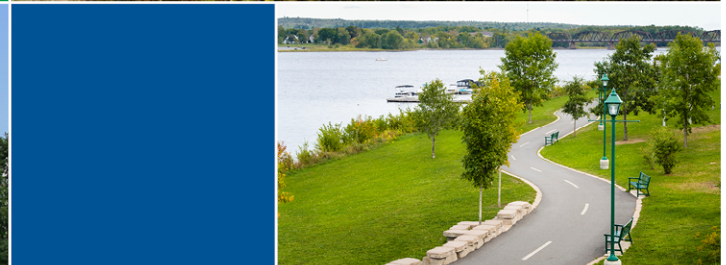


Energy East Pipeline Project

Fredericton, New Brunswick
Community Panel Session

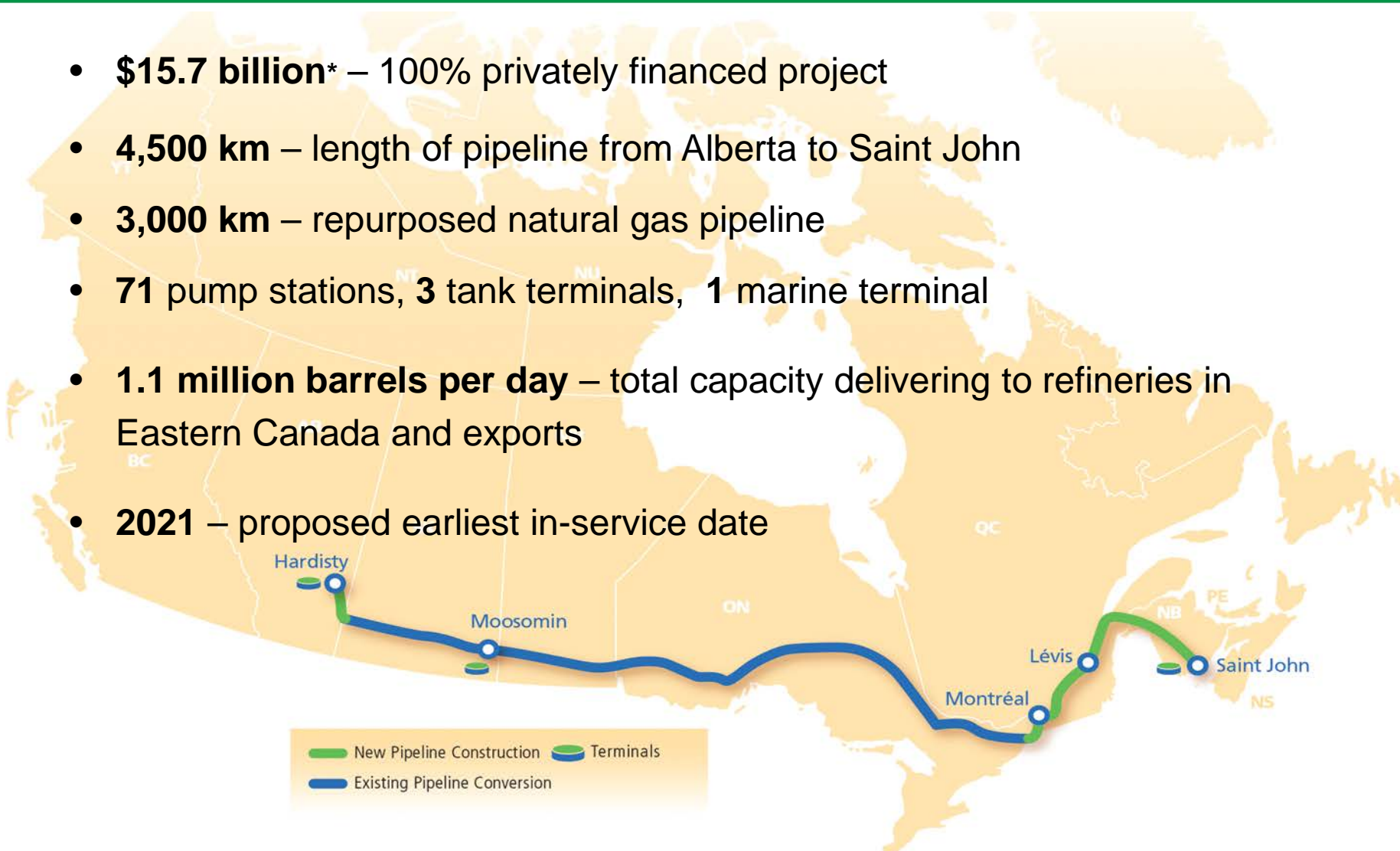
National Energy Board
August 15, 2016



 **TransCanada**

What is Energy East?

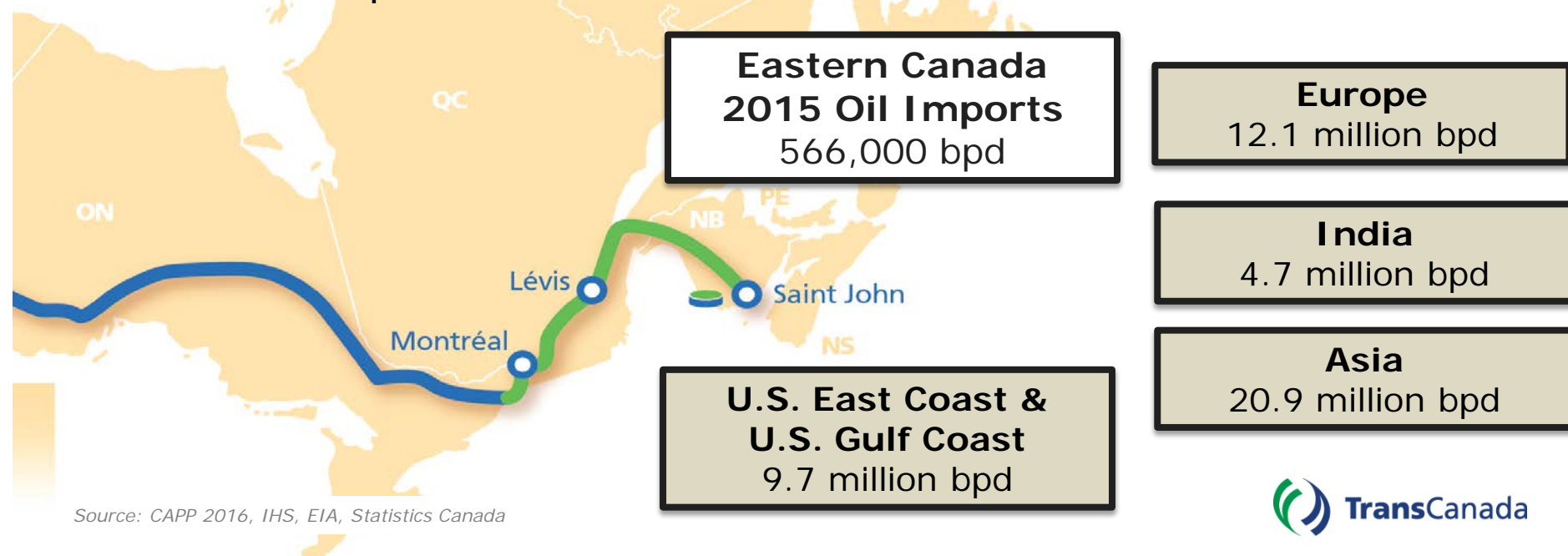
- **\$15.7 billion*** – 100% privately financed project
- **4,500 km** – length of pipeline from Alberta to Saint John
- **3,000 km** – repurposed natural gas pipeline
- **71 pump stations, 3 tank terminals, 1 marine terminal**
- **1.1 million barrels per day** – total capacity delivering to refineries in Eastern Canada and exports
- **2021** – proposed earliest in-service date



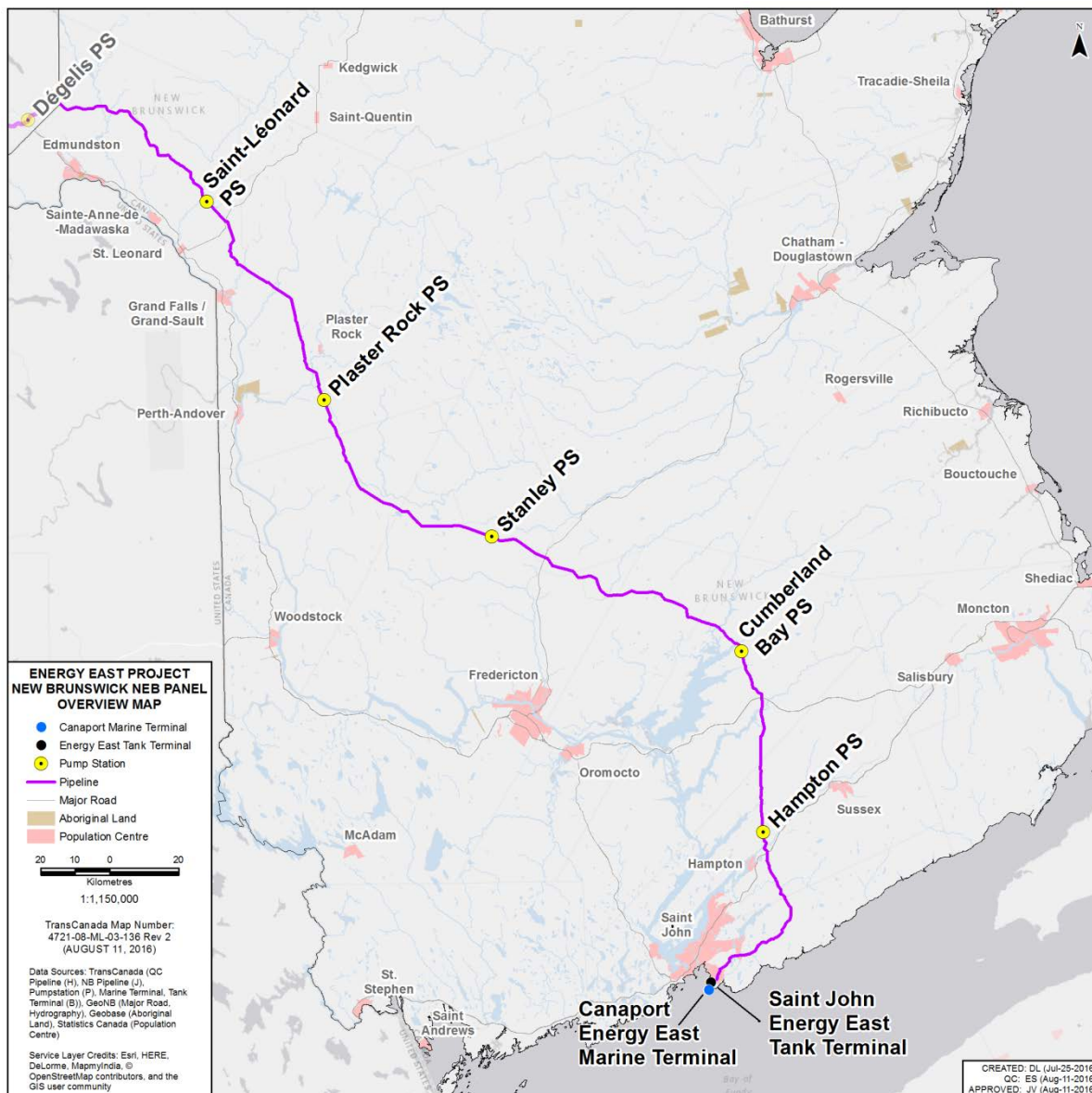
* estimated cost is before AFUDC and the gas asset transfer costs

Why Energy East?

- **Safest** and **most environmentally responsible** mode of crude oil transportation
- **Reduces crude oil imports** and **improves access** to new markets for Canadian oil
- 3,000 km repurposed natural gas pipeline **reduces environmental footprint**
- Substantial provincial and nation-wide **economic benefits**



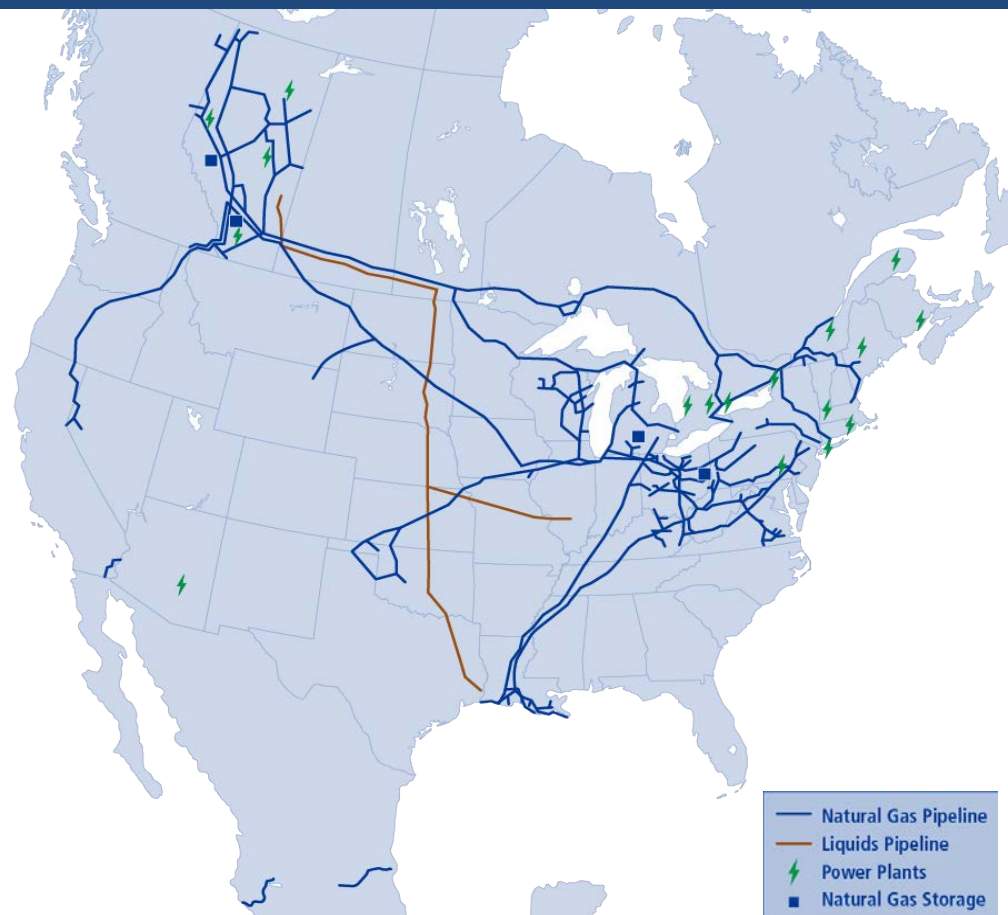
What Does the Project Look Like in New Brunswick?



- **417 km** new pipeline
- **5 pump stations**
 - Saint-Léonard
 - Plaster Rock
 - Stanley
 - Cumberland Bay
 - Hampton
- **57** pipeline valves
- **1** tank terminal
 - **22** tanks
- **1** marine terminal
 - **2** berths

About TransCanada

More than 65 years of experience in the responsible development and reliable delivery of energy for North Americans



Natural Gas Pipelines - 90,300 km

- 23 Bcf/d or approximately 27% of continental demand

Energy - 17 power plants, 10,500 MW

- \$5 billion invested in emission-less technologies

Liquids Pipelines - 4,300 km

- 545,000 bbl/d or 20% of western Canadian exports
- Over **1.2 billion barrels** safely delivered

About Irving Oil

Founded in 1924, Irving Oil is a privately-owned regional refining and marketing company with a history of long-term partnerships and relationships

Marine Expertise

Operates Canada's largest refinery, and has a strong and proven track record on excellence in marine safety.

For the last half century, Irving Oil has been moving crude oil and finished product through the Bay of Fundy in a safe and responsible manner.



How We've Engaged in New Brunswick

Early, extensive, and ongoing engagement

- **21** Indigenous communities in New Brunswick and Nova Scotia
 - Funded engagement programs and TK studies underway with **14** participating communities and organizations
- **45** municipalities in New Brunswick and Nova Scotia
- **291** landowners
- **19** open houses
- **3** Safety and Emergency Response Information Days



Extensive Regional Scientific Assessment

- A rigorous science-based **Environmental and Socio-economic assessment (ESA)** was conducted by an objective third-party expert
- The ESA involved environmental field work in **more than 180 individual municipalities** and analysis by **over 450 scientists** to assess potential project effects
- Since 2013 in New Brunswick alone, **23 separate field studies** were completed, with the assistance of **24 Indigenous participants** and **9 local sub-consultants**
- The ESA also included effects on increased shipping



Key Regional Issues and Interests

Safety and Environment

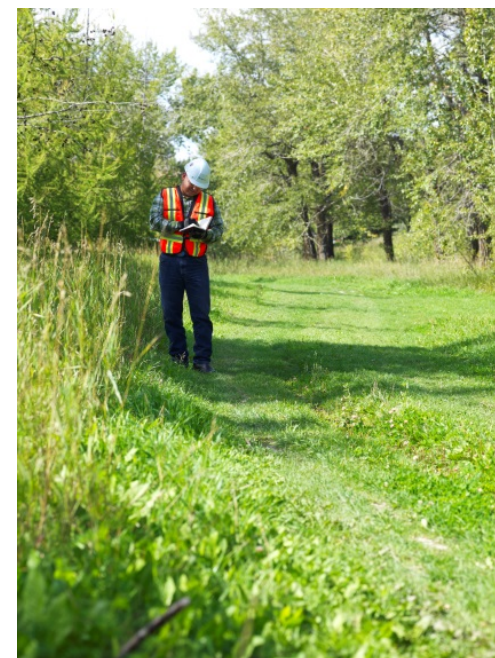
- **Pipeline routing** and **protection** of lakes, rivers and watersheds
- Pipeline **integrity** and **monitoring**
- Emergency response plan and **public safety**
- Potential effects of a spill on watersheds

Consultation and Engagement

- **Engagement** with Indigenous communities

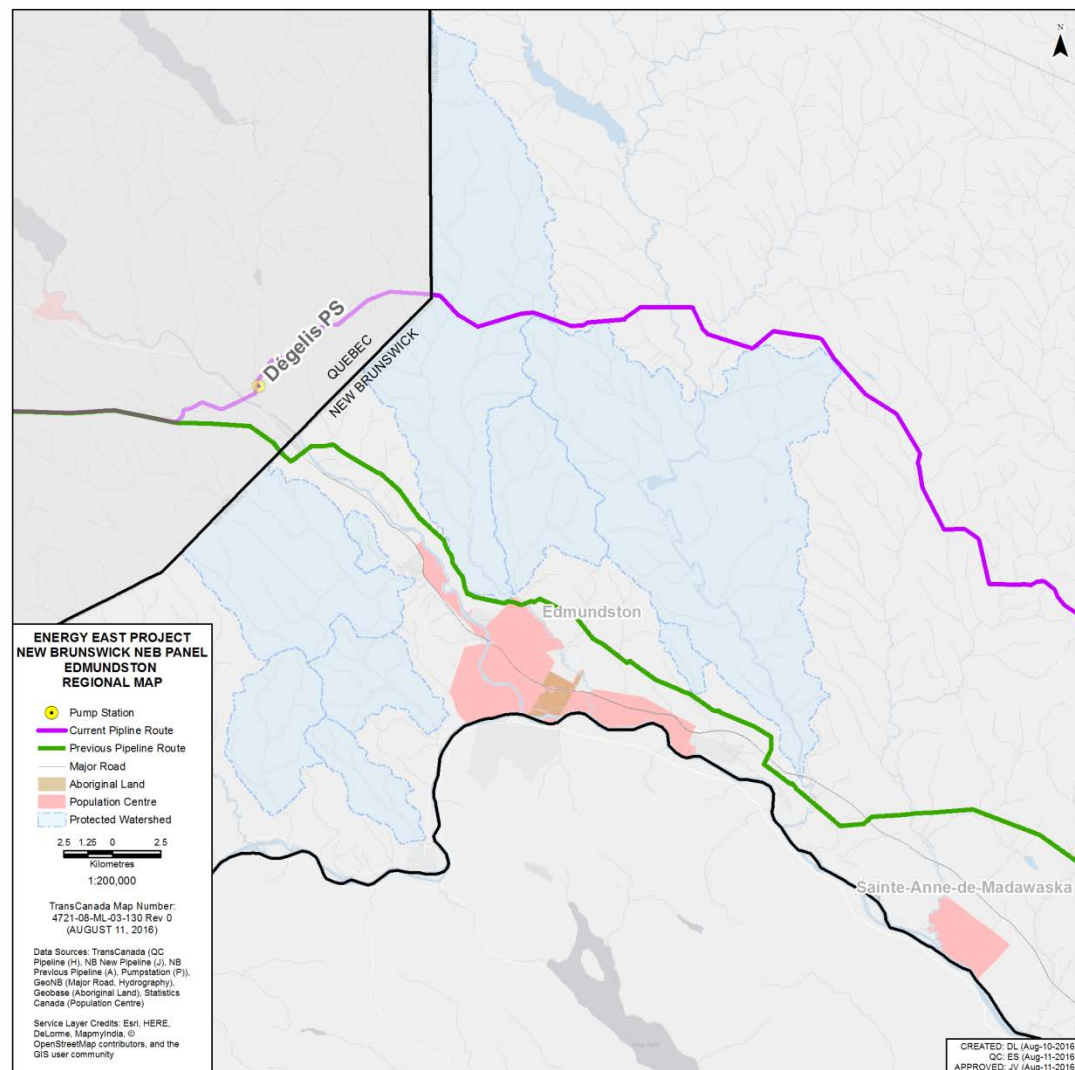
Economic Benefits

- **Training, employment, and supply** opportunities
- **Property tax**



Over 100 Re-routes in New Brunswick since 2013

- **Reduce** number of water crossings
- **Minimize** impact to environmentally sensitive areas
- **Respond** to community feedback and concerns



Safety and Integrity

Using **state-of-the-art technology** to **prevent** and **detect** leaks

- In-line 'smart-pig' inspections
- Cathodic protection
- **Supervisory Control and Data Acquisition (SCADA)** system to remotely control pipeline
- **Strategically** placed shut-off valves
- **24/7** monitoring from control center
- Visual inspection and aerial patrols



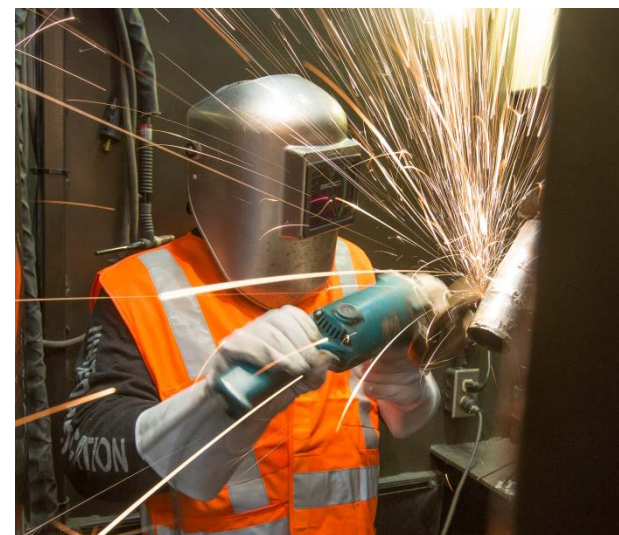
Emergency Management and Response

- **Safety**, emergency preparedness and response
 - Fully accountable
 - Collaborative, transparent, early development of Emergency Response Plans
 - Training and validation for staff and local emergency responders
 - Immediate capacity and ability to respond
 - Continuous improvement
- Work with **regulatory and safety agencies**



Economic Engagement in New Brunswick

- Committed to building **Indigenous capacity** for labour and business opportunities
- Engaged with **local unions** and signed an MOU with national unions
- More than **350 suppliers** in New Brunswick have demonstrated an interest in working on Energy East by registering on our vendor portal
- Over **\$42 million** spent to-date in developing the project in New Brunswick



Economic Benefits for New Brunswick

- Conference Board of Canada states Energy East will create the following benefits in New Brunswick alone:
 - **3,771 jobs annually** (direct and indirect) during development and construction
 - Support **261 jobs annually** (direct and indirect) during the first 20 years of operations
 - **\$853 million** in provincial and federal tax revenues
 - GDP impact of **\$6.5 billion**
- Annual property tax estimate of **\$14M** to New Brunswick



Conclusion

- Energy East is the safest and **most environmentally responsible** mode of crude oil transportation
- It could displace the equivalent of over 1,500 rail cars per day and **reduce imports** from other countries
- Since project inception, we've **engaged extensively** and we will continue to do so
- Energy East is in the **best economic interests** of the country, and **New Brunswick**

