The Northwest Forecast – Energy Efficiency Dominates Resource Development

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What You're About To Hear

- Efficiency and the Current Resource Mix
- Regional Efficiency Goals
  - 5th Northwest Power and Conservation Plan
  - Utility and SBC Administrator Plans
- What's Behind the Goals
- The Challenge Ahead

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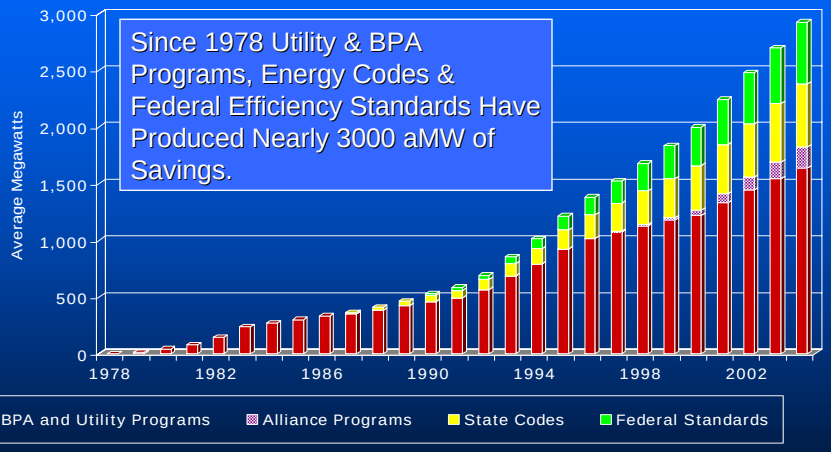
PNW Energy Efficiency Achievements 1978 - 2004



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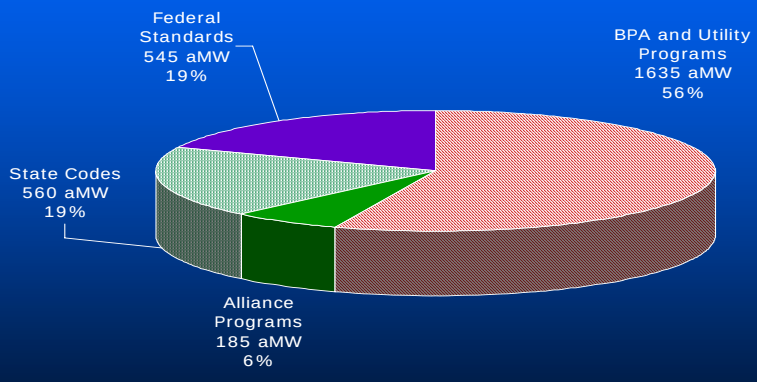
Cumulative 1978 - 2004 Efficiency Achievements by Source



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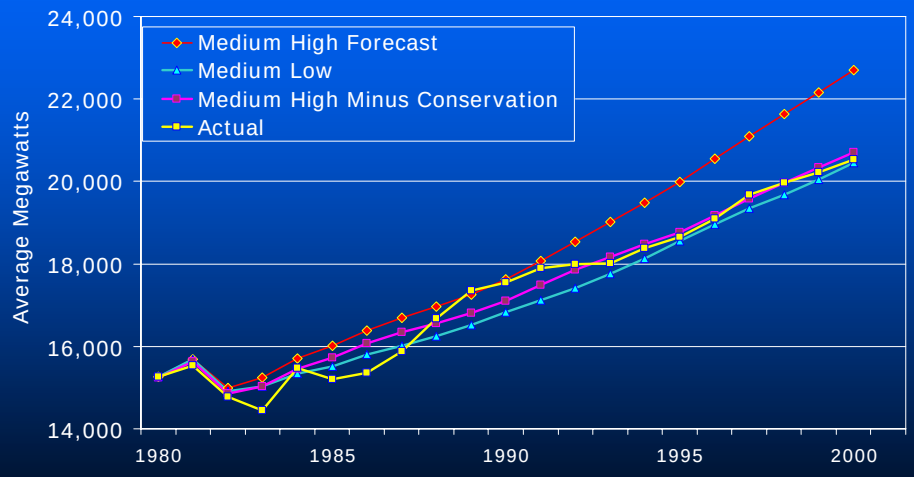
Energy Efficiency Resources Significantly Reduced Projected PNW Electricity Sales



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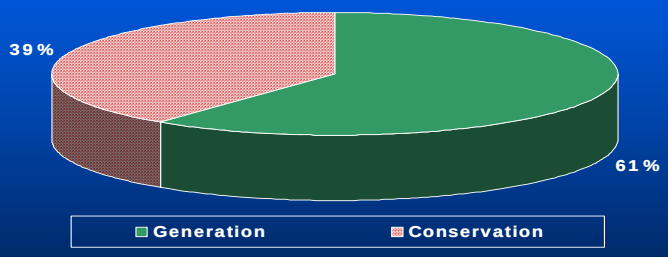
Energy Efficiency Met Nearly 40% of PNW Regional Firm Sales Growth Between 1980 - 2003



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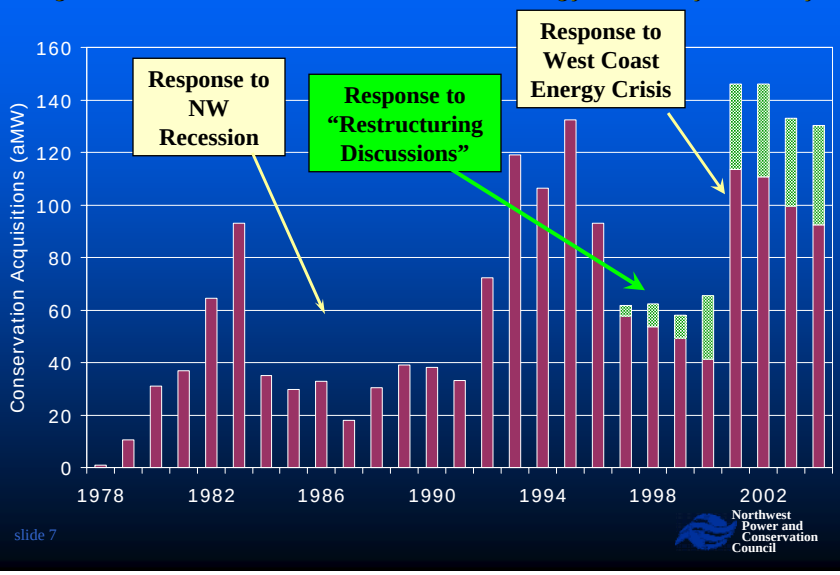
Regional Utility Conservation Acquisitions Have Also Helped Balance Loads & Resources

Creating Mr. Toad's Wild Ride for the PNW's Energy Efficiency Industry



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So What's 3000 aMW?

- It's enough electricity to serve the ***entire*** state of Idaho and all of Western Montana
- It's enough electricity to meet nearly 60% of Oregon total electricity use

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So Much for the Past, What's Ahead

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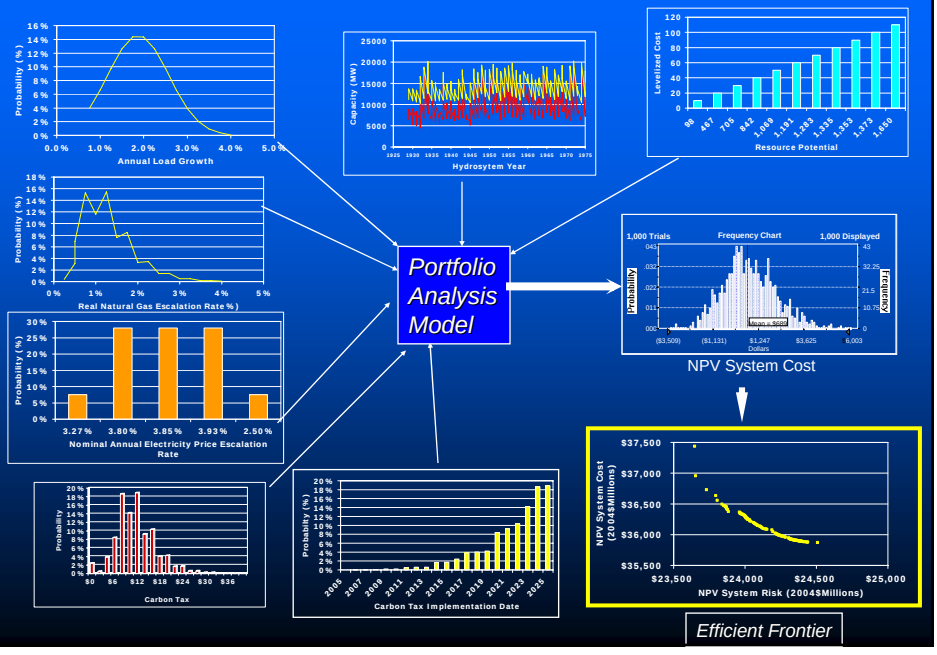
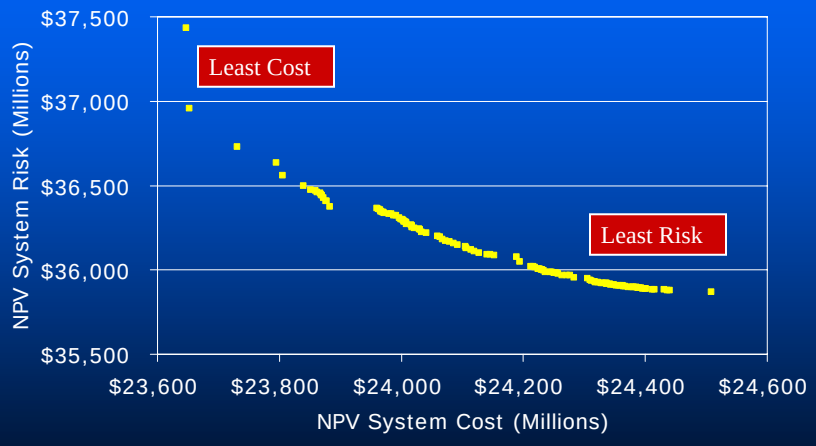
PNW Portfolio Planning – Scenario Analysis on Steroids



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



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Three Conservation Options Tested

- **Option 1**: ***Accelerated*** – Similar to the "best performance" over the last 20 years
  - Non-lost opportunity limited to 120 aMW/year
  - Ramp-up lost-opportunity to 85% by 2017
- **Option 2**: ***Sustained*** - Similar to typical rates over last 20 years
  - Non-lost opportunity limited to 80 aMW/year
  - Ramp-up lost-opportunity to 85% by 2017
- **Option 3**: ***Status Quo*** - Similar to lowest rates over last 20 years
  - Non-lost opportunity limited to 40 aMW/year
  - Ramp-up lost-opportunity to 85% penetration by 2025

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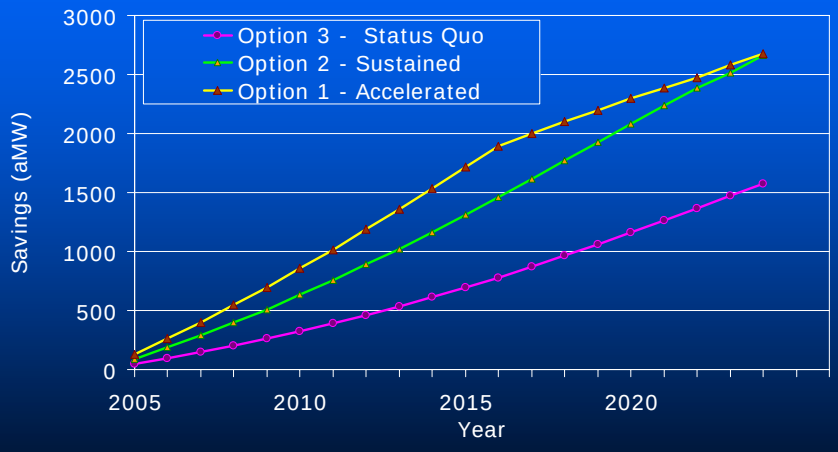
Average Annual Conservation Development for Alternative Levels of Deployment Tested



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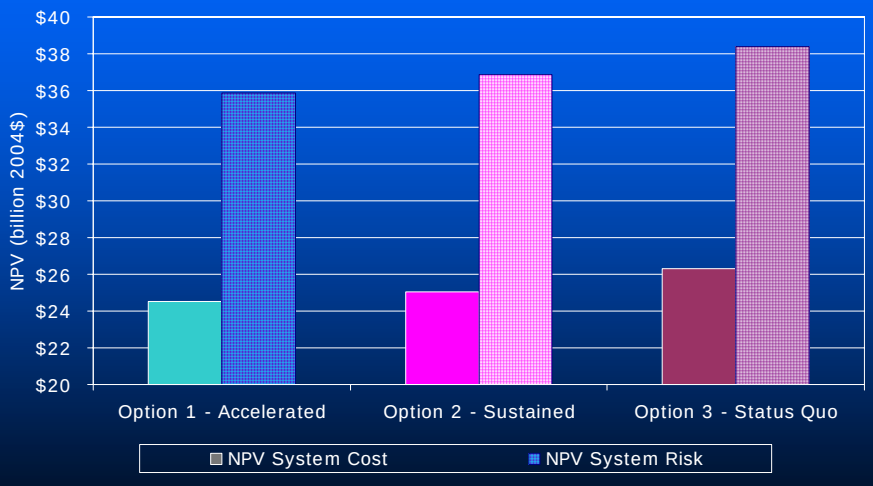
Accelerating Conservation Development Reduces Cost & Risk



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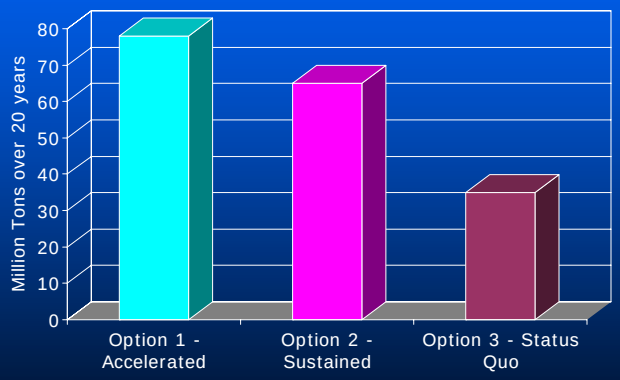
WECC Carbon Dioxide Emissions Reductions for Alternative Conservation Targets



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Why Energy Efficiency Reduces NPV System Cost and Risk

- It's A Cheap (avg. 2.4 cents/kWh TOTAL RESOURCE COST) Hedge Against Market Price Spikes
- It has value even when market prices are low
- 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

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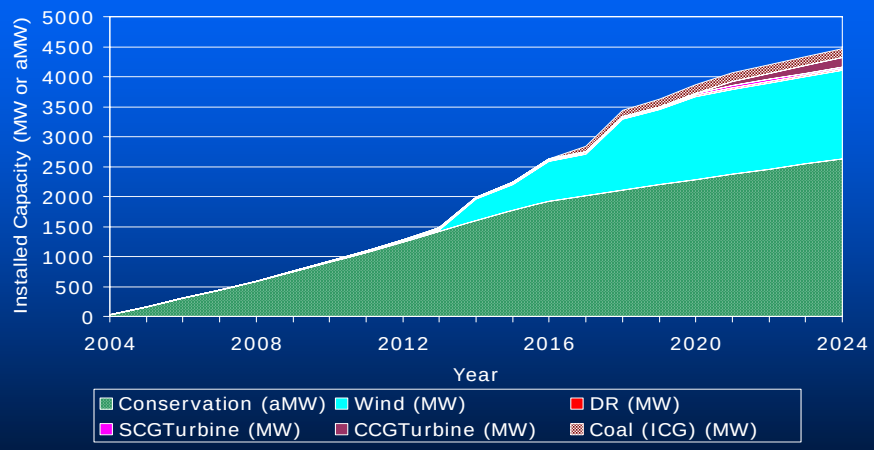
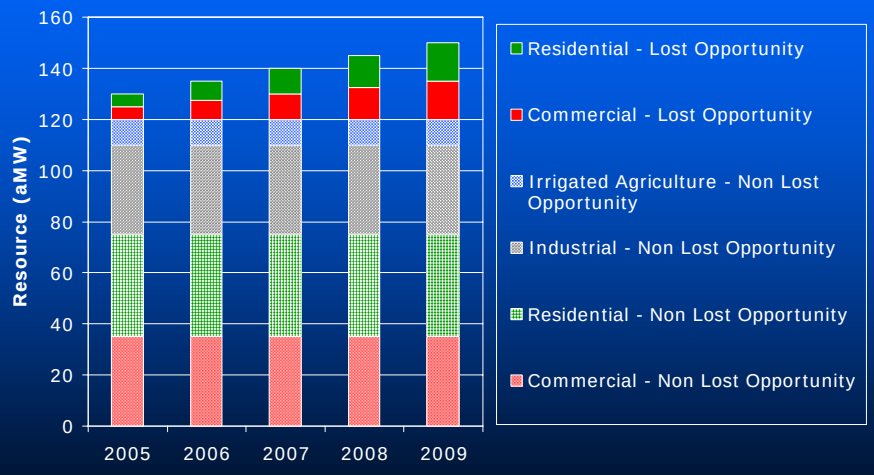
5th Plan Relies on Conservation and Renewable Resources to Meet Load Growth*



*Actual future conditions (gas prices, CO2 control, conservation accomplishments) will change resource development schedule

Near-Term Conservation Targets (2005-2009) = 700 aMW



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5th Plan
Conservation Action Items

- Ramp up "Lost Opportunity" conservation
  - » Goal => 85% penetration in 12 years
  - » 10 to 30 MWa/year 2005 through 2009
- Accelerate the acquisition of "Non-Lost Opportunity" resources
  - » Return to acquisition levels of early 1990's
  - » Target 120 MWa/year next five years
- Employ a mix of mechanisms
  - » Local acquisition programs (utility, SBC Administrator & BPA programs)
  - » Regional acquisition programs and coordination
  - » Market transformation ventures

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Implementation Challenges

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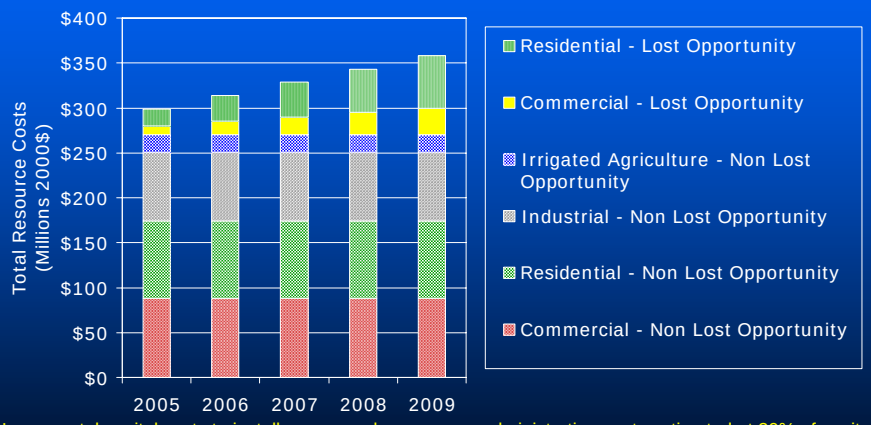
The Total Resource Acquisition Cost* of 5th Plan's Conservation Targets 2005 – 2009 = $1.64 billion



*Incremental capital costs to install measure plus program administration costs estimated at 20% of capital.

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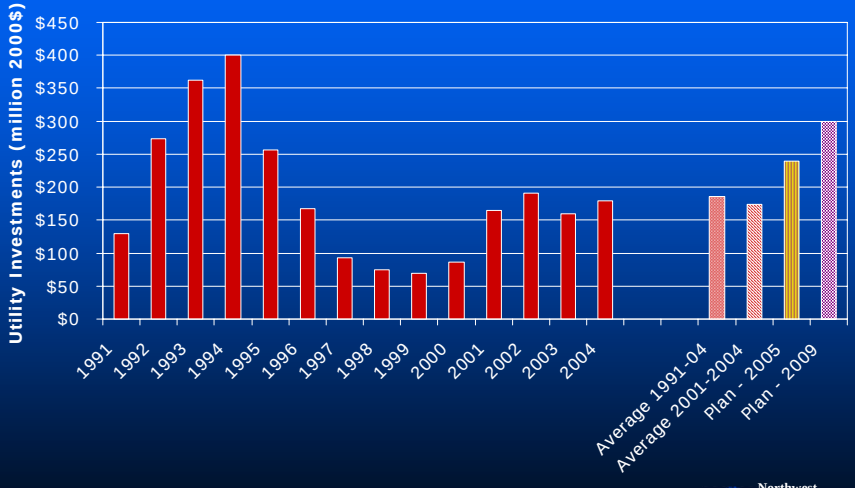
Meeting the Plan's Efficiency Targets Will Require Increased Regional Investments



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Although, the Share of Utility Revenue Required is Modest

Regional Average Revenue/kWh will need to increase by $0.000006/kWh

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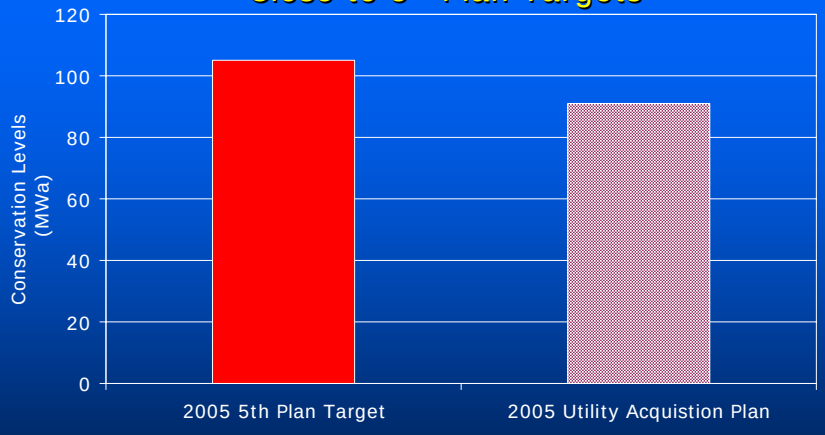
Utility* Efficiency Acquisition Plans for 2005 Are Close to 5th Plan Targets



*Targets for 15 Largest PNW Utilities. These utilities represent approximately 80% of regional load.

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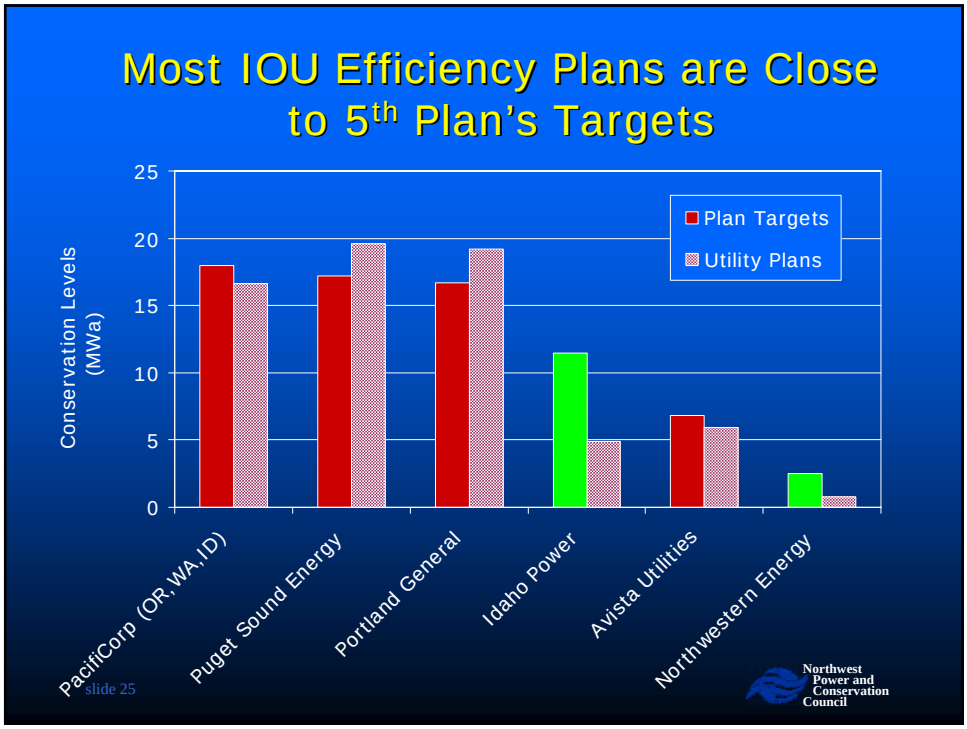
Most IOU Efficiency Plans are Close to 5th Plan's Targets
Conservation Levels (MWa)
25
20
15
10
5
0
Plan Targets
Utility Plans
PacifiCorp (OR,WA,ID)
Puget Sound Energy
Portland General
Idaho Power
Avista Utilities
Northwestern Energy
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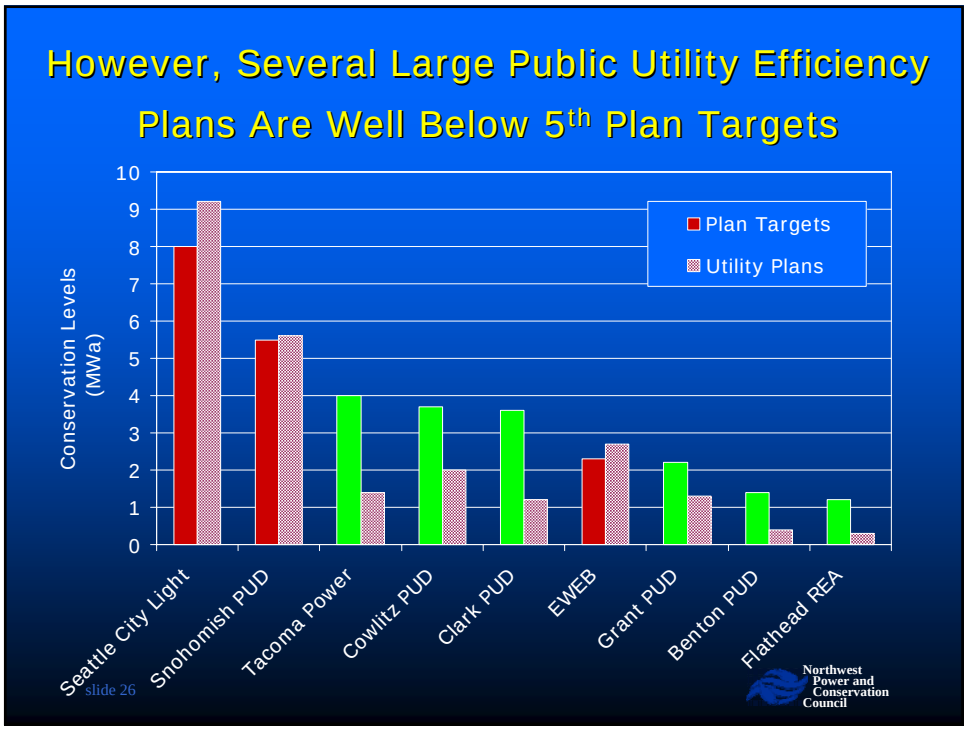
However, Several Large Public Utility Efficiency Plans Are Well Below 5th Plan Targets
Conservation Levels (MWa)
10
9
8
7
6
5
4
3
2
1
0
Plan Targets
Utility Plans
Seattle City Light
Snohomish PUD
Tacoma Power
Cowlitz PUD
Clark PUD
EWEB
Grant PUD
Benton PUD
Flathead REA
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Summary – The PNW

- Council and Recent Utility IRPs (PSE, Avista, Northwestern, Snohomish PUD) all found that accelerating energy efficiency acquisitions reduces projected system cost and risk
- The Council's 5th Plan Target is *Achievable* . . . but some major utilities are "behind the curve"

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