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Witness: David R. Swain
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Sponsoring Party: The Empire District Electric Company
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Date Testimony Prepared: October 2017

Direct Testimony

of

David R. Swain

Empire District
A Liberty Utilities Company

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is David R. Swain and my business address is 602 South Joplin Avenue, Joplin, Missouri, 64801.

Q. WHO IS YOUR EMPLOYER AND WHAT POSITION DO YOU HOLD?

A. I am employed by Liberty Utilities Service Corp. as the President of Liberty Utilities' Central Region, which includes The Empire District Electric Company, Liberty Utilities (Midstates Natural Gas) Corp. and Liberty Utilities (Missouri Water) LLC.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of The Empire District Electric Company ("Empire" or "Company").

Q. WHAT ARE YOUR QUALIFICATIONS AND PREVIOUS WORK EXPERIENCE?

A. Prior to starting my current position on January 1, 2017, I was the President of Liberty Utilities (Granite State Electric) Corp. ("Liberty Granite State") and Liberty Utilities (EnergyNorth Natural Gas) Corp. ("Liberty EnergyNorth") in New Hampshire. Liberty Granite State is an electric distribution utility serving approximately 43,000 customers in 21 communities in New Hampshire, and Liberty EnergyNorth is a natural gas distribution utility serving approximately 90,000 customers across 31 communities in New Hampshire. Before assuming my role in New Hampshire, I was President of Liberty Utilities (Midstates Natural

Gas) Corp., which serves approximately 55,000 natural gas customers located in Iowa, Illinois, and Missouri. Before joining Liberty Utilities in 2012, I was the Division Operations Manager at Atmos Energy for 22 years where I provided direction and oversight of 12 operations in Kentucky, Tennessee, Illinois, and Missouri. I have been involved in many facets of the industry and have a passion for improving and enhancing the safety and reliability of utility systems. I have helped with the development of pipeline safety and compliance programs in natural gas that have been used across the country.

Q. HAVE YOU TESTIFIED BEFORE ANY STATE REGULATORY COMMISSIONS?

A. Yes, I have testified in Missouri, Illinois, and New Hampshire.

Q. PLEASE EXPLAIN THE PURPOSE OF YOUR TESTIMONY.

A. The purpose of my testimony is to present the Company's Customer Savings Plan, which is an innovative proposal to bring between $172 million and $325 million in savings to its customers by developing up to 800 MW of wind generation, strategically located in or near Empire's service territory, in conjunction with retiring its Asbury coal fired generation plant and thus avoiding continued costly environmental compliance obligations. My testimony explains why the Company must act swiftly to take advantage of unique economic opportunities to bring our customers these savings, why Empire is well positioned to take advantage of these opportunities, and why those opportunities are good for the communities in which Empire operates. In addition, I will introduce each of the Company's witnesses that are filing testimony in support of this proposal.

Q. PLEASE IDENTIFY THE OTHER WITNESSES WHO WILL BE SPONSORING TESTIMONY IN THIS PROCEEDING.

A. The following witnesses are submitting testimony in this proceeding:

Witness	Subject Matter Area
David R. Swain	Customer Savings Plan
James McMahon	Generation Fleet Savings Analysis
Todd Mooney	Benefits of Tax Equity Structure, Tax Equity Accounting, Commercial Transaction Terms/Structure
Timothy N. Wilson	Request for Proposals for Wind Generation Acquisition
Blake A. Mertens	Operational Implementation of the Customer Savings Plan
Christopher D. Krygier	Customer Savings and Necessary Regulatory Approvals
Gregory E. Macias	Jurisdictional Allocation for Customer Savings
Robert W. Sager	Asbury Coal Plan Regulatory Asset Accounting
Dane Watson	Depreciation Rates for New Wind Generation

II. THE CUSTOMER SAVINGS PLAN

Q. PLEASE DESCRIBE THE COMPANY'S CUSTOMER SAVINGS PLAN.

A. The Company is proposing changes to its generation fleet in order to bring up to $325 million in savings for its customers over the next 20 years by taking advantage of expiring production tax credits. Specifically, Empire is proposing to acquire up to 800 MW of wind generation, strategically located in or near Empire's service territory, in conjunction with tax equity partners which will allow Empire to acquire renewable generation for approximately 40 cents on the dollar. At the same time, Empire proposes to retire its Asbury coal plant, saving customers millions of dollars in annual operating expenses and avoiding tens of millions of dollars of capital investments needed by April 2019 to meet environmental regulations. Because this proposal will result in up to $325 million in savings to our customers over the next 20 years, I refer to it as the Customer Savings Plan.

Q. WHAT IS THE RELIEF REQUESTED BY THE COMPANY IN THIS PROCEEDING?

A. The Company is requesting that the Commission approve the Customer Savings Plan, which includes: (a) the Company's plan to acquire up to 800 MW of wind, consistent with the economics and locations identified in the Generation Fleet Savings Analysis set forth in the testimony of Company witness McMahon and based on the commercial terms described in the testimony of Company witness Mooney, and; (b) retirement of Asbury and the creation of a regulatory asset for the continued recovery on and of the Asbury facility's remaining plant balances in future rate cases as described in the testimony of Company witnesses Krygier and Sager. The Company is seeking approval of the fundamental concepts of the Customer Savings Plan given the magnitude of the investments involved. As the Commission and parties will understand, the Company would not embark on such a significant proposal without first obtaining approval of this blueprint from its regulators.

Q. IS THERE ANY URGENCY TO ADOPTION OF THE CUSTOMER SAVINGS PLAN?

A. Yes. Time is of the essence. The Customer Savings Plan is premised on taking advantage of federal production tax credits ("PTCs") that will be phased out by 2020. In order to maximize these credits and to realize the corresponding $172 - $325 million in savings over the next 20 years that are identified in our Generation Fleet Savings Analysis described in Mr. McMahon's testimony (which Mr. McMahon explains could be as high as $607 million in savings over the next 30 years), Empire must act now to build or acquire eligible wind projects. At the same time, the Company seeks to avoid more than $20 million in additional capital investments at the Asbury coal plant that must be completed by 2019 to meet environmental obligations as well as to avoid further costs to operate Asbury.

Q. HAS EMPIRE BEEN ABLE TO LEVERAGE ALGONQUIN POWER & UTILITIES CORP.'S EXPERTISE IN DEVELOPING THE CUSTOMER SAVINGS PLAN?

A. Yes. On January 1, 2017, Empire was acquired by Liberty Utilities (Central) Co., a subsidiary of Algonquin Power & Utilities Corp. ("Algonquin"). Algonquin consists of two primary operating units: Liberty Utilities Co. ("Liberty Utilities") which provides over 750,000 customers electric, natural gas, and water services across 12 states (including Empire) and includes a rate-regulated asset portfolio of 1.4 GW of generation capacity, and Liberty Power which owns a portfolio of over 1.5 GW of hydroelectric, wind, solar, thermal, and natural gas fired generating capacity in the United States and Canada. Since the closing of the acquisition, Empire has been integrated into the Liberty Utilities' family of businesses, which brings benefits and opportunities to Empire's customers based on their experience with developing renewable generation. Algonquin has developed renewable energy projects with tax equity partners and, as a result, has expertise in these types of transactions. This expertise is not commonly held by a public utility, and thus there are some unique opportunities here for Empire.

Q. WHAT SPECIFIC KNOWLEDGE DID LIBERTY UTILITIES AND ALGONQUIN BRING TO THE TABLE?

A. As explained in Company witness Mooney's testimony, Algonquin has utilized tax equity partners on projects representing over 900 MW of capacity. This includes a recent project in California for Liberty Utilities (CalPeco Electric) LLC, an electric distribution utility serving customers in the Lake Tahoe, California area. This California affiliate recently developed a 50 MW solar facility with a tax equity partner, and is poised to develop an additional 10 MW of solar generation pending approval by the California Public Utilities Commission. Having this experience, along with the necessary relationships with tax equity partners, opens the door to these opportunities and has provided new avenues to Empire as it considers the most cost effective way to serve its customers.

Q. DID EMPIRE UNDERTAKE AN ANALYSIS TO DETERMINE WHETHER IT COULD ACHIEVE ANY SAVINGS FOR ITS CUSTOMERS THROUGH ITS GENERATION FLEET?

A. Yes. In light of Liberty Utilities' and Algonquin's expertise in developing renewable generation projects in conjunction with tax equity partners, Empire undertook a review of its generation fleet to determine whether it could create any additional savings to customers over its 2016 Integrated Resource Plan ("2016 IRP"). The 2016 IRP had considered renewable generation as part of its resource acquisition strategy but it did not factor in the potential for customer cost savings from the use of recently extended tax incentives via a tax equity mechanism. In keeping with its obligation to continually evaluate its resource acquisition strategy, Empire decided to update its 2016 IRP to include the benefits of tax equity financing for increasingly low cost renewable projects in conjunction with the availability of PTCs. Empire also updated some other key IRP assumptions, including more recent market and fuel price data.

Q. WHAT HAS THAT ANALYSIS SHOWN?

A. Empire's Customer Savings Plan can bring up to $325 million in savings over the next twenty years to its customers if it can act quickly to acquire up to 800 MW of wind generation strategically located in or near its service territory utilizing tax incentives in conjunction with tax equity financing, as well as simultaneously retiring its Asbury plant and recovering its investment as a regulatory asset over a 30 year period.

III. IMPLEMENTATION OF THE CUSTOMER SAVINGS PLAN

Q. WHEN WOULD EMPIRE ACQUIRE NEW WIND GENERATION?

A. Empire is conducting a Request for Proposal ("RFP") where it is soliciting wind projects that will be constructed within the time frame required to take full advantage of the tax credits under the Internal Revenue Code. In order to maximize the amount of tax credits available for a specific project, any wind project that is bid into the RFP process needs to have commenced construction (as defined by the Internal Revenue Service) by the end of 2016 and must be completed by December 31, 2020. Thus, the Company must act quickly to take advantage of this limited window of opportunity. Mr. Mooney explains the details of the federal tax credits, how projects will meet the "commenced construction by the end of 2016" requirement, and how the phase out of the credits will make the acquisition of renewable generation more costly in the future, along with how these savings can only be achieved by partnering with tax equity.

Q. WILL ANY AFFILIATE BE RESPONDING TO THE RFP PROCESS IN WHICH WIND GENERATION ASSETS ARE SOLICITED?

A. No. Empire affiliates will not be allowed to bid into the RFP to develop the wind projects. Empire will only consider RFP bids from third party bidders.

Q. WHERE WILL THE NEW WIND GENERATION BE LOCATED?

A. The Company's analysis demonstrates that the most cost effective wind for customers would be strategically located in or near the Empire service territory and will not require the construction of any significant new transmission facilities. As part of the RFP, the Company has asked developers to bid on the development of wind generation on two sites in Missouri owned by the Company. As Company witness Mertens explains in his testimony, these sites were strategically identified as sites that would create minimal transmission upgrades and congestion pricing in the Southwest Power Pool ("SPP") Integrated Marketplace. Company witness Wilson's testimony explains that bidders are also invited to propose projects that are elsewhere in SPP so long as there is minimal transmission construction cost, congestion and adequate access to the transmission grid to realize substantial savings for Empire's customers.

Q. HOW MUCH WILL THE WIND GENERATION ASSETS COST?

A. The Generation Fleet Savings Analysis assumed a total price of approximately $1.5 billion to acquire 800 MW of wind generation strategically located in or near Empire's service territory. One of the most significant benefits of partnering with tax equity in the transaction is that Empire would contribute approximately $700 million, while the tax equity partner would contribute the remaining balance of the capital. Ultimately, this means that Empire customers can receive savings of the generation facility over 30 years while only having to invest approximately 40 percent of the capital to construct the projects. This is a compelling opportunity that Empire cannot let pass.

Q. WILL EMPIRE BE USING THE SPP-RECOGNIZED CAPACITY FROM THE NEW WIND GENERATION TO REPLACE THE ACCREDITED CAPACITY ASSIGNED TO ASBURY?

A. Yes. As discussed in Mr. Mertens' testimony, Empire will be retiring the Asbury facility and will be partially replacing that capacity with the SPP-recognized capacity from variable wind generation. However, it is the customer savings and not the capacity replacement that drives the customer benefits under the Customer Savings Plan. As discussed further in the testimony of Company witness Krygier, the purpose of the plan is to achieve customer savings; these customer savings come from revenues received from wind energy sold into the SPP Integrated Marketplace, as well as from fuel savings associated with offering low variable cost wind generation into the SPP. Empire is proposing this plan because, when partnered with the retirement of Asbury, it will result in a reduction in customer rates over the next 20 years. Finally, it provides Empire with the opportunity to replace coal fired generation with a cleaner, cheaper resource that will not require ongoing environmental compliance investments in the future.

Q. WHY IS THE COMPANY PROPOSING TO OWN WIND GENERATION INSTEAD OF ENTERING INTO A POWER PURCHASE AGREEMENT FOR A WIND RESOURCE?

A. As discussed further by Mr. Mertens, there are many benefits to ownership versus power purchase agreements. This provides an opportunity to lower customer costs while also providing the Company and its investors with an opportunity to benefit from renewable opportunities within the SPP. In essence, it is a win-win.

Q. DID THE COMPANY CONSIDER ANY OTHER TYPES OF GENERATING RESOURCES IN ITS GENERATION FLEET SAVINGS ANALYSIS?

A. Yes. As discussed by Mr. McMahon, the Company used a capacity expansion model to analyze many different combinations of generating resource additions in its Generation Fleet Savings Analysis. The model identified nine different resource plans and then the Company conducted production cost modeling to study which plans resulted in the most savings for customers over 20 and 30 years. Mr. McMahon explains that the modeling resulted in plans that identified significant wind additions as the most economic generating resources to be added in the near future.

IV. <u>THE ASBURY RETIREMENT</u>

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSAL TO RETIRE THE ASBURY PLANT AS PART OF ITS CUSTOMER SAVINGS PLAN.

A. The Asbury plant was built in 1970 and over the past 47 years has been a work horse in the Empire generation fleet. As Mr. Mertens describes in his testimony, over the years, the plant has been the subject of many upgrades and retrofits in order to ensure that it remains in compliance with increasingly stringent environmental laws. Despite recent environmental compliance efforts, the Asbury plant still faces approximately $20-30 million in new investment to meet environmental regulations related to the proper disposal of residuals from coal combustion. Given the rapidly approaching compliance deadline for these environmental regulations and the recently completed Generation Fleet Savings Analysis, now is the time to decisively embrace additional low cost generation that provides up to $325 million in savings for our customers over the next twenty years.

Q. DOES EMPIRE BELIEVE THAT ASBURY IS NO LONGER VALUABLE TO CUSTOMERS?

A. While Empire could continue to operate Asbury under the plan identified in the 2016 IRP, Empire has now identified a plan that provides significantly more savings for customers which involves retiring the Asbury facility, foregoing the substantial new investment that is required at that facility, and recovering its remaining undepreciated balances over 30 years. In addition, this new plan provides the Company with the opportunity to "green" its generation portfolio and invest in clean and renewable energy resources. Empire realizes this is a significant change from its previous resource plans, but the Company now advocates for this new direction because of the significant savings for customers identified in the Generation Fleet Savings Analysis.

Q. HOW IS THE RETIREMENT OF ASBURY FACILITY LINKED WITH THE ADDITION OF WIND GENERATION?

A. Quite simply, the Generation Fleet Savings Analysis shows that customers can save the most by together acquiring wind generation and retiring Asbury. In addition, the generating capacity recognized by SPP when adding 800 MW of additional wind will largely offset the reduction in accredited capacity caused by the Asbury retirement. As Mr. Mertens explains, Empire will ensure that the new wind generation facilities are Network Resources under the SPP tariff and will ensure that SPP maximizes the amount of capacity the new wind farms provide to Empire's capacity margin requirements.

Q. WHAT IMPACT WILL THE RETIREMENT OF ASBURY HAVE ON THE COMPANY, ITS EMPLOYEES, AND THE SURROUNDING COMMUNITIES?

A. Currently, there are approximately 55 employees at the Asbury facility. Mr. Mertens' testimony provides greater detail regarding the Company plan for providing some employees the opportunity to transition into other Company jobs in the short term and other employees to remain at the Asbury plant until after the retirement has been completed. As the Commission must be aware, approval of the Customer Savings Plan will impact many of Empire's employees and their families' lives which is another reason for the urgency of this request. Given this, the Company needs clarity from its regulatory jurisdictions as soon as possible, in an effort to provide certainty to Asbury employees.

Q. IS IT REASONABLE AND IN THE PUBLIC INTEREST FOR THE COMMISSION TO APPROVE SUCH A REGULATORY ASSET?

A. Yes. That approval is critical. Empire and its investors are entitled to a return on and of their previous investments; investments that have been deemed prudently incurred and necessary in past rate proceedings. While Empire could have asked for accelerated depreciation on the Asbury plant balances, the Company is proposing to spread the remaining recovery of prudently incurred costs over thirty years to minimize the impact on customers. Therefore, customers not only benefit from avoiding additional capital costs related to environmental compliance and ongoing costs to operate and maintain the Asbury plant, they are also going to benefit from Empire's proposal to create a regulatory asset and recover its investment over a longer period of time. Without the assurance of a regulatory asset to recover Empire's investment to date, the Company will not be able to move forward with its Customer Savings Plan. It would be too much of a financial strain to both be unable to receive its recovery of previous Asbury plant capital investment and to finance 800 MW of a wind generation construction project. As a result, the wind acquisition and the Asbury retirement are inextricably tied together.

V. CONCLUSION

Q. WHY IS THE CUSTOMER SAVINGS PLAN IN THE PUBLIC INTEREST?

A. The Customer Savings Plan is a rare opportunity to bring significant savings to customers based on unique market conditions and federal tax policy. Approval of this Plan will allow customers to obtain up to 800 MW of wind generation at as little as approximately 40 cents on the dollar and then continue to realize up to $325 million in savings well into the future. Assurance of recovery of Empire's previous Asbury investment will also keep the Company financially strong as it undertakes this large investment for its customers. In addition, the Customer Savings Plan also allows customers to benefit from renewable generation opportunities in their own backyard.

Q. WHAT WOULD HAPPEN IF THE COMMISSION DOES NOT APPROVE THE CUSTOMER SAVINGS PLAN?

A. The most obvious impact is that customers would not receive the $172 - $325 million in rate savings over the next 20 years, and Empire would continue to spend millions of dollars on environmental compliance projects to keep the Asbury coal-fired power plant alive. While Empire can continue to operate Asbury and forego additional investment in wind generation, it is not a plan that makes sense in light of the opportunity to achieve significantly larger customer savings through the Customer Savings Plan. The Customer Savings Plan clearly provides a superior path forward for all stakeholders.

Q. THE APPLICATION REQUESTS THAT THE COMMISSION ISSUE AN ORDER THAT BECOMES EFFECTIVE NO LATER THAN JUNE 30, 2018. WHY DOES THE COMPANY NEED A DECISION ON THIS APPLICATION SO QUICKLY?

A. In order for the Company to achieve the real and substantial savings proposed in the Customer Savings Plan, time is of the essence. There is a limited window of opportunity to take advantage of existing federal tax credits for renewable projects, the deadline for making multi-million dollar environmental investments in Asbury is looming, and most importantly, Empire wants to ensure a smooth transition for employees who work at the Asbury plant to the next phases of their careers at Empire. Not surprisingly, Empire is not alone in this regard. Many other utilities across the nation are moving quickly to take advantage of this unique place in time. Ameren recently announced a plan to add at least 700 MW of wind generation to its fleet[1] and AEP recently announced a plan to add 2000 MW of wind generation to benefit customers in Oklahoma, Arkansas, Texas and Louisiana.[2] While the Company recognizes that this will require a significant commitment by the Commission, its staff, and any parties to the proceeding, there are compelling reasons to move quickly to achieve these savings for Empire's customers.

[1] https://www.cnbc.com/2017/09/26/ameren-missouri-to-invest-1-billion-in-renewables-wind-power-solar.html

[2] https://www.aep.com/newsroom/newsreleases/?ID=1997

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

AFFIDAVIT OF DAVID R. SWAIN

STATE OF MISSOURI)
) ss
COUNTY OF JASPER)

On the 30th day of October, 2017, before me appeared David R. Swain, to me personally known, who, being by me first duly sworn, states that he is the President – Central Region of Empire District – Liberties Utilities and acknowledges that he has read the above and foregoing document and believes that the statements therein are true and correct to the best of his information, knowledge and belief.

David R. Swain

Subscribed and sworn to before me this 30th day of October, 2017.

ANGELA M. CLOVEN
Notary Public - Notary Seal
State of Missouri
Commissioned for Jasper County
My Commission Expires: November 01, 2019
Commission Number: 15262659

Notary Public

My commission expires: 11/01/19.