

## SDG&E Edits & Comments to the CAISO2014-2015 Transmission Plan Process

### 1) WECC Cases used

- a. SDG&E is using the following WECC cases for the 2014/2015 TPP.

Year	WECC case name	Posting Date	Scenario
2015	14HSS4	11/17/2013	Peak
2015	2014LS1	1/15/2014	Off-Peak
2016	14HSS4	11/17/2013	Peak
2016	2014LS1	1/15/2014	Off-Peak
2017	2019HS2	9/10/2013	Peak
2017	2019HS2	9/10/2013	Off-Peak
2018	2019HS2	9/10/2013	Peak
2018	2019HS2	9/10/2013	Off-Peak
2019	2019HS2	9/10/2013	Peak
2019	2019HS2	9/10/2013	Off-Peak
2024	2024 HS1	2/21/2014	Peak
2024	2024 HS1	2/21/2014	Off-Peak
ALL	Use off-Peak Case		Min

- b. To avoid overloads and reduce 138kV congestion at Sycamore Substation, for years 2015 & 2016 SDG&E is modeling the 230kV Fanita Junction Reconfiguration. When the 'Sycamore to Penasquitos 230kV' line is in-service in June 2017, this temp configuration will return to its normal configuration.

### 2) Generation

- a. For the Carlsbad units, SDG&E is modeling a total of 520MW, 260MW on 230kV (Q137) and 260MW on 138kV (Q189) starting in year 2018. The existing Encina gens will be modeled through year 2017. Even though the Carlsbad units may have a repower contract for an overall Pmax of 600MW, the current CAISO queue has the Pmax at 520MW.
- b. Pio Pico (Q574) is being modeled starting in year 2015 with 309MW. With this project, we are also modeling the 3 ohm reactor on TL23040 – intended to reduce fault current in CFE and closing-in the Miguel taps creating a Miguel to Otay Mesa (TL23042) and a three terminal line, Miguel to Otay Mesa to Sycamore (TL23041).
- c. The Cabrillo Units (Kearny Peakers, Miramar GT1 & GT2 and El Cajon GT) are retired in 2015.
- d. Renewable generation is being modeled only if the generator has a signed/approved PPA and Interconnection Agreement.

3) Forecast

- a. The CEC California Energy and Demand Forecast used for 2014-2024 was *LSE and BA Tables Mid Demand Baseline-Low Mid AAEE* dated December 2013. In addition, SDG&E is modeling NOAEE loads for years 2016, 2019 and 2024.

4) Imports

- a. SDG&E's import assumption is 3350MW for all study years. The import assumption is based from a Grid Operation Study incorporating SCE's two generators conversion to Synchronous Condensers (SC) at Huntington Beach (HB) and capacitor\* additions at four substations.

HB #	SOL for SDGE Import			IROL for SDGE Import		
	SOL	Limitation Type	a)Worst Contingency b)Limiting Element	IROL	Limitation Type	a)Worst Contingency b)Limiting Element
0 HB	3050	Steady State Voltage	a) HDW-NG b) Voltage at San Onofre	3600	Voltage Stability	a) HDW-NG b) Voltage Collapse in San Diego and Orange County
1HB	3150	Steady State Voltage	a) HDW-NG b) Voltage at San Onofre	3600	Voltage Stability	a) HDW-NG b) Voltage Collapse in San Diego and Orange County
2HB	3250	Steady State Voltage	a) HDW-NG b) Voltage at San Onofre	3600	Voltage Stability	a) HDW-NG b) Voltage Collapse in San Diego and Orange County
2HB 1SC	3300	Steady State Voltage	a) HDW-NG b) Voltage at San Onofre	3600	Voltage Stability	a) HDW-NG b) Voltage Collapse in San Diego and Orange County
2HB 2SC	3350	Steady State Voltage	a) HDW-NG b) Voltage at San Onofre	3600	Voltage Stability	a) HDW-NG b) Voltage Collapse in San Diego and Orange County

\* Capacitor Addition in SCE are Johanna 220kV Sub (1 x 79 MVAR), Santiago 220kV Sub (1 x 79MVAR), Viejo 220kV Sub (2 x 79 MVAR) and Kofa 161kV Sub (45 MVAR)