Application for Approval of 2020 Energy Storage Procurement Framework and Program (A.20-03-003)

SDG&E RESPONSE DATE RECEIVED: March 20, 2020 DATE RESPONDED: April 2, 2020

1. Provide all data request responses provided to other parties to this proceeding on an ongoing basis.

SDG&E Response: SDG&E will post non-confidential discovery responses at: https://www.sdge.com/application-for-approval-2020-energy-storage-procurement-framework

2. In Table DB-1 on page. 4 of Application (A.) 20-03-003 (Application) provide an explanation of the 6.81 megawatts (MW) under the Customer domain listed in the third row, "Less expected offsets from 2019/2019 procurement and installations."

SDG&E Response:

The 6.81 megawatts (MW) referenced in the "Less expected offsets from 2018/2019 procurement and installations" represents the remaining customer installations that occurred to reach the 30MW AB2514 target for the customer domain.

3. Indicate whether each project in Table DB-2 on pages 5-6 of the Application is utility or third-party owned.

SDG&E Response:

This information is captured in the "Ownership (Utility Owned/Third Party/Other)" column of the table in Appendix A.

4. Indicate the intended end use of each project listed in Table DB-2, as required in D.13-10-040, Appendix A, page 8.

SDG&E Response:

This information is captured in the "Intended End Use (s)" column of the table in Appendix A.

- 5. Also, in Table DB-2, as required by D.13-10-040, Appendix A, pages. 8-9, indicate:
 - a. Operational requirements, to be applied either to all projects or separately with respect to transmission, distribution, and customer-sited storage. The requirements shall include, at a minimum:
 - i. Grid optimization services specific to the operational needs of the load-serving entity, such as any service intended to contribute to reliability needs, or defer transmission and distribution upgrade investments;
 - ii. Attributes or services intended to integrate renewable energy; and
 - iii. Greenhouse gas emissions-reducing attributes, such as permanent load shifting away from greenhouse gas emitting fossil generation or reduction of demand for peak electrical generation using fossil fuels.

SDG&E Response:

While the intended end-use provides detail on the grid service provided, the projects can be addressed at the domain level. In the Transmission Domain, these projects provide grid optimization services to CAISO, integration of renewables by storing power from the daytime and GHG reductions. In the distribution domain, these projects provide grid optimization services increasing reliability, resiliency and power quality while also providing integration of renewables and GHG reductions. In the customer domain, these installations primary use is at the discretion of the customer. These usually

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are focused around resiliency and rate arbitrage for the individual customer; however solar plus storage has the ability to reduce GHG emissions depending on charging profile.

6. For each project listed in the Application in Table DB-2, provide reference to 1) needs study by the California Independent System Operator for the Investor Owned Utility's (IOU) system, local, and flexible needs, if available, or 2) upgrade needs identified in the IOU's transmission or distribution planning studies, as required by D.13-10-040, Appendix A, page 8.

SDG&E Response:

The proceedings and decisions of approval can be found in the "CPUC Decision" column of the table in Appendix A. The following summarizes the need fulfilled by each decision:

Lake Hodges Pumped Storage (A. 04-04-042)

While approved in 2004, this project is a bilateral agreement for 40MW of energy storage. While not contemplated in 2004, this project provides grid optimization services. The need was not identified by CAISO or SDG&E's planning department at the time of contracting.

SDG&E's 2012 General Rate Case

In accordance with SDG&E's 2012 General Rate Case (D.13-05-10), SDG&E procured six community energy storage systems (0.15 MW) and seven containerized energy storage systems (6 MW). This procurement was to fulfill distribution needs (reliability and power quality) and prove end-use use cases like the "Borrego Microgrid Project".

2016 Track IV Preferred Resources Local Capacity Requirements RFO

In accordance with Decision ("D.") 14-03-004 – Decision Authorizing Long-Term Procurement for Local Capacity Requirements due to Permanent Retirement of the San Onofre Nuclear Generation Station (the "Track 4 Decision") on February 26, 2016, SDG&E procured 73.5MW of energy storage (3rd party and utility owned). This local capacity requirement was identified by CAISO. The Fallbrook (40MW), Miramar (30MW) and Don Lee (6.5MW) projects were procured in this solicitation. These projects were approved by D.18-05-024 (note project names have changed from those described in the decision due to counterparty updates).

RESOLUTION E-4791: Aliso Canyon Emergency Procurement

To address the potential shortage of natural gas, due to the partial shutdown of the Aliso Canyon gas storage facility, the CPUC requested SDG&E to procure energy storage for reliability purposes. The Escondido (30MW) and El Cajon (7.5MW) projects were procured under this resolution.

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7. For any Self Generation Incentive Program (SGIP)-funded customer domain projects, provide the methodology and details for splitting credits between SDG&E and applicable community choice aggregators (CCAs)/ energy service providers (ESPs).

SDG&E Response:

The methodology used is consistent with the D.16-09-007. Pursuant to ordering paragraph (OP) 5 of D.16-09-007, each utility submits a Tier 1 advice letter twice a year¹, which identifies the allocation of 50% of the system capacity to the CCAs/ESPs. To perform this task, SGIP data is analyzed and combined with CCA/ESP designations by customer to allocate 50% of the system capacity.

8. In Table DB-2 of the Application, provide Commercial Operational Dates (CODs) for projects under construction / in development, including Miramar, Fallbrook, and Don Lee Storage Project. Are these dates the same compared to the dates in the March 2, 2020 CAISO Interconnection Queue list? If not, please indicate and explain the discrepancies.

SDG&E Response:

Don Lee expected initial delivery date is 6/30/2021 Miramar (Top Gun) expected in-service date is 12/9/2020 Fallbrook expected in-service date is 3/31/2021

The CAISO COD dates are the expected completion dates for the interconnection facilities and will differ from the expected commercial operation date of the facilities.

9. Explain why the Miramar Transmission Domain project does not appear in the March 2, 2020 CAISO Interconnection Queue.

SDG&E Response:

The Miramar Project can be found in the CAISO interconnection queue as "Top Gun Energy Storage" (Queue # 1434).

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¹ See AL 3473E for SDG&E's last compliance filing

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10. Provide information on any contractual issues that may delay or lead to cancellation of any Commission-approved energy storage projects, regardless if they are utility owned or under contract with a counterparty.

SDG&E Response:

The COVID-19 pandemic may delay in-service dates, such impacts may include contractual Force Majeure notices and contractor and equipment availability.

In the case for the third-party contracts, cancellations have been due to cost increases that made projects uneconomic for the developers at the contract price, concerns about the ability to obtain local permits, and inability to obtain guaranteed deliverability for projects at reasonable cost and within the required timeframes.