

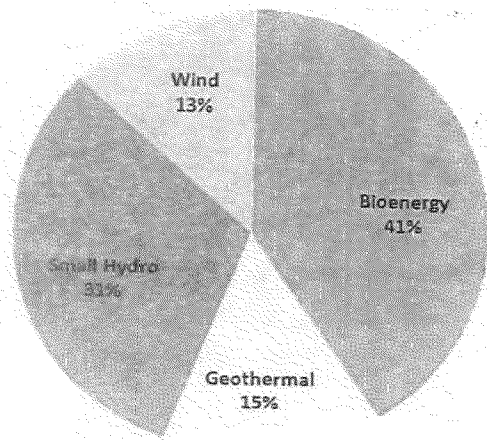


Renewable Portfolio: Past, Present, and Future

Solar represents the vast majority of the growth in the RPS portfolio

2002 Actual

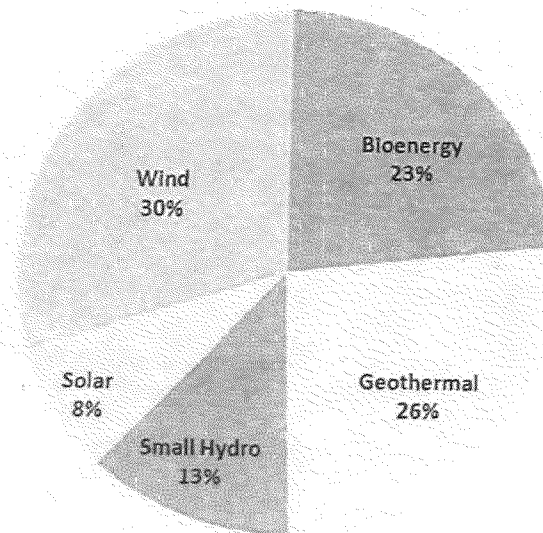
11% of total bundled retail sales



Total RPS-Eligible Procurement
7,504 GWh

2012 Preliminary Actual

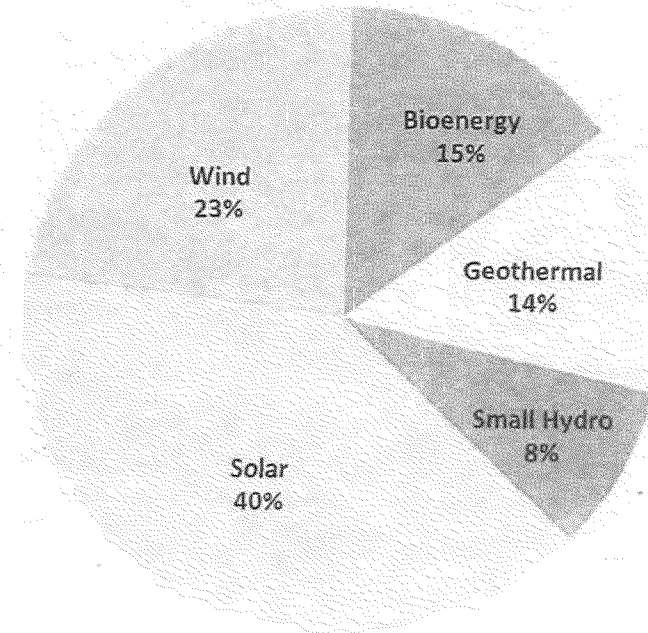
19% of total bundled retail sales



Total RPS-Eligible Procurement
~14,000 GWh

2020 Projected

33% of total bundled retail sales



Projected RPS-Eligible Procurement
~26,000 GWh

Data Sources: PG&E's 2002 Corporate Environmental report, PG&E's Preliminary 2012 RPS Volumes Report, and PG&E's Spring 2012 Long-Term Rate Forecast. Last updated March 06, 2013.

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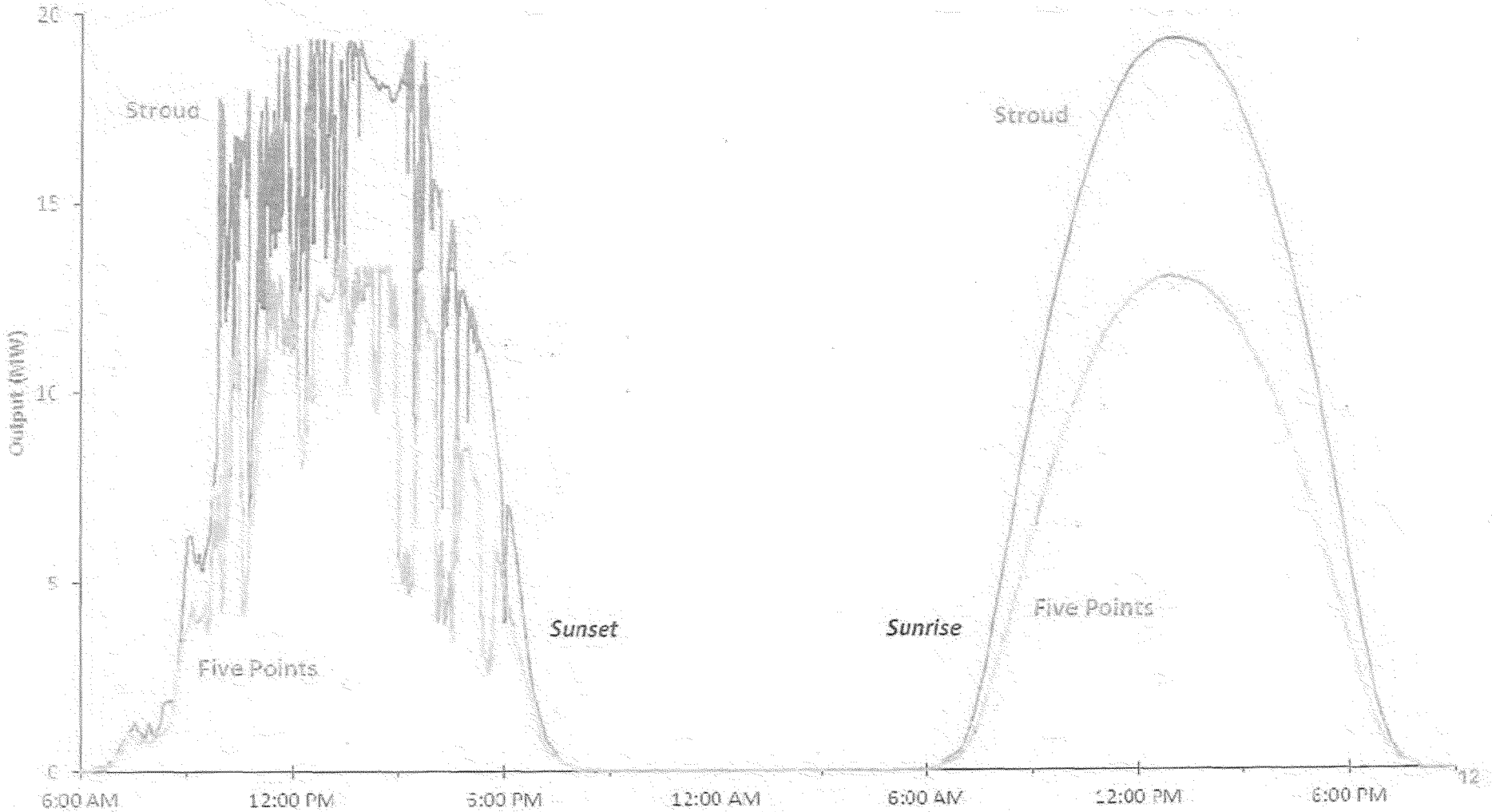
Intermittent Resources: Solar Generation

Cloudy days are much more challenging to manage for solar

Output of Stroud and Five Points Solar Plants

July 19, 2012: Cloudy Day

July 20, 2012: Clear Day



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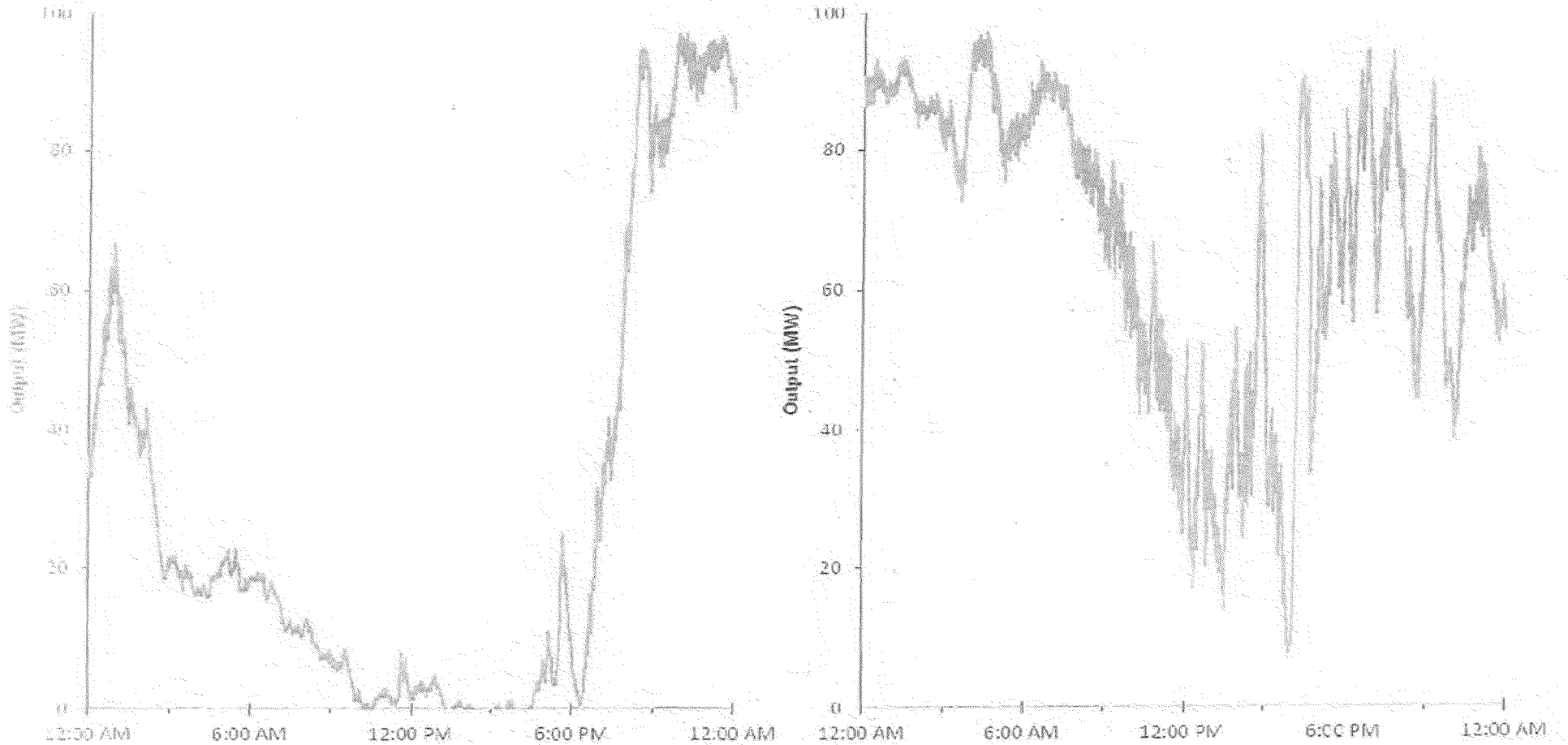
Intermittent Resources: Wind Generation

Day-to-day variation in generation output can be significant

Output of Hatchet Ridge Wind Farm

April 15, 2013

April 16, 2013

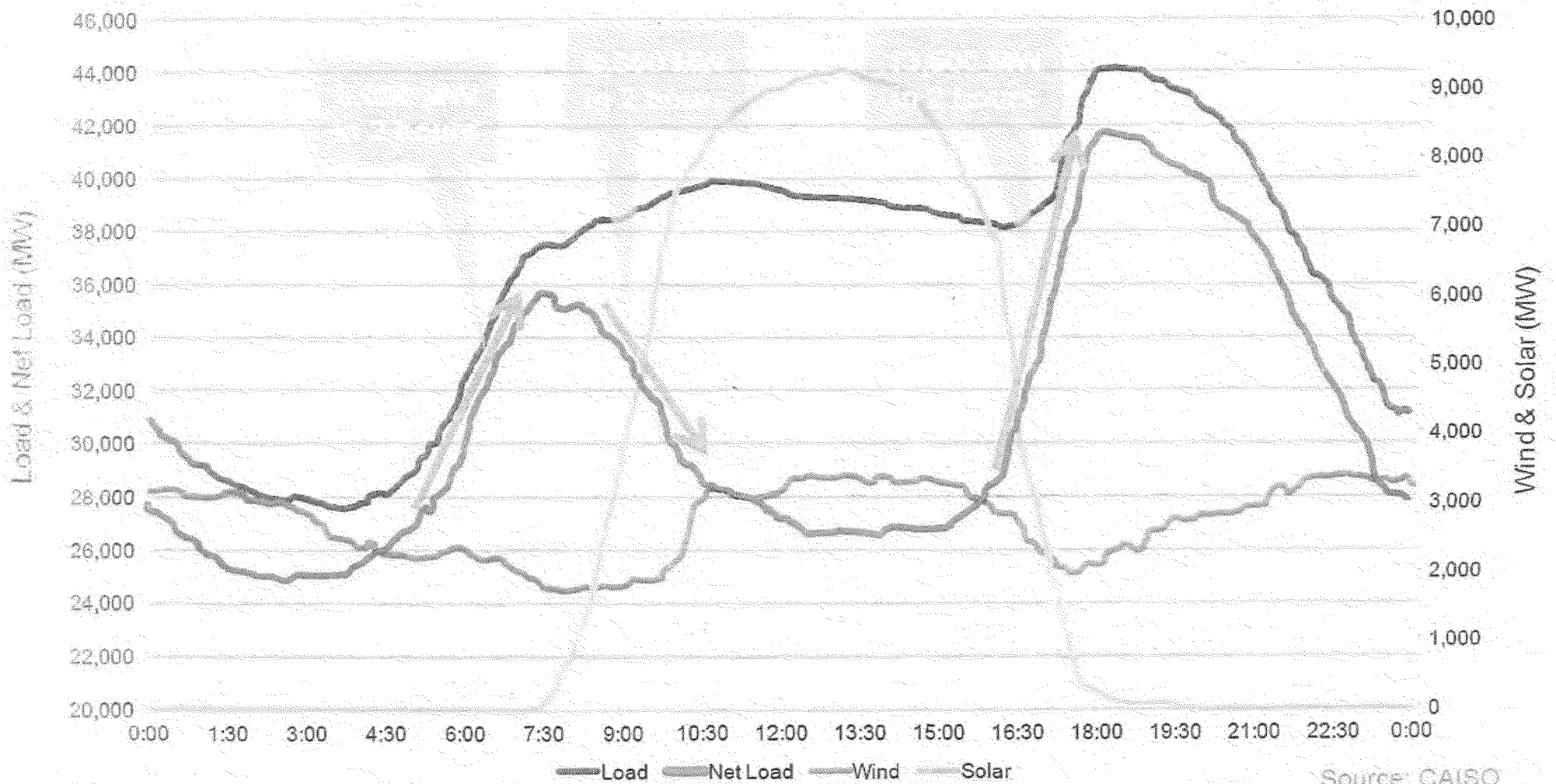


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The Net Load Shape Is Changing

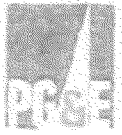
Illustrative Load, Wind, & Solar Profiles



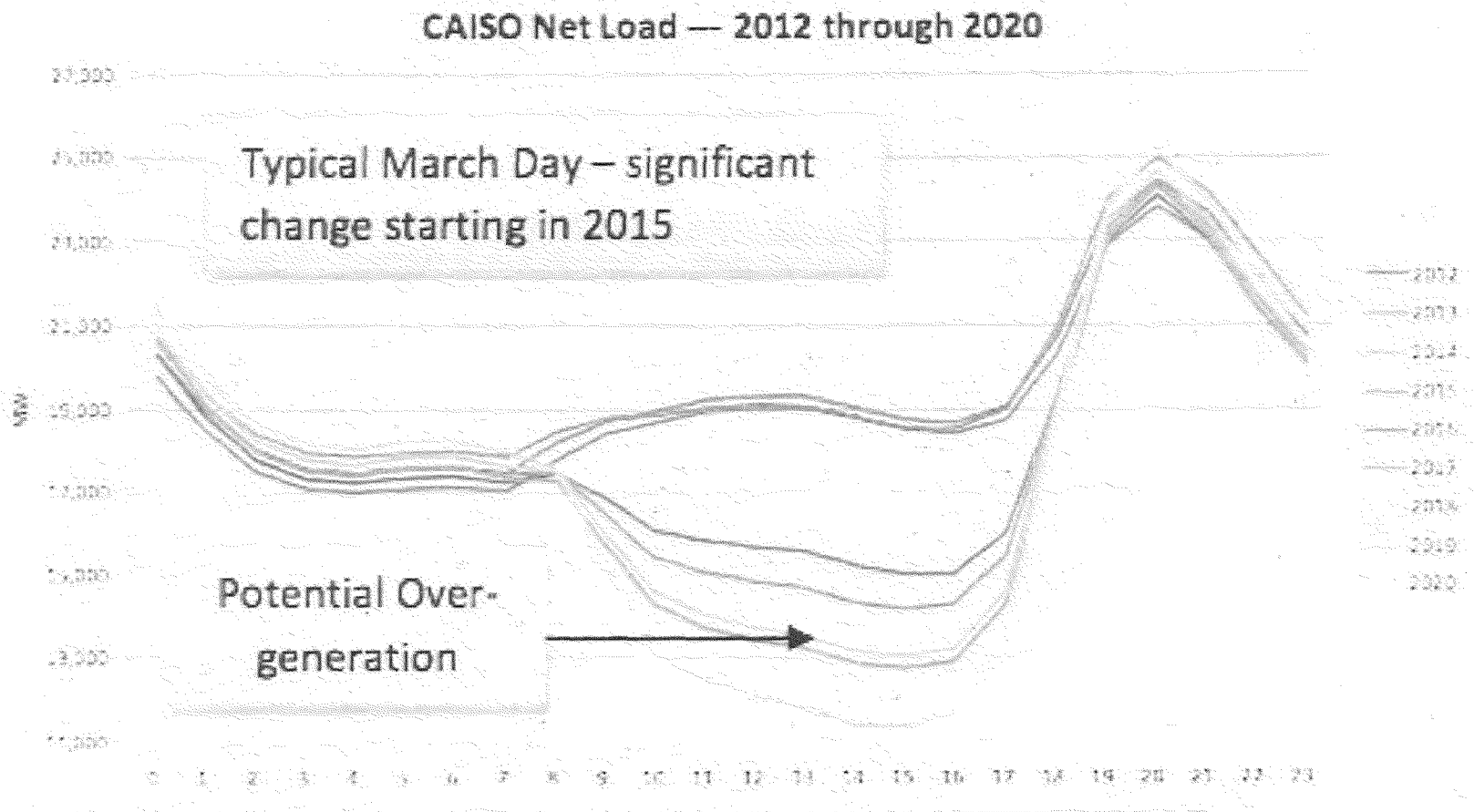
Source: CAISO

$$\text{Net Load} = \text{Total Customer Load} - (\text{Wind} + \text{Solar Generation})$$

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Net Load Pattern Changes 2012-2020



Source: CAISO

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