UNITED STATES DEPARTMENT OF ENERGY

**Office of Fossil Energy**
**Washington, D.C.**

FE Docket No. EA-196-B

**Order Authorizing Electricity Exports to Canada**

Minnesota Power

**Order No. EA-196-B**

**April 8, 2003**

# Minnesota Power

## Order No. EA-196-B

## I. BACKGROUND

Exports of electricity 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 February 11, 1999, the Office of Fossil Energy (FE) of the Department of Energy (DOE) issued Order No. EA-196 authorizing Minnesota Power to transmit electric energy from the United States to Canada. That two-year authorization expired on February 11, 2001. On March 2, 2001, in FE Docket EA-196-A, Minnesota Power filed an application with FE to renew its export authority for an additional two-year term. That export authorization will expire on May 23, 2003. On February 3, 2003, in FE Docket EA-196-B, Minnesota Power again applied for renewal of its authorization to export electric energy to Canada for a five-year period. This application was filed by ALLETTE, Inc., d/b/a Minnesota Power. Minnesota Power is a Minnesota corporation that owns electric generation and transmission facilities and sells and distributes electricity within its northern Minnesota service territory.

Minnesota Power proposes to transmit electric energy that will generally be purchased from others voluntarily, and transmit this energy on its own behalf to Canada. The energy to be exported would be delivered to Canada over the international electric transmission facilities presently owned by the following:

Basin Electric Power Cooperative
Bonneville Power Administration
Citizens Utilities Company
Eastern Maine Electric Cooperative
International Transmission Company
Joint Owners of the Highgate Project
Long Sault, Inc.
Maine Electric Power Company
Maine Public Service Company
Minnesota Power, Inc.
Minnkota Power Cooperative
New York Power Authority
Niagara Mohawk Power Corp.
Northern States Power Co.
Vermont Electric Transmission Co.

Notice of the Minnesota Power export application was placed in the *Federal Register* on March 4, 2003 (42 FR 10214), requesting that comments, protests, and petitions to intervene be submitted to the DOE by April 3, 2003. None were received.

## II. DISCUSSION and ANALYSIS

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

the export will impair the sufficiency of electric supply within the U.S. and whether it will impede or tend to impede the coordinated use of regional transmission facilities.

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 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 of application, 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 reliability impacts of the export on regional electric systems.

In evaluating 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 reliability 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, Minnesota Power must make the necessary commercial arrangements and obtain sufficient transmission capacity to wheel the exported energy to the border system. In doing so, Minnesota Power would use domestic transmission facilities for which open-access tariffs have been approved by the Federal Energy Regulatory Commission (FERC). Minnesota Power 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 Independent System Operator(s) (ISO) and/or control areas. The posting of transmission capacity on OASIS indicates that transmission capacity is available. Furthermore, it is the responsibility of the ISO and/or control area to schedule the delivery of the export consistent with established reliability criteria. During each step of the process of obtaining transmission service, the owners and/or operators of the transmission facilities will evaluate the reliability of the system and schedule the movement of the export only if it would not violate established operating reliability standards. Therefore, DOE has determined that the existing industry procedures for obtaining transmission capacity on the domestic transmission system provide adequate assurances that an export will not impair the reliability of the U.S. electric power supply system.

In determining the 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 reliability assessments

here, provided the maximum rate of transmission for all exports through a border system does not exceed the authorized limit of the system.

However, this approach is applicable only for exports 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 Minnesota Power 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, 2001 Report of the Member Electric Systems of the New York Power Pool."[1] 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 New York State and surrounding electric systems, including Hydro-Quebec and Ontario Hydro. Since all of the major transmission interconnections between New York State and Ontario, Canada, 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 New York State and Ontario (as identified in Section IX of the above report) has been used to limit the instantaneous transmission rate for exports by Minnesota Power over all international transmission lines connecting New York State with Ontario (subparagraph B(13)(a) of this Order). A separate limit (subparagraph 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 Minnesota Power 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 Minnesota Power over the BPA international transmission lines (subparagraph B(14) of this Order).

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

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[1] This report increases the New York-Ontario transfer limit to 1650 MW from the 550-MW limit contained in the 1995 version of the report. On September 26, 2002, DOE authorized the New York Independent System Operator to export at this higher transfer limit in Order EA-227-A. New York Power Pool no longer exists and all of the operational responsibilities of the pool are now being performed by the New York Independent System Operator.

(Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; FERC; Stats. & Regs. ¶31,036 (1996)), as amended. 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 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.

Minnesota Power 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 referenced 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 contained in the original export authorization.

## III. FINDING

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 by Minnesota Power, 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.

The circumstances described in the EA-196-B application are virtually identical to those for which export authority had previously been granted in FE Order EA-196. Consequently, DOE believes that it has adequately satisfied its responsibilities under the National Environmental Policy Act of 1969 through the documentation of a categorical exclusion in the FE Docket EA-196 proceeding.

## IV. ORDER

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

(A) The electric energy exported by Minnesota Power pursuant to this Order may be delivered to Canada only over the following international transmission facilities for which assessments of the transmission limits for operation in the export mode have been made:

| Present Owner | Location | Voltage | Presidential Permit No.[2] |
|---|---|---|---|
| Basin Electric Power Cooperative | Tioga, ND | 230-kV | PP-64 |
| BPA | Blaine, WA | 2-500 kV | PP-10 |
| | Nelway, WA | 230-kV | PP-36 |
| | Nelway, WA | 230-kV | PP-46 |
| Citizens Utilities Company | Derby Line, VT | 120-kV | PP-66 |
| Eastern Maine Electric Cooperative | Calais, ME | 69-kV | PP-32 |
| International Transmission Company | Detroit, MI | 230-kV | PP-230 |
| | Marysville, MI | 230-kV | PP-230 |
| | St. Clair, MI | 230-kV | PP-230 |
| | St. Clair, MI | 345-kV | PP-230 |
| Joint Owners of Highgate Project | Highgate, VT | 120-kV | PP-82 |
| Long Sault, Inc. | Massena, NY | 2-115-kV | PP-24 |
| Maine Electric Power Company | Houlton, ME | 345-kV | PP-43 |
| Maine Public Service Company | 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 |

[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.

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|---|---|---|---|
| Minnesota Power, Inc. | International Falls, MN | 115-kV | PP-78 |
| Minnkota Power Cooperative, Inc. | Roseau County, MN | 230-kV | PP-61 |
| 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-190 |
| Northern States Power Company | 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 Minnesota Power made 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 Minnesota Power may export over the PP-64 facilities shall not exceed 900,000 megawatt-hours (MWH) during any consecutive 12-month period.

(2) Exports by Minnesota Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-66 (issued to Citizens Utilities Company) to exceed an instantaneous transmission rate of 50 megawatts (MW). The gross amount of energy which Minnesota Power may export over the PP-66 facilities shall not exceed 50,000 MWh annually.

(3) Exports by Minnesota Power made pursuant to this Order shall not cause the total exports on a combination of the facilities authorized by Presidential Permit PP-230 (issued to International Transmission Company) to exceed a coincident, instantaneous transmission rate of 2.2 billion volt-amperes (2,200 MVA).

(4) Exports by Minnesota Power 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 Minnesota Power may export over the PP-32 facilities shall not exceed 7,500 MWh annually.

(5) Exports by Minnesota Power 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:

| Vermont Total Load (MW) | Security Constrained Maximum Export (MW) |
|---|---|
| 1000 | 0 |
| 900 | 40 |
| 800 | 90 |
| 700 | 125 |
| 600 | 150 |
| 500 | 170 |

(6) Exports by Minnesota Power 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 Minnesota Power 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 40.8 MW. The gross amount of energy which Minnesota Power may export over a combination of the PP-12 and PP-29 facilities shall not exceed 40,000 MWh annually.

(8) Exports by Minnesota Power made pursuant to this Order shall not cause total exports on the facilities authorized by Presidential Permit PP-78-1 (issued to Minnesota Power) to exceed an instantaneous transmission rate of 100 MW. Exports by Minnesota Power 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 Minnesota Power cause total exports on the PP-78-1 facilities to exceed 150 MW.

(9) Exports by Minnesota Power made pursuant to this Order shall not cause the total exports on the facilities authorized by Presidential Permit PP-61 (issued to

Minnkota Power Cooperative, Inc.) to exceed an instantaneous transmission rate of 350 MW. The gross amount of energy which Minnesota Power may export over the PP-61 facilities shall not exceed 3,000,000 MWh annually.

(10) Exports by Minnesota Power 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 Minnesota Power 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 (issued to the Vermont Electric Transmission Company), as amended by PP-76A:

| Exports Through | NEPOOL Load Condition | Export Limit |
|---|---|---|
| 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 Minnesota Power 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 Minnesota Power made pursuant to this Order shall not cause: (a) the total exports on the facilities authorized by Presidential Permits PP-25, PP-30, PP-74 and PP-190 (issued to NYPA and Niagara Mohawk) to exceed a combined instantaneous transmission rate of 1650 MW; and (b) the total exports on the 115-kV facilities authorized by Presidential Permit PP-24 (issued to Long Sault, Inc.) to exceed an instantaneous transmission rate of 100 MW. In addition, the gross amount of energy which Minnesota Power may export over the PP-24 facilities shall not exceed 300,000 MWh annually.

(14) Exports by Minnesota Power 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:

| Condition | PP-36 & PP-46 Limit | PP-10 Limit | Total Export Limit |
|---|---|---|---|
| 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) 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. Changes to the export limits contained in subparagraphs B(12), B(13), and B(14) will be made by DOE after submission of appropriate information demonstrating a change in the transmission transfer capability between the electric systems in New York State and Ontario and New York State and Quebec, and between BPA and BC Hydro, or BPA and West Kootenay Power. Notice of these changes will be provided to Minnesota Power.

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

(E) Minnesota Power 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 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) Minnesota Power shall make and preserve full and complete records with respect to the electric energy exported to Canada. Minnesota Power 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.

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.

(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 impair or tend to impair the reliability of the U.S. electric power supply system.

(K) This authorization shall be effective on May 23, 2003, and expire five years from that date. Application for renewal of this authorization may be filed within six months prior to expiration of this authorization.

Issued in Washington, D.C., on April 8, 2003.

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