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Response to Electric Transmission-Related Data Collection

Please find SDG&E's response to the CEC's Electric Transmission-Related Data Collection effort attached.

Additional submitted attachment is included below.



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California Energy Commission
Docket Office
Docket No. 22-IEPR-03
715 P Street
Sacramento, CA 95814

SUBJECT: SDG&E Response to the California Energy Commission’s Electric Transmission-Related Data Collection to Inform the 2023 Integrated Energy Policy Report (22-IEPR-03)

Introduction

San Diego Gas & Electric Company (“SDG&E”) respectfully submits the below information in response to the California Energy Commission’s Transmission-Related Data Collection effort to inform the Commission’s *2023 Integrated Energy Policy Report* and *2023 Strategic Transmission Investment Plan*.

Responses to Requested Information

Bulk Electric System Description and Needs

Each LSE or electric transmission system owner shall submit a description of its bulk electric system or its latest long-term transmission expansion plan. They must also provide some discussion of how the SB 100 electric system decarbonization by 2045 requirements will affect the need for new or upgraded transmission.

SDG&E Response:

The California Independent System Operator (“CAISO”) 2021-2022 Transmission Plan (“TPP”) is the latest long-term transmission expansion plan.¹

¹ CAISO 2021-22 *Transmission Plan*

<https://www.caiso.com/Pages/documentsbygroup.aspx?GroupID=08F98ACE-2944-455A-A15C-0DBDF54C6670>.

SB 100 requirements have affected, and will continue to affect, the need for transmission expansion. These needs are reflected in the above-referenced CAISO TPP report and in the CAISO's 20-year transmission outlook, which is conducted in parallel to the 2021-2022 transmission planning process and will further support plans to achieve state greenhouse gas reduction and other state policy goals. The 20-year transmission outlook also considers a broad range of issues associated with potential grid development options to complement the ISO's existing processes and state agency resource planning efforts.²

Information contained in SDG&E's quarterly transmission status reports to the CPUC,³ and information made available in the CAISO/CPUC's quarterly Transmission Development Forum,⁴ provide up-to-date assessments of planned additions to the bulk electric system.

The electric system description shall include:

- 1. Detailed descriptions of the transmission facilities greater than 100 kV that the transmission owner or LSE needs over the long term to:**
 - a. Meet applicable reliability and planning standards.**
 - b. Reduce congestion.**
 - c. Interconnect new generation.**
 - d. Meet state policy goals such as the Renewables Portfolio Standard, SB 100 and state climate goals, or aging power plant/once-through cooling retirements.**

SDG&E Response:

See documents referenced in the introductory paragraphs above. These documents identify planned transmission that will meet applicable reliability and planning standards, reduce congestion, interconnect new generation, and meet state policy goals.

- 2. A description of the transfer capabilities for transmission lines or transmission paths delivering electric power into the electric transmission system owner's grid.**
 - a. The description shall include the size (for example, megavolt ampere [MVA] or megawatt [MW]) and length of the lines or lines included in the path and the substations to which the line connects.**

² See <https://stakeholdercenter.caiso.com/RecurringStakeholderProcesses/20-Year-transmission-outlook>.

³ See, for example, SDG&E's October 3, 2022, transmittal of its Quarterly Transmission Project Status Report to the California Energy Commission.

⁴ See www.caiso.com/search/Pages/WWW-Not-Archived-Results.aspx?k=Transmission%20Development%20Forum#k=Transmission%20Development%20Forum.

SDG&E Response:

The transmission lines that connect to SDG&E-owned transmission facilities, the SDG&E-owned substations at which those connections take place, and the thermal capabilities of these facilities, are available in the documents referenced above. Additionally, the power flow databases and the GridView production cost model database maintained by the CAISO and the Western Electricity Coordinating Council (“WECC”) contain the transfer capabilities of all WECC paths that include transmission facilities that connect to SDG&E-owned transmission facilities.

The CEC can access these databases by entering into the appropriate non-disclosure agreements with the CAISO and the WECC.

- b. A description of any planned upgrades to the facilities that are used to import power into the electric transmission system owner’s grid including:**
 - i. Descriptions of the upgrades including costs, benefits, maps, and the MW impact of the upgrades on transfer capabilities.**
 - ii. Descriptions of the alternatives considered in developing the upgrades.**

SDG&E Response:

See the CAISO’s TPP report referenced in the introductory paragraphs above. This report describes planned transmission that will connect to SDG&E-owned transmission facilities. The report identifies alternatives that the CAISO considered when selecting planned transmission projects, illustrative maps showing the locations of the projects, estimated costs for the projects, the anticipated benefits that the projects will provide, and the increase in transfer capability that will result from the addition of each project.

Note that these planned transmission projects are also modeled in the power flow and production cost databases referenced in the response to question 2.a.

- c. Any maintenance or construction that could impact transfer capabilities or the ability to move power over a path between January 2023 and December 2026.**

SDG&E Response:

Planned maintenance or construction of transmission facilities that could impact grid transfer capabilities must be coordinated with, and approved by, the CAISO. The CAISO should be contacted for this information. Note that such information is likely confidential.

- d. **A description of any planned transmission facilities that would create a new transmission path or transmission line to import electric power into the electric transmission system owner’s bulk electric network including:**
 - i. **Descriptions of the facilities, including costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.**
 - ii. **Descriptions of the alternatives, including nonwire alternatives, considered in developing the upgrades.**

SDG&E Response:

See SDG&E’s response to question 2.b.

- e. **A more general description of any planned upgrades to the transmission network that imports electric power into the electric transmission system owner’s bulk transmission grid that are anticipated to be required to meet California’s long-range 2045 decarbonization goals.**

SDG&E Response:

See documents referenced in the introductory paragraphs above.

- 3. **A description of the transfer capabilities for the bulk transmission lines or bulk transmission paths limiting the delivery of electric power within the electric transmission system owner’s grid.**

- a. **The description shall include the size (MVA, MW) and length of the line or lines included in the path and the substations to which the line connects.**

SDG&E Response:

At any point in time, depending on grid conditions (load, generator output, transmission outages and derates, etc.) different facilities may be limiting. Thermal and transfer capabilities are available in the referenced documents above as well as in the power flow and production cost databases as referenced in response to question 2.a.

- b. **A description of any upgrades to the facilities that are used to deliver power within the electric transmission system owner’s grid including:**
 - i. **Descriptions of the facility or upgrade costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.**
 - ii. **Descriptions of the alternatives, such as nonwire alternatives, considered in developing the upgrades.**

SDG&E Response:

See the CAISO's TPP report referenced in the introductory paragraphs above. This report describes planned transmission within the SDG&E service area. The report identifies alternatives that the CAISO considered when selecting planned transmission projects, illustrative maps showing the locations of the projects, estimated costs for the projects, the anticipated benefits that the projects will provide, and the increase in transfer capability that will result from the addition of each project.

Note that these planned transmission projects are also modeled in the power flow and production cost databases referenced in the response to question 2.a.

- c. Any maintenance or construction that could impact transfer capabilities within the electric transmission system owner's bulk transmission grid between January 2023 and December 2026.**

SDG&E Response:

Planned maintenance or construction of transmission facilities that could impact the transfer capabilities of transmission facilities owned by SDG&E, must be coordinated with, and approved by, the CAISO. The CAISO should be contacted for this information. Note that such information is likely confidential.

- d. A description of any planned transmission facilities that would create a new means to transfer electric power within the electric transmission system owner's bulk transmission network, including:**
- i. Descriptions of the facility or upgrade costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.**
 - ii. Descriptions of the alternatives, such as nonwire alternatives, considered in developing the upgrades.**

SDG&E Response:

See SDG&E's response to question 3.b.

- e. A more general description of any planned upgrades to the transmission network that transports electric power within the electric transmission system owner's bulk transmission network that are anticipated to be required to meet California's long-range 2045 decarbonization goals.**

SDG&E Response:

See documents referenced in the introductory paragraphs above.

4. **A description of the bulk transmission facilities needed for meeting state-mandated electricity policy goals such as SB 100 and state climate goals, renewable energy requirements, replacement, or retirement of aging power plants, and complying with the State Water Resources Control Board policies for phasing out power plants that use once-through cooling or eliminating or reducing local capacity requirements.**

SDG&E Response:

See documents referenced in the introductory paragraphs above. These documents identify planned transmission that will meet state-mandated electricity policy goals such as those included in SB 100 and other state climate goals. Additionally, the CAISO's TPP report (i) supports the achievement of renewable energy requirements; (ii) facilitates replacement or retirement of aging power plants; (iii) accommodates compliance with State Water Resources Control Board policies for phasing out power plants that use once-through cooling; and (iv) provides for the elimination or reduction of local capacity requirements.

- a. **The description shall include the size (MVA, MW) and length of the line or lines included in the path and the substations to which the line connects.**

SDG&E Response:

See SDG&E's responses to questions 2.a, 2.b and 3.a.

- b. **A description of any planned upgrades to the facilities in the electric transmission system owner's grid through 2045, including:**
 - i. **Descriptions of the upgrades including costs, benefits, maps, and the MW impact of the upgrade on transfer capabilities.**
 - ii. **Descriptions of the alternatives, such as nonwire alternatives, considered in developing the upgrades.**

SDG&E Response:

See SDG&E's response to question 3.b.

5. **Identify the power purchase agreements, contracts, and resources that require new or upgraded transmission to serve California loads. For example, if an LSE has a contract with a wind generator in Wyoming but the contract can be fulfilled only if a specific transmission line is completed, such as the TransWest Express project.**

- a. **For each generator/contract/PPA provide the name of the resource, the size of the resource in MW and expected KWH and the name and owner of the required transmission facilities. The name of the resource should be consistent with the supply forms.**

SDG&E Response:

Of the procurement contracts that SDG&E has executed, and for the associated resources that are currently under development, the contract counterparties have informed SDG&E that no new or upgraded network transmission, beyond the interconnection, is necessary for the projects to meet their commercial online dates.

Conclusion

Please do not hesitate to contact me should you have any questions about the information provided in this response.

Sincerely,

/s/ Sarah M. Taheri

Sarah M. Taheri
Regulatory Affairs Manager