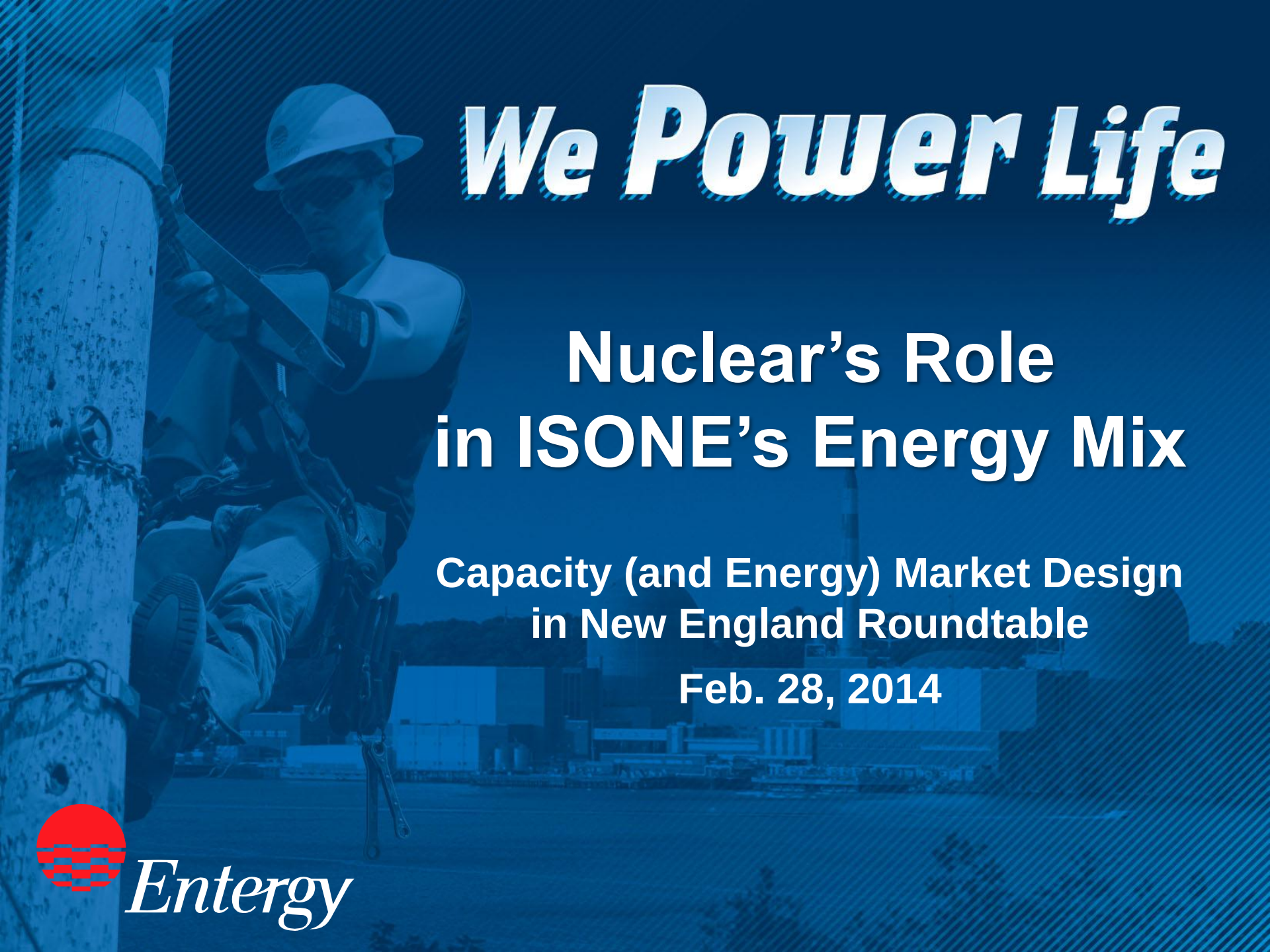


Nuclear's Role in ISONE's Energy Mix

Capacity (and Energy) Market Design in New England Roundtable

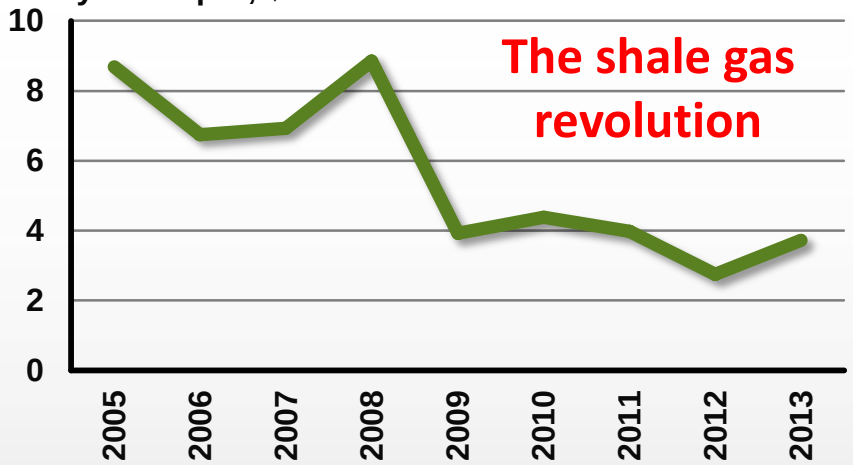
Feb. 28, 2014

Entergy

The Market Context: Illustrative Conditions Affecting Vermont Yankee and Other Nuclear Generators (2005 – 2013)

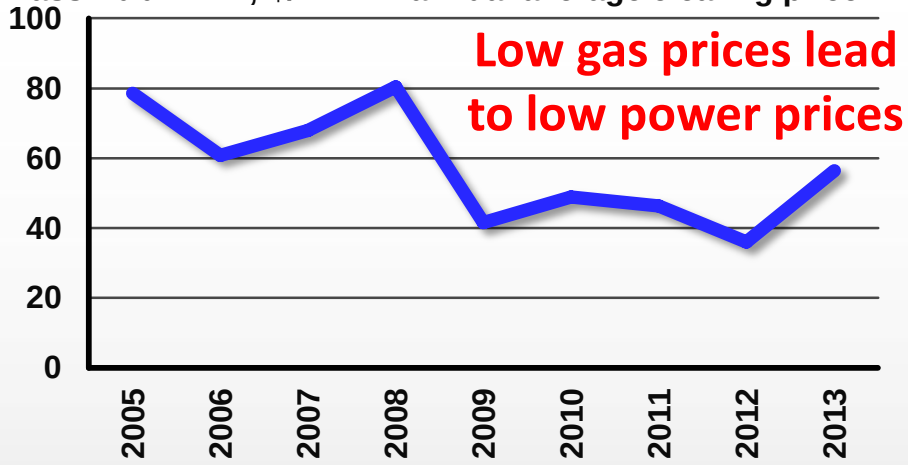
Natural Gas Prices

Henry Hub Spot; $/MMBtu



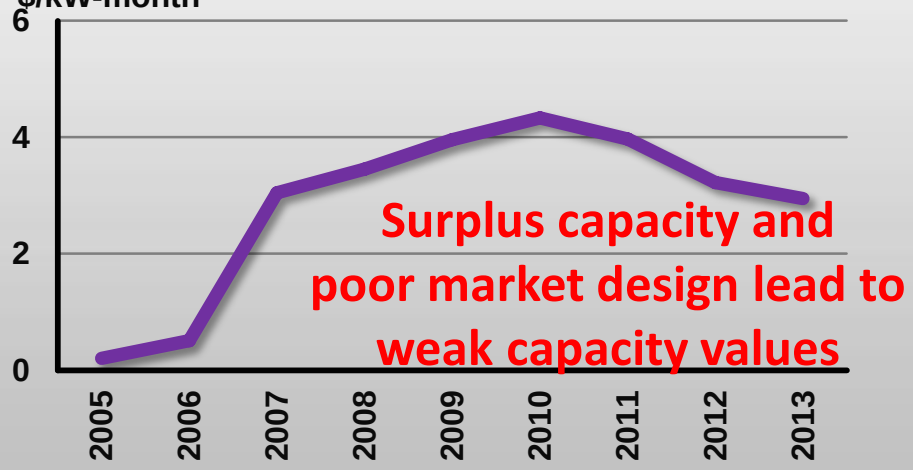
ISO-NE Wholesale Power Prices

Mass Hub DAM*; $/MWh - annual average clearing price



ISO-NE Capacity Prices

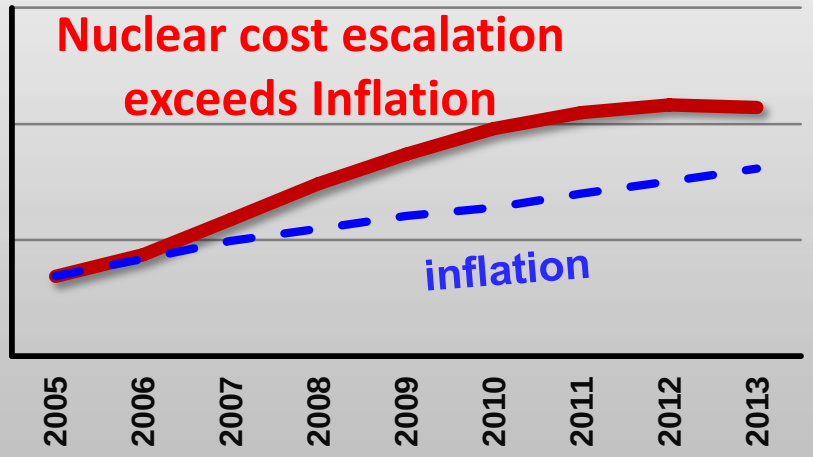
$/kW-month



1/05-11/06 – Installed Capacity Market, 12/06-5/10 – Transition Period, 6/10-5/17 – Forward Capacity Market

Nuclear Cost

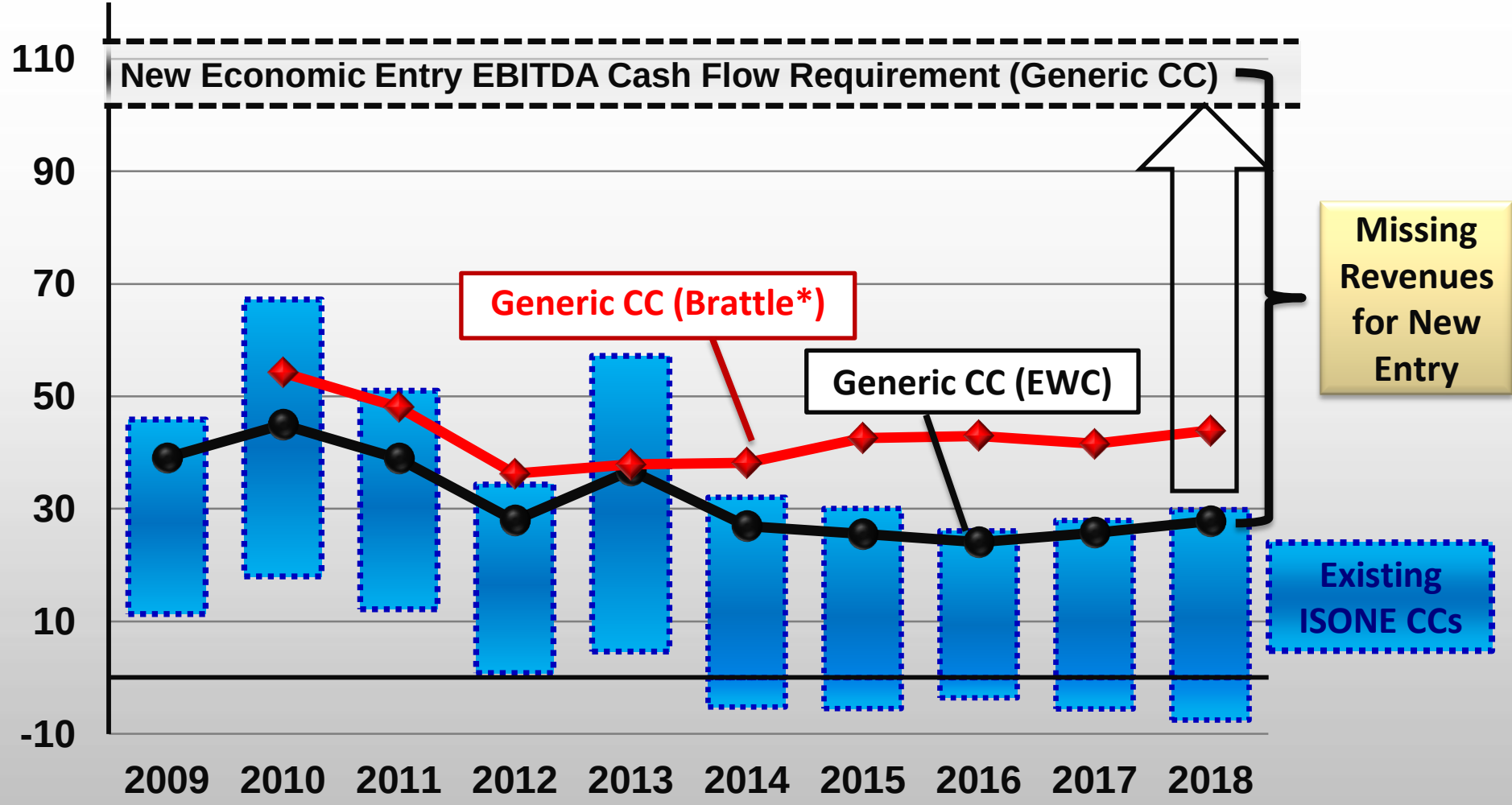
$/MWh



** Day ahead market price*

Combined Cycle Plant Economics in New England

Range of Estimated EBITDA Cash Flows for All New England CC Plants (Energy + Capacity + AS Revenues – All Operating Costs – CAPEX); $/kW-yr

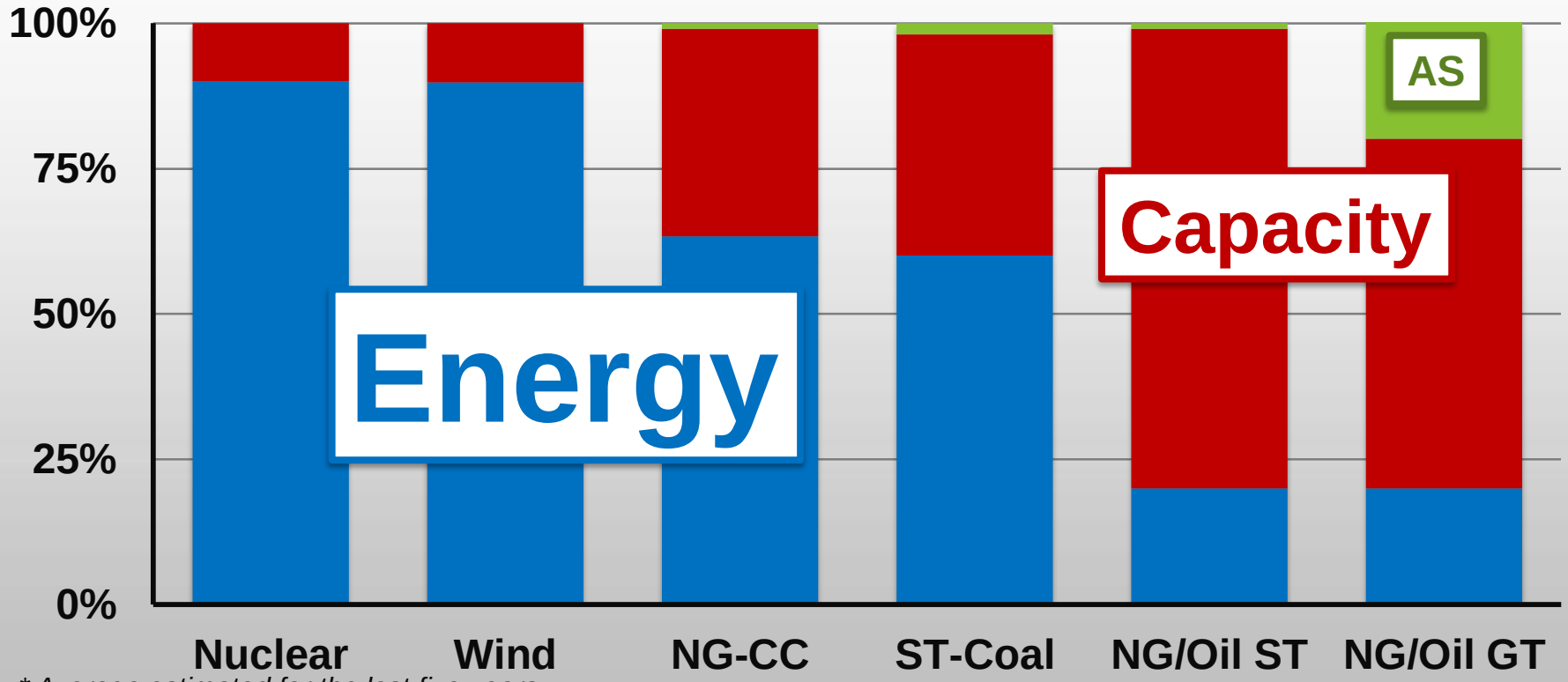


** Calculated using Brattle's Aug 7th report, adjusted for additional Capex needs and ISONE operating challenges*

Addressing Energy Pricing Issues Is As Important As Fixing the Capacity Market

The capacity market is designed to provide the missing money; If the energy market isn't performing sufficiently, it means that everyone has to lean more heavily on the capacity market.

New England Generating Plants' Revenue Source* by Technology

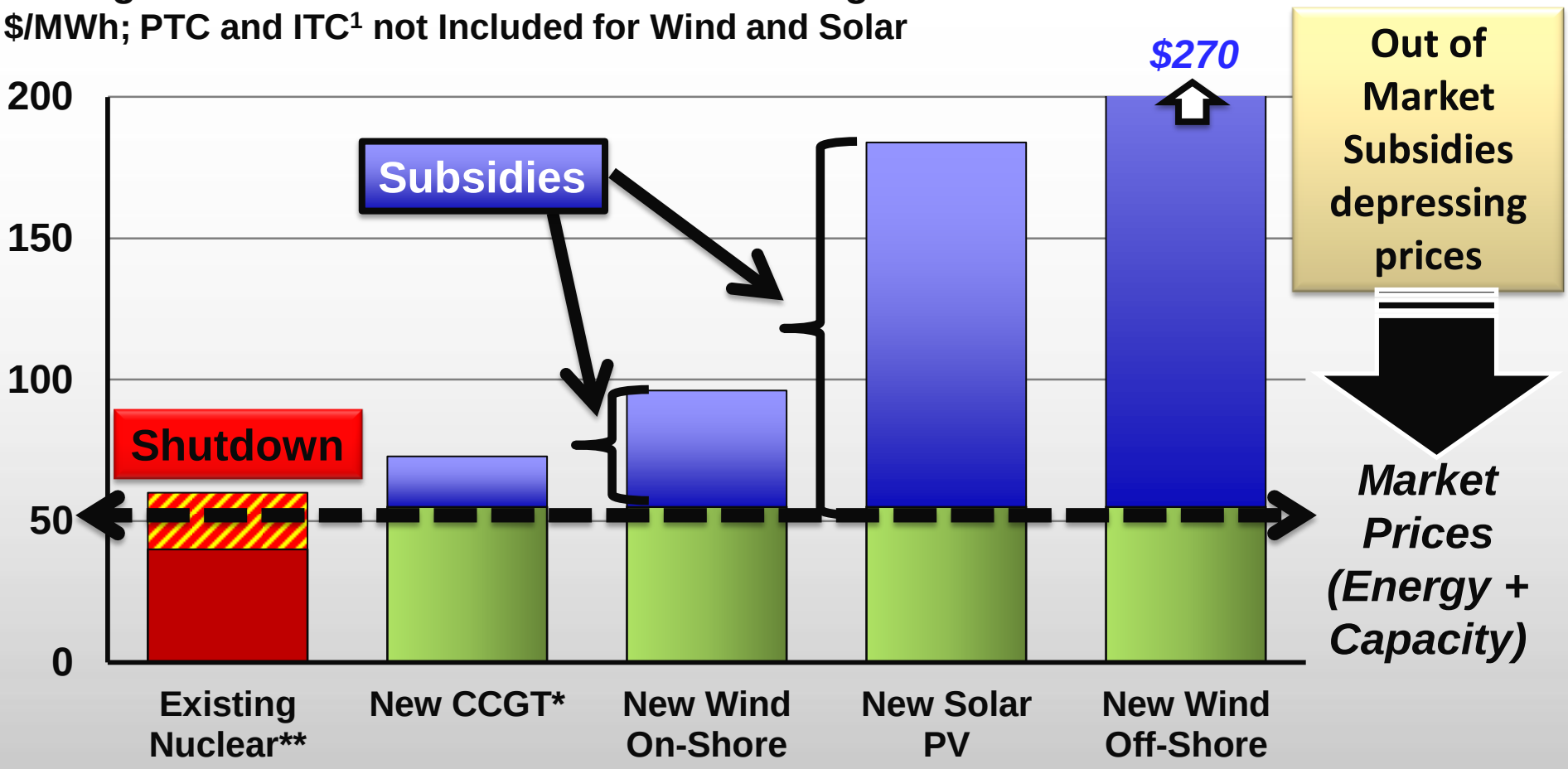


** Average estimated for the last five years*

Retaining Existing Low-Carbon Generation May be More Economic Than Introducing New Capacity in the Near Term

Average Cost for New Generation vs. Existing Nuclear Cost

$/MWh; PTC and ITC[1] not Included for Wind and Solar



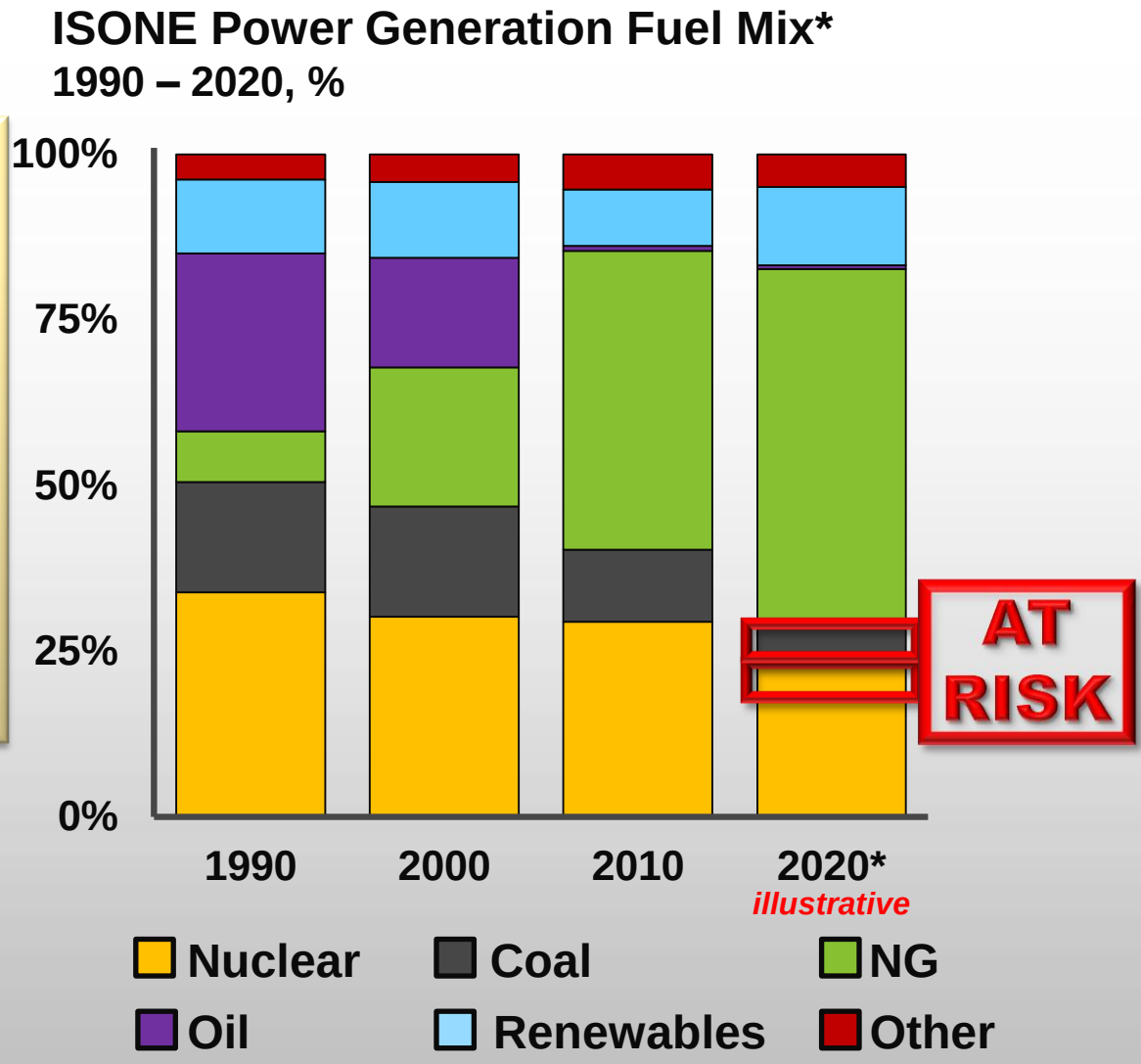
* *Average of Advanced and Conventional CC; Source EIA*

** *Existing nuclear cost range is an estimate based on internal analysis*

1 *PTC and ITC are considered as subsidies, which lower the average cost of new generation*

Declining Generation Diversity

Existing nuclear plants provide a key fuel-diversity benefit with significant climate-related advantages, which should not be taken for granted in policy and market rules



** Based on local generation; Imports are not shown*

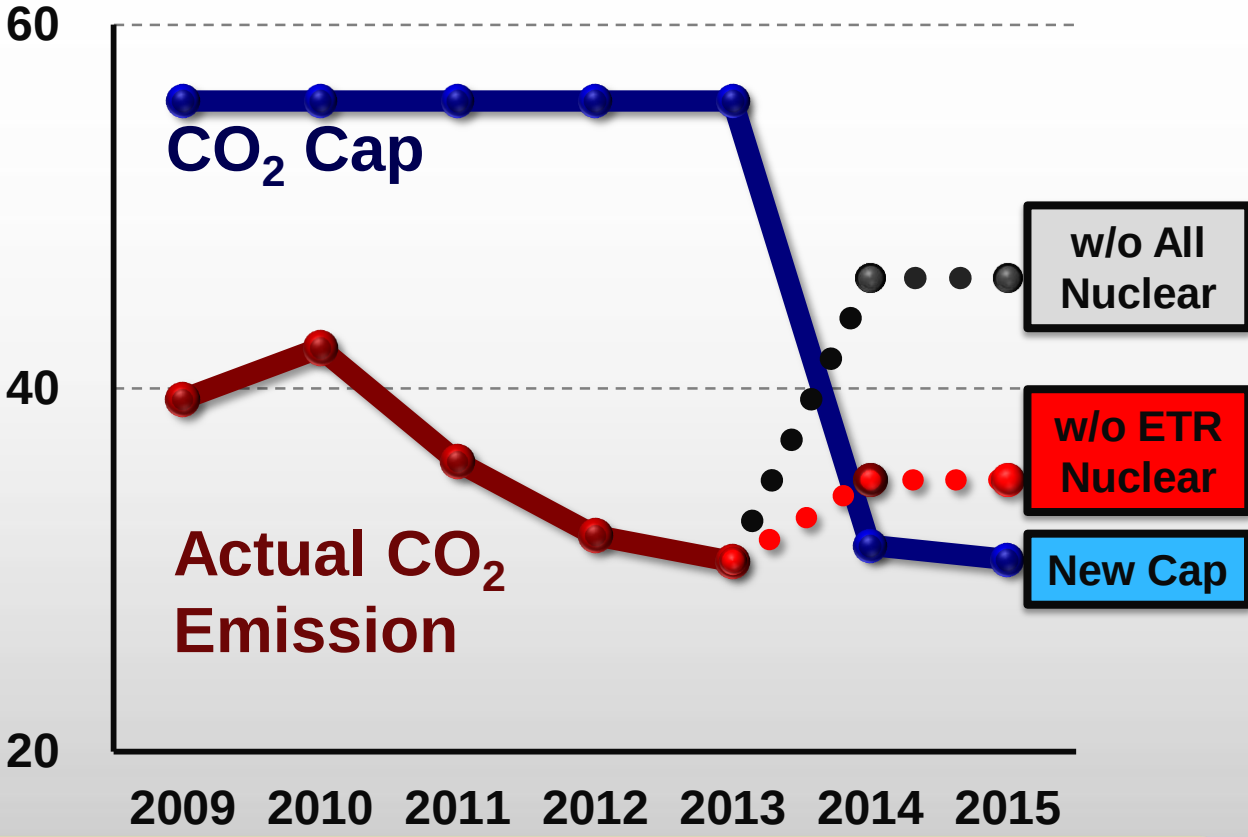
Loss of Generation at Existing Nuclear Plants Will Make it Harder to Meet CO_2 Emissions-Reduction Commitments

Assume that:

All of the nuclear fleet in the 6 New England RGGI States *(~4.5 GW)* are replaced by output at gas-fired power plants*:

- ▲16 M St CO_2 Emissions (+50% ↑)
- ▲0.7 bcf/d Gas Demand (+30% ↑)

New England States' RGGI CO_2 Emissions
2009 – 2015; million short tons

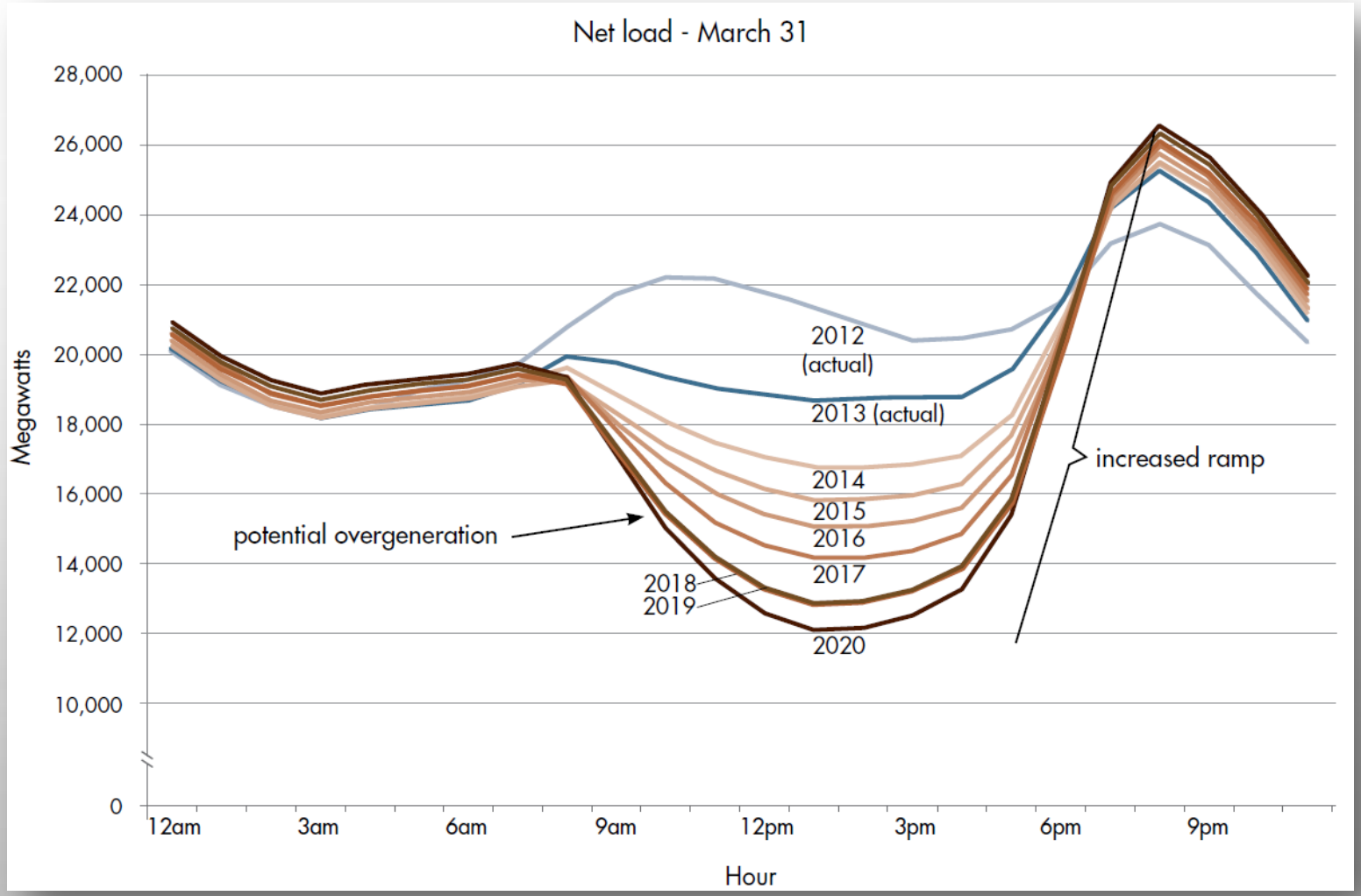


Keeping emissions below the cap without nuclear will mean higher CO_2 allowance prices

** This assumes natural gas combined cycle plants; Based on CO2 emissions from the states that are part of the Regional Greenhouse Gas Initiative*

Aggressive Renewable Energy Growth Policies Can Create System Reliability Problems, Which Can Be Costly to Fix

California Duck Curve



Source: California ISO

A Case Study: Germany's Renewable Subsidies

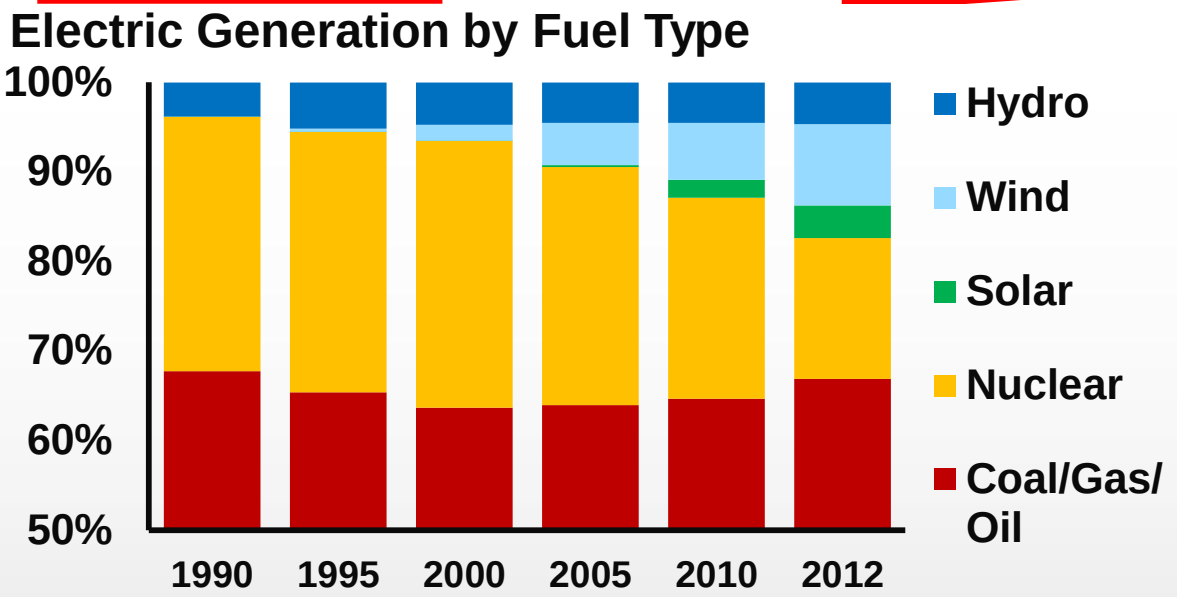
2000 Renewable Energy Act created strong incentives for renewables

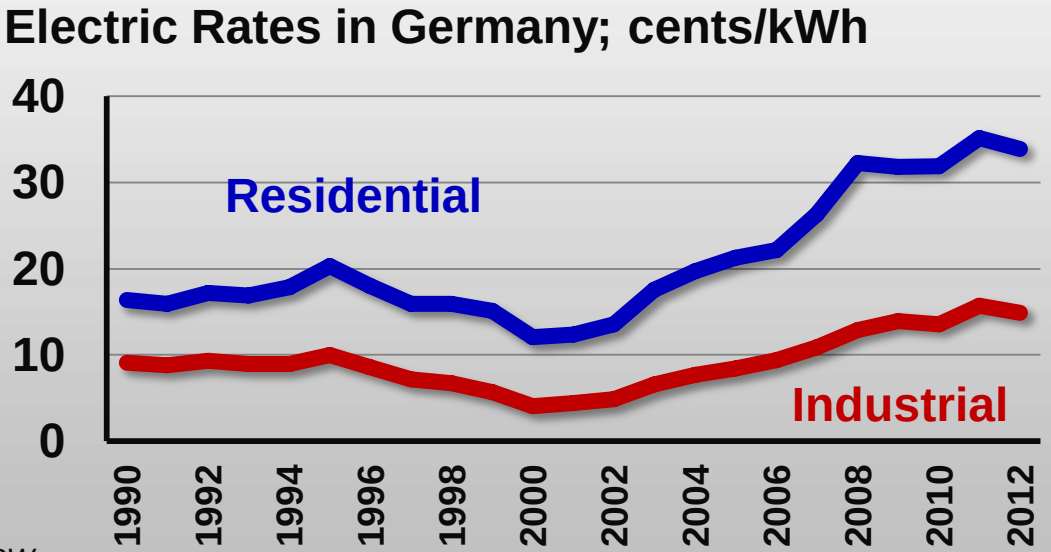
Subsidies accelerated renewable growth

Post Fukushima, Germany decided to shut down all nuclear plants by 2022, and shift to all renewables by 2050

Government subsidies in 2012: $22.7 billion

Increasing electric rates threatening Germany's competitiveness





Sources: International Energy Agency, EnergyAgency.NRW

Conclusions

- **ISONE's current market design is not sustainable in the long run; both Capacity and Energy market designs need to be reassessed so that they are producing prices at competitive levels. This is urgent.**
- **Out-of-market contracts and subsidies for new resources further distort competitive markets**
- **Nuclear generators currently provide many desirable attributes including high capacity factors, fuel diversity, and avoidance of greenhouse gases, on a scale much larger than competing technologies. But these nuclear plants are being forced to compete on an uneven playing field and may end up leaving the market.**
- **We're working with ISONE, and other stakeholders on several options that dovetail with the State's clean energy goals to solve this issue, because we think it's an expensive failure in today's markets and we think that the solutions – while outside the box – may be very sensible and cost-effective compared to some of the alternatives currently under discussion.**