefit test, for a full explanation.

[2] The portion of the SBC that funds low income assistance programs for electric customers is fixed by statute at a maximum of 1.5 mills (0.15 cents) per kilowatt hour. *See* RSA 374-FVII(c).

Ratepayer-funded energy efficiency programs, provided on a statewide basis by the utilities, have been a feature of electric service in New Hampshire since restructuring was implemented in the early 2000s. Prior to the EERS, the PUC initially determined the SBC along with the resulting program budgets – and the utilities then used those budgets to add as much energy efficiency as possible. The key change brought by the EERS as of 2018 is that energy savings goals are set first and the rate determinations are made accordingly. The programs operate under the "NH Saves" trade banner.

Ratepayer-funded energy efficiency has been a hugely successful public policy initiative, particularly from the perspective of customers. According to our utilities, since 2002 these programs have saved customers $3.4 billion, which includes (I assume) savings accruing to *all* customers as well as savings accruing to individual customers installing energy efficiency measures with the assistance of the program.

The 2021-2023 triennial EERS plan is still awaiting approval by the PUC. It is an ambitious but feasible plan to save 4.5 percent of electric sales and 2.8 percent of natural gas sales over the three years. Some have criticized the plan as too costly, particularly for commercial customers, because of the timing difference between program funding and savings achievement. But *every single party* that participated in the PUC proceeding – a broad swath of interests that includes both my office and all of the utilities – has urged the PUC to approve the plan. Given the typically competing interests of utility ratepayers and utility shareholders, such enthusiastic unanimity is rare indeed.

These circumstances are an occasion to apply the Latin maxim *nisi fractus est, ne repares*[3] – if it ain't broke, don't fix it.

The "fix" proposed by House Bill 351 involves having the Legislature, through either the usual process of passing bills or via action of the Joint Fiscal Committee, approve any increases in the System Benefits Charge. In essence, HB 351 would un-delegate from the PUC this particular rate-setting task.

In one sense, HB 351 would be an improvement on existing law. Currently, there is confusing and ambiguous language in RSA 374-F:3,VI – added three years ago – that limits the PUC's authority to approve SBC increases beginning with the next energy efficiency triennium (2024-2026). This provision seems to suggest that the PUC should consider the matter first and then somehow the matter would come before the General Court for its approval (presumably via legislation). This raises a raft of constitutional and practical concerns. HB 351 clarifies that the delegation, relative to the energy efficiency portion of the SBC, is simply being withdrawn.

But HB 351 raises its own constitutional and practical problems. It is not clear, at least to me, whether the New Hampshire Constitution allows the General Court to delegate a portion of its legislative authority to a committee. Ordinarily, the Legislature legislates by legislating – i.e., by having both bodies adopt an identical measure that is then presented to the Governor for his signature or veto. Furthermore, HB 351 would take effect 60 days after its passage, which would throw plans for the current triennium into a state of uncertainty and, possibly, chaos.

---

[3] *Comeau v. Maine Coastal Services*, 449 A.2d 362, 372 (Me. 1982) (Carter, J., concurring).

Regardless of whether you like ratepayer-funded energy efficiency, it is bad public policy to have legislatures set rates of *any* kind for public utilities. It is not because legislators lack the necessary expertise; your Committee, for example, includes a knowledgeable former PUC Commissioner as well as several Representatives (from both caucuses) who would make excellent and insightful members of the PUC. The reason legislatures should not set rates is that they do not have *time* for such undertakings. There were five days of hearings before the PUC on the 2021-2023 triennial EERS plan, not including the deliberations and drafting time that have (presumably) been ongoing since then.

In these circumstances, the course of action I recommend is repealing all of the language in RSA 374-F:3, VI that carves out an ongoing role for the General Court in determining the energy efficiency portion of the System Benefits Charge.

Another proposal you will soon hear, House Bill 549, would for the first time enshrine the Energy Efficiency Resource Standard in statute. It's a good idea. But that bill, too, is flawed because it reserves an ongoing ratesetting role for the General Court. Nevertheless I readily concede it is entirely appropriate for the Legislature to establish the EERS as a matter of statute and then provide as much guidance as it deems necessary, both as to the objectives of the EERS and the resulting charges appearing on customer bills. I would be interested in helping the Committee do that, even if I find myself working on language that I personally might deem too restrictive.

Ratepayer-funded energy efficiency is the single most valuable thing I can deliver to the constituents I represent. There is no cheaper way to meet the next kilowatt-hour or BTU of demand. The cost-effectiveness test assures that ratepayers save money. Energy efficiency is the most decarbonizing option available, and it replaces the exportation of wealth (via payments for fuel and electricity not produced here) with the retention of wealth (because the necessary installation work is performed here in the Granite State). In a time of pandemic-induced economic crisis, this is a stimulus program that does not add to the government deficit – indeed, it saves everyone money. The General Court should support rather than undermine or abolish the NH Saves programs.

I therefore earnestly hope you will ITL House Bill 351. Thank you for considering my views.

STATE OF NEW HAMPSHIRE

CONSUMER ADVOCATE
Donald M. Kreis

ASSISTANT CONSUMER ADVOCATE
Pradip K. Chattopadhyay

TDD Access: Relay NH
1-800-735-2964

Tel. (603) 271-1172

OFFICE OF THE CONSUMER ADVOCATE
21 S. Fruit St., Suite 18
Concord, N.H. 03301-2429

Website:
www.oca.nh.gov

February 1, 2021

TESTIMONY OF CONSUMER ADVOCATE DONALD M. KREIS
BEFORE THE HOUSE COMMITTEE ON SCIENCE, TECHNOLOGY, AND ENERGY
IN OPPOSITION TO
HOUSE BILL 351, RELATIVE TO THE SYSTEM BENEFITS CHARGE

Chairman Vose and Honorable Members of the Committee:

The Office of the Consumer Advocate, which (as you know) represents the interests of residential utility customers pursuant to RSA 363:28, respectfully requests that you report HB 315 to the floor of the House with an "inexpedient to legislate" (ITL) recommendation.

Five years ago, acting pursuant to its plenary authority over public utilities pursuant to RSA 365 and its responsibility pursuant to RSA 378 to assure that public utility rates are "just and reasonable," the Public Utilities Commission (PUC) approved the concept of an Energy Efficiency Resource Standard (EERS). A year later, the PUC approved the first EERS triennial plan, which guided the EERS through a very successful 2018, 2019, and 2020.

What is an EERS? It is simply a directive to the state's electric and natural gas utilities that they pursue "all cost effective energy efficiency." Energy efficiency is the process of using available technology to squeeze more work (whether it's heat, light, motion, &c.) out of every unit of energy consumed. "Cost effective" in this context means that all ratepayers – not just those adopting energy efficiency in their homes and businesses – save money as the result of any program funded by the EERS.[1]

House Bill 351 concerns the mechanism used to fund much, but not all, of the EERS – the "System Benefits Charge" that appears on the bills of electric customers. The energy efficiency portion of the SBC is presently authorized but not required under provisions of the Electric Industry Restructuring Act, RSA 374-F. The General Court has not *required* the PUC to adopt an EERS nor to fund energy efficiency programs by approving its inclusion in the SBC (which also pays for low-income bill assistance[2]) or the natural gas equivalent of the SBC (known as the LDAC, "local distribution adjustment clause").

---

[1] *See* Order No. 26,322, adopted by the PUC on December 19, 2019 in Docket No. DE 17-136, approving the new "Granite State" cost-benefit test, for a full explanation.

[2] The portion of the SBC that funds low income assistance programs for electric customers is fixed by statute at a maximum of 1.5 mills (0.15 cents) per kilowatt hour. *See* RSA 374-FVII(c).

Ratepayer-funded energy efficiency programs, provided on a statewide basis by the utilities, have been a feature of electric service in New Hampshire since restructuring was implemented in the early 2000s. Prior to the EERS, the PUC initially determined the SBC along with the resulting program budgets – and the utilities then used those budgets to add as much energy efficiency as possible. The key change brought by the EERS as of 2018 is that energy savings goals are set first and the rate determinations are made accordingly. The programs operate under the "NH Saves" trade banner.

Ratepayer-funded energy efficiency has been a hugely successful public policy initiative, particularly from the perspective of customers. According to our utilities, since 2002 these programs have saved customers $3.4 billion, which includes (I assume) savings accruing to *all* customers as well as savings accruing to individual customers installing energy efficiency measures with the assistance of the program.

The 2021-2023 triennial EERS plan is still awaiting approval by the PUC. It is an ambitious but feasible plan to save 4.5 percent of electric sales and 2.8 percent of natural gas sales over the three years. Some have criticized the plan as too costly, particularly for commercial customers, because of the timing difference between program funding and savings achievement. But *every single party* that participated in the PUC proceeding – a broad swath of interests that includes both my office and all of the utilities – has urged the PUC to approve the plan. Given the typically competing interests of utility ratepayers and utility shareholders, such enthusiastic unanimity is rare indeed.

These circumstances are an occasion to apply the Latin maxim *nisi fractus est, ne repares*[3] – if it ain't broke, don't fix it.

The "fix" proposed by House Bill 351 involves having the Legislature, through either the usual process of passing bills or via action of the Joint Fiscal Committee, approve any increases in the System Benefits Charge. In essence, HB 351 would un-delegate from the PUC this particular rate-setting task.

In one sense, HB 351 would be an improvement on existing law. Currently, there is confusing and ambiguous language in RSA 374-F:3,VI – added three years ago – that limits the PUC's authority to approve SBC increases beginning with the next energy efficiency triennium (2024-2026). This provision seems to suggest that the PUC should consider the matter first and then somehow the matter would come before the General Court for its approval (presumably via legislation). This raises a raft of constitutional and practical concerns. HB 351 clarifies that the delegation, relative to the energy efficiency portion of the SBC, is simply being withdrawn.

But HB 351 raises its own constitutional and practical problems. It is not clear, at least to me, whether the New Hampshire Constitution allows the General Court to delegate a portion of its legislative authority to a committee. Ordinarily, the Legislature legislates by legislating – i.e., by having both bodies adopt an identical measure that is then presented to the Governor for his signature or veto. Furthermore, HB 351 would take effect 60 days after its passage, which would throw plans for the current triennium into a state of uncertainty and, possibly, chaos.

---

[3] *Comeau v. Maine Coastal Services*, 449 A.2d 362, 372 (Me. 1982) (Carter, J., concurring).

Regardless of whether you like ratepayer-funded energy efficiency, it is bad public policy to have legislatures set rates of *any* kind for public utilities. It is not because legislators lack the necessary expertise; your Committee, for example, includes a knowledgeable former PUC Commissioner as well as several Representatives (from both caucuses) who would make excellent and insightful members of the PUC. The reason legislatures should not set rates is that they do not have *time* for such undertakings. There were five days of hearings before the PUC on the 2021-2023 triennial EERS plan, not including the deliberations and drafting time that have (presumably) been ongoing since then.

In these circumstances, the course of action I recommend is repealing all of the language in RSA 374-F:3, VI that carves out an ongoing role for the General Court in determining the energy efficiency portion of the System Benefits Charge.

Another proposal you will soon hear, House Bill 549, would for the first time enshrine the Energy Efficiency Resource Standard in statute. It's a good idea. But that bill, too, is flawed because it reserves an ongoing ratesetting role for the General Court. Nevertheless I readily concede it is entirely appropriate for the Legislature to establish the EERS as a matter of statute and then provide as much guidance as it deems necessary, both as to the objectives of the EERS and the resulting charges appearing on customer bills. I would be interested in helping the Committee do that, even if I find myself working on language that I personally might deem too restrictive.

Ratepayer-funded energy efficiency is the single most valuable thing I can deliver to the constituents I represent. There is no cheaper way to meet the next kilowatt-hour or BTU of demand. The cost-effectiveness test assures that ratepayers save money. Energy efficiency is the most decarbonizing option available, and it replaces the exportation of wealth (via payments for fuel and electricity not produced here) with the retention of wealth (because the necessary installation work is performed here in the Granite State). In a time of pandemic-induced economic crisis, this is a stimulus program that does not add to the government deficit – indeed, it saves everyone money. The General Court should support rather than undermine or abolish the NH Saves programs.

I therefore earnestly hope you will ITL House Bill 351. Thank you for considering my views.

Archived: Wednesday, April 21, 2021 9:37:38 AM
From: Joel Huberman
Sent: Tuesday, February 2, 2021 8:07:30 PM
To: Michele Chalice
Cc: ~House Science Technology and Energy; Sparky Von Plinsky; Emily Manns; Mari Brunner; Nancy Gillard; Jay Kahn
Subject: Re: HB351 - OPPOSED - Proposed NH SAVES Funding Oversight Changes
Importance: Normal

Thanks, Michele! Great letter! -- Joel

> On Jan 29, 2021, at 8:20 AM, Michele Chalice < michele.chalice@gmail.com> wrote:
>
> Good Morning,
>
> I write as a NH taxpayer and citizen to communicate my strong opinion against the proposed oversight changes to the funding mechanisms for the NH SAVES program.
>
> Standard Power's recent "Community Power Survey" as well as other research has repeatedly confirmed that increasing energy efficiency such as the weatherization and air sealing improvements NH SAVES makes possible IS OUR LOWEST COST/HIGHEST BENEFIT way to SAVE BOTH MONEY and ENERGY.
>
> The current NH SAVES program and funding oversight responsibility benefits all levels of our economy from small to large businesses, from high to low socioeconomic income levels. And most importantly, our habitat, our earth who is in the most dire need of trying to support us while continuing to function.
>
> NH currently lags far behind our neighboring states of MA and VT in utilizing and supporting all available methods of energy efficiency and renewable energy programs and technologies. The City of Keene is attempting to break this trend by setting its various Renewable Energy goals. NH SAVES current and increased funding is crucial for further progress.
>
> Economically stable and taxpaying climate refugees both elderly and millennial professionals are looking for alternative homes as we speak, fleeing the more harsh Climate Crisis events elsewhere in our nation. They are smarter now. They are looking for efficient housing, renewable energy, lower and more stable local economies that are moving quickly toward renewable energy with lower costs and lower environmental impacts.
>
> NH SAVES was the key first step in my own renovation of a traditional, single-family, 1900's Keene home into a highly efficient model for others. It's NH SAVES weatherization insulation and air sealing set the stage for EFFICIENTLY UTILIZING the now 27 solar panels to power two heat pumps. This 15-year ROI investment (using my retirement funds) allows me to buy **1/2 tank of oil each year** and **pay $13.81 each month for the privilege to store the solar kWH that provides 90% of my home's power AND HEAT.** There are many other energy efficiency measures here which add to these efficiencies but all the fancy tools are wasteful and useless without the initial WEATHERIZATION and AIR SEALING that NH SAVES made possible.
>
> I encourage you to **leave the current oversight in place and increase the funding for the NHSAVES program** as one of our current, most impactful measures to create NEW, WELL-PAYING, BLUE COLLAR JOBS, increase the energy efficiency of our states' building stock for the benefit of all residents and businesses. Our economy, our earth and our financial future depend on doubling the current NH SAVES funding to compete for, attract and secure additional, intelligent, tax-paying, business-building citizens.

You are welcome to review the attached information showing how I, for one, as one of these important, business-building citizens, am utilizing the results of a NH SAVES project to build a local business inspiring others to take energy and resource efficiency actions steps **everyday** to "Heal the Earth From Home".

Sincerely,
Michele Chalice



Offering the discovery of creative, beautiful and effective daily actions at your home through family food gardening, environmental landscaping and household efficiencies that can collectively help to heal our world.
https://healthyhomehabitats.com/ & @*HealthyHomeHabitats*
<HHH Home Overview..pdf> <2020 HHH Solar Fair.pdf> <2020HHH-ELF.pdf>

Archived: Wednesday, April 21, 2021 9:37:38 AM
From: Joseph Kwasnik
Sent: Sunday, January 31, 2021 12:19:55 PM
To: ~House Science Technology and Energy
Subject: HB119-FN and HB351-Written Testimony by Joseph Kwasnik-Citizen Testimony
Importance: Normal
Attachments:
kwasniktestimonyHB119FN01302021.pdf kwasniktestimonyHB35101302021.pdf

---

Dear Science, Technology and Energy Committee Members:

Please find attached files containing my written testimony on HB119-FN and HB351 in advance of the hearings scheduled for February 1, 2021. Thank you.

Regards,

Joseph Kwasnik
54 Pleasant Street, Unit 8
Concord, NH 03301
603-730-7148

Archived: Wednesday, April 21, 2021 9:37:38 AM
From: Michele Chalice
Sent: Friday, January 29, 2021 8:21:34 AM
To: ~House Science Technology and Energy
Cc: Sparky VonPlinsky; Emily Manns; Mari Brunner; Nancy Gillard; Jay Kahn; Joel Huberman
Subject: HB351 - OPPOSED - Proposed NH SAVES Funding Oversight Changes
Importance: Normal
Attachments:
HHH Home Overview..pdf 020 HHH Solar Fair.pdf 020HHH-ELF.pdf

Good Morning,

I write as a NH taxpayer and citizen to communicate my strong opinion against the proposed oversight changes to the funding mechanisms for the NH SAVES program.

Standard Power's recent "Community Power Survey" as well as other research has repeatedly confirmed that increasing energy efficiency such as the weatherization and air sealing improvements NH SAVES makes possible IS OUR LOWEST COST/HIGHEST BENEFIT way to SAVE BOTH MONEY and ENERGY.

The current NH SAVES program and funding oversight responsibility benefits all levels of our economy from small to large businesses, from high to low socioeconomic income levels. And most importantly, our habitat, our earth who is in the most dire need of trying to support us while continuing to function.

NH currently lags far behind our neighboring states of MA and VT in utilizing and supporting all available methods of energy efficiency and renewable energy programs and technologies. The City of Keene is attempting to break this trend by setting its various Renewable Energy goals. NH SAVES current and increased funding is crucial for further progress.

Economically stable and taxpaying climate refugees both elderly and millennial professionals are looking for alternative homes as we speak, fleeing the more harsh Climate Crisis events elsewhere in our nation. They are smarter now. They are looking for efficient housing, renewable energy, lower and more stable local economies that are moving quickly toward renewable energy with lower costs and lower environmental impacts.

NH SAVES was the key first step in my own renovation of a traditional, single-family, 1900's Keene home into a highly efficient model for others. It's NH SAVES weatherization insulation and air sealing set the stage for EFFICIENTLY UTILIZING the now 27 solar panels to power two heat pumps. This 15-year ROI investment (using my retirement funds) allows me to buy **1/2 tank of oil each year** and **pay $13.81 each month for the privilege to store the solar kWH that provides 90% of my home's power AND HEAT.** There are many other energy efficiency measures here which add to these efficiencies but all the fancy tools are wasteful and useless without the initial WEATHERIZATION and AIR SEALING that NH SAVES made possible.

I encourage you to **leave the current oversight in place and increase the funding for the NHSAVES program** as one of our current, most impactful measures to create NEW, WELL-PAYING, BLUE COLLAR JOBS, increase the energy efficiency of our states' building stock for the benefit of all residents and businesses. Our economy, our earth and our financial future depend on doubling the current NH SAVES funding to compete for, attract and secure additional, intelligent, tax-paying, business-building citizens.

You are welcome to review the attached information showing how I, for one, as one of these important, business-building citizens, am utilizing the results of a NH SAVES project to build a local business inspiring others to take energy and resource efficiency actions steps **everyday** to "Heal the Earth From Home".

Sincerely,
Michele Chalice



Offering the discovery of creative, beautiful and effective daily actions at your home through family food gardening, environmental landscaping and household efficiencies that can collectively help to heal our world.
https://healthyhomehabitats.com/ & @*HealthyHomeHabitats*

Archived: Wednesday, April 21, 2021 9:40:04 AM
From: Kreis, Donald
Sent: Monday, February 1, 2021 11:20:27 AM
To: ~House Science Technology and Energy
Subject: House Bill 351
Importance: Normal
Attachments:
HB 351 testimony 210201.pdf

Dear Chairman Vose and Honorable Members:

Attached is my written testimony on House Bill 351, which concerns the energy efficiency portion of the System Benefits Charge. I expect this afternoon to offer a VERY brief summary of my testimony and answer any questions.

Sincerely,
Don

Donald M. Kreis
Consumer Advocate
Office of the Consumer Advocate
21 South Fruit Street, Suite 18
Concord, New Hampshire 03301
603.271.1174 (direct line)

Archived: Wednesday, April 21, 2021 9:40:04 AM
From: Bourque, Katherine
Sent: Monday, February 1, 2021 11:14:18 AM
To: ~House Science Technology and Energy
Cc: Bourque, Katherine
Subject: Unitil Testimony re: HB 351
Importance: Normal
Attachments:
Unitil Testimony HB 351 02012021.pdf ;

Good Morning, Representatives:

Attached, please find Unitil's written testimony (neutral) on HB 351, being heard this afternoon. Although we will not sign in to speak, I will be on the Zoom hearing along with Cindy Carroll, our VP of Customer Energy Solutions, to answer any questions that the Committee may have today.

Please don't hesitate to reach out with any questions before then.

Best,
Kat Bourque

Katherine A. Bourque, Esq.
Director of Government Affairs

Unitil
6 Liberty Lane West
Hampton, NH 03842
T 603.773.6486
M 603.770.3215
bourquek@unitil.com

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error, please notify please notify the sender immediately by reply e-mail and delete this e-mail from your system. Please note that any views or opinions expressed in this email are not necessarily those of Unitil Corporation or any of its subsidiaries. E-mail transmission cannot be guaranteed to be error-free or secure or free from viruses, and Unitil disclaims all liability for any resulting damage, errors, or omissions.

Archived: Wednesday, April 21, 2021 9:40:04 AM
From: chuck weed
Sent: Monday, February 1, 2021 9:27:36 AM
To: ~House Science Technology and Energy
Subject: HB 351 affecting funding for NH Saves
Importance: Normal

Dear Honorable Members,
I am a former legislator and county commissioner from Keene. I also work closely with Keene's EEC Committee hoping to have completely renewable energy by 2050. As I am 77, I will not be around for the long term, but we are thoroughly committed to leaving a livable environment for upcoming generations as well as our children (5) and their offspring (11). Financially, my wife, April, and I are ok but marginal.
5 years ago, We did not have upfront money for solar panels, so we leased them from Sunrun. They have been working well, lowering our carbon footprint. 2 years ago, we buttoned up our 1907 house with NH Saves. We think that our house is very energy efficient, although since we removed our wood stove because of respiratory problems, the house is cool, about 65 degrees. We are certain that it would be cold without the button up and help from the exceedingly professional NH Saves team.

We hope that HB 351 will not hinder the efforts of those who want to make their residences and living/working spaces more efficient. Please consider how important your vote is for the future of our state. Please preserve this excellent program.

Chuck and April Weed
28 Damon Ct
Keene

Archived: Wednesday, April 21, 2021 9:40:05 AM
From: Gamache, Donna M
Sent: Monday, February 1, 2021 7:15:58 AM
To: ~House Science Technology and Energy
Subject: HB 351
Importance: Normal

February 1, 2021

The Honorable Chair, Representative Michael Vose
House Science, Technology and Energy Committee
Legislative Office Building Room 304
Concord, NH 03301

Dear Chairman Vose and Members of the Committee:

Thank you for the opportunity to provide written testimony on HB 351, relative to the system benefits charge.

Many of you are aware that the creation of energy efficiency programs to assist customers in lowering their electricity usage and bills, began with the restructuring of the electricity industry in New Hampshire roughly twenty years ago. At that time, this committee took the lead crafting how the programs would be funded and assigned the regulation of the programs to the Public Utilities Commission (PUC). Since that time, the electric utilities have been administering New Hampshire's energy efficiency programs, along with the natural gas utilities, and are responsible for developing the energy efficiency plans for the state. The programs have evolved over the years as new technology became available and as customer needs and policy priorities have changed. We are very proud of how we have been able to design programs and offerings that are always focused on leveraging best practices to bring the most benefit to our customers.

Our track record of success in implementing and evolving programs has happened under the watchful eye of the PUC. I encourage this committee to scan the PUC's website to view the rigorous review the programs undergo to ensure that every penny of our customers' dollars is spent cost effectively to achieve energy savings.

In 2020, we were proud to file the 2021-2023 Statewide Energy Efficiency Plan with the NHPUC for review and approval. The Plan creates a framework to provide even more creative, cost-saving energy efficiency solutions to residents, businesses and municipalities in our state, helping them to reduce energy use, save money, lower peak demands and support local jobs and economic development. The Plan filed was developed through a collaborative public process that included robust and diverse stakeholder engagement. The process included utility customers, ratepayer advocates, members of the business community, non-profits serving disadvantaged populations, environmentalists and members of the NH legislature. Ultimately, the NHPUC will make a final determination regarding implementation of the Plan and we appreciate the PUC's decision-making process and understand the considerations that they need to balance throughout that process.

This legislation seeks to include General Court or Fiscal Committee approval in the Plan review process and may also indicate a legislative desire to shift away from the home weatherization programs we have provided to low-income and residential customers for years. We are committed to developing and implementing energy efficiency programs that meet all statutory policy objectives with transparency and collaboration, while maintaining strict cost effectiveness standards and ensuring that the benefits of least-cost energy resources are available to all customers. We would be happy to work with the House Science, Technology and Energy Committee to ensure that our plans and programs are meeting New Hampshire's

energy policy priorities in a way that emphasizes efficient administration and effective delivery of services to meet the needs of your constituents and our customers.

We are looking forward to continued collaboration to finalize and implement the next three-year Plan that will help our customers reduce energy use and costs.

As always, we look forward to continuing to work with the Prime Sponsor and members of the Committee to help provide information and background so that this legislature may reach their policy goals.

Thank you for your consideration. Please do not hesitate to reach out with any questions.

Sincerely,
Donna Gamache

Donna Gamache, Director, Governmental Affairs
[redacted]
780 No. Commercial St | Manchester, NH 03101 | ☎ : 603-345-0994
✉ : donna.gamache@eversource.com

This electronic message contains information from Eversource Energy or its affiliates that may be confidential, proprietary or otherwise protected from disclosure. The information is intended to be used solely by the recipient(s) named. Any views or opinions expressed in this message are not necessarily those of Eversource Energy or its affiliates. Any disclosure, copying or distribution of this message or the taking of any action based on its contents, other than by the intended recipient for its intended purpose, is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately and delete it from your system. Email transmission cannot be guaranteed to be error-free or secure or free from viruses, and Eversource Energy disclaims all liability for any resulting damage, errors, or omissions.

Archived: Wednesday, April 21, 2021 9:40:05 AM
From: Mark Dean
Sent: Sunday, January 31, 2021 9:52:34 AM
To: ~House Science Technology and Energy
Subject: HB 351 February 1, 2021 STE Hearing New Hampshire Electric Cooperative Written Testimony
Importance: Normal
Attachments:
HB 351 - New Hampshire Electric Cooperative STE Testimony (2.1.21).pdf

---

Chairman Vose and Committee Members,

Attached for your consideration please find the written comments of New Hampshire Electric Cooperative in opposition to HB 351, as introduced.

As the comments indicate, NHEC stands ready to work with you on any issues concerning the EERS programs, which NHEC believes bring important benefits to its members.

Mark Dean

Mark W. Dean
ATTORNEY
49 Franklin Street
Concord, NH 03301

(603) 230-9955 (Direct)
(603) 494-1032 (Cell)

This e-mail message and any attachments are confidential and may be attorney-client privileged. If you are not the intended recipient please notify Mark Dean, PLLC immediately by telephone at (603) 230-9955 or by e-mail at mdean@mdeanlaw.net, and destroy all copies of this message and any attachments.

Welcome to the *Healthy Home Habitats* House!



This 2,100 SF, formerly, four-bedroom, two, full-bath house was built in 1900. It had been a rental property for at least the previous 30 years when I began managing it in 2012. In 2017 I assumed the property and began a renovation of the structure where I now live with my teenage daughter. The property serves as both my home as well as my experiment and showcase for the many possible steps that we can take, as homeowners, to live with less environmental damage each & every day.

Investing in solar power was the impetus to create a crazy-efficient, sustainable and regenerative property.

The Structure & Inside the House:

A 8.64 kWp system of 27 solar panels provides electric power for light, 2 mini-split heat pumps, an induction range, a lawn mower, various gadgets, a high efficiency washer/dryer, a water heater and a basement dehumidifier. That said, a variety of additional steps have been taken to utilize each kilowatt of energy produced by the solar panels as efficiently as possible. To date, these are:

- MOST IMPORTANTLY - Completing the insulation & air sealing recommendations of NH Saves Energy Weatherization Program assessment: attic, wall and basement rim joist insulation,
- Converting the property from a single family to a duplex home, within walking distance of downtown,
- Removing walls and doors for open-plan, living spaces,
- Installing a "Hyper-Heat" Mitsubishi Mini-Split Heat Pump System, 2 heads inside & one condenser outside,
- Utilizing additional, interior, passive solar fixtures,
- Creating &/or utilizing interior storm windows, interior and exterior laundry-hanging fixtures and super-efficient, SnapPower electrical outlets as night-time path lighting,
- Still working on basement air sealing, moisture management measures and foundation repairs.

https://HealthyHomeHabitats.com/ - 603-313-9153 - michele.chalice@gmail.com

Caveat, I do still use an average of 1/2 tank or 150 gallons of heating oil each winter to supplement night-time heat during infrequent, extended, deep freeze events.

Outside the House:

This standard, residential, 1/4-acre lot now has a variety of elements that have eliminated the use of lawn chemicals, herbicides, pesticides and fossil fuel. Through the use of shredded leaves and stalks, the garden areas are now building heathier soil for healthier worms to feed healthier birds. The plants, shrubs and trees here are a mix of native and non-native varieties to feed our wildlife with less fossil-fuel energy, with berries and our pollinators with nectar. Water from seasonal rains is stored to use on the gardens reducing our water bill. Creative perimeter gardens grow healthy vegetables for our family. In particular, these elements are:

- An initial swap of a former, Shaded, Raised Garden Beds to a new, gravel, Parking Lot and the former Sunny Parking Lot to Green Space.
- Replacement of the Front Lawn with a Mixed Perennial Garden,
- A North & South Side Rain Barrel Rainwater Storage System,
- Regenerative, Perennial and Vegetable Perimeter Gardens along the Walkway and Perimeter Fence,
- A Backyard, Lawn Spiral to provide "Rough" Areas for Lightning Bug Habitat,
- A variety of Fruit Trees & Shrubs for feeding Wildlife & Humans,
- Hanging & Climbing Vegetable Growing areas along the fence.

"Healthy Home Habitats":

Healthy Home Habitats, is a Keene-based consulting firm inspiring and assisting individuals and families in designing fabulous pollinator & healthy food gardens as well as identifying resilient, residential, energy-saving options to collectively help heal our world from home.

Contact me any time for a consult at your home. Discover the actions that you can take, now, soon and in the future to have a healthier home habitat for yourself, your family and our world.

Https://HealthyHomeHabitats.com/
fb.me@HealthyHomeHabitats
michele.chalice@gmail.com
603-313-9153

January 30, 2021

Chairman Michael Vose
Science, Technology and Energy Committee
New Hampshire House of Representatives

RE: HB351 AN ACT relative to the system benefits charge-**Citizen testimony**

Dear Chairman Vose:

I am today submitting written testimony **in opposition** to HB351. My reasons for opposition to the bill are as follows:

1. This bill seeks to unnecessarily limit the use of systems benefit charges (SBC) earmarked for energy efficiency programs to only fund electricity energy efficiency measures and requires prior approval of the New Hampshire general court by either passage of legislation or authorization by the fiscal committee of the general court to increase systems benefit charges.
2. The general court decided in 1996 during the restructuring of the electric utility industry to permit the use of the SBC for all energy efficiency programs regardless of fuel type used within residential, commercial or industrial locations. I believe this was recognition that regardless of the fuel type used for space heating, all residential, industrial and commercial locations within the state were also electric bill payers. As such, the decision not to restrict the use of the systems benefit charge to measures to just reduce electricity consumption in the state was justified and would benefit all energy consumers. I believe this decision is still valid today.
3. In addition, the authority of the Public Utilities Commission (PUC) to oversee the setting of rates and ***systems benefit charges to be included in rates*** is specifically authorized by statute in RSA 374-F:3, VI and is therefore the ***authority*** derived from the legislation pursuant to Part I, Article 28 of the New Hampshire Constitution.
4. Requiring legislative approval for increases in the systems benefit charge is inconsistent with long-standing statute and the current function of the PUC to set rates and by extension the SBC. Surely the PUC is better positioned to evaluate the needs for increases in the SBC than the New Hampshire general court and can do so in an effective and efficient manner. Let the PUC do its job.

This bill ***should not pass*** as it is counter to long-standing statute and needlessly disrupts the efficient and effective functions of the PUC.

Thank you for the opportunity to submit this testimony.

Regards,

Joseph Kwasnik, Citizen and taxpayer
54 Pleasant Street, Unit 8
Concord, NH 03301
603-730-7148

February 1, 2021

The Honorable Chair, Representative Michael Vose
House Science, Technology and Energy Committee
Legislative Office Building Room 304
Concord, NH 03301

Dear Chairman Vose and Members of the Committee:

On behalf of Unitil, thank you for the opportunity to provide written testimony on HB 351, relative to the system benefits charge.

As electric and gas utilities, we are the administrators of New Hampshire's energy efficiency programs and responsible for developing the Energy Efficiency Plan ("Plan") for the state. In 2020, we were proud to file a Plan with the NHPUC for approval that ensures all of our customers have access to valuable cost-saving solutions and one that will assist them in reducing their energy use and save money through energy efficiency. The Plan filed was developed through a collaborative public process that included robust and diverse stakeholder engagement. The process included utility customers, ratepayer advocates, members of the business community, non-profits serving disadvantaged populations, environmentalists and members of the NH legislature. Ultimately, the NHPUC will make a final determination regarding implementation of the Plan and we appreciate the PUC's decision-making process and understand the considerations that they need to balance throughout the process.

This legislation seeks to subject the system benefits charge (SBC) to legislative or Fiscal Committee approval for the filed Plan that runs from 2021-2023. As outlined above, we believe that the current process is inclusive, open to the public, and provides a level of administrative efficiency that may be difficult to duplicate in either the legislature or through approval by another body. Ultimately, this has the potential to be detrimental to program continuity and efficient administration and could diminish the benefits that the three-year Plan seeks to deliver to our customers.

As always, we look forward to continuing to work with the Prime Sponsor and members of the Committee to continue to understand the intent of the bill and to help provide information and background so that this legislature may reach their policy goals.

Thank you for your consideration. Please do not hesitate to reach out with any questions.

Sincerely,

Kat Bourque
Director of Government Affairs

Unitil
6 Liberty Lane West
Hampton, NH 03842

T 603.773.6486

M 603.770.3215

bourquek@unitil.com

Bill as Introduced

HB 351 - AS INTRODUCED

2021 SESSION

21-0410
10/06

HOUSE BILL ***351***

AN ACT relative to the system benefits charge.

SPONSORS: Rep. Harrington, Straf. 3

COMMITTEE: Science, Technology and Energy

ANALYSIS

This bill changes the procedure for increasing the system benefits charge assessed electric customers and clarifies its purposes.

- -

Explanation: Matter added to current law appears in ***bold italics.***
Matter removed from current law appears [~~in brackets and struckthrough.~~]
Matter which is either (a) all new or (b) repealed and reenacted appears in regular type.

HB 351 - AS INTRODUCED

21-0410
10/06

STATE OF NEW HAMPSHIRE

In the Year of Our Lord Two Thousand Twenty One

AN ACT relative to the system benefits charge.

Be it Enacted by the Senate and House of Representatives in General Court convened:

1 Restructuring Policy Principles; System Benefits Charge. Amend RSA 374-F:3, VI to read as follows:

VI. Benefits for All Consumers. Restructuring of the electric utility industry should be implemented in a manner that benefits all consumers equitably and does not benefit one customer class to the detriment of another. Costs should not be shifted unfairly among customers. A nonbypassable and competitively neutral system benefits charge applied to the use of the distribution system may be used to fund public benefits related to the provision of electricity. Such benefits, as approved by regulators, may include,[~~ but not necessarily be limited to,~~] programs for low-income customers, energy efficiency programs ***whose main purpose is to reduce the consumption of electricity and not some other form of energy***, funding for the electric utility industry's share of commission expenses pursuant to RSA 363-A, support for research and development, and investments in commercialization strategies for new and beneficial technologies. [~~Legislative~~] ***Prior*** approval [~~of~~] ***by either the passage of legislation by*** the New Hampshire general court ***or authorization by the fiscal committee of the general court*** shall be required to increase the system benefits charge[~~. This requirement of prior approval of the New Hampshire general court shall not apply to the energy efficiency portion of the system benefits charge if the increase is authorized by an order of the commission to implement the 3-year planning periods of the Energy Efficiency Resource Standard framework established by commission Order No. 25,932 dated August 2, 2016, ending in 2020 and 2023, or, if for purposes other than implementing the Energy Efficiency Resource Standard, is authorized by the fiscal committee of the general court~~]; provided, however, that no less than 20 percent of the portion of the funds collected for energy efficiency shall be expended on low-income energy efficiency programs. Energy efficiency programs should include the development of relationships with third-party lending institutions to provide opportunities for low-cost financing of energy efficiency measures to leverage available funds to the maximum extent, and shall also include funding for workforce development to minimize waiting periods for low-income energy audits and weatherization.

2 Effective Date. This act shall take effect 60 days after its passage.