



Department of Energy
Washington, DC 20585

September 4, 2008

Francisco Bunt
CEO
Photovoltaic Technologies LLC
3504 Santa Idalia
Mission, TX 78572

RE: Photovoltaic Technologies LLC – No. EA-341

Dear Mr. Bunt:

Attached is the electricity export authorization issued today to Photovoltaic Technologies LLC (Photovoltaic). This Order authorizes Photovoltaic to export electric energy as a power marketer using certain existing transmission facilities located at the U.S. border with Mexico. I call special attention to the requirement contained in paragraph (H) of the Order that requires the submission of quarterly reports. Please contact the undersigned with the name, telephone number, fax number, and e-mail address of the person who will be responsible for submission of these quarterly reports.

DOE expects holders of these orders to abide by the terms and conditions of their authorizations. A violation of any of those terms or conditions, including the failure to submit timely and accurate reports, may result in a loss of authority and subject the holder to sanctions and penalties. Continuing to export after the expiration of an order may result in a denial of future authority.

This authorization is for a 5-year period and will expire on September 4, 2013.

Should you have any questions regarding this Order, please do not hesitate to call me at (202) 586-5934.

Sincerely,

Anthony J. Como
Director, Permitting and Siting
Office of Electricity Delivery and
Energy Reliability

Attachment

cc: Alexandra Bunt



United States
Department of Energy

Office of Electricity Delivery and Energy Reliability

Photovoltaic Technologies, LLC

OE Docket No. EA-341



Order Authorizing Electricity Exports to Mexico

Order No. EA-341

September 4, 2008

Photovoltaic Technologies, LLC

Order No. EA-341

I. BACKGROUND

Exports of electricity from the United States to a foreign country are regulated by the Department of Energy (DOE) pursuant to sections 301(b) and 402(f) of the DOE Organization Act (42 U.S.C. 7151(b), 7172(f)) and require authorization under section 202(e) of the Federal Power Act (FPA) (16 U.S.C.824a(e))¹.

On June 9, 2008, Photovoltaic Technologies LLC (Photovoltaic) applied to DOE for an authorization to transmit electric energy from the United States to Mexico as a power marketer.

Photovoltaic proposes to purchase surplus electric energy from electric utilities and other suppliers within the United States and to export that energy to Mexico. The energy to be exported would be delivered to Mexico over the international electric transmission facilities presently owned by the following: AEP Texas Central Company (AEP TCC), Central Power & Light Company (CPL), Comision Federal de Electricidad (CFE), El Paso Electric Company (EPE), San Diego Gas & Electric Company (SDG&E), and Sharyland Utilities.

Notice of the Photovoltaic export application in Docket No. EA-341 was placed in the *Federal Register* on June 13, 2008, (73 FR 33808) requesting that comments, protests, and petitions to intervene be submitted to DOE by July 14, 2008. None were received.

II. DISCUSSION AND ANALYSIS

The authority requested of DOE by Photovoltaic is a necessary condition for exporting under section 202(e) of the FPA. Before an electricity export authorization is granted, DOE evaluates the impact of the export on the reliability of the U.S. electric system.

Specifically, under the first criterion of section 202(e), DOE shall approve an electricity export application "unless, after opportunity for hearing, it finds that the proposed transmission would impair the sufficiency of electric supply within the United States...." DOE has interpreted this criterion to mean that sufficient generating capacity must exist such that the exporter could sustain the export while still maintaining

¹ The authority to administer the International Electricity Regulatory Program through the regulation of electricity exports and the issuance of Presidential permits has been delegated to the Assistant Secretary for the Office of Electricity Delivery and Energy Reliability in Redelegation Order No. 00-002.10C issued on May 29, 2008.

adequate generating reserves to meet all native load obligations. Power marketers, like Photovoltaic, do not have franchised service areas and, consequently, have no native load obligations like the traditional local distribution utility. Marketers build a power purchase portfolio from electric power purchased from various entities inside and outside the United States. The power purchased by a power marketer is, by definition, surplus to the needs of the selling entities. With no native load obligations, the power marketer is free to sell its power portfolio on the open market domestically or as an export. Because a marketer has no native load obligations and because power purchased by a marketer would be surplus to the needs of the entities selling the power to the marketer, an export occurring under such circumstances would meet the first statutory criterion of section 202(e) of the FPA of not impairing the sufficiency of supply within the United States.

Under the second criterion of section 202(e), DOE shall approve an electricity export application “unless, after opportunity for hearing, it finds that the proposed transmission...would impede or tend to impede the coordination in the public interest of facilities subject to the jurisdiction of the Commission.” DOE has interpreted this second criterion primarily as an issue of the operational reliability of the domestic electric transmission system.

Prior to the restructuring of the electric power industry, the only entities able to export were those electric utilities that were contiguous with the U.S. international border that owned international transmission facilities. The exported energy generally originated from within the exporter’s system and standard transmission studies could be performed to determine the impact of the export on regional electric systems.

However, deregulation of wholesale power markets and the introduction of open-access transmission expanded the geographic scope of entities capable of exporting electric energy. Today, at the time it submits its application to DOE, the typical exporter cannot identify the source of the exported energy or the electric systems that might be called upon to provide transmission service to the border. Consequently, traditional transmission studies cannot be used to determine the impact of such exports on the operational reliability of the regional electric transmission systems.

In evaluating the operational reliability impacts of export proposals, DOE has always used a variety of methodologies and information, including established industry guidelines, operating procedures and/or infrastructure, as well as traditional technical studies where available and appropriate. When determining these impacts for exports by power marketers or other entities operating in a similar manner, it is convenient to separate the export transaction into two parts: (1) moving the export from the source to a border system that owns the international transmission connection; and, (2) moving the export through that border system and across the border.

In order to deliver the export from the source to a border system, Photovoltaic must make the necessary commercial arrangements and obtain sufficient transmission capacity to wheel the exported energy to the border system. In doing so, Photovoltaic

generally would be expected to use domestic transmission facilities for which open-access tariffs have been approved by the Federal Energy Regulatory Commission (FERC). Photovoltaic also must make reservations for transmission service in accordance with the FERC Open-Access Same-Time Information System (OASIS), and must schedule delivery of the export with the appropriate Regional Transmission Organization(s) (RTO), Independent System Operator(s) (ISO), and/or control area operator(s). The posting of transmission capacity on OASIS indicates that transmission capacity is available. Furthermore, it is the responsibility of the RTO, ISO, and/or control area operator to schedule the delivery of the export consistent with established operational reliability criteria. During each step of the process of obtaining transmission service, the owners and/or operators of the transmission facilities will evaluate the impact on the system and schedule the movement of the export only if it would not violate established operating reliability standards. DOE has determined that the existing industry procedures for obtaining transmission capacity on the domestic transmission system provide adequate assurances that a particular export will not cause an operational reliability problem. Therefore, this export authorization has been conditioned to ensure that the export would not cause operating parameters on regional transmission systems to fall outside of established industry criteria or cause or exacerbate a transmission operating problem on the U.S. electric power supply system (paragraphs D, E, and J of this Order).

In determining the operational reliability impacts of moving the export through a border system and across the border, DOE relies on the traditional technical studies that were performed in support of electricity export authorizations issued to that border system. Allowing these technical studies to suffice in this docket is sound and, thus, DOE need not perform additional impact assessments here, provided the maximum rate of transmission for all exports through a border system does not exceed the authorized limit of the system (paragraph B of this Order).

Open Access

An export authorization issued under section 202(e) does not impose on transmitting utilities a requirement to provide service. However, DOE expects transmitting utilities owning border facilities to provide access across the border in accordance with the principles of comparable open access and non-discrimination contained in the FPA and articulated in FERC Order No. 888 (Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities, FERC Statutes and Regulations ¶31,036 (1996)), as amended. The actual rates, terms and conditions of transmission service should be consistent with the non-discrimination principles of the FPA and the transmitting utility's Open-Access Transmission Tariff on file with FERC.

All recipients of export authorizations, including owners of border facilities for which Presidential permits have been issued, are required by their export authorization to conduct operations in accordance with the principles of the FPA and any pertinent rules,

regulations, directives, policy statements, and orders adopted or issued thereunder, which include the comparable open access provisions of FERC Order No. 888, as amended. Cross-border electric trade ought to be subject to the same principles of comparable open access and non-discrimination that apply to transmission in interstate commerce. (See *Enron Power Marketing, Inc.*, 77 FERC ¶61,013 (1996)). Thus, DOE expects owners of border facilities to comply with the same principles of comparable open access and non-discrimination that apply to the domestic, interstate transmission of electricity.

III. FINDING AND DECISION

DOE has assessed the impact that the proposed export would have on the reliability of the U.S. electric power supply system. Based on the above, DOE has determined that the export of electric energy to Mexico by Photovoltaic, as ordered below, would not impair the sufficiency of electric power supply within the United States and would not impede or tend to impede the coordination in the public interest of facilities within the meaning of section 202(e) of the FPA provided that, for exports through the system of SDG&E, Photovoltaic coordinate exports with SDG&E and/or the control area operator or Independent System Operator (ISO), as appropriate, such that the total exports across the SDG&E/CFE interconnection are in conformity with the operating limitations established by the SDG&E/CFE operating nomogram and the Southern California Import Transmission Nomogram. For exports through the system of EPE, Photovoltaic shall coordinate such exports with EPE and/or the control operator or ISO, as appropriate, such that total exports across the EPE/CFE interconnection are in conformity with the requirements of the Southern New Mexico Import nomogram that governs the amount of imports allowed into the Southern New Mexico area. These nomograms are on file in the Office of Electricity Delivery and Energy Reliability for public review.

DOE also has determined that this action is among those classes of actions not normally requiring preparation of an environmental assessment and, therefore, is eligible for categorical exclusion under Appendix B to Subpart D, paragraph B4.2 of the revised DOE Regulations implementing the National Environmental Policy Act of 1969 (NEPA). Specifically, this categorical exclusion is provided for transmission of electric energy using existing transmission systems. Documentation of the use of this categorical exclusion has been placed in this Docket.

Based on these findings, DOE has granted Photovoltaic's request for authorization to export electric energy to Mexico for a five-year term.

IV. COMPLIANCE

DOE expects Photovoltaic to abide by the terms and conditions established for its authority to export electric energy to Mexico, as set forth below. DOE intends to closely

monitor Photovoltaic's compliance with these terms and conditions, especially the requirement in paragraph H of this Order that Photovoltaic create and preserve full and complete records and file quarterly reports with DOE. A violation of any of those terms and conditions, including the failure to submit timely and accurate quarterly reports, may result in the loss of authority to export electricity and subject Photovoltaic to sanctions and penalties under the FPA.

DOE notes that paragraph K of this Order allows Photovoltaic to file an application for renewal of this authorization up to six months prior to its expiration. This Order also puts Photovoltaic on notice that DOE requires at least sixty days to adequately process any renewal application. Accordingly, DOE expects Photovoltaic to implement appropriate internal procedures to monitor the status of its authorization so as to ensure timely application to DOE for renewal of this authorization. Failure to provide DOE with sufficient time to process a renewal application may result in a gap in Photovoltaic's authority to export electricity and, therefore, may affect its ability to satisfy its contractual obligations.

As noted above, obtaining a valid Order from DOE authorizing the export of electricity under section 202(e) of the FPA is a necessary condition before engaging in the export. Failure to obtain such an Order, or continuing to export after the expiration of such an Order, may result in a denial of authorization to export in the future and subject the exporter to sanctions and penalties under the FPA. DOE expects transmitting utilities owning border facilities and entities charged with the operational control of those border facilities, such as ISO's or RTO's, to verify that companies seeking to schedule an electricity export have the requisite authority from DOE to export such power.

V. ORDER

Based on the above and pursuant to section 202(e) of the FPA and the Rules and Regulations issued thereunder (Title 10, Code of Federal Regulations, sections 205.300-309), it is hereby ordered that Photovoltaic is authorized to export electric energy to Mexico under the following terms and conditions:

The electric energy exported by Photovoltaic pursuant to this Order may be delivered to Mexico only over the following existing international transmission facilities for which assessments of the transmission limits for operation in the export mode have been made:

<u>Present Owner</u>	<u>Location</u>	<u>Voltage</u>	<u>Presidential Permit No.</u> ²
AEP Texas Central Company	Laredo, TX	138 kV	PP-317
		230 kV	PP-317
Central Power & Light Company	Brownsville, TX	138 kV	PP-94
	Eagle Pass, TX	69 kV	PP-219
Comision Federal de Electricidad	Falcon Dam, TX	138 kV	None
El Paso Electric Company	Diablo, NM	115 kV	PP-92
	Ascarate, TX	115 kV	PP-48
San Diego Gas & Electric	Miguel, CA	230 kV	PP-68
	Imperial Valley, CA	230 kV	PP-79
Sharyland Utilities, Inc.	McAllen, TX	138 kV	PP-285

(B) Exports authorized herein shall not cause a violation of the terms and conditions contained in existing electricity export authorizations associated with the international transmission facilities identified in paragraph (A) above. Specifically:

- (1) Exports by Photovoltaic shall not cause the total exports on a combination of the 138 kV facilities at the Falcon Dam (owned by CFE), the facilities authorized by Presidential Permits PP-94, PP-219 (issued to CPL), and the facilities authorized by PP-317 (issued to AEPTCC) to exceed an instantaneous transmission rate of 600 MW during those times when the CPL system is at a minimum load condition. During all other load conditions on the CPL system, exports by Photovoltaic over the facilities identified in this subparagraph shall not cause the maximum rate of transmission to exceed:
 - (a) 300 MW for the 138 kV and 69 kV facilities authorized by Presidential Permit PP-94; or,
 - (b) 50 MW total for the 138 kV facilities at Falcon Dam and those authorized by Presidential Permit PP-219; or

² These Presidential permit numbers refer to the generic DOE permit number and are intended to include any subsequent amendments to the permit authorizing the facility.

(c) 300 MW for the 138 kV and 230 kV facilities at Laredo authorized by Presidential Permit PP-317.

- (2) Exports made by Photovoltaic pursuant to this Order shall not cause the total exports on a combination of the facilities authorized by Presidential Permits PP-48 and PP-92 (issued to EPE), to exceed an instantaneous transmission rate of 200 MW. All exports made pursuant to this Order must be consistent with the operating limitations of the Southern New Mexico Import Nomogram.
- (3) Exports made by Photovoltaic pursuant to this Order shall not cause the total exports on a combination of the facilities authorized by Presidential permit PP-68 and PP-79 (issued to SDG&E), to exceed an instantaneous transmission rate of 400 megawatts (MW). All exports made pursuant to this Order must be consistent with the operating limitations established by the SDG&E/CFE operating nomogram and the Southern California Import Transmission Nomogram.
- (4) Exports made by Photovoltaic pursuant to this Order, using the transmission facilities authorized by Presidential Permit PP-285 (issued to Sharyland), shall not cause the maximum instantaneous transmission rate to exceed 150 MW.

(C) Changes by DOE to the export limits in other orders shall result in a concomitant change to the export limits contained in paragraph (B) of this Order. Notice of these changes will be provided to Photovoltaic.

(D) The scheduling and delivery of electricity exports to Mexico shall comply with all reliability criteria, standards, and guides of the North American Electric Reliability Council, Regional Councils, Regional Transmission Organizations, Independent System Operators, and/or control area operator(s), as appropriate, on such terms as expressed therein, and as such criteria, standards, and guides may be amended from time to time.

(E) Exports made pursuant to this authorization shall be conducted in accordance with the provisions of the Federal Power Act and any pertinent rules, regulations, directives, policy statements, and orders adopted or issued thereunder, including the comparable open access provisions of FERC Order No. 888, as amended.

(F) The authorization herein granted may be modified from time to time or terminated by further order of the DOE. In no event shall such authorization to export over a particular transmission facility identified in paragraph (A) extend beyond the date of termination of the Presidential permit authorizing such facility.

(G) This authorization shall be without prejudice to the authority of any State or State regulatory commission for the exercise of any lawful authority vested in such State or State regulatory commission.

(H) Photovoltaic shall create and preserve full and complete records with respect to the electric energy exported to Mexico. Photovoltaic shall furnish quarterly reports to the DOE, within 30 days following each calendar quarter, detailing for each month of the previous quarter: (1) the gross amount of electricity delivered, in kilowatt hours; (2) the consideration received for such energy; and (3) the maximum hourly rate of transmission, in kilowatts. Quarterly reports must be filed regardless of current activity and whether or not deliveries of electric energy have been made. If no transactions have been made, a one-sentence report indicating "no activity" for the previous quarter is sufficient. Each report shall indicate the DOE order number under which it is being filed and the expiration date of such order.

Reports shall be submitted to the U.S. Department of Energy, Office of Electricity Delivery and Energy Reliability, OE-20, Forrestal Building, 1000 Independence Avenue, SW, Washington, D.C. 20585-0305. Properly identified quarterly reports will also be accepted via facsimile at (202) 586-8008 to meet time requirements, but original copies should still be filed at the above address.

(I) In accordance with 10 C.F.R. §205.305, this authorization is not transferable or assignable, except in the event of the involuntary transfer of this authority by operation of law. Provided written notice of the involuntary transfer is given DOE within 30 days, this authorization shall continue in effect temporarily. This continuance also is contingent on the filing of an application for permanent authorization within 60 days of the involuntary transfer; the authorization shall then remain effective until a decision is made on the new application. In the event of a proposed voluntary transfer of this authority to export electricity, the transferee and the transferor shall file jointly an application for a new export authorization, together with a statement of reasons for the transfer.

(J) Exports authorized herein shall be reduced or suspended, as appropriate, whenever a continuation of those exports would cause or exacerbate a transmission operating problem.

(K) This authorization shall be effective for a period of five (5) years from the date of issuance of this Order. Application for renewal of this authorization may be filed within six months prior to its expiration. Failure to provide DOE with at least sixty (60) days to process a renewal application and provide adequate opportunity for public comment may result in a gap in Photovoltaic's authority to export electricity.

Issued in Washington, D.C., on September 4, 2008.



Anthony J. Como
Director, Permitting and Siting
Office of Electricity Delivery and
Energy Reliability