Via Electronic-Mail

January 8, 2021

Debra A. Howland
Executive Director and Secretary
New Hampshire Public Utilities Commission
21 S. Fruit Street, Suite 10
Concord, N.H. 03301-2429

RE: DE 20-170 Electric Distribution Utilities Electric Vehicle Time of Use Rates proceedings

Dear Secretary Howland,

Enel X North America, Inc. (Enel X) appreciates the opportunity to submit the following Reply Comments in this proceeding to facilitate the development of utility-specific electric vehicle time-of-use (EV TOU) rates.

Enel X e-Mobility, formerly known as eMotorWerks and a subsidiary of Enel, the global utility company, is a leading provider of electric vehicle (EV) charging technologies. Enel X manufactures and sells the JuiceBox, the market-leading Level 2 home EV charger, along with a comprehensive line-up of commercial Level 2 and DC fast charging (DCFC) hardware solutions for workplace, fleet, and public charging applications. These products run on JuiceNet, Enel X's cloud-based software platform used for asset management, EV charging submetering and data transfer, and flexible control for managed EV charging. Enel X's smart charging solutions complement a broad portfolio of customer-facing clean energy offerings including demand response, front-of- and behind-the-meter energy storage, solar photovoltaic, and advisory services for commercial and industrial customers and fleet electrification.

EV TOU Rates

Enel X supports the Commission's initiative to move forward with EV-specific TOU rates. With proper rate design, all New Hampshire ratepayers can benefit from increased deployment of EVs. As a result of flexibility in EV charging behavior, the right price signals can stimulate charging during hours of the day when the electric grid is underutilized or matched with periods of high renewable power generation. Shifting EVs charging to these off-peak periods minimizes the amount of incremental distribution, transmission, and generation infrastructure necessary to

accommodate EVs and enable EVs to consume the lowest production cost energy.[1] As a result, EV charging load can result in higher utility revenue than associated utility costs – a result that can provide lower electric rates for all customers regardless of whether they own an EV.[2] Optional TOU rates designed for EVs with higher on-peak to off peak price ratios generally offer EV drivers greater savings while providing a greater incentive to charge during off-peak hours.

EV TOU rates are just one, albeit important, component of a successful vehicle electrification strategy. Other important components include but are not limited to:

- Stimulating customer adoption of Smart Chargers, which allow customers to either pre-program EV charging to automatically align with utility TOU rates and/or enable managed charging to deliver customer savings, meet charging needs, while reducing overall system costs. Any ratepayer dollars spent on charging infrastructure should be limited to "smart chargers."
- Adopting mechanisms to help customers overcome the hurdles of EV adoption and making the EV experience affordable to as many customers as possible. Allowing utilities to serve as a one-stop shop for residential customers, including for any make ready and charging infrastructure, will improve customer adoption and participation in TOU rates. Allowing on-bill financing, so that customers can pay for any make ready and charging infrastructure over a longer time horizon will reduce upfront costs. This on-bill financing could be combined with monthly subscription costs that also include software, data services, maintenance, and troubleshooting. Customers are familiar with monthly payment models for other products and services.
- Rebate offerings to offset upfront EVSE purchase costs can be an effective tool to accelerate customer EV adoption. A Massachusetts EV rebate post-program survey found that 80% of respondents felt the rebate was "extremely" or "very" important in the purchase decision.[3]
- Managed charging – While TOU rates are critical, there are complimentary/alternative mechanisms for incenting customers to charge at the right time. One example is allowing EVs to participate in utility demand response programs, or providing customers a rebate for off-peak charging. Managed charging simplifies customer experience while moving increased electric demand to off-peak periods, benefiting both the EV owner and all

[1] Massachusetts Office of the Attorney General presentation on the value of EV TOU for customers, Mass. DPU. Case No. 20-69, Grid Modernization Phase II https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/12941041
[2] https://www.synapse-energy.com/sites/default/files/EV_Impacts_June_2020_18-122.pdf
[3] Powers, Cassandra. 2014. Supporting the Plug-In Electric Vehicle Market http://www.georgetownclimate.org/sites/www.georgetownclimate.org/files/GCC-Supporting-PEVMarket-December-2014.pdf

consumers. The long-dwell nature of overnight residential charging allows a vehicle to achieve a desired state of charge, while also being more price responsive and provide opportunities for managing and shifting load without compromising the vehicle's final state-of-charge needs. By collectively shifting hundreds to thousands of EV's charging load to off-peak periods, the predictability of the Smart-Charging Plan allows the optimization of the load for both retail and wholesale purposes.

Participation in a managed charging program should be predicated on usage of a Level 2 Smart Charger or DCFC, as Level 1 chargers are insufficient to provide meaningful load management and a network-enabled device is mandatory for managed charging and data reporting. These devices are readily implementable, cost effective, and low risk. Numerous resources document how well managed flexible charging load can provide valuable grid services.[4]

Several utilities expressed interest at the November 9th, 2020 prehearing conference to file various EV TOU specific rate design proposals in a separate docket. Given the complexity and range of impact associated with EV adoption, Enel X is generally supportive of an approach that allows the most holistic designs that are also likely to result in just and reasonable electric rates for all customers. Increasing EV adoption provides many benefits and these approaches may allow each utility to most effectively accelerate the deployment of EVs in New Hampshire.

Metering Considerations

Enel X agrees with ChargePoint's Initial Comment regarding "Alternative Metering Feasibility Assessments." Requiring customers to install additional sub-metering equipment is an unnecessary cost and the redundant as the embedded metering abilities already present in Electric Vehicle Supply Equipment (EVSE) can perform this service. EVSE embedded metering offers customers a seamless experience as it can communicate directly with the host utility and is available today for near-term program deployment.[5]

EVSE embedded meter capabilities include:

- 1% accuracy across all supported current and temperature ranges
- Measures energy delivered to vehicle only
- 15-minute clock aligned interval data
- Capable of remote firmware updates
- Real-time power monitoring

[4] https://sepapower.org/resource/a-comprehensive-guide-to-electric-vehicle-managed-charging/
[5] Joint Presentation on Embedded Metering of ChargePoint, Greenlots, and Enel North America in Mass. DPU. Case No. 20-69, Grid Modernization Phase II, included as Attachment II
https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/12903642

- Secure communication channel between station and server
- Local storage of data on station for 90 days
- Able to meet cybersecurity requirements

We also encourage the Commission to consider the benefits of adopting NIST Handbook 44 Section 3.40 as an EVSE embedded meter standard[6]. This guideline is increasingly recognized across many states and utilities which allows for consistency in EVSE hardware and software development and deployment across the US.

Lastly, Enel X notes that numerous examples exist of where embedded metering is already used successfully for residential and small commercial programs in other jurisdictions. [7] Examples include the San Diego Gas & Electric *Power Your Drive* program[8], Xcel Energy Minnesota EV TOU Home Program[9], and Baltimore Gas & Electric EV-Only TOU program[10]. In Maryland, customers on a TOU pilot program saw 10-14% reductions in their summer peak demand levels and experienced bill savings of up to 10%[11].

EVSE Primary Ownership Model: Lease to Own

Enel X's recommendation for EV Supply Equipment (EVSE) and supporting infrastructure ownership is directly linked to the broader objective of achieving the state's ambitious EV adoption goals in the most cost-effective manner possible for all ratepayers, including those who do not (yet) have EVs. Achieving the state's EV adoption goals will require a seamless customer experience for accessing EV charging, while achieving the highest Return on Investment on EVSE-related spending for New Hampshire ratepayers will require well-designed TOU rates and/or managed charging programs. Each of these components hinges on strong utility-third party collaboration and partnership.

Enel X proposes a "lease to own" program design that blends up-front utility ownership with an eventual transfer of ownership to the customer, coupled with either EV-specific TOU rates or an energy subscription fee for unlimited off-peak charging (described further below).

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[6] https://www.nist.gov/pml/weights-and-measures/publications/nist-handbooks/other-nist-handbooks/other-nist-handbooks-2-2

[7] Joint Presentation on Embedded Metering of ChargePoint, Greenlots, and Enel North America in Mass. DPU. Case No. 20-69, Grid Modernization Phase II, included as Attachment II https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/12903642

[8] https://www.sdge.com/residential/electric-vehicles/power-your-drive

[9] https://www.xcelenergy.com/programs_and_rebates/residential_programs_and_rebates/electric_vehicles/ev_service_pilot

[10] https://www.bge.com/SmartEnergy/InnovationTechnology/Documents/BGE%20EV%20Fact%20Sheet.pdf

[11] https://www.brattle.com/news-and-knowledge/publications/pc44-time-of-use-pilots-year-one-evaluation

Under this "lease to own" model, utilities would:

- Capitalize and perform all necessary make-ready installation work;
- Capitalize the EVSE hardware and installation; and
- Assume ownership of the EVSE hardware and make-ready until the up-front cost is fully depreciated.

Furthermore, utilities, in partnership with third parties, would:

- Oversee installation using qualified local electrician installers to ensure proper EVSE functioning and connectivity, maintain hardware/software at the customer location, and troubleshoot any issues that arise;
- Promote and execute EV-specific TOU rates and/or managed charging offerings and retail-level demand response programs open to EV charging customers
- Provide extensive marketing and outreach to raise customer awareness of program offerings and of eligible hardware and software vendors; and
- Host or sponsor an online webstore with hardware and software options for customers.

And finally, customers would:

- Pay down the up-front cost of EVSE purchase and installation, and any make-ready infrastructure needed to increase site capacity for EV charging, through a monthly charge determined by a site-specific depreciation schedule;
- Assume ownership of EVSE hardware and make-ready infrastructure once the up-front cost is fully depreciated; and
- Pay a monthly subscription fee for access to ongoing software, data services, maintenance, and troubleshooting.

Any state or utility incentives adopted to cover a portion of the cost for make-ready, EVSE, and installation would be used to reduce the up-front cost and subsequent monthly fee. After the customer pays off the up-front cost of the capital investments through "lease to own," ownership of the EVSE and supporting infrastructure would transfer to the customer, and the remaining items (software, data, and maintenance) would be paid through an ongoing monthly payment. Additional details by customer type are provided in Appendix A - *EVSE Primary Ownership Model: Lease to Own*.

Xcel Energy in Minnesota has had considerable success running a Residential EV Service Pilot program based on a similar lease-to-own model.[12] Based on that program's success, in which it

[12] The Xcel Residential EV Service Pilot is the subject of Minnesota Public Utilities Commission Docket 17-817. Xcel described the pilot in November 7, 2017 filing that can be found here:

was reported "that the customer experience during the pilot has been highly positive – with an 87 percent overall satisfaction rate for program enrollment and 95 percent overall satisfaction for installation," Xcel recently gained approval from the Minnesota Public Utilities Commission to make this "EV Home Service" a permanent option for customers.[13]

Enel X recommends that this model be established as an "always on" program for residential and small commercial customers, and high demand draw applications, including DCFC and clustered level two chargers (e.g. fleet charging). Even with utility ownership, private sector competition should thrive under this model, as customers will still decide which EVSE and charging network service provider to subscribe to, and which provider they should choose for any DR participation. Utilities would partner with third-party technology providers for EV charging hardware and software that customers could choose from, to guarantee adequate customer choice and competition.

We recognize that some customers may prefer to purchase and install EVSE hardware themselves. This program design model affords a large degree of modularity and would not preclude such activity. Without over-complication, Enel X supports having a couple different program tiers, depending on the level of service the customer wants from the utility. The program design detailed above – spanning up-front utility capitalization, installation, and ownership of make-ready infrastructure and EVSE hardware – represents the full "utility turnkey" service. A basic or "bring-your-own" service could be one in which the customer covers the up-front costs of the purchase, installation, and enrollment of make-ready infrastructure and / or eligible EVSE. Any ratepayer budgets that are structured to cover the cost of different project elements would overlay this basic guarantee of service.

While this program design has been proven out in the single-family residential customer segment, this approach is equally applicable to most customer segments. The objective of the model is to reduce barriers to EV adoption by simplifying and streamlining access to EV charging for customers and site hosts by offering utility-owned, "turnkey" solutions for EV charging infrastructure and services.

If owning and charging an EV adds another hassle or challenge to customers' everyday lives, New Hampshire will simply not meet its EV deployment goals. By allowing customers easy access

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https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={D0E9CB5F-0000-CF14-9BCC-5EC9F3F41564}&documentTitle=201711-137482-01

[13] Xcel Energy Petition for Approval of an Electric Vehicle Home Service Program on August 30, 2019 in Docket NO. E002/M-19-599. The Petition for Approval can be found here: https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={E067E46C-0000-C51B-9F3A-CE1803EC2609}&documentTitle=20198-155611-01. The Petition was adopted by the Minnesota Public Utilities Commission at the May 7, 2020 Commission meeting. http://minnesotapuc.granicus.com/MediaPlayer.php?view_id=2&clip_id=1181.

to EV charging solutions offered by their local utility and its third-party partners, it will make the experience of installing EV charging equipment and accessing EV charging services more convenient. Importantly, this model is attractive from an equity standpoint, by offering access to high-quality EV charging service for customers that might not have the means to fund the up-front costs of EVSE hardware, on-site capacity upgrades, and installation.

In sum, this program design represents an effective partnership between utilities and third party providers, wherein the strengths of utilities in providing distribution infrastructure, utilizing existing marketing channels and customer relationships as the trusted energy provider, and utilizing their regulated balance sheets, are combined with innovative EV charging technologies that enable EVs to be a grid asset and provide net benefits to ratepayers.

Rate Design for Lease to Own

Time of Use rate design and managed charging programs are two of the main ways to incent charging behaviors that will deliver net ratepayer benefits through increased system utilization and peak-time avoidance. Different customer classes and use cases have varying appetites for engaging in different types of offerings, so it is important to tailor TOU rate design and manage charging programs for each customer segment and charging use case.

Enel X recommends that grid integrated charging be primarily encouraged for "lease to own" customer segments through either a EV-specific TOU rate tariff or a flat monthly subscription rate for unlimited EV charging during specified off-peak periods. Any charging outside of these unlimited charging off-peak periods would be assessed the otherwise-applicable tariff under which the customer or site host's primary meter takes service.

The subscription model approach – essentially a managed charging program and not a time-of-use rate per se – is generally applicable across all program areas. Customers are familiar with monthly payment models for other products and services and extending this model to the EV charging experience will boost EV adoption and help reap the benefits of managed charging. Monthly subscription rates for delivery transmission and distribution charges and/or wholesale supply would be additive to monthly fees for software, data services, maintenance, and troubleshooting, and would be available to both "bring your own" basic service customers and to "utility turnkey" full-service customers.

This monthly subscription rate is predicated on utilizing the communications and metering capabilities of networked or "smart" EVSE to enable time varying rates or managed charging programs while maximizing customer and ratepayer benefits. In the Xcel example, each residential customer saved over $2,000 in upfront costs by utilizing the revenue-grade submeters in smart Level 2 EVSE to enable EV-only TOU rates without needing an additional, separate utility

meter. A large advantage in an unlimited off-peak charging subscription over volumetric EV-only TOU rates, however, is that it incentivizes the same types of beneficial charging behaviors but without the need to oversee a costly and sensitive integration to transfer 15-minute interval metering data from the EVSE to the EDCs' back-end billing systems to perform "subtractive billing" and separate EV consumption from the site meter on a temporally granular basis. Back-end integrations will still be necessary to administer the subscription charge but will be much easier to implement.

For residential customers, off-peak charging would span overnight hours (e.g., 10 PM-6AM), and for commercial Level 2 customers, this would include morning to midday hours (8 AM-2 PM) when renewable energy penetration is high and loads are typically lower. EDCs could layer on an additional monthly incentive or bill credit to customers or site hosts if a certain proportion of charging volumes occurred during the off-peak periods, to compensate for the value provided by EV charging in helping avoid renewable energy curtailments.

As part of the subscription model, commercial customers could be similarly be extended a $/kW subscription charge as an alternative to traditional non-coincident demand charges. Or, for a more dynamic option, delivery costs could be recovered through an "average of maximum daily demand" charge, assessed monthly, that provides relief over traditional demand charges while providing a consistent price signal to customers to limit site-level peak demand. Commercial customers charging during these morning/early afternoon off-peak hours could receive a lower $/kW demand charge than those charging on-peak.

By including unlimited charging in off-peak hours, the subscription model includes a managed charging component that will enable greater system efficiency, avoid unnecessary distribution infrastructure upgrades, and avoid exacerbating peak-time generation and associated GHG emissions. Increasing usage at off-peak periods should reduce rates for all New Hampshire consumers. [14] Xcel reported that through their pilot, "customers have been charging approximately 96 percent off-peak, delivering savings on their electric bills and limiting the impact that charging may have on system peaks" while delivering net benefits to all ratepayers.

The "subscription model" would also include an option for customers to enroll in retail demand response (DR) programs with a utility-approved vendor. While a customer participating in a managed charging program may have limited load to drop during peak hours, eventual V2G capabilities could enable DR participation, as well as customers participating in DR through other means (e.g., from changing HVAC set points). Indeed, customers who purchase EVs or EVSE are more likely to be aware of their energy usage and willing to participate in DR. Residential customers participating and performing in DR would receive a credit on their monthly

[14] e.g., https://www.synapse-energy.com/sites/default/files/EV-Impacts-June-2019-18-122.pdf

subscription tied to their enrolled kW and performance, and commercial customers would receive a separate payment from their DR Provider. We recommend marketing the DR programs to any customers that install EVSE.

Public DCFC

For public DCFC, we believe it is appropriate to prioritize market development for third-party charging network operators while also carving out a role for a utility owned-and-operated stations. Third parties should be given broad leeway to develop stations in higher-trafficked, higher utilization areas, while utilities should focus on relatively lower utilization areas such as rural highway corridors or economic development zones to guarantee consistent coverage across the state.

For third-party network operators, the New Hampshire PUC should adopt a more traditional structure of utility investments in and ownership of make-ready infrastructure, coupled with third-party EVSE ownership and a rebate for EVSE purchase and installation. This program design recommendation differs from the "lease to own" model because in many instances, EVSPs are developing sites and owning and operating EVSE, rather than selling hardware and network services to customers / site hosts, which is the predominate business model found within the other segments.

Public DCFC also does not lend itself particularly well to an unlimited off-peak charging subscription service, seeing that drivers can charge at any hour of the day and have the expectation of getting an immediate charge. While charging network operators and site hosts will determine the rate they pass through to drivers, the New Hampshire PUC should encourage these entities to pass through a time-varying rate signal as the default arrangement in order to promote grid-integrated charging. As such, we recommend that a commercial EV charging tariff be developed that provides volumetric TOU energy rates coupled with an alternative to traditional demand charges; shifting recovery of a portion or all distribution costs into energy rates, creating a de facto coincident peak demand charge that would further encourage grid-integrated charging; or providing monthly demand charge discounts if certain low utilization thresholds are achieved.

Conclusion

Enel X thanks the New Hampshire Public Utilities Commission for its review and consideration of these comments. We are committed to helping New Hampshire establish itself as a nationwide leader in EV adoption, which is predicated on the widespread availability of EV charging

infrastructure. We respectfully request that the PUC adopt the foregoing recommendations and look forward to working with Staff, other state and local agencies, EDCs, OEMs, EVSPs, and advocates in the service of creating a comprehensive EV Ecosystem.

Sincerely,

/s/

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Appendix A - EVSE Primary Ownership Model: Lease to Own

Residential Charging: Single Family Units Program Design Proposal	
Program Offering	• "Lease to Own" or on bill financing option for make-ready infrastructure, EVSE purchase, and installations • Ongoing monthly fee for software and data services, maintenance, and troubleshooting. • EV TOU rate potentially combined with a subscription model for unlimited off-peak charging energy and / or delivery utilizing EVSE submetering.
Brief Description	• On bill financing allows consumers to pay off up-front costs of charger, supporting infrastructure, and installation over time directly on their utility bill, which can be offset by ratepayer funding for any category of project cost. • The "utility turnkey" option gives consumers the option to choose a charger from a list of approved vendors, which the utility capitalizes while overseeing installation and maintenance. • The "bring-your-own" option allows customers to pay for the EVSE up front, while still allowing enrollment in the subscription rate and also requiring ongoing network service fees • EVSE submetering enables EV-specific TOU rate without additional submetering infrastructure • The optional subscription model for delivery charges/energy provides consumers unlimited charging in off-peak hours. This provides streamlined implementation. It also encourages charging during off-peak hours.
Program Objective	Encourage EV adoption by streamlining and simplifying participation in EV programs by reducing the burden of upfront expenses and coordinating all customer interaction and installation through the utility; energy charging prices that are simple for consumers to understand and incentivize charging during optimal hours.
Ownership Model(s)	Utility Turnkey: utilities own initially and then transfer ownership to consumer once fully depreciated; Bring-Your-Own: consumers buy chargers upfront and immediately assume ownership.

EVSE Procurement Guidelines	EVSPs respond to utility RFPs to qualify as an approved vendor. Utility- or third-party-hosted webstore oversees customer orders, fulfillment, and program enrollment. EVSE either purchased in bulk and warehoused locally
Technology Eligibility Criteria	EVSE should be UL Listed, warrantied, and networked to enable two-way communications, monitoring, scheduling, and control. EVSE should contain revenue-grade submeters according to NIST Handbook 44 Section 3.40. Energy Star and NEMA 4 rating should also be prioritized. OCPP compatibility should be required to address stranded asset concerns.
Participant Eligibility Criteria	Available to all single-family residences, including for owners and renters. For the latter, utilities should develop policies for decommissioning undepreciated assets in the instance that renters move away and new tenants do not wish to access the service

Residential Charging: Multi-Unit Dwellings Program Design Proposal	
Program Offering	• Utility partners with landlords to provide turnkey services to install and finance EVSE at shared parking, or with consumer to install and finance EVSE at assigned parking. • Ongoing monthly fee for software and data services, maintenance, and troubleshooting • EV TOU rate potentially combined with a subscription model for unlimited off-peak charging energy and / or delivery utilizing EVSE submetering.
Brief Description	• Utility provides landlord or tenant with list of approved EVSE and network service vendors. • Utility oversees installation and maintenance. Charger, make-ready, and installation can be paid for up-front or financed over time on utility bill, which can be offset by ratepayer funding for any category of project cost • EVSE submetering enables EV-specific TOU rate without additional submetering infrastructure

	• For shared parking, landlords are billed by the utility. Landlords then collect any fees from tenants for access to shared EVSE. EVSE submetering enables access to the subscription service for shared access EVSE behind a master meter comingled with other loads. • In assigned parking spaces, submetering enables accurate measurement of charging at assigned spaces, which can be directly linked to a tenant's separate utility account ID.
Program Objective	Allow access to EV charging at MUDs, and efficient and modular metering and billing options for landlords and tenants following shared versus private access parking options at different types of MUDs.
Ownership Model(s)	Utility Turnkey: utilities own initially and then transfer ownership to landlord or tenant once fully depreciated; Bring-Your-Own: landlord or tenant buy chargers upfront and immediately assumes ownership.
EVSE Procurement Guidelines	EVSPs respond to utility RFPs to qualify as an approved vendor. Utility- or third-party-hosted webstore oversees customer orders, fulfillment, and program enrollment. EVSE either purchased in bulk or warehoused locally. Landlords or tenants choose from approved vendors and elect utility turnkey or BYO option.
Technology Eligibility Criteria	EVSE should be UL Listed, warrantied, and networked to enable two-way communications, monitoring, scheduling, and control. EVSE should contain revenue-grade submeters according to NIST Handbook 44 Section 3.40. Energy Star and NEMA 4 rating should also be prioritized. OCPP compatibility should be required to address stranded asset concerns.
Participant Eligibility Criteria	All multi-unit residential dwellings, including duplexes, townhomes, apartment buildings, and condominiums

Workplace / Level 2 Destination Charging Program Design Proposal	
Program Offering	• Utility partners with relevant site hosts (workplaces, business owners, commercial property owners, etc.) to provide turnkey services to install and finance EVSE at shared parking. • Ongoing monthly fee for software and data services, maintenance, and troubleshooting

	• EV TOU rate potentially combined with a subscription model for unlimited off-peak charging energy and / or delivery utilizing EVSE submetering, or on a separate meter for larger installations.
Brief Description	• On bill financing allows site hosts to pay off up-front costs of charger, supporting infrastructure, and installation over time directly on their utility bill, which can be offset by ratepayer funding for any category of project cost. • The "utility turnkey" option gives site hosts the option to choose chargers from a list of approved vendors, which the utility capitalizes while overseeing installation and maintenance. • The "bring-your-own" option allows site hosts to pay for the EVSE up front, while still allowing enrollment in the subscription rate and also requiring ongoing network service fees • Workplaces and Level 2 destination charging installations operate with commercial EV tariff for volumetric TOU rates • The subscription model for energy also could also provide consumers unlimited charging in off-peak hours (e.g. early morning through mid-afternoon)
Program Objective	Enable streamlined access and ease of installation of workplace and destination Level 2 EVSE through a utility turnkey service
Ownership Model(s)	Utility Turnkey: utilities own initially and then transfer ownership to site host once fully depreciated; Bring-Your-Own: site host buys chargers upfront and immediately assumes ownership...
EVSE Procurement Guidelines	EVSPs respond to utility RFPs to qualify as an approved vendor. Utility- or third-party-hosted webstore oversees customer orders, fulfillment, and program enrollment. EVSE both purchased in bulk and warehoused locally. Landlords or tenants choose from approved vendors and elect utility turnkey or BYO option.
Technology Eligibility Criteria	EVSE should be UL Listed, warrantied, and networked to enable two-way communications, monitoring, scheduling, and control. EVSE should contain revenue-grade submeters according to NIST Handbook 44 Section 3.40. Energy Star and NEMA 4 rating should also be prioritized. OCPP compatibility should be required to address stranded asset concerns.
Participant Eligibility Criteria	All workplaces, both for employee parking and for light-duty fleets that operate on behalf of the employer.

Public DCFC Charging Program Design Proposal	
Program Offering	Utility-owned and installed make-ready infrastructure coupled with EVSE rebate for third-party developer
Brief Description	For public charging, EVSE providers should determine where sites will be located within relatively high-trafficked, high-utilization areas. A commercial EV tariff with volumetric Time of Use rates and demand charge alternatives should be developed and made available. Drivers should be able to see time of use signals as the default arrangement.
Program Objective	Ensure public charging facilities are installed in the most economic locations by allowing market to select sites.
Ownership Model(s)	EVSE should primarily be owned and operated by third-party providers, with a limited role for utility ownership where deemed necessary for coverage.
EVSE Procurement Guidelines	N/A: providers are free to source and install charging infrastructure that conform to basic eligibility requirements
Technology Eligibility Criteria	DCFC should provide a minimum of 50 kW of capacity and contain the common non-proprietary charge ports – CCS and ChaDeMo. EVSE should be UL Listed, warrantied, and networked to enable two-way communications, monitoring, scheduling, and control. EVSE should be able to show prices in real time and include display elements according to NIST Handbook 44 Section 3.40. NEMA 4 rating should also be prioritized. Energy Star should be explored once the US EPA develops a certification regime and hardware developers have adequate time to modify products and achieve certification. OCPP compatibility should be required to address stranded asset concerns.
Participant Eligibility Criteria	Third-party charging network operators, or other private entity that wishes to develop, own, and operate public DCFC.