

Pump Stations

Pump stations are facilities used for continually and safely pumping oil within the pipeline from one point to the next. These facilities generally include pumps, electric motors, connecting pipes and valves, an electrical substation and small stand-alone electrical equipment shelters. The Energy East Pipeline will have around 70 pump stations which will be located along the route.

Initial pump station locations are determined by pipeline hydraulics, taking into account factors such as pipe size, landscape, flow rates and location of other pumps on the system. Other site selection considerations include proximity to local roads, availability of power supply, land use, public consultations, landowner agreements and environmental characteristics. Where possible, pump stations will be located adjacent to existing TransCanada compressor or pump stations, minimizing the environmental footprint on the land.

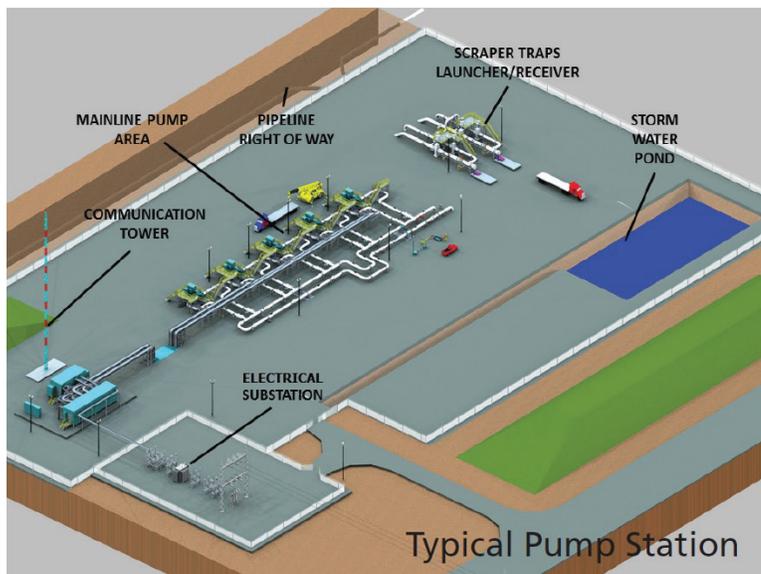
A pump station will house between three and five pump units. Each pump will be driven by an electric motor, sized up to 6,500 horsepower.

Energy East pump stations will mostly be served by high-voltage power lines. Electrical transformers, located within electrical substations at each site, will transform the incoming voltage to an appropriate level. In instances where electric power is not readily

available such as Northern Ontario, pump stations may be powered by gas turbine generators. These generators will run on natural gas sourced from adjacent natural gas pipelines.

Pump station facilities will be designed to effectively manage operational noise, ensuring sound levels are in compliance with all applicable regulatory requirements. Sources of sound at pump stations include components such as pumps, motors and electrical transformers. Electrically-driven pumps are the quietest type of pumps available and have the benefit of producing no direct air emissions. Sound levels will vary depending on the number of pumps in operation. Where gas turbine generators are installed they will be housed inside specially designed shelters intended to reduce noise. Noise reduction technologies and other acoustical controls such as noise blankets or barriers may be used where required.

Pump stations are designed to be remotely operated and controlled and are generally unmanned. They will be monitored from the TransCanada Operations Control Centre 24 hours a day, seven days a week. TransCanada technicians will visit pump station sites on a regular basis to perform routine maintenance work and will be on-call to respond at any time if needed.



Typical Pump Station

Energy East Pipeline



Contact us

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

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