Comments of Pacific Gas and Electric Company on the Regional Integration California Greenhouse Gas Compliance Issue Paper

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Introduction

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to offer comments to the CAISO on the Regional Integration California Greenhouse Gas (GHG) Compliance Issue Paper. Developing appropriate and effective mechanisms to address GHG in a multi-state balancing authority area is a complex and critical challenge, and PG&E looks forward to ongoing engagement as the initiative evolves. PG&E assessment of the issues in this initiative is guided by three objectives: (1) Affordability for California utility customers; (2) Efficient functioning of the wholesale market; and (3) Reducing GHG emissions in California and the larger market in which California is participating. PG&E urges the CAISO to also evaluate the affordability, market functionality, and emissions impacts of any potential approach, and to drive toward solutions that incorporate all three objectives.

At this stage in the process, PG&E recommends that the CAISO divide the scope of the Regional Integration California GHG Compliance initiative into two phases:

(1) Addressing issues in the current EIM, in coordination with relevant CARB processes; followed by

(2) Developing an EIM-aligned approach to reflect non-California GHG compliance requirements in a multi-state balancing authority area.

Within these phases, PG&E encourages the CAISO to focus on two principles:

(1) The importance of consistency across EIM and a multi-state balancing authority area; and

(2) Ensuring that the approach developed easily facilitates efforts between states to capture efficiencies by harmonizing GHG programs.

Comments

Two-phase approach

PG&E recommends that the CAISO work with stakeholders to address GHG regulatory compliance issues first in the current EIM and then in a potential multi-state balancing authority area. EIM design must be consistent with any day-ahead designs adopted in the future, and, as the CAISO notes, "resolution of [EIM] concerns may inform how to address similar concerns in connection with day-ahead GHG market design." Focusing first on existing issues within EIM will allow the CAISO and stakeholders to construct a solid foundation on which to build appropriate mechanisms for a multi-state day-ahead market.

Phase one

The first phase should focus on the current EIM, in which only California has GHG requirements at this time, and address:

- Ongoing coordination with CARB to address secondary emissions, or leakage. This work should include:
    - Clarifying, in consultation with CARB, a definition of leakage. PG&E suggests that an EIM leakage definition should align with the following: EIM leakage refers to GHG emissions that result from changes to the dispatch of resources in EIM Entities to support imports into California. EIM leakage includes (1) dispatch changes to provide energy to serve load in the EIM Entities that could have been served economically by the energy imported into the CAISO, and (2) dispatch changes to make transmission capacity available to allow EIM to dispatch resources whose energy is imported. Leakage should not include emissions resulting from changes to EIM dispatch made solely to optimize schedules across EIM Entities and not to support imports into California.
    - Incorporating the cost of leakage into EIM optimization. EIM outcomes should reflect the cost of leakage. The cost of leakage should be incorporated into the optimization so that EIM schedules imports into CAISO that are economic considering the GHG costs of leakage and the EIM prices faced by California load reflect the cost of leakage.
- Extending the leakage concept to a multi-state balancing authority area, if that expanded footprint is created but GHG regulation is not uniform across western states.

By the end of phase one, the CAISO, in consultation with CARB and stakeholders, will have settled outstanding GHG issues in EIM. Given the importance of maintaining consistency across EIM and an expanded day-ahead market, the phase-one process should also ensure that any solutions identified could be carried into a multi-state balancing authority area.

Phase two
A second phase is the more appropriate venue in which to consider treatment of non-California GHG reduction programs in a multi-state balancing authority area.

PG&E shares the CAISO's concern that, as more GHG programs within the expanded balancing authority area are adopted, "the complexity will increase and the transparency will decrease, which is very likely to lead to a less efficient achievement of carbon reduction goals." Though PG&E supports the CAISO's endeavor to anticipate and respond proactively to these challenges, it is unclear how the CAISO and stakeholders can effectively design a market to accommodate GHG reduction programs that do not yet exist. Until states participating in the multi-state balancing authority area adopt GHG programs, it is premature to develop methods that attempt to incorporate potential compliance requirements. Attempting to develop a market structure that would be flexible enough to accommodate an unknown range of GHG programs would be exceptionally difficult.

Principles

Throughout its efforts to address GHG in any multi-state construct, the CAISO should be guided by two key principles:

(1) It is critical to ensure consistent application of GHG regulation across both EIM and the day-ahead market of a multi-state balancing authority area.
PG&E urges the CAISO to apply any GHG mechanisms consistently to both the EIM and the day-ahead market of an expanded ISO footprint.

Systematic differences in treatment of GHG regulations in the day-ahead market in an expanded CAISO and in the real-time markets in EIM (and expanded CAISO) could lead to participants engaging in strategic bidding to exploit the differences, leading to inefficient outcomes. For example:

- EIM calculates GHG allowance requirements arising from flows into California, and incorporates the impacts in market prices. The day-ahead market in an expanded CAISO will also calculate GHG allowance requirements arising from flows into California, and incorporate the impacts in market prices. If the two mechanisms differ fundamentally, the ensuing systematic differences in results of the day-ahead and real-time markets could be exploited by market participants engaging in strategic bidding behaviors. By ensuring the day-ahead market in an expanded CAISO and the real-time market in EIM/expanded ISO treat and price GHG requirements on imports into California in a consistent fashion, this concern should be eliminated, or at least significantly mitigated.

- EIM is working to allow participants to offer energy at ties to external areas. Those participants will also be able to import energy into California. As such, they will be able to specify their GHG compliance cost for their emissions. A regional market should also allow participants to offer energy at ties to external areas. Those participants should be able to allow their energy to be imported into California and specify their cost of GHG allowances for their emissions. The mechanisms used in EIM and the expanded CAISO market should be consistent to prevent strategic bidding to exploit differences.

(2) Any approach developed should easily facilitate efforts between states to capture efficiencies by harmonizing GHG programs.

PG&E recognizes the potential complexity a regional ISO could face when incorporating multiple GHG programs in a single market. In addition to thinking through possible electric market design issues, PG&E also encourages consideration of electric market implementation issues when state GHG programs are being designed. In particular, PG&E encourages western states to consider consistent, linked GHG regulatory programs to meet EPA's Clean Power Plan (CPP) requirements and for the ISO to provide technical support to any such efforts, consistent with the role other ISOs (e.g., PJM, MISO) have performed. Such a consistent, linked program is likely to achieve given GHG goals at lower cost, ensure environmental integrity, and to make for simpler and more transparent implementation in electric markets.

If and when states participating in the multi-state balancing authority area plan to adopt GHG regulatory programs, and it therefore becomes possible to develop market design components to accommodate such changes, it will be critical that the CAISO help to highlight any potential for duplicative GHG costs, and make adjustments as needed.