Date Filed: November 16, 2026

Witness: **Juan-Pablo Velez**
Request from: **Connecticut Industrial Energy Consumers**

Question CIEC-13:

Please refer to Velez Direct Testimony at page 7, lines 3-6, and page 93, lines 1-6.

a. Please describe how Mr. Velez proposes that the Company verify that a customer enrolled in Rate HP has installed a heat pump and uses it as the customer's primary source of space heating.

b. Would customers that use a heat pump only as a supplemental heating source, while retaining a fossil fuel heating system, be eligible for Rate HP? Explain.

c. Would customers that heat with electric resistance, or that install ground-source heat pumps, be eligible for Rate HP? Explain.

d. Under Rate HP, would winter usage from end uses other than space heating, such as electric vehicle charging, receive the reduced winter rates? If so, please estimate the associated revenue reduction and explain why that result is consistent with cost causation.

Response:

a. As proposed, Rate HP does not require that the heat pump be the customer's primary source of space heating. As my testimony states, Rate HP is for customers "who use a heat pump for heating."[1] Massachusetts uses the same standard: its heat pump rates are available to customers whose heat pump is used to "heat or supplement another heat source for their home or part of their home."[2]

As for verification, my testimony proposes two channels.[3] Customers who receive a heat pump incentive through Energize CT or the New England Heat Pump Accelerator are identified by the programs' own records and auto-enrolled. Customers who install a heat pump outside these programs submit "a simple form the installer or customer submits to confirm a qualifying heat pump was installed." I propose attestation to keep enrollment simple, as Unitil does in Massachusetts. Customers outside the efficiency programs enroll by contacting the company and "affirming that they are (or will) utilize their heat pump during the winter months." Unitil reviews each enrolled customer's usage annually.[4]

If the Authority prefers documentary verification for customers outside the incentive programs, it could follow Eversource and National Grid in Massachusetts. There, customers apply by phone, website, or

[1] Direct Testimony of Juan-Pablo Velez on behalf of Conservation Law Foundation and Sierra Club ("Velez Direct"), at 6:13–14 (Oct. 21, 2026).

[2] D.P.U. 25-55, NSTAR Electric Company d/b/a Eversource Energy, Rate R-1HP, M.D.P.U. No. 85, at 1 (Aug. 1, 2025); D.P.U. 23-80, Fitchburg Gas and Electric Light Company d/b/a Unitil, Response to DPU 2-04, at 1 (Sep. 19, 2023) (quoting the same language from Unitil's proposed tariff).

[3] Velez Direct at 93:1–6.

[4] D.P.U. 25-08, Fitchburg Gas and Electric Light Company d/b/a Unitil, Response to DPU-Common 3-5, at 1 (Jan. 23, 2026); Unitil Response to DPU 2-04, at 1 ("The Company will review each customer on this rate annually to determine if the customer's usage is consistent with the use of a CCHP as the primary or supplemental source of heat.").

mobile app, and provide "photos of equipment serial numbers; proof of payment or receipt of equipment purchase; or invoice or receipt from contractor installation." The utility may audit these documents and remove a customer whose documents cannot be confirmed.[5]

b. Yes. As explained in part (a), Rate HP is available to customers who use a heat pump for heating, whether or not it is their primary source of heat. The Massachusetts Department of Public Utilities has twice declined to limit its heat pump rates to customers with heat pumps sized to heat the whole home.[6]

c. Customers who heat with electric resistance alone would not be eligible, because Rate HP is for customers who use a heat pump for heating.[7] An electric resistance customer who installs a heat pump would be eligible, like any other customer who installs one, "regardless of whatever heating system they had before."[8]

Customers who install ground-source heat pumps would be eligible as proposed, as they are in Massachusetts.[9] I did not analyze them separately: my analysis models air-source heat pumps,[10] and ground-source heat pumps account for only 1,423 of the 67,306 residential heat pump installations rebated through Energize CT since 2017.[11] Because ground-source heat pumps are more efficient in cold weather, a customer who installs one would add less winter load than the average customer on whom Rate HP is calibrated. Such a customer likely overpays under Rate 1 as well, but by less, so the winter rate that would eliminate their overpayment would be higher than Rate HP's.

The Authority has three options for these customers: a separate rate that reflects their smaller overpayment; inclusion in Rate HP; or ineligibility. The case for inclusion rests on two points: there are so few of these customers, and their lower winter load helps limit the growth of winter peaks and the investment needed to serve them. No rate currently compensates them for that benefit.

d. Yes. Rate HP's reduced winter rates apply to all of an enrolled customer's winter usage. Applying them only to the heat pump's load would be ideal, but is impractical for the reasons given in my response to CIEC-12(d).

The revenue reduction from applying Rate HP to non-heating winter usage is already included in my estimates. Rate HP is calibrated on the modeled homes' whole-home load after installing a heat pump, including lighting, appliances, and every other end use. The single winter rate is set so that the average

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[5] D.P.U. 25-55, NSTAR Electric Company d/b/a Eversource Energy, Exhibit ES-HP-5, Residential Heat Pump Rate Implementation Plan, at 4–5 (Apr. 17, 2025); D.P.U. 23-150, Massachusetts Electric Company d/b/a National Grid, Exhibit HP-1, Residential Heat-Pump Rate Implementation Plan, at 8–9 (Dec. 30, 2024).

[6] D.P.U. 25-55, *Petition of NSTAR Electric Company, d/b/a Eversource Energy for Approval of Residential Seasonal Heat Pump Rates*, Order, at 22 (July 29, 2025) ("Therefore, we decline to accept the Attorney General's recommendation at this time."); D.P.U. 23-80/D.P.U. 23-81, *Petition of Fitchburg Gas and Electric Light Company d/b/a Unitil (Electric Division), pursuant to G.L. c. 164, § 94 and 220 CMR 5.00, for Approval of a General Increase in Base Distribution Rates for Electric Service and a Performance-Based Ratemaking Plan*, Order, at 407 (June 28, 2024) ("we decline to limit the rate offering only to customers with heat-pump capacity sized to heat their entire home, as suggested by the Attorney General").

[7] Velez Direct at 6:13–14.

[8] *Id.* at 81:15–16.

[9] D.P.U. 25-55 Order at 5 n.8.

[10] Velez Direct at 10 n.4.

[11] Eversource Connecticut, *Energize CT Heat Pump Installations, 2017 through November 2026*, at sheets Detail and Export (downloaded Nov. 10, 2026) (residential space-heating installations by heat pump type).

customer's T&D bill after installing a heat pump equals their pre-heat-pump T&D bill plus the incremental marginal T&D cost of the heat pump.[12] The reduced rate on non-heating winter usage is therefore part of that calibration, and part of the revenue figures in CIEC-1(a).

This is also why the result is consistent with cost causation. On average, Rate HP eliminates the overpayment without going past it: the average fossil fuel-heated customer who installs a heat pump still pays what they paid for their non-heating winter usage before installing the heat pump, plus the marginal T&D cost the heat pump causes.

The exception is electric vehicle charging. The ResStock load profiles I used do not include it, so I have not estimated the revenue effect of applying Rate HP's winter rates to it. Electric vehicles are still uncommon in Connecticut: at the end of 2025, plug-in and battery-electric vehicles made up about 3% of the passenger vehicles registered in the state.[13]

A customer on Rate HP who charges an electric vehicle in winter would pay the lower winter rate on that charging too. But that is actually consistent with cost causation for the same reason as for heat pump load: on the Company's system, electricity used in winter causes almost no new T&D costs, because the system peaks in summer (see my response to CIEC-10(b)).[14] Even at Rate HP's winter rate, the customer would still pay more for that winter charging than the incremental marginal T&D costs that charging causes.

[12] Velez Direct at 85:2–7.

[13] Connecticut Department of Energy and Environmental Protection, *EV Registration Factsheet*, at 2 (rev. Sept. 27, 2026) (73,156 battery-electric, plug-in hybrid, fuel cell and electric motorcycle registrations out of 2,305,954 passenger registrations on Dec. 31, 2025, or 3.17%, up from 2.69% on Dec. 31, 2024).

[14] Velez Direct at 19:5 ("winter kWh carry near zero marginal T&D cost").