February 28, 2025

Ms. Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Connecticut Siting Council Review of the Ten-Year Forecast of Connecticut Electric Loads and Resources, The United Illuminating Company's Annual Report – 2025

Dear Ms. Bachman:

The United Illuminating Company ("UI" or the "Company") hereby submits the attached report, to the Connecticut Siting Council ("CSC" or the "Council"), of the Company's ten-year forecast on loads and resources. This report is provided pursuant to C.G.S § 16-50r which, in relevant part, states:

> *Every person engaged in electric transmission services, as defined in section 16-1, electric generation services, as defined in said section, or electric distribution services, as defined in said section, generating electric power in the state utilizing a generating facility with a capacity greater than one megawatt, shall, annually, on or before March first, file a report on a forecast of loads and resources which may consist of an update of the previous year's report with the siting council for its review. The report shall cover the ten-year forecast period beginning with the year of the report.*

Further, on February 21, 2025 the Council issued procedural correspondence which directed that the report shall include, as applicable:

> *(1) A tabulation of estimated peak loads, resources and margins for each year;*
> *(2) Data on energy use and peak loads for the five preceding calendar years;*
> *(3) A list of existing generating facilities in service;*
> *(4) A list of scheduled generating facilities for which property has been acquired, for which certificates have been issued and for which certificate applications have been filed;*
> *(5) A list of planned generating units at plant locations for which property has been acquired, or at plant locations not yet acquired, that will be needed to provide estimated additional electrical requirements, and the location of such facilities;*
> *(6) A list of planned transmission lines on which proposed route reviews are being undertaken or for which certificate applications have already been filed;*
> *(7) A description of the steps taken to upgrade existing facilities and to eliminate overhead transmission and distribution lines in accordance with the regulations and standards described in section 16-50t; and*
> *(8) For each private power producer having a facility generating more than one megawatt and from whom the person furnishing the report has purchased electricity during the preceding calendar year, a statement including the name, location, size and type of generating facility, the fuel consumed by the facility and the by-product of the consumption.*

In accordance with C.G.S. § 16-50r, the procedural correspondence, and the Council's instructions[1], this report is being filed electronically and in hardcopy-original with 15 copies.

[1] See, Filing Requirements, dated April 26, 2019, requiring "applicants, petitioners, parties, and intervenors to submit an electronic version [to siting.council@ct.gov], and an original with 15 hard copies of documents to the Council in all proceedings."

Please contact me with any questions or concerns regarding this filing.

Very truly yours,

Alex E. Soter
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As Agent for The United Illuminating Company

Report to the Connecticut Siting Council on Loads and Transmission Resources

March 1, 2025

The United Illuminating Company
100 Marsh Hill Road
Orange, CT 06477

The United Illuminating Company
Report to the Connecticut Siting Council on Loads and Transmission Resources March 1, 2025

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Section I. Load Forecast Update

This section presents the results and a summary of the methodology for The United Illuminating Company's ("UI" or "Company") most recent ten-year energy sales forecast ("Sales Forecast") and ten-year system peak load forecast ("Peak Load Forecast"). The Sales Forecast is used for budgeting and financial planning purposes. The Peak Load Forecast is used by the Connecticut Siting Council ("Council" or "CSC") for resource planning purposes in Connecticut. The two forecasts use different forecasting methodologies chosen to fulfil their intended purpose.

Sales Forecast Purpose & Methodology

The primary purpose of the Sales Forecast is to accurately project monthly sales-by-class that is then converted to a revenue forecast using electric service rates by class. The principal output of the Sales Forecast is monthly energy sales. UI uses the ten-year Sales Forecast for a number of purposes. A key use of the Sales Forecast is to project the energy sales as the basis for predicting revenue over the next 12 to 24 months. The UI Sales Forecast produces monthly forecasted energy sales weather-adjusted to "normal weather" or average weather conditions.

Weather has a large impact on both sales and peak load. Any analysis of the actual historical sales and peak load must consider the weather conditions under which those sales and peak loads occurred. The Company's sales forecasting process begins by weather-adjusting the actual, customer-class specific, historical sales data to the sales that would have been experienced under normal weather, using heating degree days ("HDD") and cooling degree days ("CDD") based on a standard of 65 degrees Fahrenheit for the transition from heating-based to cooling-based sales.

The sales forecasting process then moves to the creation of a Base Energy Sales Forecast which reflects the projected sales from UI's existing base of customers. The Base Sales Forecast development employs focused analytical processes that weather-adjusts and evaluates the most recent energy sales history of its customers, trends in the local and state economies and the sales forecast team's interpretations of how these factors are likely to impact UI's future monthly sales.

The impact to sales from Conservation and Load Management ("C&LM") and Distributed Generation ("DG") currently on the UI system are embedded in the historical data used to develop the Base Energy Sales Forecast, and therefore, the future impact of these resources is accounted for in the Base Energy Sales Forecast for results. UI adjusts to the Base Energy Sales Forecast the projected future annual impact of incremental additions of new C&LM and DG to account for the future additions of these resources. Exhibit 1 shows the historical and forecasted system energy requirements and sales.

Peak Load Forecast Purpose & Methodology

The purpose of the peak load forecast shown in Exhibit 1 is to allow the Council to effectively forecast and evaluate the demand and supply balance in Connecticut. The primary output of UI's Peak Load Forecast is the forecast of system peak loads under both normal and extreme weather conditions. Normal weather or average weather, also referred to as a 50/50 forecast, refers to a probability-based weather normalization of the historical system peak load data. A 50/50 weather normalization indicates a 50% probability of being exceeded and a 50% probability of falling short of the forecasted value in any given year. Design weather, also referred to as a 90/10 forecast, indicates that the forecasted extreme weather-adjusted system peak has a 10% probability of being exceeded on the system peak day, due to weather conditions. In other words, the forecasted 90/10 peak load is expected to be exceeded once every ten years.

The Peak Load Forecast for 2025 was developed using a Direct Peak Forecast methodology, which utilizes the most recent ten years of weather-adjusted system peaks and econometric forecast models. The weather-adjustment for historic peak loads is based on a model that relates the twelve-hour average Temperature Humidity Index (the output of a mathematical formula that combines temperature and humidity into a single number) to historical summer weekday peak loads (THI Model). The THI Model is then used to adjust historic peak loads to the loads that would have been seen under normal or average temperature and humidity conditions and for extreme conditions.

The impact to the peak load from C&LM and DG currently on the UI system are embedded in the historical data used to develop the Base Peak Load Forecast. Similar to the Sales Forecast, the Company accounts for projected new incremental C&LM, and DG programs separately. The Company also takes into account new large customer loads separately. UI's final Peak Load Forecast results from

the summation of the Base Load Forecast and new or removed large customer loads along with reductions due to new DG and new incremental C&LM.

The forecast for 2025 to 2034 also includes potential impacts of Electric Vehicle (EV) charging on the system peak loads. The EV forecast is aligned with ISO-NE forecasts scaled to fit the UI service territory.

Normal Weather-Adjusted Historical and Forecasted Data

The data shown in Exhibit 1 includes actual historical data for system energy requirements, sales and peak load. Exhibit 1 also includes historical and forecasted sales and peak load adjusted to normal weather conditions. UI is a summer peaking utility primarily due to the air conditioning loads on its system. During recent history, between 2015 and 2024, UI has experienced a decline in normal weather-adjusted sales of 8.7% as compared to a simultaneous decline in its normal weather-adjusted peak load of 7.7%. This is attributed to changes in customer behavior regarding energy usage and increase in connected DG. The forecast of the normal weather-adjusted peak load projects an increase of 11% between 2025 and 2034, or 1.23% compounded annually. This increase is primarily the result of expected electric vehicle (EV) adoption and heat pump (ASHP) conversions.

Extreme Weather-Adjusted Historical and Forecasted Data

In addition to the normal weather-adjusted data, Exhibit 1 also shows historical and forecasted peak loads adjusted to extreme weather conditions. The 2015 to 2024 historical data in Exhibit 1 shows a decline in the extreme weather-adjusted historical Peak Loads of 5.7%. The Company's extreme weather-adjusted Peak Load Forecast shows an increase of 10.9% during the period from 2025 to 2034, or 1.11% compounded annually.

The ability to predict when extreme weather will occur or the exact amount of economic activity that will be realized is always problematic. Therefore, prudent planning requires that the possibility of the effects of extreme weather (i.e. high temperatures and high humidity) within the forecast time period be recognized, as well as appropriate assumptions of future economic development activity. Plans must

be formulated to meet this possible demand. The bounds of the Company's forecasts from the normal and extreme weather-adjusted scenarios are intended to provide a plausible range of futures. No single forecast will be accurate throughout the forecast period. When extreme weather occurs, regardless of the timing, the system infrastructure must be in place to serve the load safely and reliably.

Distributed Generation and Electric Vehicles

Distributed Generation

On July 1, 2011, former Governor Malloy signed into law Public Act 11-80, An Act Concerning the Establishment of the Department of Energy and Environmental Protection and Planning for Connecticut's Energy Future ("PA 11-80"). Section 103 of PA 11-80 established a three year pilot program to promote the development of combined heat and power projects, a three year pilot program for anaerobic digestion projects to generate electricity and heat, and a Low & Zero Emission Renewable Energy Credit (LREC/ZREC) Program that was expected to drive the development of Class 1 Renewable Resources through a five year solicitation program for LREC's and six year solicitation Program for ZREC's administered by both utilities in Connecticut. Various Public Acts in 2017, 2018 and 2019[1] extended the LREC/ZREC Program to 10 Procurement years, which was completed in 2022[1]. The LREC/ZREC Program achieved a total of 82,69 MW of installed renewable generation from its inception through December 31, 2024. Additionally, 7.65 MW of renewable generation has been installed from Virtual Net Metering projects between 2016 and December 31, 2024.

On December 18, 2019, PURA released a Decision in Docket No. 19-07-01 "Review of Statewide Shared Clean Energy Facility Program Requirements". This docket created the Shared Clean Energy Facility Program and required the procurement of 25 MW of shared clean energy statewide per year (5 MW per year for UI) over 6 years. In a Decision dated December 7, 2022, in Docket 22-08-04 "Shared Clean Energy Facility Year 4 Review", this was expanded to 50 MW per year statewide (or 10 MW for UI) annually for years 4 through 8 of the program[2]. Since its first procurement in 2020 through December

[1] Public Act 17-144 extended the LREC/ZREC Program to Year 7, Public Act 18-50 extended the LREC/ZREC program to Year 8, and Public Act 19-35 extended the LREC/ZREC program to years 9 and 10. Due to the passage of Public Acts 16-196 and 17-144, the base LREC funding was unchanged from year 5 to years 6-8. CGS Section 16-244t expired after 5 years of LREC solicitations.

[2] Shared Clean Energy Facility Program" (the "Program" or "SCEF Program") established pursuant to Public Act 18-50, Public Act 19-35, as amended by Public Act 22-14, and further amended by Public Act 23-102, and Conn. Gen. Stat. § 16-244z.

2024, 28,060 MW of Shared Clean Energy Facilities have been procured in the UI service territory. The Shared Clean Energy Facility Program has achieved 4.3 MW of installed renewable generation from its inception through December 31, 2024.

Part of House Bill No. 6838, Sec 16-245ff and Sec 16-245gg stipulates that the Solar Home Renewable Energy Credit ("SHREC") program be established by the Connecticut Green Bank. The program was signed in to law in mid-2015 with an end date of December 31, 2016, and also became known as "Residential Solar Investment Program" or "RSIP". This program was designed to procure up to 300 megawatts of new residential solar in the state and the REC's will be held by the Connecticut Green Bank and transferred to the Utilities under a master purchaser agreement. The master purchase agreement was finalized by the Connecticut Green Bank and the utilities in May of 2016 and approved by PURA in January 2017. Through December 31, 2023, in UI's service territory, 79.939 MW have been installed. Under this program, REC's will last for a period of 15 years from the project start date.

On February 21, 2021, PURA released a Final Interim Decision in Docket No. 20-07-01 "PURA Implementation of Section 3 of P.A. 19-35, Renewable Energy Tariffs and Procurement Plans". This docket created the successor programs to the LREC/ZREC Program and the Green Bank's "RSIP" Program, and the programs were renamed Residential and Non-Residential Renewable Energy Solutions. Both the Residential and Non-Residential Renewable Energy Solutions Programs were implemented in 2022. Through September 30, 2024, 49,69 MW of renewable generation has been installed under the Residential Renewable Energy Solutions Program and 1.31 MW of renewable generation has been installed under the Non- Residential Renewable Energy Solutions Program in UI's service territory.

Data provided through September 2024 was filed by UI in Docket No. 24-08-01 "2024 Clean Energy Renewable Energy Program Data and Report" in response to Interrogatory CRE-01, and the data will be used in the 2024 Clean and Renewable Energy report to be issued by PURA. The State of Connecticut continues to look for ways to further its clean energy vision through the implementation of the Comprehensive Energy Strategy. This will give Connecticut residents and businesses the power to choose from a wide array of energy options and guides the State on a path toward a cheaper, cleaner, and more reliable energy future. UI will monitor these efforts, identify potential opportunities and support Connecticut's clean energy vision. The Company continues to monitor all programs related to DG and is prepared for its growth in the future.

Electric Vehicles

Under CT Public Act 16-135, Section 5, UI is required to integrate electric vehicle charging load projections into distribution planning efforts based on the number of electric vehicles registered in the state, and the projected increase or decrease in sales of such vehicles.

At the time of this writing, State of Connecticut Department of Motor Vehicle registration data was not available for 2024. As of December 31, 2023, there are 7,410 Electric Vehicles registered in UI's service area. This represents 1.7% of all vehicle registrations in UI's services area. In addition, 2023 EV registrations increased by nearly 47% over 2022 and since 2014, have an average annual growth rate of just over 44%.

Level 2 and Direct Current Fast Charging (DCFC) infrastructure development in UI's service area increased substantially in 2024. As of February 2, 2025, there are 718 public charging ports in UI's service area[3]. This represents an 80% increase over 2024. This is likely a result of the CT EV Charging Program. The number of Level 2 ports increased from 444 ports in 2023 to 543 ports in 2024 and DCFC ports increased from 126 ports in 2023 to 175 ports in 2024.

The Company continues to implement the CT EV Charging Program (Program), which was launched on January 1, 2022. The Program was established by the Public Utility Regulatory Authority (Authority or PURA) in Docket No. 17-12-03RE04[4]. In its Final Decision the Authority directed UI to support the installation of additional Level 2 and DCFC charging plugs in its services area. The Program is a 9-year effort to increase charging infrastructure in support of the ZEV MOU goals for 2025 and the Governor's Council on Climate Change (GC3) recommendations for wide-scale EV deployment as a primary Green House Gas (GHG) reduction strategy to meet the statutorily required GHG reduction targets for 2030 and 2050. Since the Program launched, and through the end of 2024, UI has supported the installation of 741 Level 2 charging ports and 38 DCFC charging ports[5].

EV charging load is integrated into UI's distribution forecast as described on the Peak Load Forecast Purpose & Methodology Section. UI will continue to monitor EV forecasts at the national, state and local level

[3] Source: U.S. Department of Energy Alternative Fuels Data Center.

[4] Docket No. 17-12-03RE04, PURA Investigation into Distribution System Planning of the Electric Distribution Companies – Zero Emission Vehicles, July 14, 2021

[5] Not all of the chargers installed that UI supported are included in the count of chargers in UI's service area as some of these chargers were yet to be listed in the Alternative Fuels Data Center directory at the time of this filing.

Conservation & Load Management

By statute and regulation, Connecticut supports expanded investments in the state's C&LM programs. The state is required to give priority to energy efficiency and demand side management, specifically stating that "resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost-effective, reliable and feasible."

Pursuant to Conn. Gen. Stat. § 16-245m, as amended by Connecticut Public Act 13-298m the Company is required to develop a plan to implement cost-effective C&LM programs which the DEEP Commissioner has the authority to approve, modify, or reject. On December 27, 2021, DEEP issued an approved budget for the 2023-2024 Conservation and Load Management Plan ("Plan"). This decision represents continued support for full funding of energy efficiency programs. Consistent with the findings of the 2018 Comprehensive Energy Strategy for Connecticut, the decision highlights the primary role of energy efficiency in reducing the state's energy consumption while growing its economy and reducing harmful pollutants associated with energy use.

The primary funding for the 2025-27 C&LM Plan continues to be the six-mill Conservation Adjustment Mechanism ("CAM") charge assessed on customer electric bills. Beginning in 2020, the CAM increased to six mills and the three-mill statutory charge is eliminated pursuant to Public Act 18-50. The electric C&LM budget is also supported by proceeds from the sale of carbon dioxide ("CO2") emission allowances to the power sector through the Regional Greenhouse Gas Initiative ("RGGI"), and revenues from the ISO-NE Forward Capacity Market ("FCM"). After January 1, 2014, C&LM programs are no longer eligible to generate revenues from the sale of Class III Renewable Energy Credits.

RGGI is the first mandatory, market-based effort in the United States to reduce greenhouse gas emissions. The participating RGGI states cap allowable CO2 emissions, sell emissions allowances through auctions, and use the auction proceeds to fund energy efficiency, renewable energy, and other clean energy programs and technologies.

The ISO-NE FCM has been fully implemented since June 1, 2010. The FCM allows market participants to bid their peak demand savings into the capacity market. Market participants earn capacity payments for qualifying resources, such as distributed generation, energy efficiency, load

management or load response, equivalent to supply-side generation sources. UI has entered peak demand savings from energy efficiency and load management projects for the FCM on behalf of the Connecticut Energy Efficiency Fund and has successfully bid capacity in the first eighteen capacity auctions.

Throughout the 2025 – 2027 term the companies have made equity a priority to ensure the benefits of energy efficiency are distributed across the state, markets segments, communities, neighborhoods, and customer types. In 2025 the companies will continue to partner with local supplier diversity organization to reach more diverse energy efficiency firms and new entrants.

Decarbonization was set as another priority for the 2025-2027 term since fossil fuel combustion in residential and commercial buildings accounts for more than 25 percent of Connecticut's economy-wide greenhouse gas emissions. (See DEEP website, Building Decarbonization webpage).

The companies are planning to increase the number of contractors for C&I weatherization projects, are also looking to use the Residential Portfolio's qualified installers network to increase insulation measures and upgrade insulation in attics, and walls, and seal air leakage in attics for facilities 8,000 square feet and less.

Lastly energy affordability is another program which is to assist with a long-term solution for the high-cost energy burdens most households and businesses have across the state. These programs are set to reduce energy usage through insulation, and the installation of highly efficient heating and cooling system upgrades, and high efficient appliances.

In 2025, United Illuminating, CNG, and SCG will increase their outreach efforts to small businesses through the launch of a Main Streets Initiative in New Haven and Bridgeport. For residential customers, the Companies are planning to deploy an income level qualification and certification platform to verify and qualify customers for Company-administered low-and-moderate income programs ("LMI Programs"). This will streamline the income verification process for customers to find out if they qualify for LMI Programs such as the HES-Income Eligible program. (2025-2027 (state.ct.us) p.17)

The strategic focus of UI's programs is the result of a multi-level collaborative process involving UI and a diverse group of stakeholders. These stakeholders include: the DEEP, the Energy Efficiency

Board, Connecticut state government, consumer and business interests, national and regional environmental and energy efficiency organizations, design professionals and energy services providers.

UI participates in national and regional activities to develop a long-range focus for energy efficiency. To stay abreast of latest development, technologies and best practices, UI partners with the Consortium for Energy Efficiency ("CEE"), the American Council for an Energy-Efficient Economy ("ACEEE"), Northeast Energy Efficiency Partnerships ("NEEP"), and other utility and public benefit fund organizations. Together with these partners, UI is involved in regional or programmatic evaluations, market baseline research, and development of efficiency standards, exchange of programmatic ideas and concepts, and the assessment of the need for incentives. These efforts have produced many of the energy efficiency concepts and measures upon which the programs are based.

Since the 1990's, the Companies and the Energy Efficiency Board have been recognized as national leaders in the design and delivery of cost-effective and innovative energy-efficiency programs. The state's energy-efficiency programs (and other state energy policies and programs) have been perennial top-ten performers in the ACEEE State Energy Efficiency Scorecard, including first place recognition in 2006.

Additionally, Connecticut is leading the nation in energy codes, not just state codes but local codes as well. Since the inception of ACEEE Connecticut has received the highest scores for industrial energy efficiency policies, and education. Connecticut earned the maximum number of points thanks to programs such as a certified energy manager training program, among other workforce generating programs, and its on-demand technical assistance webinars for energy management practices. The ACEEE Report which we are looking over for these reviews, is a national report which ranks states on policy, and program efforts to save energy, advance equity, and pursue efficiency as a cost-effective, critical tool for reducing emissions and meeting state clean energy goals.

Section II. Transmission Planning

UI projects included in this report help UI fulfill its obligation to provide reliable service to its customers and to meet the reliability standards mandated by national and regional authorities responsible for the reliability of the transmission system, i.e., the North American Electric Reliability Corporation ("NERC"), the Northeast Power Coordinating Council ("NPCC") and ISO-NE.

Transmission Planning – National and Regional Reliability Standards

In 2006, the Federal Energy Regulatory Commission ("FERC") designated NERC as the nation's Electric Reliability Organization ("ERO"). FERC approved mandatory reliability standards developed by NERC in 2007. These mandatory reliability standards apply to UI as a transmission owner ("TO") and as a transmission planner ("TP") of the bulk power system, as designated by NERC through its compliance registry procedures. In addition to satisfying NERC reliability standards, UI must also satisfy NPCC and ISO-NE reliability standards. Both monetary and non-monetary penalties may be imposed for violations of the NERC, NPCC, and ISO-NE Reliability Standards.

Transmission Planning Process

ISO-NE, as the registered NERC reliability authority, along with UI and Eversource Energy ("Eversource"), formerly known as Connecticut Light & Power ("CL&P"), as the TOs in Connecticut, must comply with NERC and NPCC planning standards by performing reliability assessment studies of the transmission system. Needs Assessments in sub-areas such as Southwestern Connecticut ("SWCT") are performed to determine if reliability issues are projected to occur within a ten-year planning horizon. If a reliability problem is identified from a Needs Assessment, then mitigating solution alternatives are developed to ensure NERC, NPCC, and ISO-NE reliability standards are met. Viable transmission solution alternatives are compared based on a number of factors including overall cost, effectiveness, solution longevity, construction feasibility, and environmental impact. All recommended solutions are vetted through the ISO-NE process which includes the Planning Advisory Committee ("PAC") and the New England Power Pool ("NEPOOL") Reliability Committee. Final selected solutions eventually progress into detailed engineering and construction phases to mitigate all reliability exposure risks identified in the needs assessment study

UI Proposed Transmission Projects

To address future reliability needs and consistent with the process described above, UI has multiple reliability projects at various stages in the process. UI's current transmission system projects are listed in Exhibit 2.

To address reliability, substation capacity, voltage support, and aging infrastructure in the UI service territory, UI must request and receive either a CSC Certificate of Environmental Compatibility and Public Need or a Declaratory Ruling from the Council that no such Certificates are required for each particular project.

Transmission Projects which have Received CSC Approval or Exemptions

- Congress 115 kV Substation Flood Wall - To address the flooding risk at Congress Street Substation identified in the UI Coastal Substation Flood Mitigation Solution Report a perimeter floodwall system (including access gates, pumps, piles, etc.) will be installed at this substation. UI received a Declaratory Ruling for this project. The expected in-service date for this project is in 2024.
- Singer 345 kV Substation Flood Wall – The potential flooding risk at Singer Substation which was identified in the UI Coastal Substation Flood Mitigation Solution Report, calls for a perimeter floodwall system (including access gates, pumps, piles, etc.) to be installed at this substation. UI received a Declaratory Ruling for this project. The expected in-service date for this project is in 2027.
- Railroad Lines Upgrade Project - This series of projects addresses the asset condition needs for the 115-kV overhead lines in the Metro-North railroad corridor. The lines will be upgraded in multiple segments along two portions of the railroad corridor. The portion from Milvon Substation to West River Substation has received CSC approval. The project is expected to be in service by 2027 and fully completed with removals and restoration by the mid-2029. The other portion from Fairfield to Congress Street Substation also has received CSC approval. This project is expected to be fully completed by the early 2029. Exhibit 2 details the expected completion years for each section.

- Derby Junction to Ansonia – The lattice structures supporting the 115-kV conductor from Derby Junction to Ansonia Substation are in very poor condition and require replacement. A detailed assessment of the lines in this corridor led to the determination that the transmission lines need to be fully rebuilt. This project received a CSC Certificate of Environmental Compatibility and Public Need Approval and is expected to be in-service in 2025.
- Pequonnock 115/13.8 kV Substation Rebuild - Due to the combination of asset condition deficiencies and flooding risk also identified in the 2017 UI Coastal Substation Flood Mitigation Solution Report, Pequonnock 115 kV Substation will be raised and rebuilt on a more elevated property near the existing substation location. This project received a CSC Certificate of Environmental Compatibility and Public Need Approval and is expected to be in-service in 2025.
- Old Town Substation Rebuild – Bridgeport's Old Town Substation, originally constructed in 1968, was recently evaluated for solutions to address equipment obsolescence and condition issues, transmission electrical clearance issues, and control room space restrictions. A proposal to build a new 115/13.8-kV substation adjacent to the existing Old Town Substation was submitted to the CSC in June 2020 and a Certificate of Environmental Compatibility and Public Need was issued in January 2021. The projected in-service date for the Old Town 115/13.8-kV Substation Rebuild project is in 2028.
- Grand Avenue-Mill River 115 kV Substation Flood Wall - To address the flooding risk at Grand Avenue-Mill River Substation identified in the UI Coastal Substation Flood Mitigation Solution Report a perimeter floodwall system (including access gates, pumps, piles, etc.) will be installed at this substation. The expected in-service date for this project is in 2028.

Please note that Exhibit 2 includes only those planned transmission projects that UI is responsible to undertake. It does not include any plans or proposed actions by third parties that would require transmission system modifications in UI's service territory. It would be the responsibility of such third parties to provide the CSC with a report of their plans as appropriate. Any such proposed modifications would require notification and coordination with UI, so the Company can assess the impacts on its transmission system and ensure the system's continued reliability.

Section III. EXHIBITS

EXHIBIT 1 System Energy Requirements, Annual Sales, and Peak Load Table

The United Illuminating Company

System Energy Requirements, Annual Sales, and Peak Load

									Normal Weather Adjustment					Extreme Weather Adjustment		
History	Year	Total Sys. Req. (GWh)	Annual Change (Pct.)	Actual Sales (GWh)	Annual Change (Pct.)	Actual System Peak (MW)	Annual Change	Load Factor (Pct.)	Weather Adjusted Sales (GWh)	Annual Change (Pct.)	Weather Adjusted System Peak (MW)	Annual Change	Load Factor (Pct.)	Weather Adjusted System Peak (MW)	Annual Change	Load Factor (Pct.)
	2015	5,625	-	5,450	-	1,241	-	52%	5,359	-	1,339	-	48%	1,398	-	46%
	2016	5,521	-1.8%	5,334	-2.1%	1,264	1.9%	50%	5,193	-3.1%	1,336	-0.2%	47%	1,395	-0.2%	45%
	2017	5,259	-4.8%	5,094	-4.5%	1,193	-5.6%	50%	5,098	-1.8%	1,308	-2.0%	46%	1,367	-2.0%	44%
	2018	5,355	1.8%	5,191	1.9%	1,274	6.8%	48%	5,091	-0.1%	1,303	-0.4%	47%	1,362	-0.4%	45%
	2019	5,135	-4.1%	4,978	-4.1%	1,217	-4.5%	48%	4,976	-2.3%	1,272	-2.3%	46%	1,331	-2.2%	44%
	2020	4,975	-3.1%	4,813	-3.3%	1,222	0.4%	46%	4,800	-3.5%	1,273	0.1%	45%	1,332	0.1%	43%
	2021	5,056	1.6%	4,943	2.7%	1,234	1.0%	47%	4,962	3.4%	1,263	-0.8%	46%	1,322	-0.8%	44%
	2022	5,078	0.4%	4,933	-0.2%	1,228	-0.5%	47%	4,945	-0.3%	1,255	-0.6%	46%	1,319	-0.2%	44%
	2023	4,893	-3.6%	4,750	-3.7%	1,197	-2.5%	47%	4,817	-2.6%	1,244	-0.9%	45%	1,315	-0.3%	42%
	2024	4,995	2.1%	4,852	2.1%	1,168	-2.4%	49%	4,895	1.6%	1,235	-0.7%	46%	1,318	0.2%	43%
	2015 - 2024 growth		**-11.2%**		**-11.0%**		**-5.8%**			**-8.7%**		**-7.7%**			**-5.7%**	

									Normal Weather Scenario					Extreme Weather Scenario		
Forecast	Year	Total Sys. Req. (GWh)	Annual Change (Pct.)	Forecast Sales (GWh)	Annual Change (Pct.)				Weather Adjusted Sales (GWh)	Annual Change (Pct.)	System Peak (MW)	Annual Change	Load Factor (Pct.)	System Peak (MW)	Annual Change	Load Factor (Pct.)
	2025	5,068	1.5%	4,923	1.5%				4,923	0.6%	1,257	1.1%	46%	1,327	0.7%	44%
	2026	5,134	1.3%	4,987	1.3%				4,987	1.3%	1,266	0.7%	46%	1,337	0.7%	44%
	2027	5,182	0.9%	5,034	0.9%				5,034	0.9%	1,275	0.6%	46%	1,346	0.6%	44%
	2028	5,261	1.5%	5,111	1.5%				5,111	1.5%	1,286	0.9%	47%	1,358	0.9%	44%
	2029	5,353	1.7%	5,199	1.7%				5,199	1.7%	1,301	1.1%	47%	1,373	1.1%	44%
	2030	5,458	2.0%	5,301	2.0%				5,301	2.0%	1,316	1.2%	47%	1,389	1.2%	45%
	2031	5,576	2.2%	5,416	2.2%				5,416	2.2%	1,333	1.3%	48%	1,407	1.3%	45%
	2032	5,716	2.5%	5,553	2.5%				5,553	2.5%	1,352	1.4%	48%	1,427	1.4%	46%
	2033	5,880	2.9%	5,712	2.9%				5,712	2.9%	1,374	1.6%	49%	1,449	1.6%	46%
	2034	6,046	2.8%	5,873	2.8%				5,873	2.8%	1,395	1.6%	49%	1,471	1.5%	47%
	2025 - 2034 growth		**19.3%**							**19.3%**		**11.0%**			**10.9%**	
	Compounded Annual Growth Rate (2025 - 2034)		**1.93%**							**1.84%**		**1.23%**			**1.11%**	

1. System Requirements are sales plus losses and Company use.
2. Load Factor = System Requirements (MWh) / (8760 Hours X System Peak (MW)).
3. All forecasts include C&LM, DG & potential new large customer planned loads identified by UI Economic Development.
4. Sales Forecast assumes normal weather

EXHIBIT 2 Transmission System Planned Modifications

Report to the Connecticut Siting Council

List of Planned Transmission Projects for which Certificate Applications are being contemplated, may be subject to Declaratory Ruling, or have already been filed

	Projects for which Certificate Applications are being Contemplated	kV	Date of Completion
	N/A		
	Projects which have received a CSC Certificate of Environmental Compatibility and Public Need Approval		
1.	Pequonnock 115/13.8-kV Substation Rebuild Project	115	2025
2.	Old Town 115/13.8-kV Substation Rebuild Project	115	2028
3.	Elmwest to West River 115-kV Railroad Lines Upgrade Project	115	2024
4.	Allings Crossing to Elmwest 115-kV Railroad Lines Upgrade Project	115	2025
5.	Woodmont to Allings Crossing 115-kV Railroad Lines Upgrade Project	115	2026
6.	Woodmont to Allings Crossing 115-kV Railroad Lines Upgrade Project	115	2026
7.	Milvon to Woodmont 115-kV Railroad Lines Upgrade Project-North Circuit	115	2027
8.	Milvon to Woodmont 115-kV Railroad Lines Upgrade Project-South Circuit	115	2027
9.	Fairfield to Structure AC1 115-kV Railroad Lines Upgrade Project	115	2028
10.	Structure AC1 to Bridgeport Resco 115-kV Railroad Lines Upgrade Project	115	2029
11.	Bridgeport Resco to Pequonnock 115-kV Railroad Lines Upgrade Project	115	2029
12.	Pequonnock to Congress 115-kV Railroad Lines Upgrade Project	115	2027
13.	Derby Junction to Ansonia Rebuild	115	2025

EXHIBIT 3 Conservation & Load Management Awards and Recognitions

2013 ENERGY STAR® Partner of the Year in Energy-Efficiency Program Delivery. The U.S. Environmental Protection Agency ("US EPA") recognized the Connecticut Energy Efficiency Fund and the Companies as a 2013 ENERGY STAR Partner of the Year;

2013 ENERGY STAR Sustained Excellence Award. The US EPA recognized the Northeast Energy Efficiency Partnerships' ("NEEP") Northeast Retail Products Initiative, including the Companies and the Energy Efficiency Board, with the 2013 ENERGY STAR Sustained Excellence Award for Excellence in ENERGY STAR Retail Products Promotion;

2013 ACEEE Certificate of Recognition for Exemplary Programs. The ACEEE recognized the Residential New Construction program as Exemplary;

2013 ACEEE Certificate of Recognition for Exemplary Programs. The ACEEE recognized the Home Energy Solutions program as Exemplary;

2013 ACEEE Certificate of Recognition for Exemplary Programs. The ACEEE recognized the Small Business Energy Advantage program as Exemplary;

2013 ENERGY STAR-Certified Homes Leadership in Housing Award. The US EPA recognized the Energy Efficiency Board, Eversource, and UI for the Residential New Construction program's achievement of reaching the threshold of 300 ENERGY STAR-certified homes in a calendar year, and for increasing builder, contractor, and homeowner awareness of the ENERGY STAR brand;

2013 Connecticut Quality Improvement Award ("CQIA") Silver Innovation Prize. The CQIA Silver Innovation Prize was awarded for the Connecticut Energy Efficiency Fund's Comprehensive Initiative for Commercial and Industrial customers;

2013 NEEP Business Leader Champion. Covidien, a UI customer, was nominated for the NEEP Business Leader Award and was chosen as the State champion;

2014 ENERGY STAR Partner of the Year for Sustained Excellence. The US EPA recognized NEEP's Northeast Retail Products Initiative with the 2014 ENERGY STAR Sustained Excellence Award for excellence in ENERGY STAR Retail Products Promotion;

2014 ENERGY STAR Award for Excellence. The US EPA recognized UI and the Energy Efficiency Board for Excellence in ENERGY STAR Promotion through the Retail Products program at the SmartLiving™ Center;

2014 ENERGY STAR Award for Excellence. The US EPA recognized the Connecticut Energy Efficiency Fund for its continued enhancement and expansion of the Home Performance with ENERGY STAR program;

2015 NEEP Business Leader State Champion. Aptar-Stratford, a UI customer, was nominated for the NEEP Business Leader Award and was chosen as the State champion;

2015 ENERGY STAR Partner of the Year Award for Sustained Excellence. The US EPA recognized NEEP's Northeast Retail Products Initiative with the 2015 ENERGY STAR Sustained Excellence Award for Excellence in ENERGY STAR Retail Products Promotion;

2015 ENERGY STAR Award for Excellence. The US EPA recognized UI and the Energy Efficiency Board for the Great Light Bulb Exchange Initiative;

2016 ENERGY STAR® Partner of the Year in Energy-Efficiency Program Delivery. The U.S. Environmental Protection Agency ("US EPA") recognized the Connecticut Energy Efficiency Fund and the Companies as a 2016 ENERGY STAR Partner of the Year;

2016 EPA Environmental Merit Award. The US EPA recognized UI for its innovative efforts to promote energy efficiency. Each year, the EPA New England district office recognizes individuals and organizations in New England who have worked to protect or improve the environment in distinct ways;

2017 ENERGY STAR Partner of the Year in Energy-Efficiency Program Delivery. The U.S. Environmental Protection Agency ("US EPA") recognized the Connecticut Energy Efficiency Fund and the Companies as a 2017 ENERGY STAR Partner of the Year;

2017 EPA Environmental Merit Award. The US EPA recognized UI for its innovative efforts to promote energy efficiency. Each year, the EPA New England district office recognizes individuals and organizations in New England who have worked to protect or improve the environment in distinct ways;

2017 ENERGY STAR Certified Homes Market Leader Award. The ENERGY STAR Certified Homes program presents Market Leader Awards to outstanding partners who have made important contributions to energy–efficient construction and environmental protection by building or verifying an outstanding number of ENERGY STAR certified homes, or by sponsoring a local program that supported these activities during the previous year;

2018 ENERGY STAR Partner of the Year Sustained Excellence Award. The US EPA recognized the Northeast Energy Efficiency Partnerships' ("NEEP") Northeast Retail Products Initiative, including the

Companies and the Energy Efficiency Board, with the 2018 ENERGY STAR Sustained Excellence Award for Excellence in ENERGY STAR Retail Products Promotion;

2018 The Association of Energy Service Professionals ("ASEP"). The ASEP recognized the Companies with an Outstanding Achievement in Residential Program Design & Implementation Award;

2018 Small Business Energy Advantage ACEEE's Exemplary Programs. The ACEEE recognized the Small Business Energy Advantage program as Exemplary;

2019 ENERGY STAR Partner of the Year in Energy-Efficiency Program Delivery. The U.S. Environmental Protection Agency ("US EPA") recognized the Connecticut Energy Efficiency Fund and the Companies as a 2019 ENERGY STAR Partner of the Year;

2020 ENERGY STAR Partner of the Year in Energy-Efficiency Program Delivery. The U.S. Environmental Protection Agency ("US EPA") recognized the Connecticut Energy Efficiency Fund and the Companies as a 2020 ENERGY STAR Partner of the Year;

2021 ENERGY STAR Partner of the Year Sustained Excellence Award. The US EPA recognized the Northeast Energy Efficiency Partnerships' ("NEEP") Northeast Retail Products Initiative, including the Companies and the Energy Efficiency Board, with the 2021 ENERGY STAR Sustained Excellence Award for Excellence in ENERGY STAR Retail Products Promotion;

2021 Home Energy Score Partner Innovation Award. This award recognized the Connecticut Home Energy Score Working Group for championing an innovative, inclusive process for improving program impact and making efforts to reach rental households with the Home Energy Score.

2022 ENERGY STAR Partner of the Year Sustained Excellence Award. The US EPA recognized the Northeast Energy Efficiency Partnerships' ("NEEP") Northeast Retail Products Initiative, including the Companies and the Energy Efficiency Board, with the 2022 ENERGY STAR Sustained Excellence Award for Excellence in ENERGY STAR Retail Products Promotion;

2022 Connecticut Green Building Council Award of Excellence. The Connecticut Green Building Council awarded UI for its leadership in energy efficiency and sustainability supporting the Hotel Marcel project located in New Haven.