

THE UTILITY REFORM NETWORK (TURN) DATA REQUEST
TURN-SDG&E-DR-03
SDG&E POWER YOUR DRIVE (PYD) 2.0 (A.19-10-012)
SDG&E RESPONSE
DATE RECEIVED: FEBRUARY 19, 2020
DATE RESPONDED: MARCH 4, 2020

Question 1

Regarding SDG&E's marginal cost estimate and forecast from 2014-2030, sent in response to TURN-2, question 3:

- a. Please explain how these costs were derived, and provide all applicable references, testimony, and workpapers (e.g. from GRC Phase 2).
- b. Please explain what elements of costs this forecast includes, for instance energy, line losses, etc.
- c. Please explain whether or not SDG&E's marginal cost forecast includes the following cost categories, and why or why not, separately for each cost element listed:
 - i. Line losses;
 - ii. Ancillary Services;
 - iii. Cap and Trade Prices;
 - iv. Capacity;
 - v. Transmission;
 - vi. Distribution.

SDG&E Response

- a. These hourly marginal energy costs were derived using the methodology described in Montoya testimony in SDG&E's GRC phase 2 (A.19-03-002), Chapter 6 "Calculation of Marginal Energy Costs". First, hourly wind and solar generation profiles were subtracted from SDG&E's 2019 CEC IEPR Bundled hourly load forecast to develop a net load profile. Then the net load profile was multiplied by monthly SP-15 on and off-peak forward electric prices to produce hourly marginal energy prices. In GRC phase 2, SDG&E only calculated 2020 marginal energy prices. For TURN's request, the 2020 net load profile was used for all future years. 2014-2019 prices were recorded hourly day ahead SDG&E DLAP prices. Workpapers for development of the 2020-2030 marginal energy cost forecast are attached.
- b. This marginal energy cost forecast includes line losses as they determine the amount of energy dispatched at the generation level before line losses are incurred. These prices typically have a transmission congestion component but we did not model or predict congestion in the development of these costs.
- c.
 - i. Line losses- yes, the marginal cost forecast includes line losses (see answer b. above)
 - ii. Ancillary Services- no, the ancillary service market is separate and distinct from the energy market represented by this forecast.
 - iii. Cap and Trade Prices- yes, there is an implied GHG price in these marginal costs as GHG is produced by the dispatch of conventional generation to produce energy.

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- iv. Capacity- no, marginal capacity costs are determined separately by a top 100 hours LOLE methodology and only for a single year in SDG&E's GRC phase 2.
- v. Transmission- no, transmission costs are determined by a different methodology and allocated separately.
- vi. Distribution- no, distribution costs are determined by a different methodology and allocated separately.