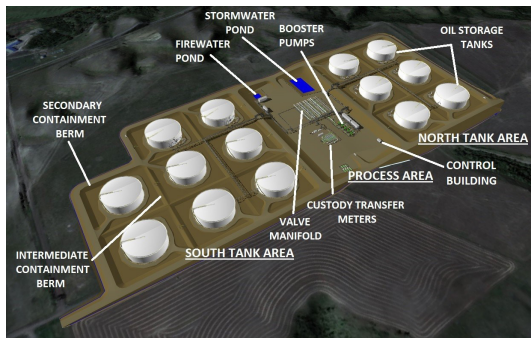


Tank Terminals

Tank terminals are oil storage facilities consisting of a number of interconnected storage tanks. Oil accumulates in the storage tanks and is injected into the pipeline or delivered to customers.

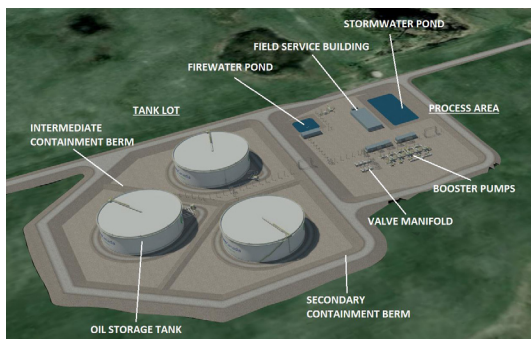
The Energy East Pipeline will have three associated tank terminals. The initiating tank terminal will be located near Hardisty, Alberta. The second terminal will be located near Moosomin, Saskatchewan and a third terminal will be a delivery terminal, located near Saint John, New Brunswick.

	Hardisty	Moosomin	Saint John
Number of Tanks Planned	14	3	22
Tank Dimensions	65 metres (m) in diameter by 18m high	65m in diameter by 18m high	79m in diameter by 21m high
Oil Storage Capacity Approximate total of Barrels (bbl)	350,000	350,000	600,000



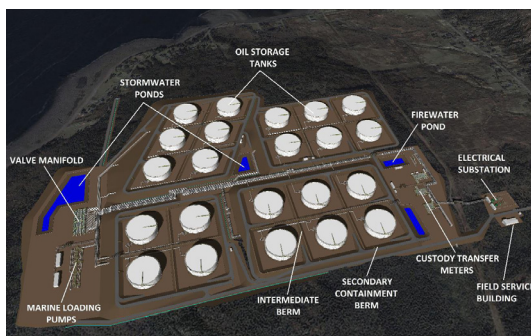
Hardisty

Marking the starting point for the Energy East Pipeline, this terminal stores oil for delivery into the pipeline. It includes booster pumps that allow oil to be transported from the storage tanks to the adjacent Hardisty Energy East pump station. Prior to injection into the Energy East Pipeline, custody transfer metering is used to measure the quantity of oil put into the pipeline.



Moosomin

This tank terminal receives oil from the Cromer Lateral, which is a 60 km pipeline from an existing oil supply hub, near Cromer, Manitoba. The terminal includes booster pumps which allow oil to be transported from the storage tanks to the adjacent pump station for injection into the Energy East Pipeline.



Saint John

Located at the end of the Energy East Pipeline, this terminal stores oil received from the pipeline. Marine loading pumps at the terminal transport the oil from the storage tanks to tankers at the Canaport Energy East Marine Terminal. Additionally, the tank terminal will include a connection to the Irving Canaport tank terminal, which will deliver oil to Irving Oil's Saint John refinery.

Energy East Pipeline



Contact us

We encourage your input and invite interested stakeholders to contact us.

1.855.895.8750 (Toll-free)

EnergyEast@TransCanada.com

EnergyEastPipeline.com



Tank Terminal Safety Features

Storage Tank Design

Storage tanks will be designed and constructed in accordance with industry standards including API (American Petroleum Institute) Standard 650 and NFPA (National Fire Protection Association). These tanks will be installed with an external floating roof, a very important safety and environmental component of the design which significantly reduces the release of oil vapours into the atmosphere. Floating roofs are continually in contact with the oil surface eliminating the majority of the vapour space (space between the roof and the oil) where combustible vapours can accumulate.

The floating roofs are equipped with a double seal system to further reduce the release of vapours. As the roof travels down, potential oil residue is scraped off of the tank wall and falls into the tank. Seal systems are inspected on a regular basis as part of the terminal operations. The storage tanks including the floating roofs are painted white in order to reduce the absorption of heat into the oil further reducing vapours.

Supervisory Control and Data Acquisition (“SCADA”) System

The Energy East Pipeline and its tank terminals will be monitored and controlled by TransCanada’s Operations Control Centre (OCC) located in Calgary, Alberta, via a sophisticated Supervisory Control and Data Acquisition (SCADA) system. A SCADA system is a real-time information technology used to control and monitor equipment in the field. The tank terminals will also have the capability to control operation locally in coordination with TransCanada’s OCC, including marine tanker loading processes. Emergency shutdown capability is provided both locally and from the Calgary OCC.

Containment and Leak Detection

Under-floor leak detection is provided and tanks will be installed in bermed (dyked) areas that are built with an impermeable barrier to contain any releases of oil in the unlikely event it was to occur. Tank terminal leak detection systems are managed through a combination of the SCADA system, tank level monitoring, and input/output volume measurement. These measures are complemented by regular patrols, inspections and maintenance activities.

Overfill Prevention

Each tank contains non-intrusive radar level instrumentation installed on the roof for continuous level measurement. Upon the detection of high tank levels, tank isolation valves will automatically close to prevent an overfill condition.

Fire Protection

The tanks will be equipped with fire detection and fire suppression equipment. TransCanada is committed to engaging with local fire authorities to develop safe and appropriate fire response plans.

Environmental Considerations

The Energy East Pipeline project team has conducted environmental studies to understand potential impacts during the construction and operation of the tank terminals. Some of these studies will consider various aspects of the natural and human environment, and will be used to design mitigations to minimize impacts including noise, atmospheric emissions, human health, and visual impact.

