

## DOCKETED

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*Additional submitted attachment is included below.*

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**VIA ELECTRONIC FILING**

California Energy Commission  
Dockets Office, MS-4  
Docket No. 15-IEPR-03  
1516 Ninth Street  
Sacramento, CA 95814-5512

Re: Docket 15-IEPR-03: Comments of Pacific Gas and Electric Company on the (1) Electricity and Natural Gas Demand Forecast: Revised Natural Gas Outlook and (2) Natural Gas Common Cases

**I. Introduction**

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to provide comments on the 2015 Revised Natural Gas Outlook (Outlook) and Natural Gas Common Cases (Common Cases) which were presented at the California Energy Commission's (CEC) September 21, 2015 workshop. The Outlook and the Common Cases include numerous refinements that PG&E supports. In these comments, PG&E highlights those areas and also provides a number of suggestions that may help further align forecasting methodologies.

The key points of PG&E's comments are as follows:

- PG&E agrees with the CEC's price blending for Henry Hub projects, as well as its use of a wider price range for the various market cases.
- The CEC Henry Hub forecast prices are much higher than most industry forecasts.
- The CEC forecast of gas production is overly conservative with supply unable to meet expected total demand growth.
- The Outlook should include a list of sectors for which the CEC anticipates California gas demand growth.
- The CEC should clarify if the gas demand forecast includes a 50 percent Renewable Portfolio Standard (RPS) and the significantly lower electricity demand forecast of the 2015 Integrated Energy Policy Report (IEPR).
- The CEC should clarify if an increased capacity into California from Malin is assumed in the gas supply forecast.

## **II. Henry Hub Price Projections**

PG&E agrees with the CEC's blending of NYMEX and NAMGas prices for Henry Hub price projections, as this approach helps eliminate discrepancies between futures prices and fundamentals projections during the near term. PG&E also supports the use of a wider price range for the various market cases, which helps capture future uncertainties.

However, the CEC forecast prices found on page 3 of the Outlook are much higher than most industry forecasts. The CEC's mid-demand case is approximately \$6.00/MMBtu compared to the industry's base forecast of \$4.00 to \$5.00/MMBtu for 2030. Natural gas production cost curves have declined significantly in recent years with increasing rig productivity in the Marcellus, Utica, and Haynesville regions, as shown by the Energy Information Administration (EIA).<sup>1</sup> PG&E recommends that the CEC revisit the assumptions and/or methodology used to compute the Henry Hub price forecast in light of this discrepancy.

## **III. United States Production Forecast**

The Outlook lists an 81 to 85 billion cubic feet per day (Bcf/d) forecast range for US gas production in 2030 for all three demand cases, which is lower than historical trends and the industry average.

- The High Demand case implies a 1.1 percent (or 0.9 Bcf/d) annual increase in production from 71 Bcf/d in 2014 for the next 15 years. In contrast, annual increases in US production for the past five years have averaged 5 percent or 3 Bcf/d.
- The Outlook's production forecast is on average 20 percent lower than the current industry forecast of 90 to 118 Bcf/d for 2030, with EIA's forecast at 90 Bcf/d.<sup>2</sup>

In view of increasing gas demand from the domestic market, LNG exports, and exports to Mexico, along with lower imports from Canada, the CEC's forecast of US production appears overly conservative and unable to meet expected total demand growth. PG&E suggests additional analysis on the US gas demand and production scenarios to address this phenomenon.

## **IV. California Gas Demand Forecast**

The CEC gas demand forecast on page 15 of the Common Cases shows declining demand of about 1 Bcf/d for the power generation sector through 2030 due to higher levels of renewable generation; however, the overall gas demand in California only decreases by 0.5 Bcf/d. This disparity implies an increase in gas demand from residential, commercial, and/or industrial

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<sup>1</sup> U.S. Energy Information Administration. *Drilling Productivity Report* (September 2015).  
<http://www.eia.gov/petroleum/drilling/>

<sup>2</sup> U.S. Energy Information Agency. *Annual Energy Outlook 2015 – Table 13: Natural Gas Supply, Disposition, and Prices*. (2015). [http://www.eia.gov/forecasts/aeo/tables\\_ref.cfm#supplement](http://www.eia.gov/forecasts/aeo/tables_ref.cfm#supplement)

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sectors, where growth opportunities seem to be limited. Therefore, PG&E suggests that this section of the Common Cases be updated to specify the sectors where the CEC sees growth in California gas demand.

Additional information on the Renewable Portfolio Standard (RPS) assumptions included in the current CEC forecast is also needed. It is unclear if the CEC forecast assumes a 33 percent or 50 percent RPS level for 2030 and, given recent legislation adopting a 50 percent RPS, updates to reflect this new standard may be needed. PG&E notes that a 50 percent RPS would further reduce electric generation demand for natural gas between 2020 and 2030.

It is also unclear if the gas demand forecast on page 15 of the Common Cases takes into account the expected 2015 IEPR forecast of electricity demand for California, which indicates significantly lower electricity demand for the State. Lower electricity demand would likely further lower expected demand for gas use for electric generation.

## **V. California Gas Supply Forecast**

Regarding the California gas supply forecast, the CEC's California Supply Portfolio forecast on page 16 of Common Cases implies higher flows at Malin than existing capacity for both the Reference and High Demand Cases. The respective cases result in 2.59 Bcf/d and 2.75 Bcf/d flows into California via Malin in 2025, although the current takeaway capacity from Malin is approximately 2.43 Bcf/d (2.2 Bcf/d on PG&E's Redwood Path and 0.23 Bcf/d on Tuscarora). The CEC should clarify if an increased capacity into California from Malin is assumed in the forecast.

## **VI. Conclusion**

We thank the CEC again for providing the opportunity to comment on the 2015 Revised Natural Gas Outlook and the Natural Gas Common Cases and appreciate the Commission's consideration of our comments. We look forward to continued collaboration on this topic.

Sincerely,

/s/

Nathan Bengtsson