

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of)	
Columbus Southern Power Company and)	
Ohio Power Company for Authority to)	Case No. 11-346-EL-SSO
Establish a Standard Service Offer)	Case No. 11-348-EL-SSO
Pursuant to §4928.143, Ohio Rev. Code,)	
in the Form of an Electric Security Plan.)	
In the Matter of the Application of)	
Columbus Southern Power Company and)	Case No. 11-349-EL-AAM
Ohio Power Company for Approval of)	Case No. 11-350-EL-AAM
Certain Accounting Authority.)	

SUPPLEMENTAL DIRECT TESTIMONY OF
JAY F. GODFREY
ON BEHALF OF
COLUMBUS SOUTHERN POWER COMPANY
AND
OHIO POWER COMPANY

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SUPPLEMENTAL DIRECT TESTIMONY OF
JAY F. GODFREY
ON BEHALF OF
COLUMBUS SOUTHERN POWER COMPANY
AND
OHIO POWER COMPANY

INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Jay F. Godfrey. My business address is 155 W. Nationwide Blvd.,
3 Columbus, Ohio 43215.

4 **Q. ARE YOU THE SAME JAY F. GODFREY THAT FILED TESTIMONY ON**
5 **BEHALF OF COLUMBUS SOUTHERN POWER COMPANY (CSP) AND**
6 **OHIO POWER COMPANY (OP) (COLLECTIVELY AEP OHIO) IN CASE**
7 **NO. 11-346-EL-SSO AND CASE NO. 11-348-EL-SSO?**

8 A. Yes, I am.

9 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL DIRECT**
10 **TESTIMONY IN THIS PROCEEDING?**

11 A. The purpose of my supplemental direct testimony in this proceeding is to provide
12 the information indicated in the application that would be provided to the record
13 concerning the details and agreements that make up the Turning Point Solar Project
14 for Commission review.

15 **Q. ARE YOU SPONSORING ANY ADDITIONAL EXHIBITS IN THIS**
16 **SUPPLEMENTAL FILING?**

17 A. Yes. I am sponsoring the following exhibits:

Exhibit JFG-6 (this exhibit is separately bound due to the volume) – Participation Agreement between Turning Point Solar LLC and Ohio Power Company and Columbus Southern Power Company (Public and COMPETITIVELY-SENSITIVE CONFIDENTIAL versions), and

Exhibit JFG-7 – A general diagram of the project structure and the relationship of the involved parties.

OVERVIEW

Q. PLEASE SUMMARIZE THE TURNING POINT SOLAR PROJECT WHICH WAS BRIEFLY DISCUSSED IN YOUR DIRECT TESTIMONY.

A. The Turning Point Solar Project (the Project) is a planned solar energy generation facility which will be built serially, in three phases over a period of approximately three years, with a final nameplate capacity of 49.9MW (Phase 1 – 20MW, Phase 2 – 15MW, Phase 3 – 14.9MW). The Project is expected to consist of approximately 250,000 high efficiency mono-crystalline photovoltaic solar panels which are to be manufactured in Ohio at a new solar manufacturing facility. The Turning Point Solar Project is the catalyst for the establishment of this factory.

The Project will also contain fixed solar racking equipment, a DC cabling collection system, inverters to convert the DC electricity to AC electricity, step up transformers and a Project substation (12.4kV to 69kV), a SCADA system and other related equipment. The Project will be laid out in an east-west grid, facing south and covering approximately 771 acres of land. The Project will also be comprised of site improvements such as foundations, an O&M building, roads, fences and drainage features for storm water management.

1 The Project will be located in Noble County, OH approximately 20 miles
2 southeast of Zanesville on reclaimed coal mine land. Subject to a PJM
3 interconnection study which is underway, it will interconnect to Ohio Power
4 Company's South Cumberland substation (69 kV) which is located approximately
5 one mile from the Project substation.

6 **Q. WHO IS DEVELOPING THE PROJECT AND WHAT IS THE**
7 **DEVELOPER'S RELATIONSHIP TO AEP OHIO?**

8 A. The Turning Point Solar Project is being developed by Turning Point Solar LLC
9 (the Developer), a joint venture between Agile Energy, Inc. and New Harvest
10 Ventures LLC. Agile Energy has a team of experienced power sector project
11 developers and is financially backed by Good Energies, Inc., one of the world's
12 leading private investors in renewable energy. New Harvest Ventures is a
13 renewable energy development company whose owners also co-founded Woodland
14 Venture Management, which manages regionally-focused venture capital funds in
15 the Appalachian and Great Lakes regions of the United States.

16 The Developer is not affiliated with AEP Ohio. Through the Participation
17 Agreement (Exhibit JFG-6), which is discussed in further detail herein, the
18 Developer and AEP Ohio have contractually agreed to cooperate in the
19 development of the Turning Point Solar Project.

20 As provided for in the Participation Agreement (Exhibit JFG-6), a special
21 purpose entity, Turning Point Solar Generation LLC (TPS Generation), will be
22 established for the purposes of acquiring the development assets from the
23 Developer, and then building the Turning Point Solar Project. TPS Generation

1 would then lease the completed solar Project to AEP Ohio. It is anticipated that
2 there will be a separate 25-year capital lease for each completed phase. As lessee,
3 AEP Ohio will receive all of the output from the Project, including energy, capacity
4 and Solar Renewable Energy Credits (s-RECs) and will be considered the owner of
5 the Project for tax and consolidated accounting purposes.

6 **Q. WHO WILL BE RESPONSIBLE FOR THE OPERATION AND**
7 **MAINTENANCE OF THE PROPOSED TURNING POINT SOLAR**
8 **GENERATION FACILITY?**

9 A. As the lessee under the contemplated Facilities Lease, Columbus Southern Power
10 Company and Ohio Power Company (collectively AEP Ohio or the Company) will
11 be solely responsible for the operation and maintenance of the planned Turning
12 Point Solar generating facility.

13 **Q. PLEASE DISCUSS THE OHIO JOBS WHICH WILL BE CREATED AS A**
14 **RESULT OF THE TURNING POINT SOLAR PROJECT.**

15 A. As described in the Participation Agreement (Exhibit JFG-6), one of the conditions
16 to reaching financial closing of the Turning Point Solar Project is the assurance that
17 both new permanent and temporary jobs have been established as a result of the
18 Project. The Participation Agreement provides that one or more contracts related to
19 the Project with suppliers of solar modules, solar racking systems or inverters be
20 sourced from manufacturing facilities located within Ohio, and have indicated that
21 they will create approximately 300 permanent jobs. The Participation Agreement
22 also provides that the creation of approximately 300 temporary construction jobs
23 related to the construction and installation of the three phases of the Project is a

1 condition to closing. In addition to these direct jobs established in association with
2 the Turning Point Solar Project, it is anticipated that there will be additional
3 secondary jobs established or economic activity associated with the construction or
4 expansion of new Ohio manufacturing facilities as well as increased supply for
5 these new manufacturing facilities from related Ohio industries.

6 **PARTICIPATION AGREEMENT**

7 **Q. PLEASE DESCRIBE IN MORE DETAIL THE PARTICIPATION**
8 **AGREEMENT.**

9 **A.** The Participation Agreement is an agreement between the Developer and AEP Ohio
10 that is intended to: provide for the continued development of the Project; establish
11 and identify the anticipated transaction structure, costs and schedule; identify and
12 set forth the other project agreements; and, define the obligations and duties of the
13 Parties.

14 The Participation Agreement sets forth the conditions that must be
15 satisfied in order to reach financial close, or successful implementation of the
16 Project. These conditions, some of which are explained in greater detail by various
17 AEP Ohio witnesses, are set forth in the Participation Agreement and include: (i)
18 the creation of approximately 300 permanent jobs (related to Ohio manufacturing
19 and sourcing) and 300 temporary construction jobs; (ii) receipt of an acceptable cost
20 recovery order issued by the PUCO authorizing AEP Ohio to recover all of its costs
21 associated with the Turning Point Solar Project through the non-bypassable
22 Generation Resource Rider (GRR); (iii) issuance by the IRS of a favorable Private
23 Letter Ruling; (iv) issuance of all required permits and approvals, including a

1 favorable National Environmental Policy Act (NEPA) order; (v) receipt of all
2 required governmental approvals, including FERC; (vi) execution of an acceptable
3 Interconnection Agreement with PJM; (vii) commitments for the project debt
4 financing; (viii) commitment for equity investment that would be needed in addition
5 to AEP Ohio's \$20 million equity commitment¹; and (ix) execution of all the related
6 project agreements.

7 **Q. PLEASE DESCRIBE IN MORE DETAIL THE RELATIONSHIP BETWEEN**
8 **THE PARTICIPATION AGREEMENT AND THE OTHER**
9 **CONTEMPLATED PROJECT AGREEMENTS.**

10 A. A project of this magnitude involves a number of agreements that are negotiated
11 over time. Attached to the Participation Agreement (Exhibit JFG-6) are the forms
12 of various additional agreements associated with the Project. These agreements are
13 in an advanced form and anticipated to be further negotiated and refined as may be
14 required by project lenders and additional equity investors. The form project
15 agreements include:

- 16 1. The Development Asset Purchase Agreement, which is the agreement
17 under which TPS Generation will purchase the development assets from
18 the Developer.
- 19 2. The Equity Contribution and Subscription Agreement. This agreement by
20 and among TPS Generation, AEP Ohio and the eventual additional equity

¹ Case No. 10-1261-EL-UNC the Commission accepted Columbus Southern Power's commitment to invest \$20M of equity in the Turning Point Solar Project. In anticipation of the merger of Columbus Southern Power and Ohio Power by the time these equity investments are made, the investment is referred to as an AEP Ohio investment.

investor(s) sets forth the parties equity contribution and investment obligations.

3. The First Amended and Restated Limited Liability Agreement. At financial close, this agreement will be implemented establishing the governance of TPS Generation.

4. Facilities Lease Agreement. AEP Ohio will, in three separate capital leases (one for each phase), lease the Project from TPS Generation for 25 years. Under the capital leases, AEP Ohio will have all operations and maintenance responsibility, and receive all of the output (energy, capacity and Solar Renewable Energy Credits), and all of the federal tax benefits associated with the project as lessee under a capital lease.

Q. ARE THERE OTHER AGREEMENTS THAT ARE TYPICALLY REACHED AS PART OF THE ONGOING PROCESS?

A. Yes. Other agreements will be needed as part of the transaction and will be developed prior to the transaction closing. For example:

1. Construction Management Agreement. Pursuant to this agreement between TPS Generation and AEPSC to be entered into on or prior to Phase 1 Financial Close, AEPSC will provide TPS Generation with construction management services.

2. Business Services Agreement. Pursuant to this agreement between TPS Generation and AEPSC, to be entered into on or prior to Phase 1 Financial Close, AEPSC will provide TPS Generation with general business services

1 including corporate finance, accounting, regulatory and tax services and
2 corporate governance support.

3 3. Other necessary agreements as required.

4 **BALANCE OF PLANT CONSTRUCTION**

5 **Q. PLEASE DESCRIBE THE MAJOR ACTIVITIES ASSOCIATED WITH THE**
6 **BALANCE OF PLANT CONSTRUCTION.**

7 A. The major construction activities for the Turning Point Solar Project include:

- 8 1. Procurement and installation of the solar modules and racking equipment;
- 9 2. Installation of the collection system and DC-AC inverter stations;
- 10 3. Construction of the Project substation and the transmission line to the
- 11 interconnection facilities; and
- 12 4. Construction of the O&M building and related facilities; and
- 13 5. Civil works, including roadwork, trenching and grading.

14 **Q. PLEASE DESCRIBE HOW THE COST ESTIMATES FOR THE BALANCE**
15 **OF PLANT WERE DERIVED.**

16 A. The Balance of Plant cost estimate was developed by engineering and design
17 consultant Black & Veatch using project assumptions supplied by the Developer.
18 Project assumptions included consideration of the current site location from a
19 geotechnical and solar irradiance perspective, technical information associated with
20 the proposed solar photovoltaic modules, and a general project schedule outlining
21 the targeted commercial operation dates for each of the Project's three phases. In
22 addition to these primary assumptions, Black & Veatch used its extensive

1 experience to recommend other design input criteria required for developing a
2 Balance of Plant cost estimate.

3 **Q. ARE THERE PLANS TO COMPETITIVELY BID THE MAJOR**
4 **CONSTRUCTION ACTIVITIES?**

5 A. Yes. The Developer and AEP Ohio plan to competitively bid the major
6 construction activities for the Turning Point Solar Project. Over the next 6 months,
7 the Developer plans to develop and conduct one or more Request for Proposals
8 (RFP) related to the major construction activities at the project. The Developer will
9 do so in consultation with AEP Ohio. After financial close, TPS Generation will
10 engage AEPSC to manage the construction of the project under the terms of a
11 Construction Management Agreement. Ohio businesses will have an open
12 opportunity to participate in the competitive bidding process.

13 **Q. WHAT PROTECTION IS THERE AGAINST UNANTICIPATED COSTS?**

14 A. The transaction is structured to minimize AEP Ohio's exposure to unanticipated
15 costs. Prior to financial close, material supply and balance of plant cost estimates
16 will have been more clearly identified. One of the conditions to financial close is
17 the issuance of a final order by the Commission authorizing AEP Ohio to recover
18 all costs associated with the Project through the nonbypassable surcharge. Should,
19 at financial close, AEP Ohio's identified costs for the Turning Point Solar Project
20 turn out to be beyond the level of recovery granted by the Commission, then the
21 Company is not required to close the transaction and proceed with the Project. The
22 Project is also structured in three separate phases, with three separate financial
23 closings. The same condition (actual costs not being in excess of the approved

1 nonbypassable surcharge) also applies to the Company's obligation to proceed with
2 the subsequent phases.

3 During the construction of each phase, AEPSC under a Construction
4 Management Agreement, will act as construction manager and will have the
5 opportunity to monitor and manage the project costs.

6 **FINANCIAL STRUCTURE**

7 **Q. PLEASE DESCRIBE THE GENERAL STRUCTURE OF THE PROJECT**
8 **AND THE RELATION BETWEEN THE OWNERS, LENDERS AND AEP**
9 **OHIO.**

10 A. As discussed previously, the Turning Point Solar Project will be owned by Turning
11 Point Solar Generation LLC a special purpose entity, established to own and lease
12 each phase of the project to AEP Ohio under a series of three separate twenty five
13 (25) year capital leases. TPS Generation is expected to be capitalized via a
14 combination of debt from construction lenders, the Rural Utility Service ("RUS")
15 which is part of the U.S. Department of Agriculture, AEP Ohio and the Ohio Air
16 Quality Development Authority ("OAQDA"). The RUS funding will occur for each
17 phase after that phase has achieved commercial operation. Additionally, there will
18 be \$20 million dollars of equity investment sourced from AEP Ohio with the
19 additional balance to be sourced from a, yet unidentified, third party equity investor.
20 The initial capitalization of TPS Generation will be approximately 75% debt and
21 25% equity. A general diagram of the structure and the relationship of the parties
22 are set forth in Exhibit JFG-7.

**Q. PLEASE DESCRIBE THE PROPOSED INVESTMENT BY AEP OHIO IN
TURNING POINT SOLAR GENERATION**

A. As discussed above, the Turning Point Solar Project will be partially capitalized with a \$20 million direct investment from AEP Ohio in accordance with the SEET Order in Case No. 10-1261-EL-UNC. AEP Ohio's equity contribution will be made in three separate contributions coinciding with the three project phases. The projected revenue requirement calculation for the Turning Point Solar Project assumes the equity contributions will be made at the financial close dates for the three phases. AEP Ohio would intend, however, to make its required equity contributions as late as possible in order to help minimize overall net revenue requirements by optimizing the amount of lower cost construction debt during the construction phase. Based on the stated terms of the Project agreements, AEP Ohio requests confirmation from the Commission that the SEET order condition would be fully satisfied if AEP Ohio's equity contributions are made at the financial close dates for the phases or at some later point for each phase in connection with the take-out of the construction financings.

**Q. WILL ADDITIONAL EQUITY BE REQUIRED IN ORDER TO FULLY
CAPITALIZE THE PROJECT COMPANY?**

A. Yes. In addition to the investment in TPS Generation by AEP Ohio, there will also be a need for third party equity.

**Q. PLEASE DESCRIBE HOW THE COMPANY INTENDS TO SECURE
THIRD PARTY EQUITY FINANCING OVER AND ABOVE THE
PREVIOUSLY DISCUSSED EQUITY FINANCING FROM AEP OHIO.**

1 A. Upon issuance of a favorable order by the Commission, establishing a non
2 bypassable charge for the life of the Project, the Company will issue an equity
3 offering memorandum to a select group of pre-qualified long-term investors for the
4 purposes of securing the required additional equity financing to capitalize TPS
5 Generation.

6 **Q. PLEASE DESCRIBE THE DEBT FINANCING THAT THE COMPANY IS**
7 **SEEKING FROM THE RUS.**

8 A. The RUS has a number of programs which have been established to aid in the
9 development of power generation projects throughout rural America. Among the
10 many programs it offers, there are a variety of loan programs. One such RUS
11 program, the FFB Guaranteed Loan Program, provides financing to qualified
12 borrowers with qualified power sector infrastructure projects at an interest rate of 1/8
13 percent margin over U.S. Treasuries. A number of steps need to be undertaken in
14 order to apply for and receive an FFB Loan Obligation Letter, which is similar to a
15 loan commitment from the RUS.

16 Among them are:

- 17 1. Successful completion of all necessary NEPA permitting activities – A
18 process which is already underway and made easier because the land in
19 which the project is being built on is reclaimed coal mine land;
- 20 2. Successful completion of a technical due diligence review;
- 21 3. Satisfaction of the RUS credit requirements - Repayment of loan to TPS
22 Generation is assured via the capital leases between AEP Ohio and TPS
23 Generation; and

1 4. Negotiation of final loan documents.

2 **Q. PLEASE DESCRIBE THE DEBT FINANCING THAT THE COMPANY IS**
3 **SEEKING FROM THE OAQDA FOR TPS GENERATION.**

4 A. The Developer applied for and obtained preliminary approval for a low interest
5 OAQDA 166 Direct Loan (Advanced Energy Job Stimulus Program) which will
6 make up approximately 5% of the total project debt. Of the total loan amount,
7 approximately 75% of the loan principal is forgivable if the conditions relating to
8 job commitment and the establishment of a manufacturing facility in Ohio are
9 satisfied.

10 The OAQDA has committed \$7.5 million of low cost debt to the Project,
11 which it will disburse one time upon the placed-in-service date of Phase 1 of the
12 Project. OAQDA will verify that the Project has been placed in service by relying
13 on tax documents and/or engineering reports that exist along with a possible visit to
14 the Project. The loan is expected to close in August, 2011. Three years from the
15 closing of the loan, OAQDA will verify whether an agreed upon number of
16 construction jobs relating to Phase 1 and Phase 2 of the Project have been created.
17 If the requisite number of construction jobs have been created, 50% of the loan will
18 be forgivable. OAQDA will also verify whether manufacturing jobs had been
19 created as a result of TPS Generation's purchase order for solar modules and related
20 balance of plant equipment. If the OAQDA determines, in its sole judgment, that a
21 manufacturing facility has been established, another 25% of the loan will be
22 forgivable.

1 **Q. PLEASE DESCRIBE THE TERM LOAN AEP OHIO WILL MAKE TO TPS**
2 **GENERATION WHICH IS ASSOCIATED WITH THE TAX BENEFITS**
3 **AEP OHIO RECEIVES AS LESSEE UNDER A CAPITAL LEASE.**

4 A. As Company witness Kelley discusses in his Direct Testimony, AEP Ohio plans to
5 make loans to TPS Generation in an amount approximately equal to the cash tax
6 benefits which are received by AEP Ohio for IRC §48 investment tax credits as a
7 result of its ownership (for tax purposes) of the Turning Point Solar Project. As
8 also discussed by Company witness Kelley, the Federal tax benefits associated with
9 this renewable energy project are claimed by AEP Ohio since it is the lessee under a
10 tax capital lease for each phase. Company witness Kelley further notes that Internal
11 Revenue Service normalization rules preclude AEP Ohio from directly contributing
12 these tax benefits back up to TPS Generation at no cost. AEP Ohio will charge a
13 market interest rate to TPS Generation. This loan will lower TPS Generation's
14 overall weighted average cost of capital; thus lowering the overall revenue
15 requirement for the benefit of the customers.

16 **SOLAR MODULES: MADE IN OHIO**

17 **Q. PLEASE PROVIDE SOME BACKGROUND ON THE COMPANY WHICH**
18 **IS ESTABLISHING NEW SOLAR MANUFACTURING FACILITIES IN**
19 **OHIO.**

20 A. Isofoton S.A., which is based in Malaga Spain, is in the process of establishing its
21 new United States solar module manufacturing facilities in Ohio. The company
22 was established in 1981 as a spin-off of a university project driven by Professor D.
23 Antonio Luque of the Polytechnic University of Madrid, its first Chairman of the

1 Board. Following a downturn in the Spanish solar market in 2008 and 2009, the
2 company was taken over in July of 2010 by Spanish developer Affirma (80%
3 ownership) and South Korean manufacturer of automation equipment TOPTEC
4 (20% ownership).

5 Today, Isofoton concentrates on three key business segments:

- 6 1) photovoltaic module sales and manufacturing,
7 2) single and dual axis tracker manufacturing, and
8 3) high concentration photovoltaic modules.

9 **Q. PLEASE DESCRIBE THE PROPOSED SOLAR MODULE PURCHASE**
10 **AGREEMENT BETWEEN ISOFOTON AND TPS GENERATION.**

11 A. While the final Module Supply Agreement between Isofoton and the Developer
12 (and later assigned to TPS Generation) is expected to take a number of months to
13 finalize, there is general agreement between the parties on many of the major
14 commercial terms. And while there is not an agreement on final pricing for the
15 panels, there is an agreement on an overall price cap, on a per watt basis, for each of
16 the three phases, which sets a maximum solar module price. This price cap was
17 used to estimate the revenue requirement to be included in the Generation Resource
18 Rider (GRR), which discussed in more detail by Company witness Nelson and
19 whose rates are detailed by Company witness Roush. AEP Ohio and the Developer
20 will continue to negotiate the price and terms of the final agreement with Isofoton.

21 **Q. WHAT IS THE BENEFIT OF THE PROPOSED PURCHASE OF SOLAR**
22 **MODULES FROM ISOFOTON?**

1 A. One of the highlights of the Turning Point Solar Project is that it serves as a catalyst
2 for bringing new high-tech manufacturing facilities, and jobs, to the state of Ohio.
3 This feature required that the Developer and AEP Ohio enter into bilateral
4 negotiations with Isofoton for the purchase of solar modules for the project.

5 **FACILITY LEASE AND GRR**

6 **Q. WHAT WOULD BE INCLUDED IN THE FACILITIES LEASE(S) FOR THE**
7 **GENERATING FACILITY BETWEEN THE TPS GENERATION AND AEP**
8 **OHIO?**

9 A. By leasing the solar generating facility from the TPS Generation, AEP Ohio would
10 be entitled to 100% of the electrical output (MWh) from the facility, all of the
11 facility's capacity value in PJM, and all of the environmental attributes, including
12 s-RECs, produced by the facility. As the Lessee under the contemplated Facilities
13 Lease(s), and much like a triple net lease on a building, AEP Ohio will be solely
14 responsible for all costs associated with the operation and maintenance of the
15 facility. Additionally, AEP Ohio would be responsible for the payment of local
16 property taxes and would receive all local, state, and federal tax benefits which
17 would serve to reduce the revenue requirements of the Turning Point Solar Project,
18 as more fully discussed by Company witness Kelley.

19 **Q. PLEASE DESCRIBE THE INPUT YOU HAD IN THE DEVELOPMENT OF**
20 **THE COST ESTIMATES WHICH WERE INCORPORATED INTO THE**
21 **FINANCIAL PROJECTIONS ASSOCIATED WITH THE GENERATION**
22 **RESOURCE RIDER.**

1 A. Based on information provided by the Developer, I provided guidance on inputs to
2 the financial pro formas in several areas including i) capital expenses (CAPEX), ii)
3 certain operating expenses (OPEX), iii) estimated annual energy production, iv)
4 project schedule, v) development costs, and vi) certain structuring aspects.

5 The CAPEX assumptions were derived from a combination of 1) the
6 previously discussed price caps for the purchase of solar modules negotiated with
7 Isofoton, 2) the comprehensive balance of plant estimate prepared by the
8 Developer's consulting engineer Black and Veatch, and 3) the estimated
9 development costs of the Developer and AEP Ohio.

10 The OPEX assumptions consist of direct O&M costs estimated for the
11 Project combined with an estimate for accounting, tax preparation and business
12 related expenses performed by AEPSC in accordance with a Business Services
13 Agreement on behalf of TPS Generation.

14 The annual energy production estimates were derived from a study
15 prepared by Black & Veatch for the Developer based on their analysis of the
16 historical and the expected solar intensity at the project site and the resulting
17 expected production from the project using the Isofoton solar modules.

18 The development costs for the project include costs for engineering,
19 permitting, legal and other related internal costs incurred by both the Developer and
20 AEP Ohio.

1 **AEP OHIO NEED FOR SOLAR GENERATION**

2 **Q. PLEASE DISCUSS THE NEED FOR ADDITIONAL SOLAR GENERATION**
3 **BY AEP OHIO.**

4 A AEP Ohio secured its first large scale acquisition of solar renewable energy via its
5 long-term Renewable Energy Purchase Agreement with Wyandot Solar LLC, a 10.1
6 MW solar project located in Wyandot County near the city of Upper Sandusky.
7 Although this project is providing a much needed supply of Solar Renewable
8 Energy Credits (s-RECs), the increasing renewable energy benchmarks set forth in
9 S.B. 221 require that additional solar resources must be secured in the coming years
10 in order for the Company to comply.

11 As stated in the Supplement to the Long-Term Forecast for AEP Ohio filed
12 December 20, 2010, Case No. 10-501-EL-FOR and 10-502-EL-FOR, the Company
13 needs a total of approximately 100 MW of solar resources to be online by 2020.

14 **Q. HOW WILL THE PROPOSED TURNING POINT SOLAR PROJECT**
15 **ASSIST AEP OHIO IN COMPLIANCE WITH THE SOLAR RENEWABLE**
16 **ENERGY BENCHMARKS ESTABLISHED BY SB 221?**

17 A. AEP Ohio has the obligation of meeting increasing annual renewable energy
18 benchmarks specific to solar energy. As shown in the 2010 LTFR Supplement filed
19 December 20, 2010, the solar specific portion of the renewable energy benchmarks
20 established by SB 221 increase annually over the life of AEP Ohio's previously
21 filed ten-year compliance plan.

22 The renewable generation produced by the proposed new solar generation
23 Project will allow AEP Ohio to continue to meet its annually increasing solar

1 benchmarks. Due to the still developing market for Ohio s-RECs, the Company
2 believes it is prudent to procure its renewable energy needs through options that not
3 only meet current needs, but also bring manufacturing and construction jobs to
4 Ohio.

5 **Q. WHAT WAS THE CONCLUSION CONTAINED IN THE 2010 LTFR**
6 **SUPPLEMENT?**

7 A. As indicated on page 11 of the 2010 LTFR Supplement, a new generation resource
8 such as the proposed Turning Point Solar Project is consistent with fulfilling AEP
9 Ohio's needs with regards to complying with the near-term solar resource
10 compliance requirements contained in SB 221.

11 **Q. WHAT DOES AEP OHIO PROPOSE TO DO WITH EXCESS RECS**
12 **PRODUCED BY THE PROPOSED TURNING POINT SOLAR PROJECT?**

13 A. Solar RECs that are in excess of AEP Ohio's annual solar benchmark obligations
14 under SB 221 can be banked for future years' compliance requirements. Since the
15 solar benchmarks increase annually, any s-RECs that are "banked" in the short-run
16 would eventually be depleted if no additional resources are added beyond the
17 Turning Point Solar Project. Nevertheless, should AEP Ohio choose to sell some of
18 the banked s-RECs any realized revenues from any such sales will be credited
19 100% towards reducing the total costs incurred in the GRR for the benefit of the
20 Ohio customers.

1

2 **CONCLUSION**

3 **Q. IN YOUR OPINION, SHOULD THE COMMISSION APPROVE THE**
4 **PROPOSED TURNING POINT SOLAR PROJECT DESCRIBED HEREIN**
5 **FOR AEP OHIO TO MEET ITS SOLAR ENERGY BENCHMARKS**
6 **ESTABLISHED BY SB 221?**

7 A. Yes. The need for additional solar generation in Ohio exists. Significant efforts
8 have been made in the referenced agreements to minimize costs and risks while
9 maintaining flexibility to benefit from additional cost reductions. Pursuing this
10 project is a prudent option for AEP Ohio, particularly since the Turning Point Solar
11 project spurs the Ohio solar manufacturing industry (rather than buying modules
12 from other countries) in a manner consistent with SB 221.

13 **Q. DOES THIS CONCLUDE YOUR SUPPLEMENTAL DIRECT**
14 **TESTIMONY?**

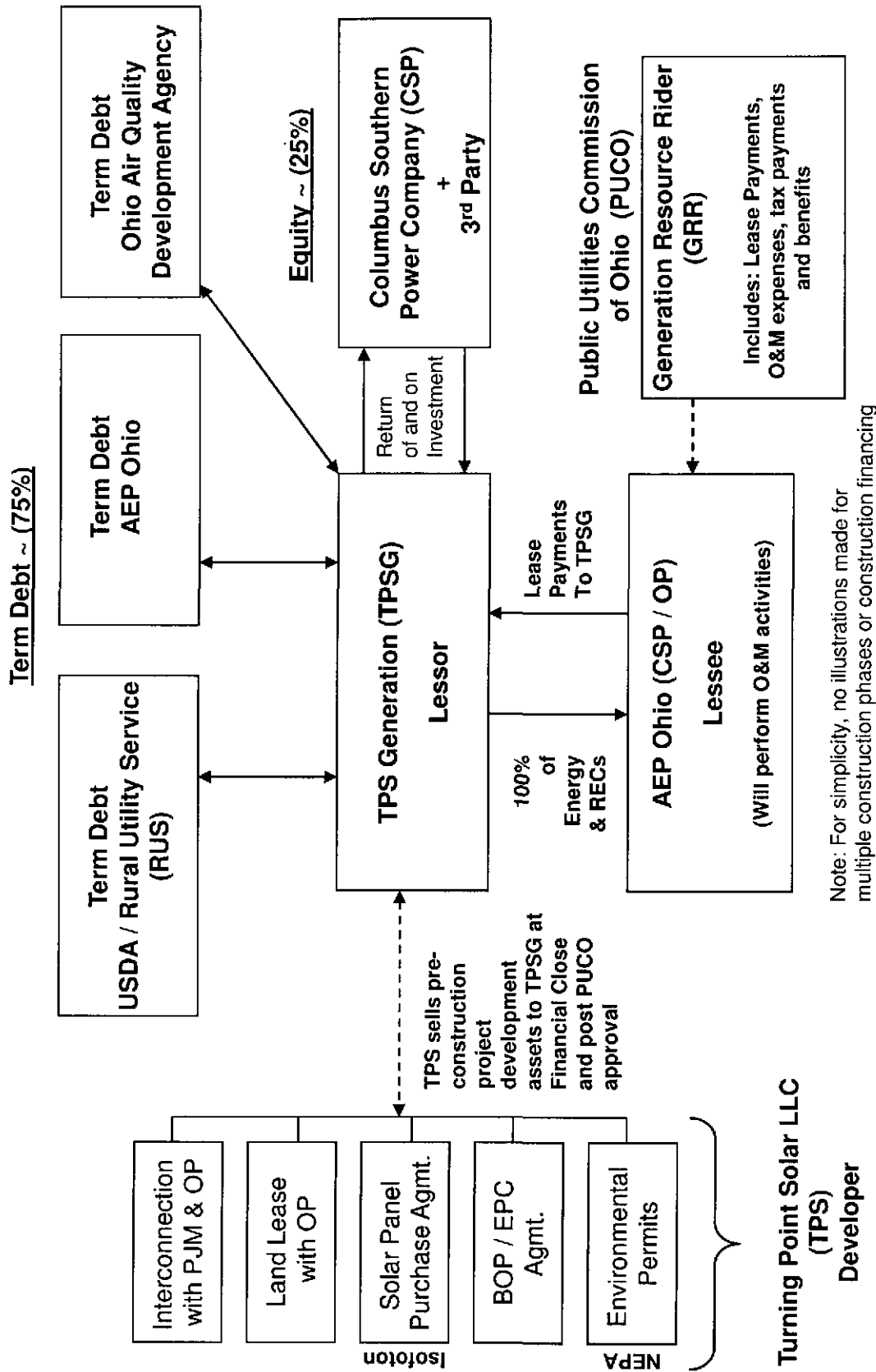
15 A. Yes, it does.

Exhibit JFG-6

[Separately bound due to size of exhibit]

Proposed 49.9 MW Turning Point Solar Project

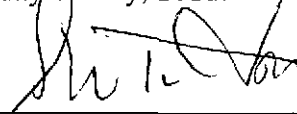
Exhibit JFG-7



Note: For simplicity, no illustrations made for multiple construction phases or construction financing

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing Supplemental Direct Testimony of Jay F. Godfrey on behalf of Columbus Southern Power Company and Ohio Power Company has been served upon the below-named counsel via First Class mail, postage prepaid, this 1st day of July, 2011.



Steven T. Nourse

William L. Wright
Werner L. Margard III
Stephen A. Reilly
Public Utilities Commission of Ohio
180 East Broad Street, 6th Floor
Columbus, OH 43215-3793

Samuel C. Randazzo
Joseph E. Olikier
Frank P. Darr
McNees Wallace & Nurick LLC
21 East State Street, 17th Floor
Columbus, OH 43215

David F. Boehm
Michael L. Kurtz
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202

Thomas J. O'Brien
Terrence O'Donnell
Christopher Montgomery
Lisa G. McAlister
Matthew W. Warnock
Bricker & Eckler LLP
100 South Third Street
Columbus, OH 43215-4291

John W. Bentine
Mark S. Yurick
Zachary D. Kravitz
Chester Willcox & Saxbe, LLP
65 East State Street, Suite 1000
Columbus, OH 43215

Terry Etter
Michael E. Idzkowski
Maureen R. Grady
Ohio Consumers' Counsel
10 W. Broad Street Suite 1800
Columbus OH 43215

Dorothy K. Corbett
Duke Energy Retail Sales, LLC
139 East Fourth Street
1303-Main
Cincinnati Ohio 45202

Richard L. Sites
Ohio Hospital Association
155 East Broad Street, 15th Floor
Columbus, OH 43215-3620

Colleen L. Mooney
David C. Rinebolt
Ohio Partners for Affordable Energy
231 West Lima Street
Findlay, OH 45840

James F. Lang
Laura C. McBride
N. Trevor Alexander
Calfee, Halter & Griswold LLP
1400 KeyBank Center
800 Superior Avenue
Cleveland, OH 44114

Michael R. Smalz
Joseph V. Maskovyak
Ohio Poverty Law Center
555 Buttles Avenue
Columbus, OH 43215

Jay E. Jadwin
AEP Retail Energy Partners LLC
155 West Nationwide Blvd, Suite 500
Columbus, OH 43215

M. Howard Petricoff
Stephen M. Howard
Michael J. Settineri
Vorys, Sater, Seymour and Pease LLP
52 East Gay Street
Columbus, OH 43215

Glen Thomas
1060 First Avenue, Ste. 400
King of Prussia, PA 19406

Laura Chappelle
4218 Jacob Meadows
Okemos, MI 48864

David I. Fein
Constellation Energy Group, Inc.
550 W. Washington Blvd., Ste. 300
Chicago, IL 60661

Cynthia Former Brady
Constellation Energy Resources, LLC
550 W. Washington Blvd., Ste. 300
Chicago, IL 60661

William L. Massey
Covington & Burling, LLP
1201 Pennsylvania Ave., NW
Washington, DC 20004

Joel Malina
COMPETE Coalition
1317 F Street, NW, Ste 600
Washington, DC 20004

Henry W. Eckhart
Natural Resources Defense Council
1200 Chambers Road, Ste 106
Columbus, OH 43212

Shannon Fisk
Senior Attorney
Natural Resources Defense Council
2 N. Riverside Plaza, Suite 2250
Chicago, IL 60606

Christopher L. Miller
Gregory H. Dunn
Asim Z. Haque
Schottenstein Zox & Dunn Co., LPA
250 West Street
Columbus, OH 43215

Sandy I-ru Grace
Exelon Business Services Company
101 Constitution Avenue NW
Suite 400 East
Washington, DC 20001

Jesse A. Rodriguez
Exelon Generation Company, LLC
300 Exelon Way
Kennett Square, PA 19348

Kenneth P. Kreider
Keating Muething & Klekamp PLL
One East Fourth Street
Suite 1400
Cincinnati, OH 45202

Holly Rachel Smith
Holly Rachel Smith, PLLC
Hitt Business Center
3803 Rectortown Road
Marshall, VA 20115

Steve W. Chriss
Manager, State Rate Proceedings
Wal-Mart Stores, Inc.
2011 SE 10th Street
Bentonville, AR 72716-0550

Mark A. Hayden
FirstEnergy Service Company
76 South Main Street
Akron, OH 44308

Barth E. Royer
Bell & Royer Co., LPA
33 South Grant Avenue
Columbus, OH 43215-3927

Gary A. Jeffries
Dominion Resources Services, Inc.
501 Martindale Street, Suite 400
Pittsburgh, PA 15212-5817

Tara C. Santarelli
Environmental Law & Policy Center
1207 Grandview Avenue, Suite 201
Columbus, OH 43212

E. Camille Yancey
Nolan Moser
Trent A. Dougherty
Ohio Environmental Council
1207 Grandview Avenue, Suite 201
Columbus, Ohio 43212-3449

Douglas G. Bonner
Emma F. Hand
Keith C. Nusbaum
SNR Denton US LLP
1301 K Street NW
Ste. 600, East Tower
Washington, DC 20005

Philip B. Sineneng
Thompson Hine LLP
41 S. High Street, Ste. 1700
Columbus, Ohio 43215

Gregory J. Poulos
EnerNOC, Inc.
101 Federal Street, Ste. 1100
Boston, MA 02110