

**Minnesota Department of Commerce
Energy Environmental Review and Analysis**

**Final Environmental Impact Statement
Line 3 Project**

Docket Nos. PPL-15-137/CN-14-916

February 12, 2018



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Line 3 Project Final EIS Cover Sheet

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Abstract

Enbridge Energy, Limited Partnership (Enbridge, or Applicant) has proposed to construct and operate 340 miles of new 36-inch-diameter pipeline in Minnesota with an annual average capacity of 760,000 barrels per day (bpd) and to abandon in place 282 miles of the existing 34-inch-diameter, 390,000-bpd operating capacity, Line 3 pipeline (Line 3 Project, or Project). The existing Line 3 pipeline originates in Canada and crosses the U.S.-Canada border near Neche, North Dakota. It continues through North Dakota and Minnesota and terminates at the Enbridge Superior Station and Terminal Facility (Superior terminal) near Superior, Wisconsin.

As proposed by Enbridge, the new pipeline would generally parallel the existing Line 3 pipeline along the Enbridge Mainline system right-of-way from the North Dakota-Minnesota border in Kittson County to the Clearbrook terminal in Clearwater County. From Clearbrook to the terminal in Superior, Wisconsin, the proposed pipeline would diverge from the existing Line 3 corridor. The proposed Project route and alternatives to the proposed Project route pass through the following counties in Minnesota: Aitkin, Beltrami, Benton, Carlton, Cass, Clearwater, Crow Wing, Hubbard, Itasca, Kanabec, Kittson, Marshall, Mille Lacs, Morrison, Pennington, Pine, Polk, Red Lake, St Louis, Todd, and Wadena.

Enbridge's proposed project requires two separate approvals from the Minnesota Public Utilities Commission (Commission) – a certificate of need (CN) and a route permit. The Commission's docket numbers for these approvals are PL9/CN-14-916 and PL9/PPL-15-137.

Department of Commerce, Energy Environmental Review and Analysis (DOC-EERA) staff is responsible for conducting environmental review for CN and route permit applications submitted to the Commission. This environmental impact statement (EIS) has been prepared to meet the requirements of both review processes.

This **revised** Final EIS addresses the issues identified in DOC-EERA’s scoping decision of September 21, 2016. It evaluates the potential impacts of Enbridge’s proposed Project and alternatives to the proposed Project, as well as possible mitigation measures for these impacts. It also provides responses to substantive comments on the Draft EIS submitted during the public review period following issuance of the Draft EIS on May 15, 2017.

The revised Final EIS also includes supplemental information requested by the PUC on December 7, 2017. The PUC identified four areas in which additional information was needed. These include the following: indication of how far and where CN Alternative SA-04 would need to be moved to avoid karst topography and what the revised environmental impact analysis of this move would be; clarification that quantitative representations of route and system alternatives do not necessarily reflect the actual qualitative impacts; identification of the extent to which resource impacts of route alternatives are or are not additive; and clarification that the traditional cultural properties survey must be complete prior to the start of construction. To address the PUC comments, the revised Final EIS includes clarification of impacts in Chapters 5 and 6 (revisions are noted in bold red text) and the analysis of revisions to the CN Alternative SA-04 is in Appendix U. It also provides a statement that the traditional cultural properties survey must be completed prior to project construction (see Section 5.4.1.2).

Public Information Meetings and Comment Period

The Draft EIS was issued on May 15, 2017. Comments on the Draft EIS were accepted through July 10, 2017. Public information meetings on the Draft EIS were held at the following locations and times:

Week of June 5 th – June 9 th	Week of June 12 th – June 16 th	Week of June 19 th – June 23 rd
Tuesday, June 6 10:00 AM – 1:00 PM Rice Lake Community Center 13830 Community Loop Bagley, MN 56621	Monday, June 12 10:00 AM – 1:00 PM Grand Casino Hinckley 777 Lady Luck Drive Hinckley, MN 55037	Tuesday, June 20 10:00 AM – 1:00 PM Marshall County Central Schools 310 West Minnesota Avenue Newfolden, MN 56738
Tuesday, June 6 6:00 PM – 9:00 PM IRA Civic Center 1401 NW 3rd Avenue Grand Rapids, MN 55744	Monday, June 12 6:00 PM – 9:00 PM East Lake Community Center 36666 State Hwy 65 McGregor, MN 56718	Tuesday, June 20 6:00 PM – 9:00 PM Hallock City Hall 163 3rd Street SE Hallock, MN 56728
Wednesday, June 7 10:00 AM – 1:00 PM Park Rapids High School Cafetorium 401 Huntsinger Avenue Park Rapids, MN 56470	Tuesday, June 13 10:00 AM – 1:00 PM Fond du Lac Community College 2101 14th Street Cloquet, MN 55720	Wednesday, June 21 10:00 AM – 1:00 PM Ralph Engelstad Arena, Imperial Room 525 Brooks Avenue North Thief River Falls, MN 56701
Wednesday, June 7 6:00 PM – 9:00 PM Palace Casino Hotel 16599 69th Avenue NW Cass Lake, MN 56633	Tuesday, June 13 6:00 PM – 9:00 PM Intercontinental Hotel Saint Paul 11 E. Kellogg Boulevard St. Paul, MN 55101	Wednesday, June 21 6:00 PM – 9:00 PM Plummer Senior Citizen Center 185 Minnesota Street Plummer, MN 56748
Thursday, June 8 10:00 AM – 1:00 PM Downtown Fair Center 107 W. 7th Avenue Floodwood, MN 55736	Wednesday, June 14 11:00 AM – 2:00 PM Staples Community Center 425 6th Street NE Staples, MN 56479	Thursday, June 22 10:00 AM – 1:00 PM Gully Community Center 120 Main Street Gully, MN 56646

Week of June 5 th – June 9 th	Week of June 12 th – June 16 th	Week of June 19 th – June 23 rd
Thursday, June 8 6:00 PM – 9:00 PM Central Lakes College Classroom E54 501 West College Drive Brainerd, MN 56401	Wednesday, June 14 6:00 PM – 9:00 PM Initiative Foundation 405 1st Street SE Little Falls, MN 56345	Thursday, June 22 6:00 PM – 9:00 PM Sanford Center and George W. Nielson Convention Center 1111 Event Center Drive NE Bemidji, MN 56601
Friday, June 9 11:00 AM – 1:00 PM Maslowski Wellness & Research Ctr. 17 5th Street Southwest Wadena, MN 56482	Thursday, June 15 10:00 AM – 1:00 PM Henry's Catering and Banquet Hall 6774 MN-25 Foley, MN 56329	
	Thursday, June 15 6:00 PM – 9:00 PM Phoenix Hotel & Banquet Center 210 MN-23 Milaca, MN 56353	
	Friday, June 16 10:00 AM – 1:00 PM The Grand Event Center 2025 Rowland Road Mora, MN 55051	

Additional Information

Additional information on the Project is available in the Project application listed in the References chapter of this **revised** Final EIS.

Other material related to this docket is available online at:

<https://mn.gov//commerce/energyfacilities/line3/> or on the eDockets website at:

<https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showeDocketsSearch&showEdocket=true&userType=public>. To retrieve materials related to this docket via the eDockets website, use the steps below.

Certificate of Need (CN) documents:

- For Docket Number, select “14” from the Year dropdown box and enter “916” in the Docket Lookup box.
- Select “Certificate of Need” from the Docket Type dropdown box.
- Select “Search.”

Petroleum Pipeline (PPL) Route Permit documents:

- For Docket Number, select “15” from the Year dropdown box and enter “137” in the Docket Lookup box.
- Select “Petroleum Pipeline” from the Docket Type dropdown box.
- Select “Search.”

This document can be made available in alternative formats (i.e., large print or audio) by calling (651) 539-1530 (voice).

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
°F	Degrees Fahrenheit
µg/m ³	micrograms per cubic meter
AADT	annual average daily traffic
ACS	American Community Survey
ADW	Animal Diversity Web
AEO	Annual Energy Outlook
AMA	Aquatic Management Area
AER	Alberta Energy Regulator
AFF	annual failure frequency
ALJ	administrative law judge
AMA	Aquatic Management Area
ANSI	American National Standards Institute
AOI	area of interest
API	American Petroleum Institute
APP	Agricultural Protection Plan
Applicant	Enbridge Energy
AQI	Air Quality Index
ASME	American Society of Mechanical Engineers
ATWS	additional temporary workspace(s)
bbl	barrel(s)
BCC	birds of conservation concern
BGEPA	Bald and Golden Eagles Protection Act
BIA	Bureau of Indian Affairs

Acronym	Definition
BLM	Bureau of Land Management
BMP	best management practice
BNSF	Burlington Northern Santa Fe
BO	Biological Opinion
bpd	barrels per day
BTEX	benzene, toluene, ethylbenzene, and xylenes
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CN	Certificate of Need
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon-dioxide equivalent
Commission	Minnesota Public Utilities Commission
Control Center	Enbridge Control Center
CSW	construction stormwater
CWA	Clean Water Act
dB	decibel(s)
dBA	A-weighted decibel(s)
DDT	Dichlorodiphenyltrichloroethane
dilbit	diluted bitumen
DNR	Department of Natural Resources
DOC-EERA	Department of Commerce, Energy Environmental Review and Analysis
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior

Acronym	Definition
DOS	U.S. Department of State
DPS	distinct population segment
DSDD	Draft Scoping Decision Document
DWSMA	drinking water supply management area
EA	Environmental Assessment
EAW	Environmental Assessment Worksheet
ECD	erosion and sediment control device
ECS	Ecological Classification System
eGRID	Emissions and Generation Resource Integrated Database
EI	Environmental Inspector
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EJ	Environmental justice
Enbridge	Enbridge Energy (the Applicant)
EPA	U.S. Environmental Protection Agency
EQB	Environmental Quality Board
ERAP	Emergency Response Action Plan
ESA	federal Endangered Species Act
ESRI	Environmental Systems Research Institute
Exponent	Exponent, Inc.
FAA	Federal Aviation Administration
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration

Acronym	Definition
FIRM	Flood Insurance Rate Map
FMA	Fisheries Management Area
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GAP	Gap Analysis Program
GHG	greenhouse gas
GIS	geographic information system
GLIFWC	Great Lakes Indian Fish and Wildlife Commission
GNTL	Great Northern Transmission Line Project
gpd	gallons per day
gpm	gallons per minute
GSOC	Gopher State One-Call
GWP	Global Warming Potential
H ₂ S	hydrogen sulfide
HAP	hazardous air pollutant
HARGIS	Historic Architectural/Archaeological Geographic Information System
HCA	high consequence area
HCAADT	heavy commercial vehicle portion of annual average daily traffic
HCVF	high conservation value forest
HDD	horizontal directional drilling
HHFT	high-hazard flammable train
hp	horsepower
HVTL	high-voltage transmission line
I&M	Illinois and Michigan

Acronym	Definition
IAC	Indian Affairs Commission
IAS	Inventory of Archaeological Sites
IBA	Important Bird Area
IBI	Index of Biotic Integrity
ICP	Integrated Contingency Plan
IHPA	Illinois Historic Preservation Agency
ILCS	Illinois Compiled Statutes
Ill. AC	Illinois Administrative Code
IMP	Integrity Management Plan
IMPLAN	Impact Model for Planning
Iowa AC	Iowa Administrative Code
Iowa DNR	Iowa Department of Natural Resources
IPaC	Information for Planning and Conservation
kg/m ³	kilogram per cubic meter
kV	kilovolt
L ₁₀	the dBA that may be exceeded 10 percent of the time within 1 hour
L ₅₀	the dBA that may be exceeded 50 percent of the time within 1 hour
LBS	Lakes of Biological Significance
LCM	lost circulation material
L _{dn}	day-night sound level
Leq ₂₄	24-hour equivalent sound level
LGUs	local units of government
LLBO	Leech Lake Band of Ojibwe
MAAQS	Minnesota Ambient Air Quality Standards
MBS	Minnesota Biological Survey
MBS Site	Minnesota Biological Survey Site of Biodiversity Significance

Acronym	Definition
MBTA	Migratory Bird Treaty Act
MDH	Minnesota Department of Health
MEPA	Minnesota Environmental Policy Act
MERLA	Minnesota Environmental Response and Liability Act
mg/L	milligrams per liter
mgd	million gallons per day
MGS	Minnesota Geological Survey
MHS	Minnesota Historical Society
MIAC	Minnesota Indian Affairs Council
Minn. R.	Minnesota Administrative Rules
Minnesota BWSR	Minnesota Board of Water and Soil Resources
Minnesota DA	Minnesota Department of Agriculture
Minnesota DNR	Minnesota Department of Natural Resources
Minnesota DPS	Minnesota Department of Public Safety
Minnesota PCA	Minnesota Pollution Control Agency
MLRA	major land resource area
MLV	mainline valve
mm	millimeter
MMcf/d	million cubic feet per day
mm ² /s	square millimeters per second
MNDOT	Minnesota Department of Transportation
MnOPS	Minnesota Office of Pipeline Safety
MP	milepost
MPL	Minnesota Pipe Line Company
MWh	Megawatt hours

Acronym	Definition
NAAQS	National Ambient Air Quality Standards
NACE	National Association of Corrosion Engineers
NATHPO	National Association of Tribal Historic Preservation Officers
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NDAC	North Dakota Administrative Code
NDCC	North Dakota Century Code
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NETL	National Energy Technology Laboratory
NFIP	National Flood Insurance Program
NHIS	Natural Heritage Information System
NHPA	National Historic Preservation Act
NLCD	National Land Cover Database
NLF	Northern Lakes and Forests
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
North Dakota DH	North Dakota Department of Health
North Dakota PR	North Dakota Parks and Recreation Department
NPC	Native plant community
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRDA	Natural Resource Damage Assessment
NRHP	National Register of Historic Places
NRI	Nationwide Rivers Inventory

Acronym	Definition
NRS	National Response System
NSPS	New Source Performance Standards
NTSB	National Transportation Safety Board
NWI	National Wetlands Inventory
NWR	National Wildlife Refuge
OAH	Office of Administrative Hearings
OFCVO	Office of Freight and Commercial Vehicle Operations
OPA 90	Oil Pollution Act of 1990
ORV	Outstanding Resource Value
ORVW	Outstanding Resource Value Waters
OSA	Office of the State Archaeologist
OSLTF	Oil Spill Liability Trust Fund
PAD-US	Protected Areas Database of the United States
PAH	polycyclic aromatic hydrocarbons
PHMSA	Pipeline and Hazardous Materials Safety Administration
PIG	pipeline inspection gauge
PM	particulate matter
PM-10	suspended particulate matter less than or equal to 10 microns in diameter
PM-2.5	suspended particulate matter less than or equal to 2.5 microns in diameter
PPE	personal protective equipment
PPV	peak particle velocity
PREP	National Preparedness for Response Exercise Program
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge

Acronym	Definition
PW	Public Waters
PWS	Public Water Supply
RA-03AM	Route Alternative RA-03AM
RA-06	Route Alternative RA-06
RA-07	Route Alternative RA-07
RA-08	Route Alternative RA-08
RFAs	reasonably foreseeable actions
ROI	region of interest
RPM	Reasonable and Prudent Measure
RRT	Regional Response Team
RSA	route segment alternative
SA-04	System Alternative SA-04
SCADA	Supervisory Control and Data Acquisition
SCC	social cost of carbon
SDS	State Disposal System
SFHA	special flood hazard area
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer
SHSND	State Historical Society of North Dakota
SMPE	South Mist Pipeline Extension
SMS	Scenic Management System
SNA	Scientific and Natural Area
SO ₂	sulfur dioxide
SPCC	Spill Prevention, Containment, and Control
SRHP	State Register of Historic Places
SSURGO	Soil Survey Geographic Database

Acronym	Definition
Superior Terminal	Enbridge Superior Station and Terminal Facility
STB	Surface Transportation Board
SWPPP	Stormwater Pollution Prevention Plan
TASC	Technical Assistance Services for Communities
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Officer
TMDL	total maximum daily load
TSP	Total suspended particulates
TSS	total suspended solids
USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration velocity decibels
VOC	volatile organic compound
WAN	Wildlife Action Network
WCA	Wetland Conservation Act
WCSB	Western Canadian Sedimentary Basin
WHAF	Watershed Health Assessment Framework
WHS	Wisconsin Historical Society
WIMN	What's in My Neighborhood
WMA	Wildlife Management Area
WPA	Wellhead Protection Area

Acronym	Definition
WRAPS	Watershed Restoration and Protection Strategy
yard	material/pipe storage yard

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