

# North Plains Connector Project

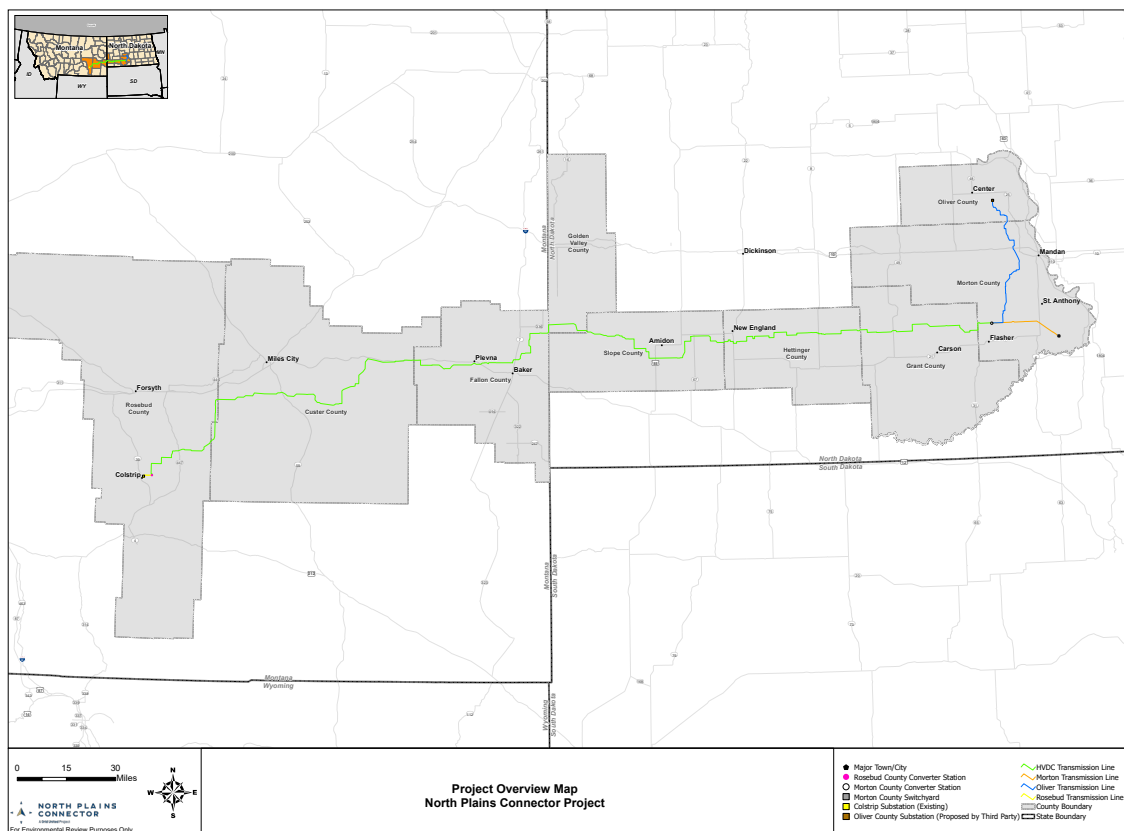
## Project Description

The North Plains Connector Project (NPC) is a proposed 525-kilovolt (kV), high-voltage direct-current (HVDC) overhead transmission line that would provide 3,000 megawatts (MW) of bi-directional transfer capability and connect the Western and Eastern Interconnections (also known as the western and eastern grids).

As proposed, the NPC would extend approximately 420 miles from near Colstrip, MT, to two separate end points in North Dakota: one near Center, ND, and the other near St. Anthony, ND. The NPC would move electricity across the eastern and western grids to help meet the growing need to move power across long distances and improve grid reliability and resiliency.

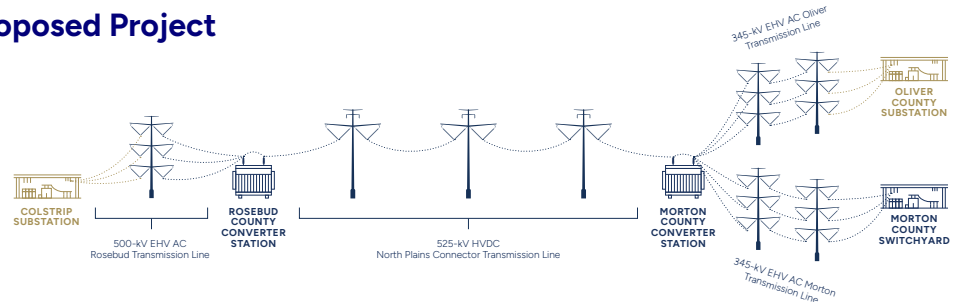
The NPC would sell transfer capacity via the transmission line without preference toward the potential shipper of electricity nor a particular generation technology. Portions of the NPC or capacity rights may be owned by electric utilities, cooperatives, government entities, corporate energy providers, or independent generators in the regional power systems.

## Project Overview Map





## Key Components of the Proposed Project



### The NPC would consist of the following transmission line segments and associated facilities:

#### Rosebud Transmission Line:

- A new 500-kilovolt (kV) extra high voltage (EHV) alternating current (AC) electric transmission line in Rosebud County, Montana.
  - The new line would consist of two separate, parallel circuits, each approximately 3 miles long, with a right-of-way approximately 320 feet wide.
- The line would extend east from the existing Colstrip Substation (owned by a third-party) to a new AC/direct current (DC) converter station in Rosebud County.
  - The Colstrip Substation would serve as the interconnection point to the western grid.

#### Rosebud County Converter Station:

- One new AC/DC converter station in Rosebud County, Montana.
  - The converter station would connect the eastern terminus of the Rosebud Transmission Line to the western terminus of the new 525 kV high-voltage direct current (HVDC) electrical transmission line.

#### HVDC Transmission Line:

- A new 341-mile, 525 kV HVDC transmission line from Montana into North Dakota with a 200-foot-wide right-of-way.
  - In Montana: Approximately 172 miles in Rosebud, Custer, and Fallon Counties. The line would extend east from the new Rosebud County Converter Station to the Montana-North Dakota state line in Fallon County.
  - In North Dakota: Approximately 169 miles in Golden Valley, Slope, Hettinger, Grant, and Morton Counties. The line would extend

east from the Montana-North Dakota state line in Golden Valley County to a new AC/DC converter station in Morton County, North Dakota.

#### Morton County Converter Station:

- One new AC/DC converter station in Morton County, North Dakota.
- The converter station would connect the eastern terminus of the new HVDC Transmission Line to the western terminus of two new 345-kV EHV AC electric transmission line segments.

#### Oliver County Transmission Line:

- Approximately 51 miles of new 345-kV EHV AC transmission line in Morton and Oliver Counties, North Dakota, with an associated right-of-way approximately 200 feet wide.
- The line would extend east and north from the Morton County Converter Station in Morton County to a separately planned substation in Oliver County, North Dakota.

#### Morton County Transmission Line:

- Approximately 22 miles of new 345-kV EHV AC transmission line in Morton County, North Dakota with an associated right-of-way approximately 200 feet wide.
- The line would extend east and southeast from the Morton County Converter Station to a new switchyard.

#### Morton County Switchyard:

- A new switchyard in Morton County, North Dakota would serve as the interconnection point to the Southwest Power Pool (SPP) system for the eastern grid.