



North Gila-Imperial Valley #2 Transmission Project

WECC 2017 Annual Progress Report

***Submitted by:
Southwest Transmission
Partners, LLC.***

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North Gila-Imperial Valley #2 500 kV Project WECC 2017 Annual Progress Report

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 Q4 2021. The Project is being proposed by Southwest Transmission Partners, LLC (“Project Sponsor”).

On April 7, 2011, Project Sponsor initiated the WECC Project Coordination Review process for the proposed North Gila – Imperial Valley #2 (“NG-IV #2”) 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, subsequently 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 NG-IV#2 PCRG report.

On August 1, 2011, the Project Coordination Review Group Report for the Project was provided to 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 Project Coordination Review Guidelines. Only one comment related to the PCRG Participant list was received during the 30-day comment period, and has been incorporated in the final report and shared with the PCRG. On September 2, 2011, 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 Planning Coordination Committee (“PCC”) and Technical Studies Subcommittee (“TSS”) to initiate the 60-day review period. On November 28, 2016, the PCC granted the Project Phase 2A.

The proposed addition of the Project is a major intertie expansion between the southern Arizona area and southern California area. This project will become an additional component of the West of Colorado River (“WOR”) path (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 addition of this NG-IV#2 transmission project is also envisioned to increase the East of Colorado River (“EOR”), or WECC Path 49, transfer capability and the Project Sponsor is working closely with the sponsors of the Hassayampa-North Gila #2 (“HA-NG #2”) transmission project, Arizona Public Service and Imperial Irrigation District, to coordinate the respective projects in the Three Phase Rating Process.

The HA-NG #2 Project is now in Phase 2 of the WECC rating process, and has required that the NGIV#2 Project revise its pre-Project base case with the HA-NG #2 in service.

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

In compliance with the WECC Procedure for Project Rating, a comprehensive progress report was completed and sent to WECC PCC and TSS for 60-day review on February 18, 2016.

II. PROJECT DESCRIPTION

The 90 mile NG-IV #2 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 potential for a second circuit would be proposed to be constructed on the same set of structures, and would potentially loop in and out of the existing Highline 230 kV substation along the Highline Canal. The second circuit could be operated at 230kV initially until the operational and scheduling need develops over the years to potentially operate at 500kV. An additional alternative that we have been asked to review by the PCRG is to have a single 500kV line and with the loop-in to the existing Highline 230kV station. Review is currently underway of this configuration.

III. PLAN OF SERVICE

The detailed plan of service for the proposed NG-IV#2 Transmission Project will be finalized by the NG-IV#2 participants over the next several months via the Interregional Transmission Planning process. SWTP anticipates that NG-IV#2 configurations will consist of the following facilities (note that configuration A is the anticipated base configuration):

A. Single Circuit Configuration (as submitted in the CPR to WECC):

- 1) Constructing a new 55-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 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. Series compensation will be added to balance the flows on the new circuit and the existing SWPL, a minimum of 50% series compensation will be included.
- 2) Constructing a new 35-mile 500kV AC single-circuit line from the Highline 500kV substation to the Imperial Valley substation near El Centro, CA.

A. Double Circuit Configuration (500kV or 230kV or both):

- 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 North Gila-Imperial Valley #2 Transmission Project is continuing to pursue completion of the WECC 3-phase rating process by the end of 2018. The Phase 1 Rating Study for the Single Circuit Option was sent to WECC PCC and TSS for 60-day review on February 18, 2016. The PCC granted Phase 2A for the Single Circuit Option. A Study Plan Review meeting was held on August 11, 2016. Comments were received from SDGE and IID based on new and deferred planned project in the region. STP is working with SDGE and IID to coordinate the planned facilities into the non-simultaneous (pre-Project) base case. The work would then continue to confirm the non-simultaneous rating (an increase on Path 46 of 1250MW) and complete Phase 2A in Q3 2017. It is anticipated that the Phase 2B simultaneous and sensitivity studies and achieve an Accepted Rating (Phase 3) would be completed by the end 2018.

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

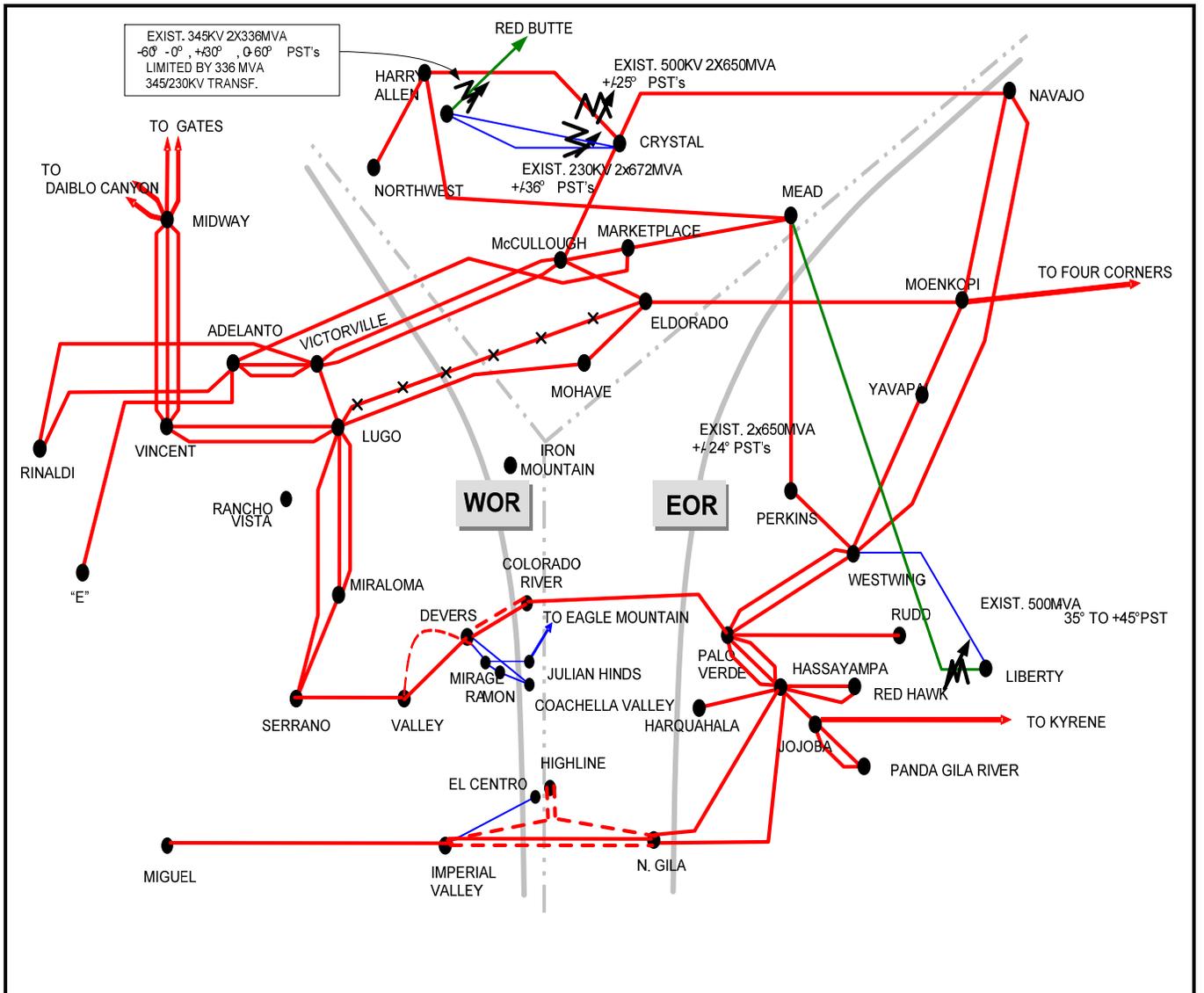
V. PLANNED PROJECT IN-SERVICE DATE

The North Gila-Imperial Valley #2 Transmission Project is anticipated to be in commercial service by the fourth quarter of 2021.

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 POTENTIAL CORRIDOR

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

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

