



GRID RESILIENCE AND INNOVATION PARTNERSHIPS PROGRAM

Increasing Interregional Connections Through Innovative HVDC Deployment

Established by the Bipartisan Infrastructure Law, the Grid Resilience and Innovation Partnerships (GRIP) Program is a \$10.5 billion investment to enhance grid flexibility, improve the resilience of the power system against extreme weather, and ensure American communities have access to affordable, reliable, electricity when and where they need it. GRIP funding is administered by the U.S. Department of Energy's Grid Deployment Office (GDO). This project was selected through the second round of GRIP funding.

The North Plains Connector Interregional Innovation (NPCII) project will catalyze transformative development in U.S. energy infrastructure by building a 3,000 MW High-Voltage Direct Current Voltage Source Converter (HVDC-VSC) transmission line, bridging the Western and Eastern Interconnections. The core project, North Plains Connector, would be the first HVDC project to connect three regional control entities: the Western Electricity Coordinating Council (WECC), Midcontinent Independent System Operator (MISO), and Southwest Power Pool (SPP).

Anticipated Outcomes and Benefits

Technical innovation for interregional transmission: North Plains Connector will use state-of-the-art HVDC-VSC technology, creating a new bulk interregional connection between the Eastern and Western Interconnections. The technology dwarfs the seven existing DC ties that connect the eastern and western grids. HVDC-VSC technology can replace some of the attributes of retired conventional generation and provides instantaneous change of direction in flows to support the eastern or western grid when required, improving resilience and reliability.

Increased transfer capacity: The project will increase transfer capacity between WECC and the Eastern Interconnection in Montana and North Dakota by 1,400%. North Plains Connector will create up to 3,000 MW of new capacity, strengthening the region from power disruptions during extreme weather events and other grid disturbances. The project will also support substation upgrades, providing an additional 800 MW of capacity to the west of the project, providing benefits beyond the region.

Connecting wind resources on Tribal lands: NPCII will enable the development of the Standing Rock Sioux Tribe's wind resources.

Stakeholder-first approach: The project will leverage a "stakeholder-first" approach to project development, with a broad consortium of partners that have already started conducting early community engagement with impacted communities.

Investing in communities: The North Plains Connector has partnered with Montana and North Dakota community foundations to establish a Community Investment Program, pledging \$3.85 million in grants to organizations in counties impacted by the project.

Project Details



- **Project:**
North Plains Connector Interregional Innovation (NPCII)
- **Applicant/Selectee:**
Montana Department of Commerce
- **GRIP Program:**
[Grid Innovation Program](#)
(Bipartisan Infrastructure Law, Section 40103(b))
- **Federal cost share:**
\$700,000,000
- **Recipient cost share:**
\$2,899,540,962
- **Project location:**
Montana, North Dakota
- **Project type:**
Transmission

Published August 2024. Fact sheet information is based on project applications at the time of publication and should not be considered final.