CENTRAL HUDSON GAS & ELECTRIC CORPORATION

CASE 23-E- & CASE 23-G-

CLIMATE LEADERSHIP AND SUSTAINABILITY PANEL

SCHEDULE OF EXHIBITS

Central Hudson Gas & Electric Corporation
Cases 23-E-____ and 23-G-____
CHGE Impact GHG Assessment

Background:

Central Hudson Gas and Electric Corporation (Central Hudson), along with the other utilities in New York, has an important role in supporting the achievement of the state's clean energy and greenhouse gas (GHG) emissions reductions policies outlined in the Climate Leadership and Community Protection Act (CLCPA). In 2020, Central Hudson conducted an analysis to assess the projected emissions impacts through 2025 of measure adoption supported by Central Hudson program activity. The 2020 analysis included energy efficiency programs, environmentally beneficial electrification (i.e., heat pumps and electric vehicles), consumer product electrification, community solar PV, and oil-to-gas conversions. With further developments in (i) the state's implementation of the CLCPA and (ii) programs implemented by Central Hudson and other parties since 2020, Central Hudson updated the 2020 analysis to reflect actual measure deployment from 2020-22 and changes in planned program targets. Central Hudson also extended the projection out to 2030 to assess projected progress towards the share of the required 40% reduction in statewide GHG emissions from 1990 levels by 2030 resulting from energy-related emissions within its service territory.

Discussion

In preparation for its Rate Case filing, Central Hudson requested an update to the 2020 analysis in order to reassess progress within its territory towards achieving the state's 40% GHG emissions reduction target from 1990 levels by 2030. This updated analysis builds on the original analysis in several ways:

- **Extended timeframe.** While the original analysis assessed emissions projections from 2020 to 2025, the updated analysis further projects out to 2030 using actual reported program data and energy impacts for 2020-2022 to inform projections.
- **Modification and expansion of programs and measures included.** In the updated analysis, Central Hudson has expanded some of the measures and programs included in the emissions projection. This includes adding a set of Central Hudson-specific initiatives (Supplemental Projects) to reduce emissions from Central Hudson operations, infrastructure, and gas supply. It also recategorizes all solar PV as included in the contributions from the Clean Energy Standard to account for all zero emissions generation needed to comply with the 70% zero emissions generation by 2030 CLCPA target.
- **Exclusion of other programs and measures.** Measures and programs like oil-to-gas conversions and consumer product electrification EAMs which are not appropriate to consider in the context of the CLCPA or were never implemented are excluded from the updated analysis.
- **Adopting GHG emissions accounting methodology outlined in CLCPA.** The CLCPA requires that GHG accounting capture upstream emissions from beyond state borders related to the extraction, production, and transportation of imported fossil fuels. Additionally, the CLCPA requires the use of a 20-year global warming potential (GWP) instead of the previously used 100-year GWP. The updated analysis adopts the inclusion of upstream emissions by using

NYSERDA-developed GHG emissions factors that capture out-of-state emissions,[1] as well as the use of the most recent 2019 state GHG inventory completed by DEC as the baseline year for comparing progress towards 2030 targets.[2] Since Central Hudson provides emissions analyses using a 100-year GWP basis in other venues (e.g., for EPA filings and sustainability reports to its parent company Fortis), Central Hudson has completed the updated analysis using both 20-year and 100-year GWPs.

- **Limiting GHG emissions to energy-related sources.** The previous analysis compared GHG emissions from Central Hudson programs to the total statewide GHG inventory and 2030 target. This statewide target covers multiple categories, including energy, industrial processes and product use, waste, and agriculture, forestry, and other land use. Central Hudson's scope of business and its programs only directly influence emissions from energy consumption, so the modified analysis compares the emission reduction impacts from Central Hudson's programs against the energy component of the 2030 target.

Key Assumptions:

This section presents the target emissions level and discusses key assumptions related to the modified analysis. The Pre-CLCPA accounting in **Table 1** excludes upstream out-of-state emissions while the Post-CLCPA accounting includes upstream out-of-state emissions.

Table 1. Central Hudson GHG emissions targets

	Statewide Emissions Accounting (mmt CO_2e)		
	Pre-CLCPA (100-year GWP)	Post-CLCPA (20-year GWP)	Post-CLCPA (100-year GWP)
1990 Baseline (Energy only)[3]	216.90	345.45	279.57
2019 Emissions (Energy only)[4]	165.78	290.10	228.44
2030 Target (Energy only)	130.14	207.27	167.74
NY Emission Reduction by 2030		**82.83**	**60.70**
Central Hudson share of 2030 target		**1.91**	**1.40**

GHG Emission Target

- As noted above, Central Hudson is assessing the performance of efforts within its service territory against the 40% reduction target below 1990 levels by 2030, with a focus on the energy-related emissions of the target.
- The most recent state GHG inventory was completed for the 2019 year. Central Hudson compares the impacts of its efforts from 2020-2030 against the emissions reductions needed to

[1] NYSERDA (2023). Fossil and Biogenic Fuel Greenhouse Gas Emission Factors. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/Energy-Analysis/22-23-Fossil-and-Biogenic-Fuel-Greenhouse-Gas-Emission-Factors.pdf

[2] NY Dept. of Environmental Conservation (2022). 2022 Statewide GHG Emissions Report. https://www.dec.ny.gov/docs/administration_pdf/ghgsumrpt22.pdf

[3] NYSERDA (2019). New York State Greenhouse Gas Inventory: 1990-2016. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/EDPPP/Energy-Prices/Energy-Statistics/greenhouse-gas-inventory.pdf

[4] NY DEC (2022).

achieve the 2030 target relative to the 2019 year. While 2020 emissions were inventoried, the New York Department of Environmental Conservation recommends the use of 2019 emissions for measuring progress due to the impacts of the COVID-19 pandemic.

- Central Hudson accounts for approximately 2.3% of the state's electricity and gas sales.
- The emission reduction baselines and targets used are summarized in **Table 1**.

GHG Emission Factors

- As noted above, Central Hudson used NYSERDA's GHG emission factors for fossil fuels in the analysis, which reflect out-of-state upstream emissions associated with fossil fuel imports.
- As electricity emissions are expected to decline over time in accordance with state utilities achieving the Clean Energy Standard target of 70% zero emissions generation by 2030, Central Hudson used the emission factors for NY grid electricity developed by NYSERDA.[5] These projected factors reflect achieving the 70 by 30 CES target as well as the upstream out-of-state emissions required by the CLCPA. Based on the recommendations in the NYSERDA white paper, we use the annual average long-run marginal emission factors for the downstate region.

Energy Efficiency (EE)

- Energy reductions from EE programs were estimated based on the energy savings reported by Central Hudson from 2020-2022 and projections for 2023-2030.
- As Central Hudson outperformed the original 2020-2022 energy reduction projections from the 2019 System Energy Efficiency Plan (SEEP), projections from 2023-2025 were deemed to be realistic. Measure adoption and energy savings were assumed to proceed at the same rate from 2026-2030 as in prior years.
- Emission reductions were estimated using the fuel/grid emission factors for the relevant year. As grid emissions intensity declines over time, EE emissions reductions also decline.

Environmentally Beneficial Electrification (i.e., New York Clean Heat)

- Central Hudson outperformed its original NY Clean Heat targets from 2020-2025, achieving the 2025 estimated energy reductions target by early 2023. The 2023 Clean Heat petition redirects funding to continue supporting NY Clean Heat at a reduced rate from 2023-2025. Heat pump measure adoption is then projected to grow at a rate of less than 5% per year for 2026-2030.
- Heat pump energy savings (and net electricity increases) were estimated through reviewing NY Clean Heat data and the TRM-estimated net energy impacts to establish an average net electric and net fuel impact for air source heat pumps (ASHP), ground source heat pumps (GSHP), and heat pump water heaters (HPWH) for each of four prior primary heating fuel types (electric, gas, oil, and propane). Future installations were assumed to have the same share of installations by system and fuel offset based on historical data.

[5] NYSERDA (2022). Projected Emission Factors for New York State Grid Electricity. https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Publications/Energy-Analysis/22-18-Projected-Emission-Factors-for-New-York-Grid-Electricity.pdf

- As grid emissions intensity declines over time, emissions reductions from heat pump projects offsetting fossil fuels increase while emissions reductions from heat pump projects offsetting electric resistance heat decreases.

Electric Vehicles (EV)

- EV purchases in Central Hudson's territory for 2020-2022 were determined through Evaluate NY.
- Based on EV purchases from 2020-2022, EV sales are expected to increase faster than the rate originally projected in the more aggressive scenario in the 2020 Distributed System Implementation Plan (DSIP).[6] The EV forecast used in the analysis is drawn from the 2023 DSIP and projects there to be over 82,500 EVs in Central Hudson's territory by 2030.
- As grid emissions intensity declines over time, emissions reductions from EV adoption increases.

Clean Energy Standard (CES)

- Central Hudson must greatly increase purchases of zero-emissions generation in order to meet the State's 70%- renewable electricity by 2030 target. Successfully achieving this target will result in substantial emission reductions for the nearly 5 million MWh sold annually by Central Hudson. The category is assumed to include both large-scale renewable resources and distributed renewable resources (i.e., VDER and CDG).
- To estimate the emission reductions, the year-on-year declining grid emissions intensity for electricity (in accordance with the NYSERDA projection) is compared against a baseline grid emissions intensity for 2019 (to reflect the 2019 GHG inventory).
- Central Hudson's electricity sales forecast for 2023-2030 includes projections for load building from EV sales and heat pump adoption. To avoid double counting reductions (since electricity increases or reductions for these measures are already captured), changes in electricity sales associated with electrification load building for heat pumps and EVs and load reduction from efficiency are removed from the sales forecast.

Supplemental Projects

- **Thermal Energy Network (TEN) Pilot.** Central Hudson has proposed a TEN pilot targeting a mixed-use site with over 200 apartments and commercial applications. The analysis assumes this pilot is approved and has the emission impact equivalent to 209 GSHP projects (based on the average NY Clean Heat project) offsetting gas. Based on the timeline proposed, assuming the project is approved by end of year, construction is expected to be completed by end of 2027.
- **Central Hudson Fleet and Facility Operations.** Emission impacts for installing 1.1 MW of solar PV at Central Hudson facilities (assume commissioned between 2025-2027) and electrification of 30% of Central Hudson's fleet by 2030 are included in the analysis.
- **Voltage Reductions.** Central Hudson is expecting to complete Voltage and VAR Optimization and Conservative Voltage Reduction projects by 2026. Based on prior Central Hudson estimates, these voltage reduction projects are expected to reduce total electricity sales by over 91,000

[6] Central Hudson (2020). Central Hudson Distributed System Implementation Plan. https://jointutilitiesofny.org/sites/default/files/CH%202020%20DSIP.pdf

MWh by 2026. The emissions reductions related to the voltage reduction project are included in the analysis.

- **Responsibly Sourced Gas.** As the CLCPA's GHG accounting methodology integrates upstream out-of-state emissions from imported fossil fuels, Central Hudson has piloted a program to purchase responsibly sourced gas (RSG) from certified providers who effectively reduce upstream methane leakage from approximately 0.45% to 0.079% (or approximately 71 kg of methane per 1,000 mcf of gas produced). This analysis assumes that 25% of gas sales moving forward can be procured from RSG providers at no additional cost to ratepayers.
- **Leak Prone Pipe Replacement.** Since 2015, Central Hudson has endeavored to greatly reduce the methane leakage from aging distribution pipes. From 2021-2026, leak prone pipe replacement is expected to avoid 520 metric tons of methane annually.

Results:

Based on the analysis presented in this memo, Central Hudson is on a path to exceed its 2030 statewide GHG emission reduction target by approximately 39%. In Summary:

- Central Hudson's pro rata share of the 2030 statewide GHG emission reduction target is 1.91 MMT CO_2e.
- Analysis found Central Hudson's programs and measures will achieve 2.66 MMT CO_2e
    - If achieved, this would exceed the target (1.91 MMT CO_2e) by 0.75 MMT CO_2e, or by about 39%.
    - The estimated contribution of direct measures, including Energy Efficiency, Clean Heat, EV, and Supplemental Projects is 0.89 MMT CO_2e, or 46% of the 2030 target and 33% of 2.66 MMT CO_2e estimated.
    - The estimated contribution from Central Hudson's purchases of cleaner power under the States' Clean Energy Standards is 1.79 MMT CO_2e, or 93% of the 2030 target and 67% of 2.66 MMT CO_2e estimated.

The cumulative CO_2e reductions from the programs and measures analyzed compared to the target are shown in **Figure 1**. As discussed above, these savings are relative to the 2019 GHG inventory as a baseline year, with the Central Hudson target as outlined in **Table 1**.

Figure 1. Cumulative Central Hudson CO_2e savings from 2020-2030 (20-yr GWP)

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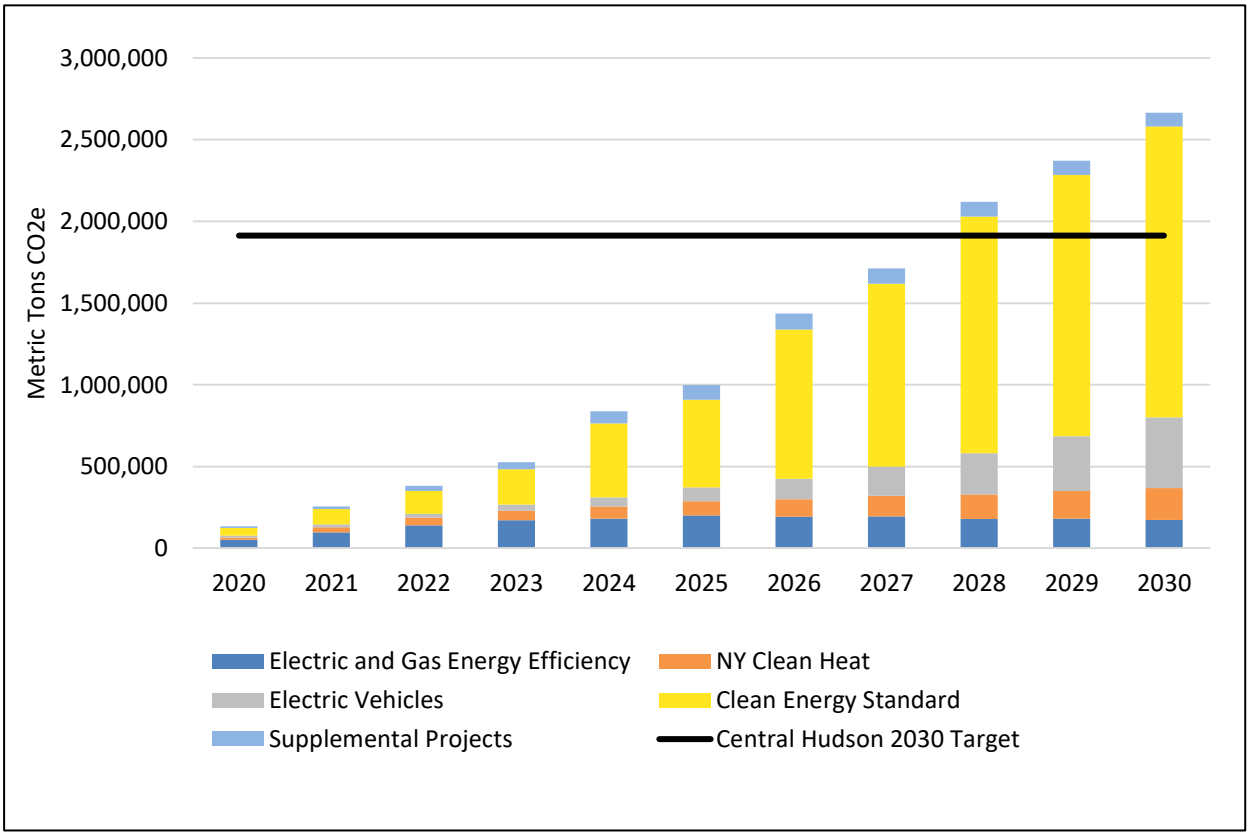

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Allocation Assumptions	
CH Electric Meters in DAC	48%
CH Gas Meters in DAC	71%
DAC Statewide Minimum	35%
Electric Vehicles (Excluded)	0%
Fully Inside DAC	100%
Leak-Prone Pipe in DAC	84%

Initiative	Total CO2e reduction (MT) results from CHGE Impact GHG Assessment	Apportionment	Rationale for Apportionment	DAC CO2e reduction (MT)	DAC CO2e reduction (%)
Electric Energy Efficiency	105,390	DAC Statewide Minimum	The statewide goal is for at least 35% of benefits to accrue to DACs. Central Hudson has proposed a consistent EAM target for a minimum Energy Efficiency investment level of 35% to DAC's.	36,887	35%
Gas Energy Efficiency	67,928	DAC Statewide Minimum	The statewide goal is for at least 35% of benefits to accrue to DACs. Central Hudson has proposed a consistent EAM target for a minimum Energy Efficiency investment level of 35% to DAC's.	23,775	35%
NYS Clean Heat	195,635	CH Electric Meters in DAC	Customers can take advantage of the NYS Clean Heat program anywhere in Central Hudson's electric service area. This benefit was allocated proportionally based on the number of electric customers within DACs.	93,016	48%
Electric Vehicles	-	Electric Vehicles (Excluded)	Central Hudson has insufficient information to estimate the geographic distribution of anticipated transportation electrification. DACs face additional barriers to EV adoption which is why Central Hudson has proposed an additional EV program to support DACs.	-	
Clean Energy Standard (includes VDER/CDG)	1,778,933	CH Electric Meters in DAC	The benefits of decarbonizing the electric grid accrue to all customers. To avoid double counting (i.e. gas customers taking electric service from another utility) this benefit was was allocated proportionally based on the number of electric customers within DACs.	845,803	48%
Thermal Energy Network Pilot	2,094	Fully Inside DAC	The proposed pilot is fully within a DAC and all participating customers would be within a DAC.	2,094	100%
CHG&E Onsite Solar	218	CH Electric Meters in DAC	The benefits of decarbonizing the electric grid accrue to all customers. For simplicity, this benefit was was allocated proportionally based on the number of electric customers within DACs.	104	48%
CHG&E Fleet Electrification	265	CH Electric Meters in DAC	Central Hudson's fleet operates throughout the service territory and its electrification will benefit all customers. For simplicity we have allocated based on electric customers in DACs, but the value is expected to be higher if gas customers were incorporated as well.	126	48%
Voltage Reductions	15,405	CH Electric Meters in DAC	This initiative is expected to benefit all electric customers. The benefit was was allocated proportionally to electric customers within DACs.	7,324	48%
Responsibly Sourced Gas (RSG) Purchases	13,932	CH Gas Meters in DAC	The benefits of reduced methane emissions associated with natural gas accrue to all customers, but more specifically those with natural gas service that utilize the cleaner product. This benefit was allocated proportionally based on the number of gas customers within DACs.	9,953	71%
Leak Prone Pipe Replacement	52,324	Leak-Prone Pipe in DAC	Central Hudson performed a geographic analysis that determined what portion of the remaining LPP scheduled to be replaced is located within a DAC.	43,816	84%
Total	**2,232,124**			**1,062,897**	**48%**

Allocation Principles:
1) Energy Efficiency should be allocated at a rate of 35% to align with statewide CLCPA target and Central Hudson's proposed minimum EAM target.
2) For renewable generation, statewide efforts, service territory-wide efforts, allocate proportionally to the number of Central Hudson customers located within a DAC (electric or gas as appropriate).
3) For intiatives that have known geographic locations that can be overlayed with DAC's, allocate based on the proportion of the project occuring in DACs.

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Excerpt from Technical Documentation of Disadvantaged Community Criteria
https://climate.ny.gov/-/media/Project/Climate/Files/Disadvantaged-Communities-Criteria/Technical-Documentation-on-Disadvantaged-Community-Criteria.pdf

2.2 Applications of the DAC Criteria

The DAC criteria will be used for four statutory purposes:

- Co-pollutant reductions;
- Greenhouse gas emissions reductions;
- Regulatory impact statements; and
- Allocation of clean energy and energy efficiency investments

With respect to "allocation of investments," the DAC criteria will be used by State entities to direct clean energy and/or energy efficiency investments in a manner to ensure that disadvantaged communities receive no less than 35% of benefits, with a goal of 40% of benefits.

In addition to the geographic criteria for identifying disadvantaged communities, the CJWG also included vulnerable households outside of designated DACs that report annual total income below 60% of the State Median Income or are otherwise eligible for low-income programs, to ensure that these residents remain a priority in the clean energy transition. The CJWG considered the 35% target and 40% goal to be minimums and encourage State agencies to invest more in disadvantaged communities and low-income and climate-vulnerable households within and outside of designated DACs.

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A. Multi-Unit Dwelling EV Charging Site Assessment Service Program

1) Overview & Purpose

Central Hudson's Multi-Unit Dwelling EV Charging Site Assessment Service Program ("EV SAS") addresses several challenges for EV adoption.

Multi-unit dwellings as defined here are residential properties with five or more units located in a Disadvantaged Community ("DAC") or that is consistent with the Affordable Multifamily Energy Efficiency Program ("AMEEP") criteria.[1]

Customers living in multi-unit dwellings face unique barriers to EV adoption because of the lack of at-home or near-home charging to provide low-cost and reliable charging when they need it. This customer segment can face challenges to installing a charger because they generally do not have the sole decision-making authority at the property, ability to afford the upfront cost of the installation, or the knowledge and resources to plan, site, and operate charging stations. The high proportion of renters within multi-unit dwellings can lead to a misalignment between the renters using the chargers and the property owners responsible for investing in the charging installation. Condominium and shared ownership buildings also face challenges negotiating the terms of EV charging siting and use in shared or assigned parking spaces. Charging station installation and operating costs are another challenge for multi-unit dwellings because the chargers may not generate sufficient revenues from tenant charging activities to cover these costs. Additionally, the complexity of designating EV-only parking at a multi-unit dwelling and establishing responsibility for the meter is a challenge for the customer and/or site host to navigate. As a result, the technical know-how needed to plan and implement a successful charging deployment can deter potential site hosts. These challenges are often exacerbated in DACs and require additional support to overcome such barriers.[2]

2) Rationale

This program would only be offered for locations within DACs or AMEEP eligible buildings in order to target assistance for customers who face the greatest barriers to electrification while aligning with the CLCPA objective of at least 35% of benefits accruing to DACs.[2] Central Hudson's proposed focus on helping this customer segment overcome barriers aligns with the State's articulated goals because the EV SAS will accelerate deployment of EV charging infrastructure to support EV adoption and to deliver equitable benefits to customers who need the most support. The EV SAS directly addresses critical barriers of EV charging by providing technical resources, education, and assistance in addition to the existing MRP incentives.

Engaging with customers at the beginning of their electrification journey will reduce downstream utility engineering costs to support customer service applications. The EV SAS will provide Central Hudson with a means to streamline and accelerate new service applications for EV charging installations by having a detailed plan upfront, which can reduce costs and wait times for customers. Once engaged with a customer to deliver an Assessment, the Company will have

[1] NYSERDA. New York State Affordable Multifamily Energy Efficiency Program. https://www.nyserda.ny.gov/All-Programs/Residential-and-Property-Owner-Income-Eligible-Programs/LMI-Stakeholder-Resources-New-Efficiency-New-York/NYS-Affordable-Multifamily-Energy-Efficiency-Program

[2] SEPA, 2022, "Addressing EV Equity: Advancing Charging at Multi-Family Dwellings," https://sepapower.org/knowledge/addressing-ev-equity-advancing-charging-at-multi-family-dwellings/

the opportunity to work with site owners or municipalities to develop holistic and cost-effective approaches to electrifying the property, including both “all at once” retrofits and “over time” approaches to electrify equipment as it requires replacement.

Central Hudson’s proposed EV SAS will align with existing programs. Multi-unit dwelling sites are eligible to participate in the MRP and can receive up to 100% of eligible make-ready costs, depending on location and public accessibility. Central Hudson’s proposed program focuses resources on supporting interested multi-unit dwelling sites participating in the MRP by providing site design and planning support for EV charger installations to customers in DACs, helping them overcome the barriers previously mentioned.

3) Program Structure

Central Hudson proposes to partner with an experienced vendor to provide technical support to including site design and planning for EV charging installations at multi-unit dwellings. The customer must participate or intend to participate in the existing Make-Ready Program (MRP) by installing at least two Level 2 chargers at the site that conform with the requirements of the MRP. Authorities having jurisdiction (“AHJ”) over the public right-of-way (primarily municipalities) would also be eligible for the EV SAS if they participate with the intention of installing L2 public charging stations collocated near and accessible to the residents. In an instance where the AHJ-led installation is a public charging site, the collocated multi-unit dwelling may be a property with two or more units located in a DAC.

Multi-unit dwellings would be eligible for assessment services up to $7,500 and municipal customers would be eligible for assessment services up to $10,000. The assessment incentive reflects the level of support required to serve these site types. This offering would provide guidance, technical assistance, and engineering support to help the customer determine whether a site has sufficient capacity to support new EV charging load; and developing a service plan which includes site design, equipment selections, identify necessary make-ready details including transformer locations, metering type, and potential electrical service upgrades needs to an interested multi-unit dwelling charging site host. Assessments and plans may also include a rate analysis and recommendations for load management to reduce EV charging station operating costs. The findings from the site plan will be documented in a site assessment report for the customer. After completing the site plan, the customer would be encouraged to apply for the Make-Ready Program.

4) Scope & Budget

Central Hudson intends to serve 75 multi-unit dwellings and 25 public curbside customers over the 5-year program term. Assessments will be conducted for eligible customers on a first-come-first-serve basis. These targets reflect the unique building stock, customer needs, and observed costs in Central Hudson territory and are aligned to Central Hudson’s MRP targets.

Central Hudson modeled the initial phase of this program based on a 4.5-year period which incorporates ramp-up time to build awareness, engage with stakeholders, and account for longer project development times. This also accounts for the long. As shown in Table 1 below, the Company’s total proposed 4.5-year budget is $934,375. The proposed goals and level of investment are aligned with State objectives, anticipated changes to the MRP through the concurrent Midpoint Review, and with customer and stakeholder feedback.

Table 1: EV Charging Site Assessment Service Program Goals and Budgets for the period 2024-2028.

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Year	MUD Assess-ments	Public Assess-ments	MUD Assessment Incentive	Public Assess-ment Incentive	Incentive Subtotal	Impleme-ntation Costs	Total
2024 (Q3-Q4)[3]	5	2	$37,500	$20,000	$57,500	$8,625	**$66,125**
2025	10	3	$75,000	$30,000	$105,000	$15,750	**$120,750**
2026	15	6	$112,500	$60,000	$172,500	$25,875	**$198,375**
2027	20	6	$150,000	$60,000	$210,000	$31,500	**$241,500**
2028	25	8	$187,500	$80,000	$267,500	$40,125	**$307,625**
Total	**75**	**25**	**$562,500**	**$250,000**	**$812,500**	**$121,875**	**$934,375**

Through the Midpoint Review, it is clear that customers living within multi-unit dwellings and in DACs are a strategic priority for the State's EV charging goals. The Department of Public Service ("DPS"), in its Staff Electric Vehicle Make-Ready Program Midpoint Review and Recommendations Whitepaper, projected that Central Hudson will need to support 753 L2 plugs at multi-unit dwellings by 2025, or 34% of Central Hudson's overall L2 plug goal.[4] Additionally, the Company's program design considers the unique building stock of its service territory. The EV SAS goals are ambitious, yet achievable in the context of the largely rural and small-town geographical dispersion of this customer segment throughout Central Hudson's service territory. By engaging with customers early in their electrification journey, Central Hudson has the opportunity to ensure that the least-cost options are considered for at-home or near-home charging. Additionally, Central Hudson can help customers manage costs by advising them on strategies to avoid costly site upgrades as well as other cost-saving measures such as load management.

5) Research & Stakeholder Input

Central Hudson gathered stakeholder feedback on the proposed EV investments in this application through technical conferences with stakeholders and public comments filed during the Make-Ready Program Mid-Point Review[5] which directly informed Central Hudson's prioritization of additional technical assistance for multi-unit dwellings. Additionally, the Company directly engaged with stakeholders, including an active MRP contractor and a local County that has participated in the MRP and is committed to deploying EV charging across the County. The contractor cited low MRP participation among customers living within multi-unit dwellings due to (1) the high upfront cost of EV charging and (2) the lack of awareness of EV charging. Additionally, the complexity of EV charging site design is seen as a barrier for multi-unit dwellings because many properties have complicated electrical configurations to serve their multiple residential and commercial accounts. These varying configurations also lead to different ways of collecting revenue to cover electrical expenses. Feedback indicated that Central Hudson could help customers by providing targeted educational materials and information about

[3] This program is assumed to begin on 7/1/24. The remaining years represent full calendar years.
[4] Case 18-E-0138, *Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure* ("EV Proceeding"), Department of Public Service Staff Electric Vehicle Make-Ready Program Midpoint Review and Recommendations Whitepaper (filed March 1, 2023) ("Whitepaper").
[5] Case 18-E-0138, *Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure* ("EV Proceeding"), Department of Public Service Staff Electric Vehicle Make-Ready Program Midpoint Review and Recommendations Whitepaper (filed March 1, 2023) ("Whitepaper").

available site capacity, technical assistance to help the customer plan and design their site have better access to information about site capacity and upgrade costs. It was suggested that Central Hudson should play a greater role in sharing information and technical assistance to help the County and municipalities identify suitable EV charging sites.

The Company also reviewed existing transportation electrification programs in other jurisdictions, with a focus on those providing technical advisory services to multi-unit dwellings. National Grid, an investor-owned utility, has been approved to implement a multi-unit dwelling site design program in Massachusetts. Publicly owned utilities, such as Seattle City Light, are also implementing similar services. Seattle City Light has recently launched advisory services for a multi-unit dwelling EV charging program. Some of the country's earliest transportation electrification programs began in California at utilities such as Southern California Edison ("SCE"). SCE's Charge Ready program includes an EV Readiness Study for multi-unit dwellings.

6) Reporting

Central Hudson will produce an annual report beginning Q1, 2025 to review program performance to date. The timing for this update is intended to align with other EV related reporting and will be included with our Electric Vehicle Direct Current Fast Charger Per-Plug Incentive and Infrastructure Make-Ready Program Annual Report.

B. EV Education and Outreach Initiative

1) Overview & Purpose

Central Hudson's EV Education and Outreach Initiative also addresses challenges for EV adoption. This Initiative will expand Central Hudson's abilities to conduct outreach and educational activities to promote the benefits of EVs and EV charging in its territory. Central Hudson's EV programs and incentives are rapidly growing, and it is critical that the Company is able to appropriately raise awareness about EVs and the various EV programs available to customers.

As part of the Initiative, the Company will use a variety of outreach and communications tactics to reach EV drivers and potential EV drivers with the right information at the right time in their electrification journey. Key information will include benefits of EVs, electric fuel costs, EV and EVSE makes and models, and existing charging station locations. The Initiative may include, billing messages, printed fact sheets, in-person interactive opportunities including EV ride-and-drives, community partnership events, and "ask an expert" webinars to communicate the benefits of EVs, available EV programs and tools and resources such as EV calculators and station locator maps. This will ensure that customers have the latest information regarding Central Hudson's MRP, EV Time-of-Use Rate, Residential Managed Charging Program, as well as the expected demand management technologies incentive, demand charge rebate, and EV phase-in rates that are expected to be implemented, pending Commission Orders.

Given the significant benefits of EVs and the ambitious State EV adoption goals, Central Hudson has a responsibility to be a trusted advisor to customers while helping to stimulate the EV market. In this nascent stage of EV adoption, it is critical that interested customers are able to find credible and reliable information about EVs and EV charging. As a utility, Central Hudson is a trusted source for customers and seeks to expand its ability to raise awareness about EVs. Furthermore, stakeholders are looking to Central Hudson to partner and take an active role in EV education. The local County noted above and a community-based organization, have invited Central Hudson to participate in events and outreach to promote EV adoption, which has led to a strong partnership to remove barriers to equitable electrification. It is critical that Central Hudson is able to support its community partners and share the responsibility of EV education.

2) Scope & Budget

Central Hudson modeled the initial phase of this program based on 3.5 years. As shown in Table 2 below, the Company's total proposed 3.5-year budget is $600,000.

Table 2B: EV Education and Outreach Budget for 2023-2027.

Year	Total
2024 (Q3 & Q4)[6]	**$90,000**
2025	**$170,000**

[6] This program is assumed to begin on 7/1/24. The remaining years represent full calendar years.

2026	**$170,000**
2027	**$170,000**
Total	**$600,000**

3) Reporting

Central Hudson will produce an annual report beginning Q1, 2025 to review program performance to date. The timing for this update is intended to align with other EV related reporting and will be included with our Electric Vehicle Direct Current Fast Charger Per-Plug Incentive and Infrastructure Make-Ready Program Annual Report.