Pacific Gas and Electric Company Securitization

A. 20-04-023

TURN HEARING EXHIBIT

TURN-33

PG&E Response to TURN Data Request 17, Questions 17, 18

PACIFIC GAS AND ELECTRIC COMPANY
Securitization 2020
Application 20-04-023
Data Response

PG&E Data Request No.:	TURN_017-Q01-30		
PG&E File Name:	Securitization2020_DR_TURN_017-Q01-30		
Request Date:	November 20, 2020	Requester DR No.:	TURN-PG&E-17
Date Sent:	December 4, 2020	Requesting Party:	The Utility Reform Network
PG&E Witness:	Q1-Q7: Bradford Cornell Q7: David Thomason Q8-Q9: Bradford Cornell Q10-Q15: Greg Allen Q16: Bradford Cornell, David Thomason Q17-Q18: Jan Berman Q19: David Thomason Q20: Bradford Cornell, David Thomason Q21: David Thomason Q22-Q24: Bradford Cornell Q25: David Thomason, Bradford Cornell Q26-Q27: David Thomason Q28: Jan Berman Q29-Q30: David Thomason	Requester:	Tom Long

GENERAL OBJECTIONS

1. PG&E objects to each request to the extent it seeks information protected from disclosure by the attorney-client privilege, the attorney work-product doctrine, or any other privilege or protection from disclosure. PG&E intends to invoke all such privileges and protections, and any inadvertent disclosure of privileged or protected information shall not give rise to a waiver of any such privilege or protection.

2. These responses are made without waiving PG&E's rights to raise all issues regarding relevance, materiality, privilege, or admissibility in evidence in any proceeding. PG&E reserves the right, but does not obligate itself, to amend these responses as needed based on any changes to PG&E's Application or the proposed securitization structure.

These shareholder contributions, combined with Customer Credit Trust Returns, are expected to not only equal the Fixed Recovery Charges in each billing period, but to generate a substantial surplus, which PG&E proposes to share with customers at the end of the life of the Trust, or sooner if the Commission so directs.

QUESTION 17

On page 11-5 of its rebuttal testimony, PG&E references load forecasts used by the California Energy Commission in modeling for the SB 100 joint agency report.

a. Confirm that the cited forecasts include all SB 100 obligated loads including those served by Investor Owned Utilities, Publicly Owned Utilities, and loads associated with state agencies.

b. Did the SB 100 Joint Agency report develop a separate forecast for PG&E's retail sales over the same timeframe? If so, provide that separate forecast applicable only to PG&E.

ANSWER 17

PG&E objects to this request to the extent it calls for speculation, and seeks information equally available to TURN. Subject to its objections, PG&E responds as follows:

a. Table 11-1 of Chapter 11, Rebuttal Regarding Load Growth (J. Berman), reflects the total electric load forecasts from 2027 through 2045 for the Reference, High Biofuels, High Electrification, and High Hydrogen scenarios set forth in Tables 9 through 12 of the Inputs & Assumptions: CEC SB 100 Joint Agency Report (June 2020) (CEC Inputs & Assumptions Report), at pages 11-13. PG&E does not have access to CEC workpapers underlying those load forecasts. The CEC Inputs & Assumptions Report states: "The primary source for load forecast inputs (both peak demand and total energy) is the CEC's 2019 Integrated Energy Policy Report (IEPR) Demand Forecast to 2030. The CEC's 2018 Deep Decarbonization in a High Renewable Future report, as well as the CPUC IRP PATHWAY modeling, are also used to provide long-term forecasts out to 2045." *Id.* at 7. PG&E believes that the identified sources cover Investor Owned Utilities, Publicly Owned Utilities, and loads associated with state agencies.

b. PG&E is not aware of a separate forecast for PG&E's electric retail sales related to the SB 100 Joint Agency Report.

QUESTION 18

On page 11-6 of its rebuttal testimony, PG&E cites an electricity demand forecast developed using the PATHWAYS model under a high electrification scenario.

a. Identify the complete set of Load Serving Entities or Balancing Area Authorities covered by this forecast.

b. Did this study develop a separate demand forecast for PG&E? If so, provide this forecast.

c. How are energy efficiency and behind-the-meter generation/storage technologies incorporated into the PATHWAYS demand forecast?

d. Provide any forecast included in the same study for natural gas demand over the same period.

ANSWER 18

PG&E objects to this request as vague and ambiguous. PG&E further objects to this request to the extent it calls for speculation, and seeks information equally available to TURN. Subject to its objections, PG&E responds as follows:

a. The CEC Energy Research and Development Division Final Project Report, *Deep Decarbonization in a High Renewables Future, Updated Results from the California PATHWAYS Model* (June 2018) (Deep Decarbonization Report), describes the coverage for the electricity sector analysis as follows: "the geographic scope of the analysis was expanded from the California ISO footprint to a California statewide footprint." *See* p. 26. As set forth in Chapter 11, Rebuttal Regarding Load Growth (J. Berman), this report is publicly available at https://ww2.energy.ca.gov/2018publications/CEC-500-2018-012/CEC-500-2018-012.pdf.

b. PG&E is not aware that the study developed a separate electric demand forecast for PG&E.

c. PG&E refers TURN to the Deep Decarbonization Report, which is publicly available at the link provided in response to part b. The energy efficiency assumptions vary by scenario and are detailed on pages 12 to 20 of the report. The High Electrification Scenario assumptions, including energy efficiency and rooftop solar, are shown in Tables 4 and 5 on pages 18 and 19.

Table 4: Key 2030 Metrics for the High Electrification Scenario

Pillar of GHG Reductions	Sector & Strategy	High Electrification Scenario, 2030 assumptions
Efficiency	Building electric & natural gas efficiency	10% reduction in total building energy demand relative to 2015. Same level of non-fuel substitution energy efficiency as the SB 350 Scenario in non-heating sub-sectors. Additional efficiency is achieved through electrification of space heating and water heating.
	Transportation smart growth and fuel economy	New gasoline ICE light-duty autos average 45 mpg, 12% reduction in light-duty vehicle miles traveled relative to 2015, 5-6% reduction in shipping, harbor-craft & aviation energy demand relative to Reference
	Industrial efficiency	20% reduction in total industrial, non-petroleum sector energy demand relative to 2015, additional 14% reduction in refinery output relative to 2015
Electrification	Building electrification	50% new sales of water heaters and HVAC are electric heat pumps
	Zero-emission light-duty vehicles	6 million ZEVs (20% of total): 1.5 million BEVs, 3.6 million PHEVs, 0.8 million FCEVs, >60% of new sales are ZEVs
	Zero-emission and alternative fueled trucks	10% of trucks are hybrid & alternative fuel (4% are BEVs or FCEVs), 32% electrification of buses, 20% of rail, and 27% of ports; 26% electric or hybrid harbor craft
Low carbon fuels	Zero-carbon electricity	74% zero-carbon electricity, including large hydro and nuclear (70% RPS), Storage Mandate + 6 GW additional storage, 20% of key building end uses and 50% of LDV EV charging is flexible
	Advanced biofuels	2.8 billion gallons of gasoline-equivalent (10% of gasoline, diesel, jet fuel and other non-electric energy demand); 49 million Bone Dry Tons of biomass: 57% of population-weighted share excluding purpose-grown crops
Non-combustion GHGs	Reductions in methane and F-gases	34% reduction in methane emissions relative to 2015, 43% reduction in F-gases relative to 2015, 19% reduction in other non-combustion CO_2 & N_2O

Table 5: Key 2050 Metrics for the High Electrification Scenario

Pillar of GHG Reductions	Sector & Strategy	High Electrification Scenario, 2050 assumptions
Efficiency	Building electric & natural gas efficiency	34% reduction in total (natural gas and electric) building energy demand, relative to 2015. Savings are achieved via conventional efficiency and building electrification.
	Transportation smart growth and fuel economy	24% reduction in per capita light-duty vehicle miles traveled relative to 2015, plus shipping, harbor-craft & aviation energy demand 2030 measures
	Industrial efficiency	20% reduction in total industrial, non-petroleum sector energy demand relative to 2015, 90% reduction in refinery and oil & gas extraction energy demand
Electrification	Building electrification	100% new sales of water heaters and HVAC are electric heat pumps; 91% of building energy is electric (no building electrification is possible, but requires higher biofuels or power-to-gas), Moderate electrification of agriculture HVAC
	Zero-emission light-duty vehicles	35 million ZEVs (96% of total): 19 million BEVs, 11 million PHEVs, 5 million FCEVs, 100% of new sales are ZEVs
	Zero-emission and alternative fueled trucks	47% of trucks are BEVs or FCEVs (31% of trucks are hybrid & CNG); 88% electrification of buses, 75% of rail, 80% of ports; 77% of harbor craft electric or hybrid
Low carbon fuels	Zero-carbon electricity	95% zero-carbon electricity (including large hydro), 84 GW of utility scale solar, 29 GW of rooftop solar, 52 GW out-of-state wind, 26 GW incremental storage above storage mandate, 80% of key building end-uses is flexible and 90% flexible EV charging; H_2 production is flexible
	Advanced biofuels	4.3 billion gallons of gasoline-equivalent (46% of gasoline, diesel, jet fuel and other non-electric energy demand); 64 million Bone Dry Tons of biomass: 66% of population-weighted share excluding purpose-grown crops
Non-combustion GHGs	Reductions in methane, F-gases and other non-combustion GHGs	42% reduction in methane emissions relative to 2015 83% reduction in F-gases relative to 2015 42% reduction in other non-combustion CO_2 & N_2O

d. PG&E refers TURN to the Deep Decarbonization Report, which is publicly available at the link provided in response to part b. Figure 7: Final Energy Demand by Fuel Type in the High Electrification Scenario, at page 31 of the report, includes natural gas and biogas.

Figure 7: Final Energy Demand by Fuel Type in the High Electrification Scenario