Date Filed: November 16, 2026

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

Question CIEC-14:

Please refer to Velez Direct Testimony at page 85, lines 1-19.

a. Please provide the derivation of the 71% winter distribution reduction and the 75% winter transmission reduction, including all inputs and calculations, in Excel format with formulas intact, to the extent not already provided in Exhibit JPV-4 or in response to CIEC-1.

b. Please identify each element of the winter distribution and transmission rates (including any reconciling or rider components) to which the 71% and 75% reductions would apply.

c. Please provide the resulting Rate HP winter rates in cents per kWh for each component.

Response:

a. The full derivation has already been provided in Ex. JPV-4, an Excel workbook with formulas intact, which builds on the hourly calculation in Ex. JPV-3 (see my response to CIEC-10(c)).[1] For each component, I set the winter (November through March) rate so that the average fossil fuel-heated customer's annual delivery charges after installing a heat pump equal their delivery charges before installation plus the incremental marginal cost of serving the new load.[2] I describe the method in Ex. JPV-2, Section 5. The workbook works as follows.

The "monthly" sheet of Ex. JPV-4 holds the average fossil fuel-heated home's electricity consumption in each month before and after heat pump installation, along with the season of each month (winter is November through March). It also holds Rate 1's Distribution Energy Charge, net riders, Transmission Service Rate, and generation rate, and multiplies them into monthly charges. Rows 14 through 16 total those charges for the year, the winter, and the summer.[3] The "marginal_cost" sheet holds the home's annual marginal distribution and sub-transmission cost and marginal bulk transmission cost before and after installation, which are the totals in cells N2 through O3 of Ex. JPV-3's "hourly_marginal_cost" sheet, and the change in each (cells D3 and D4, which equal cells P3 and P2 of that sheet).

The "rate_hp" sheet performs the derivation, in column B for distribution (riders included) and column C for transmission. Row 7 is the overpayment: the change in Rate 1 charges after installation (row 5) less the change in marginal cost (row 6). Holding summer charges at Rate 1 (row 9), row 12 solves for the winter rate that removes the overpayment: Rate 1's post-installation winter charges (row 10), less the overpayment, divided by post-installation winter kWh (row 11). Rows 13 and 14 confirm that summer

[1] Direct Testimony of Juan-Pablo Velez on behalf of Conservation Law Foundation and Sierra Club ("Velez Direct"), at 7:13–18, 91 n.80 (Oct. 21, 2026); Ex. JPV-3; Ex. JPV-4.

[2] Velez Direct at 85:2–7; Ex. JPV-2, Section 5, at 11–12.

[3] The average fossil fuel-heated home uses 7,211 kWh a year before installation and 13,643 after: 2,870 and 8,353 kWh in November through March, and 4,341 and 5,290 kWh in April through October. Its incremental marginal cost is $2.22 a year for distribution and sub-transmission, and $8.08 for bulk transmission. Ex. JPV-4, "monthly" sheet, cells C14 and D14 (annual) and rows 15 and 16 (winter and summer); "marginal_cost" sheet, cells D3 and D4.

charges plus the winter rate times winter kWh equal the home's pre-installation charges plus the change in marginal cost. Rows 18 through 23 restate the result as the Rate HP table in the testimony. Column E gives each winter rate's change from Rate 1: a 71% reduction in the Distribution Energy Charge (cell E20) and a 75% reduction in the Transmission Service Rate (cell E21).

The only inputs not calculated in Excel are the home's hourly loads and the hourly marginal costs in Ex. JPV-3. The code that produces them is identified in my response to CIEC-1 (Set CIEC-01), in the entries for the 71% and 75% figures.[4]

b. The reductions apply to two lines on the Company's proposed Rate 1 tariff, and only in November through March: the 71% reduction to the Distribution Service Rate charge per kWh (the Distribution Energy Charge), 12.196¢ per kWh, and the 75% reduction to the Transmission Service Rate, 5.050¢ per kWh.[5] The 75% reduction applies to the whole Transmission Service Rate, including the portion that reconciles the prior year's under- or over-collection, because the Transmission Adjustment Clause sets a single rate that covers both.[6]

Neither reduction applies to any other line on the Rate 1 tariff: the customer charge; the Electric System Improvements, Revenue Decoupling Mechanism, and Competitive Transition Assessment charges; the Systems Benefits Charge, Conservation Adjustment Mechanism, and Renewable Energy charge; the FMCC Delivery and Generation charges; or generation service.[7] The volumetric riders net to -0.911¢ per kWh and stay at their Rate 1 levels.[8] In the derivation, I solved for the winter distribution rate with the riders included, then subtracted the riders at their Rate 1 level, so the entire distribution reduction falls on the Distribution Energy Charge.[9]

c. In November through March, Rate HP's Distribution Energy Charge would be 3.533¢ per kWh, compared with 12.196¢ under proposed Rate 1, and its Transmission Service Rate would be 1.258¢ per kWh, compared with 5.050¢. The riders would stay at their net Rate 1 level of -0.911¢ per kWh, so Rate HP's total winter delivery volumetric rate would be 3.880¢ per kWh, compared with 16.335¢ under Rate 1, a reduction of 76%. Summer (April through October) rates, the customer charge of $12.36 a month, and generation would be identical to Rate 1.[10]

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[4] CLF and Sierra Club, *Responses to CIEC Interrogatories* (PURA Docket No. 26-05-10), Response to CIEC-1 (Set CIEC-01) (Nov. 12, 2026), entries for Velez Direct at 6:19 and 7:1.

[5] Velez Direct at 82 (Table 4), 83:5–8.

[6] Eversource Connecticut, Exhibit CLP-RATES-3, Transmission Adjustment Clause, at 409 (July 14, 2026) (the rate is "determined by dividing (1) the current period's Transmission revenue requirement; plus (2) a true-up of any under or over recoveries, including carrying charges, from the prior year's TAC charges or credits, by the kWh sales anticipated").

[7] *Id.* at 243–244.

[8] Velez Direct at 83:1–2, 83 n.74.

[9] Ex. JPV-4, "rate_hp" sheet, cells B12 and D20.

[10] Velez Direct at 82:10–83:2; Ex. JPV-4, "rate_hp" sheet, rows 18 through 23.