

# BRITISH COLUMBIA POWER EXCHANGE CORPORATION

## Order No. EA-171

### **I. BACKGROUND**

Exports of electric energy from the United States to a foreign country are regulated and require authorization under section 202(e) of the Federal Power Act (FPA) (16 U.S.C. §824a(e)).

On December 23, 1997, British Columbia Power Exchange Corporation (Powerex) applied to the Office of Fossil Energy (FE) of the Department of Energy (DOE) for authorization to transmit electric energy to Canada as a power marketer. Powerex is wholly owned by British Columbia Hydro and Power Authority (BC Hydro), a Provincial Crown Corporation of the Government of British Columbia, Canada. Powerex aggregates and markets power produced from sources within the Provinces of British Columbia and Alberta, including energy and capacity surplus to the needs of the BC Hydro system. Powerex does not own or control any electric generating or transmission facilities. In addition, Powerex has also been authorized by the Federal Energy Regulatory Commission (FERC) to make sales of electric power at wholesale in interstate commerce at negotiated rates.

Powerex proposes to purchase surplus electric energy from electric utilities and other suppliers and to export this energy on its own behalf to Canada. The energy to be exported would be delivered to Canada over the international electric transmission facilities owned and operated by the following:

Basin Electric Power Cooperative	Maine Public Service Company
Bonneville Power Administration	Minnesota Power & Light Co.
Citizens Utilities Company	Minnkota Power Cooperative
The Detroit Edison Company	New York Power Authority
Eastern Maine Electric Cooperative	Niagara Mohawk Power Corp.
Joint Owners of the Highgate Project	Northern States Power Co.
Maine Electric Power Company	Vermont Electric Transmission Co.

Notice of this application appeared in the Federal Register on January 6, 1998, (63 FR 474) requesting that comments, protests, and petitions to intervene be submitted to the DOE by February 5, 1998. Comments and a motion to intervene were submitted by the PJM Interconnection, L.L.C. (PJM).

## **II. SUMMARY OF COMMENTS**

On February 4, 1998, PJM filed comments and a request to intervene in this proceeding. PJM claims it has an interest because it is responsible for ensuring the reliable operation of the bulk power system in the PJM control area.<sup>1</sup> The PJM comments emphasize the complex interregional nature of operations today and the necessity for maintaining a heightened awareness due to the competitive pressures on the bulk power system in a deregulated market place. PJM also expressed that power marketers and utilities need to comply with their commitments.

## **III. DISCUSSION and ANALYSIS**

The authority requested of DOE by Powerex is a necessary condition for exporting under section 202(e) of the FPA. Powerex must make the necessary commercial arrangements, including obtaining all necessary transmission access required to wheel the exported energy to the foreign purchaser, and obtain any and all other regulatory approvals which may be required in order to effect the export. In considering Powerex's request for service, the transmitting utilities would have to assess the electric reliability impacts of moving the export through their system and, presumably, would only provide service under terms and conditions that would not cause reliability problems on their system.

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 Nos. 888 and 888-A (Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities). The actual rates, terms and conditions of transmission service shall be consistent with the non-discrimination principles of the FPA and the transmitting utility's Open Access Transmission Tariff on file with the 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 pertinent rules, regulations and orders, which include the comparable open access provisions of FERC Order Nos. 888 and 888-A. 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 Order On Complaint issued October 4, 1996 (Docket EL96-74-000)). Thus, DOE expects owners of

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<sup>1</sup>PJM is a security coordinator in the Mid-Atlantic Area Council (MAAP) region of the North American Electric Reliability Council (NERC). PJM administers the regional energy markets in Pennsylvania, New Jersey, Maryland, Delaware, Virginia and the District of Columbia.

border facilities to comply with the same principles of comparable open access and non-discrimination that apply to the domestic interstate transmission of electricity.

Before an electricity export authorization is granted, DOE must find that the proposed export will not impair the sufficiency of electric supply within the U.S. and that it will not impede the coordinated use of regional transmission facilities. DOE has always used a flexible approach in determining the information necessary to evaluate reliability impacts for specific export proposals. In determining reliability impact for exports by power marketers or other entities operating in a similar manner, DOE has used a combination of established industry guidelines, operating procedures and/or infrastructure, as well as technical studies supporting authorizations issued for traditional entities operating at the border. Allowing these existing technical studies to suffice in this docket is sound and, thus, DOE need not perform additional reliability assessments here, provided the maximum rate of transmission for all exports through a border system does not exceed the previously authorized limit of the system.

However, this approach is applicable only for exports by marketers over international transmission facilities for which export authorizations have been issued and for which reliability studies have been performed. Several of the international transmission lines over which Powerex seeks export authority are owned and operated by the New York Power Authority (NYPA) and the Bonneville Power Administration (BPA).

As an instrumentality of the State of New York, NYPA is non-jurisdictional to section 202(e) of the FPA. Consequently, DOE never issued NYPA an export authorization or prepared a reliability assessment which could have been used to limit the instantaneous rate of transmission (power) for exports over NYPA's international transmission lines. Thus, in lieu of that, DOE is utilizing the information contained in the report entitled, "Load & Capacity Data, 1995 Report of the Member Electric Systems of the New York Power Pool." This report is prepared and filed with the New York Public Service Commission pursuant to section 6-106 of the Energy Law of New York State. It will be made part of the record in this proceeding and included in the public docket. Section IX of this report lists the transmission transfer capabilities between the New York Power Pool (NYPP)<sup>2</sup> and surrounding electric systems, including Hydro-Quebec and Ontario Hydro. Since all of the major transmission interconnections between NYPP and Ontario Hydro are operated in parallel, it is appropriate to consider a single export power limit for this "electrically logical" grouping of lines. Accordingly, the transfer capability between NYPP and Ontario Hydro (as identified in Section IX of the above report) has been used (paragraph B(13) of this Order) to limit the instantaneous transmission rate for exports by Powerex over all international transmission lines connecting the U.S. with Ontario Hydro. A separate limit

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<sup>2</sup> New York Power Pool is an association of NYPA and the seven major investor-owned electric utilities in New York State. NYPP dispatches power throughout New York State on a single-system basis and coordinates the development and operation of its members' production and transmission facilities.

(paragraph B(12) of this Order) has been assigned for exports over NYPA's 765-kV tie with Hydro-Quebec because of the asynchronous nature of that interconnection.

As a Federal agency, BPA also is non-jurisdictional to section 202(e) of the FPA. Consequently, BPA was never issued an export authorization which DOE could have used to set power limits for exports by Powerex over BPA's international transmission ties with Canada. However, DOE has obtained information from BPA on the transmission limits assigned to the two 500-kV and the two 230-kV lines connecting the BPA system with British Columbia Hydro and West Kootenay Power for operation in the export mode. This information has been made a part of this Docket. It has been used by DOE in setting limits on the power to be exported by Powerex over the BPA international transmission lines (paragraph B(14) of this Order).

Powerex requested and is being authorized to export electricity over the transmission facilities of some border utilities whose export authorizations still contain limits on the total amount of energy that can be exported by these utilities. These energy limits no longer have any direct relevance to the way DOE addresses electric reliability. DOE expects to initiate a future proceeding regarding the removal of these limits.

However, DOE recognizes the potential inequity of retaining energy limits on certain exporters while currently authorizing marketers, or other entities operating in a similar manner, to export unlimited amounts of energy. Until the above proceeding is completed, exports by power marketers or other entities operating in a similar manner will be constrained by the same energy limits, except exports by such entities will not reduce or be "charged against" those energy limits.

#### **IV. 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 discussion and analysis, DOE has determined that the export of electric energy to Canada as requested by Powerex 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.

DOE also has determined that this action is among those classes of actions not normally requiring preparation of an environmental assessment or an environmental impact statement and, therefore, is eligible for categorical exclusion under Appendix B to Subpart D, paragraph B4.2 of the revised DOE Regulations implementing 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.

The request to intervene submitted by PJM is hereby granted.

**V. ORDER**

Based on the above finding, it is hereby ordered that Powerex is authorized to export electric energy to Canada under the following terms and conditions:

(A) The electric energy exported by Powerex pursuant to this Order may be delivered to Canada 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>Owner</u>	<u>Location</u>	<u>Voltage</u>	<u>Presidential Permit No.</u>
Basin Electric Power Coop.	Tioga, ND	230-kV	PP-64
BPA	Blaine, WA Nelway, WA	2 - 500-kV 2 - 230-kV	PP-10 PP-36 & PP-46
Citizens Utilities	Derby Line, VT	120-kV	PP-66
Detroit Edison	St. Clair, MI Marysville, MI Detroit, MI St. Clair, MI	345-kV 230-kV 230-kV 345-kV	PP-38 PP-21 PP-21 PP-58
Eastern Maine Elect. Coop.	Calais, ME	69-kV	PP-32
Joint Owners of Highgate Project	Highgate, VT	120-kV	PP-82
Maine Electric Power Co.	Houlton, ME	345-kV	PP-43

<u>Owner</u>	<u>Location</u>	<u>Voltage</u>	<u>Presidential Permit No.</u>
Maine Public Service Co.	Limestone, ME	69-kV	PP-12
	Fort Fairfield, ME	69-kV	PP-12
	Aroostock County, ME	138-kV	PP-29
	Madawaska, ME	2 - 69-kV	PP-29
Minnkota Power Corp.	Roseau County, MN	230-kV	PP-61
Minnesota Power & Light Company	International Falls, MN	115-kV	PP-78
New York Power Authority	Massena, NY	765-kV	PP-56
	Massena, NY	2-230-kV	PP-25
	Niagara Falls, NY	2-345-kV	PP-74
	Devils Hole, NY	230-kV	PP-30
Niagara Mohawk Power Corp.	Devils Hole, NY	230-kV	PP-31
Northern States Power	Red River, ND	230-kV	PP-45
	Roseau County, MN	500-kV	PP-63
Vermont Electric Transmission Co.	Norton, VT	450-kV DC	PP-76

(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 Powerex pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-64 (issued to Basin Electric Power Coop.) to exceed an instantaneous transmission rate of 150 MW. The gross amount of energy which Powerex may export over the PP-64 facilities shall not exceed 900,000 megawatt-hours (MWh) during any consecutive 12-month period.

(2) Exports by Powerex pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-66 (issued to Citizens Utilities) to exceed an

instantaneous transmission rate of 50 megawatts (MW). The gross amount of energy which Powerex may export over the PP-66 facilities shall not exceed 50,000 MWh annually.

(3) Exports by Powerex pursuant to this Order shall not cause the total exports on a combination of the facilities authorized by Presidential Permits PP-21, PP-38, and PP-58 (issued to Detroit Edison) to exceed a coincident, instantaneous transmission rate of 2.2 billion volt-amperes (2,200 MVA).

(4) Exports by Powerex made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-32 (issued to Eastern Maine Electric Coop.) to exceed an instantaneous transmission rate of 15 MW. The gross amount of energy which Powerex may export over the PP-32 facilities shall not exceed 7,500 MWh annually.

(5) Exports by Powerex made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-82 (issued to the Joint Owners of the Highgate Project) to exceed an instantaneous transmission rate of 200 MW nor cause a violation of the following security constrained export limits:

<u>Vermont Total Load (MW)</u>	<u>Security Constrained Maximum Export (MW)</u>
1000	0
900	40
800	90
700	125
600	150
500	170

(6) Exports by Powerex made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-43 (issued to Maine Electric Power Company) to exceed an instantaneous transmission rate of 500 MW.

(7) Exports by Powerex made pursuant to this Order shall not cause the total exports on the combination of facilities authorized by Presidential Permits PP-12 and PP-29 (issued to Maine Public Service Company) to exceed a coincident, instantaneous transmission rate of 9.8 MW. The gross amount of energy which Powerex may export over a combination of the PP-12 and PP-29 facilities shall not exceed 40,000 MWh annually.

(8) Exports by Powerex made pursuant to this Order shall not cause total exports on the facilities authorized by Presidential Permit PP-78-1 (issued to Minnesota Power and Light

Company) to exceed an instantaneous transmission rate of 100 MW. Exports by Powerex may cause total exports on the PP-78-1 facilities to exceed 100 MW only when total exports between the Mid-Continent Area Power Pool (MAPP) and Manitoba Hydro are below maximum transfer limits and/or whenever operating conditions within the MAPP system permit exports on the PP-78-1 facilities above the 100-MW level without violating established MAPP reliability criteria. However, under no circumstances shall exports by Powerex cause total exports on the PP-78-1 facilities to exceed 150 MW.

(9) Exports by Powerex made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-61 (issued to Minnkota Power) to exceed an instantaneous transmission rate of 350 MW. The gross amount of energy which Powerex may export over the PP-61 facilities shall not exceed 3,000,000 MWh annually.

(10) Exports by Powerex made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-63-4 (issued to Northern States Power) to exceed an instantaneous transmission rate of 500 MW.

(11) Exports by Powerex made pursuant to this Order shall not cause a violation of the following conditions as they apply to exports over the  $\pm$  450-kV direct current transmission line authorized by Presidential Permit PP-76, as amended by PP-76A:

<u>Exports Through</u>	<u>NEPOOL Load Condition</u>	<u>Export Limit</u>
Comerford converter	Summer, Heavy	650 MW
Comerford converter	Winter, Heavy	660 MW
Comerford converter	Summer, Light	690 MW
Comerford converter	Winter, Light	690 MW
Comerford & Sandy Pond converters	All	2,000 MW

(12) Exports by Powerex made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-56 (issued to NYPA) to exceed an instantaneous transmission rate of 1000 MW.

(13) Exports by Powerex made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permits PP-25, PP-30, PP-31 and PP-74 (issued to NYPA and Niagara Mohawk) to exceed a combined instantaneous transmission rate of 550 MW.

(14) Exports by Powerex pursuant to this Order shall not cause total exports on the two 500-kV lines authorized by Presidential Permit PP-10, the 230-kV line authorized by



Presidential Permit PP-36, and the 230 kV line authorized by Presidential Permit PP-46 (issued to BPA) to exceed the following limits:

<u>Condition</u>	<u>PP-36 &amp; PP-46 Limit</u>	<u>PP-10 Limit</u>	<u>Total Export Limit</u>
All lines in service	400 MW	1500 MW	1900 MW
1-500 kV line out	400 MW	300 MW	700 MW
2-500 kV lines out	400 MW	0 MW	400 MW
1-230 kV line out	400 MW	1500 MW	1900 MW
2-230 kV lines out	0 MW	1500 MW	1500 MW

(C) Amendment of the export authorizations from which the export limits contained in subparagraphs B(1) through B(11) were derived will result in a concomitant change to the export limits contained in those subparagraphs. Any request by Powerex for change to the export limits contained in subparagraphs B(12), B(13) and B(14) will be considered by DOE after submission by Powerex of appropriate information demonstrating a change in the transmission transfer capability between NYPA and Ontario Hydro, NYPA and Hydro-Quebec, BPA and BC Hydro, or BPA and West Kootenay Power.

(D) Powerex may commence exports only over those international transmission lines identified in paragraph (A) for which Powerex provides DOE written evidence that sufficient transmission service has been obtained for delivery of the exported energy to the border. This evidence can consist of signed letters of agreement for the service between Powerex and each Presidential permit holder and should identify specific facilities by name and Presidential permit number.

(E) In scheduling the delivery of electricity exports to Canada, Powerex shall comply with all reliability criteria, standards, and guides of the North American Electric Reliability Council and Regional Councils, on such terms as expressed therein, and as such criteria, standards, and guides may be amended from time to time.

(F) Powerex shall conduct all operations pursuant to the authorization hereby granted in accordance with the provisions of the Federal Power Act and pertinent rules, regulations, and orders adopted or issued thereunder, including the comparable open access provisions of FERC Order Nos. 888 and 888-A.

(G) The authorization herein granted may be modified from time to time or terminated by further order of the DOE, but in no event shall such authorization extend beyond the date of termination or expiration of the Presidential permits referred to in paragraph (A).

(H) This authorization shall be without prejudice to the authority of any State of State

regulatory commission for the exercise of any lawful authority vested in such State or State regulatory commission.

(I) Powerex shall make and preserve full and complete records with respect to the electric energy exported to Canada. Powerex 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 irrespective 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.

Reports shall be submitted to the U.S. Department of Energy, Office of Fossil Energy, FE-27, 1000 Independence Avenue, SW, Washington, D.C. 20585-0305. Properly identified quarterly reports will also be accepted via facsimile at (202) 287-5736 to meet time requirements, but original copies should still be filed at the above address.

(J) 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 and 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.

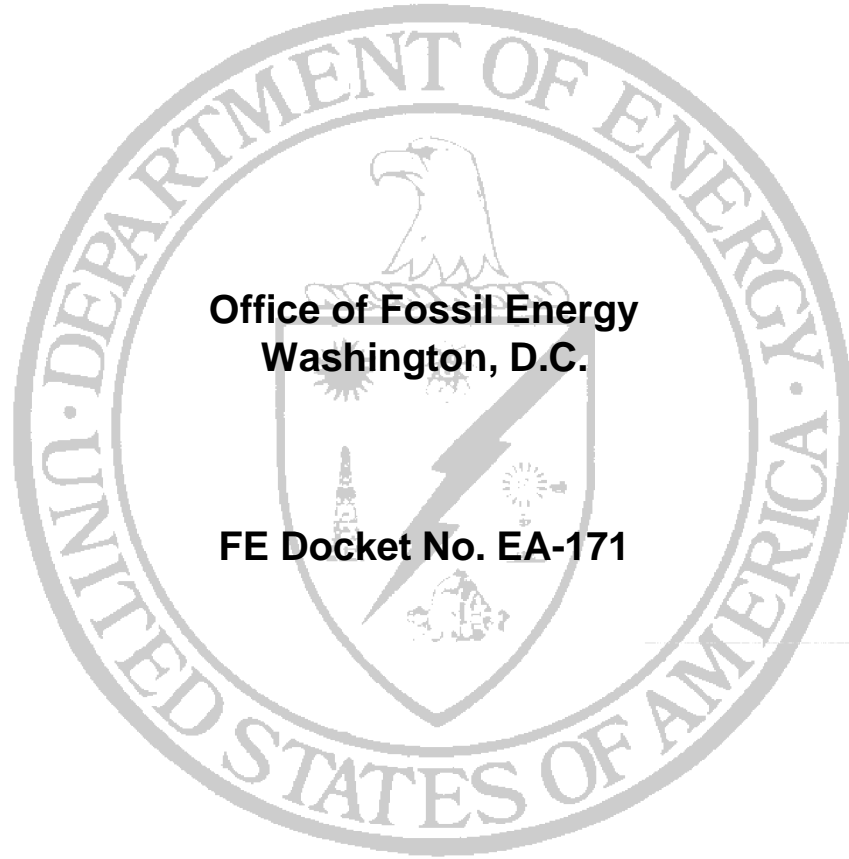
(K) Exports authorized herein shall be reduced or suspended, as appropriate, whenever a continuation of those exports would impair or tend to impair the reliability of the U.S. electric power supply system.

(L) This authorization shall be effective for a period of two years from the date of this Order. Within six months prior to the expiration of this authorization, Powerex may reapply for renewal of this two-year authorization or request a period of time longer than the two-year period.

Issued in Washington, D.C., on February 25, 1998.

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**UNITED STATES DEPARTMENT OF ENERGY**



**British Columbia Power Exchange Corporation**

**Order Authorizing Electricity Exports to Canada**

**Order No. EA-171**

**February 25, 1998**