STATE OF CONNECTICUT
PUBLIC UTILITIES REGULATORY AUTHORITY

Docket No. 26-05-10

APPLICATION OF THE CONNECTICUT LIGHT AND POWER COMPANY D/B/A EVERSOURCE ENERGY TO AMEND ITS RATE SCHEDULES

JOINT DIRECT TESTIMONY OF ERIC VIRKLER, JUSTIN DAIGLE AND SEAN RIEL

On Behalf of
The Interconnection Customer Coalition

October 21, 2026

Table of Contents

I. Introduction
II. Earthlight Overview
III. Eversource Interconnection Issues
IV. Why This Is an Eversource Problem
V. Why This Is a Ratepayer Problem
VI. Why This Is a Rate Case Issue
VII. Necessary Changes
VIII. Conclusion

I. Introduction

Q. Please state the names of the witnesses on the panel.

A. The panel consists of Eric Virkler, Justin Daigle and Sean Riel. We are testifying on behalf of Earthlight Technologies ("Earthlight") as part of the Interconnection Customer Coalition.

Q. Mr. Virkler, please state your full name and business address.

A. My name is Eric Virkler. My business address is 128 West Road, Ellington, CT 06029.

Q. By whom are you employed and in what position?

A. I am employed by Earthlight as Director of Commercial Solar, a position I have held since 2024. My tenure at Earthlight began in 2015 as a Commercial Solar Project Manager. In my current role as Director of Commercial Solar at Earthlight, I lead commercial solar sales and development, manage the commercial sales team, and help shape the policies and programs that support solar deployment. My responsibilities span business development, customer advising, project economics, legislative engagement, and resolving complex utility interconnection challenges. My primary duties and responsibilities include: sales leadership and management, business development, legislative and regulatory strategy, and addressing complex customer interconnection problems that arise.

Q. Please describe your educational background and employment experience.

A. I have a Bachelor of Science in Civil Engineering Degree from the University of Connecticut with an area of focus on Structural Engineering and hold Professional Engineer Licenses in the States of CT and MA.

Q. Have you previously testified in any formal hearings before regulatory bodies?

A. I have not.

Q. Mr. Daigle, please state your full name and business address.

A. My name is Justin Daigle. My business address is 128 West Road, Ellington, CT 06029.

Q. By whom are you employed and in what position?

A. I am employed by Earthlight Technologies as Director of Commercial Construction, a position I have held since 2020. I have been with Earthlight for almost 14 years and have extensive experience in the electrical construction and renewable energy industries dating as far back as 2002. I am a licensed Master Electrician in Connecticut, hold a Massachusetts Journeyman Electrician license, and have been a North American Board of Certified Energy Practitioners-certified Photovoltaic Installation Professional since 2014.

In my current role as Director of Commercial Construction, I oversee the engineering, preconstruction, procurement, and construction activities associated with Earthlight's commercial solar photovoltaic (PV) and battery energy storage projects. I am responsible for coordinating projects from design development through installation, commissioning, utility interconnection, and final authorization to operate. My primary duties and responsibilities include: commercial construction management, engineering and technical oversight, utility interconnection management, electrical code compliance, field construction coordination, regulatory and policy advocacy.

Q. Please describe your educational background and employment experience.

A. My background is as follows:

Education & Training

- **1995–1999:** Technical Trade School – Electrical Studies
- **2001–2005:** Four-Year Electrical Apprenticeship Program
- **Continuing Education:** Approximately 30 hours every three years to maintain professional electrical licenses
- **OSHA:** 10-Hour Construction Safety Training

Professional Licenses & Certifications

- **2005:** Connecticut E2 Journeyman Electrician
- **2008:** Connecticut E1 Master Electrician
- **2012:** Massachusetts Journeyman Electrician
- **2014:** NABCEP Photovoltaic Installation Professional (PVIP)

Q. Have you previously testified in any formal hearings before regulatory bodies?

A. No.

Q. Mr. Riel, please state your full name and business address.

A. My name is Sean Riel. My business address is 128 West Road, Ellington, CT 06029.

Q. By whom are you employed and in what position?

A. I have been employed by Earthlight since 2017. In my current role as Director of Residential Sales Operations, I evaluate solar and storage technologies in combination with financial products for use in Earthlight's residential division, and I work with stakeholders across other organizations to develop policies that will encourage growth in solar and storage deployment. I have participated in multiple Public Utilities Regulatory Authority ("PURA" or the "Authority") dockets this year through participation in written filings and technical meetings, most recently in Dockets 26-06-04, 26-08-02, and 26-08-05.

Q. What is the purpose of your joint testimony in this proceeding?

A. The purpose of our testimony is to provide the Authority with Earthlight's perspective on interconnection practices of The Connecticut Light and Power Company d/b/a Eversource Energy ("Eversource" or the "Company"). These practices directly relate to the review of Eversource rates and charges in this proceeding. Our testimony will:

- Describe Earthlight and its Connecticut presence, contractors, and workforce;
- Explain the jurisdictional boundary between Eversource's authority and Authority Having Jurisdiction ("AHJ") authority over customer-owned, National Electric Code ("NEC")-compliant equipment, including line-side taps (also known as supply side connections);
- Describe several Earthlight projects and Eversource's coordination and review failures;
- Explain why these practices create Eversource, ratepayer, and rate-case problems; and
- Recommend changes concerning dispute resolution, engineering review, standard details, jurisdictional boundaries, and NEC-compliant line-side taps.

II. Earthlight Overview

Q. Please describe Earthlight.

A. Earthlight is a Connecticut company that develops, builds, and operates renewable energy projects. Earthlight has developed, designed and built more than 6,400 solar projects, consisting of 6,160 residential solar projects and 270 commercial solar projects. 4,555 of these projects have been constructed in Connecticut, representing approximately 74 MW of capacity, ranging from smaller residential projects to commercial projects up to 1.5

MW. Earthlight works on both behind-the-meter and front-of-the-meter solar projects, in both residential and commercial sectors. The majority of Earthlight Connecticut projects, whether they are interconnected behind or in front of the meter, are roof-mounted solar projects in Eversource service territory, meaning that our customers for these projects are also Eversource ratepayers.

Q. Does Earthlight use Connecticut contractors?

A. Yes. Earthlight is a Connecticut company that employs Connecticut-based staff and installation professionals and while Earthlight relies on Connecticut contractors for engineering, surveying and site work, approximately 95% of the installation is performed by Earthlight employees.

Q. How many Connecticut employees does Earthlight have?

A. Earthlight currently employs 136 people in Connecticut, in positions including, but not limited to engineers, project managers, construction managers, administrative support staff, electricians, installers, human resources, accounting, sales, and service technicians.

III. Eversource Interconnection Issues

A. Eversource Internal Policies Create Significant Cost Overruns and Demonstrate Imprudent Inefficiencies

Q. Please describe how Earthlight works with Eversource to bring a project to commercial operation.

A. Generally, Earthlight is first approached by a residential or commercial customer seeking to add solar and/or storage at their property. After consulting the Eversource Hosting Capacity Map and verifying the indicated availability of capacity to add a distributed generation resource, Earthlight performs a preliminary feasibility analysis of the

customer's property to: define the proposed project, determine its feasibility, align it with the customer's goals, and establish realistic expectations.

Once Earthlight and the customer agree on a project timeline and cost, Earthlight designs the interconnection to meet applicable codes and standards, including the National Electrical Code ("NEC"), equipment listing and manufacturer requirements, Occupational Safety and Health Administration ("OSHA") safety requirements, and Eversource's Information and Requirements ("I&R") Guidelines. In this preliminary phase, Earthlight also attempts to satisfy all known Eversource requirements, including those communicated outside the published guidelines.

Earthlight then submits a formal Interconnection Application, and Eversource reviews the project to determine whether additional distribution network upgrades are required. During the application process and through biweekly calls with Eversource, Earthlight provides photographs, drawings, and specific questions to resolve design issues and minimize unnecessary site visits. For complex projects that become stalled in technical desktop review, Earthlight seeks an onsite meeting with Eversource prior to Contingent Approval to discuss the existing conditions and available interconnection options. Where the design depends on conditions inside utility-owned equipment, such as available transformer termination space, Earthlight relies on Eversource to provide corresponding information and photographs. Because most of Earthlight's projects are smaller commercial and industrial installations, they typically qualify for the fast-track interconnection process. Upon completing its review, Eversource issues Contingent

Approval to interconnect the project. These projects typically do not require distribution, transmission, or substation upgrades, and the approval confirms whether such upgrades are necessary.

Q. What does Contingent Approval mean?

A. Contingent Approval is a document that Eversource provides to the interconnection applicant stating that Eversource has completed its application review and the project can proceed toward installation and interconnection, while also providing the scope of the necessary utility upgrades. Under Eversource's Guidelines for Generator Interconnection, Section 5.4, Contingent Approval is issued once all EDC application review elements have been satisfied. This allows Earthlight to proceed with construction, subject to the remaining interconnection requirements.

However, despite receiving Contingent Approval, Eversource field representatives subsequently require design or equipment changes, including after installation is complete, before Permission to Operate ("PTO") is issued. As a result, designs that have already undergone Eversource's application review remain subject to further interpretation of the I&R Guidelines by individual field representatives, creating uncertainty and potential additional costs or delays.

Importantly, Contingent Approval also does not provide Earthlight with a clear understanding of the costs associated with Eversource's remaining work to complete the physical interconnection.

Q. What happens after Contingent Approval?

A. Once Contingent Approval is received, Earthlight coordinates with Eversource to arrange any necessary site visits, confirm the utility's scope, obtain cost letters, and schedule required outage and interconnection work. Following sign-off from the AHJ, Earthlight provides the required closeout documentation and follows up with Eversource to move the project through meter installation and PTO. Eversource schedules its meter technicians, but Earthlight typically has no visibility into that schedule, limiting our ability to coordinate site attendance and resolve questions during the visit. Meter technicians sometimes raise additional concerns when they arrive, including concerns that require further discussion to determine whether corrective work is necessary. When the meter is not installed pending resolution, the project can be delayed by several days or even weeks, even though construction and the AHJ inspection are complete.

Q. What happens if a project requires unanticipated upgrades or equipment costs?

A. In that event, Earthlight first seeks an explanation in order to describe the changes to its end-user customer and requests an itemized cost. Eversource typically rejects any request to itemize or provide additional granularity on its costs, so there is only a lump sum cost that we can share with the customer. There are four potential outcomes when unanticipated costs are added to a project:

1) The customer agrees to pay the cost, degrading the economics of the project, and proceeds with the approved plan;
2) The customer and Earthlight share in the costs, hurting the economics for both parties, and proceeds with the approved plan;
3) The costs are too great, the project is no longer financially viable for either the customer or Earthlight, and the project does not get built; or

4) Earthlight finds an approved way to alter the project, often reducing its size, and eliminating or greatly reducing the cost increase. The new project gets reviewed and approved by Eversource and the customer. The end project usually does not meet the customer's needs.

Q. Can you provide an example of unanticipated Eversource requirements that either increased costs or reduced the project size?

A. Earthlight developed a group of front-of-the-meter affordable multifamily rooftop interconnections. In December 2025, the hosting capacity map showed approximately 5 MW of available capacity at that location, which was sufficient capacity to develop this group of projects. Shortly after the projects were designed and submitted in February 2026, Earthlight was made aware that available capacity had been reduced to approximately 200 kW with no explanation, forcing at least two of the group projects to be reduced from approximately 300 kW AC to 200 kW AC. This unexplained change created redesign effort, customer/program uncertainty, and a material change to project economics after significant development work had already occurred.

Eversource also required a multi-department site review in March 2026, including Field Engineering, line/underground, metering, and Distributed Generation personnel. That review focused on transformer locations, metering arrangements, existing service conditions, and acceptable interconnection configurations, which had already been verbally reviewed and generally accepted, with minor accommodations needed to resolve potential issues. Earthlight was not permitted to view or photograph the transformer during this site visit. Following up on this site visit, Eversource later advised that the Field Engineering notes and photos from the March site visit were either unavailable or

otherwise not retained, requiring additional site verification in June 2026. During the second site review, all but one of the six proposed interconnection methods were eventually approved after months of unnecessary delay.

For the remaining installation, Eversource identified an existing grading issue and transformer pad concerns, which had been discussed during the initial site visit. At that time, a repair to the affected area was determined as an acceptable path forward. However, after the additional June meeting, Eversource required an additional upgrade to install a new transformer pad and re-grade the transformer site. This added approximately $18,000 in additional Eversource scope and approximately $30,000 overall including related customer costs. This represents an increase in the project cost of 4% for the project connected to this point of interconnection. Based on this new requirement, contingent approval was finally issued in September 2026.

Q. Can you provide another example?

A. Yes. Eversource's updated guidelines require projects to connect directly to the service point at the building's transformer, effectively creating a separate service to the building. This requirement restricts the available interconnection options otherwise permitted by the NEC, as adopted under the Connecticut State Building Code. The NEC provides alternative methods for safely interconnecting distributed generation systems on the supply side of the customer's service equipment.

This gap between Eversource and NEC requirements was encountered at another recent project in Naugatuck CT, which involved adding a new NRES system to a service that already had an existing ZREC project onsite. On April 28, 2025, Earthlight proposed a

supply-side (line-side) interconnection and provided detailed information demonstrating that the new connection was fully compliant with the NEC, would not affect the existing project, and would be the most cost-effective option for the customer. During the site review, Earthlight identified unused supply-side equipment that could accommodate the new distributed generation interconnection, reviewed the proposed installation with Eversource field personnel, and provided photographs showing how the work could be completed safely, more cost-effectively, and in compliance with applicable NEC requirements. At the conclusion of that site review, Earthlight understood that the proposed approach was likely acceptable.

Eversource subsequently reversed course and advised that supply-side connections were no longer permitted except in limited circumstances, requiring Earthlight to challenge that position, escalate the issue internally, and spend months defending the proposed code-compliant approach. After multiple site visits, extensive correspondence, and repeated reviews, Eversource issued a Contingent Approval on July 16, 2025, approving the exact supply-side connection that had been proposed from the outset.

Q. Are these examples isolated incidents?

A. Unfortunately, no. Another recent front of meter project, located in Bristol, illustrates Earthlight's concerns about unexpected costs and pricing transparency. In that case, Earthlight requested a Saturday outage for Eversource to disconnect power to an underground transformer and relocate an interior meter outside. Comparable off-shift Eversource work has historically cost Earthlight approximately $3,500 to $8,500.

Following a late-May site visit, Earthlight requested a cost letter on August 19. After multiple follow-ups, Eversource issued a $12,600 estimate on September 16.

When Earthlight requested a breakdown to explain the charges to the customer, Eversource refused and offered no process for challenging the estimate, leaving Earthlight and the customer facing a substantially higher charge without sufficient supporting detail. Both Earthlight and the customer are left without recourse, without any opportunity to argue our case, and yet another Eversource unanticipated new precedent. This pattern creates even more uncertainty as it prevents Earthlight from being able to accurately portray a project's true cost to future customers trying to decide whether or not to install solar or storage.

Q. Does Earthlight have any ability to question or challenge the multiple site visit requirements?

A. No. Regrettably, this seems to be a new trend, because site visits were not required under the LREC/ZREC Program. Any time Eversource requests a site visit, we have to attend. Eversource dictates all terms of the site visit, never offering any scheduling flexibility for the customer or for Earthlight. If we request a different date, Eversource refuses to respond to that email.

Earthlight recently completed a project where the existing Eversource building/customer service equipment and meters were located within an exterior-accessible electrical room and had already been approved as part of the building's service configuration a few years prior during a major remodel. The electrical room contained multiple tenant meters and a single owner's meter. Because the solar system was interconnecting ahead of the

customer meters and directly at the transformer, the location of the existing customer meters had no material electrical impact on the distributed generation interconnection or production metering arrangement.

Because the updated guidelines required meters to be relocated outside, Earthlight requested a variance during the interconnection application process to allow the existing Eversource meters to remain inside. Had Eversource denied the variance, relocating all of the meters would have imposed substantial costs on the customer and caused extended disruption to residents. Earthlight estimated that relocating the owner's meter alone would cost between $8,000 and $10,000, excluding any Eversource charges for meter work. Relocating the tenant meters would have added further costs and disruption. After Earthlight provided photographs and revised design drawings, Eversource approved the variance approximately three months after the initial application was submitted.

However, following approval, Earthlight constructed the project and engaged Eversource to perform the necessary outage required to complete the interconnection. What should have been a simple process required multiple additional Eversource site visits. During the first visit, Eversource representatives again stated that the existing meters needed to be relocated outside. Earthlight provided the representatives with the previously issued variance approval, and additional discussions followed.

This was the first time Earthlight had received a cost letter requiring payment for interconnection outage work performed during normal working hours. No prior project

involving an outage during normal working hours had required payment to Eversource. Approximately six additional weeks elapsed before Eversource finally provided the cost letter and the outage was scheduled two weeks thereafter. Even though the outage was requested the beginning of June, the delays caused it to not take place until the middle of August.

In Earthlight's view, relocating existing owner or tenant meters should not be a condition of interconnecting a front-of-the-meter project through a new, separate service or through a supply-side connection to existing customer service equipment. Where the existing Eversource metering arrangement is already approved and the proposed interconnection does not affect its safety or operation, requiring relocation imposes additional costs and disruption without a demonstrated need related to the solar interconnection.

B. Eversource Requirements Frequently Exceed and/or Conflict with the National Electric Code

Q. Does Earthlight have any recourse when Eversource requires additional equipment or site upgrades?

A. No. An example of this is a recent battery storage project. Eversource recently started requiring Real-Time Automation Controller ("RTAC") equipment on any project 500kW and larger. It is our understanding that this device is traditionally required on much larger projects, and other utilities have established a higher threshold for requiring this equipment, including 1 MW in California[1] and 1 MW in New Jersey.[2] In addition,

[1] *See, e.g.*, California PUC General Order 167, *available at* https://docs.cpuc.ca.gov/PUBLISHED/GENERAL_Order/108114.htm (Section 3.2 - Small Facilities: "Generating Assets smaller than one megawatt are currently exempt from enforcement of the Standards pursuant to this General Order").

[2] *See, e.g.*, Jersey Central Power & Light Company, Level 2 Interconnection Agreement, Page 3, *available at* https://www.firstenergycorp.com/content/dam/feconnect/files/retail/nj/NJ-Level-23-Interconnection-Application-

Arizona regulators now generally allow projects up to 2 MW to proceed under Fast Track review without requiring the RTAC equipment.[3]

We do not have any recourse, no way to present our case that this equipment should not be required. The only option available to Earthlight and our customers is to downsize the project to avoid this rule but then the project does not meet the customer's needs. Small C & I projects just over that 500kW threshold have to bear the burden of this extremely costly Eversource owned device, which in Earthlight's experience ranges in cost between $75,000 and $90,000, and requires additional customer-owned equipment alongside the RTAC which costs an additional $27,500. Moreover, Eversource usually requires additional studies that can add $22,500 or more. These costs can ruin the economics of a project this size and prevent them from being built.

Q. In Earthlight's experience, does Eversource strictly apply principles of cost causation when determining site upgrades are needed?

A. No. In fact, Eversource frequently requires replacement of existing equipment, such as customer meters and transformers that are wholly unrelated to the installation of solar or energy storage on the site. On one particular project, Eversource issued an Interconnection Agreement and Contingent Approval for the subject Buy-All project that did not identify additional project costs based on the proposed interconnection to the existing on-site transformer. The customer obtained financing based on that approval.

Agreement.pdf ("Breaker Trip Control: Generators 2 MW and greater will require remote generator trip/isolation control by JCP&L's system operations control center via a local SCADA unit or similar device").

[3] *See, e.g.*, Tucson Electric Power, Interconnection Manual for Distributed Generation Projects, *available at* https://docs.tep.com/wp-content/uploads/TEP-Interconnection-Manual-for-Distributed-Generation.pdf (Section 8.6 "A Customer requesting to interconnect a Generating Facility of Maximum Capacity 21kW to 2000kW, complying with all applicable standards listed in Section 5 along with Screens A through J in Section 8.3, qualifies for the Level 2 Fast Track application process" and Section 10.5 "All costs to implement remote metering for Generating Facilities qualifying for review under Level 2 Fast Track will be borne by TEP").

Following on-site meetings, Eversource then determined that the existing transformer would need to be upgraded and relocated before the project could proceed even though it was adequately sized to serve the power from the solar generation.

Eversource cited concerns that the existing transformer was difficult to access and did not meet current I&R standards because it was located on a slab rather than a vault. Earthlight understood those concerns to relate to existing utility infrastructure and not to any new condition created by the proposed solar project. Eversource has provided no other option, ultimately requiring the customer to pay for additional upgrades to its existing Eversource equipment, which materially changes the project scope and cost and prevents the project from moving forward under the customer's already-obtained financing.

Furthermore, Eversource refuses to consider an acceptable alternative line-side tap interconnection method that would result in bypassing direct connection to the existing transformer and would eliminate the costs associated with upgrading the transformer. In several discussions with Eversource, as outlined below, Eversource will not allow this type of interconnection even though it is listed as an acceptable method in the Eversource Connecticut Non-Residential Renewable Energy Solutions Netting & Buy-All Program Guidelines.

Q. Isn't Eversource required to comply with the National Electric Code?

A. Yes. The 2024 Eversource I&R Book states: "With respect to Customer's wiring and electrical installations, no requirement, interpretation, or standard specified in this

booklet is intended to supersede or conflict with the standards and regulations of the National Electrical Code, or with any state or municipal law, rule, or ordinance now in force or hereafter enacted or promulgated."[4]

Q. How does Eversource refuse to accept otherwise NEC-compliant engineering?

A. Line-side taps are an NEC-approved interconnection method allowed by other states and utilities under the AHJ review. A line-side tap, also called a supply-side connection, is a method of connecting a parallel power source, such as solar or a battery energy storage system, to the customer's service conductors or equipment between the utility service point and the building's main circuit breaker or service disconnect. In simple terms, a line side tap is a connection made after the transformer and before the main breaker rather than through a breaker in the building's electrical panel or directly into the transformer. The connected system has its own disconnect and overcurrent protection. The NEC expressly provides requirements for safely designing and installing these connections, subject to review and approval by the AHJ.

The service point is defined as the point at which equipment owner and responsibilities switch from the utility to the building owner. Since the service point is located within the utility transformer, all equipment between the transformer and the building are the customer's responsibility, to be installed per the NEC, with final design to be reviewed and approved by the local AHJ.

[4] *See* Response to ICC-1, Attachment 5, Section 1, Section 103.

In our experience, Eversource universally rejects line-side taps from even being considered as an option in all but the rarest cases, which effectively means that the only permitted point of interconnection will be at a customer's utility transformer. Under the National Electric Safety Code – different from the NEC – the utility has authority to review and reject the design when the point of interconnection is at the transformer. The NESC covers the utility side up to the service point (typically the utility transformer secondary on an underground service or an overhead service drop installed by Eversource to a customer owned building attachment), and the NEC takes over from the service point inward. Eversource uses these two sets of standard as an opportunity to assert jurisdiction to review these projects and require the customer to pay to upgrade the transformer to its latest standards. If Eversource didn't actively prevent line-side taps, as permitted under the NEC, the local municipality building official would be the AHJ reviewing that interconnection and additional transformer upgrades would not even be discussed.

Q. How does Eversource act as the AHJ?

A. Requiring interconnections to be made into the transformer effectively makes Eversource an unchallengeable decisionmaker and allows them to require upgrades to transformers that are currently capable of handling the power from the solar project.

In our experience, Eversource not only refuses otherwise NEC-compliant design options, and rejects customer-owned, code-compliant methods simply as a matter of utility preference. This leads to unnecessary additional engineering and equipment that is not required under the NEC. This single issue causes most of the delays, project cost

increases, increased Earthlight engineering manhours and frustration in working with Eversource and affects approximately 90% of Earthlight's front-of-the-meter projects.

Q. In Earthlight's experience, do these problems affect both commercial and residential projects equally?

A. No. Earthlight's residential division regularly interconnects residential distributed generation systems in Eversource territory, and our experience has generally been that the residential interconnection process is more predictable and more standardized than Earthlight's experiences on commercial projects. Residential projects do face the same meter relocation requirements, though, which are generally more problematic for RRES projects than NRES projects. Earthlight performs line side tap interconnections for most of our residential netting projects. Eversource does not allow line side taps for residential buy-all projects. Eversource's even administration of residential interconnections demonstrates that a more streamlined and predictable process is achievable.

Q. Does Eversource also require transformer upgrades or utility pole upgrades for residential projects?

A. No. In Earthlight's experience, residential projects under 25 kW are not required to upgrade transformers to satisfy Eversource's latest construction standards because the interconnection point is not within the transformer itself. This contrasts with commercial projects where Earthlight frequently encounters requirements to upgrade transformers that are otherwise capable of supporting the proposed solar generation. From Earthlight's perspective, mandating commercial interconnections be made at the transformer opens the door to Eversource being able to force the customer to pay to for unnecessary upgrades.

Q. How does Eversource's permission to operate (PTO) process differ for residential projects from commercial projects?

A. Once a residential project receives approval from the local AHJ, an Eversource employee typically visits the site, installs the meter and issues PTO. While scheduling delays may occur, Earthlight's experience is that Eversource does not use the residential PTO process as an opportunity to re-review the interconnection designs or impose new engineering requirements. Once the AHJ has approved that the installation meets the engineered construction drawings, the PTO is generally always issued.

The residential process stands in contrast to the commercial process where Eversource personnel uses the PTO step in the process as an opportunity to re-review the interconnection method that has already been approved. In our experience, this duplicative review happens on almost every NRES project and brings great uncertainty into the process that never once occurred during all the years of the ZREC program when PTO was a formality as the AHJ has already reviewed and approved the project. Earthlight never knows if its projects will actually get energized or be required to alter what was already installed.

Q. Does Eversource typically require site visits to determine acceptable residential interconnection designs?

A. No. Earthlight's experience is that residential interconnections are generally reviewed using application materials and engineered drawings against the provided standard details without requiring utility site visits to determine how the project should be interconnected.

Q. How do unexpected residential meter relocations affect your projects?

A. The most significant concern Earthlight has observed in the residential program is Eversource's requirement that existing interior meters be relocated to the exterior of a

building. When this requirement is imposed on a residential solar project, the added cost almost always makes the project financially infeasible. In Earthlight's experience, nearly all residential customers presented with mandatory meter relocation costs elected not to proceed with solar installation. Historically, approximately 98% of such projects died, and 100% of these projects died in the past year.

Q. How often did meter relocation costs cause projects to die during the predecessor residential program?

A. None. Meter relocation was never required prior to the RRES program.

Q. Has Earthlight observed circumstances where meter relocation requirements appear inconsistent?

A. Yes. Earthlight has encountered situations involving relatively new residential buildings where Eversource previously installed and approved interior meter locations but later required those same meters to be relocated outside when solar generation was later proposed. For example, Earthlight recently evaluated a residence constructed in 2025 where at that time Eversource had installed a new 400-amp service with the meter located inside the building. When Earthlight later proposed a solar installation at the same property, Eversource required that the meter be relocated to the exterior to comply with current standards, even though these same standards existed when Eversource installed that very meter less than a year prior.

Earthlight has observed similar circumstances on new commercial properties, including the example discussed earlier in this testimony. The commercial meter relocation example previously mentioned involved a newly constructed building. These costly meter relocations appear to be the result of at best inconsistent or at worst anticompetitive standards that Eversource is applying to solar projects.

IV. Why This Is an Eversource Problem

Q. Surely Eversource must have some role in reviewing Earthlight projects, even if they are not the AHJ?

A. Earthlight does not dispute Eversource's authority over utility-owned equipment, revenue metering, transformer capacity, utility isolation, distribution-system impacts, or legitimate safety tied to utility personnel or facilities. However, when Eversource's review expands into customer-owned equipment configurations and NEC-compliant interconnection methods, interconnection customers like Earthlight have little recourse to challenge these determinations.

Q. In Earthlight's experience, does Eversource apply lessons from one project to the next?

A. No. Eversource requires expectations and requirements to be reset from project to project. Although Eversource sometimes provides a case-by-case exception process, requests are often denied without a clear written technical basis, leaving common NEC-recognized, AHJ-reviewed methods treated as unavailable rather than standardized options. Eversource's governing documents repeatedly call for case-by-case review.[5] Consistent standards enforced through a meaningful dispute resolution process could avoid those reviews on most, if not all, fast-track projects reviewed by the AHJ.

Q. What does Earthlight's residential experience demonstrate regarding Eversource's ability to improve administration of interconnections on commercial projects?

A. Earthlight's generally more positive residential experience demonstrates that Eversource is capable of administering an interconnection process that is predictable, standardized

[5] *See, e.g.*, Response to ICC-1, Attachment 4, Eversource Technical Interconnection and Interoperability Requirements for Distributed Energy Resources (DERs), Section 3.4 ("As a part of the Impact Study process, projects will be reviewed on a case-by-case basis to determine if additional relays or other protection devices will be required. Any required protection devices will be included in system modifications required to interconnect the DER facility").

and not subject to repeated site reviews or uncertain outcomes. Allowing a supply side connection on commercial projects will remove uncertainty, time, and costs as the NEC already provides standard details for the engineers to follow and for the AHJ to review against. Removing Eversource from the review process of customer owned equipment will save Eversource time, speed up the review process, keep costs from rising, and bring predictability to the entire process. Eversource personnel being instructed to simply install the meter and issue PTO will further remove uncertainty, speed up the process, and keep costs from rising. Earthlight believes many of the same principles applied in the residential program could be applied to commercial projects while preserving system reliability and personnel safety.

Q. How does Earthlight's Connecticut Eversource experience compare with other utilities?

A. Based on Earthlight's interconnection experience with National Grid and Eversource East (Massachusetts) projects, the commercial example projects above would have been approved as NEC code-compliant interconnections reviewed by the local building official acting as AHJ. In Massachusetts, the utility generally appropriately focuses on its standards for metering, access, locking and sealing, isolation, and utility-owned equipment. In those territories, the utility does not appear to claim exclusive control over the entire customer service arrangement merely because the interconnection is ahead of the customer's main service disconnect. That contrast supports Earthlight's concern that Eversource Connecticut is expanding its review beyond utility-owned equipment into AHJ-reviewed customer equipment and code-compliant design methods. Also, utilities outside of Eversource only require us to meet them on site in very rare circumstances.

Typically, projects are reviewed and approved without Earthlight ever meeting with utility personnel on site.

Q. Can you provide an example?

A. Earthlight has encountered similar interconnection questions on several projects in Eversource Eastern Massachusetts and National Grid territories over the past year. For example, on two projects in those territories, Earthlight designed supply-side connections by intercepting the existing customer-owned service lateral ahead of the building's main service disconnect (*i.e.*, a line side tap). During discussions, utility representatives recognized that these conductors and equipment were customer-owned and subject to inspection by the AHJ. The utilities had no concerns with this solution, provided that Earthlight met the applicable utility metering specifications and clearance requirements, as the utilities did not require a direct connection at the transformer service point.

On another Eversource Eastern Massachusetts project, similar to the Naugatuck project discussed above, the existing customer service equipment had unused provisions that allowed a connection ahead of the customer's main service disconnect (another line side tap). Eversource East did not require additional review of that connection method, recognizing it as a matter within the AHJ's jurisdiction. The AHJ approved the interconnection method, and the project was placed into operation relatively quickly.

Earthlight's experience in these Massachusetts territories has been that Earthlight has not been required to relocate existing interior customer meters outside solely because a distributed generation system was being added, in contrast to Eversource Connecticut.

These experiences underscore that Eversource Connecticut finds ways to frustrate the interconnection process and extend its review into inappropriate forums, including customer-owned equipment and interconnection methods that other utilities have accepted subject to AHJ review and compliance with applicable utility requirements.

Q. Is there a utility that PURA should look to as an example in this space?

A. Yes. Ameren Illinois provides examples in its published interconnection requirements. In Section 1400 of its Electric Service Manual, Ameren expressly recognizes supply-side connections on the line side of the customer's main service disconnect as an accepted form of interconnection and specifies the required disconnect, overcurrent protection, and utility access provisions.[6] Ameren's Electric Service Manual and DER Bulletin 2023-1 also identifies NEC Sections in article 230 as the basis for allowing these types of connections.[7]

These documents demonstrate that a utility can establish specific safety and operating requirements while allowing supply-side interconnections rather than requiring every project to connect directly at the transformer. The documents also show that every single project does not have to involve site visits between utility and contractor and be viewed as a unique case, because Ameren's standards are detailed and complete to the point where they negate the need to meet with the utility on site. A front of meter solar project with a line side tap which we had designed in accordance with their guidelines was

[6] https://www.ameren.com/-/media/files/resources-and-support/construction/service-manual/ameren-electric-service-manual.ashx
[7] https://www.ameren.com/-/media/illinois-site/files/electricchoice/bulletin-2023.ashx

project was approved by Ameren without ever requiring a site visit or the meter relocation or existing equipment upgrades. Permission to operate also went flawlessly.

Q. Why don't you sit down with Eversource personnel and walk through your issues with their I&R Guidelines?

A. We attempted to do that in late 2023 and early 2024. Each area that we raised on was unilaterally rejected due to ambiguous and unsupported safety and general preference concerns. Walking through individual areas of concern in great detail, including discussion of the NEC, resulted in zero improvements.

Q. Has Eversource ever incorporated other utility standards or stakeholder feedback to improve their guidelines?

A. We explained to Eversource that other utilities allow line side taps and showed them that they were NEC compliant. We specifically shared Ameren's Electric Service Manual as an example of well thought out utility guidelines that eliminate ambiguity and provide NEC-compliant, safe solar interconnection options. We were told that they would collaborate with us and that they would share their draft I&R Guidelines prior to publishing for our feedback. We were told multiple times that they would provide us with their draft, but in the end they never provided it. When new I&R Guidelines were issued, Eversource held a webinar to explain the updates and answer questions. We were told that they sent out an email notification to any electrician in the state that they felt would benefit from understanding the new rules. Not a single electrician at Earthlight was invited to the webinar. We found out about it after it had occurred.

V. Why This Is a Ratepayer Problem

Q. Why are these issues a ratepayer problem?

A. Eversource's inability to provide standard approvals and clear interconnection requirements causes each project to be treated as unique. The result is inconsistent direction, unnecessary site visits, redesign, resubmissions, and delays instead of predictable expectations like those used by other utilities. Our customers are also Eversource ratepayers, and their direct costs increase when Eversource requires unpredictable upgrades for their project. Moreover, their indirect costs also increase, because Eversource team members spend time on site visits, design review and contractor coordination that standard details or adhering to their own jurisdiction would eliminate.

Q. How would improving the interconnection process benefit ratepayers?

A. Improving interconnection by reducing timelines and upgrade costs while supporting the deployment of distributed energy resources statewide. This, in turn, can accelerate clean energy development and may reduce the grid investments required to accommodate load growth, ultimately benefiting all ratepayers. Providing standard details that align with the NEC instead of viewing every project as unique would reduce the amount of time Eversource personnel spend reviewing (site visits, back and forth communication with the applicant, multiple design revisions) interconnection applications. Providing a clear line of demarcation for jurisdictional review would also reduce the amount of time Eversource personnel spend reviewing as interconnections outside their purview would be reviewed by the AHJ (as is done in other utilities) and that cost not borne by the ratepayers. Fewer Eversource manhours spent and faster approvals of less costly interconnection solutions would be the outcome, which would be win for all parties.

VI. Why This Is a Rate Case Issue

Q. Why is this an issue for this rate case?

A. Eversource staffing directly affects the speed at which these projects can be deployed. Eversource staff resources are being directed to review and approve areas already spelled out clearly in the electrical code that should be or already have been reviewed and approved by the AHJ. Those resources should instead be focused on utility-owned equipment, metering, transformer capacity, utility isolation, distribution-system impacts, and safety tied to utility personnel and facilities. Repeated, duplicative and inefficient use of ratepayer-funded employees is the clearest example of imprudence.

Q. How do inconsistent reviews affect Eversource's resources?

A. Inconsistent reviews lead to uncertainty by engineers within the solar industry as they do not know with certainty what will be approved on that particular project, the opposite of what is necessary for an efficient design and review process. Eversource's inconsistent and inefficient review practices, together with a lack of coordination among its departments, lead to unnecessary and duplicative uses of resources. Treating each project as unique, requiring repeated site visits, and revisiting customer-owned equipment issues slows deployment and consumes resources without improving review of the utility-owned facilities within Eversource's proper scope.

VII. Necessary Changes

Q. What changes does Earthlight recommend?

A. *First*, the Authority should establish rapid, binding dispute resolution with real engineering support. Interconnection dispute resolution works through PURA's Office of Education, Outreach and Enforcement ("EOE"), while program dispute resolution works

through the Connecticut Ombudsperson who is employed by Sustainable Energy Advantage ("SEA"). While these options have at times been successful, EOE and SEA lack both engineering resources to challenge Eversource's judgment and meaningful tools to incent their compliance. Without having engineering resources to determine the validity of a claim, they are usually left to simply mediate a resolution. Had such a resolution been obtainable, the issue would never have been brought to dispute resolution. Importantly, a Maine ombudsperson fee model could help fund this third-party engineering review.[8] Connecticut already requires third-party review in areas including stormwater and construction ecology monitoring.[9]

Second, the Authority should standardize interconnection rules, as other states have done, with appropriate oversight and stakeholder input from the beginning. Eversource should be prohibited from reviewing customer-owned electrical equipment as part of this process. Earthlight does not believe that Eversource should be upgrading their own equipment on the backs of customers installing solar. If Eversource transformers are inadequate, or if Eversource wants them to meet their latest standards, they should go through the normal processes and have those costs reimbursed per the usual process.

[8] *See* Maine PUC Docket No. 2024-00218: https://mpuc-cms.maine.gov/CQM.Public.WebUI/MatterManagement/MatterFilingItem.aspx?FilingSeq=127078&CaseNumber=2024-00218.

[9] *See*, e.g., DEEP Construction Stormwater General Permit, *available at* https://portal.ct.gov/-/media/deep/water_regulating_and_discharges/stormwater/construction/december-2025-reissuance-docs/2026-01-01-construction-stormwater-general-permit-final.pdf?rev=c9f351bc14cb49e1b80eba48b6fed942&hash=7E7D84CB5E9A1E18DA814BBCC703323B (requiring a "Qualified Inspector" to evaluate the effectiveness of erosion and sediment controls, structural controls, stabilization practices, and any other controls implemented to prevent pollution through a regular monitoring process).

Q. Does PURA have the power to order these changes in this proceeding?

A. Yes. The Authority, through its broad oversight of utility plant and prudency, can order changes to utility customer service practices. *See* Conn. Gen. Stat. §§ 16-11 and 16-19 as examples. In other recent electric rate cases, such as Dockets 22-08-08 and 24-10-04, PURA has ordered changes to utility customer service procedures and has recommended changes and even penalties for failures to adhere to PURA orders and regulations. In those proceedings the Authority audited and monitored Company-customer interactions for failure to adhere to policies and regulations. In the same rate case proceedings, the Authority has also vetted and ordered changes to the cost sharing policies of electric utilities and other third parties, such as third party communications attachers to utility distribution poles. PURA can therefore also do the same here.

VIII. Conclusion

Q. Please summarize your testimony.

A. Based on the foregoing, Earthlight respectfully submits that:

- The Authority should mandate binding dispute resolution that contains the engineering expertise to challenge disputes over Eversource's engineering judgment.
- The Authority should mandate that Eversource only provide their review/approval for Eversource owned equipment and equipment detailed in their I&R Guidelines, and those guidelines be updated in a manner that does not contradict the NEC.
- Eversource's coordination failures, repeated site visits, failure to retain review information, and project-by-project treatment create avoidable delays and cost

increases. These imprudent practices increase ratepayer-funded Eversource employee time and increase delays for clean energy deployment.

- Standard approved interconnection procedures, appropriate engineering-supported dispute resolution, and third-party review would greatly improve the interconnection process.

Earthlight is committed to working with the Authority, Eversource, and all docket participants to achieve a timely, transparent, and cost-effective interconnection process.

Q. Does this conclude your testimony?

A. Yes, it does.