Cascabel Working Group
6590 N. Cascabel Road
Benson, AZ 85602
Submitted electronically and by U.S. mail November 25, 2011

Dr. Steven Chu, Secretary of Energy
Ms. Lauren L. Azar, Senior Advisor to the Secretary
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Secretary Chu and Senior Advisor Azar:

This letter and enclosed documents provide information relevant to evaluating the federal funding of the SunZia Southwest Transmission Project.

In October 2011 SunZia was selected by the Obama administration as one of seven national transmission projects slated for fast tracking. Prior to this, the project was chosen by the Western Area Power Administration to receive approximately $250 million in federal loan guarantees from the $3.25 billion authorized by Congress to dispense under the 2009 American Recovery and Reinvestment Act. As you know, Representative Tom McClintock of California has sponsored HR 2915, which would rescind such funding because of concerns about the riskiness of these loans in light of the failed Solyndra Project.

This report reaches two principal conclusions that call into question whether SunZia should continue to receive federal loan guarantees or expedited treatment. First, administration support has relied heavily on SunZia’s characterization of its project as delivering primarily renewable energy when in fact SunZia was originally proposed to connect to a natural gas power plant that would potentially supply approximately half the power that the lines would carry. This gas plant is owned by SunZia's proposer and principal investor, the SouthWestern Power Group (SWPG). SWPG did not disclose this plant and the amount of power it would supply to federal officials. In addition, because of open-access laws, other nonrenewable generation would unquestionably use these lines, which would make more than half the power in them nonrenewable.

Second, and of equal concern, is the fact that Energy Capital Partners, an investment firm that was to supply 40% of the private capital for SunZia, has withdrawn its financial support for the project apparently due to the project’s dubious financial prospects. In addition, the High Plains Express Project, which was to build a companion transmission line to SunZia from New Mexico to Arizona, has stopped its project because it has determined that financial risks are currently too great to build it. You may thus ask whether or not the federal government should support a project that private investors fear is financially untenable.

Brief History of the SunZia Project

The SunZia Project would consist of two 500-kV transmission lines that would run ~500 miles from central New Mexico to Phoenix via southwestern New Mexico and southeastern Arizona, purportedly to deliver wind-generated electricity to central Arizona and California. If completed, the project would provide approximately 3,000 MW of transmission capacity.

SunZia's primary investor, the SouthWestern Power Group (SWPG), has repeatedly characterized the project as being to deliver primarily renewable energy. SWPG has failed to disclose that its original intent in proposing SunZia was to provide transmission capacity for its yet-to-be-built 1,000-MW Bowie, Arizona, natural gas power plant. (See enclosed documentation.) SWPG proposed SunZia with the power plant as its hub in the fall of 2006 but struggled for over a year without success to attract enough investors to make the project viable.

In the late fall of 2007 the High Plains Express Project (HPX) proposed to build two 500-kV lines from the wind-generating area of central New Mexico to Phoenix, one via southeastern Arizona and a second via central Arizona. The Arizona–New Mexico lines were part of a much larger scheme designed to deliver both wind and nonrenewable resources from central Wyoming to Arizona. SWPG then took over the full southern leg of the HPX Project from central New Mexico to Phoenix to lengthen its project, doubling the transmission capacity to create the present configuration of SunZia. The Bowie power plant remains a central part of the project, however, which would potentially supply approximately half of the power that the project would carry.

Financial Concerns

Involvement of Energy Capital Partners

In the spring of 2008, Energy Capital Partners agreed to support 40% of this project configuration, with SWPG retaining a 40% interest. Other investors included the Salt River Project at 13%, Shell Wind Energy at 5%, Tucson Electric Power at 1%, and Tri-State Generation and Transmission Cooperative at 1%. The involvement of Energy Capital Partners made the project financially feasible and allowed the project to proceed.

In the spring of 2011, however, Energy Capital Partners withdrew from the project, placing SunZia back in its original untenable financial position. In order to save the project and continue the permitting process with the Bureau of Land Management, the MMR Group, which owns SWPG and was already providing 40% of the capital for SunZia, agreed to buy out Energy Capital Partners' share and assume 80% of the financial responsibility. This shaky financial arrangement raises serious doubts that the project can actually be built. It would seem that additional investors must commit funds to the project to make it financially feasible if the BLM approves it.

Lack of Financial Viability of the High Plains Express Project

As mentioned in the introduction, the current SunZia Project was once considered part of the High Plains Express Project, which has itself undergone two stages of feasibility assessment. The conclusion of Stage 2 was that the HPX project placed its investors at too great a financial risk and should not continue. In the fall of 2010 the project was put on hold for this reason. The consortium of companies involved reserved the right to consider building it in the future if economic conditions change. The fact that HPX has halted its plans at the same time SunZia is proceeding raises serious doubts about SunZia's financial viability.

The Origin of the SouthWestern Power Group

The SouthWestern Power Group has undergone two incarnations, the first as an independent company started by Tom Wray in 1999 in response to the deregulation of the utility industry. Deregulation allowed merchant companies to build power plants for the first time. Mr. Wray had no assets to build power plants, so he sold his initial idea of the ~2,400-MW Gila Bend, Arizona, natural gas power plant to Panda International in late 1999. Panda then permitted and built the plant with TECO Power Services Corporation.

In light of his success in selling this project, in 2001 Mr. Wray was able to convince the MMR Group of Baton Rouge to take on SWPG as a subsidiary. Mr. Wray's concept for SWPG was to build natural gas power plants using MMR funds. In the nearly eleven years that SWPG has been affiliated with the MMR Group, SWPG has not commenced or completed a single project. Its only success has been to permit the Bowie natural gas power plant, which is the underlying reason for proposing SunZia. The Bowie plant has yet to be built, with its first unit now scheduled to be completed sometime before 2020. The unit was originally slated to be completed in 2005. SWPG also proposed the Toltec, Arizona, power plant at the same time as the Bowie plant, but the Arizona Corporation Commission denied the application.

Mr. Wray has claimed Panda International's plant as his achievement and has presented it as SWPG's principal success even though SWPG did not do the actual permitting for the plant and was not involved in building it. Panda and TECO spent more than $1 billion on the plant, and then the project went bankrupt two years after completion. SWPG declined to commence building the Bowie plant for the same reason that the Panda plant went bankrupt – increased natural gas prices that at that time made natural gas plants uneconomic.

Thus in its nearly thirteen-year history, SWPG has not completed any power plant or transmission projects, and the one project with which it was peripherally involved failed financially. SWPG's lack of any track record of success raises questions about its ability to build and manage a project like SunZia. In particular, the company lacks expertise with wind energy and the economic and physical difficulties created by wind's intermittent nature and low capacity factor[1].

The Current Economics of Wind Energy Development

Of additional concern are the current economics of wind energy development, which SunZia states is the basis of its project. This concern is exemplified by the abandonment of the

[1] The capacity factor of a power generation facility is the ratio of its actual output over a period of time, usually one year, to its potential output if it had operated at full nameplate (rated) capacity over that time. It is essentially a measure of average power generation. For example, if 3,000 MW of wind generation is installed and has a capacity factor of 33%, on average 1,000 MW of power will be generated.

Panhandle Wind Farm Project originally proposed by T. Boone Pickens. In 2009 Mr. Pickens conceived the plan to build a 4,000-MW wind farm in the Texas Panhandle, an area with wind characteristics similar to those of central New Mexico, the principal area that SunZia claims it will tap.

Mr. Pickens was confident enough in his project to purchase the first 1,000 MW of wind turbine capacity at a cost of $2 billion. With a Texas wind capacity factor of ~35%, this would have provided only around 350 MW of power on average. The front-end cost for this relatively small amount of generation capacity would have been enormous, just as it would be for SunZia. Mr. Pickens concluded that building this wind farm would not make financial sense and killed the project. This calls into question the economics of developing the wind farms to supply power to SunZia. Just buying the turbines to feed the 3,000 MW of SunZia transmission capacity would require an up-front investment of $6 billion and has yet to be made.

Even if the New Mexico wind farms were built, the low capacity factor of New Mexico wind would significantly increase the time required to pay for both the wind turbines and the transmission capacity.

SunZia Loan Guarantees Authorized by the Western Area Power Administration

We strongly feel that the loan guarantees the Western Area Power Administration has committed to SunZia under the 2009 American Recovery and Reinvestment Act are financially unwise and should be retracted. WAPA has designated between $200 and $300 million of the $3.25 billion authorized by Congress for western transmission projects to build SunZia. This commitment occurred before the Bureau of Land Management has even established a route for or approved the project. It would seem more appropriate for the BLM to complete evaluation of the project before WAPA commits funds to it. The pay-back schedule that SunZia has presented to WAPA should be a matter of serious question also given the low capacity factor of wind generation. It is also likely that the SouthWestern Power Group has failed to disclose to the Western Area Power Administration its plans to tie SunZia to its Bowie power plant in order to greenwash the project and obtain WAPA funding.

As stated previously, SWPG has characterized SunZia as carrying primarily renewable energy when incorporating merely the Bowie plant into the project would result in approximately half of the power in SunZia being from nonrenewable sources. Other nonrenewable generating sources, particularly in southwestern New Mexico, will unquestionably use the project also because of open-access rules. This would further increase the percentage of nonrenewable power the lines would carry, likely making it the dominant form of energy that the project would deliver.

Summary

As Congress reevaluates the authorization to fund transmission projects through the 2009 America Recovery and Reinvestment Act, we urge you to scrutinize the SunZia Project in light of these issues. While we cannot assess other projects that would be funded by the Act, SunZia has dubious renewable credentials and carries a level of financial risk that makes funding it with federal money inadvisable, especially in a time of such severe fiscal constraints.

Sincerely,

Norman M. Meader

Norman M. Meader
for the Cascabel Working Group
(520) 323-0092
nmeader@cox.net

Enclosure

Cc: Mr. Tim Meeks, Administrator, Western Area Power Administration
Ms. Lisa Meiman, Corporate Communications Team, Western Area Power Administration
Mr. Ken Salazar, Secretary of the Interior
Mr. Robert Abbey, Director, Bureau of Land Management
Mr. Jesse Juen, Acting Director, New Mexico Office of the BLM
Mr. Adrian Garcia, BLM Manager, SunZia Southwest Transmission Project
U.S. Representative Tom McClintock, Chair, House Subcommittee on Water and Power
U.S. Representative Cliff Stearns, Chair, House Subcommittee on Oversight and Investigations
U.S. Representative Doc Hastings, Chair, House Committee on Natural Resources
Senator John McCain, Arizona
Senator Jon Kyl, Arizona
Representative Paul Gosar (Arizona 1st Congressional District)
Representative Trent Franks (Arizona 2nd Congressional District)
Representative Ben Quayle (Arizona 3rd Congressional District)
Representative Ed Pastor (Arizona 4th Congressional District)
Representative David Schweikert (Arizona 5th Congressional District)
Representative Jeff Flake (Arizona 6th Congressional District)
Representative Raúl Grijalva (Arizona 7th Congressional District)
Representative Gabrielle Giffords (Arizona 8th Congressional District)