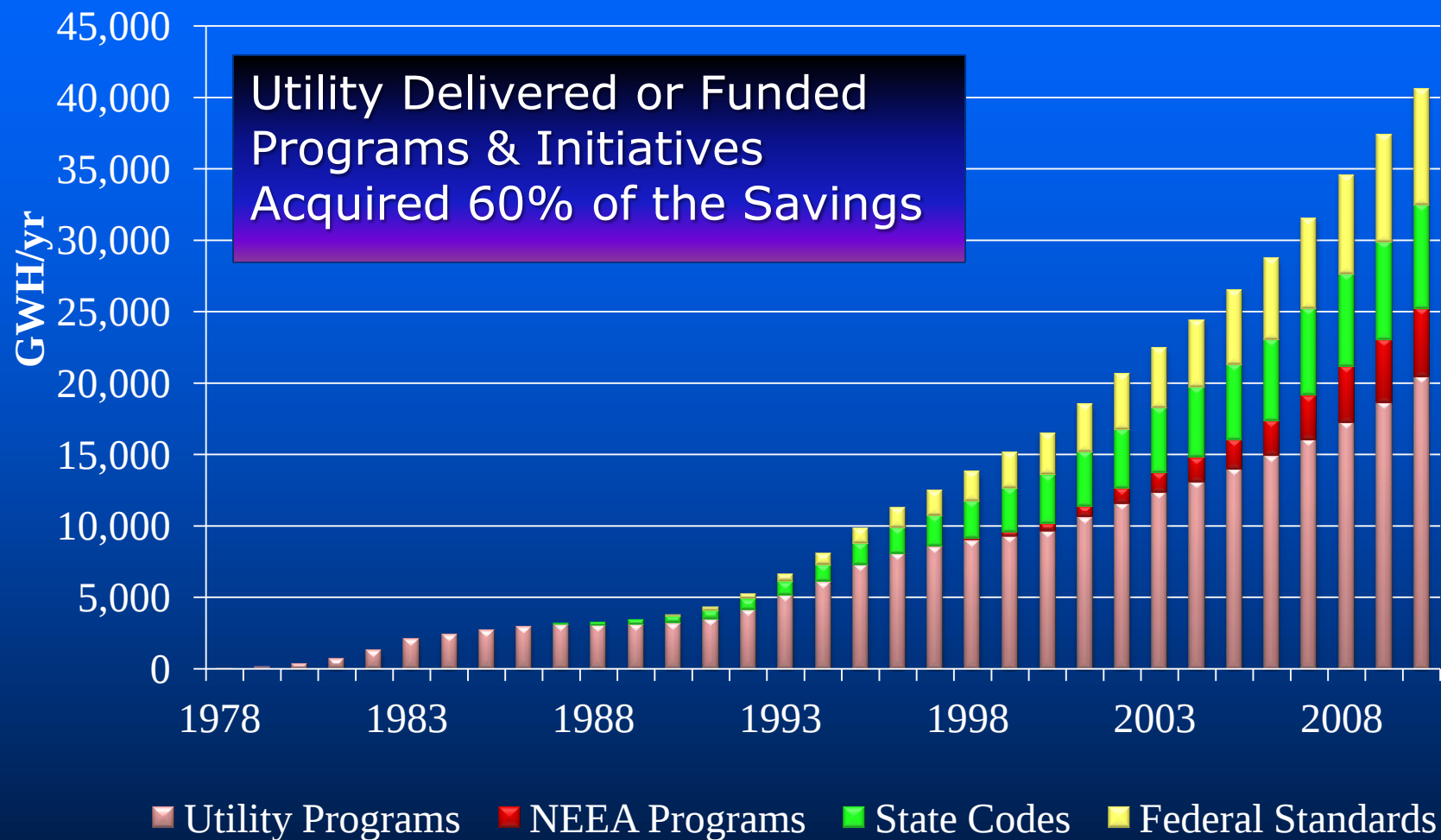


The Value Energy Efficiency As A Resource Option Three Decades of PNW Experience

Tom Eckman
Northwest Power and
Conservation Council

US DOE, IEA and RAP
Workshop on Policies for Energy Provider Delivery of Energy Efficiency
April 18, 2012

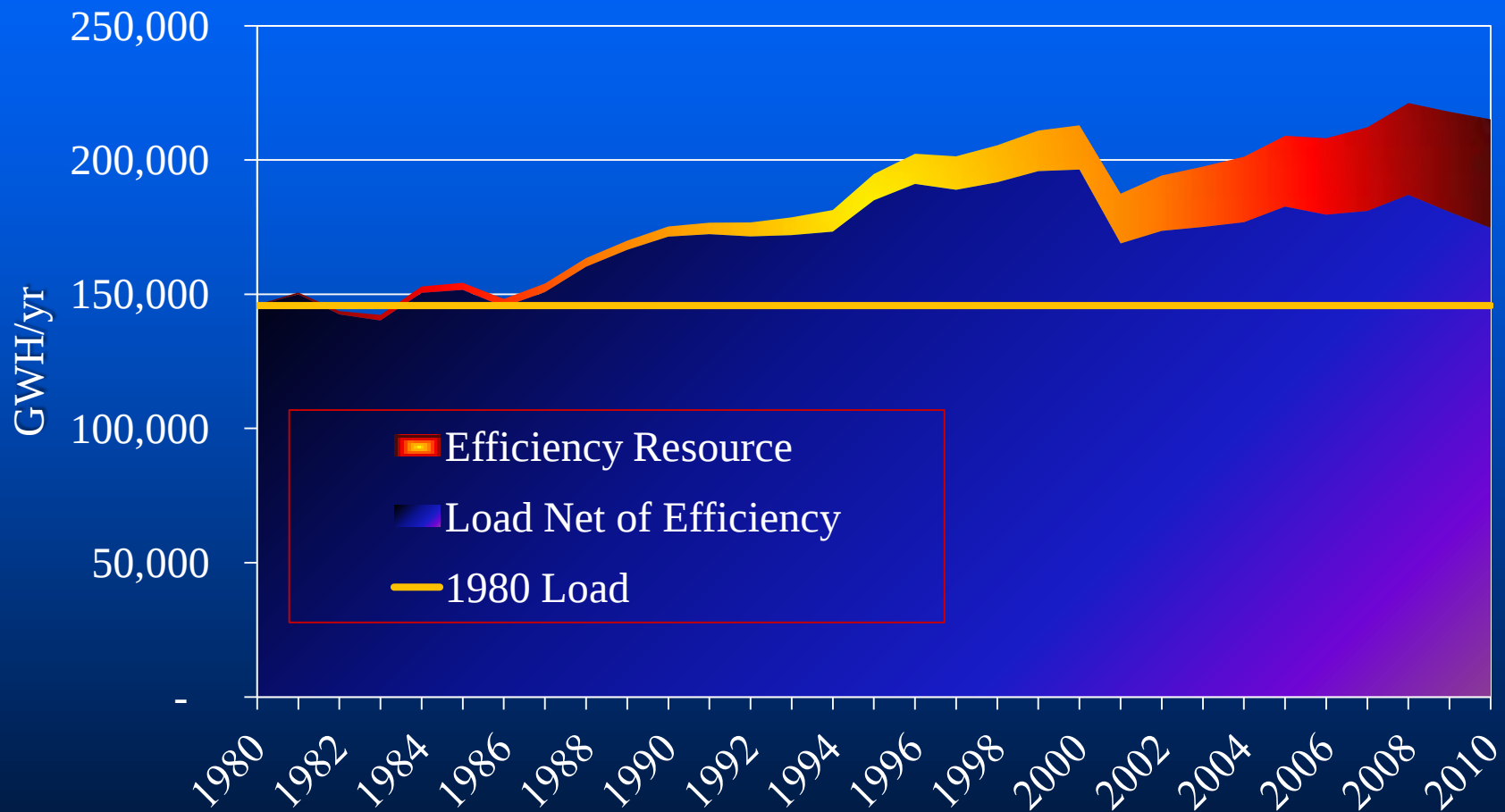
Utility Programs, Energy Codes & Federal Efficiency Standards Now Produced Over 40,000 GWH/yr of Savings



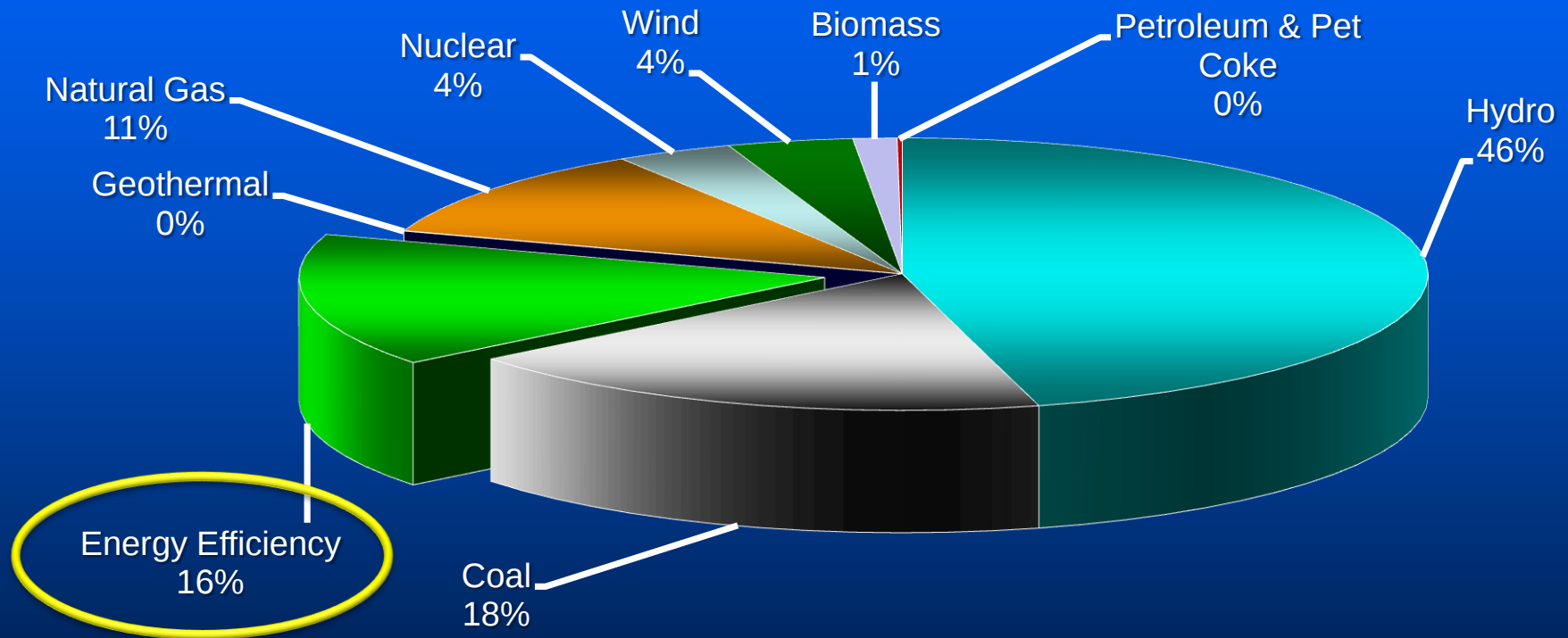
So What's 40,000 GHW/yr?

- It's enough electricity to serve the entire states of Idaho and Montana
– (or all of Kansas)
- It saved the region's consumers nearly \$2.5 billion in 2010
- It lowered 2010 PNW carbon emissions by an estimated 18.2 million MTE.

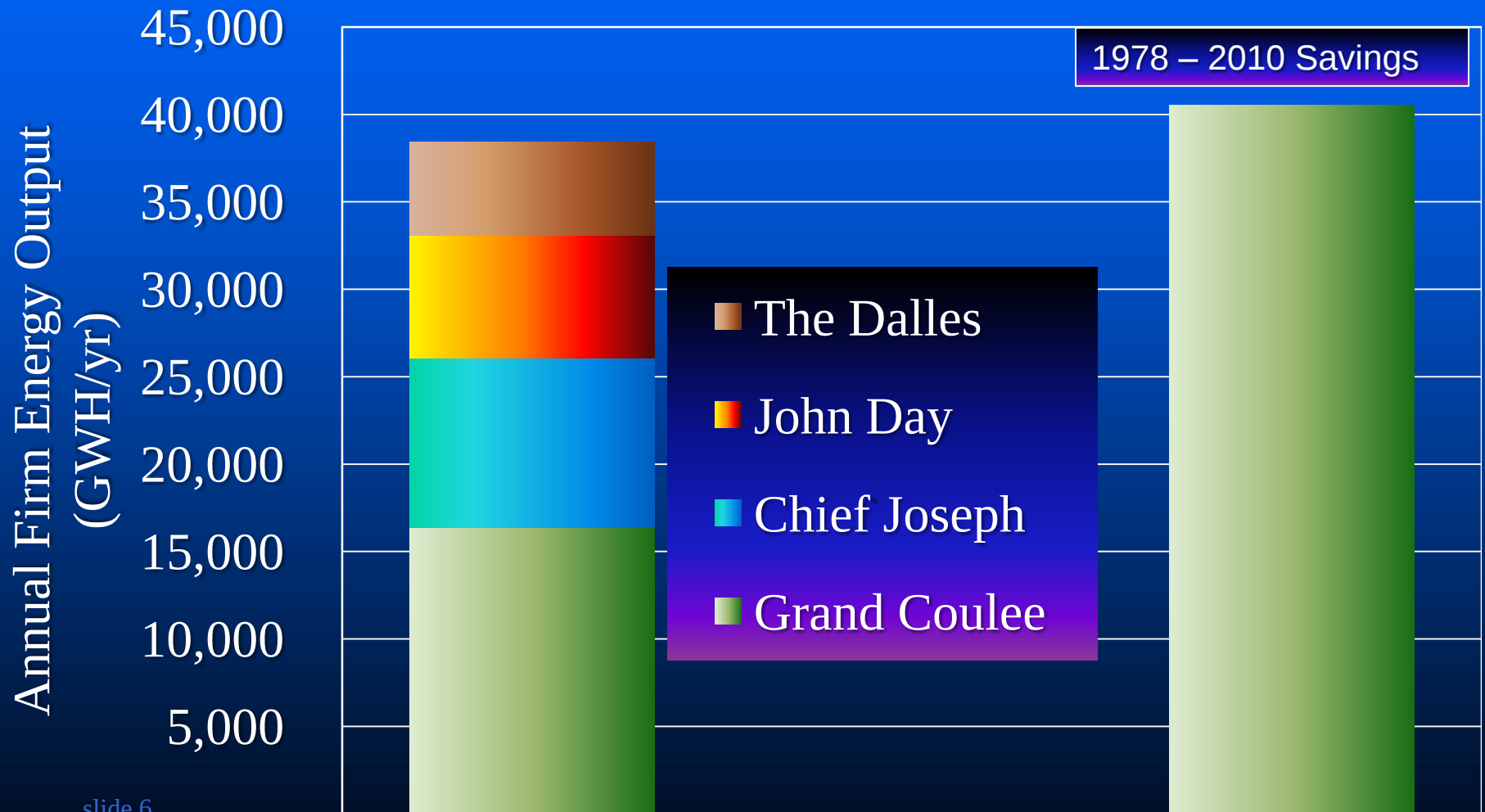
Since 1980 Efficiency Has Met Over 50% of PNW Load Growth



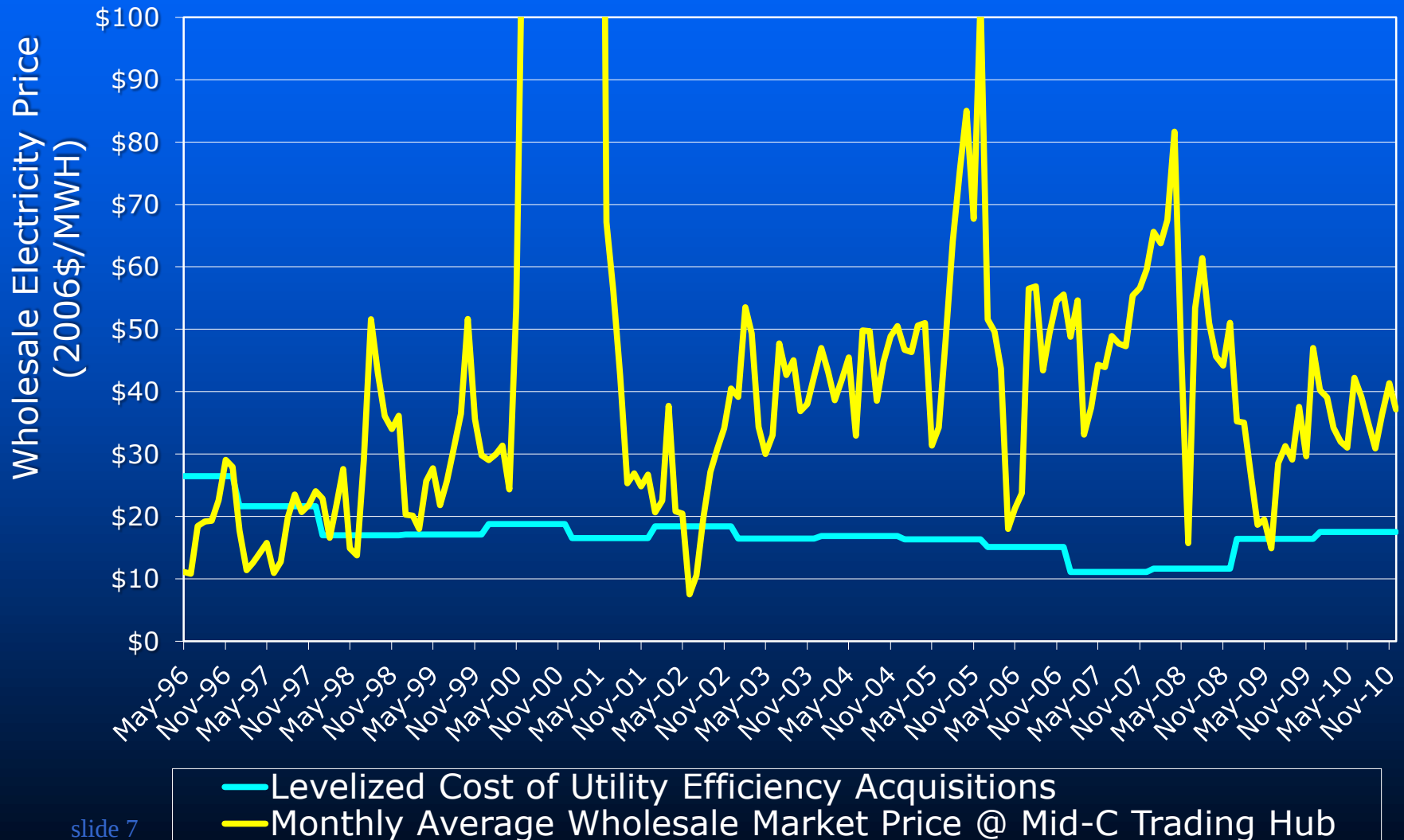
Energy Efficiency Is The PNW Region's Third Largest Resource



Energy Efficiency Developed Since 1978 Now Exceeds the Annual Firm Energy Output of the Four Largest Hydroelectric Projects on the Columbia River

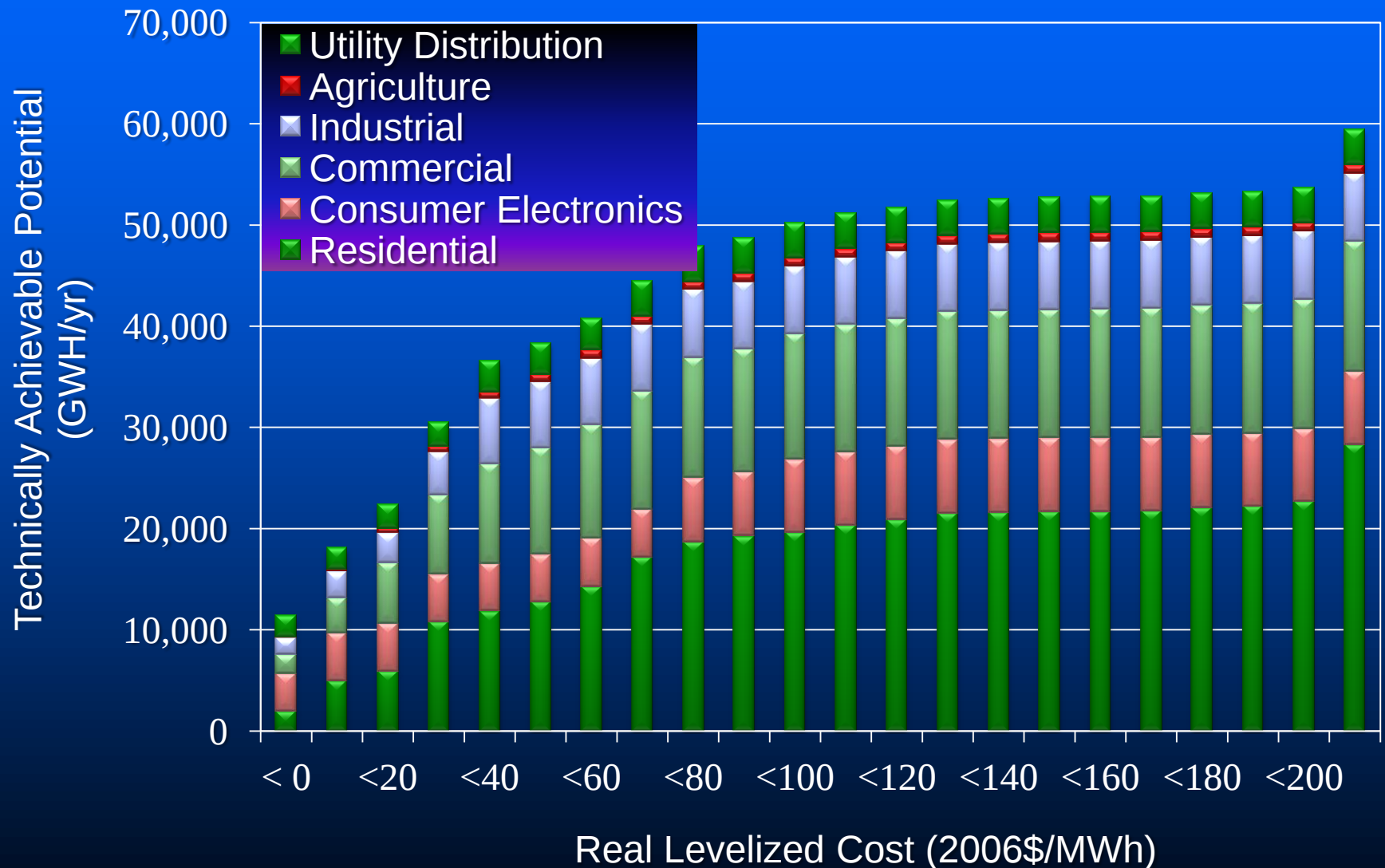


Utility Acquired Energy Efficiency Has Been Both Low Cost and Low Risk

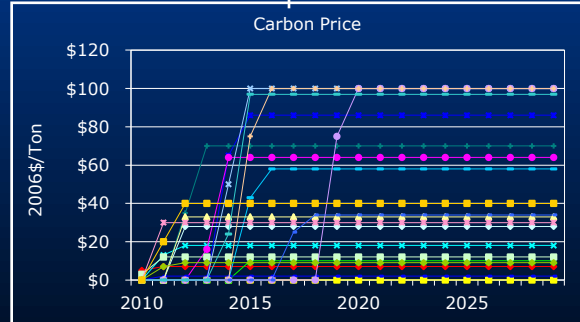
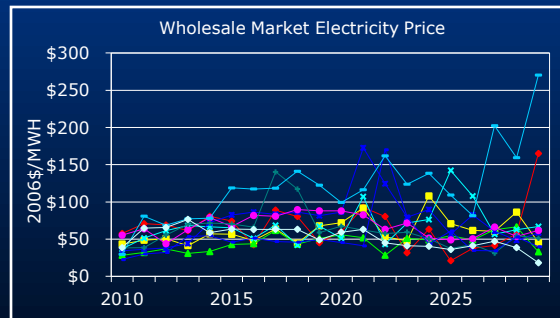
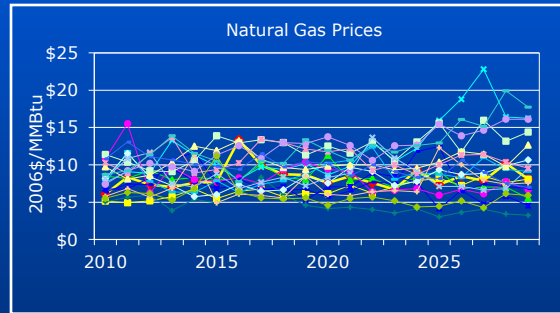
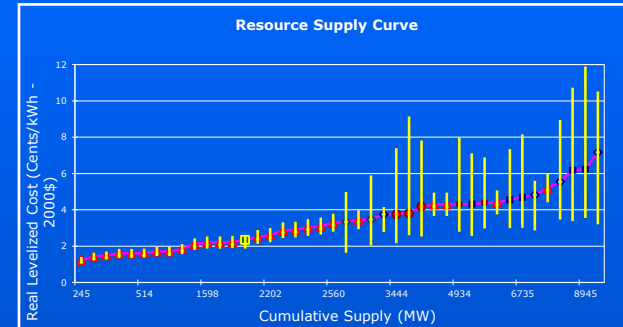
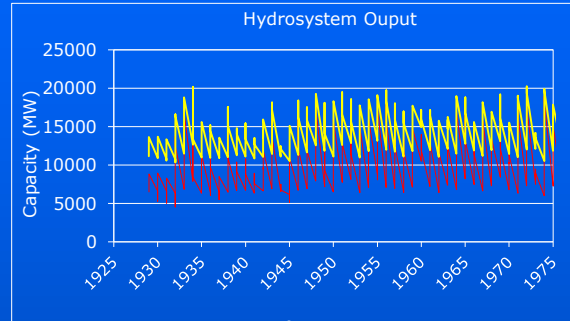
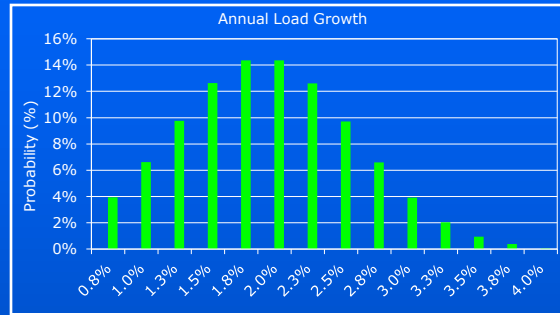


PNW Treats Efficiency As a Resource

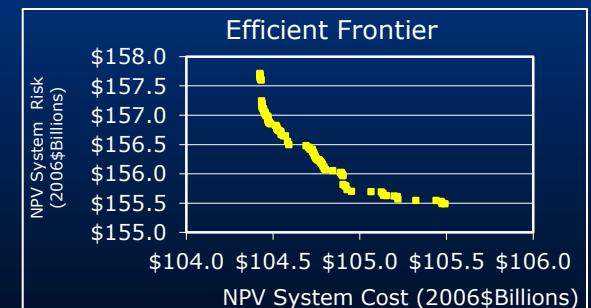
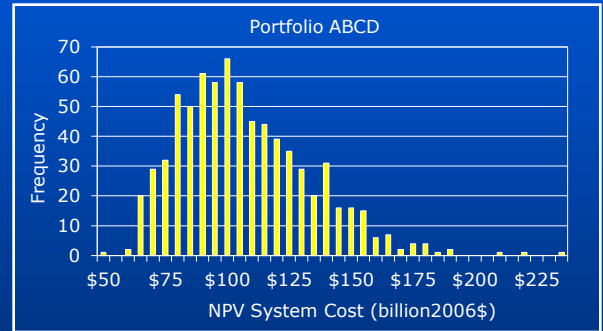
"Supply Curve" for Technically Achievable Potential by 2030



Portfolio Analysis Determines the Type, Amount and Timing of Resource Development in the Face of Uncertainty



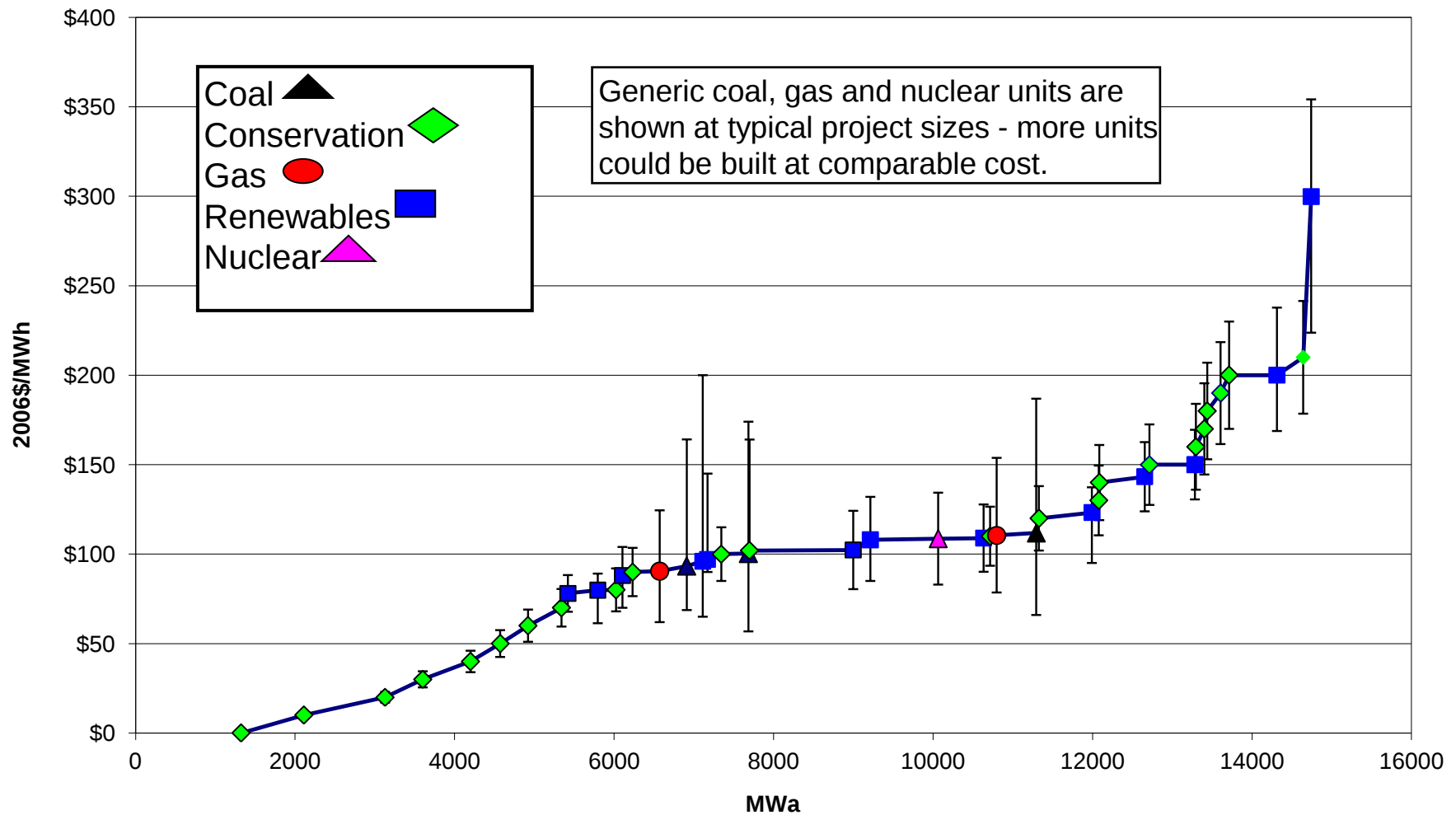
**Portfolio
Analysis
Model**



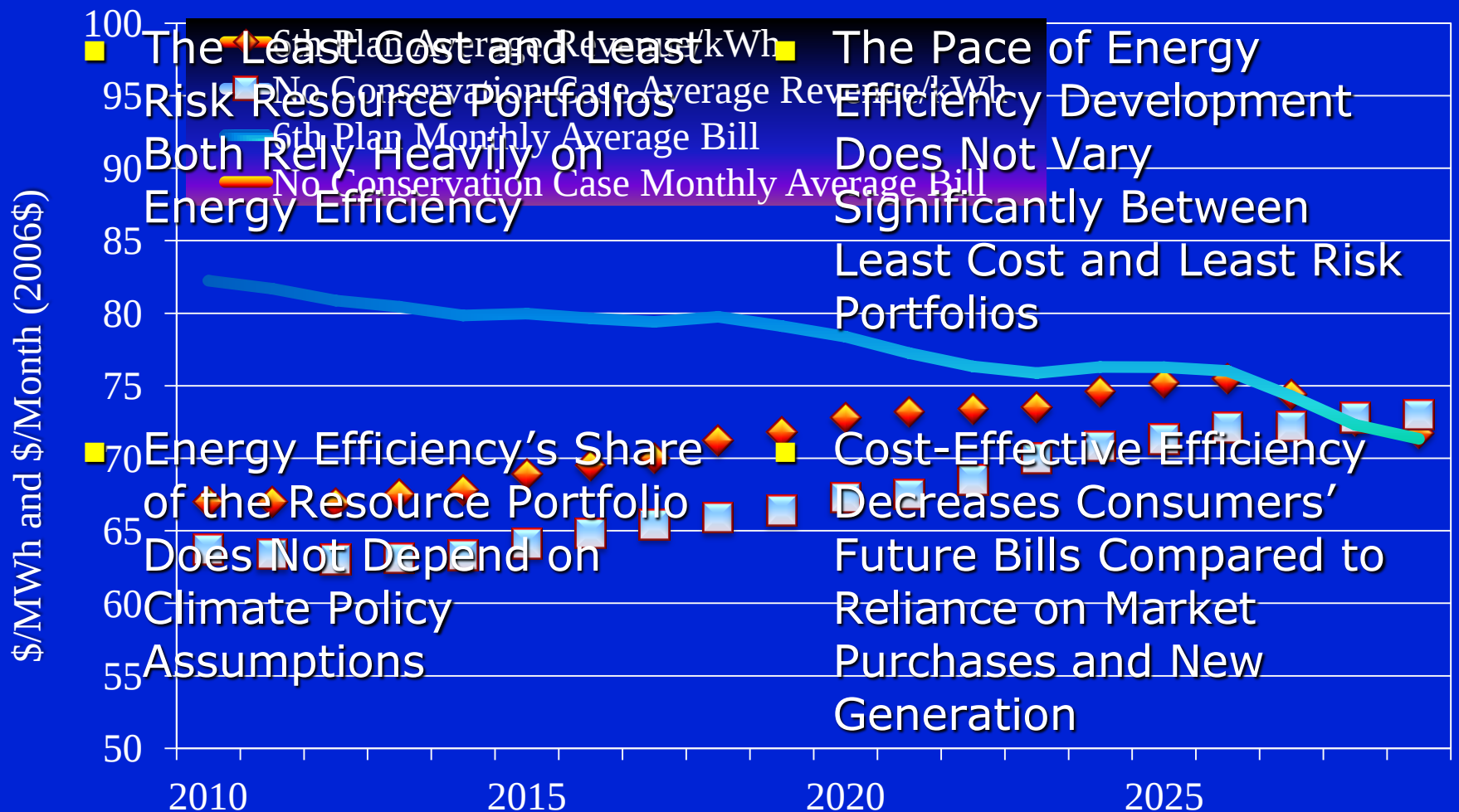
Plans Along the Efficient Frontier Permit Trade-Offs of Costs Against Risk



Portfolio Analysis on One Slide



Insights from Resource Portfolio Analysis



Why We Rely on Energy Efficiency

- It's A Cheap (avg. 2.4 cents/kWh) Hedge Against Market Price Spikes
- It's Not Subject to Fuel Price Risk
- It's Not Subject to Carbon Control Risk
- It's Significant Enough In Size to Delay "build decisions" on generation
- IF you can find any other resource with the same characteristics . . . buy them.