

BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO

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

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

POST-HEARING BRIEF OF THE UNIVERSITY OF TOLEDO  
INNOVATION ENTERPRISES REGARDING TURNING POINT SOLAR

It is critically important to Ohio’s solar industry that the Public Utilities Commission of Ohio use the broad authority it has and determine the forecasted need for diverse sources of generation—in this case the Turning Point Solar (“TPS”) project. The legislature has empowered the Commission to consider whether a new generation asset complies with the Renewable Portfolio Standard and how that asset fits into the statewide portfolio of generation assets, both currently and as they are expected to develop in the future.

The parties have appropriately focused their arguments on the need requirements as dictated by R.C. 4928.143, 4928.64 and 4935.01, which taken together illustrate the Commission’s broad authority and responsibilities in determining need. The University of Toledo Innovation Enterprises (“UTIE”) will explain the issues the Commission should consider and the evidence that supports the need for development of the 49.9 MW TPS project and will do so by addressing in order the questions presented in the Commission’s entry of September 5, 2012.

TABLE OF CONTENTS

I. How Should the Commission Properly Determine if there is Need for the Turning Point Solar Project?.....2

    A. How Should Need be Defined and What Legal Standard Should be Applied to the Analysis of Need? .....2

    B. What Evidence is Relevant to the Determination of Need? .....3

        1. Need in the Forthcoming Five and Ten Year Periods .....4

            a. Protection of Public Health and Safety, Preservation of Environmental Quality .....4

            b. Maintenance of a Sound Economy .....5

            c. Conservation of Energy and Material Resources.....5

        2. Need During the Next 20 Years .....6

    C. Is Need Limited to Energy and Capacity Only, or Does Need Include Compliance with the Renewable Portfolio Standard? .....7

II. Should the Commission, in Evaluating the Need for Turning Point Solar, Consider Only AEP Ohio's Need for the Project, or Should It Look Beyond the Need of the Company or its Service Territory? .....7

    A. Should the Commission Consider Whether Turning Point Solar is Needed by Other Utilities or Whether the State as a Whole Has a Need for the Project? .....7

    B. Should the Commission Consider Whether There is a Need for the TPS Project Outside of Ohio, Given that the SRECs Generated by the Project May Be Used in Meeting the RPS Standards in Other States and That SRECs Generated From Facilities Outside Ohio May be Used to Satisfy Ohio's RPS? .....8

III. Conclusion .....10

CERTIFICATE OF SERVICE .....12

**I. How Should the Commission Properly Determine if There is Need for the Turning Point Solar Project?**

**A. How Should Need be Defined and What Legal Standard Should be Applied to the Analysis of Need?**

The legislature has mandated that the Commission’s determination of need encompass more than simply whether a sufficient amount of generating capacity will be available to prevent grid failure. The Commission is responsible for ensuring that compliance with the benchmarks established in R.C. 4928.64 is reasonably practicable for those generation suppliers subject to the benchmarks and prudent for ratepayers. In the context of forecasting the need for electric generation, the Commission also has a clear obligation to consider the overall betterment of Ohio, according to the factors set forth in R.C. 4935.01.

R.C. Chapter 4935 is the base source of the Commission’s authority to determine need. It contains the legislature’s directions to the Commission for carrying out this aspect of its oversight of Ohio’s electric utilities. Indeed, R.C. 4928.143(B)(2)(c) speaks of “need” in the context of “resource planning projections submitted by the electric distribution utility.” This must be read to mean the pre-existing resource planning process reflected in R.C. Chapter 4935, which entails considering the full impact of adding a generation resource, such as job creation, economic investment, tax base and environmental impact, as well as a diversified and balanced generation asset mix.

Further authority for this Commission to look beyond simple load forecasting is R.C. 4928.02(N): “It is the policy of this state to \*\*\* [f]acilitate the state's effectiveness in the global economy.” The TPS project gives Ohio the means to become an important factor in the global economy, to take the lead in solar generation and to improve its own economy.

Electric utilities have their own mandate, as well, regarding alternative energy production. A utility's LTFR must contain "a narrative discussion and analysis" concerning "alternative energy resources \*\*\* potential development of alternative energy resources \*\*\* and research, development, and demonstration efforts relating to alternative energy resources." O.A.C. 4901:5-5-06(A)(1)-(A)(3).

The legal standard by which the Commission should decide the issue of need is what is reasonable in light of this state's policy and the evidence presented. The applicability of this standard in the context of generation resource planning is borne out by R.C. 4935.04(I)(2) that provides: "A final determination made by the commission shall be reversed, vacated, or modified by the supreme court on appeal, if, upon consideration of the record, such court is of the opinion that such determination was unreasonable or unlawful."

**B. What Evidence is Relevant to the Determination of Need**

Based on R.C. 4935.01, the Commission should consider evidence that goes beyond basic load forecasting and should consider a number of factors related to energy production, in both the short term and long term. UTIE strongly opposes the view offered by Witness Lesser for FirstEnergy Solutions that "...need really meant having enough electricity supplies to ensure the lights would always stay on..."<sup>1</sup> and evidently nothing more. While matching supply with load is certainly one element of "need," UTIE agrees with Ohio Power that "the Commission should not accept this limited view of resource planning that leads to FES' reliance on the false premise that need is also limited to a generation need."<sup>2</sup>

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<sup>1</sup> Lesser Direct Testimony at p. 7

<sup>2</sup> Ohio Power Reply Brief at pp. 6-7

UTIE's view is supported by statute (as outlined above), as well as the AEP East 2010 Integrated Resource Plan (cited by Ohio Power) which considers "all the various constraints-reserve margins, emission limitations, renewable and energy efficiency requirements..."<sup>3</sup> This holistic approach to resource planning and to a need determination allows the Commission to consider evidence such as diversity of supply, portfolio standards, and economic and environmental benefits when finding the need for a facility such as TPS.

**1. Need in the Forthcoming Five and Ten Year Periods**

R.C. 4935.01(A)(1) requires an analysis of the "estimated statewide and regional needs for energy for the forthcoming five and ten year periods which, in the opinion of the Commission, will reasonably balance requirements of state and regional development, protection of public health and safety, preservation of environmental quality, maintenance of a sound economy and conservation of energy and material resources." In addition to these factors, the Commission is permitted to consider "other factors and trends which will significantly affect energy consumption." *Ibid.*

Taking these issues one at a time, TPS satisfies the standard set forth in statute.

**a) Protection of Public Health and Safety,  
Preservation of Environmental Quality**

Solar generation is the cleanest fuel source available. It has no emissions or extraction externalities. When fully constructed, the TPS project will displace annually significant quantities of CO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, mercury, and other emissions associated with fossil fuel

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<sup>3</sup> Reply Brief of Ohio Power Company at p. 7.

generation facilities. Further, TPS will place in the service of clean energy hundreds of acres of abandoned reclaimed mine land, previously considered unusable.

TPS will unquestionably contribute to the protection of public health and safety and preserve environmental quality.

**b) Maintenance of a Sound Economy**

As one of the largest solar projects in the nation, TPS will provide hundreds of construction jobs in Appalachian Ohio and has committed to source the vast majority of its components from Ohio manufacturers, thus injecting tens of millions of dollars in salaries and taxes for local governments and schools across the state. The ripple effects will grow and sustain many production facilities and service providers statewide.

TPS will also have great impact on Northwest Ohio, where the Northwest Ohio Solar Cluster is poised to expand. Approximately one-third of the companies that comprise the Ohio solar supply chain are headquartered in Northwest Ohio, and the TPS project will serve as a catalyst for solar commercialization efforts in the region. By extension, all 150 companies in the Ohio solar supply chain will have opportunities that would not exist without the construction of TPS.

The TPS project has already attracted the Spanish photovoltaic manufacturer, Isofoton, to locate its North American headquarters in Napoleon. Isofoton alone has committed to provide 330 jobs, more than 50% of them to veterans, if TPS is constructed.

It is clear that the TPS project represents a major statewide economic development opportunity.

c) **Conservation of Energy and Material Resources**

Perhaps the greatest attribute of solar is that it is a peaking source of generation and is generally at its highest production when most needed. TPS will serve tens of thousands of Ohio homes at peak and will be a significant peak shaver for Ohio and the region, thus reducing the need for the construction of additional baseload generation. The Commission should consider the conservation of costly peak power when determining need for TPS.

2. **Need During the Next 20 Years**

The Commission is also required, pursuant to R.C. 4935.01(A)(2), to “estimate statewide and regional demands within the state for energy for twenty years ahead, to be used in formulation of long-range policies and proposals for reduction of demand, conservation of energy, development of potential sources of energy, and action to affect the rate of growth in demand for energy.” TPS will help Ohio meet its generation needs in these regards.

TPS is expected to provide peak generation for 25 years or longer. TPS will provide a solid statewide peaking resource that will reduce the need for baseload generation and develop solar energy as a meaningful component of a diversified and balanced (in terms of both fuel source and base load/peaking assets) generation portfolio for both Ohio and the region. The Commission should consider this aspect of the contribution TPS makes to Ohio’s generation mix and not look simply at short-term renewable portfolio standard compliance.

This point is particularly important to UTIE and other forward-looking players in the energy economy. The statute requires the Commission to consider “long range policies and proposals... for the development of potential sources of energy.” *This is what we do.* As the Commission considers the need for TPS, we believe it should consider the effect of its decision

on the ability of Ohio to continue to innovate and commercialize new sources of energy over the next 20 years in accordance with the statute.

**C. Is Need Limited to Energy and Capacity Only, or Does Need Include Compliance with the Renewable Portfolio Standard?**

The Commission is charged with enforcement of the RPS benchmarks set forth in R.C. 4928.64 and to remove barriers to achieving those benchmarks where it is within the power of the Commission to do so. Providing liquidity in the Ohio-based SREC market is one such example of a step within the powers of the Commission. This, however, is only one aspect of the Commission's obligations to the ratepayers of Ohio. As explained above, the Commission must also analyze the factors set forth in R.C. 4935.01 and 4935.02.

Ohio utilities have historically struggled to meet the solar benchmarks, which has resulted in several *force majeure* determinations. The primary barrier to compliance has been the dearth of long term SREC solicitations that allow a developer to finance a project. Total reliance upon the SREC spot market leads to shortages, price spikes, and an overall lack of predictability and compliance. Given the strong state policy in favor of solar (as contained in the RPS and in favor of a diverse mix of generation sources), TPS will help meet this demand in a way that avoids the "boom and crash" cycles that can otherwise be expected based on the state's solar market development to date.

**II. Should the Commission, in Evaluating the Need for Turning Point Solar, Consider Only AEP Ohio's Need for the Project, or Should It Look Beyond the Need of the Company or Its Service Territory?**

**A. Should the Commission Consider Whether Turning Point Solar is Needed by Other Utilities or Whether the State as a Whole Has a Need for the Project?**

Yes, the Commission should consider whether TPS is needed by other utilities or the state as a whole. R.C. 4928.64(B)(3) (at least half of a utility's renewable energy resources shall be met through in-state facilities); R.C. 4928.02(J) (state policy is to incentivize technologies to adapt to environmental mandates) and R.C.4935.04(F)(6) (LTFR must consider expansion of regional power grid and planned facilities of other utilities in the state.)

As explained above, a pressing issue for all of Ohio is the condition of the state's SREC market. Simply put, it is not functional and that dysfunction should be a central consideration for this Commission. S.B. 221 moved Ohio to a market-based environment for determining the price of electric generation. When S.B. 221 was passed, there were not enough solar facilities in-state to provide the SRECs needed to comply with Ohio's solar renewable requirement. This resulted in force majeure determinations.

S.B. 221 has also led to additional customer shopping. While the competitive market delivers many benefits, the environment has made long term financing of renewable energy projects more challenging. TPS can bring stability to the solar market and to the extent AEP is subject to customer switching, as an easily transferable commodity, the SRECs from TPS can help other providers meet their need for solar as well. In this regard, TPS is also needed by other Ohio utilities.

**B. Should the Commission Consider Whether There is a Need for the TPS Project Outside of Ohio, Given that the SRECs Generated by the Project May Be Used in Meeting the RPS Standards in Other States and That SRECs Generated From Facilities Outside Ohio May be Used to Satisfy Ohio's RPS?**

As a creature of statute, the Commission has only that authority given to it by the General Assembly. That authority, in the context of this case, is limited to the supervision of Ohio public utilities. The provision of services outside of Ohio is beyond the scope of the Commission's authority, but circumstances outside of Ohio can impact Ohio utilities and Ohio ratepayers, and the SREC market is certainly subject to circumstances and forces outside of Ohio. The Commission cannot properly protect the interests of Ohio ratepayers without considering circumstances outside of the Ohio, and should evaluate TPS for its need inside Ohio, based on a reasonable assessment of externalities that have material impact on Ohio's SREC market.

Because R.C. 4928.64(B)(3) permits a utility to source up to one-half of its renewable energy resources from outside Ohio, the Commission must consider the availability of SRECs that exist outside of Ohio. While there is sufficient out-of-state solar capacity through 2017, beyond 2017 "the supply is uncertain," according to staff witness Mark Bellamy. Pennsylvania supplies almost all of out-of-state Ohio certified MWs. Unless the Pennsylvania General Assembly approves more funds for new renewable energy facilities, there will likely be "an under-supply of out-of-state SRECs needed for compliance" by Ohio utilities. (Prefiled Bellamy test. at pp. 8-9.) Further, it is appropriate for the Commission to consider additional dilution of the regional SREC market should Michigan pass its upcoming ballot initiative to strengthen renewable energy requirements. These constantly evolving regional market dynamics have a direct impact on Ohio utilities' ability to comply with the benchmarks as well as the Commission's ability to fulfill its long term resource planning obligations.

As Bellamy made clear, “[t]o address this supply shortage situation, someone needs to build. The Turning Point project is the only plan of which Staff is aware which would address this shortage. Therefore, it is the opinion of the Staff that the AEP has demonstrated that Turning Point Solar project is needed for compliance with R.C. 4928.64.” (Prefiled Bellamy test. at p 9.)

Bellamy asserts TPS is the only large project ready for construction (Cross-exam of Bellamy, Mar 28, 2012, at pp. 137-138). As Bellamy points out, “You can’t meet the mandates on what might be built.” (Cross-exam of Bellamy, Mar. 28, 2012, at p. 139.) AEP witness William Castle also testified about the pressing need for constructing more solar facilities: “Because the installed (and pending) base of solar generation is roughly capable of satisfying only half of the 2012 state-wide benchmark requirement, and a decreasing share prospectively, a viable-REC market will not exist without construction and certification of additional solar generation. (Castle dir. test. at p. 8.) TPS will provide in-state solar RECs that will help stabilize an SREC market that is in many ways still in its infancy. TPS will bring long-term price stability for SRECS and help keep peak energy prices as low as possible over the long-term.

In addition to this benefit, TPS will also, as explained above in section I.B.1.b, boost Ohio’s economy. The record clearly demonstrates that both in-state and out-of-state solar must be constructed. TPS provides an opportunity for Ohio to enjoy the economic benefits associated with this investment as opposed to merely subsidizing the construction of solar facilities in other states.

### **III. Conclusion**

Under provisions of law that predate the establishment of the RPS benchmarks, the Commission has been responsible to thoughtfully forecast and plan for the state’s future

generation portfolio and needs. The Commission is guided to do this planning in a manner that supports Ohio's many needs, including economic, environmental, and other important energy-related factors such as the development of potential energy sources, like solar. This is why UTIE has intervened in this case—because the conclusions of this Commission regarding how need is to be determined will have enormous impact on Ohio's solar manufacturing supply chain, both today and on its future development.

This decision will have profound impact on Ohio's energy equation, as well as the economic equation that supports hundreds of Ohio businesses and thousands of Ohio jobs. UTIE wants Ohio to have the economic impact of TPS for sure, but even more so, wants the economic benefit that will come to northwest Ohio and later all of Ohio, through the maturation of Ohio's solar industry. Northwest Ohio has the potential to be a globally relevant solar cluster, and this decision will materially promote or stunt this potential.

UTIE respectfully urges the Commission to find need for development of a 49.9 MW TPS project.

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Summary: Brief Post-Hearing Brief of the University of Toledo Innovation Enterprises  
Regarding Point Turning Solar electronically filed by Jack D'Aurora on behalf of University of  
Toledo Innovation Enterprises Corporation