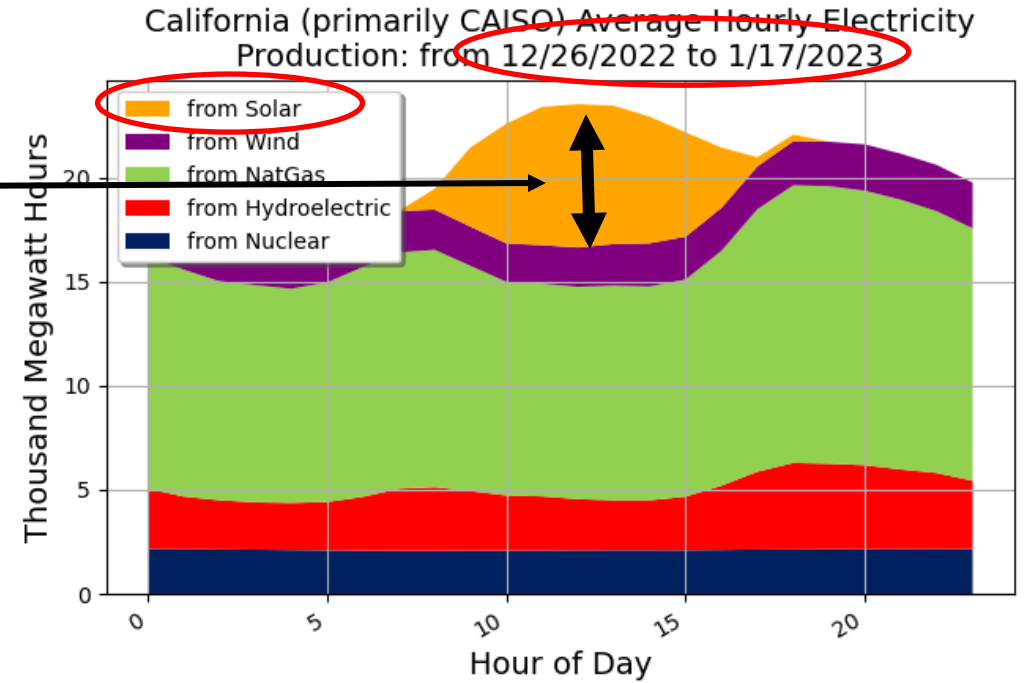
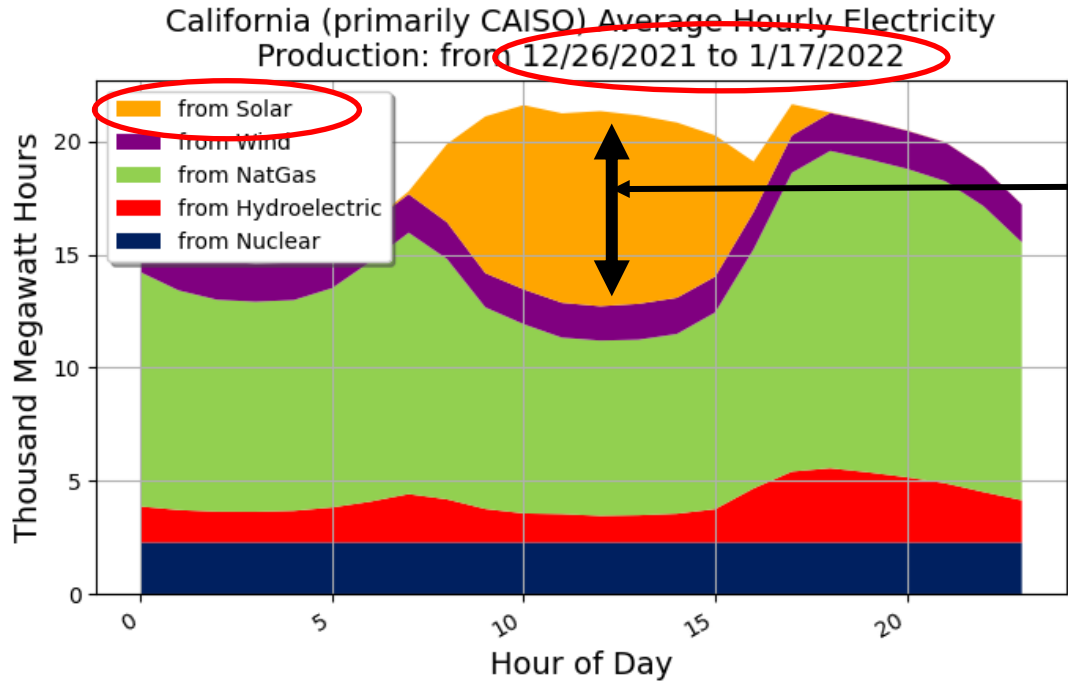




Chart of the Week #2023-04 **California Solar Generation** **During the 2022-2023** **Pineapple Express**

Larry Goldstein
Max Pyziur
January 25, 2023
Washington, DC

Comparing California Solar Generation During the 2022-2023 Pineapple Express



Analysis based on Hourly EIA Data

@EPRINC_DC - Jan 24, 2023

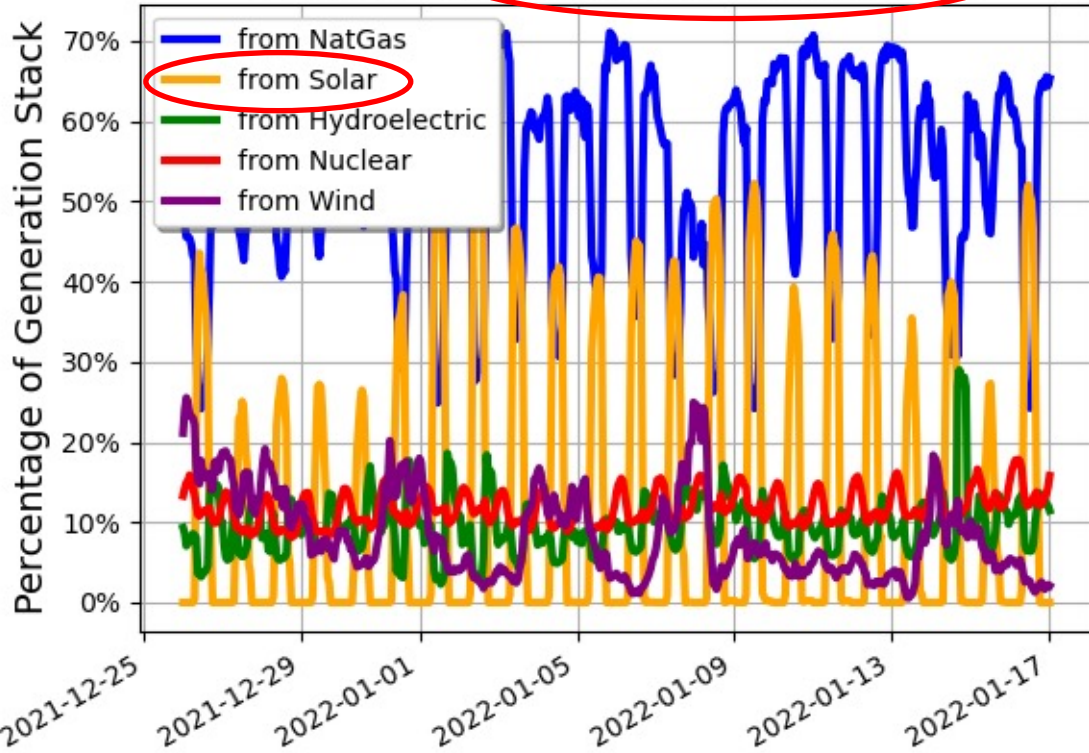
Analysis based on Hourly EIA Data

@EPRINC_DC - Jan 24, 2023

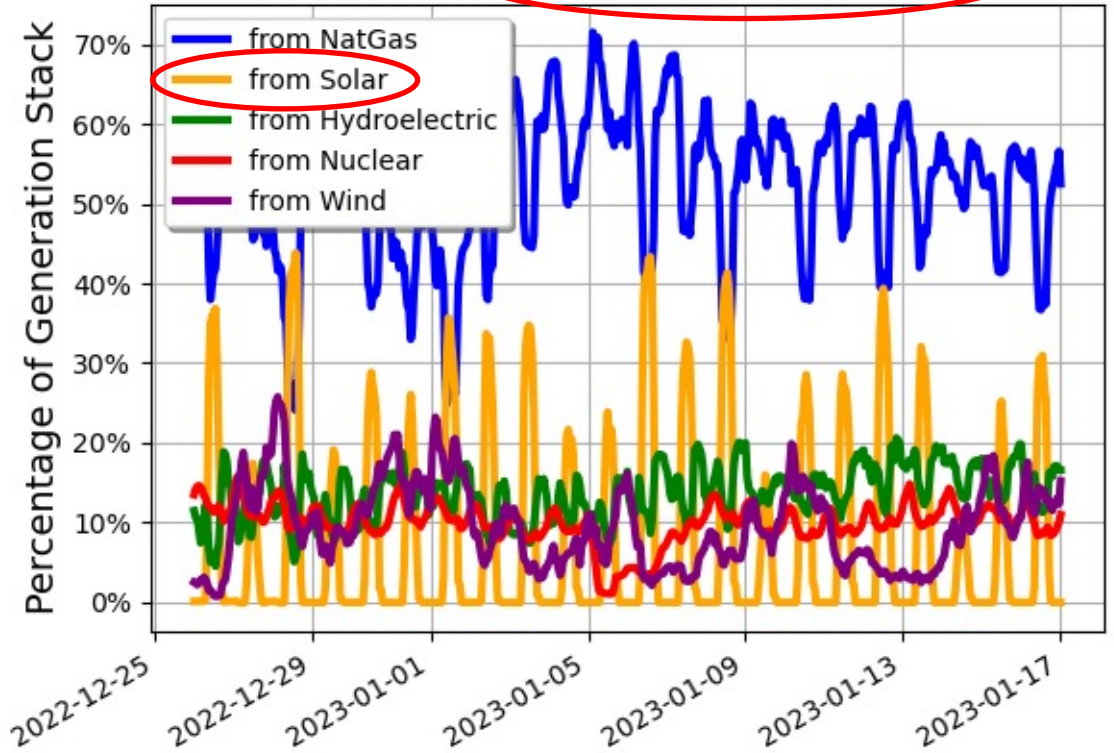
Comparing California Solar Generation During the 2022-2023 Pineapple Express



California (primarily CAISO) Hourly Electricity Production: 12/26/2021 to 01/17/2022



California (primarily CAISO) Hourly Electricity Production: 12/26/2022 to 01/17/2023



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Analysis based on Hourly EIA Data

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Comparing California Solar Generation During the 2022-2023 Pineapple Express



- Once or twice over the course of a decade during the months of December and January, large-scale flows of warm moist air and associated heavy precipitation deluge the Western United States, specifically California.
- Dubbed the "Pineapple Express" because of its origins near Hawaii, this meteorological phenomenon generally leads to large amounts of extended rainfall and snowfall across a large landscape that is typically arid.
- From December 26, 2022, through January 17, 2023, the Pineapple Express returned. Communities such as Santa Cruz, California received 36.18 inches of rain whereas 12 inches is normal for the combined months of December and January. Heavy snowfall took place across the Sierra Nevadas, including 47 inches at Tahoe City.
- Installed utility-scale solar generation capacity in California is formidable at 15,500 megawatts, more than any other state. However, capacity utilization is considerably diminished in December and January, dropping to 15% even when sunlight is available for the full duration of the shortened days.
- Where California generated an average of 8.5 thousand megawatts at midday (or between 40% to 52% of total generation) in the 2021-2022 period, this average was 6.9 thousand megawatt hours (or between 20% to 40% of generation) during the 2022-2023 Pineapple Express.
- This slide deck is available on the [EPRINC Website](#)
- For more information on this chart, please contact Larry Goldstein (larryg@eprinc.org) or Max Pyziur (maxp@eprinc.org).