

4415.0115 GENERAL INFORMATION

Subpart 4. Background Information

Each application must contain the following information:

A. the applicant's complete name, address and telephone number:

This application is sponsored by:

Alberta Clipper Project:

Enbridge Energy, Limited Partnership

Southern Lights Diluent Project:

Enbridge Pipelines (Southern Lights) L.L.C.

1100 Louisiana, Suite 3300

Houston, Texas 77002

(713) 821-2000

B. the complete name, title, address, and telephone number of the authorized representative or agent to be contacted concerning the applicant's filing:

Joel Kanvik, Assistant Secretary

Enbridge Energy Company, Inc.

1100 Louisiana, Suite 3300

Houston, Texas 77002

(713) 821-2110

joel.kanvik@enbridge.com

Kevin Walli

Fryberger, Buchanan, Smith & Frederick

332 Minnesota St., Suite W1260

St. Paul, Minnesota 55101

(651) 221-1044

Kwalli@fryberger.com

- C. the signatures and titles of persons authorized to sign the application, and the signature of the preparer of the application if prepared by an outside representative or agent;**

This application is submitted by Enbridge Energy, Limited Partnership and Enbridge Pipelines (Southern Lights) L.L.C.

Joel W. Kanvik
Assistant Secretary
Enbridge Pipelines (Southern Lights) L.L.C.
Enbridge Pipelines (Lakehead) L.L.C., the General Partner of
Enbridge Energy, Limited Partnership

**D. a brief description of the proposed project which includes:
(1) general location;**

The Alberta Clipper Project will be constructed from Hardisty, Alberta to Superior, Wisconsin; a length of approximately 990 miles. In the United States, the Alberta Clipper Project will generally be collocated with or adjacent to Enbridge pipelines through North Dakota, Minnesota, and Wisconsin. The Alberta Clipper Project will entail construction and operation of approximately 326 miles of new 36-inch-diameter underground petroleum pipeline on or adjacent to Enbridge right-of-way from near Neche, North Dakota at the United States-Canada border in Pembina County, North Dakota (milepost (MP) 773.7) to Enbridge's Superior terminal in Douglas County, Wisconsin (MP 1098.1). The Minnesota portion of the Project would extend from the Minnesota-North Dakota border near MP 801.8 in Kittson County to the Minnesota-Wisconsin border in Carlton County near MP 1084.8 (approximately 285.1 miles). The Alberta Clipper Project will also involve construction of new pumping units within the Enbridge pump station sites at Viking, Minnesota (MP 848.2), Clearbrook, Minnesota (MP 909.5) and Deer River, Minnesota (MP D996.0); new piping, manifold, pig receiver, four booster pumps, and five new storage tanks (200,000 barrels (bbls) each) at the Superior, Wisconsin terminal; and mainline valves at major waterbody crossings and over the length of the pipeline route. Finally, the Alberta Clipper Project includes a delivery connection at Clearbrook, Minnesota.

The Southern Lights Diluent Project will be co-constructed with the Alberta Clipper Project from Superior, Wisconsin to Clearbrook, Minnesota. The Southern Lights Diluent Project will require the construction of approximately 188.6 miles of new 20-inch-diameter underground petroleum pipeline generally on or adjacent to Enbridge right-of-way from Enbridge's Superior terminal in Douglas County, Wisconsin (MP 1098.1) to Enbridge's Clearbrook terminal in Clearwater County, Minnesota (MP 909.5). The Minnesota portion of the Project would extend from the Minnesota-Wisconsin border near MP 1084.8 in Carlton County to the Clearbrook terminal (approximately 175.4 miles). The Southern Lights Diluent Project will also involve construction of new pumping units within the Enbridge Clearbrook terminal; new piping and pig receiver at the Clearbrook terminal; and mainline valves at major waterbody crossings and over the length of the pipeline route.

The Alberta Clipper and Southern Lights Diluent Projects will generally follow the Enbridge right-of-way along the entire route in Minnesota. The Projects will cross portions of the following counties: Kittson, Marshall, Pennington, Red Lake, Polk, Clearwater, Beltrami, Hubbard, Cass, Itasca, Aitkin, St. Louis, and Carlton.

(2) planned use and purpose;

The purpose of the Alberta Clipper Project is to transport petroleum from Enbridge facilities in Hardisty, Alberta to meet the growing demand by refineries and markets in the United States and eastern Canada. This new pipeline will provide the capacity needed to transport increasing supplies of crude oil produced in western Canada. To meet this anticipated demand, the Alberta Clipper Project will provide up to 450,000 bpd of crude oil capacity from Alberta's oil sands. The capacity provided by this new pipeline will provide independent utility to Enbridge and its customers who will use the pipeline for the transportation of commodities to Enbridge breakout tankage facilities at Clearbrook, Minnesota for subsequent delivery to interconnected facilities operated by Minnesota Pipeline Company, and to Enbridge's Superior, Wisconsin breakout tanks for subsequent delivery to interconnected Enbridge pipeline systems to the south and east of Superior, Wisconsin.

The purpose of the Southern Lights Diluent Project from Superior, Wisconsin to Clearbrook, Minnesota is to deliver light petroleum liquids, referred to as "diluent," from U.S. refineries to the Alberta oil sand producers to dilute the heavy crude oil produced in that region, thereby facilitating pipeline transportation.

(3) estimated cost;

The estimated cost for the Minnesota portion of the Alberta Clipper Project is US\$991 million. The estimated cost for the Minnesota portion of the Southern Lights Diluent Project is US\$306 million.

(4) planned in-service date; and

The Applicants plan to begin construction of the Projects in the fourth quarter of 2008, with an anticipated completion and in-service date of July 1, 2010.

(5) general design and operational specifications for the type of pipeline for which an application is submitted.

Alberta Clipper

The 36-inch-diameter crude line will add an incremental capacity of approximately 450,000 bpd on an annual average. This computes to 128,250 million barrel per day-miles ("Mbpd-miles"). Table 4415.0115-A shows the annual capacity of the pipeline system before and after the Alberta Clipper Project and other expansions are placed in service.

Table 4415.0115-A Alberta Clipper Project and Other Mainline Upgrades U.S. Border to Superior, Wisconsin (bpd)			
Line No.	Pre Alberta Clipper Project (Dec. 31, 2008)	Capacity Additions	Post Alberta Clipper Project (Dec. 31, 2009)
1	237,000	0	237,000
2	442,000	0	442,000
3	503,000	0	503,000
4	793,000	88,000	881,000
13	172,000	0	172,000
LSr Project ¹	186,000	0	186,000
Subtotal	2,333,000	88,000	2,421,000
Alberta Clipper Project		450,000	450,000
Total East Bound Mainline Capacity	2,333,000²	538,000	2,871,000

¹ The LSr Project was filed on April 20, 2007, and is currently under review by the MN-PUC in MN Docket No. PL9/CN-07-464.

² This assumes that the proposed LSr Project is operational and in-service on Dec. 31, 2008 as scheduled.

Generally, liquids pipelines are designed at a specified capacity for a known liquid. Most liquids pipelines transport a variety of liquids. The change in fluid characteristics (density, viscosity, etc.) of the transported liquids will affect the capacity of the pipeline. Liquids are also batched generally in a repeatable sequence. Both the fluid characteristics and batch sequence will affect the capacity of the pipeline.

Two definitions are used to describe pipeline capacity, Design Capacity and Annual Capacity.

- Design Capacity is the theoretical capacity of the pipeline for given types of liquids and their batch sequence. Design Capacity is calculated assuming theoretically ideal operating conditions.
- Annual Capacity is the average sustainable throughput over a year. Annual Capacity is calculated assuming historic average annual and operating conditions. These operating conditions include scheduled and unscheduled maintenance, normal operating problems and crude supply availability. Annual Capacity of a pipeline is typically 90% of Design Capacity. Table 4415.0115-B – Capacity Definitions provides design data pertinent to the new 36-inch pipeline.

Table 4415.0115-B Capacity Definitions		
		Alberta Clipper Project Capacities (bpd)
Ultimate Capacity	Maximum economic expansion capacity of individual line. Requires additional pumping horsepower over current design to meet this capacity	880,000
Design Capacity	Theoretical capacity	500,000
Annual Capacity	Average sustainable rate over a year	450,000
Operating Factor	Historical percentage of full system utilization	90%

The Alberta Clipper Project route will also be permitted through the Minnesota Department of Commerce, which will require EELP to provide certain information to landowners, local governmental units and the State about plans for pipeline construction. Public meetings will be held which will provide local governmental units and landowners with information about EELP's plans. EELP is providing information on the Alberta Clipper Project to landowners and several county and state officials and to persons who request the information. A county inspector will be designated in each county which the pipeline traverses and EELP will pay to the counties \$500 per mile for each mile of construction within the county to compensate the county for inspection expenses.

Southern Lights Diluent Project

The Southern Lights Diluent Project will have an initial Annual Capacity of approximately 180,000 bpd. This computes to 31,680 Mbpd-miles. Table 4415.0115-C shows the annual capacity of the Southern Lights Diluent Project before and after it is placed in service.

Table 4415.0115-C Southern Lights Diluent Project and Other Mainline Upgrades U.S. Border to Superior, Wisconsin (bpd)			
Line No.	Pre Southern Lights Diluent Project (Dec. 31, 2009)	Capacity Additions	Post Southern Lights Diluent Project (July 1, 2010)
1	237,000	0	237,000
2	442,000	0	442,000
3	503,000	0	503,000
4	881,000	0	881,000
13	172,000	-172,000	0
LSr Project	186,000	0	186,000
Alberta Clipper Project	450,000		450,000
Total East Bound Mainline Capacity	2,871,000	-172,000	2,699,000
Southern Lights Project BPD			Mid - 2010
West Bound Diluent Capacity		180,000	180,000

As stated above, there are two definitions used to describe pipeline capacity, Design Capacity and Annual Capacity. For the purpose of clarity for the Southern Lights Project, the definitions are as follows:

- Design Capacity is the theoretical capacity of the pipeline for given types of liquids and their batch sequence. Design Capacity is calculated assuming theoretically ideal operating conditions.
- Annual Capacity is the average sustainable throughput over a year. Annual Capacity is calculated assuming historic average annual and operating conditions. These operating conditions include scheduled and unscheduled maintenance, normal operating problems and crude supply availability. Annual Capacity of a pipeline is typically 90% of Design Capacity. Table 4415.0115-D – Capacity Definitions provides design data pertinent to the new 20-inch pipeline.

Table 4415.0115-D Capacity Definitions		
		Southern Lights Diluent Project Capacities (bpd)
Ultimate Capacity	Maximum economic expansion capacity of individual line. Requires additional pumping horsepower over current design to meet this capacity	330,000
Design Capacity	Theoretical capacity	200,000
Annual Capacity	Average sustainable rate over a year	180,000
Operating Factor	Historical percentage of full system utilization	90%

The Southern Lights Diluent Project route will also be permitted through the Minnesota Department of Commerce, which will require EPSL to provide certain information to landowners, local governmental units and the State about plans for pipeline construction. Public meetings regarding the Southern Lights Diluent Project will be held concurrently with the public meetings on the Alberta Clipper Project, which will provide local governmental units and landowners with information about both projects since the Southern Lights Diluent Project will be constructed concurrently with the Alberta Clipper Project. EELP and EPSL are jointly providing information on the Alberta Clipper Project and Southern Lights Diluent Projects to landowners and several county and state officials and to persons who request the information. A county inspector will be designated in each county which the Southern Lights Diluent Project traverses and EPSL will pay to the counties \$500 per mile for each mile of construction within the county to compensate the county for inspection expenses.