



Enel X Insights

April 2020 California Monthly Market Commentary



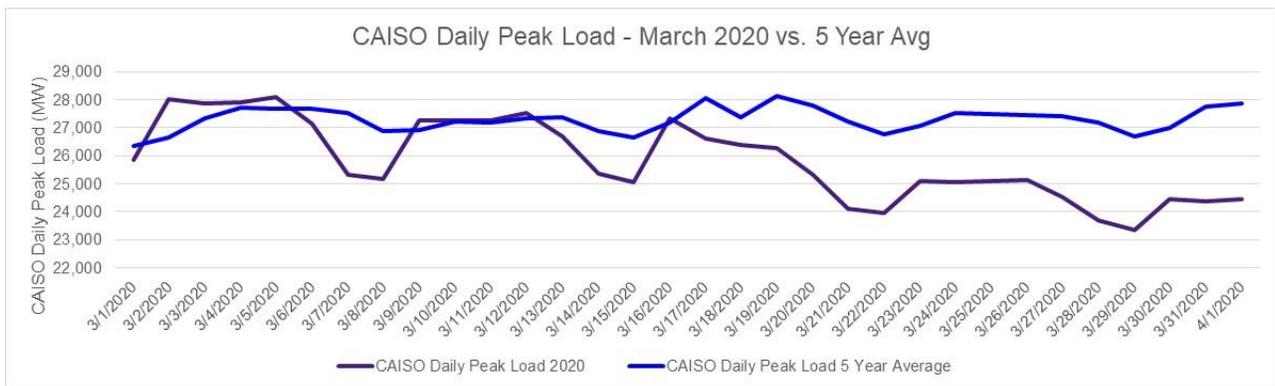
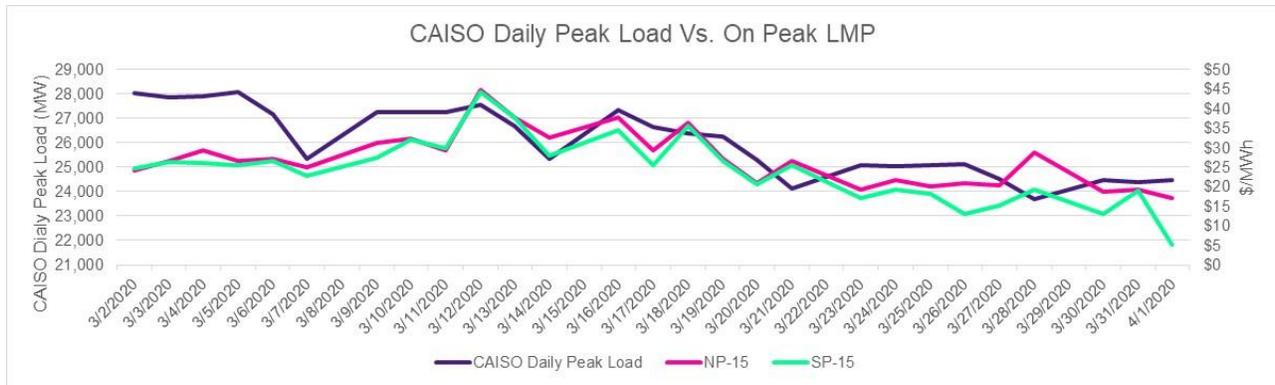
California

COVID-19's Effect on California's Energy Landscape

On March 19, California Governor Gavin Newsome issued a state-wide shelter-in-place order in an effort to mitigate the growing COVID-19 pandemic. While local authorities within the state had issued similar regulations in the weeks prior, the executive order halted many commercial and industrial operations throughout the state. In addition to the immediate impact on the lives of California residents, the virus fallout has had a dramatic effect on the current and future energy landscape in the state.

What is the impact on power demand & prices?

- The immediate closure of retail stores, offices, and a significant portion of manufacturing operations has notably reduced electricity demand throughout the grid. Since the shelter in place order on March 19, daily peak load has fallen between 10-13% compared to the 5-year average. The drop in peak demand has subsequently lowered spot prices in both northern and southern California. From March 19 through the end of the month, real time spot prices in NP-15 and SP-15 have averaged 31% and 41% lower respectively compared to the first 18 days of March. Electricity demand is expected to stay substantially lower than historical averages, and with the anticipated seasonal load reduction of the spring shoulder month ramping up, further downward pressure will likely be applied to spot electricity prices throughout the state.



What are utilities doing?

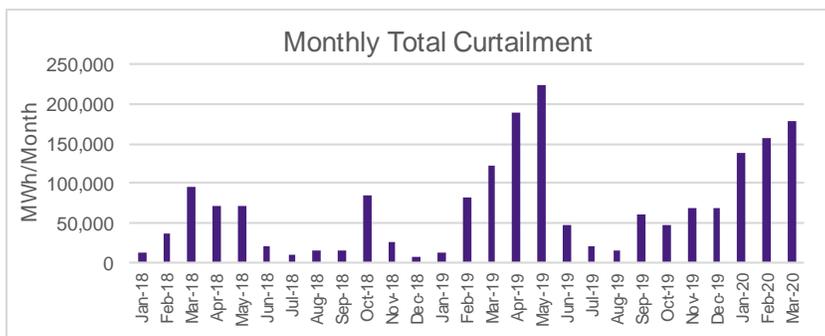
- In the Governor’s executive order that specifically outlines in the professions considered essential, a majority of utility roles are exempt from the shelter-in-place order to maintain the state of the grid. Pacific Gas and Electric (PG&E), San Diego Gas and Electric (SDG&E), and Southern California Edison (SCE) have added sections to their websites detailing their responses to the pandemic ([PG&E](#), [SDG&E](#), [SCE](#)). In their responses, both PG&E and SCE highlight that tree trimming and wildfire mitigation plans are considered essential and they will continue to prepare for the upcoming wildfire season expected later this year. All three of the state’s major utilities have announced that there will be no service disconnections for customers unable to pay invoices in a timely manner.

How will this impact the state’s renewable goals?

- According to a recent study by the environmental intelligence group Aclima ([Bay Area Air Pollution During COVID-19](#)), the San Francisco Bay Area has shown a 10% reduction in CO2 emissions since their shelter-in-place order. While the immediate effect is a reduction in greenhouse gas emissions, the disruption to the supply chains will likely delay the development and installation of solar projects. Research group Wood Mackenzie recently projected that between 2 – 5 gigawatts of utility-scale solar projects could be delayed to “late 2020 or even 2021,” ([WoodMac: Coronavirus Could Delay Construction of 5 Gigawatts of US Utility-Scale Solar](#)). Should disruptions to solar supply chains persist into 2021 the state’s goal of 100% renewable power generation by 2045 could face significant challenges.

CAISO Energy Curtailments

Curtailments have become an unsettling regularity for California, particularly in the spring and fall when comfortable weather conditions result in little heating or cooling demand. As of March 31, CAISO has curtailed 474,141 MWh of generation year-to-date, 118% higher than the same time last year. As curtailments increase this spring, customers who have some exposure to real-time or day-ahead energy markets, can expect greater spot market volatility and higher prices in early evenings.



CAISO Total Curtailments (MWh)		
	Monthly Total	Year to Date
March-19	122,225	217,599
March-20	179,080	474,141
YOY Variance	+47%	+118%

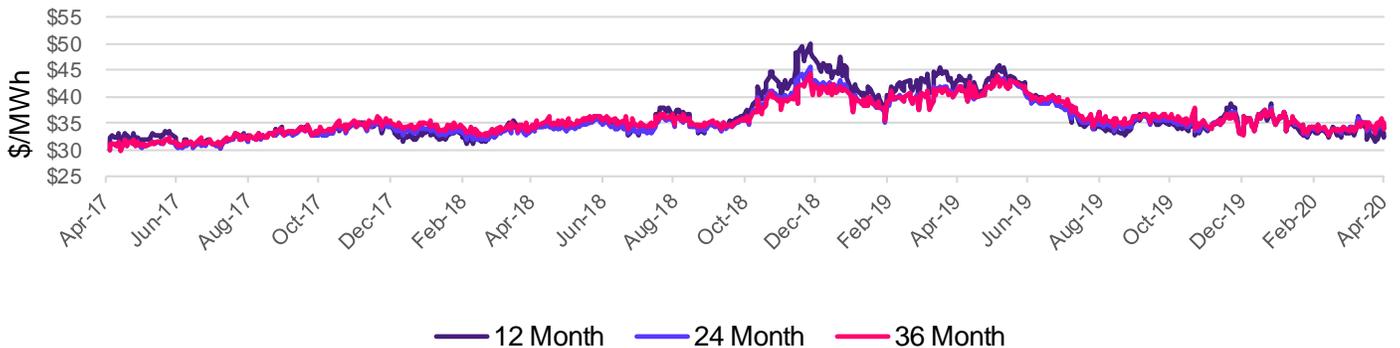
Source: [CAISO Wind and Solar Curtailment totals by Month](#)



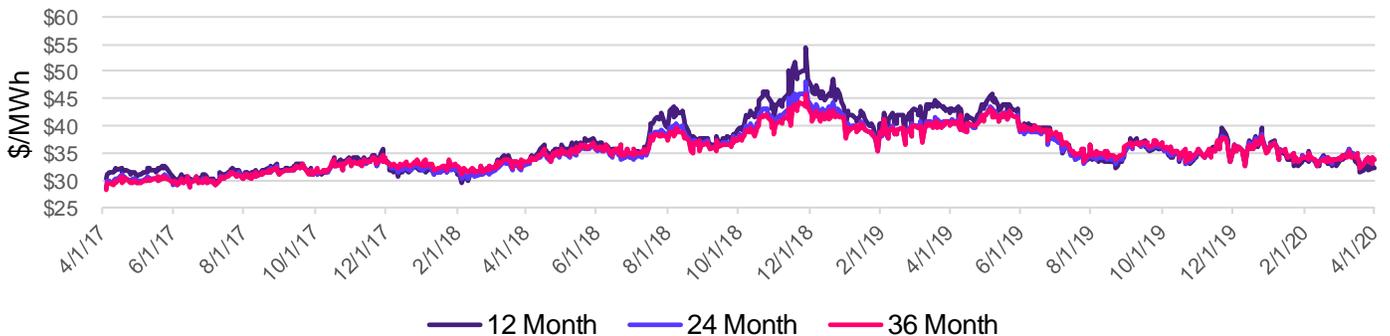
Regional Electricity Pricing Update

March LMP prices in both Northern California (NP15) and Southern California (SP15) were trending to increase dramatically month over month for the first time since October 2019 prior to the state-wide shelter-in-place order. Since the order, NP-15 spot prices averaged 26% lower and SP-15 averaged 32% lower. Overall average monthly spot prices for NP-15 in March were 11% below the 5-year average and 27% below this time last year. As of April 2, NP-15 and SP-15 12-month rolling strips were trading in the 19th and 13th percentile respectively, relative to the trading range over the past three years. As the shelter-in-place order's timeline continues to extend, residents in the state can expect to see historically low spot price electricity with narrowing volatility as the variance between mid-day and evening demand decreases.

NP-15 ATC Forward Strip



SP-15 ATC Forward Strip





Average Monthly Day Ahead LMP - NP15							
	2014	2015	2016	2017	2018	2019	2020
Jan	\$46.07	\$33.40	\$28.54	\$34.90	\$32.94	\$41.09	\$31.19
Feb	\$61.99	\$30.71	\$24.01	\$29.23	\$30.47	\$75.58	\$26.34
Mar	\$47.63	\$30.72	\$19.60	\$22.12	\$30.06	\$36.63	\$26.58
Apr	\$47.48	\$32.27	\$21.23	\$22.13	\$24.91	\$22.25	
May	\$46.67	\$32.69	\$20.76	\$29.28	\$20.75	\$18.46	
Jun	\$45.42	\$34.64	\$28.09	\$33.12	\$28.14	\$22.94	
Jul	\$47.23	\$35.54	\$32.80	\$35.84	\$54.89	\$30.28	
Aug	\$46.49	\$34.32	\$34.85	\$45.20	\$49.84	\$31.82	
Sep	\$45.45	\$34.46	\$34.66	\$39.72	\$33.42	\$34.55	
Oct	\$44.73	\$32.49	\$34.03	\$41.19	\$43.74	\$36.32	
Nov	\$45.12	\$29.41	\$30.17	\$36.27	\$52.40	\$41.51	
Dec	\$37.52	\$28.65	\$36.60	\$34.22	\$54.17	\$39.82	
Avg.	\$46.81	\$32.44	\$28.78	\$33.60	\$37.98	\$35.94	\$28.03

Average Monthly Day Ahead LMP - SP15							
	2014	2015	2016	2017	2018	2019	2020
Jan	\$46.47	\$33.51	\$28.18	\$33.55	\$34.37	\$39.96	\$31.22
Feb	\$61.70	\$30.05	\$22.99	\$26.39	\$34.24	\$70.89	\$25.67
Mar	\$47.60	\$29.00	\$18.05	\$21.75	\$30.53	\$36.02	\$24.99
Apr	\$44.71	\$27.93	\$18.44	\$24.80	\$24.88	\$23.52	
May	\$45.85	\$27.21	\$21.01	\$28.35	\$21.65	\$18.43	
Jun	\$45.25	\$33.94	\$29.95	\$32.80	\$28.17	\$23.07	
Jul	\$47.75	\$36.02	\$34.29	\$36.70	\$75.43	\$31.52	
Aug	\$45.89	\$35.69	\$34.93	\$45.35	\$69.73	\$32.84	
Sep	\$46.65	\$34.76	\$32.89	\$38.43	\$35.33	\$36.08	
Oct	\$45.17	\$32.62	\$33.06	\$41.09	\$38.88	\$34.36	
Nov	\$44.98	\$28.86	\$27.79	\$39.51	\$51.59	\$42.03	
Dec	\$37.87	\$28.09	\$33.95	\$39.12	\$52.93	\$40.24	
Avg.	\$46.66	\$31.47	\$27.96	\$33.99	\$41.48	\$35.75	\$27.29



Regional Natural Gas Pricing Update

Natural gas spot prices in both Northern and Southern California declined once again month-over-month in March, falling 3.2% and 16.9%, respectively. According to the EIA, as of the week ending 3/27, storage levels in the Pacific remained below the 5-year average, in sharp contrast to the national trend.¹ However, the relatively low spot settles in the region indicate that the region was still well-supplied in March. Increased demand in April could lead to higher prices given continued undersupply relative to the five-year average. However, a decrease or maintenance of current demand levels would likely lead to continued low spot prices.

CA HUB	Month over Month			Year over Year	
	Mar-20	Feb-20	MoM % Chg	Mar-19	YoY % Chg
PGE Gate	2.563	2.647	-3.2%	4.006	-36.0%
Socal City Gate	2.069	2.489	-16.9%	4.761	-56.5%
Hub Average	2.316	2.568	-9.8%	4.384	-47.2%

For questions or further discussion about these topics, please contact your Enel X Energy Advisor or talk to an [Energy Sourcing Expert](#).

¹ <http://ir.eia.gov/ngs/ngs.html>