North Gila-Imperial Valley #2 Transmission Project

WECC 2019 Annual Progress Report

Submitted by:
Southwest Transmission Partners, LLC & ITC Grid Development, LLC.

ISSUED: February 1, 2019
Table of Contents

I. Introduction--------------------------------------------------------------- 1
II. Project Description ------------------------------------------------------ 2
III. Plan of Service ----------------------------------------------------------- 3
IV. Project’s Current Status--------------------------------------------------- 4
V. Planned Project In-Service Date ------------------------------------------- 4
VI. North Gila-Imperial Valley #2 Network Configuration----------------------- 5

List of Figures

Figure 1: The North Gila-Imperial Valley #2 Network Configuration
Figure 2: The North Gila-Imperial Valley #2 Potential Corridor
I. INTRODUCTION

The North Gila-Imperial Valley #2 Transmission Project (“Project”) is being proposed as a 500kV AC transmission project between southwest Arizona and southern California. The proposed in-service date for the project is December 2022. The Project is being proposed by Southwest Transmission Partners, LLC and ITC Grid Development, LLC (“Project Sponsor”).

On April 7, 2011, Project Sponsor initiated the WECC Project Coordination Review (“PCR”) process for the proposed North Gila – Imperial Valley #2 (“NGIV2”) Project. The Project Sponsor solicited interest to WECC members in forming a Project Coordination Review Group (“PCRG”) to review the project as it conforms to the WECC PCR guidelines. The group was formed, and a meeting was held in Phoenix, Arizona on June 24, 2011, subsequent to the Hassayampa – North Gila #2 PCRG meeting. The results of that meeting and the subsequent comments from WECC members formed the basis of the NGIV2 PCR report.

On August 1, 2011, the PCR Report for the Project was provided to the Planning Coordination Committee (“PCC”) for a 30-day comment period. This comment period allowed WECC members the opportunity to review and comment on the project’s conformity with the PCR Guidelines. Only one comment related to the PCRG Participant list was received during the 30-day comment period and it was incorporated into the final report that was shared with the PCRG. On September 2, 2011, the PCC accepted the North Gila – Imperial Valley #2 Project regional planning compliance report as complete.

On February 18, 2016, the Comprehensive Progress Report (“CPR”) for the Project was submitted to both the PCC and Technical Studies Subcommittee (“TSS”) to initiate the 60-day review period. On November 28, 2016, the PCC granted the Project Phase 2A status.

A Project Review Group (“PRG”) was formed during the summer of 2016, and PRG Meeting #1 was held on August 11, 2016 to discuss the preliminary Study Plan and coordination with the Western Arizona Transmission Study (“WATS”) group. PRG Meeting #2 was held on November 2, 2017 to announce the additional development partner (ITC Grid Development, LLC) and to finalize comments on the Study Plan to proceed with the Phase 2A analysis. The final Study Plan incorporating comments received to date was finalized on December 18, 2017. The Project Sponsors opted to complete Phase 2A of the WECC Project Rating Review Process. The PRG interim report that fulfills Phase 2A requirements was completed and submitted to the PRG on July 3, 2018. The Project
Sponsors are currently working with the PRG to complete the Phase 2B and receive an Accepted Rating by June 30, 2019.

The addition of the proposed Project is a major intertie expansion between the southern Arizona and southern California areas. This project will become an additional component of the West of Colorado River (“WOR”) path (i.e. WECC Path 46) and is expected to provide the benefit of increasing reliability and transfer capability between Arizona and load centers in southern California. The Project Sponsor will seek approval for an increase in the WECC Path 46 Accepted Rating resulting from the addition of the Project. The addition of the Project is also envisioned to increase the East of Colorado River (“EOR”), or WECC Path 49, transfer capability, and conceivably an increase in the Accepted Rating of WECC Path 49.

The project is envisioned to provide the following benefits:

1) Provides California additional access to export/import from generation resource zones where limited transmission access exists

2) Increases diversity of the regional energy resource zones

3) Increases the reliability and import capability to the Southern California Import Transmission system

4) Make efficient use of existing available transmission corridors

II. PROJECT DESCRIPTION

The 97- mile NGIV2 500kV project is a major intertie expansion between the North Gila area (southwest Arizona) and the Imperial Valley area (southern California); this line would parallel the existing North Gila-Imperial Valley line (also known as the Southwest Power Link, or SWPL), with an expected minimum separation of 250 feet from the existing SWPL.

The current configuration that the Project Sponsor will be seeking the incremental rating for and have been asked to review by the PRG is to have a single 500kV line and with the loop-in is to create a new 500/230kV station near the existing IID Highline 230kV station as an intermediate interconnection. Specifically, the NGIV2 project would consist of a new 500 kV transmission line in parallel with the existing North Gila – Imperial Valley 500kV transmission line. The 500kV NGIV2 project would run approximately 90 miles from the existing North Gila 500 kV substation in Yuma, AZ into California where it would terminate at the existing Imperial Valley 500 kV substation in Imperial Valley, CA. An approximately 14 miles long 500 kV tap of the NGIV2 line would be constructed to loop in a new Dunes 500/230-kV substation plus a new 230kV line from Dunes into the existing 230kV Highline substation. A new 500/230 kV transformer would be installed in the Dunes
substation as part of the NGIV2 project. A review is currently underway for this configuration and will be documented in the Phase 2 analysis (which will be consistent with the CPR configuration). Permitting will proceed with the potential option to include a second AC circuit on the same structures at 500kV or 230kV.
III. PLAN OF SERVICE

The detailed plan of service for the proposed NGIV2 Transmission Project will be finalized by the Project Sponsor over the next several months via the Interregional Transmission Planning process. The Project Sponsor anticipates that NGIV2 configurations will consist of the following facilities (note that configuration A is the anticipated base configuration):

A. Single Circuit Configuration (as modeled in the Phase 2 Study):
   1) Constructing a new 61-mile 500 kV AC single-circuit line from the North Gila substation near Yuma, AZ to the existing Highline 230kV substation near Holtville, CA. A new proposed Dunes 500/230 kV substation would be constructed immediately adjacent to the existing Highline 230 kV substation that is owned and operated by the Imperial Irrigation District (IID). An electrical interconnection via a new 230kV tie would be utilized to interconnect the new Dunes substation with the existing Highline 230 kV substation. Series compensation will be added to balance the flows on the new circuit and the existing SWPL, up to 70% series compensation (or up to 45% of the entire line from North Gila to Imperial Valley) will be included.

   2) Constructing a new 36-mile 500kV AC single-circuit line from the proposed Dunes 500kV substation to the Imperial Valley substation near El Centro, CA.

A. Double Circuit Configuration (500kV or 230kV or both), alternative configuration being sought through the permitting process:
   1) Constructing a new 90-mile 500 kV AC up to a double-circuit line from the North Gila substation near Yuma, AZ to the Imperial Valley substation near El Centro, CA. One of the two circuits (north side of the structures) could initially be operated at 230 kV. Series compensation will be added to balance the flows on the two circuits, a minimum of 50% series compensation will be included.

   2) Approximately 30 miles east of the Imperial Valley substation, one of the new circuits described above may loop into the existing IID-owned Highline 230 kV substation near Holtville, CA. This line will be approximately 8 miles long. If this circuit is built and operated as a 500 kV line, a new 500 kV substation would be constructed immediately adjacent to the existing Highline 230 kV substation owned and operated by the Imperial Irrigation District (IID). An electrical interconnection via a new 500/230 kV transformer would be utilized to interconnect the new substation with the existing IID substation.
IV. PROJECT’S CURRENT STATUS

The Project Sponsor is continuing to pursue completion of the WECC 3-phase rating process by December 31, 2019. The Phase 1 Rating Study for the Single Circuit Option was sent to the WECC PCC and TSS for 60-day review on February 18, 2016. The PCC granted Phase 2A status for the Single Circuit Option. The Project Sponsor has formed a WECC PRG to address comments received on the CPR and to conduct additional analysis needed to complete Phase 2 and achieve Phase 3 status. The first PRG Meeting #1 was held on August 11, 2016. During the meeting additional comments were received from SDGE and IID based on new and deferred planned projects in the region. PRG Meeting #2 was held on November 2, 2017 to announce the additional development partner (ITC Grid Development, LLC) and to finalize comments on the Study Plan to proceed with the Phase 2A analysis.

The Project Sponsors and the PRG have developed a Phase 2 Rating Study Plan for the Project. This study plan was approved on December 18, 2017. The Project Sponsors opted to complete Phase 2A of the WECC Project Rating Review Process. The PRG interim report that fulfils Phase 2A requirements for the Project was completed on July 3, 2018.

The following project study schedule is planned:

- Completion of the Phase 2B simultaneous and sensitivity studies requested by the PRG by March 31, 2019
- Achievement of Accepted Rating (Phase 3) by June 30, 2019.

The Project Sponsor is currently evaluating potential alternative routes and working with the responsible regulatory agencies to obtain all necessary Project approvals.

V. PLANNED PROJECT IN-SERVICE DATE

The Project is anticipated to be in commercial service by the December 2022.
VI. NORTH GILA-IMPERIAL VALLEY #2 AC NETWORK CONFIGURATION

A one-line diagram for the North Gila-Imperial Valley #2 Transmission Project is depicted in Figure 1.

FIGURE 1: NORTH GILA-IMPERIAL VALLEY #2 500 kV ONE-LINE DIAGRAM
VII. NORTH GILA-IMPERIAL VALLEY #2 PROPOSED CORRIDOR

The following map, Figure 2, is the current proposed corridor under evaluation for the North Gila – Imperial Valley #2 Project.

FIGURE 2: NORTH GILA-IMPERIAL VALLEY #2 500 kV POTENTIAL CORRIDOR