THE STATE OF NEW HAMPSHIRE

BEFORE THE

PUBLIC UTILITIES COMMISSION

DE 22-_____

UNITIL ENERGY SYSTEMS, INC.

PETITION FOR APPROVAL OF INVESTMENT IN AND RATE RECOVERY OF A DISTRIBUTED ENERGY RESOURCE PURSUANT TO RSA 374-G

NOW COMES Unitil Energy Systems, Inc. ("UES" or "the Company") and, pursuant to the provisions of NH RSA 374-G, respectfully petitions the New Hampshire Public Utilities Commission ("the Commission") to: (1) approve a two-stage framework for the Commission's review of UES's proposal to construct, own, and operate a 4.99 megawatt ("MW") utility-scale photovoltaic generating facility located in Kingston, New Hampshire (the "Kingston Solar Project" or the "Project"); (2) find that the Company's filing meets the minimum requirements set forth in RSA 374-G:5, I; (3) find that the Kingston Solar Project is in the public interest pursuant to RSA 374-G:5, II and authorize construction of the Project; (4) authorize UES to seek recovery of Project costs in the Company's next base distribution rate case; and (5) approve recovery by the Company of its reasonable costs associated with this filing through the Company's Schedule EDC. Pursuant to RSA 374-G:5, UES requests that the Commission render a decision on the Company's filing within six months of the filing date.

UES's filing includes the following Exhibits:

1. Exhibit KES-1: Direct Testimony of Kevin E. Sprague. Mr. Sprague's testimony summarizes and supports the Company's Kingston Solar Project proposal.

2. Exhibits JSD-1 through JSD-7: Direct Testimony and Exhibits of Jacob S. Dusling. Mr. Dusling's testimony and exhibits explain, among other things, the development and technical aspects of the Kingston Solar Project.

3. Exhibits FDGP-1 through FDGP-3: Direct Testimony and Exhibit of Andre J. Francoeur, Todd R. Diggins, Christopher J. Goulding, and Jeffrey M. Pentz. The testimony of these witnesses presents the Company's analysis of the benefits and costs of proposed Kingston Solar Project and the associated rate implications

4. Exhibits GPP-1 through GPP-4: Direct Testimony and Exhibits of Carolyn C. Gilbert and Kevin R. Pierce of Daymark Energy Advisors. The testimony of Ms. Gilbert and Mr. Pierce discusses and quantifies the economic benefits, emissions reduction benefits, and Demand Reduction Induced Price Effects ("DRIPE") benefits of the Kingston Solar Project.

In support of its Petition, UES states as follows:

I. RSA 374-G Permits and Encourages Utility Ownership of Distributed Energy Resources, Including Solar Generating Facilities

5. The New Hampshire legislature has recognized that distributed energy resources ("DERs") provide myriad benefits to the State by "eliminating, displacing, or better managing traditional fossil fuel energy deliveries from the centralized bulk power grid, in keeping with the objectives of RSA 362-F:1."[1] RSA 374-G:1. Having made this finding, the legislature concluded that it is in the "public interest" to stimulate investment

[1] "Renewable energy generation technologies can provide fuel diversity to the state and New England generation supply through use of local renewable fuels and resources that serve to displace and thereby lower regional dependence on fossil fuels. This has the potential to lower and stabilize future energy costs by reducing exposure to rising and volatile fossil fuel prices. The use of renewable energy technologies and fuels can also help to keep energy and investment dollars in the state to benefit our own economy. In addition, employing low emission forms of such technologies can reduce the amount of greenhouse gases, nitrogen oxides, and particulate matter emissions transported into New Hampshire and also generated in the state, thereby improving air quality and public health, and mitigating against the risks of climate change. It is therefore in the public interest to stimulate investment in low emission renewable energy generation technologies in New England and, in particular, New Hampshire, whether at new or existing facilities." RSA 362-F: 1.

in such resources in New Hampshire in diverse ways, "including by encouraging New Hampshire electric public utilities to invest in renewable and clean distributed energy resources." Id.

6. Notwithstanding the provisions of RSA 374-F, which generally requires the separation of power generation and transmission and distribution services, New Hampshire electric distribution companies ("EDCs") are permitted to "invest in or own *distributed energy resources*, located on or inter-connected to the local electric distribution system." RSA 374-G:4, I (emphasis added); see also RSA 374-F:3, III ("[EDCs] should not be absolutely precluded from owning small scale distributed generation resources as part of a strategy for minimizing transmission and distribution costs.").

7. "Distributed energy resources" are defined under RSA 374-G to include "*electric generation equipment* including clean and renewable generation . . . located on or interconnected to the local electric distribution system for purposes including but not limited to reducing line losses, supporting voltage regulation, or peak load shaving, as part of a strategy for minimizing transmission and distribution costs as provided in RSA 374-F:3, III." RSA 374-G:2, I(b) (emphasis added). "Electric generation equipment' means "devices that produce electric power from sources of primary energy," including solar energy. RSA 374-G:2, I(c)-(d). The energy produced by such electric generation equipment, if owned by an EDC, "shall be used to benefit low-income customers, . . . as an offset to distribution system losses or the public utility company's own use, or any other use as approved by the commission." RSA 374-G:3, I.

8. Though RSA 374-G permits EDCs to invest in and own DERs including electric generation equipment, ownership of individual generation projects is capped at 5 MW. RSA 374-G:2, II(a) ("'Distributed Energy Resources' . . . shall exclude electric generation equipment interconnected with the local electric distribution system at a single point . . . that is in excess of 5 MW."). However, an EDC may own or invest in multiple distributed electric generation facilities up to a cumulative maximum of 6 percent of the utility's total distribution peak load in megawatts. RSA 374-G:4, II.

II. The Kingston Solar Project is a Distributed Energy Resource Under RSA 374-G

9. UES proposes to construct, own, and operate a 4.99 MW alternating current (AC) utility-scale solar generating facility located at 2 Mill Road / 24 Towle Road in Kingston, New Hampshire. The Kingston Solar Project will optimize energy production through the use of single-axis tracking solar panels that rotate on a single point throughout the course of a day, adjusting position to track the sun from east to west. The annual energy output of the facility is expected to average 8,904 MWh over the projected 30-year life of the project, at an assumed capacity factor of approximately 22 percent.

10. The Kingston Solar Project is a "distributed energy resource" as defined in RSA 374-G:2. The Project will comprise "electric generation equipment" in the form of single-axis tracking solar panels that produce electric power from solar energy, a "primary energy" form "found in nature that has not been subject to any human engineered conversion process." RSA 374-G:2, I(b)-(d). Moreover, the Project's output will be limited to 4.99 MW, and thus included as a "distributed energy resource" that an EDC may invest in and own.

11. Utility-scale renewable energy projects such as the Kingston Solar Project provide tangible benefits to customers, the electric distribution system, and the environment. These benefits include reductions to purchased energy, peak demand, and lines losses, and offsets to greenhouse gas emissions that otherwise would be emitted from the burning of fossil fuels.

12. The Kingston Solar Project will realize a number of direct benefits that will accrue to customers over the course of the Project's anticipated 30-year life. These benefits, which are described at length in the Exhibits accompanying this Petition, include avoided purchased power; avoided transmission costs; local transmission savings; regional transmission savings; and renewable energy certificate (REC) savings. UES performed a robust Benefit-Cost Analysis incorporating project cost estimates developed through a combination of information provided in response to competitive requests for information and proposals from potential developers, input from the Company's site assessment contractor,[2] and the experience of UES's Massachusetts affiliate in constructing and operating a 1.3 MW solar facility. The Company's Benefit-Cost Analysis shows that the Project has a positive Benefit-Cost Ratio of 1.09 and a Net Present Value of approximately $1.4 million. The benefits of the Kingston Solar Project will accrue to all customers, including low-income customers who otherwise might not have the means to access the benefits of solar energy. RSA 374-G:3, I.

13. UES plans to operate the Kingston Solar Project as a "load reducer," meaning that the energy produced by the Project will be delivered directly into the Company's electric distribution system, and the Project will not participate in the ISO-

[2] The Company selected its site assessment contractor through a competitive bidding process.

NE wholesale market. The Project will reduce energy received by UES from the transmission system and is therefore a strategic asset for the purposes of minimizing transmission and distribution costs. RSA 374-G:2, I(b); RSA 374-G:3, I. Moreover, by reducing energy that otherwise would be received from the transmission system, the Project directly offsets distribution system losses. RSA 374-G:3, I.

14. The Kingston Solar Project is a "distributed energy resource" within the definition and requirements set forth in RSA 374-G, and represents the very type of project in which the New Hampshire legislature intended to encourage utility investment.

III. The Two-Stage Review Process

15. Pursuant to RSA 374-G:5, III, "*[a]uthorized* and prudently incurred investments shall be recovered . . . in a utility's base distribution rates as a component of rate base." (Emphasis added). Cost recovery under this provision "shall include the recovery of depreciation, a return on investment, taxes, and other operating and maintenance expenses directly associated with the investment, net of any offsetting revenues received by the utility directly attributable to the investment." RSA 374-G:5, III.

16. UES proposes, as it did in DE 09-137, that the Commission apply a two-stage regulatory process to review the Kingston Solar Project. In Stage I (this proceeding), the Commission will review the Company's Kingston Solar Project proposal to determine (1) whether the Project meets the minimum filing requirements of RSA 374-G:5, I and (2) whether the Project is in the public interest and thus recoverable in rates as required by RSA 374-G:5, II. If the Commission were to find that the Kingston Solar Project meets the statutory requirements of RSA 374-G:5, the Company would be

"authorized" to proceed with the Project and seek recovery of rates after the Project is placed into service. Thus, in Stage II of the process, the Company will seek to recover the cost of the "authorized" Project in base distribution rates. UES plans to request such rate recovery in its next base distribution rate case or in a subsequent step adjustment.

17. As noted above, UES proposed a similar regulatory process in DE 09-137, the Company's first petition for approval to invest in DERs under RSA 374-G. The Commission concluded that RSA 374-G does not preclude such a two-stage process, and that it is reasonable for the Commission to use such a process in reviewing DER investments. DE 09-137, Unitil Energy Systems, Inc., Order No. 25,111 at 32 (June 1, 2010). It further found it in the public interest to approve the two stage process. Id.[3]

18. The Commission should similarly adopt a two-stage process to review the Kingston Solar Project. This process will allow for the thorough and efficient review of the process to determine whether it is in the public interest and thus "authorized," after which the Company will proceed to construct the Project and seek recovery in base distribution rates.

IV. The Company's Filing Meets the Requirements of RSA 374-G:5

a. The Company's filing meets the minimum statutory requirements of RSA 374-G:5, I

19. Any filing made under RSA 374-G:5 must include certain minimum filing requirements, including:

a. A detailed description and economic and environmental evaluation of the proposed investment;
b. A discussion of the costs, benefits, and risks of the proposal with specific reference to the nine public interest factors, including an analysis of the costs, benefits, and rate implications to the participating customers, to the

[3] Though RSA 374-G:5 was repealed and re-enacted in 2013, the language of the statute was not altered in a way that would affect the Commission's decision or necessitate a different outcome.

company's default service customers, and to the utility's distribution customers;
c. A description of any equipment or installation specifications, solicitations, and procurements it has or intends to implement;
d. A showing that the utility has used a competitive bidding process to reasonably minimize the costs of the project to its customers;
e. A showing that it has made reasonable efforts to involve local businesses in its program;
f. Evidence of compliance with any applicable emission limitations; and
g. A copy of any customer contracts or agreements to be executed as part of the program.

20. All of these requirements are satisfied through the testimonies and exhibits of the Company's witnesses.[4] The testimony of Kevin E. Sprague provides a summary of how the various testimonies satisfy the statutory requirements of RSA 374-G:5,I.

b. The Kingston Solar Project meets the public interest criteria set forth in RSA 374-G:5, II

21. RSA 374-G:5 also requires the Commission, when considering whether a proposed distributed energy resource is in the "public interest," to give balanced consideration and proportional weight to a series of nine factors, including:.

a. The effect on the reliability, safety, and efficiency of electric service;
b. The efficient and cost-effective realization of the purposes of the renewable portfolio standards of RSA 362-F and the restructuring policy principles of RSA 374-F:3;
c. The energy security benefits of the investment to New Hampshire;
d. The environmental benefits of the investment to the state of New Hampshire;
e. The economic development benefits and liabilities of the investment to New Hampshire;
f. The effect on competition within the region's electricity markets and the state's energy services market;
g. The costs and benefits to the utility's customers, including but not limited to a demonstration that the company has exercised competitive processes to reasonably minimize costs of the project to ratepayers and to maximize private investment in the project;
h. Whether the expected value of the economic benefits of the investment to

[4] Solar generation does not produce any emissions and therefore this requirement is not applicable to the Company's planned Kingston Solar Project; moreover, there are no customer contracts to be executed as part of the Company's proposed Project.

the utility's ratepayers over the life of the investment outweigh the economic costs to the utility's ratepayers; and

i. The costs and benefits to any participating customer or customers.

22. As with the minimum statutory requirements, these factors are addressed in the UES witnesses' respective testimonies and exhibits. The testimony of Kevin E. Sprague provides a summary of how the various testimonies satisfy the statutory requirements of RSA 374-G:5,II. Generally speaking, the Company's Benefit-Costs analysis shows that the Kingston Solar Project has a favorable Benefit / Cost ratio and will result in the accrual of direct benefits to customers over the course of the Project's 30-year planned timeframe. *See generally*, Exhibit KES-1 at 22-30.

23. Furthermore, the Company has engaged Daymark Energy Advisors to quantify the estimated indirect benefits of the Project, including economic benefits, emissions reduction benefits, and DRIPE benefits. While the Kingston Solar Project stands on its own solely through the delivery of direct benefits to customers, these additional benefits reinforce that the Project is in the public interest and should be approved by the Commission for construction and, ultimately, rate recovery.

V. Recovery of Reasonable Costs Associated With the Company's Filing

24. A utility may recover "all reasonable costs" associated with a filing under RSA 374-G:5, "whether or not the application is approved by the Commission." RSA 374-G:5, III.

25. As explained in this Petition and its accompanying exhibits, the Kingston Solar Project meets the criteria set forth in RSA 374-G and is in the public interest, and therefore should be approved. Regardless of the Commission's decision in this docket,

however, UES should be permitted to recover all reasonable costs associated with this filing.

26. UES therefore requests that the Commission approve recovery of all reasonable costs associated with this filing. The Company proposes to recover such costs through its Schedule EDC. As costs related to this filing will continue to accrue throughout the course of the docket, the Company proposes to provide an accounting of such costs, subject to update, at a time agreed to by the parties and the Commission at the prehearing conference in this matter.

VI. Timing of the Commission's Decision

27. The Commission must approve, disapprove, or approve with conditions a utility rate filing under RSA 374-G:5 within six months of the date of the filing for an investment that exceeds $1,000,000. RSA 374-G:5, V. Though UES is requesting that the Commission proceed with a bifurcated, two-stage regulatory process in connection with the Kingston Solar Project (which exceeds $1,000,000 in project costs), the Company believes that the Commission must still adhere to the six month timeline for the purposes of determining, in Stage I, that the Kingston Solar Project meets the minimum filing requirements of RSA 374-G and is in the public interest.

28. It is only logical that the six month timeline would apply to Stage I of the proceeding. The statute clearly contemplates that the Commission will make all necessary findings – including the adequacy of a filing, whether a project is in the public interest, and the recovery of project costs through rates – within a period of six months for projects exceeding $1,000,000. In this instance, the Company is requesting only that the Commission "authorize" the Kingston Solar Project in Stage I of the proceeding, and

defer recovery of project costs to a future time after project completion. In other words, UES is not requesting that the Commission make *more* findings than it otherwise would be required to make in a six month time frame under RSA 374-G:5 in Stage I; it is requesting that the Commission make fewer findings. As such, the Commission should render a decision on the Company's filing within six months of the date of this filing.

WHEREFORE, UES respectfully requests that the Commission:

A. Approve a two-stage framework for the Commission's review of UES's proposal to construct, own, and operate the Kingston Solar Project;

B. Find that the Company's filing meets the minimum requirements set forth in RSA 374-G:5, I;

C. Find that the Kingston Solar Project is in the public interest pursuant to RSA 374-G:5, II and authorize construction of the Project;

D. Authorize UES to seek recovery of Project costs in the Company's next base distribution rate case;

E. Approve recovery by the Company of its reasonable costs associated with this filing through the Company's Schedule EDC;

F. Render a decision on the Company's filing within six months of the filing date, consistent with RSA 374-F:5; and

F. Grant such further relief as may be just and appropriate.

Respectfully submitted,

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By its Attorneys:

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Dated: October 31, 2022

Certificate of Service

I hereby certify that on this 31st day of October, 2022, a copy of the foregoing Petition was electronically delivered to the New Hampshire Department of Energy and Office of the Consumer Advocate.

Patrick H. Taylor