UNITIL ENERGY SYSTEMS, INC.

DIRECT TESTIMONY OF

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New Hampshire Public Utilities Commission

Docket No. DE 14-061

September 26, 2014

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Todd M. Bohan. My business address is 6 Liberty Lane West, Hampton, NH.

Q. What is your relationship with Unitil Energy Systems, Inc.?

A. I am employed by Unitil Service Corp. ("USC") as a Senior Energy Analyst. USC provides management and administrative services to Unitil Energy Systems, Inc. ("UES") and Unitil Power Corp. ("UPC").

Q. Please briefly describe your educational and business experience.

A. I graduated *magna cum laude* from Saint Anselm College, Manchester, New Hampshire in 1987 with a Bachelor of Arts degree in Financial Economics. I earned a Masters in Economics from Clark University, Worcester, Massachusetts in May 1990. In September 1995, I earned a Ph.D. in Economics from Clark University. Before joining Unitil, I worked for Bay State Gas Company as a Rate Analyst. Prior to working for Bay State, I was employed as a Utility Analyst and an Economist in the Economics Department of the New Hampshire Public Utilities Commission. I joined Unitil Service Corp. in November 1998, and have been involved in various regulatory proceedings. In August of 2010, I joined the Energy Contracts group and have primary responsibilities in the areas of electric market operation and data reporting, default service administration and budgeting. In addition, I have administrative responsibilites associated with competitive electric supplier operations with Unitil.

Q. Have you previously testified before the New Hampshire Public Utilities Commission ("Commission")?

A. Yes. I have testified before the Commission on various regulatory matters, most recently in UES's Stranded Cost Recovery and External Delivery Charge Reconciliation and Rate Filing, Docket No. DE 13-172, and UES's Default Service Solicitation proceeding, Docket No. DE 14-061.

II. PURPOSE OF TESTIMONY

Q. Please describe the purpose of your testimony.

A. My testimony documents the solicitation process followed by UES in its acquisition of Default Service power supplies ("DS") for its G1 and Non-G1 customers as approved by the Commission in Order No. 25,397, dated July 31, 2012 (the "Order") granting UES's Petition for Approval of Revisions to its Default Service Solicitation Process for G1 and Non-G1 Customers. With the current Request for Proposal ("RFP"), UES has contracted for a six-month default service power supply for 100% of its small customer group (Non-G1); 100% of its medium customer group (Non-G1); and 100% of its large customer group (G1) service requirements. Service begins on December 1, 2014.

I describe how UES solicited for bids from wholesale suppliers to provide the supply requirements in accordance with the terms of the Order as UES has done in prior default service supply solicitations. I also describe how the proposals received were evaluated and the winning bidders were chosen. Supporting documentation and

additional detail of the solicitation process is provided in the Bid Evaluation Report ("Report"), attached as Schedule TMB-1. A copy of the RFP as issued is attached as Schedule TMB-2, and an updated Customer Migration Report is attached as Schedule TMB-3. The Customer Migration Report shows monthly retail sales and customer counts supplied by competitive generation, total retail sales and customer counts (the sum of default service and competitive generation) and the percentage of sales and customers supplied by competitive generation. The report provides a rolling 13-month history which covers the period from August 2013 through August 2014. Renewable Portfolio Standard ("RPS") Compliance Cost Estimates are included as Schedule TMB-4. My testimony reviews UES's approach to compliance with the RPS which went into effect in January 2008. Schedule TMB-4 details projected obligations and price assumptions for the coming rate period. The price assumptions listed in Schedule TMB-4 are based on recent market data and information and alternative compliance payment prices. Schedule TMB-5 provides historical price data by customer group that is no longer subject to confidential treatment. This schedule provides pricing histories associated with the most recent three-month rate periods for G1 customers or six-month rate periods for Non-G1 customers for which all pricing is currently subject to the Federal Energy Regulatory Commission's quarterly reporting requirements. Lastly, Schedule TMB-6 provides a copy of a recent ISO-NE Newswire regarding ISO-NE's Winter Reliability Program for the winter 2014-15 period.

Q. Please summarize the approvals UES is requesting from the Commission.

A. UES requests that the Commission:

- Find that: UES has followed the solicitation process approved by the Commission; UES's analysis of the bids submitted was reasonable; and UES has supplied a reasonable rationale for its choice of the winning suppliers.
- Find that: the price estimates of renewable energy certificates ("RECs") proposed by UES, based on actual purchases or current market prices and information, are appropriate for inclusion in retail rates.
- On the basis of these findings, conclude that the power supply costs resulting from the solicitation are reasonable and that the amounts payable to the sellers under the supply agreements are approved for inclusion in retail rates.
- Issue an order granting the approvals requested herein on or before October 3, 2014, which is five (5) business days after the date of this filing.

III. SOLICITATION PROCESS

Q. Please discuss the Solicitation Process UES employed to secure the supply agreements for default service power supplies.

A. In the same manner as its prior solicitations for default service supplies, UES conducted an open solicitation in which it actively sought interest among potential suppliers and provided potential suppliers with access to sufficient information to enable them to assess the risks and obligations associated with providing the services sought. UES did not discriminate in favor of or against any individual potential supplier who expressed interest in the solicitation. UES negotiated with all potential suppliers who submitted proposals to obtain the most favorable terms from each

potential supplier. The structure, timing and requirements associated with the solicitation are fully described in the RFP issued on August 26, 2014. This is attached as Schedule TMB-2 and is summarized in the Report attached as Schedule TMB-1.

Q. How did UES ensure that the RFP was circulated to a large audience?

A. UES announced the electronic availability of the RFP to all participants in NEPOOL by notifying all members of the NEPOOL Markets Committee and the NEPOOL Participants Committee via email. UES also announced the issuance of the RFP via email to a list of power suppliers and other entities such as distribution companies, consultants, brokers and members of public agencies who have previously expressed interest in receiving copies of UES's solicitations. UES followed up the email announcements with telephone calls to the power suppliers to solicit their interest. In addition, UES issued a media advisory to a number of power markets publications announcing the issuance of the RFP.

Q. What information was provided in the RFP to potential suppliers?

A. The RFP described the details of UES's default service, the related customer-switching rules, and the form of power service sought. To gain the greatest level of market interest in supplying the load, UES provided potential bidders with appropriate and accessible information. Data provided included historical hourly default service loads and daily capacity tags for each customer group; class average load shapes; historical monthly retail sales and customer counts by rate class and supply type; a generic listing of large customers showing annual sales, peak demands, and capacity

tag values as well as supply type (default service or competitive generation); and the evaluation loads, which are the estimated monthly volumes that UES would use to weigh bids in terms of price. The retail sales report and the historical loads and capacity tag values were updated prior to initial bidding to provide the latest information available. All documents and data files were provided to potential suppliers via UES's corporate website (www.unitil.net/rfp).

Q. How did UES evaluate the bids received?

A. UES evaluated the bids on both quantitative and qualitative criteria, including price, creditworthiness, willingness to extend adequate credit to UES to facilitate the transaction, capability of performing the terms of the RFP in a reliable manner and the willingness to enter into contractual terms acceptable to UES. UES compared the pricing strips proposed by the bidders by calculating weighted average prices for the supply requirement using the evaluation loads that were issued with the RFP.

UES selected DTE Energy Marketing, Inc. ("DTE Energy") as the winning bidder of the small customer (Non-G1) supply requirement (100% share) and TransCanada Power Marketing, Ltd. ("TransCanada") as the winning bidder of the medium customer (Non-G1) supply requirement (100% share). Nextera Energy Power Marketing, LLC ("Nextera") was selected as the supplier of the large customer (G1) supply requirement (100% share). All three transactions are for a period of six months. UES believes that DTE Energy, TransCanada and Nextera offered the best

overall value in terms of both price and non-price considerations for the supply requirements sought.

Q. Please describe the contents of the Bid Evaluation Report.

A. Schedule TMB-1 contains the Bid Evaluation Report which further details the solicitation process, the evaluation of bids, and the selection of the winning bidders. The Report contains a narrative discussion of the solicitation process. A confidential section labeled "Tab A" follows the narrative. Tab A includes additional discussion regarding the selection of the winning bidders and presents several supporting exhibits that list the suppliers who participated as well as the pricing they submitted and other information considered by UES in evaluating final proposals, including redlined versions of the final supply agreements. UES seeks protective treatment for specific materials provided in Tab A.

On the basis of the information and analysis contained in the Bid Evaluation Report, UES submits that it has complied with the Commission's requirements, and that the resulting default service power supply costs are reasonable and that the amounts payable to the sellers under the supply agreements should be approved for inclusion in retail rates.

Q. Please indicate the planned issuance date, filing date and expected approval date associated with UES's next default service solicitation.

A. Similar to the current solicitation, UES's next default service solicitation will be for one hundred percent (100%) of the small, medium and large customer supply

requirements for a six-month period. Delivery of supplies will begin on June 1, 2015. UES plans to issue an RFP for these supplies on March 3, 2015, with a filing for approval of solicitation results planned for April 3, 2015 and approval anticipated by April 10, 2015.

IV. RENEWABLE PORTFOLIO STANDARD COMPLIANCE

Q. Please explain how UES is complying with the Renewable Portfolio Standard requirements.

A. In accordance with the settlement agreement dated July 16, 2009, UES typically issues two REC RFPs annually, each for approximately 50% of its projected REC obligations. In addition, UES may make REC purchases outside of the RFP process when it finds it advantageous to do so. For 2014 RPS compliance, UES completed a REC RFP in late February 2014. UES has made some additional purchases outside of the REC RFP issuance. Tab A includes an exhibit summarizing UES's REC purchases for RPS compliance. UES anticipates issuing another REC RFP in late 2014.

Q. Please describe UES's estimates of RPS compliance costs.

A. The current solicitation is for default service power supplies to be delivered beginning December 1, 2014. Schedule TMB-4 lists the percentage of sales and the resulting REC requirement for each class of RECs for RPS compliance along with UES's cost estimates for the period beginning December 1, 2014. UES's cost estimates are based

on current market prices as communicated by brokers of renewable products, recent purchases of RECs, and alternative compliance payment rates for 2014 and 2015.

Q. Does UES's estimate of RPS costs incorporate the latest RPS requirements for 2014 and 2015?

A. Yes. The following table provides a summary of the RPS requirements.

NH Renewable Portfolio Standards: 2014 - 2015

Calendar Year	Class I*	Class I Thermal	Class II	Class III	Class IV
2014	5.00%	0.40%	0.30%	3.00%	1.40%
2015	6.00%	0.60%	0.30%	8.00%	1.50%

*Class I is the gross requirement. The Class I requirement less the Class I Thermal Carve-Out requirement is 4.60% for 2014 and 5.40% for 2015.

Schedule TMB-4 RPS Compliance Costs Estimates incorporates the latest RPS requirements shown here.

V. WHOLESALE WINTER ELECTRICITY PRICES

Winter 2013-14

Q. Please provide a brief summary of wholesale electricity prices in New England/New Hampshire during the winter 2013-14 period.

A. The New England region experienced both high and volatile wholesale electricity prices during the winter 2013-14 period. These high prices and volatility were driven by two major factors: (1) high consumer demand, particularly due to the occurrence of extreme cold temperatures on several occasions during this period; and (2) high fuel

prices, namely natural gas, driven by competition for heating purposes and pipeline constraints limiting supply availability. The following table shows details regarding New Hampshire electricity prices during the winter 2013-14 period.

NH Load Zone (4002): Monthly Locational Marginal Prices					
	Avg Price	Pct Change	Highest Price	St. Deviation	St. Deviation
Month	($s per MWH)	(vs. Prev.)	($s per MWH)	($s per MWH)	(Prev. Yr.)
Dec-13	$97.58	126%	$1,274.29	85.6	19.4
Jan-14	$149.98	82%	$632.67	91.8	67.2
Feb-14	$150.61	42%	$571.06	78.6	61.6
Mar-14	$113.07	112%	$390.80	84.2	24.7

The data shows that wholesale electricity prices in New Hampshire in the winter 2013-14 period were both much higher and more volatile than in the winter 2012-13 period.

Q. How did factors influencing the natural gas market have an impact on electricity prices during this period?

A. Not surprisingly, the demand for natural gas is high during the winter period as a primary source for heating purposes. At the same time, natural gas is also a major fuel source for electric generation in the New England region accounting for over half of the electricity generated. As a result, natural gas prices in the New England region were much higher than they were in the winter 2012-13 period contributing to higher wholesale electricity prices in the region. Below are details regarding New England natural gas prices during the winter 2013-14 period and winter 2012-13 period.

Tennessee Gas Pipeline (Zone 6 Delivered): Average Monthly Spot Prices					
	Avg Price		Avg Price	$ Change	Pct Change
Month	($s per MMBtu)	Month	($s per MMBtu)	(Prev. Yr.)	(Prev. Yr.)
Dec-13	$12.758	**Dec-12**	$5.818	$6.940	119%
Jan-14	$24.353	**Jan-13**	$10.125	$14.228	141%
Feb-14	$20.198	**Feb-13**	$16.253	$3.945	24%

Additional information regarding the relationship between natural gas prices and wholesale electricity prices in New England is available in a recent press release by ISO New England (March 18, 2014) entitled: *"2013 Wholesale Electricity Prices in New England Rose on Higher Natural Gas Prices."* [1]

Winter 2014-15

Q. Do wholesale electricity market participants expect the winter 2014-15 to be similar to winter 2013-14 in New England/New Hampshire?

A. In the current RFP, wholesale electricity suppliers have expressed concern that the winter 2014-15 period will have operational conditions at least as severe as the winter 2013-14 period and quite possibly more constrained leading to added upward pressure on wholesale electricity prices during this upcoming period.

Q. Could you please explain why market participants have this concern regarding the winter 2014-15 period?

A. Certainly. There are a number of market dynamics contributing to higher wholesale electric prices this winter:

[1] A copy was provided in the Company's last filing and it is available at: http://www.iso-ne.com/static-assets/documents/nwsiss/pr/2014/2013_price_release_03182014_final.pdf.

1) Natural Gas Pipeline Constraints: The New England natural gas pipeline system has become increasingly more constrained over the last few winter seasons as the demand for natural gas has increased significantly given its general price advantage and favorable environmental attributes relative to oil. Electric generation demand for natural gas has increased as has demand for natural gas for more traditional heating purposes. The increased competition for the limited volumes of natural gas that can be transported into the region has led to higher natural gas prices particularly during cold weather conditions, which translates directly into higher electricity prices for consumers. Because a large portion of the regional power supply is fueled by natural gas, electric prices increase when natural gas prices rise. Moreover, when natural gas in the region becomes scarce, some gas-fired units can be unable to access supply, requiring them to shut down and be replaced by the dispatch of generating units fueled by other, often less efficient, fuels.

2) Reduction of LNG: Along with pipeline constraints, the reduction in the volume of liquefied natural gas (LNG) based natural gas supplies to the New England region has contributed significantly to the high seasonal cost of natural gas. Given the increase in low cost domestic natural gas production during the past several years, LNG shipments that were being received in the northeast have been increasingly moved to other global markets.

3) Generator Retirements: The June 1 closure of Salem Harbor Power Station and the pending retirement of Vermont Yankee Nuclear Power Plant at the end of

2014 will result in a reduction of approximately 1,200 MW less of non-gas fired electric generating capacity as New England heads into the winter period.

4) Oil Inventory Challenges: Last winter presented conditions that resulted in natural gas prices rising above oil prices in the region. As a result, more oil-fired electric generation was dispatched to meet demand. With a few significant cold snaps and other difficult winter conditions occurring, oil-fired generators depleted their inventories in mid-winter and had difficulty replenishing their fuel supply in a timely manner. The region could experience a similar impact in the winter 2014-15.

5) Winter Reliability Program: In an effort to maintain electric system integrity this winter, ISO New England has implemented a 2014-15 Winter Reliability Program ("Winter Reliability Program").[2] The Winter Reliability Program includes a number of components such as: compensation for unused oil inventory and LNG contract volume; demand response and incentives for dual-fuel capacity. The costs for the Winter Reliability Program are estimated by the program components; however, the end result is an estimated total cost on the order of $100 million. An important aspect of the Winter Reliability Program is that the FERC has determined that these costs will be allocated to real-time load obligation which is paid by load serving entities.

[2] For further details, please see the ISO Newswire: *"FERC OK's 2014/2015 Winter Reliability Program"* at http://isonewswire.com/updates/2014/9/10/ferc-oks-20142015-winter-reliability-program.html.

Further details are provided in a recent ISO New England Newswire (July 14, 2014) entitled: *"ISO-NE and NEPOOL file proposal with FERC to implement a Winter Reliability Program for winter 2014-15"* and provided in Schedule TMB-6.

Q. What is the impact of these factors discussed above?

A. Wholesale electricity suppliers submitting bids in response to Unitil's RFP recognize the potential impacts of all the aspects discussed above and have incorporated these factors into their wholesale electricity pricing submitted to Unitil. As discussed in the testimony of Ms. McNamara, the bill impact for a residential customer is an increase of approximately 44 percent in comparison to rates currently in effect. This is a direct result of higher wholesale electricity prices during the winter 2014-15 period. The following table shows the NYMEX On-Peak, Off-Peak and Average Electricity Futures prices for the New England region.

NYMEX Futures Electricity Prices (9/22/2014)			
	On-Peak Price	**Off-Peak Price**	**Average Price**
Month	**($s per MWH)**	**($s per MWH)**	**($s per MWH)**
Dec-14	$146.65	$116.53	$131.59
Jan-15	$188.00	$144.10	$166.05
Feb-15	$177.75	$136.00	$156.88
Mar-15	$107.25	$84.00	$95.63

Examination of the table above suggests that the average wholesale price of electricity through the winter months of the 2014-15 season will be well in excess of $100 per MWh.

Q. In light of this increase, is Unitil undertaking efforts to reach out to customers to advise them of options available to help mitigate or manage this rate impact?

A. Yes. The Company is certainly concerned about this rate impact and is undertaking efforts to help its customers during this winter season. Specifically, the following actions have been completed, or are scheduled to be done prior to the start of the winter season:

- Customer Newsletter and Outreach Efforts: On September 10, 2014, Unitil's Director of Customer Operations provided a copy of the Company's pending newsletter; *Unitil's Monthly Newsletter, October 2014, Issue No. 18*, to the Commission's Consumer Affairs Director. The newsletter provides details regarding payment assistance and weatherization and will be provided to customers with their October bills.

- Customer Assistance Training: Unitil is in the process of completing a number of training initiatives to provide our customers with assistance in the winter period. (1) A Unitil Customer Assistance Program Coordinator is meeting with the Community Action Agencies which administer fuel assistance. (2) In early October, Unitil will participate with the other New Hampshire electric utilities in hosting a customer assistance training session for all charitable organizations. This session will cover topics such as low-income discount rate eligibility, fuel assistance, weatherization, and payment arrangements. (3) In November, Unitil will participate with the other electric utilities in speaking at

the New Hampshire Municipal Welfare Annual Conference covering the topics mentioned above. (4) Unitil's Media Relations Manager has prepared talking points to inform customers about various options when they contact Unitil's call center, and he will meet with call center representatives over the next few weeks to make certain they are prepared for customer inquiries.

VI. CONCLUSION

Q. Does this conclude your testimony?

A. Yes, it does.