Nogales Interconnection Project Frequently Asked Questions

About the Project

What is the Nogales Interconnection Project?

The Nogales Interconnection Project (Project) is a proposed 300 megawatt (MW) direct current (DC) interconnection (commonly known as a DC Tie) and associated electric facilities, which will allow for an asynchronous interconnection between the electric grid in southern Arizona and the electric grid in the northwest region of Mexico.

The Project will be constructed in two phases. The first phase of the Project will include the components listed below and a converter capacity of 150 MW with a planned in-service date of mid-2019. The second phase, to be constructed at a time that has not yet been determined, will expand the DC Tie capacity to 300 MW.

The Project will consist of the following components:

1. A new, approximately 11-acre Gateway Substation where the DC Tie and other substation facilities will be located.
2. A new, approximately 3-mile, 138-kilovolt (kV) alternating current (AC), double circuit transmission line between the existing UNS Electric, Inc. (UNSE) Valencia Substation and the new Gateway Substation.
3. A new, approximately 2-mile, 230-kV AC transmission line extending south from the new Gateway Substation to the proposed international border crossing.

What purpose does the Nogales Interconnection Project serve?

The purpose of the Project is to provide an asynchronous interconnection in the vicinity of Nogales, Arizona, that will enable bi-directional electricity transfer capability between the Western Electricity Coordinating Council (WECC) and Mexico in order to facilitate cross-border commercial electricity transactions and to enhance transmission grid reliability.

What are the Project benefits?

The Project will provide several important benefits:

- Enabling cost savings through firm and non-firm energy transactions and diversity of peak demand patterns on both sides of the border.
- Supporting reliability by providing bi-directional power flow and voltage support to each side of the border.
- Creating emergency assistance options for the electrical systems of both the U.S. and Mexico.
- Supporting economic growth by improving the electric grid and region's ability to meet future electric capacity requirements.

Why does the Project include a DC Tie?

The Arizonan and Sonoran grids cannot be connected directly through a synchronous connection because their frequencies are not in phase.

With a DC Tie, AC current from one grid would be converted into DC current, then converted back to AC with characteristics to match the recipient grid. This process is bi-directional, meaning it allows power to flow in either direction, but it does so in a way that keeps the two grids completely separate, effectively acting as a "firewall."

What is the capacity of the Nogales Interconnection Project?

As proposed, the Nogales Interconnection Project will be designed for a maximum power transfer capability of 300 MW. The capacity of the Project is determined by the size of the DC converter unit. The existing Gateway site is over 30 acres and is large enough to accomodate two 150 MW DC Tie converters without increasing the existing Gateway site footprint. Any subsequent expansion would occur only if circumstances warrant after obtaining the appropriate regulatory approvals.

Can the Project be used to import and export power from and to Mexico?

Yes, the Project will allow for both the import of power from Mexico and the export of power to Mexico. Any exports to Mexico will not occur under circumstances that would adversely affect the reliability of the U.S. electric system.

About the Project Participants

Who is developing the Nogales Interconnection Project?

The Nogales Interconnection Project is being jointly developed by Nogales Transmission L.L.C. and MEH Equities Management Company (MEH).

Nogales Transmission L.L.C is an indirect subsidiary of Hunt Power, L.P., which is an indirect subsidiary of Hunt Consolidated, Inc. Hunt Power develops and acquires electric transmission and distribution assets—both unregulated and regulated—either through acquisition of existing assets or through new incremental construction projects. Hunt Consolidated is a large, privately-owned group of companies, based in Dallas, Texas, and managed by the Ray L. Hunt family, that engages in oil and gas exploration, refining, power, real estate, ranching, and private equity investments.

MEH is an investment holding company and a subsidiary of Arizona-based UNS Energy Corporation, which is a subsidiary of Fortis, Inc. Fortis, a leader in the North American regulated electric and gas utility industry, owns utilities that serve more than 3 million customers across Canada and in the United States and the Caribbean.

How will the Project tie into the United States and Mexico?

In the U.S., the Project will interconnect with the UNSE system, which is interconnected with the WECC grid serving the western United States. UNSE is a subsidiary of UniSource Energy Services (UES), which provides electric service to more than 95,000 customers in Santa Cruz and Mohave Counties.

In Mexico, the Project will interconnect with the Red Nacional de Transmisión (RNT). The RNT is the state owned transmission grid operated by the Centro Nacional de Control de Energía (CENACE). CENACE is a governmental organization with operational control of Mexico's RNT, acting as the independent system operator. CENACE makes decisions on economic dispatch of existing generation facilities, controls power imports and exports, manages the wholesale electricity market, and ensures open access to the RNT.

What coordination has taken place to interconnect the Project?

In the U.S., the Project filed an interconnection request with UNSE on April 28, 2016, and executed a System Impact Study Agreement. UNSE has performed studies to ensure system reliability will not be adversely affected.

In Mexico, extensive planning and coordination efforts have taken place with several Mexican entities involved with the RNT. The Mexican Secretary of Energy has included the facilities necessary to interconnect the Nogales Interconnection Project with the Nogales Aeropuerto substation in Mexico in its "PRODESEN", the Development Program which contains plans for transmission and distribution line projects in Mexico in 2016 and again in 2017.

Project Development

How will the Project be permitted?

The Project will undergo multiple comprehensive permitting and approval processes, including the following:

Federal Level

As the Project will cross the U.S.-Mexico border, the Project has submitted a Presidential Permit Application for the cross-border electrical interconnection. Before a Presidential Permit may be issued for an electric transmission line, the U.S. Department of Energy (DOE) must determine that the Project is in the U.S. national interest. In making that determination, the DOE evaluates the impacts of the proposed federal action and reasonable alternatives pursuant to the National Environmental Policy Act of 1969, determines the Project's impact on electric reliability of the U.S. electric power supply system, and any other factors that the DOE may also consider relevant to the public interest.

The Presidential Permit Application filed by Nogales Transmission, L.L.C. with the DOE, the DOE draft

environmental assessment, and other relevant documents can be reviewed at DOE's website: http://nogalesinterconnectionea.com/.

State Level
The Project requires a Certificate of Environmental Compatibility (CEC) from the Arizona Corporation Commission (ACC) for the siting of the transmission lines, which was unanimously approved by the ACC on November 17, 2017.

The approved CEC can be viewed at: http://images.edocket.azcc.gov/docketpdf/0000183981.pdf

Local Level
At the local level, it is anticipated that the Project will require a Conditional Use Permit from the City of Nogales for the Gateway Substation, and that local right-of-way use, floodplain use, and dust abatement permits will be required.

What is the status of the Presidential Permit Application?
On November 8, 2017, Nogales Transmission asked the Department of Energy (DOE) to defer issuance of a Presidential Permit for the Nogales Interconnection Project (the "Project") until its affiliate Sharyland Utilities obtains an order from the Federal Energy Regulatory Commission (FERC) confirming that energization of the Project will not subject the Electric Reliability Council of Texas (ERCOT) and its market participants to FERC jurisdiction. Sharyland's objective in seeking the FERC order is to eliminate any risk that the Project could trigger FERC jurisdiction over ERCOT under a theory that the Project creates "interstate commerce" between Arizona and Texas when electrons originating in either Arizona or Texas theoretically commingle with electrons on the Mexican grid and then travel into the other state.

Previously, Nogales Transmission had anticipated that Sharyland would request the FERC jurisdictional disclaimer after issuance of the Presidential Permit but before Project energization. After discussing these issues with various stakeholders, Nogales Transmission determined to reorder the regulatory approvals by seeking the FERC order first.

Nogales Transmission anticipates that Sharyland will request a FERC jurisdictional disclaimer early in 2018 and will ask FERC to act on that request promptly. Upon issuance of a jurisdictional disclaimer from FERC, Nogales Transmission will request that the DOE Presidential Permit be issued promptly.

Are there other actions required to facilitate the Project?
Yes. Based on engineering studies initiated by the Project's filing of an interconnection request with UNSE, upgrades to a portion of UNSE's existing system serving the Nogales area are required to facilitate the Project. These upgrades are referred to as the Nogales Tap to Kantor Upgrade project and include replacement of the existing poles and conductor for an approximately 27.5-mile segment between a point just south of Western Area Power Administration's existing Nogales Tap station and the existing UNSE Kantor Substation. The Nogales Tap to Kantor Upgrade project requires a CEC from the ACC before it can be constructed, which was unanimously approved by the ACC on November 17, 2017.

The CEC can be viewed at http://images.edocket.azcc.gov/docketpdf/0000183980.pdf.

How were the Project route alternatives developed?
The process of selecting the Project's alternative routes was guided by an approach to minimize impacts by evaluating existing infrastructure and seeking corridors with minimal impacts. This approach focused on:

- Working within or next to existing corridors to the extent practical.
- Working with landowners and stakeholders to avoid or minimize impacts to sensitive areas.
- Integrating information from existing federal and state energy and land use planning efforts, such as from the U.S. Forest Service and Arizona Department of Transportation.
- Integrating information from the route previously approved by the Arizona Line Siting Committee in 2001

for the Sahuarita-Nogales Transmission Line Project (ACC Docket Number L-00000C-01-0111-00000).

A Project preferred route was identified during the National Environmental Policy Act (NEPA) analysis process and is presented in the DOE Draft Environmental Assessment (EA). The Final Preferred Route will be subject to approval by the DOE pursuant to the request for the Presidential Permit and by the ACC pursuant to a request for a CEC.

The Project preferred route was presented to and approved by the ACC. A map of the CEC approved route is available on our Project website.

What outreach efforts will be made by the Project?
The Nogales Interconnection Project Team is committed to effective public engagement through direct outreach, as well as federal, state, and local processes to communicate Project information, along with a Project website.

Information about the Nogales Interconnection Project is available at www.huntpower.com/nogalesdctie.aspx. The website will be updated regularly with information on how the public can get involved as the Project progresses through the permitting process.

Past public outreach has included:

- February 2015 Open House Meeting in Nogales.
- February 2015 Meeting with Government Agencies and Non-Governmental Organizations (NGO).
- September 2015 Agency and NGO Meeting and Site Visit.
- June 2017 Open House Meeting in Nogales.
- July – August 2017 DOE Draft Environmental Assessment comment period.
- Fall 2017 Arizona CEC process.

Project Economics

What is the estimated cost of the Project?
Current cost estimates for the Project are approximately $80 million. These cost estimates are subject to change based on the final Project design, regulatory approvals, and routing. Costs estimates for the second phase of the HVDC tie have not yet been determined.

Will this Project have an impact on costs paid by UES electric customers?
UES customers should benefit from reduced costs as a result of the Project. The Project will result in increased usage of the UES transmission system thereby reducing the unit price of transmission service on the company's system. Today, UES electric customers pay for all transmission costs. With the Project in service, a portion of UES transmission service costs will be allocated to new wholesale customers, reducing the percentage of these costs that are paid by UES' electric customers.

Additionally, UES electric customers are charged for generation costs through the Power Purchase and Fuel Charges. If UES incurs lower generation costs as a result of an economic energy transaction with Mexico, the charges borne by customers will decrease.

FOR MORE INFORMATION

www.huntpower.com/nogalesdctie.aspx

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