

**Before  
The Public Utilities Commission of Ohio**

**FirstEnergy Solutions Corp.**

**Ten-Year Alternative Energy Compliance Plan**

**April 15, 2015**

**Docket No. 15-0745-EL-ACP**

**PUBLIC VERSION**

## INTRODUCTION

Pursuant to Rule 4901:1-40-03(C) of the Ohio Administrative Code (O.A.C.), FirstEnergy Solutions Corp. (“FES”) hereby files its ten-year alternative energy compliance plan. O.A.C. 4901:1-40-03(C) requires each electric utility and electric services company to file an annual “plan for compliance with future annual advanced- and renewable-energy benchmarks, including solar, utilizing at least a ten-year planning horizon.” This plan must contain at least the following four items:

- (1) Baseline for the current and future calendar years.
- (2) Supply portfolio projection, including both generation fleet and power purchases.
- (3) A description of the methodology used by the company to evaluate its compliance options.
- (4) A discussion of any perceived impediments to achieving compliance with required benchmarks, as well as suggestions for addressing any such impediments.

O.A.C. 4901:1-40-03(C)(1)-(4). Each of these items is addressed below.

## TEN-YEAR COMPLIANCE PLAN

### **I. Baseline for Current and Future Calendar Years**

FES is a competitive electric services company with little certainty of a customer base beyond what is secured under current contract. As a result, a ten-year projection is challenging and somewhat speculative. Exhibit 1 reflects FES’s projected baselines, which are estimates only and based on a number of assumptions and uncertainties. FES’s baseline is expected to increase over the next several years, as shown on Line 2 of Exhibit 1. Beginning in 2014, the Baseline is calculated using current year retail sales, as opposed to using a three-year historic average which was done in the past. Lines 7 and 15 on Exhibit 1 list FES’s respective non-solar and solar renewable obligations using the baselines referenced above.

### **II. Supply Portfolio Projection**

#### **1. Non-Solar Generation Fleet and Purchase Agreements**

The FES renewable portfolio consists of renewable assets that are under multi-year contracts, through which FES purchases output from the renewable generation facilities. The estimated output from these facilities is shown on Exhibit 1, lines 6 and 14.

In February 2011, FES entered into a power purchase agreement with Iberdrola Renewables to purchase output from the Blue Creek Wind Farm in Ohio starting in 2012. This was the first wind power agreement in Ohio for FES and has helped FES meet its compliance obligations. FES also has wind generation in Pennsylvania currently under contract, which is

used to help meet compliance obligations. In addition to long term contracts, FES entered into several short term agreements with multiple counterparties to purchase RECs from sources within Ohio and adjacent to Ohio, and these values are included in Exhibit 1, lines 6 and 14.

## **2. Solar Generation Fleet and Purchase Agreements**

FES currently owns no solar generating assets that are certified in Ohio. FES has, however, completed a series of solar REC purchase agreements that support the development of solar in both Ohio and Pennsylvania and that allows FES to meet its solar compliance obligations. For example, FES has solar REC purchase agreements for solar facilities at the Cincinnati Zoo & Botanical Garden in Cincinnati, Ohio, at the Campbell Soup Company's manufacturing facility in Napoleon, Ohio, at First Solar's manufacturing facility in Perrysburg, Ohio, and at various other facilities throughout Ohio. The terms of these agreements are confidential. The combined annual estimate of the renewable generation from these assets and others for the next 10 years, as well as other spot purchases, is shown on line 14 of the attached Exhibit 1.

## **III. Methodology to Evaluate Compliance Options**

As described above, FES already has assembled a diverse and competitive portfolio of renewable assets to meet FES's advanced and renewable obligations. The portfolio includes a wide array of technologies (*e.g.*, wind, storage, solar, hydro) and it leverages existing assets where it makes sense economically and environmentally. FES will look to add incrementally to both its solar and non-solar portfolios well in advance of any projected compliance shortfalls, and in fact is engaged in discussions to add to both the solar and non-solar portfolios.

As FES looks to add renewable assets to its portfolio, it will use the same basic principles it has used to date. First and foremost, any investment in advanced or renewable energy sources must be the most cost-effective option. Second, FES will continue to manage its risk by utilizing a wide array of technologies and by using a mix of owned assets and RECs purchased through long-term purchase agreements. Third, FES likely will continue to prefer technologies that have broader system benefits like grid stability, technologies that actually enable other forms of intermittent renewable energy like wind, and technologies that are dispatchable and that utilize existing assets – and jobs – that are already in place. Lastly, FES is likely to continue to favor renewable assets that have the ability to qualify in multiple programs to assist FES with meeting its compliance obligations in multiple jurisdictions and that competitively position FES in multiple markets.

## **IV. Potential Impediments to Compliance with Benchmarks**

Looking forward, FES will face several potential impediments to its compliance plan:

- Regulatory Conditions – Renewable energy resources must be certified by the Commission in order to be qualified for meeting the renewable energy resource benchmarks. FES's future compliance is projected based on existing law and Commission rules, including, without limitation, the ability to use a REC for compliance any time in the five calendar years following the date of its initial purchase or acquisition.

Changes in Ohio law or Commission rules, or the failure to certify legitimate renewable energy resources that limit FES's ability to make use of renewable energy generated in Ohio or deliverable into Ohio could impede FES's compliance with renewable energy resource benchmarks.

- Solar Requirement – Ohio ranks near the bottom of all U.S. states for solar renewable generation potential due to the state's relative lack of natural solar resources. All of the current solar projects that FES is considering adding to its portfolio are driven by the Ohio AEPS, but are financially buoyed by the federal and state incentives for solar generation.
- Project cost – Installed cost is one of the biggest drivers of the cost of renewable projects to the end-use consumer, which is particularly true for solar projects. Solar technology has shown annual reductions in the cost of panels, which has made solar projects significantly cheaper. In addition, the cost of capital today is at or near all time lows, which helps further reduce the total cost of solar projects. It is widely expected that interest rates will begin to rise in the near future. If the cost of capital or solar technology cost increases, there will be a corresponding increase in project costs, thus making it more challenging to develop solar projects.
- Economic Conditions – Continued economic fluctuations and consumer sentiment continue to affect Ohio. The speed and length of Ohio's economic recovery will affect the amount of money consumers will be able – or perhaps, more importantly, willing – to pay for renewable generation. Significant unwillingness of customers to pay the green premium will challenge the completion of renewable projects and, as a result, it may be difficult for FES to meet its compliance obligations.

## **CONCLUSION**

As demonstrated above, FES is committed to assembling a diverse and cost-effective alternative energy portfolio in order to meet its long-term alternative energy requirements.

Respectfully submitted,

/s/ Mark A. Hayden

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**FirstEnergy Solutions**  
**Annual Plan for Future Compliance**  
**Pursuant to Section 4901:1-40-03**

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Line 1		<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Line 2	<b>FES BASELINE</b>										
Line 3											
Line 4	<b><u>Non Solar RECs</u></b>										
Line 5	Beginning Inventory										
Line 6	Self-Generation / Existing Contracts										
Line 7	Compliance Obligation										
Line 8	Ending Inventory										
Line 9											
Line 10		<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Line 11											
Line 12	<b><u>Solar RECs</u></b>										
Line 13	Beginning Inventory										
Line 14	Self-Generation / Existing Contracts										
Line 15	Compliance Obligation										
Line 16	Ending Inventory										

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