

The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 25-55 July 29, 2025

Petition of NSTAR Electric Company, d/b/a Eversource Energy for Approval of Residential Seasonal Heat Pump Rates.

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SUMMARY

The Department of Public Utilities ("Department") supports customer conversion to electrified and decarbonized heating technologies, including heat pumps that transfer thermal energy from outside for use in interior structural heating. In today's Order, the Department approves residential heat pump rates available to all NSTAR Electric Company, d/b/a Eversource Energy ("NSTAR Electric" or "Company") customers in rate classes R-1 and R-2 who install and use heat pumps in all or part of their homes. With this action, the Department has approved seasonal heat pump rates for residential customers of all three of the Massachusetts electric utilities – Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid ("National Grid"), Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil"), and NSTAR Electric.

The approved NSTAR Electric heat pump rates will apply to base distribution service and transmission service. The Company's heat pump rates reduce the variable kilowatt-hour rate associated with electric use during the winter when heat pumps would result in increased electricity use to replace traditional gas heating equipment. The Department finds that the Company's heat pump rates are a reasonable solution to mitigate the potential high bills associated with heat pump implementation faced by residential and low-income customers within the context of NSTAR Electric's current rate structure. The Department also directs the Company to engage in meaningful outreach and education efforts to raise awareness of the heat pump rate option, and to track and report data on heat pump acceptance.

The Department approves using a six-month heating season to design heat pump rates, consistent with the timeframe used by National Grid and Unitil. Further, consistent with the rate design approved for National Grid and Unitil, the Department declines NSTAR Electric's proposal to implement seasonally differentiated summer heat pump pricing.

The Department anticipates that heat pump rates will deliver meaningful savings for Massachusetts residents using heat pumps to heat and cool their homes. Moreover, the Department plans to continue its investigations into alternative rate designs that promote both affordability and electrification. The Department will continue to monitor the proceedings of the Interagency Rates Working Group, which was established by the Executive Office of Energy and Environmental Affairs to advance near- and long-term rate solutions and innovations.

I. <u>INTRODUCTION AND PROCEDURAL HISTORY</u>

On April 17, 2025, NSTAR Electric Company, d/b/a Eversource Energy ("NSTAR Electric" or "Company") filed with the Department of Public Utilities ("Department") a petition for approval of residential seasonal heat pump rates. The Department docketed this matter as D.P.U. 25-55.

The instant filing was made pursuant to the Department's directives in <u>Vote and Order</u> Opening Inquiry into Seasonal Heat Pump Rate Design, D.P.U. 25-08, at 8-9 (March 21, 2025). In that Order, the Department directed NSTAR Electric, on or before May 15, 2025, to file a proposed residential heat pump rate for the 2025-2026 heating season, similar to the residential heat pump rates recently approved for customers of Massachusetts Electric Company and Nantucket Electric Company, d/b/a National Grid ("National Grid"), and Fitchburg Gas and Electric Light Company, d/b/a Unitil ("Unitil") in <u>Massachusetts Electric Company and Nantucket Electric Company</u>, D.P.U. 23-150, at 509-513 (2024) and <u>Fitchburg Gas and Electric Light Company</u>, D.P.U. 23-80/D.P.U. 23-81, at 406-409 (2024). The Department limited the scope of the instant proceeding to a review of NSTAR Electric's proposed heat pump rates.¹ D.P.U. 25-08, at 8-9.

On April 30, 2025, the Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a notice of intervention in this matter pursuant to G.L. c. 12, § 11E(a). On May 15, 2025, the Department granted full party status to the Massachusetts Department of

Broader issues regarding heat pump rate design will be investigated in D.P.U. 25-08 and not in the instant adjudicatory proceeding. D.P.U. 25-08, at 8-9.

Energy Resources ("DOER"). On May 27, 2025, the Department allowed the Cape Light Compact JPE ("Compact")² to intervene as a limited participant.

Pursuant to notice duly issued, the Department held a public hearing on June 12, 2025 and sought comments on the Company's filing. On May 25, 2025, the Department received comments in support of the proposed heat pump rates from Laminar Collective, a self-described community-based research group focused on making electrification more affordable for consumers in the Boston metropolitan area. On June 11, 2025, the Town of Brookline filed comments generally supporting the Company's proposal. On June 12, 2025, the Department received joint comments from a group of environmental advocates.³ These commenters urge the Department to extend seasonal rate differentiation to all delivery rate components; direct NSTAR Electric to expedite implementation of its heat pump rates by a date certain; and modify the proposed definition of the winter season to conform with the definition currently used by National Grid and Unitil. Also on June 12, 2025, the Department received comments from the Compact supporting NSTAR Electric's proposed heat pump rates to the extent they are revenue neutral and reduce the energy burden for customers with heat pumps. The Compact also offers

The Massachusetts towns of Aquinnah, Barnstable, Bourne, Brewster, Chatham, Chilmark, Dennis, Edgartown, Eastham, Falmouth, Harwich, Mashpee, Oak Bluffs, Orleans, Provincetown, Sandwich, Tisbury, Truro, West Tisbury, Wellfleet and Yarmouth, and Dukes County, are organized and operate collectively as the Cape Light Compact JPE, a joint powers entity organized pursuant to G.L. c. 40, § 4A ½ and G.L. c. 164, § 134.

The joint comments were submitted by representatives of Conservation Law Foundation; Planning Office for Urban Affairs; Acadia Center; Environmental Defense Fund; Sierra Club; Pipe Line Awareness Network for the Northeast; and the American Council for an Energy-Efficient Economy.

recommendations to facilitate marketing and educational efforts relative to the proposed heat pump rates. Additionally, on June 16, 2025, an NSTAR Electric ratepayer and heat pump user filed a comment supporting the creation of a separate heat pump rate.⁴

On July 2, 2025, the Company, DOER, and the Attorney General filed initial briefs.⁵ On July 15, 2025, the Company and the Compact filed reply briefs. In addition to the testimony and supporting exhibits, the record in this proceeding includes the Company's responses to twelve information requests issued by the Department, one information request issued by the Attorney General, and seven information requests issued by DOER.⁶ The Department finds that the evidentiary record in this proceeding provides an adequate basis to address the Company's filing without the need for an evidentiary hearing.

On June 12, 2025, the Green Energy Consumers Alliance filed comments supporting the Interagency Rates Working Group's recommendations regarding heat pump rates (as discussed in D.P.U. 25-08) and opining that NSTAR Electric's current proposal "does not go far enough." Because such comments are beyond the scope of the instant proceeding, the Department does not summarize them here. D.P.U. 25-08, at 8-9. We note that Green Energy Consumers Alliance also filed comments in D.P.U. 25-08, where broader issues regarding heat pump rate design will be explored.

⁵ The Compact did not file an initial brief.

Pursuant to 220 CMR 1.10, the Department moves into the evidentiary record of this proceeding the prefiled testimony of the Company's witness, Exh. ES-HP-1, and all exhibits supporting the prefiled testimony, Exhs. ES-HP-2 through ES-HP-5. The Department also moves into the evidentiary record the Company's responses (including all attachments) to Information Requests DPU 1-1 through DPU 1-6; DPU 2-1 through DPU 2-5; DPU 3-1; AG 1-1; DOER 1-1 through DOER 1-4; and DOER 2-1 through DOER 2-3.

II. SUMMARY OF FILING

NSTAR Electric proposes implementing revenue-neutral heat pump rates, with seasonally differentiated pricing, for distribution and transmission service (Exh. ES-HP-1, at 9, 13-14). As described further below, the Company's proposed heat pump rates include: (1) a fixed customer charge; and (2) adjustments to its current volumetric summer (<u>i.e.</u>, June through September) and winter (<u>i.e.</u>, October through May) per kilowatt-hour ("kWh") base distribution and transmission rates (Exhs. ES-HP-1, at 9-10, 15; ES-HP-2). In addition, each year as part of its annual performance-based ratemaking ("PBR") filing, NSTAR Electric proposes to adjust the base distribution and transmission components of its heat pump rates by the same percentage as its corresponding residential base distribution and transmission rates (Exh. ES-HP-1, at 14, 19).

The Company proposes to make the heat pump rates available to any residential customer eligible for service under its currently effective R-1 (residential) or R-2 (low-income residential)⁷ rates, provided that the customer uses a heat pump to heat all or part of their home (Exh. ES-HP-1, at 9).⁸ The Company also proposes to close Rate R-3 (residential space heating) and Rate R-4 (low-income residential space heating) to new customers (Exh. ES-HP-1, at 18).

A customer taking service under Rate R-2 would continue to receive the applicable low-income discount on the total bill (currently 42 percent) (Exh. ES-HP-1, at 9). The Department is investigating the structure of income-eligible discount rates, among other issues, in another ongoing proceeding. <u>Energy Burden Inquiry</u>, D.P.U. 24-15.

Although NSTAR Electric derived the heat pump rates assuming conversion to air source heat pumps (as discussed below), the Company's proposed tariff notes that the rates are available to eligible R-1 and R-2 customers "who have an eligible device that is used to heat or supplement another heat source for their home or part of their home by transferring thermal energy from the outside with the use of the refrigeration cycle" (Exh. ES-HP-3, at 1, 3). The Department interprets this definition to include air-source heat pumps, air-to-water heat pumps, and ground-source heat pumps.

Existing space heating customers taking service under Rate R-3 or Rate R-4 may remain on that rate or switch to the applicable heat pump rate (Exh. ES-HP-1, at 18).

The Company states that the proposed heat pump rates would lower electricity costs for an average heat pump customer by approximately 17 percent as compared to its current residential rates. In addition, the Company states that a gas heating customer switching to a heat pump would experience a total energy cost savings of approximately four percent under the proposed heat pump rates (Exhs. ES-HP-1 at 16-17; ES-HP-2, Sch. 3, line 23; DOER 1-2, Att. (b), Sch. 3).

The Company designed its proposed heat pump rates with a fixed customer charge of \$10.00 per month, equal to the current customer charges for its Rate R-1 and Rate R-2 (Exhs. ES-HP-1, at 10, 15; ES-HP-2, Sch. 1; WP at 5). The Company proposes to reduce its current base distribution and transmission rates relative to Rate R-1 and Rate R-2 in the winter months to account for higher electric consumption associated with heat pump use for heating (Exh. ES-HP-1, at 9-10, 15; ES-HP-2, Schs. 1, 2). NSTAR Electric further proposes to slightly increase its current base distribution and transmission rates relative to Rate R-1 and Rate R-2 in the summer months to account for lower electric consumption for cooling due to the

The Company proposes to maintain Rate R-3 and Rate R-4 for electric space heating customers where the space heating equipment was installed prior to the effective date of any heat pump rates approved in this proceeding (Exh. ES-HP-4, at 1, 3).

displacement of existing central air conditioning units with more efficient air source heat pumps (Exh. ES-HP-1, at 10, 13, 15; ES-HP-2, Sch. 1; WP at 5).¹⁰

To derive the proposed seasonally differentiated base distribution component of the heat pump rates, the Company first converted average gas customer heating load to the kWh required to operate an air source heat pump (Exhs. ES-HP-1, at 12; ES-HP-2, Sch. 2). The Company performed this adjustment on a monthly basis to arrive at the estimated comparable electric usage for a customer using natural gas for heating during the proposed winter period and central air conditioning during the proposed summer period, and switching to an air source heat pump (Exhs. ES-HP-1, at 12; ES-HP-2, Sch. 2; DOER-1-2, Att. (b), Sch. 2). NSTAR Electric then compared this estimated monthly kWh usage in the summer and winter periods to monthly usage prior to heat pump installation (Exhs. ES-HP-1, at 12; ES-HP-2, Schs. 1, 2). According to the Company, the comparison yielded seasonal adjustment factors of 2.86 times original load for the winter period and 0.93 times original load for the summer period (Exhs. ES-HP-1, at 12-13, 15; ES-HP-2, Sch. 1).

Next, the Company used these seasonal adjustment factors to arrive at its proposed revenue-neutral seasonal base distribution rates (Exhs. ES-HP-1, at 13; ES-HP-2). More specifically, the Company multiplied its current R-1 and R-2 base distribution rates by test year sales for the summer period and then divided this amount by adjusted summer-period sales to arrive at its proposed summer-period base distribution heat pump rates (Exhs. ES-HP-1, at 13;

For customers without existing central air conditioning, the Company assumed that, on average, these customers will displace room or window air conditioning units with more efficient air source heat pumps (Exh. DOER 1-1).

ES-HP-2, Sch. 1). The Company performed similar calculations to arrive at its proposed winter-period base distribution heat pump rates (Exhs. ES-HP-1, at 13; ES-HP-2, Sch. 1).

As noted above, the Company also proposes to implement seasonally differentiated pricing for transmission service. The Company states that summer and winter pricing for transmission rates was calculated in similar fashion to base distribution rates (Exhs. ES-HP-1, at 13). The Company calculated forecasted summer and winter annual usage using the seasonal adjustment factors derived when calculating the proposed base distribution rates and applied them to forecasted sales. The summer seasonal transmission price was established first based on the annual transmission rate and the adjusted forecasted summer period sales (Exhs. ES-HP-1, at 13; ES-HP-2, Sch. 1). The winter seasonal transmission price was then calculated to collect the winter transmission revenue requirement over the adjusted winter period sales (Exhs. ES-HP-1, at 13; ES-HP-2, Sch. 1).

The Company's filing also includes a proposed plan to implement the new heat pump rates ("Implementation Plan") (Exh. ES-HP-5). In particular, the Company proposes to automatically enroll in the applicable heat pump rates any customer who received a heat pump rebate through the Mass Save energy efficiency programs after January 1, 2022 (Exh. ES-HP-5, at 3-4). Further, the Company proposes to conduct marketing and outreach efforts to inform all customers about the new heat pump rates (Exhs. ES-HP-1, at 19; ES-HP-5). In this regard, the Company states that it will promote awareness and acceptance of the heat pump rates through a multi-channel approach using both broad-reach and targeted tactics. The proposed broad-reach tactics include outreach by email, bill inserts, telephone, social media, and the Company's website (Exh. ES-HP-5, at 7). The Company proposes to conduct targeted outreach to electric

customers who have received a heat pump rebate through Mass Save and customers considering heat pump installations (Exh. ES-HP-5, at 7-8). NSTAR Electric also states that it may make available information on the heat pump rates through the heat pump installation contractor network, as well as through lead vendors who deliver electrification through the Company's residential turnkey services and income-eligible energy efficiency programs under the Mass Save brand (Exh. ES-HP-5, at 8). Finally, the Company proposes to track and periodically report certain information to the Department designed to assess the acceptance and effectiveness of the new heat pump rates (Exh. ES-HP-5, at 6-7).

III. POSITIONS OF THE PARTIES

A. <u>Attorney General</u>

The Attorney General supports the implementation of NSTAR Electric's proposed heat pump rates with several "safeguards" she argues are necessary to ensure that the rates do not: (1) impose costs on non-participating customers; and/or (2) contribute to higher distribution costs due to increases to the summer system peak from air conditioning load (Attorney General Brief at 1). First, the Attorney General argues that the heat pump rates should be available only to customers who use heat pumps for their entire home and not just for a part of their home as proposed by the Company (Attorney General Brief at 1). Second, the Attorney General maintains that the Department should approve the heat pump rates only on an interim basis until more advanced rate designs (e.g., whole-house time-of-use rates and critical peak pricing) are implemented after the deployment of advanced metering infrastructure ("AMI") (Attorney General Brief at 2). Third, the Attorney General asserts that the Department should require the Company to track and report electric usage and changes in demand, consistent with the reporting

requirements established for National Grid and Unitil (Attorney General Brief at 2). Finally, the Attorney General argues that the Department should require NSTAR Electric to file a report¹¹ after the heat pump rates have been in effect for 18 months to determine whether any changes are necessary (Attorney General Brief at 3).

B. DOER

DOER generally supports the implementation of NSTAR Electric's proposed heat pump rates but takes issue with one aspect of the Company's proposal. In particular, DOER argues that the Department should reject the Company's proposal to implement seasonally differentiated summer distribution and transmission rates. DOER maintains that this aspect of the Company's proposal is: (1) based on improper assumptions; and (2) inconsistent with the heat pump rate designs recently approved for National Grid and Unitil (DOER Brief at 7-10). DOER further argues that the Company's proposal to increase heat pump rates in the summer is contrary to the Commonwealth's policy goals supporting heat pump use and may delay acceptance of this beneficial electrification technology (DOER Brief at 8-10).

Conversely, DOER supports the Company's proposal to include the transmission charge in the design of heat pump rates. DOER argues that this aspect of the Company's proposal is in the public interest as it: (1) aligns heat pump customers' bills with the cost to serve those customers; (2) promotes affordability for eligible customers in furtherance of the

The Attorney General maintains that, at a minimum, such report should address:
(1) changes in pre- and post-heat pump installation energy consumption; (2) whether heat pump installations contributed to increased distribution system costs; and (3) whether the revenue requirement for the seasonal heat pump customer class was met and, if not, whether the shortfall was provided by other customer classes (Attorney General Brief at 3).

Commonwealth's clean energy transition: and (3) minimizes costs that otherwise would erode affordability among non-participating customers (DOER Brief at 11-12). While different than the design of National Grid's and Unitil's heat pump rates, DOER argues that this should not frustrate Mass Save's statewide heat pump marketing campaigns (DOER Brief at 11-13).

DOER also argues that the Company's definition of the winter period is reasonable, even if it differs from the winter periods defined by National Grid and Unitil (DOER Brief at 10-11, 13). According to DOER, the Company has shown that heat pumps are likely to be used for space heating in all months of the year except July and August and that its proposed winter period definition appropriately captures months that electricity use is relatively low and gas heating use is relatively high (DOER Brief at 11). Further, DOER contends that the Company's current definition of the winter period, which includes the shoulder months of May and October, appropriately reflects the available near-term capacity of the transmission and bulk distribution systems (DOER Brief at 11).

In addition, DOER maintains that the Company's proposal to automatically enroll customers in the new heat pump rates following receipt of a Mass Save heat pump incentive is reasonable and, therefore, should be approved (DOER Brief at 13-14). To this end, DOER asserts that the Department should direct NSTAR Electric to facilitate auto-enrollment through coordination with the other energy efficiency Program Administrators¹² including the Compact (DOER Brief at 13-14).

The energy efficiency Program Administrators are the electric and gas distribution companies and municipal aggregators with certified efficiency plans. See G.L. c. 25, §§ 19 through 22.

DOER further argues that the Department should direct NSTAR Electric immediately to begin outreach and education efforts to promote awareness of the new heat pump rate offering, concurrent with any necessary programming and testing activities (DOER Brief at 15). DOER further contends that such outreach and education efforts should be designed to promote equitable access (e.g., marketing materials should include plain-language content and be made available in multiple languages) (DOER Brief at 15).

DOER also argues that the Department should approve the Company's heat pump rates as an interim offering, consistent with its approval of heat pump rates for National Grid and Unitil (DOER Brief at 16). Further, DOER asserts that the Department should require the Company to monitor the impacts of its heat pump rates and, as part of its next base distribution rate case, evaluate to what extent AMI-enabled rates "balance cost reflectivity and electrification" (DOER Brief at 16).

Finally, DOER argues that the Department should require NSTAR Electric to implement the same reporting requirements as National Grid and Unitil (DOER Brief at 17). In particular, DOER asserts that the Company should be required to report certain customer-related data and provide a progress update on its outreach and education efforts as part of its annual reconciliation filings (DOER Brief at 17).

C. Compact

The Compact argues that the Department should direct NSTAR Electric to collaborate with the Compact and the other energy efficiency Program Administrators to facilitate the automatic enrollment of customers on the new heat pump rates after receipt of a heat pump

incentive through Mass Save (Compact Reply Brief at 2-3).¹³ The Compact recommends that the Company revise its implementation plan to reflect such collaboration (Compact Reply Brief at 3).

In addition, the Compact argues that NSTAR Electric's outreach and education efforts should include all customers in the Compact's member municipalities (Compact Reply Brief at 3). Further, the Compact maintains that the Company should be required to: (1) provide annual updates on its outreach and education efforts; and (2) track and report usage and changes in demand (Compact Reply Brief at 3-4). The Compact asserts that, in each case, such reporting should include customers in the Compact's member municipalities, which will require the Company to coordinate with the Compact to share relevant customer data (Compact Reply Brief at 3).

D. <u>Company</u>

NSTAR Electric argues that consistent with the Department's directives in D.P.U. 25-08, at 8-9, its proposed heat pump rates are similar to the residential heat pump rates recently approved for customers of National Grid and Unitil (Company Brief at 7, 9). In addition, NSTAR Electric maintains that it provided an appropriate heat pump rate outreach and education

The Compact requests that pursuant to 220 CMR 1.10(3), the Department incorporate by reference its public comments filed on June 12, 2025, particularly as they relate to automatic enrollment (Compact Reply Brief at 2). As a limited participant, the Compact had an opportunity to present its arguments, including those related to automatic enrollment, on initial brief. This would have allowed the Company and other parties a reasonable opportunity to respond to such arguments on reply brief. However, as noted above, the Compact did not file an initial brief. Regardless, in making our findings below, the Department has considered the Compact's public comments. Therefore, it is not necessary to also incorporate by reference the Compact's public comments in this docket regarding automatic enrollment.

plan, as required by the Department in D.P.U. 25-08 (Company Brief at 9, <u>citing</u> Exhs. ES-HP-1, at 19; ES-HP-5; DPU 2-2).

The Company contends that its proposed heat pump rates are designed to further the Commonwealth's climate goals while appropriately reflecting the costs to serve heat pump customers (Company Brief at 6, 9). NSTAR Electric further argues that its proposed heat pump rates will benefit customers through lower electric bills, particularly during the winter months (Company Brief at 8-9, citing Exhs. ES-HP-1, at 14; DOER 1-2, Att. (b), Sch. 3). Accordingly, the Company argues that its proposed heat pump rates are just and reasonable and should be approved (Company Brief at 10).

The Company argues that its proposed definition of the summer (<u>i.e.</u>, June through September) and winter (<u>i.e.</u>, October through May) periods is supported by historical electric usage data (Company Brief at 7, <u>citing Exh. ES-HP-1</u>, at 11). Further, the Company notes that its proposed definition of an eight-month winter period facilitates savings to customers during the shoulder months when heat pumps still may be used for heating purposes (Company Brief at 7 n.2, <u>citing Exh. DPU 1-1</u>).

In addition, NSTAR Electric argues that its proposed seasonally differentiated heat pump rates for transmission service are appropriately designed and will mitigate customer bill impacts related to heat pump use (Company Brief at 8). More specifically, the Company contends that this proposed rate element is cost-based (Company Brief at 8, citing Exh. ES-HP-1, at 14). In this regard, NSTAR Electric maintains that transmission costs are generally set in relation to system peak demand, which typically occurs in the summer and, therefore, a higher transmission

rate is acceptable during the summer months under such conditions (Company Brief at 8, <u>citing</u> Exh. ES-HP-1, at 14).

The Company disagrees with DOER's recommendation to reject its proposed seasonally differentiated summer base distribution and transmission service rates (Company Reply Brief at 4). NSTAR Electric argues that because it designed its proposed heat pump rates based on an assumption of full displacement of gas heating during the winter, it is consistent to assume that heat pumps will displace central air conditioning usage in the summer (Company Reply Brief at 4, citing Exh. DOER 1-1). Additionally, NSTAR Electric asserts that it accurately calculated the efficiency gains associated with customers switching from window or central air conditioning to heat pumps based on data relied on by the Mass Save program (Company Reply Brief at 5, citing Exhs. DPU 1-2; DOER 1-1).

Moreover, the Company argues that its proposed summer adjustments to base distribution and transmission rates will have a minimal impact on customer bills, whereas disallowing these seasonal adjustments would require an increase to the winter season rates (Company Reply Brief at 5-6). The Company maintains that the total annual cost to heat pump customers under its proposed base distribution rates is lower than National Grid's and Unitil's in both summer and winter seasons, and that the proposed seasonal transmission rate further lowers rates for heat pump users (Company Reply Brief at 4, citing Exh. ES-HP-1, at 14-15).

NSTAR Electric states that it is amenable to implementing the following recommendations offered by various parties: (1) coordinating with the other energy efficiency Program Administrators regarding heat pump rate enrollment; (2) commencing its outreach and

education efforts following issuance of a Department Order approving heat pump rates;¹⁴
(3) offering the heat pump rates on an interim basis; and (4) implementing heat pump rate monitoring requirements similar to those required by the Department for Unitil (Company Reply Brief at 6-7).

NSTAR Electric disagrees with DOER's recommendation to require the Company to evaluate AMI in the context of the heat pump rates in its next base distribution rate case, arguing that such an evaluation is premature and its scope unclear (Company Reply Brief at 7, citing DOER Initial Brief at 16). Instead, consistent with the Department's directives to Unitil, the Company states that it is prepared in its next base distribution rate case to address the "successes, failures, and lessons learned" from its heat pump rates (Company Reply Brief at 6-7, citing D.P.U. 23-80/D.P.U. 23-81, at 408-409).

The Company also disagrees with the Attorney General's recommendation to limit the applicability of the proposed rates to customers who heat or cool their entire homes with heat pumps. The Company notes that the Department previously rejected this recommendation (Company Reply Brief at 7, citing D.P.U. 23-150, at 512; D.P.U. 23-80/ D.P.U. 23-81, at 407). Finally, NSTAR Electric disagrees with the Attorney General's recommendation to require the Company to file a report with the Department approximately 18 months after the heat pump rates are approved (Attorney General Brief at 3). The Company argues that it will include heat pump

The Company states that it will begin such efforts immediately following the issuance of a "non-appealable" final Order in this proceeding (Company Reply Brief at 6). The Department interprets this statement to mean that the Company proposes to begin its outreach and education efforts after the expiration of the applicable appeal period in this case.

rate data in its annual reconciliation filing and, therefore, the Attorney General's requested filing is unnecessary (Company Reply Brief at 7).

IV. ANALYSIS AND FINDINGS

A. <u>Introduction</u>

Customer conversion to electrified and decarbonized heating technologies, including heat pumps, is an important element of the Commonwealth's transition to clean energy.

D.P.U. 25-08, at 1. The acceptance of heat pumps is a critical step toward the electrification of building thermal loads; however, all else equal, heat pump usage can increase customer electric bills beyond the actual cost to serve these customers due to the increased energy use required to operate a heat pump during the heating season. To address this issue, the Department approved seasonal heat pump rates for residential customers of National Grid and Unitil as part of the utilities' recent base distribution rate proceedings. D.P.U. 23-150, at 509-513;

D.P.U. 23-80/D.P.U. 23-81, at 406-409. In addition, on March 21, 2025, the Department opened a generic investigation in D.P.U. 25-08 into seasonal heat pump rates, including the various complex heat pump rate design issues presented by the Interagency Rates Working Group. D.P.U. 25-08, at 7-8.

To provide consistent access to heat pump rates and ensure that the energy efficiency

Program Administrators can leverage statewide Mass Save marketing campaigns to drive heat

pump acceptance while minimizing customer confusion regarding heat pump operating costs, the

The Interagency Rates Working Group was established by the Executive Office of Energy and Environmental Affairs and is tasked with advancing near- and long-term rate solutions and innovations. D.P.U. 25-08, at 2.

Department found that it was imperative to also expeditiously establish a heat pump rate for NSTAR Electric's customers. D.P.U. 25-08, at 8. Accordingly, the Department directed NSTAR Electric to file a proposed revenue-neutral residential heat pump rate for the 2025-2026 heating season, similar to the Department-approved heat pump rates for National Grid and Unitil. D.P.U. 25-08, at 8-9. Below, the Department reviews NSTAR Electric's proposed heat pump rates and addresses the Company's Implementation Plan and tracking and reporting requirements.

B. <u>Heat Pump Rates</u>

As described above, NSTAR Electric proposes implementing heat pump rates with a fixed customer charge and seasonally differentiated pricing for distribution and transmission service (Exhs. ES-HP-1, at 9-15, ES-HP-2). NSTAR Electric's proposed heat pump rates are substantially similar in design to the heat pump rates recently approved by the Department for National Grid and Unitil (Exhs. ES-HP-1, at 12-13; ES-HP-2). In particular, the Company proposes to maintain the fixed customer charge applicable to Rate R-1 and Rate R-2 and adjust the variable per kWh charges in a revenue-neutral manner to reflect the higher winter usage of heat pump customers relative to customers that heat with fossil fuels (Exhs. ES-HP-1, at 10, 12-15; ES-HP-2). As the Department found in its approval of Unitil's proposed heat pump rate offering, adjustment to the variable kWh charge during the winter season will better align heat pump customers' bills with the costs to serve those customers. D.P.U. 23-80/D.P.U. 23-81, at 406-407. Despite the overall similarity in rate design, NSTAR Electric's proposal differs in certain respects from National Grid's and Unitil's approved heat pump rates. The Department considers the reasonableness of those differences below.

First, NSTAR Electric proposes to apply a different definition of the summer and winter seasons than National Grid and Unitil (Exhs. ES-HP-1, at 10; DPU 1-1). Specifically, the Company proposes to define the summer period as June through September (as opposed to May through October for National Grid and Unitil) and the winter period as October through May (as opposed to November through April for National Grid and Unitil) (Exhs. ES-HP-1, at 10; DPU 1-1). The Company contends that its proposed definition is supported by historical usage data (Exhs. ES-HP-1, at 11-12; DPU 1-1). Nonetheless, the Company states that it has no objection to modifying its definition of the summer and winter seasons to conform with the definition employed by National Grid and Unitil (Exh. DPU 1-1).

The Department finds that it is appropriate for all three electric distribution companies to apply a consistent definition of the summer and winter seasons. Accordingly, consistent with the definition used by National Grid and Unitil, NSTAR Electric shall define its summer season as May through October and winter season as November through April (Exh. DPU 1-1).¹⁶ We expect that application of a consistent definition of the summer and winter seasons by all three electric distribution companies will facilitate the future review of the successes, failures, and lessons learned from the initial implementation of heat pump rates.¹⁷

These periods are also consistent with the definition of peak and off-peak periods used by the gas local distribution companies. See, e.g., NSTAR Gas Company - M.D.P.U. No. 400J, at 2-5; Boston Gas Company - M.D.P.U. No. 61.3, Fitchburg Gas and Electric Light Company (Gas Division) - M.D.P.U. No. 293, at 2-6; Liberty Utilities (New England Natural Gas Company) Corp. - M.D.P.U. No. 1000I, at 2-7; The Berkshire Gas Company - M.D.P.U. No. 609, at 2-6.

Our decision here does not preclude any investigation of the definition of the summer and winter seasons as part of the broader investigation in D.P.U. 25-08.

Second, NSTAR Electric proposes to incorporate seasonally differentiated pricing with adjustments to both the summer and winter per kWh charges, as opposed to adjusting only the winter charge as was the case with Department-approved rate designs for National Grid and Unitil (Exhs. ES-HP-1, at 9-10, 12-13; ES-HP-2). In particular, NSTAR Electric proposes to charge slightly higher rates in the summer months to account for what it maintains is lower electric use associated with customers using heat pumps rather than central air conditioning (Exh. ES-HP-1, at 9-10, 13, 15). DOER objects to this aspect of the Company's proposal, arguing that it is based on improper assumptions and that implementing a higher rate in the summer may delay customer acceptance of heat pumps (DOER Brief at 7-10).

The Department has carefully considered NSTAR Electric's proposal to implement seasonally differentiated summer pricing and finds that the evidence presented by the Company is not sufficient to demonstrate that its current proposal is reflective of most customers' summer cooling behavior. The Company relies heavily on assumptions as opposed to customer-specific data to support its proposal to implement a higher summer charge. In particular, NSTAR Electric assumes efficiencies based on a comparison of heat pump and central air conditioning usage and employs conversion factors based on central air conditioning use (Exhs. ES-HP-1, at 15; ES-HP-2, WP at 4; DPU 1-3; DOER 1-1). The Company concedes, however, that it does not have specific air conditioning usage data for its service territory and, further, that available statewide data indicate only 30 percent of customers have central air conditioning and 42 percent have a room or window air conditioner (Exh. DPU 1-2).

Based on the above, the Department does not approve the Company's proposal to implement seasonally differentiated summer heat pump pricing. Instead, the Company shall set

the summer kWh charge for distribution service at the otherwise applicable Rate R-1 and Rate R-2 charges.¹⁸

Third, unlike National Grid and Unitil, NSTAR Electric proposes to implement heat pump rates for transmission service as well as base distribution service (Exh. ES-HP-1, at 9, 13-14). DOER supports this aspect of the Company's proposal and argues that this difference will not negatively affect the Program Administrators' ability to leverage statewide Mass Save marketing campaigns to drive heat pump acceptance (DOER Brief at 11-13). After review, the Department finds that the Company's proposal to implement heat pump rates for transmission service is reasonable, cost-based, and designed to appropriately mitigate customer bill impacts associated with increased electric consumption due to heat pump use (Exhs. ES-HP-1, at 9, 13-14; ES-HP-2, Schs. 1, 2, 3; DPU 1-4; DPU 1-6; DPU 3-1; DOER 2-3 & Att.). Accordingly, the Department approves the Company's proposal to implement transmission service heat pump rates. Above, the Department did not approve the Company's proposal to implement seasonally differentiated summer heat pump pricing. Thus, the Company shall set the summer kWh charge for transmission service at the otherwise applicable Rate R-1 and Rate R-2 charges.

As part of its annual PBR filing, the Company proposes to adjust the base distribution and transmission components of its heat pump rates by the same percentage as the otherwise applicable Rate R-1 or Rate R-2 rates (Exh. ES-HP-1, at 14, 19). The Department finds that the Company's proposal is reasonable. Therefore, subject to the findings above disallowing seasonally differentiated summer heat pump pricing, the Department approves the Company's

The Department addresses the summer kWh charge for transmission service below.

proposal to annually adjust the base distribution and transmission components of its heat pump rates (Exhs. DPU 1-4 & Att.; DPU 1-6).

In addition, the Company proposes that its heat pump rates will be available to any residential customer eligible for service under Rate R-1 or Rate R-2, provided that the customer uses a heat pump to heat all or part of their home (Exh. ES-HP-1, at 9). The Attorney General argues that the Department should, instead, require the Company to limit eligibility only to customers who use heat pumps sized to heat their entire home and not just part of their home (Attorney General Brief at 1). The Company's proposed heat pump rate eligibility criteria are consistent with the criteria approved for both National Grid and Unitil. D.P.U. 23-150, at 512; D.P.U. 23-80/D.P.U. 23-81, at 407. Therefore, we decline to accept the Attorney General's recommendation at this time.

Finally, in conjunction with its implementation of heat pump rates, NSTAR Electric proposes to close its existing Rate R-3 (residential space heating) and Rate R-4 (low-income residential space heating) to new customers (Exh. ES-HP-1, at 18). NSTAR Electric further proposes to allow existing heat pump customers taking service under either Rate R-3 or Rate R-4 the option to remain on that rate or to switch to the otherwise applicable heat pump rate (Exhs. ES-HP-1, at 18; DOER 1-3). The Company currently has over 90,000 customers on Rate R-3 and over 14,000 customers on Rate R-4 (Exh. DPU 1-5). The Department finds that the Company's proposal to maintain Rate R-3 and Rate R-4 for existing electric space heating customers (including existing electric space heating customers with heat pumps) is reasonable. However, we are not persuaded that it is appropriate to allow the Company to close Rate R-3 and Rate R-4 to new customers at this time. In particular, we are concerned that new customers

moving into a residence with electric space heating but without a heat pump (e.g., customers who use electric resistance heating) would take service under either Rate R-1 or Rate R-2, as applicable, and that these rates each include a higher base distribution charge than Rate R-3 or Rate R-4. We find that this issue warrants additional investigation beyond the limited scope of the instant proceeding. Accordingly, the Department rejects the Company's proposal to close Rate R-3 and Rate R-4 to new customers at this time. NSTAR Electric shall maintain its current Rate R-3 and Rate R-4 offerings until its next base distribution rate case or until otherwise ordered by the Department.

Based on the foregoing, the Department approves a residential heat pump rate for all eligible NSTAR Electric residential customers who use heat pumps to heat all or part of their homes. The Company shall hold constant the monthly customer charge equal to the otherwise applicable Rate R-1 or Rate R-2 charge and shall adjust the monthly kWh charge for base distribution and transmission service to reduce the charges for the winter period, which shall be defined as November through April. The Company shall not adjust the kWh charge for the summer period in excess of the otherwise applicable charge for Rate R-1 and Rate R-2. In its annual PBR rate adjustment and reconciliation filings, the Company shall adjust the base distribution and transmission charges for the heat pump rate by the same percentage as the otherwise applicable Rate R-1 or Rate R-2 rates. Finally, NSTAR Electric shall maintain the current Rate R-3 and Rate R-4 offerings as discussed above.

The Department finds that the Company's proposed heat pump rates, as modified herein, will result in just and reasonable rates. The approved heat pump rates shall remain in effect until the Company's next base distribution rate case or until otherwise ordered by the Department.

Within seven (7) days of the date of this Order, NSTAR Electric shall submit a compliance filing with revised tariffs designed to implement residential heat pump rates for effect November 1, 2025, consistent with all directives contained in this Order.¹⁹

In D.P.U. 25-08, at 8-9, the Department found that it was imperative to expeditiously establish a heat pump rate for NSTAR Electric's residential customers during the 2025-2026 winter season. The Company estimates that it will take several months to implement the billing changes necessary to accommodate its new heat pump rates and that as of the end of May 2025, it had opened a ticket with its information technology team to potentially enable a heat pump rate to be implemented for the 2025-26 heating season (Exhs. ES-HP-1, at 9-10; DPU 2-4; DPU 2-5). The Department expects that the Company will move promptly to finalize the billing system changes and other steps necessary to implement the new heat pump rates for effect November 1, 2025 (Exh. DPU 2-5).

C. Implementation Plan

In D.P.U. 25-08, at 9, the Department directed NSTAR Electric to develop a detailed proposal addressing outreach and education for its new heat pump rates. Consistent with this directive, the Company filed a proposed Implementation Plan for review (Exh. ES-HP-5). As part of its Implementation Plan, the Company proposes to automatically enroll all customers in the applicable heat pump rate who received a heat pump rebate through a Mass Save energy efficiency program after January 1, 2022 (Exh. ES-HP-5, at 3-4). Further, the Implementation

The Company shall include a complete and detailed explanation of all proposed rate changes related to the Department's directives, with all relevant supporting documentation (including revised bill impacts).

Plan addresses the various marketing and outreach efforts the Company proposes to educate customers about the heat pump rates (Exhs. ES-HP-1, at 19; ES-HP-5). After review, the Department finds that certain changes are required to the Company's proposed Implementation Plan. We address these required changes below.

First, the Department finds that the Company's marketing, outreach, and education efforts should address the option for current Rate R-3 and Rate R-4 customers to switch to the applicable heat pump rate, where eligible. Accordingly, the Company shall amend its Implementation Plan to include information about: (1) the eligibility requirements for Rate R-3 and Rate R-4 customer enrollment in the applicable heat pump rates; (2) the process for such optional enrollment; and (3) the estimated bill impact associated with enrollment in the applicable heat pump rates.

Next, NSTAR Electric shall amend its Implementation Plan to acknowledge that it will coordinate with the other Program Administrators regarding the process for automatic enrollment in the applicable heat pump rates of customers who receive a heat pump incentive through an energy efficiency Program Administrator other than the Company (e.g., the Compact or a gas local distribution company) (Exhs. ES-HP-5, at 3-5; DOER 1-4). As DOER and the Compact correctly note, it is essential that the Program Administrators implement an efficient, coordinated process to identify all eligible customers who received a heat pump incentive after January 1,

2022, to facilitate their automatic enrollment in the applicable heat pump rates (DOER Brief at 13-14; Compact Reply Brief at 3).²⁰

Finally, the Company states that it may make available information on the heat pump rates through the heat pump installation contractor network, as well as through lead vendors (Exh. ES-HP-5, at 8). The Department anticipates that communication by contractors and vendors will be important to educate customers about the new heat pump rates and, therefore, the Department directs the Company to proactively work with contractors and vendors to explain the heat pumps rate and ensure that they provide clear and accurate information about the rates to customers who are considering installing a heat pump.

The Company shall file a revised Implementation Plan with its required compliance filing in this case. Subject to the modifications addressed above, the Department approves the Company's Implementation Plan (Exhs. ES-HP-5; DPU 2-1 through DPU 2-3; DOER 1-4; DOER 2-1). The Company shall commence all heat pump rate education and outreach efforts outlined in its Implementation Plan as soon as practicable following Department approval of the revised tariffs designed to implement its residential heat pump rates for effect November 1, 2025.

D. Tracking and Reporting Requirements

As the Department has found previously, carefully monitoring the progress of customer acceptance of heat pump rates is essential. D.P.U. 23-150, at 513; D.P.U. 23-80/D.P.U. 23-81, at 408. Accordingly, the Company shall assess whether its new heat pump rates support

The Company need not include detailed language in its Implementation Plan regarding the specific process the Program Administrators will employ to facilitate automatic enrollment in applicable heat pump rates.

customer electrification in the Commonwealth. To this end, and until otherwise ordered by the Department, the Company shall report the following information as part of its annual reconciliation filings: (1) the number of customers opting into (and off) the new heat pump rates; (2) twelve months of pre- and post-enrollment monthly kWh use, and, to the extent possible, monthly peak kW use; (3) the number of customers, by rate class, opting into the Rate R-1 or Rate R-2 heat pump rate offerings who received a rebate through the Mass Save program; and (4) the number of customers who received a rebate through the Mass Save program but have not opted into the new heat pump rates and have remained on a different residential rate. NSTAR Electric shall coordinate with the other Program Administrators, as necessary, to compile all relevant customer data across the Company's service territory (including customers in the Compact's member municipalities) to ensure complete reporting. In addition, in its next base distribution rate case and unless earlier directed by the Department, the Company shall include: (1) a detailed analysis of the successes, failures, and lessons learned from its heat pump rate offerings; and (2) a discussion of any changes to the heat pump rate offerings or proposals for alternative rate offerings designed to address electric home heating solutions.

E. Conclusion

The Department appreciates the thoughtful public comments filed in this matter as well as the recommendations provided by the Attorney General, DOER, and the Compact to support an expeditious review of the Company's filing. Approval of heat pump rates for NSTAR Electric's residential customers for the 2025-2026 winter season will mitigate the customer bill impacts related to heat pump use that otherwise may act as a barrier to heat pump acceptance.

We look forward to monitoring the impact of the Company's heat pump rates and how they affect progress towards electrification in the Commonwealth.

V. <u>ORDER</u>

After due notice, opportunity for comment, and consideration, it is

ORDERED: That the petition of NSTAR Electric Company, d/b/a Eversource

Energy for approval of residential seasonal heat pump rates is GRANTED in part and DENIED

in part; and it is

<u>FURTHER ORDERED</u>: That NSTAR Electric Company, d/b/a Eversource Energy shall, within seven (7) days of this Order, file revised tariffs for effect November 1, 2025, consistent with all directives in this Order; and it is

<u>FURTHER ORDERED</u>: That NSTAR Electric Company, d/b/a Eversource Energy shall comply with all other directives contained in this Order.

By Order of the Department,

James M. Van Nostrand, Chair

Cecile M. Fraser, Commissioner

Staci Rubin, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.