DOCKETED	
Docket Number:	18-IEPR-01
Project Title:	2018 Integrated Energy Policy Report Update
TN #:	224459
Document Title:	PG&E Comments on 18-IEPR-01 (CEC DAWG Transportation Workshop)
Description:	N/A
Filer:	System
Organization:	Jim Himelic/PG&E
Submitter Role:	Public
Submission Date:	8/10/2018 11:05:37 AM
Docketed Date:	8/10/2018

Comment Received From: Jim Himelic
Submitted On: 8/10/2018
Docket Number: 18-IEPR-01

PG&E Comments on 18-IEPR-01 (CEC DAWG Transportation Workshop)

Additional submitted attachment is included below.

Feedback Form for Recommendations on LDV Scenario Inputs

Please fill in any rows you would like to provide input on by listing the variables' "input scenario" you most believe represent low, most likely (mid) and/or high cases, referring to the scenario chart presented at the Wednesday's presentation and **attached as pdf to the email**. Please indicate either trends you foresee, or expected 2030 levels. If you believe that none of the CEC-presented scenarios represent your belief, please feel free to write a comment on the scenario you think we should consider.

For example, if you think it is possible, but not most likely, that PEVs will cost the same as ICEs by 2030, please put "Price Parity by 2030" in the Vehicle Price HIGH column.

Scenario Name	Low PEV	Mid PEV	High PEV	Additional Comments:
Gasoline Prices				
Natural Gas Prices				
Electricity Prices	Price>0.3 $/kWh	Price = 0.2-0.3 $/kWh	price<0.2 $/kWh	• Include the impact of RPS targets on electricity prices • Factor in the relative effect of gasoline prices compared to electricity prices
Rebates				• If possible, account for utility rebates in the fx model. For example, PG&E offers EV owners a $500 rebate when they purchase an EV as part of the state's LCFS program.
Tax Credits				
HOV Lane Access				
Vehicle Classes	Commuter and compact only	Limited SUVs, cross-over	Cover all classes, even if less # of models compared to ICE	
Vehicle Price	EV price is ~150% compared to ICE (current status)	EV price is ~100% compared to ICE	EV price is ~90% compared to ICE	• Factor in relative effect of rebates, tax credits, and other incentives. This is the "effective" or "perceived" price, after accounting for all above.
Fuel Economy				
Maintenance Cost				
Range			400 mile (comparable to ICE)	Two important considerations related to range: • Average EV range (for all vehicle models)

				• Portfolio / diversity of available ranges to meet wide customer preferences (availability of low-range EV for lower price)
Acceleration				• We don't believe this is an important metric to consider for EV adoption specifically • However, it could be a relevant feature while modeling EV car-Models as it is related to consumer preferences
# of Makes and Models	30% of ICE models	60% of ICE models	90% of ICE models	
Refueling Time				• We propose modeling "refueling rate" (kWh per unit of time) instead of "refueling time"; the latter is dependent on the battery capacity, which in turn is dependent on vehicle type and consumer preference. Better to decompose the effects of all these variables, if possible • Differentiate between two different behavioral needs for charging: (1) "rushed" charging (e.g. in public), and (2) "non-rushed" charging (e.g. at home). Model distinct refueling rate for each behavioral need, and account for the frequency at which drivers need each type of refueling.
Time to Refuel Station	>30min away from intended destination	15-30min away from intended destination	<15min away from intended destination (comparable to current gasoline stations)	

Market Segments	PG&E assumed: 9% annual growth rate of market	PG&E assumed: 12% annual growth rate of market
		
		Current Rideshare status is estimated at about 1% of the LDV market in PG&E territory. We have taken this to be independent of PEV or not-PEV
			PG&E assumed: 16% annual growth rate of market	• Consider use cases or market segments, such as the rapidly-growing rideshare community.
				  ○ Rideshare LDVs can drive as much as 4x as far per day than the traditional LDV owner, but that isn't likely to have been captured yet in VMT surveys more than a few years old
				  ○ Rideshare LDVs are not yet commercial (like the cab companies), and tend to charge at least part of their EV usage at home, so parsing between Res and non-Res charging behavior will be challenging
				  ○ Autonomous ride share is coming, so need to begin thinking about how to forecast charging behavior and opportunities