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## Proposed Changes to Final 2019 Integrated Energy Policy Report

# For Consideration at the February 20, 2020 California Energy Commission Business Meeting

Page numbers refer to the report posted on January 31, 2020, that does not show changes in underline-strikeout (docket number 19-IEPR-01, TN# 231883). <u>Added</u> text is shown in underline; deleted text shown in strikeout.

### Executive Summary, p. 4

Transportation Electrification Is Critical Zero Emission Vehicles are Critical

#### **Executive Summary, p. 5**

These efforts have helped California become the largest ZEV market in the nation with nearly 700,000 more than 650,000 ZEVs on the road and nearly half of the U.S. annual sales.

#### Chapter 2, p. 45

CEC research shows that indoor use of natural gas cooking burners elevates risks of carbon dioxide and nitrous oxide emissions, negatively impacting indoor air quality. The study also found that these pollutants can be controlled with an appropriately sized venting range hood or other kitchen exhaust ventilation that meets minimum airflow and configuration specifications. It is unclear what percentage of existing California kitchens with natural gas cooking burners have range hoods or kitchen exhaust ventilation that meet these specifications.

#### Chapter 6, p. 184, footnote 471

SoCalGas Winter 2019/2020 Technical Assessment,

https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-IEPR-09, TN# 230065. SoCalGas assumes a 10 to 15 percent discounting of pipeline supply depending on the scenario. The joint agencies including the CEC rejected SoCalGas' proposal to discount pipeline supplies by 15 percent in April 2017 and began producing their own technical assessments separate from SoCalGas. Staff recognizes that customers choose how much gas to deliver. Staff relies on the long-standing treatment of receipts used in the utilities' California Gas Report and has not accepted SoCalGas' request to discount pipeline supply in staff's analysis of the utility's system to use assumptions that automatically show an increased need for withdrawals from Aliso Canyon. In general, SoCalGas' analysis is more conservative due to the discounting of pipeline supply and shows noncore curtailments in the cold weather case with both lines in service whereas CEC's analysis does not. Staff recognizes that if customers do not bring in supply or are unable as in the scenario with both lines out of service, the risk of noncore curtailments increases.

#### **Chapter 9, p. 238**

A publication released in September 2019 by Gridworks references the E3 study and urges the state to initiate an integrated, interagency long-term transition plan for the state's gas system with the goal of minimizing costs and risks for all. Furthermore, the Southern California Edison study, Pathway 2045 estimates that a small number of gas generators will still be necessary in the future for grid reliability. The study also asserts that at least 40 percent of the remaining gas in 2045 will need to be low-carbon fuels such as biomethane or hydrogen. Finally, <a href="Lawrence Livermore National Laboratory released a report in January 2020 detailing three pathways California could take to achieve carbon neutrality by 2045 (1) increase the uptake of carbon in its natural and working lands, (2) convert waste biomass into fuels and store carbon dioxide emissions associated with fuel processing, and (3) remove carbon dioxide directly from the atmosphere with purpose-built machines.\*\*

<u>In addition</u>, the CPUC initiated a process to prepare for the decline in natural gas and the state's transition to other energy sources.

\*\*new footnote: Lawrence Livermore National Laboratory, Getting to Neutral: Options for Negative Carbon Emissions in California, January 2020, https://www-gs.llnl.gov/content/assets/docs/energy/Getting\_to\_Neutral.pdf.

Appendix D, p. D-1, Table 42 Correcting a formatting issue in the table to add a new row for "Anaheim."

Table 42: Summary of POUs' Integrated Resource Plan Resource Mix

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POU Name	Generation by POU and Resource Type (GWhs)	Generation by POU and Resource Type (GWhs)	Generation by POU and Resource Type (GWhs)	Generation by POU and Resource Type (GWhs)	Percentage of Total Energy, by Year and POU					
Anaheim	2018	2019	2025	2030	2018	2019	2025	2030		
<u>Anaheim</u>										
Solar	7	7	123	122	0%	0%	5%	5%		
Other Renewables	366	370	372	759	16%	16%	16%	33%		
Wind	169	169	56	131	7%	7%	2%	6%		
Large Hydro	38	38	38	38	2%	2%	2%	2%		
Coal	1,086	1,141	1,097	0	47%	50%	48%	0%		
Natural Gas	873	866	746	794	38%	38%	33%	35%		
Net Market Purchases	-247	-297	-157	427	-11%	-13%	-7%	19%		
Anaheim Total	2,292	2,294	2,275	2,272	100%	100%	100%	100%		
Burbank										
Solar	98	91	268	264	8%	8%	22%	22%		
Other Renewables	48	60	60	60	4%	5%	5%	5%		
Wind	54	76	465	404	4%	6%	39%	33%		
Energy Storage	0	0	0	106	0%	0%	0%	9%		
Large Hydro	19	21	21	22	2%	2%	2%	2%		
Nuclear	81	86	86	86	6%	7%	7%	7%		
Coal	444	455	180	0	35%	38%	15%	0%		
Natural Gas	472	586	507	466	37%	49%	43%	38%		