STATE OF VERMONT
PUBLIC UTILITY COMMISSION

CASE NO. 24-3335-INV

2025 FILING OF UPDATES TO ENERGY EFFICIENCY UTILITY TRIENNIAL PLANS FOR 2024-2026

February 18, 2025
1:30 p.m.

Via videoconference

Workshop held before the Vermont Public Utility Commission, via videoconference, on February 18, 2025, beginning at 1:30 p.m.

P R E S E N T

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Karen Horne, VGS
Mary Bouchard, VGS
Brian Evans-Mongeon, Hyde Park Electric
Ken Nolan, VPPSA
Michael Lazorchak, Stowe Electric

PRESENTATIONS

CHAIR MCNAMARA: Good afternoon. This is a workshop in Case No. 24-3335, which involves annual updates to the Energy Efficiency Utility Triennial Plans for the 2024 to 2026 performance period.

My name is Ed McNamara. I'm chair of the Public Utility Commission. And with me are commissioners Margaret Cheney and Riley Allen.

We also have commission staff members Tom Knauer, Mary Jo Krolewski, and Kelly Martone.

If a party or participant intends to record today's hearing via video or audio, please indicate this when you provide your name for the court reporter.

I'm going to start by taking appearances. Start with the Department.

MS. LUDWIG: Megan Ludwig for the Department of Public Service. I know there are a number of DPS staff on the call. I'm not sure if I'm seeing all of them on the list of names. So I'll let them identify themselves. I know I see Brian Cotterill, and I'm not sure who else, so I will have them identify themselves.

MR. COTTERILL: Great. Hi there. I think I've already been identified. Brian Cotterill

with the Department of Public Service.

MS. COMOLLI: Morgan Comolli with the Department of Public Service.

CHAIR MCNAMARA: I see Alek Antczak. Am I pronouncing that properly?

MR. ANTCZAK: That's correct.

CHAIR MCNAMARA: Great. I'm not seeing anybody else listed for the Department. There is one square that looks like it keeps loading, and I have no idea who that is. Suggest if you haven't sort of joined and can hear, I would drop off and retry that.

All right. Why don't we move to Efficiency Vermont.

MR. WESTMAN: Good afternoon, Ed, and commissioners. Thanks for having us.

This is Dave Westman on behalf of Efficiency Vermont. We have two presenters today, Peter Walke and Karl Johnson. We also have a handful of members, both regulatory and operations team, who will be listening in but not participating. That's Kelsey Dannenbaum and Matthew Walker.

CHAIR MCNAMARA: Great. Thank you. City of Burlington Electric Department.

MR. LYLE: Good afternoon. Tom Lyle with Burlington Electric. Chris Burns, I believe, is

on, and he'll be presenting today.

CHAIR MCNAMARA: Great. Thank you. Vermont Gas.

MR. PERRIN: Good afternoon, everybody. My name is Tim Perrin. I'll be representing Vermont Gas for today's presentation. I'm joined by Karen Horne and Mary Bouchard.

CHAIR MCNAMARA: All right. Thank you. And now we are going to go around. I did just see a chat from Brian Evans-Mongeon from Hyde Park. He's here but has laryngitis. So just want to note that. Let's see. Ken Nolan.

MR. NOLAN: Ken Nolan, Vermont Public Power Supply Authority.

CHAIR MCNAMARA: Thank you. And Michael Lazorchak.

MR. LAZORCHAK: Michael Lazorchak, Town of Stowe Electric Department.

CHAIR MCNAMARA: Great. Thank you. Have I missed anybody?

(No response)

CHAIR MCNAMARA: All right. So we are conducting this scheduling conference using GoToMeeting platform. Anyone who anticipates speaking during the workshop should keep your cameras

on during the entire hearing. Each time you begin talking, please identify yourself by name for the court reporter. We are not going to mute anyone's microphone. That means you should keep yourself on mute unless you're speaking, and to indicate that you want to speak, unmute your microphone or raise your hand.

Any questions or concerns about the procedures?

(No response)

CHAIR MCNAMARA: All right. With that all covered, do we have an order for the presentations? Folks talked about that?

MS. KROLEWSKI: I think that's your choice, Ed.

CHAIR MCNAMARA: Yeah. Fine by me. Why don't we start with Efficiency Vermont. My memory is last time I ended up actually dropping off before you guys finished. So -- because there was some computer program problems. So why don't we start with you folks.

MR. WESTMAN: I believe it was your second day in your new position and your computer was doing some critical updates. So I think your memory is correct. I'm going to ask that Peter Walke be

made the presenter.

CHAIR MCNAMARA: Just quick, for logistics do you want questions along the way or wait until the presentation is over? Any preferences?

MR. WESTMAN: I think we would be open for a dialogue as questions arise, please feel free to jump in. Raise your hand, wave your hands, however it works.

CHAIR MCNAMARA: Thank you.

MR. WESTMAN: I believe that it should be certainly the case for the commission. I'll defer to you as to whether or not you want other stakeholders or members of the Department to ask questions at the end. I'll be at your discretion, Ed.

CHAIR MCNAMARA: Yeah, thanks. I would suggest that anyone who is on this call or on this meeting should be able to ask questions. I think that would be a more useful dialogue going forward.

MR. WESTMAN: Very good. Thank you so much. I think we are all ready. Peter, I can see your slide. It looks like you are the presenter, so I'll just hand it off to you. Thank you for the opportunity to present here for the Triennial Plan update. Apologies for the late timing on this. We

usually try to do these presentations in December. Efficiency Vermont had an outstanding DRP amendment that was a significant change to our TEPF budget. So once that approval from the commission came through, we were able to file our Triennial Plan, but we recognize it's a little bit delayed here, so just appreciate your flexibility.

We got the memo from last week and have tailored this presentation to be relatively short and to the point of the questions that were asked of us in that memo and by dialogue. Thank you so much.

I'll hand it over to Peter.

MR. WALKE: Thank you, Dave, Mr. Chair, Commissioners, other guests. Again, happy to answer questions as we go. Would rather have this be a conversation, as the chair mentioned, than any other -- anything else.

My name is Peter Walke. I'm the managing director of Efficiency Vermont. As Dave mentioned, we were joined by many other key staff members here; Karl Johnson, senior director of operations among them. Between the two of us we will hope to answer as many of your questions as possible, and if we cannot answer in the moment, we will get back to you as quickly as we can.

All right. Jumping into it. Quickly want to run through TriPlan changes. Performance to date. Some underspend components, and then some significant evolution that has come about over the last few years, and getting into impact on 2024, and then looking ahead to 2025 and 2026 to look at both opportunities and challenges.

The key takeaways for 2024, we continue to be a reliable statewide partner for delivering both ratepayer and system benefits. With the plan to deploy the full three-year budgets of the performance period that additionally third-party funding has helped us unlock new savings opportunities especially in those communities that we have often failed to adequately reach. Three, and there is a significant amount of uncertainty in both the federal landscape and the, you know, global economy at the present. Those are leading to that uncertainty and those increased costs continue to present a challenging landscape for efficiency investments by both Vermont residents and businesses that obviously have this new implication in our ability to provide that support that those customers are hoping to achieve.

Some key updates. As Dave mentioned, the late filing based on the increased RGGI revenue

led to an increased overall TEPF RA budget of around 2.2 million dollars over the 2024 to 2026 DRP. We are -- we are also looking at a large workforce development initiative that we are doing in conjunction with the public -- Department of Public Service's workforce development RFP. I also want to highlight the expanded cost coverage plan which was an innovative partnership developed that Efficiency Vermont in conjunction with the Vermont Community Foundation and the VSECU piloted for flood relief programming whereby those customers who had large potential rebates were able to access funds up front so that we can make sure that they can complete those projects and then have those -- the rebates paid back -- the funds initially used and maintain that again. That's been a tremendously successful program and really unlocked opportunities for those who can least afford it, and we have worked to expand that coverage into more programs. It works really well for those programs whereby the incentive covers a large proportion of the overall project cost so that that up front cost really has a significant impact.

Here is a look at our performance to date. We are, you know, as you can see, a range of performance relative to different categories. We are

seeing close to a perfect third, or in fact a perfect third of completion in several of our QPIs and additionally some under performance in others. In terms of unspent funds you can see on the left we have some unspent or underspend in EEMA as well as FLM, and overall, in commercial industrial funds both EEC and TEPF. We will get into more detail in a moment.

In the EEMA underspend, as you'll recall, we did have a significant delay in the approval of the EEMA programs for 2024. It took awhile to then relaunch all of those programs because contracts had to be reestablished, so we were about six months behind in terms of the ability to roll out those funds. And so that's what you're seeing in that underspend portion of that underspend.

Additionally, in FLM we are 248 thousand dollars underspend at this point. FLM 3.0 pilot has launched later than expected, as well as on the res side there was an effort to put together a multi DU telematic offer where there has not been a vendor selected after a competitive RFP process. That is impeding the ability to move things forward. But that is impacting our ability to maintain both the spend and performance.

On the C&I underspend we are seeing about 1.6 million dollars in EEC and 480 thousand dollars in TEPF. Really seeing more lower project and savings than anticipated due to significantly increased costs, especially for C&I lighting retrofits.

Additionally, the sort of economic uncertainty and businesses deciding where to prioritize resources where energy efficiency is often seen as a -- as a not a luxury item but something they do when the times are solid and businesses can afford to be able to move forward with some level of uncertainty to move projects forward. And so those capital costs become significant and folks are wary of making those investments, especially as there is, you know, sort of complicated web of local uncertainty and changes at the federal level in terms of the funding availability that will support these budgets. Did want to --

CHAIR MCNAMARA: Sorry. If I can jump in here. On your last slide, the last point was workforce limitations. I've heard of that a lot when it comes to weatherization programs in particular, and to some extent heat pumps. How is workforce -- are there workforce limitations in the broader

electric efficiency market as well?

MR. WALKE: Yes. I think one of the things that we often hear is the controls market. As we get into more electrification and more overall well-intended design and control of buildings, finding controls, contractors to be able to help manage those building systems can be a challenge, an example of a particular workforce challenge.

Again, the general HVAC electrician, plumber piece, also affects, you know, the commercial side as well, as well as the overall electric side. So it all ends up tying together.

CHAIR MCNAMARA: All right. Thanks. And also while we are there, economic uncertainty. I'm curious, is this something that happens every time there is a new administration at the federal level that there might be greater uncertainty now? Or is this just a cyclical thing anyway? I'm just curious about folks who have been doing this for a while if there is a perspective there.

MR. WALKE: I was not around for the last transition so I'll look to my colleagues, but you know, I think certainly a change in policy at the federal level always creates some level of caution, I will say. The level of uncertainty we are seeing and

the impacts of proposed measures, certainly has, you know, is above and beyond what we would typically see. As a student of political science, I think the idea of, you know, sort of coming in with proposed tariffs that then have individual businesses prepare for absorption of those costs and start increasing costs as a starting point, will have an impact whether the tariff goes into effect or not.

And so that is the type of action that is particularly -- they are just -- the volume of actions at the federal level at this point I think drastically outweigh what we have seen previously.

MR. JOHNSON: I would just like to add to that and say, I think Peter alluded to this. It's the depth and the breadth. The extent is different this time. And the uncertainty is also being reflected in costs. We are already seeing costs in various sectors go up by 15, 20 percent.

CHAIR MCNAMARA: Thank you.

MR. WESTMAN: I will add one more to that which are all very good observations. When some administrations who are anticipated to provide additional benefits and incentives to clean energy technologies and energy efficiency, you can see somewhat of a delay in the market for actually taking

up the current incentives on the premise that there might be a better offer tomorrow. Dynamic that exists today is quite the opposite. And so, you know, we definitely have experienced some change in program uptake over the, you know, administrative changes. But frankly, in the last administration four years ago, we were coming off of the pandemic, there were a lot of -- there were a lot of incentives coming out of federal stimulus packages, so the economy was pretty hot, although people were still sort of expecting more incentives for efficiency measures to come out of what eventually became the IRA bill.

So I would say that's the other -- sort of the other side of that, Mr. Chair.

CHAIR MCNAMARA: Thank you. Appreciate it.

MR. WALKE: And just so everybody is aware, that was Karl Johnson first and Dave Westman both Efficiency Vermont weighing in there for the court reporter.

We were pleased to note that there are a number of innovative approaches being utilized as we think about going deeper with our customers in Vermont. As a great example Against the Grain Bakery

in Brattleboro which has been enrolled in FLM for some time, and through their HVAC system this year we were able to work on both efficiency measures and integrating their freezer as a thermal storage asset as part of the FLM process to the point of delivering over 55 thousand dollars a year in efficiency savings as well as an additional three and-a-half -- three to five thousand dollars in annual FLM savings under FLM 2.0.

And when FLM 3.0 comes out we expect that savings number to increase pretty significantly. So it's exciting to see a project that helps really address the needs of Vermont businesses while utilizing their existing assets to make the most good for Vermont and the grid.

Want to talk a little bit more about some interesting work that's underway to help Vermont evolve to meet its various energy needs. One of the big pushes of late, and this is especially what has been unlocked by the increase in third-party funds, primarily what started out as ARPA dollars got shifted through, you know, internal state mechanism to be state-funded dollars. But it allowed the Efficiency Vermont to really get to work doing some really important things working with partners in the

energy space.

I think the one that is most compelling to me of note is the home repair program as part of the ARPA weatherization dollars. That allows for up to $15,000 to go to a low or moderate income customer who is looking to do a weatherization project and has some fundamental building repair standing in the way. We all know that this is a -- we have heard anecdotally over the years from the WEPs and others this is a tremendous issue whether it be vermiculite insulation, a leaking roof, cracked foundation, some other major or minor repair that needs to be done in order for a weatherization project to commence.

That has left many projects on the chopping block. And those are the folks who can least afford to continue to heat the outside. To have the opportunity to fund projects and to work with OEO and help fund projects through the WEPs, if need be to help augment their existing funding, they are a great boon.

I believe the project launched in October. And within the first five weeks of the program over half of the projects that we had initially booked for this funding had been pre-approved for funding and allowed to move forward

so that projects could get underway. There is a huge need out there.

I liken this to the work that ANR did, Ed, when you were there on the healthy homes initiative and the amount of septic replacement demands that had gone sort of unevaluated over the course of time. The demand for this program is huge and will continue to be so to help Vermont address its both housing needs and energy needs over the course of time.

Additionally, we are working with the other energy efficiency utilities and Green Mountain Power on the home electric system upgrade. That allows for low and moderate income Vermonters to access dollars to upgrade their electric system to be able to be electrification ready. That includes, you know, things like heat pumps and electric vehicles, the things, as we know, the, you know, 100-amp service that is typical in many older homes may not be suitable for the needs of a fully electrified.

This funding, which again, ARPA dollars flowing through the Department of Public Service that came as part of the combination of flood, home electric system upgrade, and heat pump hot water heater change out program last fall, excuse me, fall

of 2023, post flooding in the summer of 2023, has really made a huge dent. That program has really just launched in earnest statewide. It was started as an effort to address -- the first opportunity were for those flood victims who needed help getting their systems back up and running. And then it's been expanded statewide, and we are already seeing some high return on interest or on that program.

You mentioned the cost coverage program. But we are also working -- we just hired this past year a new workforce development manager to implement a technique known as talent pipeline management, which the Vermont Business Roundtable has utilized successfully to increase the availability of nursing staff in Vermont. And we think this is an opportunity to help address some of those critical needs that you mentioned earlier, Ed.

We also have a, for the first time, a dedicated equity budget to really enable us to go deeper. This is both on the DSS and the RA side. We are able to go deeper with community-based organizations and really to help Vermonters who might not otherwise be able to participate in Efficiency Vermont's programs for a number of various reasons that would hold them back, to be able to have more of

an equal opportunity to be able to participate.

Additionally, we are working with our distribution utility partners to do an overall market assessment of the heat pump market in Vermont. There are -- we have done a fair amount of surveying and understanding what the state of the market is. You know, it's in conjunction, sort of running in parallel, to the work of the Public Service Department to evaluate the savings plans from -- or the savings from heat pumps. Really trying to understand how do we continue to work together to fully transition the market; what barriers remain in place. And then there is a corresponding action plan that is also being developed as we speak.

So we thought it was very important that we be working together to help advance this market as it's a critical solution to the energy challenges that Vermont faces.

So we also engage in the regional transmission planning as well as supporting non transmission alternatives. We are looking at ways to help individual customers use their energy more wisely and help -- while helping to reduce those peak demands. It is -- it continues to be a major issue for Efficiency Vermont as we really look to help

support the overall effort to use our grid and our energy more efficiently. And it helps to relieve some of that pressure on ratepayers through the integration of energy efficiency projects within those.

CHAIR MCNAMARA: Can I just jump in? Sorry. Is that Tom?

MR. KNAUER: Someone is speaking.

CHAIR MCNAMARA: Okay. Riley.

COMMISSIONER ALLEN: Yeah. Just on the transmission stuff. I'm just trying to get a handle on does this extend to subtransmission or go down to distribution? Or is it purely kind of transmission planning?

MR. WALKE: Dave, I might look to pass this on to you.

MR. WESTMAN: Absolutely. Happy to answer that question, Riley. I mean right now we are participating in the VSPC and the obviously have been reviewing the VELCO long-term forecast. So, you know, I think that is really sort of fairly our focus area at the moment. Obviously, the commission has had a lot of exposure to that latest long-range plan and looking at the same numbers that we are. We do think that both efficiency and flexible load

management could be a possible non-wires alternative for some of those future transmission projects that were identified in that plan.

We are generally not involved in distribution level or even subtransmission level asset planning, but we do know that some of our partners in the utility space are definitely thinking about FLM on that distribution level. And most recently, you know, I know that Vermont Electric Co-op has deployed a flexible load management program as a pilot specifically directed at avoiding distribution costs. And I believe that that's on the very local distribution level of trying to avoid transformers.

So generally, we are not involved in those pilots as a matter of course because that's the distribution utility's point of view. So yeah, that's a great question.

COMMISSIONER ALLEN: To summarize, it's primarily working with the VELCO and perhaps in part through your role on the VSPC?

MR. WESTMAN: That's right. Yes.

COMMISSIONER ALLEN: Thank you.

CHAIR MCNAMARA: I do have a question about how Efficiency Vermont works with the

distribution utilities here. I'm looking at the second sort of cluster of bullets advancing individual customer measures for peak electricity use management. So what's the role of Efficiency Vermont? What's the role of DUs here?

MR. WALKE: Do you want to keep going or do you want me to jump in?

MR. WESTMAN: I'm happy to. I would also bring in Karl, who also supports the operational developments, but generally we focus on the control devices specifically, and working with the customer location where the control devices would sort of fit into a utility-managed program.

We have been doing customer-based controls for ages. It's one of the original efficiency measures that has always been part of the portfolio. So the introduction of technologies that allow for direct control by the utility or perhaps even responsive to time-of-use pricing, if that's the preferred method of orientation, then that's generally where our involvement is right now.

We also explored possible electric vehicle charging and some software platforms that might create a unified approach, and as the bullet points out, that went out to a competitive RFP, but

did not transition into a contract at this time. So we are still sort of looking for that potential opportunity. But generally, it's a great question because we are not looking to control these devices directly. We are supporting the enablement of the utility to ultimately control them.

MR. JOHNSON: This is Karl Johnson. I would just add that this is really part of a market transformation effort. So making the technologies available, understanding how the utilities might be able to effectively use those installations, and also perhaps looking at utility use records and metering data and identifying potential accounts or customers that are well suited for that.

So all of those are additional examples.

MR. WESTMAN: I see Tom Knauer has his hand up.

MR. KNAUER: New question. And I know that your Triennial Plan was developed based on the laws as they exist today. But as many on the call know, there is a bill being discussed in the State House, S65, that would significantly change the role of the efficiency utilities. So this slide brings up the question how does the Efficiency Vermont's role

in transmission planning change if in a world where S65 in its present form passes and the efficiency utility is focused much more on electrification of thermal and transportation end uses and, you know, traditional efficiency projects are a third or fourth level concern?

MR. WALKE: Obviously, Tom, the bill just got introduced last week, so we are still processing some of the details of it, just like everybody else. How it impacts a specific situation is not entirely clear at this point.

My reading of the bill suggests that it is, in terms of greenhouse gases at least, is an elevation of the priority but does not remove the existing priorities around any of the electric system benefits that we have been providing for years. And so I see it adds a reassessment of priorities rather than a complete change thereof given that greenhouse gases was one of the top four priorities in the existing statute as it stands now. There are a number of other factors, obviously, in the bill that we are all trying to understand. And certainly the management and storage is something that's come up as part of that conversation, and so obviously that's something that will need to be resolved over at the

State House.

But clarity for -- if S65 or, excuse me, S65 is to move forward, obviously having clarity for all parties involved as to what's meant and the intent so that we can all get to planning for the next DRP which is coming up really launching for us beginning our work this spring and summer, will be critically important.

MR. KNAUER: All right. Thank you.

MR. WALKE: Any more questions on this slide before I move on? Also thinking about how Efficiency Vermont helps to stand up low emission solutions for Vermont's housing crisis, whether or not that comes down to factory built housing or advanced manufacturing housing pilots. There are opportunities across the board that we are helping to support in order to help address the housing crisis in Vermont and stand up options that meet Vermonters' housing needs in an affordable way, which is a critical feature of addressing the overall demand for housing and to make -- and to help Vermont's economy be what it needs to be to support everybody's continued work and existence.

I want to transition now to the sort of risks ahead. Obviously, the uncertainty we have

talked about before continues to make huge challenges for Vermont's combined housing, and affordability crises have really pinched Vermonters' budgets as we think about rising property taxes and other challenges facing Vermonters along with the price of rent and/or mortgages and buying homes.

Those -- that does have a significant impact on the sort of free capital for customers to be able to pursue projects both on the residential side and on the commercial industrial side. The inflation we are anticipating to continue to be a challenge. They have already started to materialize in, as Karl mentioned, in the construction, dairy, maple and ag sectors. The tariffs that we have seen either go into effect or be avoided at the last moment will continue to put pressure on both the sort of cost planning that businesses are doing as well as the sort of tail end of the supply chain that folks have been dealing with. Things like steel and aluminum tariffs, for instance, are going to have an impact on every piece of equipment that has metal in it for the most part.

The other -- the final piece that you asked about which certainly invite the Department of Public Service to weigh in on as well, as we are

working with them in many instances, but the awards from federal agencies being under review, both those that have been previously approved and those that are in the approval pipeline, having that level of uncertainty makes it very challenging to do the necessary planning around the development of those programs. In fact, as it relates to the IRA HEAR program which is the Home Electric Agent Assistance Rebate program, which essentially is designed to increase heat pump adoption nationwide. That we have -- in agreement with the Department have essentially agreed to pause that until we have further clarity as to what is happening with that funding and when it will flow to the State of Vermont as directed by Congress under the Inflation Reduction Act.

So there is significant uncertainty now. Folks have been waiting for those rebates for a long time. The Department of Energy's application process was elaborate, and we have been working very closely with the Department to get their application in to support a number of different programs under the HEAR programming. There is also the -- there is the home side of the house, which is the weatherization side, which has been fully approved by the Feds but has not -- we believe that may be held

up in the funding pipeline as well. But again, I would defer to the Department there. I just want to flag that as a significant risk, especially as we are talking about thinking about the state's existing funding and augmentation that the federal dollars have provided, if we think about that sort of drop off in funding, that will occur from the ARPA-era programs if the IRA programs do not flow, will be significant and will impede further action to reduce energy spending and greenhouse gas emissions across the board.

So it is troubling times from an implementation standpoint to not know precisely what to be prepared for.

Also this is more of a plug. Hoping you all will come and join us at Better Building by Design 2025. April 2nd and 3rd. At the Double Tree Hotel and Conference Center in South Burlington. We anticipate more than a thousand or around a thousand builders, suppliers, contractors, et cetera coming out to show what they are working on and share that.

Folks will be doing tours of OnLogic in South Burlington and in the Winooski School District to both pursue innovative projects. And we are very excited that Dr. Diana Hernandez from the Columbia

University's Mailman School of Public Health will be coming to speak with a group about energy and security and promising interventions that she is seeing in her work to achieve energy equity and justice, key themes in many of the affordability and other discussions that we are having at the state level.

So we do hope any and all will come and join. It is a great event and good inspiration for the work we all have ahead of us.

With that, that concludes our presentation. We are happy to answer any questions. I am going to stop sharing my screen so that I can see you all a little bit better.

CHAIR MCNAMARA: Okay. Thank you for the presentation. Going to open it up to anybody else who has any questions at this point.

MR. WALKE: Looks like Tom has another question.

MR. KNAUER: Always. So I'm going to refer to the red line version of the plan, but we don't need to get very specific. There is discussion, I think this was in your presentation as well, about some distribution utilities exiting the joint midstream ductless heat pump program.

Wondering if you can describe that a bit more and whether their exit from the program will have an impact on your, you know, savings targets, achievement of your QPIs, et cetera.

MR. WALKE: Sure. I'll start at a high level. Karl or Dave, feel free to jump in.

We are seeing, you know, the statewide program was launched in part to provide a universe of experience for Vermont customers and to help drive as much heat pump production as possible. As we look at the sort of -- and it was, you know, in conjunction between the DU's Tier III obligations as well as EVT's opportunity to derive some efficiency through that process. That program has been very effective to the point where it has helped the DUs more than meet their Tier III obligations.

And so in some instances, I don't want to speak for all DUs, but we have heard part of the reason for the withdraw is they do not need the savings from those programs. As of right now we are able to utilize -- we are able to support that work to maintain the statewide component, but if additional DUs were to drop out, then we would need to think about the future of that program overall. That it's part -- and that is part of the sort of

full evaluation of issues as part of the overall heat pump market assessment.

CHAIR MCNAMARA: Thanks. Ken.

MR. NOLAN: Thank you, Mr. Chairman. I just wanted to respond to Tom because VPPSA is one of them that's changing our participation in the midstream. In our case, at least, it's a combination of two things. One, we are seeing the heat pump market change, and we are seeing -- our focus is on different technologies and what's in the midstream activities right now.

The second thing that's weighing on our decisions is the implementation of the administrative fee by Efficiency Vermont which actually increases the cost to have our rebates processed. So that has changed the way we look at some of these programs and whether we think they are cost effective or not.

MR. KNAUER: Great. Thanks. I have one additional question. This is about refrigerant management. In the plan, page 8, one of the things in red line is the exploration of a limited number of new measures related to refrigerant management and HVAC and other end uses. So just wondering if you could shed a little bit of light on what are some of the new refrigerant management technologies or

projects that you're looking at.

MR. WALKE: Looking to pull up page 8 as you ask that question so I can look at specifically what you're asking for. But certainly would look to Karl, maybe, to speak to some of the proposed measures and other opportunities you see out there.

MR. JOHNSON: Yeah. Karl Johnson for Efficiency Vermont. Yeah. We are not planning on HVAC refrigerant management incentives, per se. But looking for opportunities for both recovery, but also efficiency gains in those projects. I think, you know, Dave, if you have anything to add, otherwise I think we can probably get back with some specifics.

MR. WESTMAN: Yeah, we can definitely get back with specifics. I will say that 2024 was the first year where the ANR grant for refrigerant management came online. There was a little bit of a delay in getting that up to speed. And so with that matching grant, there is going to be a focus on those small to medium-sized business, and this market is ever evolving and especially with the phase out of some of these refrigerants, these new technologies are coming online pretty frequently. If you remember I think last year the focus was on single package

refrigerant devices like vending machines, as an example, using natural refrigerants. And so now some of those technologies have been evolving into a more substantial and more robust technologies. It's not to say that we are changing the focus on the types of refrigerants. We are still going to be looking for low GHG and natural, quote unquote, natural-based refrigerants. It's just that the product base has sort of expanded.

If you do want to do a deep dive with me on that, Tom, I'm happy to offer you that opportunity, and we can get some subject matter experts into a discussion on that.

MR. KNAUER: I just guess I would say if, you know, the language says new measures related to refrigerant management, so if you guys go back and caucus and discuss that there is anything beyond what you just described, Dave, that would be great in a written filing to follow up. But if what you just said describes your plans, then no need for anything else.

MR. WESTMAN: Very good. Thanks. We will look into it.

CHAIR MCNAMARA: All right. I had one other question about EEMA programs in particular for

electric vehicles. This is -- this information is dated by a couple years, but there used to be an annual contract with those jointly DPS, ANR and VTrans, with Drive Electric Vermont do a fair amount of work. I mean it wasn't a sizeable contract. But I'm trying to understand are state agencies still contracting with Drive Electric Vermont? Which my understanding is a component of VEIC. And how does that, if that still exists, how does that relate to the work that EVT is doing under EEMA?

MR. WALKE: Sure. That's a great question. So yes. The state agencies are still contracted with VEIC to operate Drive Electric Vermont, to include, I believe, a $2 million appropriation from several years ago for expanded activities.

That contract is due to expire at the end of this fiscal year. And in conjunction with a discussion around continued statewide incentives, that is an open part of the conversation to try to make sure that we are maximizing the value to the state. And given that VEIC operates both Drive Electric Vermont and Efficiency Vermont, we were able to coordinate the expenditures within those programs to make sure that they weren't duplicative. So

providing additional value to the state beyond what you often get with two programs that have similar missions, really able to make sure that dollars were being spent in complementary and productive ways to help overall transform the market with our EEMA programs really focus on dealers and trying to help dealers be able to access the equipment and to repair and to charge electric vehicles, as well as to offering them incentives on the sales of those vehicles.

It's been a nice corollary to the statewide and federal tax credit, statewide incentives and federal tax credit along with the -- some of the DU-added incentives through Tier III to really make everybody in the whole sales process, from buyer to seller, engaged and interested in selling those -- selling the vehicles.

And as you'll often hear the Vermont Automobile Dealers' Association talk about many of the original equipment manufacturers do not support the dealers in the acquisition of the new equipment necessary to repair the vehicles. And so if they want to maintain their dealer status, they need support in order to be able to make that transition. And without that we run the risk of a significant

consolidation in Vermont losing many of the smaller town dealers that folks have become accustomed to being able to work with across the state.

So I think this has been a really good program and a really good balance between the Drive Electric Vermont funding and the Efficiency Vermont funding.

CHAIR MCNAMARA: Great. Thank you. Any other questions at this point?

(No response)

CHAIR MCNAMARA: All right. Not seeing anything. Thanks very much. Appreciate this. So it's always a good opportunity for this dialogue. Why don't we move to City of Burlington.

MR. BURNS: Good afternoon, everybody. Am I coming through okay?

CHAIR MCNAMARA: You are. Thank you.

MR. BURNS: Let me share my screen quickly. Is that coming through okay?

CHAIR MCNAMARA: Yes, it is.

MR. BURNS: Good afternoon. Chris Burns for energy services from Burlington Electric. I'm here with Tom Lyle as well.

CHAIR MCNAMARA: Chris, you're very choppy, sort of cutting in and out. I'm not sure if

it's your headset or anything else.

MR. BURNS: Is this a little better?

CHAIR MCNAMARA: That is better. Yes. Thank you.

MR. BURNS: We created this presentation. Reading the memo from the PUC asked us to keep it to about 10 minutes. So please let us know if we are too high level, and if we have missed anything that you want to know about.

The first thing I want to go over is just a general overview of where we are with some of the big metrics. We will get into a little bit more about some of our challenges, but in terms of electric resource acquisition we are about 30 percent through the three-year budget in terms of electric savings. We are at about 20 and I'll get --

(Interruption due to technical difficulty)

MR. BURNS: I'll proceed and then you can wave me down if it doesn't work.

CHAIR MCNAMARA: Thank you.

MR. BURNS: So Act 44, again, pilot programs, as we have recorded in quarterly reports and annual reports and at this annual workshop, the EVs, EV charging and heat pumps just really dominate,

but I will get a little bit into our geothermal test well program, the pilot programs that have allowed us to do because they have been pretty successful.

In terms of TEPF, as we have reported before, it's a very small market for us. 98 percent natural gas in the residential and commercial sectors. We had a very poor year in 2024. 2025 is looking a little bit better, with the note that we are heavily engaged with a 24-unit condominium complex that heats with propane, and we have made -- we have completed the analysis; we have made the offer. The homeowners association and board are trying to determine how they are going to be able to finance a great deal of work. But should that project go through, and it won't go through until 2026, it would be a significant part of our overall TEPF savings in our small market.

The other TEPF market that we have been laser focused on for years is Burlington's only mobile home park up at the North Avenue Co-op where we have been trying to encourage folks to make different decisions when they need to replace a home or they want to fill one of the empty lots. And that is, you know, could we persuade someone not to do a used home or a basic, you know, typical manufactured

mobile home and go to a more efficient one. So we continue to engage with the board and residents there. But as EVT mentioned, high construction costs and interest rates are a problem in this market as well.

A question came up about anything that would be affecting our QPIs going forward from federal funding changes. Not directly for BED, but indirectly one program within the HEAR program was the EEUs in partnership with the Department really wanted to try to focus on new affordable housing. And the idea there was the affordable housing organization has made it really clear to the EEUs that their costs are going up. The cost to do efficiency, the cost to do beneficial electrification is going up, and could we help.

So using the HEAR funds to augment some of the EEU's normal incentives and stack them, we thought could be very helpful. So there is a concern in this environment that some of the new projects just won't go as deep towards high performance as we like. So we are going to keep an eye on that one.

As I said, some successes with Act 44. Geothermal test well project. The reason I want to focus on this is water source heat pumps offer a lot

of benefits from cost effectiveness for the customer, for grid impacts, and so we have been pretty aggressive in trying to help folks look at geothermal as opposed to air source. And, you know, three big examples, the new Burlington High School will be a hundred percent geothermal. The design and the construction -- it's under construction now. We believe it's going to be one the highest performance buildings that we have ever seen just because the attention to detail by the design team and the builders. A really good envelope.

Integrated Arts Academy is one of our local elementary schools located in the Old North End, one of our most economically challenged neighborhoods. They too are retrofitting a 1904 building to geothermal which we are really pleased to see.

UVM two wells have been drilled on the athletic campus and Trinity campus, and they really want to think seriously about whenever they need to replace, or they are building new, could geo be the solution for them. So we are really pleased to have the pilot funds to do this type of work and get it to our customers.

And now with the challenges. You know,

Peter mentioned a lot of these, so I won't go into them in too much depth. But Burlington has challenges, not like other communities, but I'm sure the news has gotten around the state about some of the challenges for Burlington. And they definitely are impacting our commercial customers while they are also facing all the other challenges that Peter mentioned.

So, you know, the public safety issues are real. I live in town. I try to spend as much of my disposable income as I can with our businesses, so I think I know the town well. We also hear from our large institutional customers. They are still under budget constraints. They are still under workforce challenges. And the other one that we keep an eye on is development, future development, because we are part of the city. We are part of the permitting and planning process.

There is a monthly technical review committee where a developer can come in and say in front of all the city departments: Here's what I've got. Before I spend a lot of money on design, tell me if there is any red flags.

Four out of the five last meetings have been postponed because nobody's bringing new

development forward. That really affects our business new construction program. So it's just -- it's a concern.

And just in terms of orders of magnitude as we set up the DRP and work with the DPS and work with the PUC on our DRP process, we are heavily commercial. So, you know, we need the commercial sectors to perform well for us to perform well. And, you know, right now they are facing challenges. We are facing challenges. We are coming up to the halfway part of the three-year performance period. We are taking a really close look at everything. If we think that a goals and budget adjustment is prudent, we will start that conversation with the Department and bring that forward.

And probably a little over my 10 minutes, but happy to take any questions.

CHAIR MCNAMARA: So I see somebody has their hand up. I can't see who.

COMMISSIONER CHENEY: It's me, Margaret.

CHAIR MCNAMARA: Oh sorry. Thank you.

COMMISSIONER CHENEY: I have a practical question, Chris. I think it was on slide

4. You mentioned the higher cost of incorporating efficiency and electrification in new construction. That seems counterintuitive to me because you're able to design from scratch rather than cut into retrofitting.

Why is it more expensive with new construction?

MR. BURNS: So what we hear from the developers is a couple things. RBs and CBs have different requirements now. For example, they are requiring, I believe, 200 amp services. They are requiring a certain amount of EV charging. And then the idea for us in Burlington, you know, conventional natural gas boilers and hot water packages versus heat pump packages, can be more expensive.

So their argument is when you stack it all up, their capital costs to build are higher.

COMMISSIONER CHENEY: If it's because of CBs in this case, I'm assuming we are talking about commercial buildings, does that imply that the same electrification and efficiency efforts in existing construction are being incorporated in the context of less stringent building standards? If you follow my drift.

MR. BURNS: I'm not sure that I do. I

apologize.

COMMISSIONER CHENEY: Okay. Never mind. It's too -- a little bit arcane. I'll move on. Thanks.

MR. BURNS: Thank you.

CHAIR MCNAMARA: Okay. Water source heat pumps. Can you talk a little bit -- it sounds like you're saying -- you mentioned something about grid impacts are significantly less from water source heat pumps. Is there an order of magnitude less electric usage associated with those compared to air source?

MR. BURNS: I wish one of my technical team members were here to answer that. I apologize. I don't -- I don't know. I know empirically they operate at lower temperatures, at higher coefficients of performance. And because you're dealing with -- if you're dealing with an open-loop or a closed-loop geothermal system you're dealing with, you know, pretty consistent temperatures coming into the heat pump. So they are more predictable as opposed to the coefficient of performance of a ductless mini split where things really get interesting at lower temperatures.

CHAIR MCNAMARA: Got it. Okay. So

it's along the -- sort of during the peak period where the impacts are more beneficial from water source sounds like. Okay.

MR. BURNS: Yes.

CHAIR MCNAMARA: Great. Thank you. And based on the projects that you walked through there, the high school is obviously new construction. But it sounded like the other two projects were retrofits. And how is that working out in terms of feasibility?

MR. BURNS: It's interesting to look at some of the projects that happened, and I'll point out Champlain College.

So Champlain College sits a little bit below the University of Vermont. It has grown in square footage, you know, significantly over the years. They have been able to do geothermal covering 35 to 40 percent of the campus but doing it in -- on existing lots. And it's just the skill of the well diggers, that are drillers, that are able to be able to go into a urban setting and make it happen. It can't happen everywhere. If -- I'm not the geothermal expert on the BED team. For the urban setting for what I know is you need to hit some pretty good volume of water when you don't have a lot

of land, because if you have to go to closed loop, you need a lot more space for more wells. So it's really a matter of wanting to make sure that you've got enough volume of water to support the load of the building in a tight urban setting.

CHAIR MCNAMARA: Yeah. Interesting. Thanks. One last question for you about sort of the economic development and new construction.

Are you seeing -- sounds like there's been a downward trend. Are you seeing sort of light at the end of the tunnel at this point? Or you're not -- there is not any certainty yet as to how long this sort of dampening is going to last?

MR. BURNS: I wish I knew. I do check in with our planning department. I check in with VHFA and some others that are in the development community. It's just a difficult time to read.

CHAIR MCNAMARA: Yup.

MR. BURNS: It's interesting in Burlington because about a year ago the City Council passed some pretty robust changes to our permitting rules where folks can build larger buildings and cover more of their lots than ever before to try to deal with mostly the housing issue.

So while that flexibility was granted,

then other factors came in to dampen what developers want to do. So I think we are just at an interesting time right now.

CHAIR MCNAMARA: Got it. Thank you. I fully recognize that was a little bit of an unfair question, but I am curious about that. So thanks.

MR. BURNS: Thank you.

CHAIR MCNAMARA: Anybody have any other questions for BED?

(No response)

CHAIR MCNAMARA: All right. Not seeing anything. Thank you, Chris. Appreciate that. It was really interesting.

MR. BURNS: Thank you all.

CHAIR MCNAMARA: What do folks want to do? Do you want to launch directly into VGS? Do you want to take a quick 10-minute break? Any thoughts? I'm good with keeping going, but I just want to be mindful for other folks who are captive.

Not seeing anything. Great. Why don't we launch in. Thanks.

MR. PERRIN: Great. Well good afternoon. Thank you everybody for your time and interest in our 2024 performance, some of the successes, challenges, as well as lessons learned as

we evolve our programs. I am pulling up my screen here. Can individuals see the slide deck I have pulled up?

CHAIR MCNAMARA: Yes. It's up.

MR. PERRIN: Beautiful. Full screen mode. All right.

As mentioned earlier, my name is Tim Perrin, and I'm manager of our energy efficiency programs. Like the BED team, we have devised our slide deck today to be focused on brevity, but please don't hesitate to pause me at a moment to take a deeper dive on some of the high level updates I'll be providing.

So one slide overview of 2024 results. There is admittedly a lot packed into this slide. Right now I just wanted to orient everybody. In the upper left panel we are demonstrating our annual savings to budget, with the blue bars being what we actually achieved. These are unverified claimed savings for each of our six programs versus what we had budgeted for 2024. The yellow bars.

And as you can see, there's definitely been some variability in each of the individual programs, but I'm pleased to report that we are on track and 97 percent of the way toward our 2024

budgeted goal in terms of MCF natural gas savings performance.

In the lower left panel we are looking at spending to budget. Same type of arrangement here. And what we are able to achieve or come close to achieving are our 2024 savings. We are actually around 20 percent under budget. And I'll speak to that in a little bit with some of the larger projects that some of the businesses needed to pursue in order to keep their central boiler plants operational.

We will be looking at ways that we can shift that million dollars into our 2025 and 2026 budgets, to essentially back fill for some federal funding that we were anticipating that would help boost incentives as well as launch our own home repair program similar to Efficiency Vermont for low and moderate-income households, as well as being able to do more with small and medium businesses that have not participated as much as we would like, even though we are on track for our small business goal.

For the table that presents each of our quantitative performance indicators as well as minimum performance requirements we have established this as a dashboard. Green, yellow, red. And look at QPIs 1, 2 and 3. This represents our progress

towards our 2024 to 2026 goals. So anything over 33 percent means that we are well over a third of the way towards overall achievement for each of those QPIs.

Look at QPIs 4A and B. This is a factor of the number of audits that we are doing and the number of those that we convert to completion as well as moving forward with recommended measures. Everything is above threshold at this point. 600 residential audits need to be completed each year. We are on track associated with that.

The one I will point out which is -- transitioned into yellow currently is business comprehensiveness. So if we were to have ended our performance period at the end of 2024, we would have missed this QPI. However, since we have two more years in order to improve some of the diversity of the measures that we are supporting, primarily heating and hot water system, interestingly enough, as we are falling short, we still have plenty of time to be able to get the QPI on track. And we are achieving or exceeding our MPR in each of the areas as outlined here.

CHAIR MCNAMARA: So Tim, can I ask a question about QPI 4 in particular?

MR. PERRIN: Of course.

CHAIR MCNAMARA: I see the recommended measures to install. It's not too often that you see almost 100 or 97 percent, 100 percent, sort of the QPI is met in the first year.

Can you explain a little bit. My apologies. I don't know this as well as I should.

MR. PERRIN: Sure. So for QPI 4 it actually changes as we perform more audits. So we are not currently at a hundred percent of achieving our three-year performance goals. It's really taking the denominator of the number of audits that were performed, and then the numerator in terms of those that move to completion to define QPI 4-A for both existing footprint as well as Addison footprint.

So if we were to do a bunch more audits and none of those led to completion, we could actually see those numbers dropping over the next few years. And similarly, with recommended measures to install for customers that opt to move forward, we are really trying to encourage comprehensiveness. And we often use the incentive that we can bring to a project as a lever to be able to encourage that comprehensiveness.

So there is the potential that over the

next two years if customers opt to cherry pick for the most cost effective measures that we have recommended, the 97 and a hundred percent could surely drop. But again, we have some levers at our disposal to try to keep as comprehensive a project intact for as many properties as possible.

Does that answer your question around QPI 4, Commissioner?

CHAIR MCNAMARA: It does. Thank you. That was very helpful.

MR. PERRIN: Of course. Any other questions before we shift from the dashboard? I unfortunately can't see hands up the way I have my screen set up.

CHAIR MCNAMARA: I'm not seeing any hands up at the moment.

MR. PERRIN: Okay. Moving on then. So looking at each of our three residential programs. We wanted to highlight some of the successes, the challenges, as well as the lessons learned as we evolve over 2025 updates and think about 2026 on the near-term horizon. So very tactical but impactful.

During 2024 we actually moved from delivering customers -- delivering an 8 to 10-page energy audit report to customers, and streamlining

the most important things from a variety of feedback we captured from customers into a two-page proposal. So really being able to distill down a lot of the techy geek speak into something that is actionable, presents the cost/benefit analysis from the customer's financial perspective, any considerations about the home as it relates to vermiculite remediation, knob and tube wiring, other safety concerns, and outlines and next steps.

Initial feedback we have gotten from customers is that they find this new proposal is really valuable as opposed to an 8 to 10-page report setting in an email or on a shelf unread or an individual digging into it and not fully understanding what it all means.

This two-page proposal is intended to be really focused on how to ensure that customers are acting upon the recommendations and moving forward with weatherization work more consistently. This has also had a spillover effect of really being able to help us reduce some of our wait times for VGS-led audits. When I first started almost 4 years ago we were at a 5 to 6-month wait for a new customer that was interested in getting an energy assessment before an auditor would show up. Through some of the

operational improvements, as well as the impacts from recurring back-to-back cold winters last year and the year before that, we have actually seen demand for weatherization reduce as well as being able to free up our auditor's time for more value add has helped us shrink some of that time to around two months at this point. And provides a feedback loop that now is the time to go to market, and let them know about weatherization incentives, any new news as it relates to our program so that we can get more individuals in the queue and in the hopper.

So the challenges related to our weatherization program is the funding gap that now exists between Vermont Gas's program and Efficiency Vermont's program that are largely funded through ARPA. Not saying that that's necessarily a bad thing in terms of the enhanced incentives that Efficiency Vermont has been able to bring to the table, particularly for low and moderate-income households or the home repair program that Mr. Walke had mentioned earlier. Just identifying that we were hopeful that the 2.9 million dollar DOE whole home efficiency grant which was supposed to be delivered to the state back in last July time frame that was going to be used to bridge some of that gap and

increase some of our incentives.

Long-term home repair program. That is currently in limbo, maybe purgatory at this point. And we are trying to determine how much of that we can potentially take on using the underspend in our budget from 2024 while balancing overall program cost effectiveness.

For residential equipment replacement --

CHAIR MCNAMARA: Sorry. I just wanted to interrupt. There was a question for -- or at least there had been a question on the residential retrofit weatherization. So go ahead. And that's Commissioner Allen.

COMMISSIONER ALLEN: Yeah. I'm sorry. You had sort of moved on, so I was happy to continue. But I appreciate the kind of success story about the two-page proposals. Just curious though, does that translate into something that is, you know, quantifiable? Or is it really just kind of a customer kind of reaction that you're basing the success on?

MR. PERRIN: Thanks for that question, Commissioner Allen. Up until now a lot of the success of that has been based on customer feedback,

anecdotal evidence. However, we are monitoring what our conversion rate is from audit to completion as well as the number of audits that our energy auditors are able to perform, and then translate it into completed work. So we made this change about midway through 2024. So are monitoring some more of the quantitative metrics to be able to ensure that nothing is being lost from some of this transition and that it continues to lead to customer value add.

COMMISSIONER ALLEN: Thank you.

MR. PERRIN: You're welcome.

CHAIR MCNAMARA: Thanks. Sorry for the interruption.

MR. PERRIN: No worries at all. For our residential equipment replacement program, we are off to a strong start for 2024 with 13 distributors enrolled, basically everyone who is selling high efficiency heating equipment into our footprint that we are aware of, are at least enrolled in the program. And all of the contractors that we have seen historically participate in some of our down stream rebate programs and more are -- we have seen as some of the active participants for 2024.

So the opportunity to engage the market through this midstream model point of purchase is

having the intended effect of really working through and hopefully transforming the supply chain through the various points of engagement that we have.

We also have been able to improve some of our operational efficiency. Historically, a member of our team had needed to enter the 1,800 to 2,000 different efficiency measures that would come through on rebate forms manually into our program tracking data base. With the data now being captured at point of purchase, and a very consistent format, we have found a way to be able to semi automate the import of that data into our data base after some quality assurance checks for about 80 percent of those measures.

There are still some anomalies that we discover with multi-family sites, multiple premises or data that doesn't quite match what we have within our customer information system, but we have been able to drastically streamline and reduce the number of errors that we are seeing through being able to do that data import.

Some of the challenges and things that we are going to be working on during 2025 is ensuring that contractors are actually listing the rebate levels in the quotes. We are finding that there is

some customer confusion out in the marketplace where customers are reaching out to us asking: Hey, how do I submit for my rebate? Not knowing that the rebate was already taken off at the purchase price, and the contractor had just simply not communicated that within the quote. So there is some education and training as well as some systems improvements in order to get there consistently.

Also, perhaps the biggest one is the delay that we are seeing in when distributors are submitting their sales data. There have been times where distributors have waited 60 to 90 days before they actually submit to us for a reimbursement, the data that we need in order to effectively close out those midstream measures. That distributor is still providing the point-of-purchase rebate to the contractor. They are just sitting on the information until a member of their team has time to enter all of the data into the corresponding fields and then submit it to us for invoicing purposes, which has led to a very lumpy experience in terms of program reporting as well as being able to effectively forecast.

And the last one I'll identify, I mentioned this back in our 2024 update. Is there was

a bit of a timing issue and when our TRMs, our Technical Reference Manuals were developed or updated related to our -- each of our efficient products programs, where normally TRMs are updated ahead of doing the market potential study so that it can well inform the Demand Resource Plan as to how much savings there could potentially be out there related to each of the measures that we model.

Our TRMs were developed or updated about a year later than anticipated, so those updated modeling assumptions were never introduced into the DRP. And we are looking at something between an 8 to 10 percent reduction on a per-unit basis in terms of energy savings that we'll be exploring with the Department and potentially with filings at the commission as to how to most effectively address.

And finally, for residential programs new construction has actually over performed in 2024 compared to what we were anticipating. Cambrian Rise project in Burlington as well as a handful of multi-family properties in South Burlington, City Center, we are originally expecting those projects to go all electric in alignment with the city's recent renewable heating standard ordinances, but each of these were actually able to get their permit

applications in before the ordinances took effect, so opted to go with high performance building shells as well as energy efficient heating and hot water equipment, albeit gas fired. That gave our residential new construction program a boost in 2024.

However, we are not expecting that trend to continue as those two ordinances take effect, and we are seeing the market surely shift over to all electric or primary electric for the heating and hot water systems in other communities that we serve.

Some of the challenges that we are experiencing is the significant drop in single-family participation in the Efficiency Vermont certified homes program, both Efficiency Vermont and us are seeing that. And we are working collaboratively with them in order to retool that program to engage with developers and builders more effectively to boost participation and ensure that high performance becomes the default option as well as a topic that each of the EEUs have brought up before, the 54 percent rate for residential building energy standards compliance is something that we are working collaboratively with the EEUs as well as state partners and other organizations in how to address --

boost that rate, get every building to at least meet the requirements of residential code, and ideally being participating in our programs so they can achieve code through high performance.

CHAIR MCNAMARA: A quick question on the last slide there. Residential new construction. If a lot of houses are moving to -- or sorry -- new construction is moving to all electric, is there almost or very little backup heat for -- that's connecting to Vermont Gas? Because I've also heard that resistance heat is sometimes the backup heat for new high performing homes. So I'm curious what you're seeing, in particular, in VGS service territory.

MR. PERRIN: Yeah. That's a great question, Commissioner. So we are finding that a lot of the newly built homes, if they even have a backup heating system at all, are generally looking at an electric option within our footprint. And one of the reasons for that is as part of some of our feasibility model we -- for some of the feasibility for us to be able to connect new customers to our pipeline network, that's a factor of the construction costs in order to get to a new construction, a new development, as well as the expected gas savings and

the revenue that would offset some of those costs over a 10-year time horizon.

So for a natural gas furnace or boiler that's only being used as backup heat as well as, you know, maybe hot water is natural gas, or maybe there is a heat pump water heater serving that load, for some of these developments there is actually not enough gas load that justifies the construction of a pipeline in order to serve them with natural gas without a significant contribution by the developer.

CHAIR MCNAMARA: Got it. Thank you.

MR. PERRIN: Of course. Any other questions before we transition to commercial?

COMMISSIONER ALLEN: Mr. Perrin, I just have one question. Your comments about the ordinance. In my mind it might kind of help to explain why 2024 was, you know, a relatively good year for both residential and commercial new construction. But I'm wondering if it might, you know, go the other way in 2025 and 2026; that is, you might be seeing a fall off in that particular category.

MR. PERRIN: Absolutely, Commissioner Allen. This is -- we achieved more savings in both the residential and commercial new construction

programs than we had originally anticipated or modeled as part of the Demand Resource Plan. As we were expecting a lot of these ordinances and the impact of those to take effect as well as we were starting to see more of a shift to primary electric -- primary electric heating and hot water systems during our last performance period.

So with the permit applications for some of the projects mentioned here, Cambrian Rise in South Burlington, being before the ordinance actually -- ordinances actually took effect, we were able to support these programs through -- these projects through our program as opposed to it going primary heat pump, and it being supported through Burlington Electric or through Efficiency Vermont.

And then similarly on commercial new construction, the largest portion of the bump in savings for that program was related to the heat recovery that was incorporated into a couple new digesters, operating digesters, transforming organic food waste and generating electricity from that. Heat recovery added on to that as part of the new build for each those digesters was ultimately what kind of pushed us over, above and beyond what we were anticipating for our commercial new construction

program. We are expecting a significant drop off in savings for both commercial and residential new construction in 2025 and 2026.

CHAIR MCNAMARA: We do have another hand raised. Mr. Levenson. So Mr. Levenson, I see you're off mute. But can't actually hear anything. And for some reason you're the square that I recall that's been sort of -- your name has not shown up. I don't know if there is some connection problem that you're having at the moment.

MR. LEVENSON: Can you hear me now?

CHAIR MCNAMARA: Yes.

MR. LEVENSON: It was one of my settings. Apologies for that. And I won't worry about the camera for now.

But Tim, thanks for this presentation. And apologies for not knowing this already. But the first bullet point in the right-hand column under challenges, the funding gap between VGS and EVT programs introducing confusion in the market. Could you describe from the customer's perspective what the confusion is and whether this is an either/or sort of situation.

In other words, can a customer participate in either VGS or EVT's residential

retrofit program? And also how does that apply in BED territory?

MR. PERRIN: Sure thing. Yeah. Thanks for framing this out. So for any VGS customer, natural gas customer, they are limited to only being able to participate in our weatherization program if they are going to continue to remain on natural gas as their primary or majority heating source. And although we have found a lot of customers will get wind of the enhanced incentives that Efficiency Vermont has introduced into the market, $9,500 in some cases, for moderate income households. Perhaps reach out to Efficiency Vermont first, and their team will rightfully steer the customer towards us, where we say: Oh sorry, we are -- our program caps out at $5,000. Some of the customers don't like that answer and have actually gone back to Efficiency Vermont trying to negotiate a better deal.

So that's maybe an example of what we are experiencing the most where customers don't necessarily know how to navigate, who to reach out to first. They are just perhaps going after the better offer that they think they can get, and in some cases are disappointed to learn they are not able to go through the Efficiency Vermont program and that our

funding and the incentives that we offer are currently lower than theirs.

And Burlington Electric has aligned their weatherization program and offers with what we have in the marketplace currently.

MR. LEVENSON: So it's not an issue in BED territory?

MR. PERRIN: It's not an issue in BED territory. No.

MR. LEVENSON: Great.

MR. PERRIN: Relates to some of the boosted incentives that were made possible through the ARPA funding, which we don't have access to.

MR. LEVENSON: Great. Thanks. That clears it up.

CHAIR MCNAMARA: Thank you.

MR. PERRIN: And last slide here diving into our commercial programs. So we, like both Efficiency Vermont and Burlington Electric, have really experienced what I describe as a malaise in terms of business market spending. Discretionary spending for large and small businesses has been very tight. We have been lucky to uncover some projects with our retrofit program and really looks to optimize existing systems, whether it's

recommissioning of heat recovery systems within some commercial buildings and grocery stores as well as partnering with both Burlington Electric and Efficiency Vermont on controls optimization, so really being able to take some of the existing hardware, some of the existing controls for that hardware, and instead of having to make a wholesale investment for something that may be working fine, and businesses are maybe reluctant to be investing their capital in their energy using systems, how to optimize those controls so that they perform better and can lead to some low cost or no-cost savings that result.

To answer a question that was posed by you, Commissioner McNamara, earlier, definitely there was some uncertainty coming into the election over the course of last summer, and I would say that that -- it's probably typical every four years. But what we are seeing in terms of a very uncertain economic policy, tariffs being introduced and then retracted, the state of, you know, federal funding being a big unknown, a lot of businesses are in kind of a wait-and-see mentality, which has definitely impacted those discretionary investments and things that can help them save energy if they don't need to make

those investments right now because of catastrophic failure.

We have also had some success with leveraging the access that we have to monthly natural gas data and conducting a benchmarking exercise for grocery stores across our footprint. Hearing that data with store owners as well as anonymized data for other supermarkets that may be competitors with those development groups, as well as those who are looking at energy management for grocery stores, both large and small, within our footprint to really be able to demonstrate the relative performance for their stores versus other ones, and help identify where there might be opportunities to recommission existing heat recovery systems or perhaps something has started to back slide or fall out of calibration that can be addressed relatively easily.

One of the key challenge areas for us has been engagement with hospitals. We were hoping that, you know, post-COVID that things would improve in terms of the hospitals' ability to focus on efficiency measures. Now that we are kind of post pandemic, but with the amount of staff turnover that we have seen as well as some challenges that hospitals and healthcare providers have had with

being able to manage their budgets, what historically was a reliable source of engagement and savings for our program has almost dried up completely.

So we are continuing to figure out the best way to be able to engage with hospitals at perhaps a higher level within leadership to demonstrate that energy efficiency can be a great way for them to be able to manage some of their -- their variable costs of doing business and continue to find ways through low-cost controls optimization or other improvements in order to get them to move forward with efficiency projects.

For commercial equipment replacement program a lot of our success actually came through engagement with Franklin and Addison County manufacturers, both large and small. Some of those had the unfortunate problem of needing to make investments within their central utility plants, otherwise they may have needed to be shut down due to safety concerns. But it led to an opportunity for them to make incremental investments on things that they needed to do anyways, to select high performance equipment, to install heat recovery, optimize controls, and being able to integrate some of those central utility systems that led to the majority of

our savings for 2024.

Also had strong participation from some of our institutional customers; colleges, schools, municipal and military buildings, not hospitals though, with being able to support them with some of their equipment replacement projects.

And as identified earlier just some of the uncertainties, and the pricing of tariffs that are -- have been imposed upon steel and aluminum as well as being potentially proposed for a variety of other countries, we have seen continued price increases for energy efficient equipment, and steel and aluminum is effectively built into pretty much every piece of energy efficient equipment that we support.

Lastly, commercial new construction. Mentioned some of the opportunities and success with supporting heat recovery for new digester operations. We also for the first time ever in coordination with the other EEUs, as well as the electric EEU Tier III programs, have been able to provide some customized support for hybrid rooftop units within commercial buildings.

These rooftop units include a natural gas furnace but also a heat pump section that can

provide not only cooling but also heating down to 20 degrees outside air temperature which can displace between 30 to 40 percent of natural gas use even by getting down to 20 degrees outside air temperature. So that's been successful, and we are looking to do more than that, as we know that customers will invariably need to replace those units over time and they are ubiquitous, they are on pretty much every large commercial and institutional building that we serve.

Our pipeline for commercial new construction is thin, which was anticipated as part of our DRP modeling, but we are also seeing a general slow down in terms of new construction across our footprint. Some hypotheses around that just in terms of rising interest rates as well as that malaise that we have described in terms of business investment. And we are not expecting to achieve the same level of savings as we did in 2024, but more on kind of a downward sloping glide path over the rest of the performance period for this program.

With that, I would like to open it up for any other questions.

CHAIR MCNAMARA: All right. I'm not seeing any right away.

One quick question on hospitals. You said that the opportunities have essentially dried up. Is that -- and apologies if you already said this. Is this very recent in the last year or two? Is it in the last five? Is it post-COVID? Like what's the timing associated with that?

MR. PERRIN: Yeah. The engagement with hospitals have been challenged, at best, since COVID. And we were hoping that, you know, post pandemic as individuals were -- perhaps had a little bit more time to free up to look at energy efficiency opportunities, how to upgrade control systems to be able to get it back to the ventilation requirements, kind of before COVID, that it would lead to a wealth of efficiency opportunities for us all. But we have just not found staff having the time to prioritize kind of conversations on this front versus everything else that they are dealing with.

CHAIR MCNAMARA: And I'm curious about that in terms of -- because I would expect hospitals would have facilities managers. And getting to an earlier question, is there concern about sort of expertise of facilities managers out there generally? Colleges, larger institutions? Or is it simply that facilities managers at hospitals are -- don't have

the budget and are trying to, you know, duct tape things together. And I'm asking for speculation. I recognize that.

MR. PERRIN: So we serve four hospitals within our footprint. And at least three of those has experienced some level of wholesale staff turnover within their facilities management team. Not to say that the individuals coming in aren't experienced facility managers. But just there is a learning curve associated with understanding hospital systems, its nuances, where there may have been efficiency opportunities identified in the past and where they really want to focus and prioritize their attention as well as limited budgets to make those investments.

So I would say that that's probably the biggest challenge is that staff turnover in recent years. As well as in some cases reduced staff head counts in order to balance budgets, to be able to focus on some things that may be identified as nice to have as opposed to a need to have.

CHAIR MCNAMARA: Thank you.

MR. PERRIN: You're welcome.

CHAIR MCNAMARA: Any other questions for VGS?

(No response)

CHAIR MCNAMARA: All right. I'm not seeing anything. Thank you very much, Mr. Perrin. It's great. All right.

Just to wrap up the workshop, so comments on the plan updates are due February 28. And then we will be issuing orders separately.

Is there anything else that we need talk about today?

(No response)

CHAIR MCNAMARA: All right. Not seeing anything. Thanks very much for the participation. I found this really interesting and very helpful. Great. Thanks, everyone.

(Whereupon, the proceeding was adjourned at 3:16 p.m.)

C E R T I F I C A T E

I, Kim U. Sears, do hereby certify that I recorded by stenographic means the Workshop re: Case No. 24-3335-INV, via videoconference, on February 18, 2025, beginning at 1:30 p.m.

I further certify that the foregoing testimony was taken by me stenographically and thereafter reduced to typewriting and the foregoing 75 pages are a transcript of the stenograph notes taken by me of the evidence and the proceedings to the best of my ability.

I further certify that I am not related to any of the parties thereto or their counsel, and I am in no way interested in the outcome of said cause.

Dated at Williston, Vermont, this 19th day of February, 2025.

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