**RE: Final Draft Tariff for Hybrid Resources Initiative**

The Clean Coalition strongly supports the Final Proposal, released by CAISO as part of the hybrid resources stakeholder process, which details requirements for Aggregate Capability Constraints ("ACC"). The revised tariff will increase operational flexibility for DER while abiding by the interconnection requirements of each of the respective IOUs. The addition of subordinate constraints to a project will allow for greater market participation, making DER deployments that were previously unfeasible possible due to an increased number of economic opportunities. Community Microgrids and Virtual Power Plants in particular, will be extremely benefitted by the implementation of this proposal, as will to a lesser degree, smaller sized aggregations. Clean Coalition comments aim to demonstrate the need for ACC to available for use as soon as possible and to request a clarification about how subordinate ACC might be changed for a project over time, should an off-taker become interested in a different revenue stream.

First, the Clean Coalition wishes to reiterate a question asked at the June 2, 2021, staff presentation; how soon will developers be able to request the addition of ACC(s) to a project? Since the software capabilities are available now, developers will want to take advantage of the regulatory changes as quickly as is reasonable. While implementation is a ways away given the need for approval by the EIM Governing Body, CAISO Board of Governors, and FERC, any way to expedite the process — with a waiver from FERC, for example — would be beneficial.

The Clean Coalition can personally attest to the added value that the implementation of the proposal will create for DER projects. We are partnering with the CEC and PG&E to deploy a front-of-meter ("FOM") merchant energy storage project in the Mission District of San Francisco. Called the Valencia Gardens Energy Storage ("VGES") project for the low-income senior housing apartment complex it will be deployed at, VGES will increase the hosting capacity of the feeder by close to 25%. As demonstrated by the single line diagram below, the original plan for VGES was to deploy a 2-BESS for a total of 1096 kWh.

VGES 2-BESS Single Line Diagram
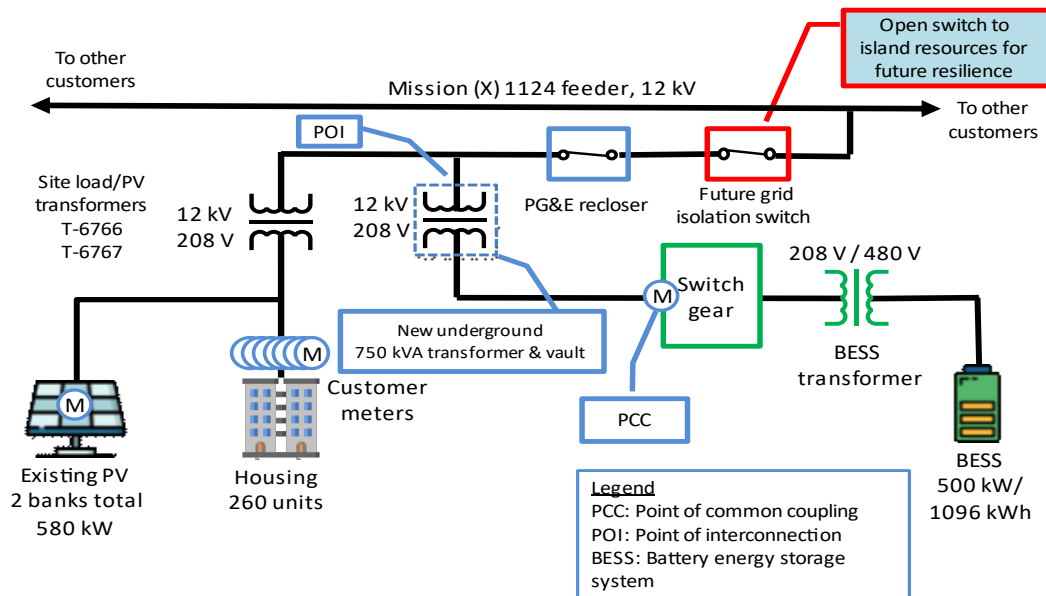
The solution was initially green lighted by PG&E, who only wanted to make sure that the project was not sized higher than 1 MW (to ensure that it would never be exporting more than 1 MW to the grid at any point). In the months after the Small Generator Interconnection Agreement ("SGIA") was signed, PG&E changed its stance to require that the entire project, including the already-deployed behind-the-meter ("BTM") solar PV, must not exceed 1 MW. Numerous solutions — both software and hardware — to limit the 2-BESS export potential were rejected before the Clean Coalition suggested a less complex 250 kW, 1-BESS design. The 1-BESS design is currently moving forward, albeit it represents only a fraction of the benefits to the grid of the original 2-BESS design.
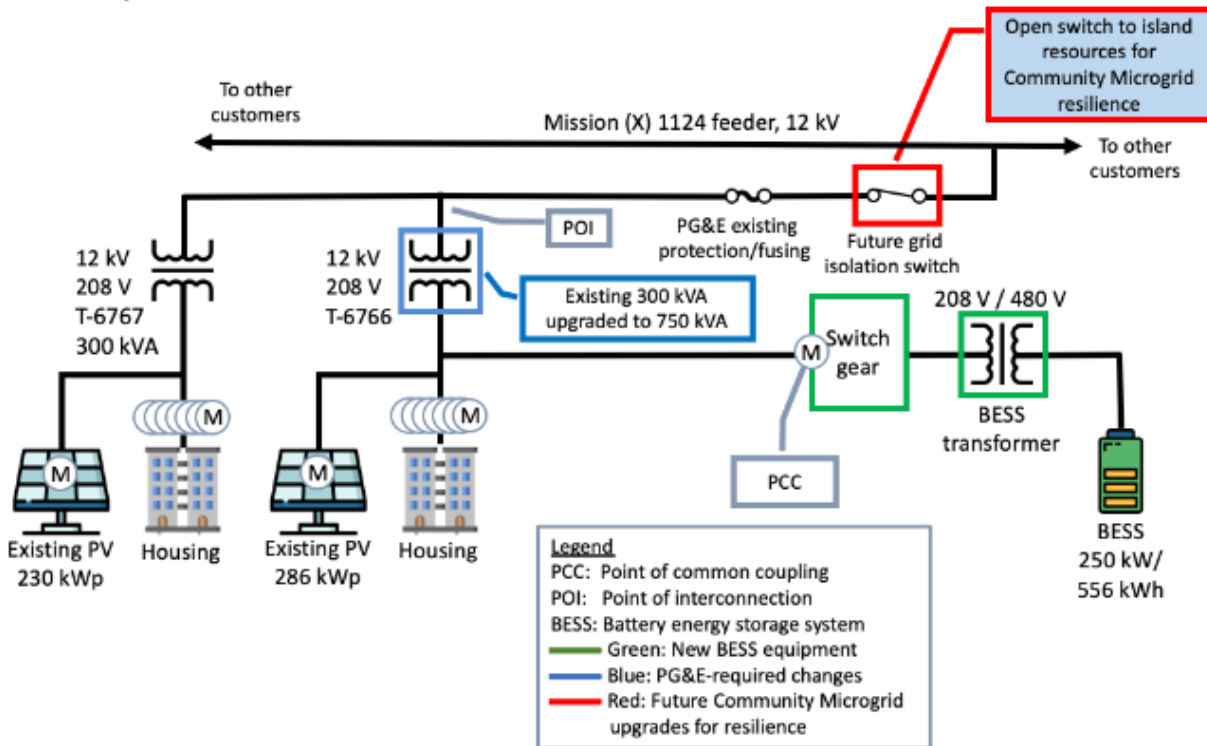
VGES 1-BESS Design

PG&E's 1 MW requirement was predicated on the name plate capacity of each of the resources, which does not reflect the true output exported to the feeder. For example, using the diagram above, neither of the two solar PV arrays ever reaches 100% discharge (230 kWp or 286 kWp). Moreover, since the BESS is a FOM system paired with BTM solar arrays, any export from the solar is essentially soaked up by the BESS. Therefore, the inclusion of subordinate ACC would have allowed the Clean Coalition to continue with the original SGIA and a 2-BESS system, with two subordinate constraints rather than shifting to a 1-BESS design.

Second, besides highlighting the benefits of the final proposal, the Clean Coalition wishes to request that the ISO put a procedure in place in the event that a resource owner wishes to change an existing ACC (or subordinate constraints). If it becomes more valuable to concentrate 100% of a resource in one market, rather than split components with contracts throughout multiple markets, there should be a formal method in place to contact the ISO and request that an ACC be removed. Since an ACC will only be approved so long as the entire project continues to abide by the existing POI limit, removal of a subordinate constraint should mainly be a software solution that can be achieved relatively quickly.

The Clean Coalition appreciates the opportunity to comment and urges the EIM Governing Body and the CAISO Board of Governors to approve the proposal.

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