

The Cloudy Face of the Electricity Future

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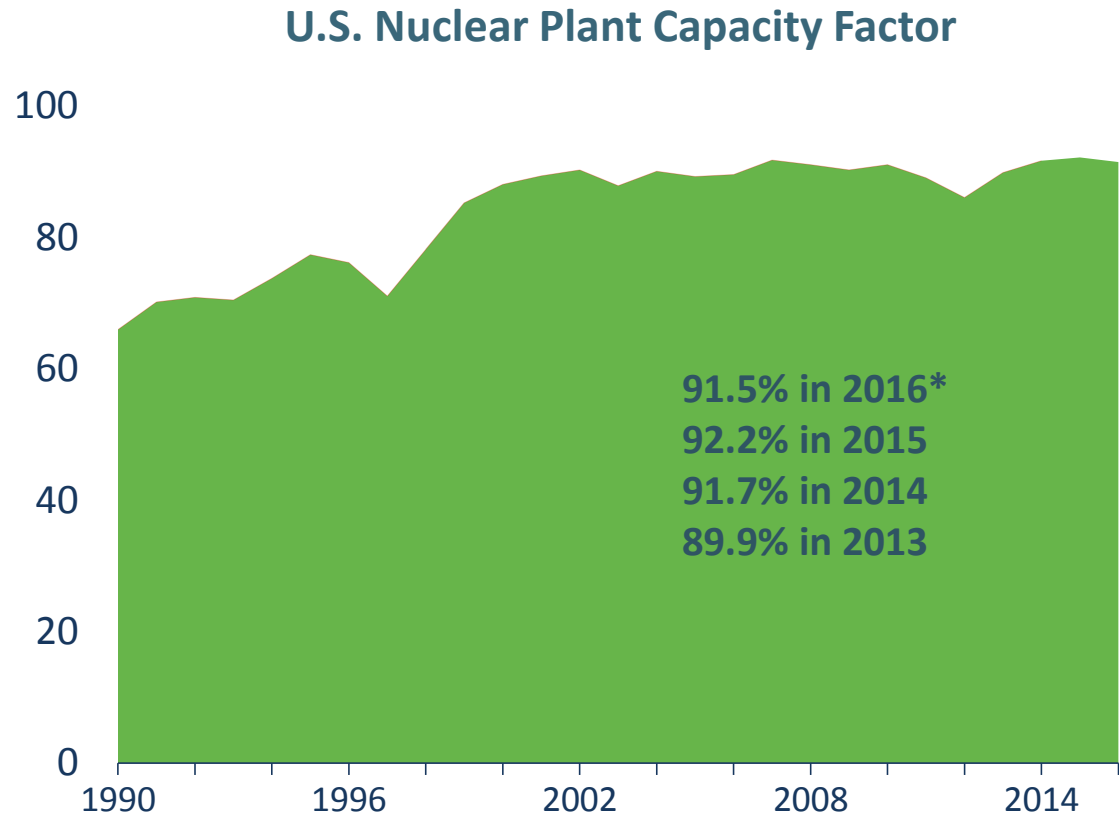


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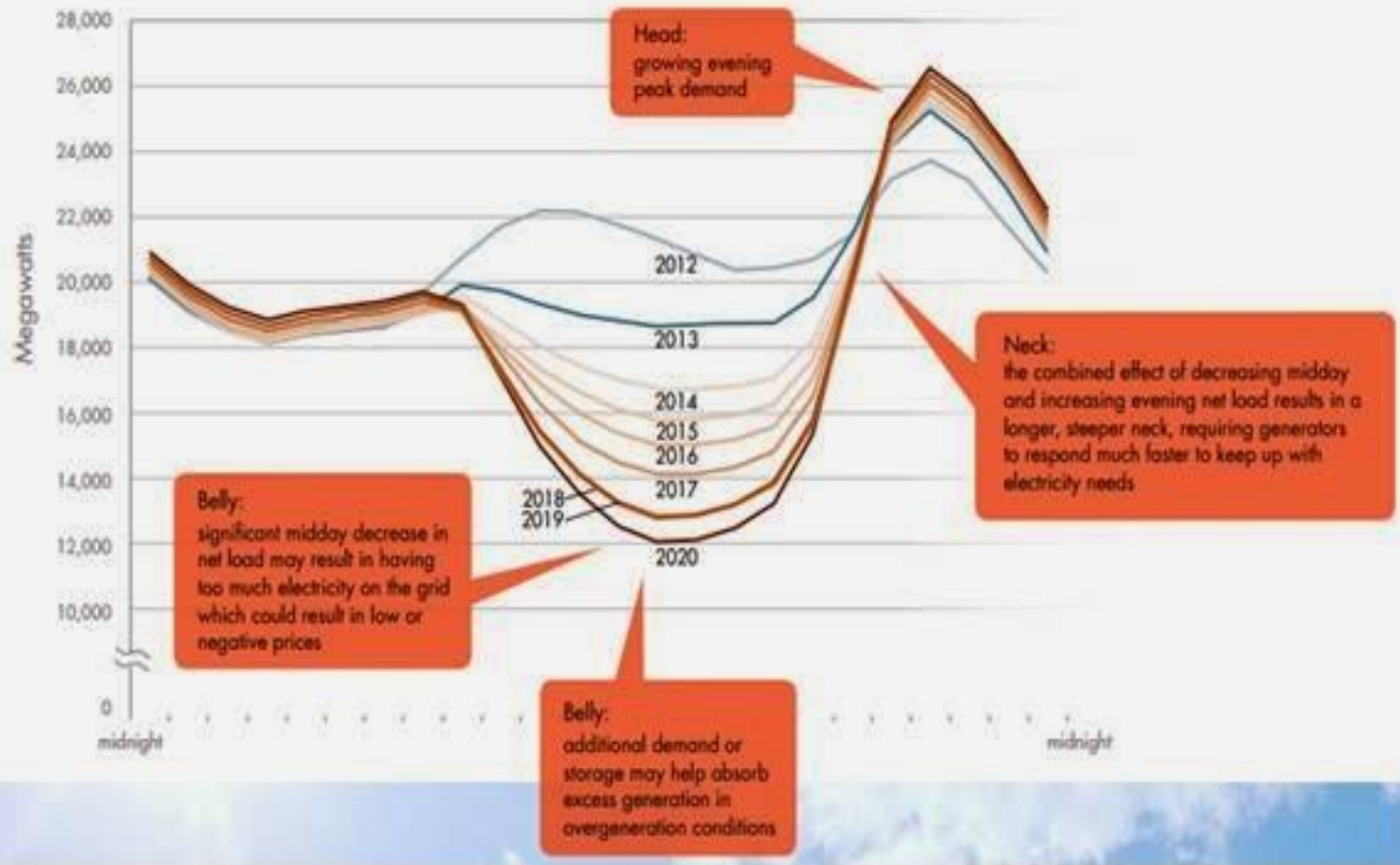
Solid Capacity Factor in 2016

- U.S. reactors 2016 capacity factor: 91.5%*
- Nuclear plants generated 805 billion kWh in 2016*
- Average refueling outage duration declined again:
 - 2016: 35 days
 - 2015: 36 days
 - 2014: 37 days

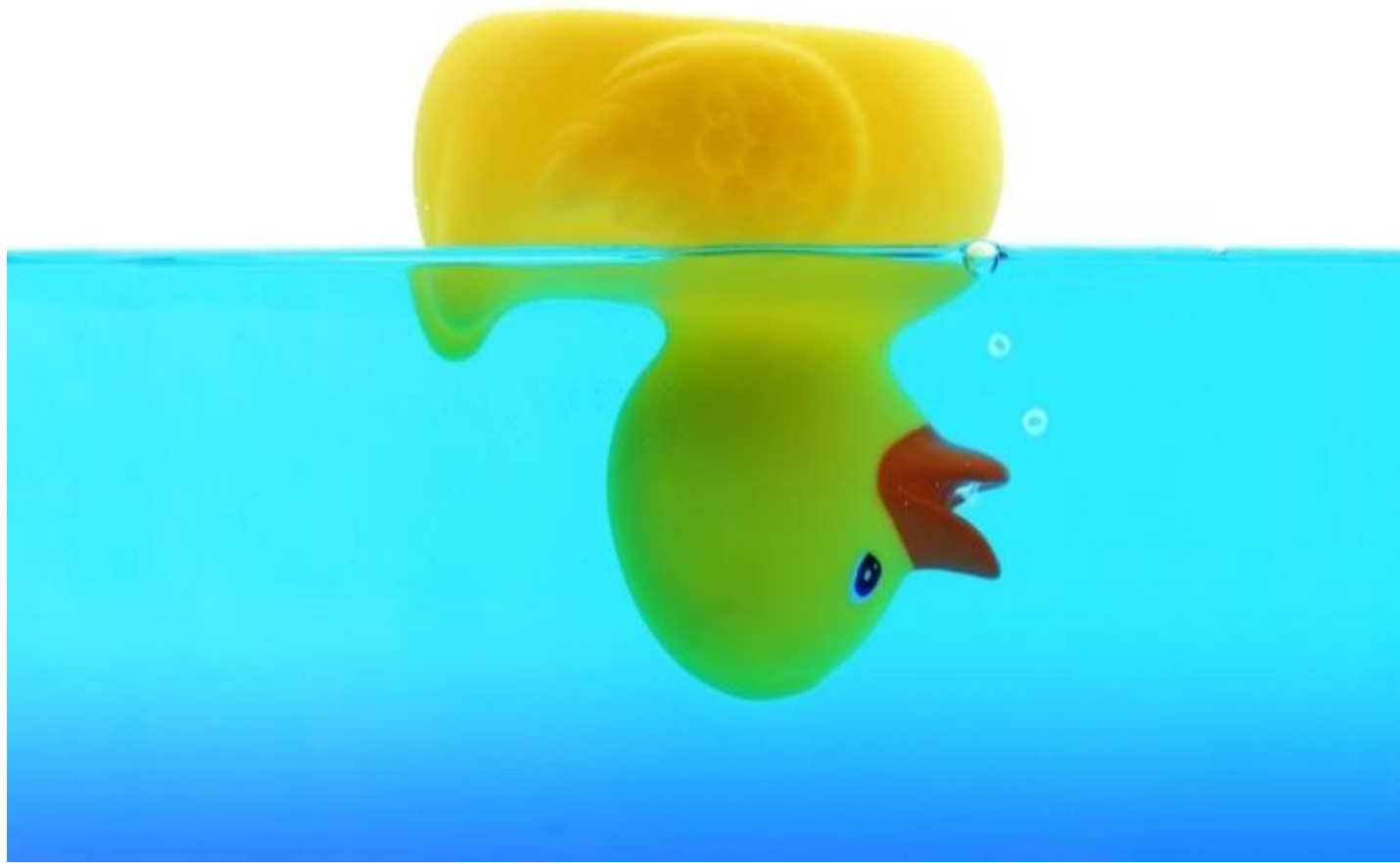


Source: Energy Information Administration
* NEI estimates

The Duck: The California ISO's Flexibility Curve



(the ISO's *Building A Sustainable Energy Future; 2014-2016 Strategic Plan*)

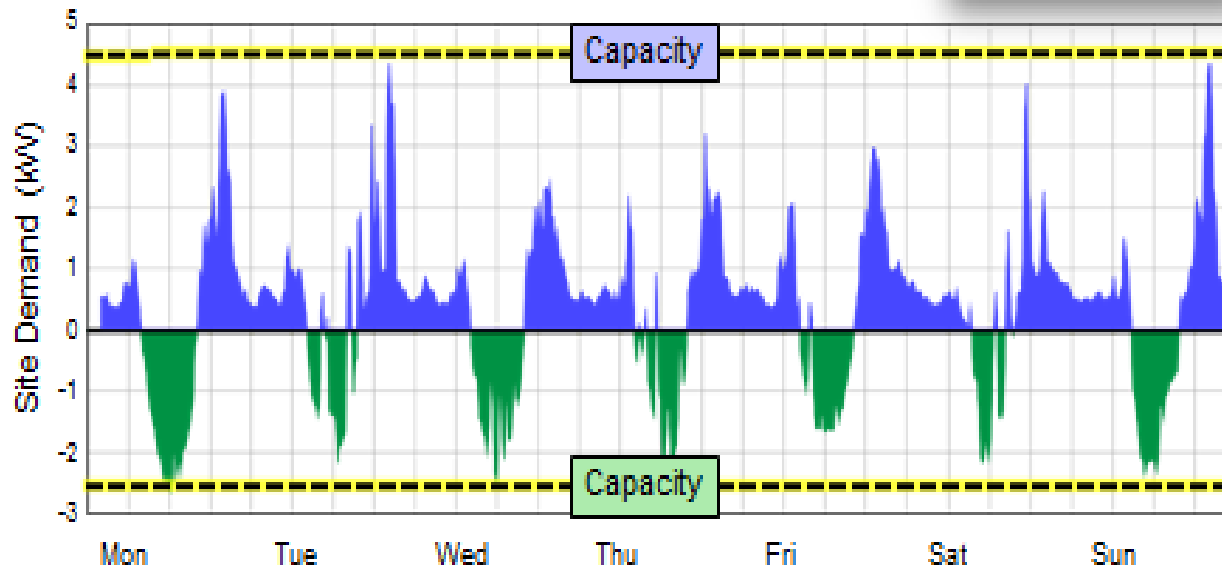


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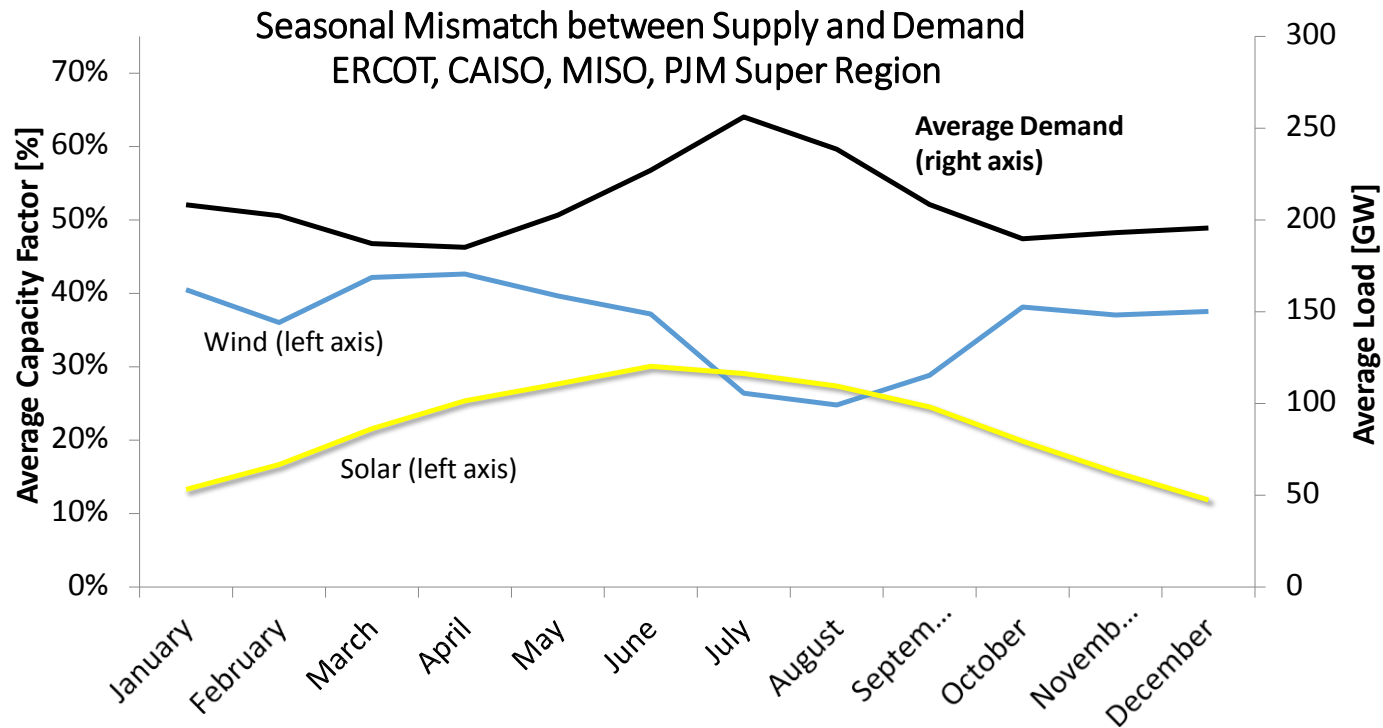
Zero Energy Home but Not Zero Capacity Home



Customer Sited Generation Will Impact Local and System Level T&D Infrastructure Planning

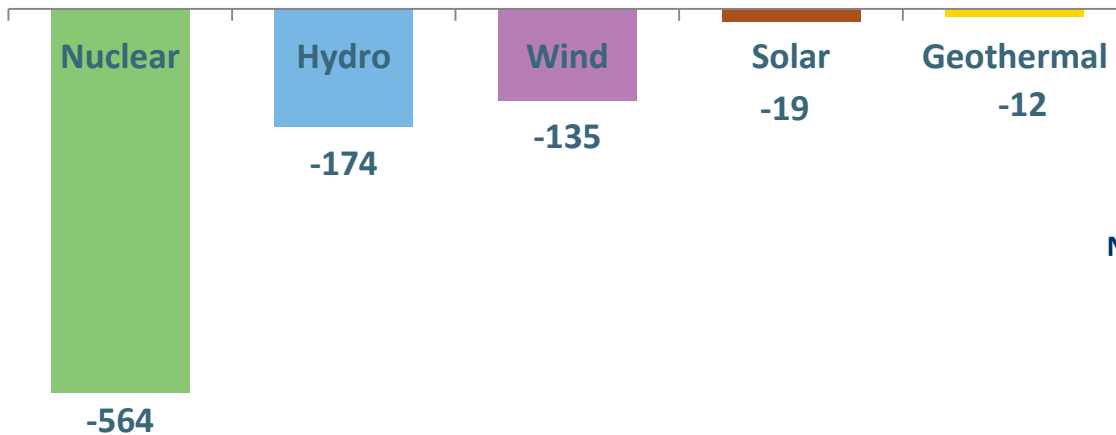
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The need for (seasonal) electricity storage will be exacerbated with increasing penetration of intermittent renewables.

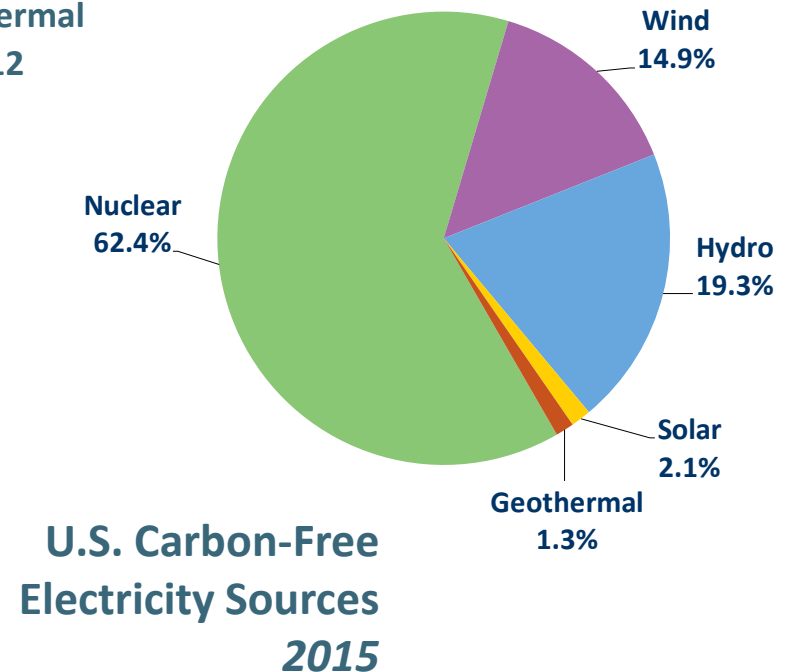


Recognizing Nuclear Energy's Carbon-Free Value

U.S. Electric Power Industry CO₂ Avoided
Million Metric Tons 2015



Sources: Emissions avoided are calculated using regional and national fossil fuel emissions rates from the Environmental Protection Agency and generation data from the Energy Information Administration.



Impacts of Losing A Nuclear Plant

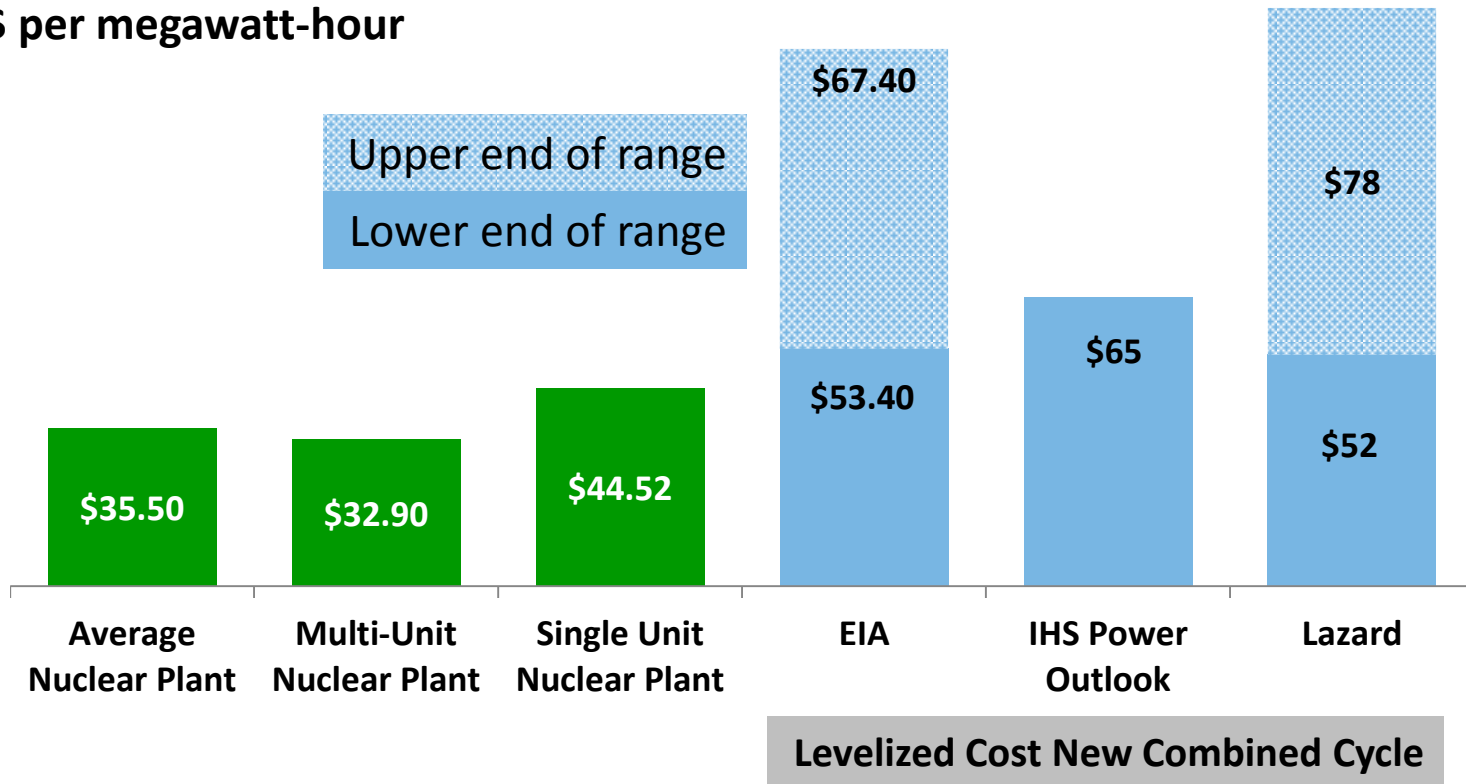
A typical nuclear power plant:

- 400-700 permanent jobs plus equivalent number of indirect jobs in local area to support the plant
- Plant salaries 36% higher than average in the local area
- \$16 million per year in state and local taxes



Better Deal for Consumers ... Existing Nuclear or New Combined Cycle Gas?

\$ per megawatt-hour



Sources: Existing nuclear costs are 2015 total generating costs (fuel, O&M, capital) from Electric Utility Cost Group. Gas-fired combined cycle costs are levelized costs from (1) Energy Information Administration, *Annual Energy Outlook 2016*; (2) IHS North American Power Market Outlook, September 30, 2016; (3) Lazard, *Levelized Cost of Energy Analysis, 9.0, 2015*.

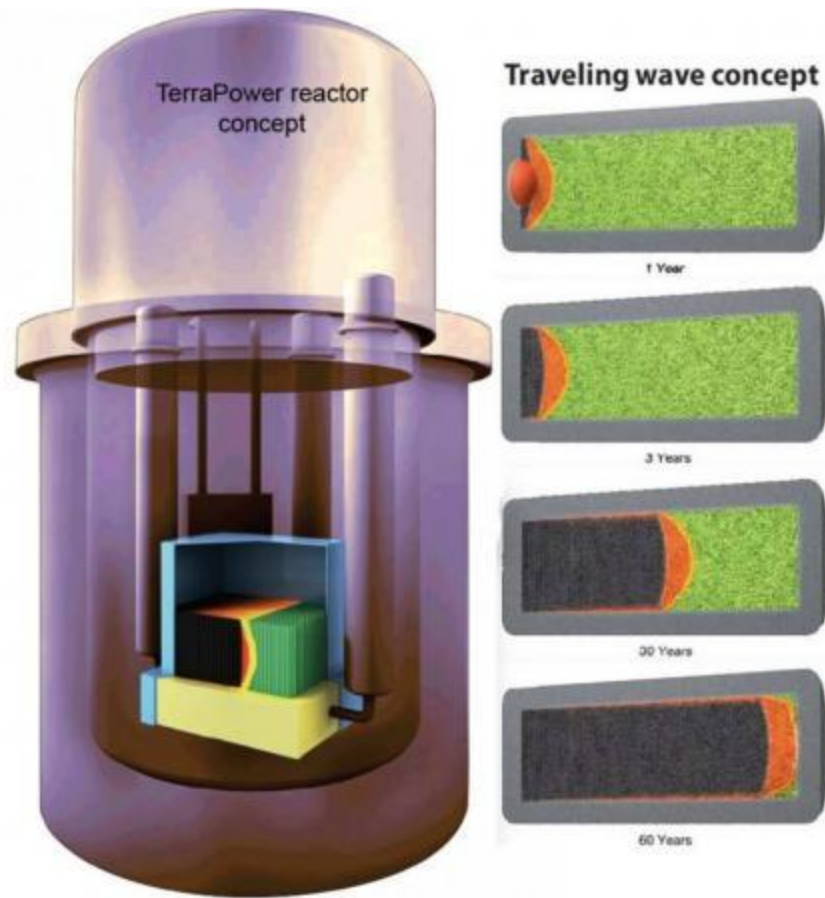
NuScale's "Walk-Away-Safe" Design



Add More Modules as Needed



TerraPower's Traveling Wave





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