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April 7, 2025

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, PA 17120

RE: Energy Efficiency and Conservation Program
Docket No. M-2025-3052826

Dear Secretary Chiavetta:

Pursuant to the Tentative Implementation Order dated February 20, 2025, in the above-referenced matter, enclosed for electronic filing please find NRG Energy Inc.'s Comments. Copies to be served in accordance with the attached Certificate of Service.

Sincerely,

Deanne M. O'Dell

DMO/lww
Enclosure

cc: Joseph Sherrick (josherrick@pa.gov)
Tiffany Tran (tiftran@pa.gov)

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Energy Efficiency and Conservation Program	:	Docket No. M-2025-3052826

Comments of NRG Energy, Inc.

Date: April 7, 2025

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Summary

NRG Energy, Inc. (“NRG”) respectfully submits these Comments in response to the Public Utility Commission (“PUC” or “Commission”) Tentative Implementation Order (“TIO”) issued on February 20, 2025, and published in the Pennsylvania Bulletin on March 8, 2025. With this Tentative Order, the PUC seeks comments on its evaluation of the Energy Efficiency & Conservation (“EE&C”) Program, the proposed additional required incremental reductions in consumption and peak demand, as well as on proposals addressing the design and implementation of the next round of the EE&C Program. The Commission has proposed to implement a five-year Phase V of the Act 129 EE&C Program that would operate from June 1, 2026 through May 31, 2031. NRG appreciates the opportunity to offer its perspective on the Commission’s proposed plans. Our comments focus on expanding the opportunity for direct consumer participation in demand response programs in the form of smart thermostat-based Virtual Power Plants (“VPP”).

Leveraging the Competitive Retail Market to Achieve EE&C Goals with VPP

When competition was introduced to the energy markets nearly three decades ago, the Commission, PJM, and federal regulators spent substantial attention ensuring the supply side of the market is robustly competitive and dynamic. Demand-side improvements have received less attention. Demand-side participation, particularly in the residential sector, has yet to meet its potential in Pennsylvania, despite the lofty promises that were made when the foundational technology investments in advanced metering were made. Since that time, smart home technology has become commonplace in most PJM states. Pennsylvania should take advantage of the decade-plus of industry experience with smart thermostats and demand response programs to enable customers and their suppliers to more readily optimize such affordable, customer-side devices in relation to the energy and capacity markets.

Retail capacity and energy pricing are fundamental building blocks to galvanize demand-side actions. As such, NRG urges the Commission to direct the electric distribution companies (EDCs) to include in their EE&C plans smart thermostat enabled residential demand response programs – or virtual power plants (“smart thermostat VPP”) – that facilitate EGS and other

load-serving entities' reductions of peak load during those hours when capacity costs and transmission costs (which are also demand-related, and which weigh on consumer affordability) are incurred. Such programs exist or have been proposed in other jurisdictions, and EGS involvement in these programs is essential to delivering residential demand response at scale. Competition to deliver results drives the innovation required to reach and engage customers in a meaningful way. More is required than simply sending a smart thermostat in the mail to a customer, or even installing a smart thermostat with utility-controlled operations – something that has been done for years.

Based on NRG's experience, just one in four smart thermostats shipped to customers (through rebate and free thermostat offer programs) ends up installed on the wall. To have an impact, those thermostats need to be installed and enrolled to participate in demand response events. Additionally, even when these smart thermostats have an accompanied "truck roll" and are installed directly in consumers' homes and pre-enrolled with a utility program, they often underperform. Coupled with VPP participation at the hands of a party incentivized to economize on energy, capacity, and transmission costs, these devices have the ability not only to reduce system costs, but also to help individual consumers reduce their own capacity and transmission costs. These reductions lead to shared savings or a lower retail offer to the end use customer. But this is only possible if the devices are fully installed and dispatched during peak times. And, capacity and transmission costs must be calculated at the individual customer level so that these higher costs can be avoided by EGSs (and their customers).

NRG has spent the several years developing and testing relevant products that engage customers. As will be discussed in more detail below, we have developed a product offering specifically aimed at facilitating customer participation in smart thermostat VPP programs. By including EGS participation it the EDC's EE&C plans, the value of the retail market can evolve beyond the current set of value-added retail products that exist in the market today. Requiring EDC-sponsored VPP programs to leverage the competitive market will make VPP a more reliable contributor to Pennsylvania's resource adequacy for years to come. Through these comments, we lay out the broad outlines of a program that the EDCs could readily include in the Phase V EE&C plans they will file later this year.

The Commission has rightly been concerned of late about the PJM capacity market and what the Commonwealth of Pennsylvania needs to do to ensure a greater degree of resource adequacy in the state. Importantly, the retail demand side of the power market is exclusively jurisdictional to this Commission. There is no entity other than this Commission to deal with the retail market it is charged to regulate, and NRG's proposal deserves the Commission's attention, particularly as it explores ways to ensure resource adequacy. What NRG proposes in these comments is low-hanging fruit to address both the concerns of this proceeding and the more substantial concerns of resource adequacy that have dominated the power-sector conversation in Pennsylvania and beyond.

About NRG Energy, Inc.

NRG is the leading essential home services company offering a unique whole-home experience to millions of North American customers. As a Fortune 200 company, NRG has provided leadership in competitive energy markets by creating a platform that offers consumers more control over their energy use and home automation and protection, especially with its newly acquired tech-forward smart home solutions. NRG serves 8 million customers across North America, including a significant share of retail energy customers in Pennsylvania. NRG has three offices in the Commonwealth to support its substantial investment in serving our customers, in Philadelphia, Pittsburgh and Wyomissing, staffed with hundreds of employees that support our businesses. NRG's retail energy subsidiaries include Electric Generation Suppliers ("EGSs") and Natural Gas Suppliers ("NGSs"), which serve customers of all sizes across the Commonwealth.[1]

Recently, NRG announced a partnership with Renew Home and Google Cloud to expand what will be one of, if not the largest residential smart-thermostat VPP in the United States.[2] We

[1] NRG's licensed retail companies include: Direct Energy Business, LLC (Docket No. A-11025 and A-125072); Direct Energy Business Marketing, LLC (Docket No. A-2013-2368464 and A-2013-2365792); Direct Energy Services, LLC (Docket No. A-110164 and A-125135); Energy Plus Holdings LLC (Docket No. A-20092139745); Gateway Energy Services Corporation (Docket No. A-2009-2137275 and A-2009-2138725); Green Mountain Energy Company (Docket No. A-2009-2139745 and A-2017-2583732); Independence Energy Group LLC d/b/a Cirro Energy (Docket No. A-2011-2262337 and A-2013-2396449); Reliant Energy Northeast LLC d/b/a NRG Home/NRG Business/NRG Retail Solutions (Docket No. A-2010-2192350 and A-2015-2478293); Stream Energy Pennsylvania, LLC (Docket No. A-20102181867 and A-2012-2308991); and XOOM Energy Pennsylvania, LLC (Docket No. A-2012-2283821 and A-2012-2283967).

[2] NRG, Renew Home and Google Cloud Announce Partnership, https://www.nrg.com/about/newsroom/2024/43921.html November 8, 2024.

are targeting the enrollment of nearly half a million ERCOT VPP customers by the end of the decade, with a goal to deliver one gigawatt (1 GW) of peak demand. While initially focusing on Texas due to the value its energy-only wholesale market conveys to demand-side resources, NRG hopes to expand these activities to other regions. PJM, and Pennsylvania in particular, represents a marketplace where dispatchable smart thermostats, as part of a VPP, could, with the elimination of certain hurdles, have substantial value in the face of elevated capacity prices, as well as due to other demand-related charges that EGSs are responsible for, including transmission.[3] In this vein, NRG offers comments in this proceeding that focus on ensuring that Pennsylvania's retail regulation is well-geared toward making the conservation (demand) side of Act 129 EE&C programs a full and co-equal participant across from the energy efficiency side, and thus better ensure resource adequacy at those times when it is threatened.

VPPs Bring Act 129 EE&C Demand Response Programs into the 21st Century

To date, Pennsylvania has not pursued smart thermostat VPPs as part of the Act 129 EE&C programs.[4] This sets Pennsylvania apart from many PJM jurisdictions, which do have smart-thermostat programs. Based on NRG's internal research, we estimate that roughly half a million customers in the eastern markets have smart thermostats enrolled on direct-load-control programs that are able to count as capacity. Based on our research, we also assess that many of these programs subsidize devices that do not actually actively perform demand response to help customers avoid capacity and transmission costs in PJM and other markets; they seem to operate on a deemed-savings approach and, while we do not necessarily doubt this capacity is available when called, it is often not called during the peak hours when customers actually incur demand-based costs. In other words, there is a record of performance for such programs, but

[3] Notably, Pennsylvania and most other PJM states require retailers (EGSs) to be charged the cost of and price into their retail offers both capacity and transmission. In some retail markets, such as Texas, transmission is strictly a pass-through cost. This provides for the possibility that EGSs may design retail products that allow customers to avoid transmission peaks and thus reduce the cost to serve them, offering the potential for additional value sourced from the competitive retail market for demand flexibility beyond what the capacity market itself makes available.
[4] Previously, certain Pennsylvania utilities had a program that installed a limiting device on the air conditioning compressor external to consumers' homes. This device, while still used in certain areas, has fallen out of favor with the advent of smart thermostats that can achieve a more granular and customer-centric level of control of air-conditioning systems.

Pennsylvania, coming late to the smart-thermostat experience, can design a better program that optimizes these devices.

The Commission's TIO includes "Connected Thermostat Optimization" in its discussion of programs analyzed by the Statewide Evaluator.[5] Similarly, the TIO recommends that the EDCs develop demand response plans for inclusion in their Phase V EE&C plans. As such, a smart thermostat VPP program envisioned by NRG offers the Commission a unique opportunity to tap into this untouched resource to enable residential customer demand response.

The TIO acknowledges that "there is no status quo framework" for demand response entering into Phase V. Despite the lack of status quo frameworks, it is worth noting that some of the demand response programs implemented under prior phases of Act 129 were quite successful. They were cost-effective and yielded high levels of customer satisfaction. According to the final report of the Phase I Statewide Evaluator, the utilities achieved 619.78 MW of demand reduction through the use of demand response.[6] At least 13% of that reduction (85 MW) was delivered from residential demand response programs.[7]

The reporting on Phase II was less robust and no demand response data is easily discernable from the final report of the Phase II Statewide Evaluator. This is likely because, as the TIO described, in Phase II, the Commission "only permitted EDCs to *voluntarily* offer cost-effective demand reduction programs."[8] However, in Phase III, the final report of the Statewide Evaluator showed once again that demand response programs were successful and cost effective. The average Phase III demand response event performance was 540.4 MW, which was 127% of the amount of demand response targeted for Phase III.[9] More importantly, the Statewide Evaluator reported that the TRC ratio for the statewide Phase III demand response programs was 1.78, with

[5] TIO, p. 41.
[6] GDS Associates, Nexant and Mondre Energy, Act 129 Statewide Evaluator Final Annual Report Phase I: June 1, 2009 – May 31, 2013, presented to the Pennsylvania Public Utility Commission, March 4, 2014, Summary Table 3-25: Source of Top 100 Hours Demand Savings by EDC, p. 169 (pdf p. 209). Supporting data for residential demand response load presented throughout Section 3.3, pp. 136-169,
[7] West Penn Power did not report residential, or C&I demand response individually. They reported only a total demand reduction from demand response of 98.76 MW. The total residential contribution to demand response stated above may be understated as it does not include any contribution that West Penn Power may have made to the market through residential demand response programs.
[8] TIO, p. 8.
[9] NMR Group, Demand Side Analytics, Brightline Group and Optimal Energy, SWE Annual Report, Act 129 Phase III and Program Year 12, version 1.1, submitted to the Pennsylvania Public Utility Commission, Table 19: Phase III DR Performance Summary, p. 22, March 31, 2022.

all utilities showing a TRC ratio for demand response greater than 1.0.[10] This evaluation over the entirety of Phase III is notable because demand response compliance in the last year of Phase III (PY 12) was voluntary due to the Covid crisis.[11] Presumably, the results would have been better under a full compliance scenario.

With the Phase V EE&C programs, NRG urges the Commission to build on past successes with demand response and include smart thermostat VPP programs for residential customers in its framework for demand reduction in its final Order in this docket. We also urge the Commission to allocate a meaningful portion of the EE&C funds to those programs. Since the Phase III programs were approved almost 10 years ago, demand-response technologies have flourished. The 2016 TRM (applicable to Phase III) did not envision wi-fi enabled or learning thermostats. The TRM mentioned only "programmable" thermostats.[12] Control technologies and communications advances support more vibrant demand-response programs. Moreover, while smart thermostats on their own provide efficiency improvements that are notable, when coupled with a demand-response program, the reductions in usage and bill savings deliver even more value to consumers – value that customers deserve to realize given their sizeable investment in Smart Meter and AMI technology, and Act 129 payments.

Enabling VPPs in Pennsylvania

The potential cost savings of smart thermostat VPP to residential consumers in Pennsylvania is substantial. NRG's own back of the envelope calculation of potential savings suggests that the typical residential customer that reduces electricity usage by just 20% during peak periods could reduce costs by approximately $80 per year. A customer who reduces usage by 30% would see savings of roughly $120 per year, or $10/month, while a 40% reduction would achieve savings of $150 per year. And based on NRG's own experience with demand response engagement through smart thermostats in Texas, 20% - 30% reductions are typical.[13] When added to the

[10] *Id*., Table 21: Phase III EE & DR TRC Test Results by EDC, p. 23.
[11] *Id*., p. 22.
[12] 2016 Technical Reference Manual, State of Pennsylvania Act 129 Energy Efficiency and Conservation Program & Act 213 Alternative Energy Portfolio Standards, Section 2.2.8, Errata Update, February 2017.

[13] See: NRG Residential Virtual Power Plant (VPP): A Reliant Case Study, https://www.nrg.com/assets/documents/energy-policy/_2023/vpp-one-page-9.26.pdf.

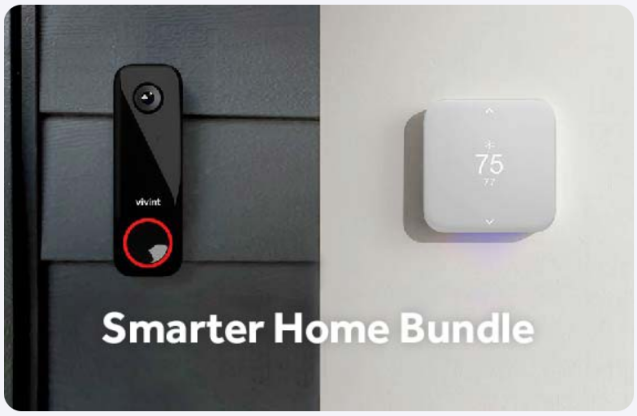
efficiency improvements a customer realizes from simply installing a smart thermostat, the cumulative annual savings to a typical consumer is significant.

In order to deliver savings, smart thermostat VPP programs must be commercially viable. Making VPPs commercially viable requires three key elements.

1. SMART THERMOSTAT DEVICES MUST BE DEPLOYED IN HOMES AT SCALE.

Today, approximately 15% of U.S. homes have installed a smart thermostat, and only some of those are enrollled in direct-load-control programs that allow them to be managed with customer consent to avoid periods of peak demand and very high energy prices.[14] To be viable, many more thermostats need to be deployed and enrolled to reach a critical mass of customers for a VPP. Smart thermostat rebates offered through utility ratepayer funded demand-response programs within an EE&C construct provide the necessasry support for getting this technology into customer homes at scale.[15] Leveraging these rebates, NRG has developed the Home Base Essentials[16] product bundle that is currently available to customers in Texas.[17] With Home Base Essentials, customers receive free professional installation of a Vivint Smart Thermostat and VPP enrollment, ensuring the thermostat is capable of being utilized for demand response, in addition to their ordinary supply service and other amenities.

[14] Slow adoption of smart thermostats in the US misses big potential energy savings: S&P, Utility Dive, August 31, 2022, https://www.utilitydive.com/news/smart-thermostats-us-slow-adoption-misses-energy-savings/630901/ .
[15] Rebate programs are widely seen as necessary to increase penetration of smart thermostats. Even in Texas, where competitive markets are fully developed, utility rebate programs are employed for this purpose. See: *2025 Energy Efficiency Plan and Report*, Public Utility Commission of Texas, Project No. 57468, CenterPoint Energy Houston Electric, LLC, April 1, 2025, p. 21-22.
[16] See: https://www.reliant.com/en/residential/home-solutions/vivint/smarter-home-bundle.
[17] NRG aspires to bring this product offer to Pennsylvania consumers.



What's included with Home Base Essentials (over $500 value):

- Vivint Doorbell Camera Pro: With the largest field of view of any doorbell camera, it intelligently detects motion both day and night.
- Vivint Smart Thermostat: Automate your energy management with enrollment in the Degrees of Difference program. Your smart thermostat will automatically adjust during an event to help you reduce your usage.
- **Free professional installation:** Receive complimentary equipment and installation.
- **Vivint app:** As a Reliant customer, you'll receive a free subscription to the Vivint app. Get personalized energy insights powered by Reliant and control your smart home devices all in one place.[2]

2. Customer Engagement is Essential

Demand-response programs of the past tended to be fairly opaque to most customers. These programs often involved installation of load-limiting devices on the air-compressor units outside of homes, with no visibility to the customer on when a load reduction event might occur or how long it would last. These programs also provided no easy way to opt out. In contrast, today's smart-thermostat technology allows for automated adjustment of the thermostats installed in participating customers' homes. Customers have visibility onto their thermostat display, they may have digital applications that indicate and allow them to control the settings, and they may override either at the device or through their app these settings as they choose—even if direct-load-control features are in place.

NRG's experience over the past decade has revealed the need for much greater transparency to the customer about the benefits of load reduction, the timing of peak-shaving events, the ability to easily opt out without penalty, and visible monetary rewards for participation. This requires much more consumer friendly communication tools. NRG's Home Base Essentials product bundle includes a Vivint video doorbell and the Vivint app, which provides easy access and control of the thermostat and doorbell devices, and enables customers to receive alerts about demand response events. When customers have a video camera or doorbell in their system, they interact with the Vivint app an average of 16 times per day, creating a familiar and frequently-used interface where smart thermostat demand response and energy efficiency programs can be kept relevant in the customer's day-to-day life. Customers who enroll receive messages about

upcoming demand-response events and reminders about the benefits of participating, including the opportunity to earn bill credits. Customers always have the ability to opt out by manually adjusting their thermostats. During an event, the smart thermostats make automatic adjustments to help customers shift their energy use to times when electicity is less constrained, less expensive, and cleaner.[18] Customers receive bill credits for their enrollment in this Virtual Power Plant.[19] In NRG's experience, customers who enroll in these types of demand-response programs tend to stay in the program – when it's easy to undestand what's going on and the benefits are clear, customers stay in. NRG's Home Base Essentials is not the only solution available in the market and, indeed, one of the many benefits of relying on the competitive market to deliver VPP solutions is that competitors will step up to participate in utility programs to offer their own unique solutions to customers and acquire market share.

3. Benefits of Demand Reduction Must be able to be Monetized

Finally, and equally importantly, for EGSs to invest in VPPs in Pennsylvania, they must have a way to monetize the benefits of their participation. Generally, EGSs are responsible for their customers' energy, capacity, and transmisision costs. In order to meaningful reduce our costs for our customers' capacity and Network Integration Transmission Service (NITS) (a.k.a. capacity and NITS tags) costs, so that the economic benefit of customers reducing their load at peak times can be realized, we must be billed for our customers' actual usage and be able to minimize arrearages. Smart meters and AMI are now ubiquitous across Pennsylvania and the EDCs use this data to settle customer load at PJM and to bill customers.

These capacity and NITS tags are calculated annually based on the peak demand of a customer as recored by AMI. These tags then form the basis, when multiplied by the capacity or transmission rate, for the total charges the customer (or really, its EGS or other load-serving entity) faces in *the next year.* In other words, if an individual customer reduces her load during peak events, that customer's capacity and NITS costs are reduced in the following year. If an EGS is aware of and can control a device that reduces the quantity of capacity and transmission

[18] Of note, automated adjustments operate within a defined ban and typically make adjustments of 1 – 4 degrees. If a customer is already at the upper or lower limit of the band, no adjustment is made.
[19] NRG's pilot of the Home Base Essentials product offer resulted in an approximately 17% customer take rate, approximately 160 average household app engagements per month, and positive customer feedback. See: NRG Third Quarter 2024 Earnings Presentation, https://investors.nrg.com/static-files/8001682a-f8c7-401a-88ed-8be2c43310e3, November 8, 2024.

tags, it can reduce the retail price offer, provide shared savings or a rebate, or be in a position to offer further amenities to a customer.

It is important to note that most EDCs are using AMI data to calculate each individual customers' capacity and NITS tags based on actual usage during peak hours. Any utility that does not use its AMI to financially settle customer loads to EGSs based on the customer's actual demand will instantly render *any* demand-response program a nullity in terms of EGS monetization, and while NRG views this to be a limited circumstance, it necessarily must be a provision in any utility program to achieve savings.

Given the ubiquity of smart meter interval usage data, no utility should be calculating capacity and NITS tags for residential customers using the load profile data for the entire customer class. Doing so denies customers the ability to benefit from the investment they made in smart meters and from their own actions to shift their load, whether it's through a demand-response program or a time-of-use electricity product. NRG urges the Commission to provide clear direction to the EDCs that they must calculate residential customers' capacity and NITS tags at the individual customer level and make that information available to the market.[20]

Require the Utilities to Include a Smart Thermostat VPP Programs in their Act 129 Energy Efficiency and Conservation Plans

Smart-thermostat VPP programs enable a customer's utility or chosen retail supplier to remotely adjust enrolled smart thermostats during a peak load event. A customer may opt-out by manually adjusting her thermostat. Customers are typically solicited to enroll in the program in exchange for a bill credit, payable on either a one-time or ongoing basis. Many programs provide rebates for smart thermostats, but also allow customers to "bring your own thermostat" for a reduced rebate amount.

Typically, these programs have parameters around maximum duration, frequency and amount of cycling reduced. Based on NRG's review of the landscape of such programs in the Eastern United States, utilities have found capacity reductions between 0.65 to 1.15 kW per

[20] Of note, access to a customer's "real time" interval usage data is not necessary for the purpose of the smart thermostat VPP – though it is essential for various other purposes. CSPs, who may participate in a utility smart thermostat VPP, may not have ready access to such data through the utility data portals. This is not a barrier to entry for those entities. The EDCs can provide Capacity and NITS tags to CSPs for the load they may serve.

thermostat when called. Notably, most of the smart thermostats enrolled in utility programs operate on a very limited use case and it is not clear how frequently these devices, once subsidized and installed, are activated. Notably, they are typically not used to reduce enrolled customers' exposure to capacity and transmission costs, although they reduce the overall capacity needs of all customers by participation in the PJM market. This is a missed opportunity. NRG recommends that to improve both the efficiency and adoption rate of these smart-thermostat programs, the load-serving entities responsible for energy, capacity and transmission costs also have dispatch rights to the devices subsidized by utility programs. At least one state regulator has recently found a way to make that happen. Early last year, the Public Utilities Commission of Ohio ("PUCO") ordered that AEP's smart thermostat programs be co-optimized with a customer's competitive retailer.[21] The PUCO's order requires that EGSs be allowed to:

- market smart thermostats devices and per-device rebates as part of retail offerings; and
- exercise dispatch rights to obtain energy and capacity cost reductions.

The Ohio regulatory model for these smart thermostats thus leverages money that ratepayers are already paying to provide additional capacity to the system and increase cost reductions for individual customers who opt into the program. NRG urges the Pennsylvania Commission to follow Ohio's lead and create a smart thermostat program that will allow Pennsylvania customers to play a more active role not only in achieving the EE&C goals, but also in ensuring resource adequacy in the Commonwealth – all while helping customers realize benefits in the form of lower energy bills and reduced capacity and NITS costs. NRG proposes that the Commission's Final Order in this docket direct the EDCs to implement a smart thermostat VPP program with the following characteristics:

[21] *In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan*, Case No. 23-23-EL-SSO; *In the Matter of the Application of Ohio Power Company for Approval of Certain Accounting Authority*, Case No. 23-245-EL-AAM, April 3, 2024.

- Program Mechanics:
    - Residential customers enrolled in the demand response program agree to permit the EDC to call events on their thermostat to reduce (winter)/increase (summer) the temperature of their home by no more than three degrees for no more than four hours during times of peak usage determined by the EDC (Demand Response Event).
    - EDCs will not bid the associated demand response into the PJM market. Customers reserve the ability, on their own or through their agent on their behalf (e.g., retail supplier or CSPs) to engage in energy efficiency and peak demand reduction activities and/or participate in PJM demand response and/or DER programs.
    - Participating customers must be made aware of the maximum number of Demand Response Events in a season by both EDCs and EGSs.
    - Customers must be notified of Demand Response Events via app, text message and/or email. Any costs and/or fees associated with marketing and/or administering this program (including but not limited to smart thermostat API costs) will come out of approved EE&C funding.
    - Incentive levels and other details of the program (e.g., change in degrees, number of Demand Response Events, etc.) can be adjusted by the EDC as necessary based upon demand to optimize participation.
    - If it cannot be provided by the EGS, a Curtailment Services Provider ("CSP") shall be selected by the EDC through a competitive and transparent process, and its operations shall be compatible with the optimization model that includes both EDC and EGS dispatch instructions, consistent with customer preferences in the competitive retail market.
    - EDCs are required to ensure that any participating customer has its load settled on the basis of actual advanced meter interval readings. Such interval meter data must be utilized to calculate individual customer capacity and NITS tags.

- Customer Participation:
    - As part of the initial enrollment process, residential customers must provide affirmative consent to EDCs and/or EGSs (EDCs/EGSs must maintain consent records for 3 years).
    - Residential customers receive an initial $100 incentive – through the EDC or an EGS – toward the purchase of a new qualifying smart thermostat or an initial $50 incentive for an existing qualifying smart thermostat acquired outside of the demand response program (qualified smart thermostats means those that have the required capabilities to administer the program and have reasonably/competitively sourced access costs).
    - Residential customers receive an annual $50 incentive per air conditioning/heating unit subject to EDC/EGS control following each program year (September 1 through August 31) as long as the customer participates (does not override) in at least 75 percent of the Demand Response Events.
    - Customers are enrolled in the program for the term of the program.
    - Enrolled customers automatically renew for the next program year unless they expressly opt out of the program.
    - Customers will only be permitted to redeem the initial incentive for one thermostat per account number.

- EGS Participation:
    - Unlike in prior Act 129 phases, residential demand response should be at least partially "open market," meaning that any EGS can participate in the residential demand response program. The EDCs should not limit the program to one or more winning CSP which might not be a licensed EGS.
    - To enroll customers in the program, an EGS must: (1) provide an account number enabling the EDC to verify a customer's identity as a customer with an active retail supply account that is not previously associated with a $100 smart thermostat rebate under the program, and (2) provide make, model and serial number of the installed smart thermostat.

- An EGS is allowed to issue dispatch directives, consistent with its contract with its customers.
- The rebate can be paid directly to the EGS from the EDC as part of an EDC retail offer that includes the installation of a new smart thermostat, or automation or expansion of the use case of an existing smart thermostat in a customer's home or business.[22]

- Stakeholder Engagement:
  - EDCs must work with stakeholders (including thermostat vendors, CSPs and EGSs) to develop a list of qualifying thermostats to ensure maximum flexibility while maintaining thermostat functionality.
  - EDCs host semi-annual stakeholder meetings where they and other interested parties (including smart thermostat vendors, CSPs and EGSs) can collaborate on ways to maximize the benefits of the program. The working group will address and form a recommendation as to whether the demand response program should incorporate other in-home demand-response-capable devices. The collaborative will also discuss and implement any reasonable and cost-effective changes necessary to preserve EGS communication channels with their customers relative to programming initiated pursuant to market-based activities, and will further explore a reasonable and cost-effective solution for any potential limitations to EGS provider offered programs that could be impacted or limited due to physical or technology capabilities with smart thermostats and the vendors running the smart thermostat demand response operations.

[22] These program design elements are critical to the proper functioning of this program and are borrowed from the AEP OH Settlement. See: *In the Matter of the Application of Ohio Power Company for Authority to Establish a Standard Service Offer Pursuant to R.C. 4928.143, in the Form of an Electric Security Plan*, Case No. 23-23-EL-SSO; *In the Matter of the Application of Ohio Power Company for Approval of Certain Accounting Authority*, Case No. 23-245-EL-AAM, April 3, 2024.

Conclusion

Phase V of the Act 129 EE&C program offers the Commission an opportunity to further engage residential customers in reducing their energy usage through a smart thermostat VPP, with the added benefit of delivering resource adequacy. We urge the Commission to make such a program – as described above – part of the next program phase. NRG thanks the Commission for its consideration of such a program and looks forward to participating in future EE&C proceedings to consider the EDCs plans.

Respectfully submitted,

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April 7, 2025