

FILE

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**BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO**

In the Matter of the 2010 Long Term :  
Forecast Report of the Ohio Power : Case No. 10-501-EL-FOR  
Company and Related Matters. :

In the Matter of the 2010 Long Term :  
Forecast Report of the Columbus Southern : Case No. 10-502-EL-FOR  
Power Company and Related Matters. :

**PREFILED TESTIMONY  
OF  
MARK C. BELLAMY  
ENERGY & ENVIRONMENT DEPARTMENT  
EFFICIENCY & RENEWABLES DIVISION  
PUBLIC UTILITIES COMMISSION OF OHIO**

PUCO

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**March 9, 2012**

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1 1. Q. Please state your name and your business address.

2 A. My name is Mark C. Bellamy. My business address is 180 East Broad  
3 Street, Columbus, Ohio 43215.  
4

5 2. Q. By whom are you employed and what is your position?

6 A. I am employed by the Public Utilities Commission of Ohio as an Environ-  
7 mental Specialist 2, in the Efficiency and Renewables Division of the  
8 Energy and Environment Department.  
9

10 3. Q. Please summarize your educational background.

11 A. I have earned a B.S.E. degree in Chemistry from Arkansas State University.  
12

13 4. Q. Please summarize your work experience.

14 A. Prior to college I served 6 years in the U.S. Navy as a Machinist's Mate on  
15 a submarine. I operated and maintained atmosphere control equipment, as  
16 well as performing duties as a quality assurance inspector. Prior to my  
17 employment with the PUCO, I was employed as a High School science  
18 teacher. In 2009 I joined the staff of the Public Utilities Commission of  
19 Ohio in my current position. Part of my duties in my current position has  
20 been to help implement Ohio's Alternative Energy Portfolio Standard and  
21 other parts of SB 221.  
22

1 5. Q. Have you testified in prior proceedings before the Commission?

2 A. Yes. I testified in a previous forecast case regarding the issue of need for  
3 new generating facilities.

4  
5 6. Q. What is the purpose of your testimony?

6 A. The purpose of my testimony is to address the question of need for AEP's  
7 proposed Turning Point solar facility.

8  
9 7. Q. Why must AEP establish need to construct the Turning Point solar facility?

10 A. It is my understanding that generation project surcharges authorized by  
11 R.C. 4928.143 (b)(2), must be based upon a demonstration of need under  
12 the integrated resource planning process to advance the policy provisions  
13 contained R.C. 4928.64. The Commission has noted that it had previously  
14 determined that solar energy resources have not been available through  
15 competitive markets in sufficient quantities in Ohio to comply with the  
16 statutory mandates.<sup>1</sup>

17  
18 Need will be determined based upon guidance provided by R.C. 4928.64 to  
19 satisfy the mandates provided in that section. The determination of need  
20 for a proposed facility would be based upon the reasonableness of the cost

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<sup>1</sup> *In the Matter of the Annual Alternative Energy Status Report of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company, Case No. 11-2479-EL-ACP (Finding and Order at 13) (August 3, 2011).*

1 of acquiring or constructing a new generating facility, or retrofitting an  
2 existing generating facility that would otherwise be retired, as compared  
3 with alternatives.  
4

5 8. Q. In this proceeding, has AEP adequately established the need to construct  
6 the Turning Point 49.9 MW solar facility?

7 A. Yes.  
8

9 9. Q. What is the basis of the need for the Turning Point 49.9 MW solar facility?

10 A. The basis of the need for the Turning Point solar farm is the need to comply  
11 with R.C. 4928.64, which requires Ohio electric companies to provide a  
12 percentage of their kilowatt-hours sold from solar resources starting at  
13 0.004% in 2009 and going up to 0.5% in 2024 and thereafter. At least one  
14 half of the requirement must be met by in-state resources.  
15

16 10. Q. Will there be a lack of in-state solar renewable energy credits (SRECs) for  
17 AEP to purchase for compliance?

18 A. It looks like there will be. While it is impossible to know what solar facili-  
19 ties will be built, if we look at what has been certified to generate SRECs in  
20 the first two full years of the Alternate Energy Portfolio Standard, 2010 and  
21 2011, we can estimate the SREC market in the future. Ohio's Alternate  
22 Energy Portfolio Standard has a separate solar requirement within the

1 renewable mandate. At least 50% of the solar obligation must be met by  
2 facilities that are located in the state of Ohio. The four renewable  
3 requirements are total renewables in-state and out-of-state, and solar in-  
4 state and out-of-state. The solar in-state requirement is the most con-  
5 strained. Therefore it is useful to determine how the Turning Point Solar  
6 facility will factor in the in-state solar market.

7  
8 There were 20.04 MWs of certified in-state solar capacity built in 2010.  
9 There were 20.84 MWs of certified in-state solar capacity built in 2011.  
10 However, both 2010 and 2011 included an addition of a large in-state solar  
11 facility. In 2010, JUWI Solar Inc. built the 12 MW Wyandot Solar Energy  
12 Generating Facility. In 2011, BNB Napoleon LLC built a 9.792 MW  
13 facility that came online on December 24, 2011 and the city of Bryan built  
14 a 2 MW facility that came online in on January 23, 2012. Without the  
15 addition of these large facilities 2010 and 2011 each had approximately 8  
16 MWs built and certified. It is uncertain whether a 10-12 MW facility will  
17 come into the market every year. The charts in figures one through four  
18 show four scenarios for possible projection of the amount of in-state solar  
19 capacity through 2025. Each of the four scenarios is compared to MWs  
20 needed for all Ohio electric distribution utilities and electric service  
21 companies for compliance with the Alternative Energy Portfolio Standard.  
22 The first scenario, Figure 1, shows a low projected amount of MWs added,

8 MWs annually, which represents the amount added in 2010 and 2011 without the large 12 MW, 9.792 MW, and 2 MW facilities. The second scenario, Figure 2, shows a high projected amount of MWs added, 20 MWs annually, which assumes 8 MWs from small facilities and 12 MWs from a large facility each year.

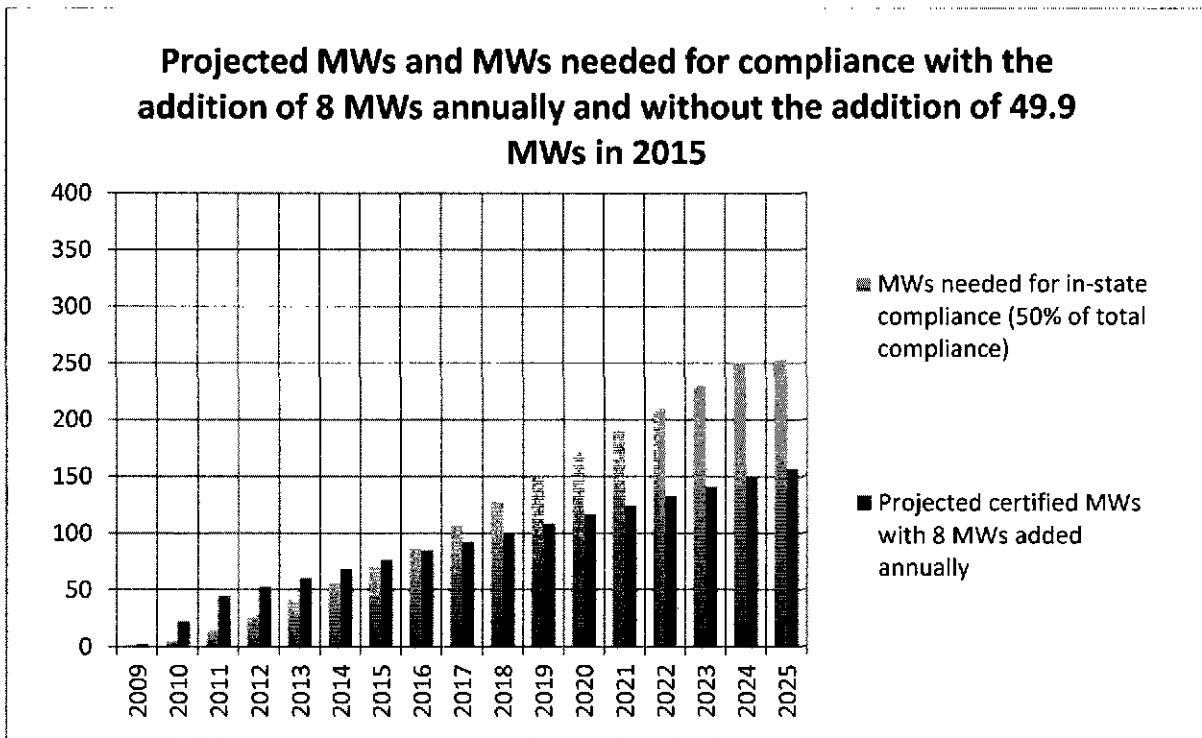


Figure 1

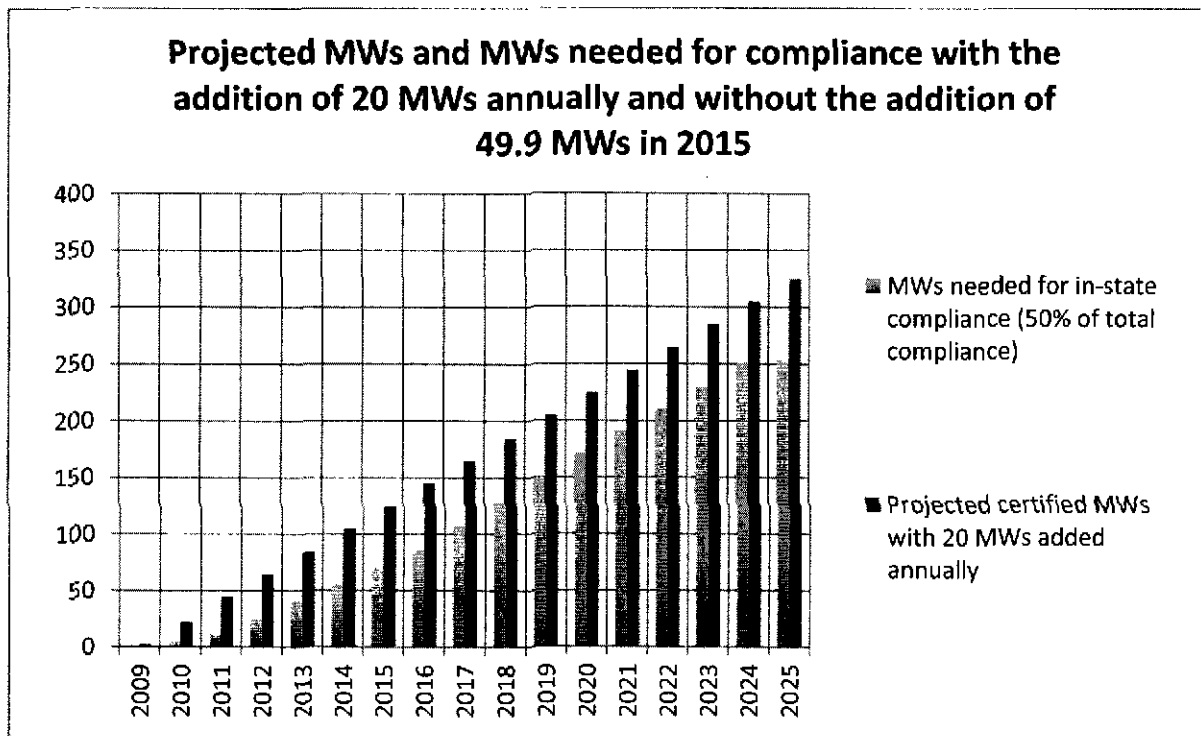


Figure 2

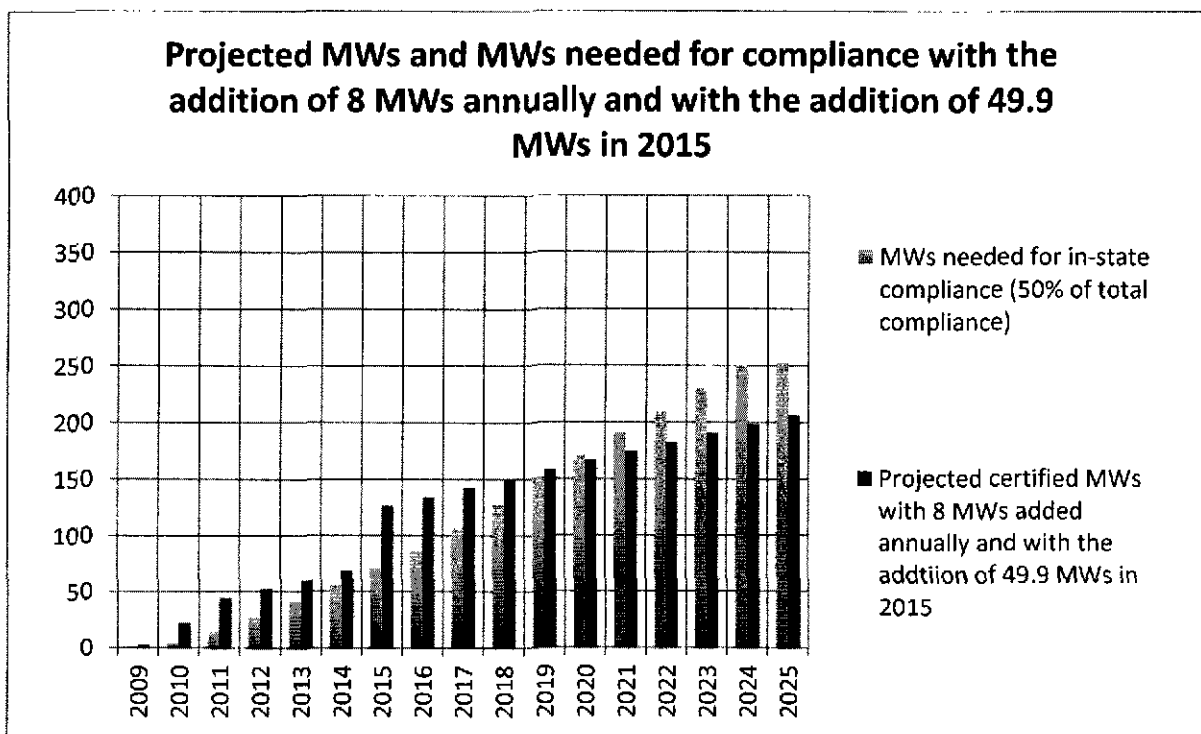


Figure 3

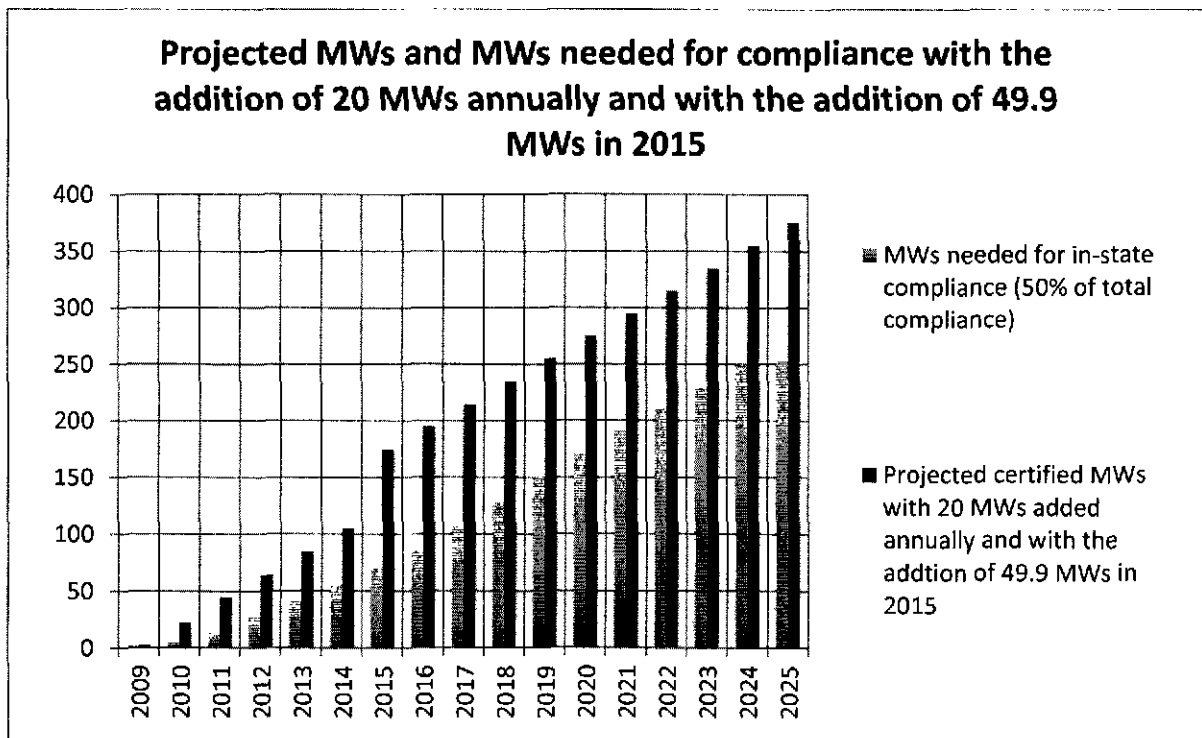


Figure 4

The third scenario, figure 3 shows a low projected amount of MWs added, 8 MWs annually, and the addition of a 49.9 MW facility in 2015. The fourth scenario, figure 4, shows a high projected amount of MWs added, 20 MWs annually, and the addition of a 49.9 MW facility in 2015.

Of the four scenarios analyzed, only the two scenarios which assume the addition of a 10-12 MW facility annually have enough in-state solar MWs to achieve compliance through the term of the analysis. While these scenarios show an over-compliance of in-state SRECs, those SRECS can be banked for future compliance, sold with the proceeds credited back to



1 customers, or potentially put towards satisfying the total solar or total  
2 renewable requirements.

3  
4 Through December 31 2011, the PUCO has certified approximately 89.65  
5 MWs of out-of-state solar capacity. In a best case scenario, this is sufficient  
6 to meet out-of-state compliance needs through 2016, assuming that all of  
7 the SRECs from these facilities were secured and used by Ohio companies.  
8 There are 117.31 MWs of out-of-state solar capacity in PJM-GATS. This  
9 is sufficient to meet out-of-state compliance needs through 2017, however  
10 it is unknown how many, if any, of these out-of-state MWs would apply for  
11 certification in Ohio. Beyond 2017 however the supply is uncertain. Most  
12 of the out-of-state solar capacity is located in Pennsylvania. Pennsylvania  
13 solar capacity accounts for 88.03 out of the total 89.65 out-of-state Ohio  
14 certified MWs. Of the 117.3 MWs of out-of-state potentially certifiable  
15 solar capacity in PJM-GATS, 115.8 MWs are located in Pennsylvania.  
16 Much of this Pennsylvania solar capacity was constructed as a result of the  
17 Pennsylvania sunshine program. The Pennsylvania sunshine program is a  
18 rebate program for new renewable energy facilities that had been funded  
19 with \$100 million. On August 19, 2011 the Pennsylvania sunshine pro-  
20 gram started creating a waiting list as the program is in its' final stages.  
21 Unless the Pennsylvania general assembly approves more funds for the  
22 Pennsylvania sunshine program the number of MWs newly certified from

1 Pennsylvania will probably decline and potentially lead to an under-supply  
2 of out-of-state SRECs needed for compliance.

3  
4 Even in scenarios which provide a surplus in terms of in-state compliance,  
5 the excess in-state SRECS could potentially be used for out-of-state  
6 compliance which could be needed unless one of the states contiguous to  
7 Ohio approves a new incentive program. Even with the addition of the 49.9  
8 MW Turning Point solar facility, it is very likely that additional in-state and  
9 out-of-state solar capacity will need to be constructed. To address this  
10 supply shortage situation, someone needs to build. The Turning Point  
11 project is the only plan of which Staff is aware which would address this  
12 shortage. Therefore it is the opinion of the Staff that the AEP has  
13 demonstrated that Turning Point Solar project is needed for compliance  
14 with R.C. 4928.64.

15  
16 Q. Does this conclude your testimony?

17 A. Yes, it does. However, I reserve the right to submit supplemental testi-  
18 mony as described herein, as new information subsequently becomes avail-  
19 able or in response to positions taken by other parties.

## PROOF OF SERVICE

I hereby certify that a true copy of the foregoing Prefiled Testimony of Mark C. Bellamy, submitted on behalf of the Staff of the Public Utilities Commission of Ohio, was served by regular U.S. mail, postage prepaid, hand-delivered, and/or delivered via electronic mail, upon the following parties of record, this 9<sup>th</sup> day of March, 2012.



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