

2

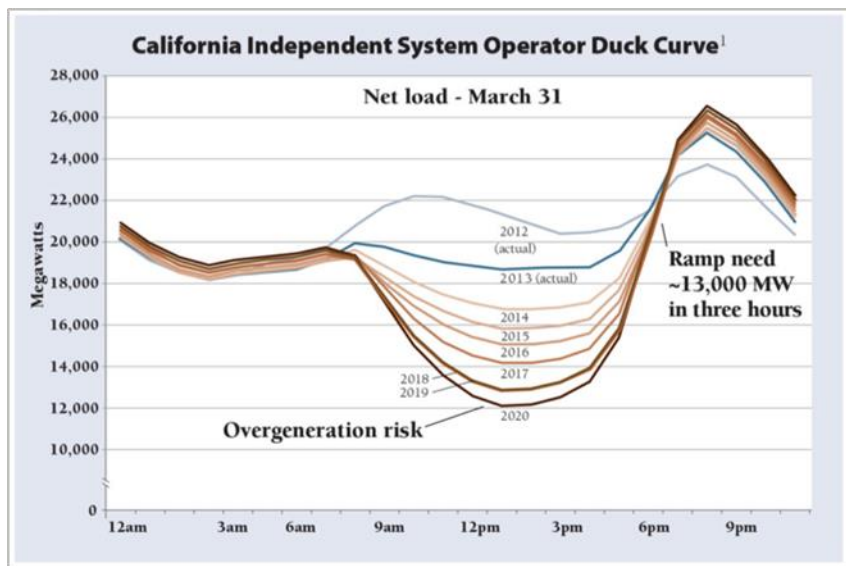
Beneficial Electrification



Beneficial Electrification offers a “LEG-up”

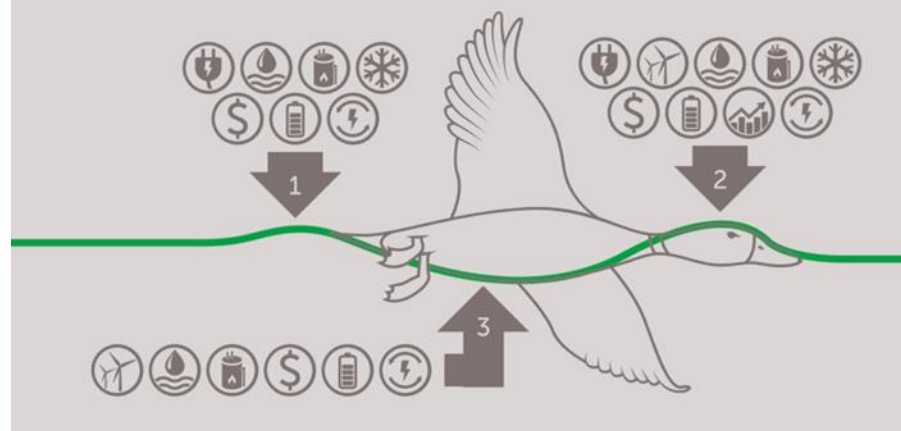
- L - Load growth and more service
 - E - Environmental benefits and
 - G – **G**rid management
-
- While Energy Efficiency remains the first “fuel”

What's at stake?

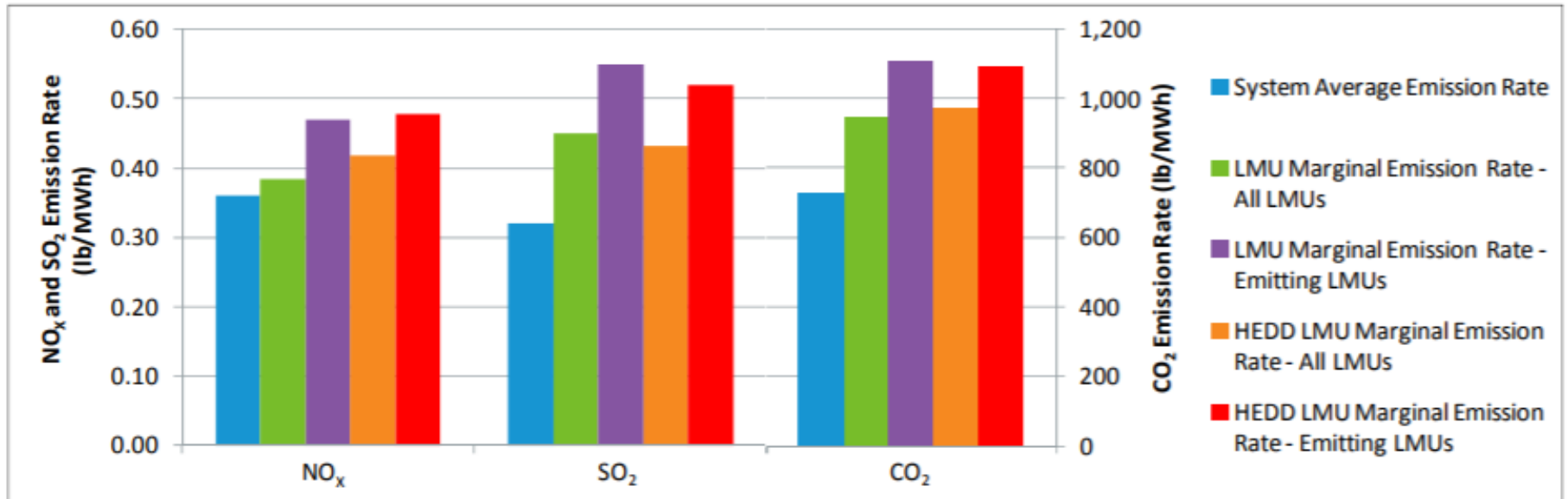


Teaching the "Duck" to Fly:

10 strategies to control generation, manage demand, & flatten the Duck Curve

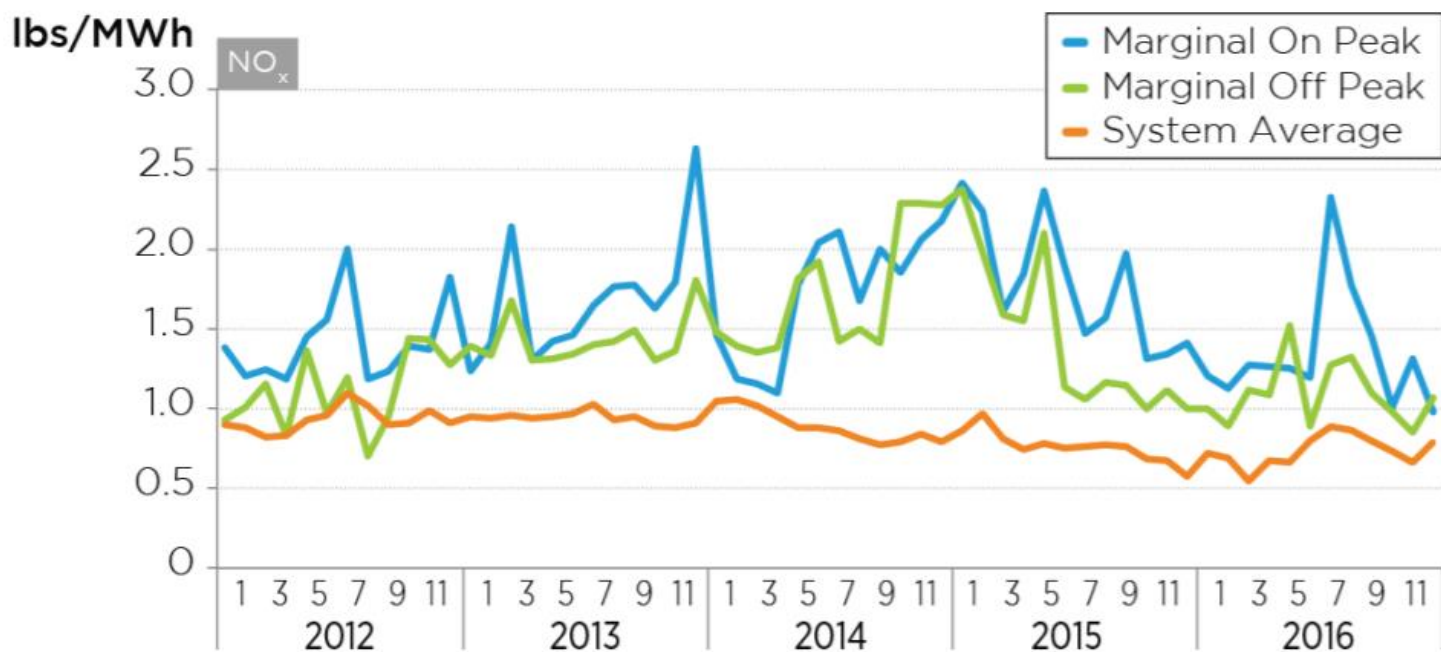


New England's Marginal Emission Rates



Source: https://www.iso-ne.com/static-assets/documents/2016/01/2014_emissions_report.pdf

PJM NO_x Marginal Emission Rates



Source: <https://www.pjm.com/~media/library/reports-notice/special-reports/20170317-2016-emissions-report.ashx>

Electric Vehicle Energy Impact



Source: NW Energy Coalition research paper, "Building "good load" to reduce carbon emissions", 2016

Heat Pump Water Heater

- Saves ~70% of kWh
- Can be controlled into low-cost and low-emission hours
- Good for warm weather climates



Resources

- [Using Energy Efficiency to Advance Air Quality Compliance](#)
- [The Next Quantum Leap in Efficiency - 30 Percent Electric Savings in Ten Years](#)
- [Beneficial Electrification – blog post series](#)
- [Teaching the Duck to Fly](#)
- [Opportunity Knocks for Beneficial Electrification – webinar](#)

Conclusions



- Electricity market transformation is happening fast
- Energy Efficiency is one way to ensure Electrification is Beneficial
- Environmental Regulators can play a Key Role

About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

Learn more about our work at raponline.org



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