

# Biennial Assessment of the Fifth Power Plan

## Interim Report on Progress on Energy Efficiency Implementation

The 5<sup>th</sup> Plan's Action Plan contained a regional target of 700 average megawatts for conservation resource acquisition from 2005 through 2009 as well as other actions designed to support attainment of that target. Overall the region appears to be making significant progress towards accomplishing the 5<sup>th</sup> Plans goals, although not all utilities appear to be accomplishing their proportionate share of the savings.

Bonneville, the region's utilities and system benefits administrators have or are accelerating the pace of their conservation programs. Based on preliminary returns to the Regional Technical Forum's (RTF) survey of regional conservation achievements it appears the 5<sup>th</sup> Plan's goal of 130 average megawatts for 2005 will likely be accomplished. From the survey returns received as of the end of November the region acquired approximately 125 average megawatts of savings in 2005. The total Bonneville, utility and system benefits charge administrator expenditures for conservation were just under \$160 million or about 1.7 percent of total retail revenues collected in that year. The average utility cost of these savings was approximately \$1.3 million/average megawatt.

Because final 2006 program accomplishments will not be available for several months it is too early to assess if the Council's target for that year will be achieved. However, from the preliminary data available it appears that the region should be able to at least match the savings from 2005.

Table 1 summarizes the annual savings and expenditures for Bonneville, the Northwest Energy Efficiency Alliance (Alliance), and the Energy Trust of Oregon and individual utilities that have responded to the RTF's survey.

Table 1 - Summary of Bonneville, Utility and System Benefits Charge Administrator Conservation Achievements (Preliminary)<sup>1</sup>

Program Administrator	2005		Projected 2006	
	Expenditures (million\$)	Savings (aMW)	Expenditures (million\$)	Savings (aMW)
Utility Conservation	\$ 96.2	72.4	\$ 112.5	61.8
Bonneville Conservation (ConAug)	\$ 15.2	13.1	\$ 15.0	15.6
Bonneville Conservation (C&RD)	\$ 20.7	9.4	\$ 12.0	6.9
Bonneville Low Income Weatherization	\$ 3.8	0.4	\$ 2.8	0.2
Utility Low-Income Weatherization	\$ 3.6	0.7	\$ 3.5	0.8
Northwest Energy Efficiency Alliance	\$ 19.7	28.9	\$ 20.6	24.5
Total (Expenditures and aMW)	\$ 159	125	\$ 166	110

<sup>1</sup> Not all of the region's utilities have responded to the RTF's survey. However, the expenditures and savings shown in Table 1 represent 31 entities including Bonneville and the Energy Trust of Oregon and approximately 84 % of the region's load.

Savings reported by the Northwest Energy Efficiency Alliance decreased from 29 average megawatts in 2005 to 25 average megawatts in 2006. This reduction is largely due to changes in federal standards for residential clothes washers that were a target of one of the Alliance's initial market transformation programs. The Alliance is now targeting even higher efficiency machines beyond the federal standards.

Savings from Bonneville programs remained roughly constant between 2005 and 2006 producing just over 40 average megawatts each year. Bonneville believes that it has met its share of the region's conservation goal of 52 average megawatts in each of these years since it exceeded its conservation targets in 2003 and 2004. Bonneville believes it is appropriate to count these prior savings towards the 5<sup>th</sup> Plan's 2005 and 2006 targets. Regardless of whether this action is appropriate, Bonneville must increase its savings from 40 average megawatts to 52 average megawatts in 2007 if it is to stay on pace to meet the 5<sup>th</sup> Plan's five year goals. Bonneville implemented its 2007 programs prior to the end of fiscal 2006 in order to sustain utility program activities.

Although Table 1 shows the quantitative results of conservation implementation in the region, it does not fully capture the changes in national, state and utility policies and activities since the adoption of the Council's 5<sup>th</sup> Plan. At the national level, the Energy Policy Act of 2005 (EPACT 2005) established new federal efficiency standards for 15 new products and requires the US Department of Energy (USDOE) to adopt new or update standards for nine additional products. Perhaps just as significantly, EPACT 2005 also requires USDOE to update over 20 of the existing federal standards and testing procedures that were long overdue for revision -- some by as much as 15 years. USDOE has committed to Congress that it will accomplish this task within the next five years.<sup>2</sup>

At the state level, Oregon and Washington adopted new equipment efficiency standards for 12 of the 15 products covered by the new EPACT 2005 standards. Some of these standards are scheduled to take effect prior to the EPACT 2005 standards. Washington recently adopted revisions to its residential energy code. These revisions are expected to improve the efficiency of new single family and multifamily dwellings by between 7 - 14% depending upon whether the home is located east or west of the Cascades. In early 2007 Oregon will be considering changes to its residential energy code. Governor Kulongoski has set a 15% savings goal for these revisions. Both Idaho and Montana are considering updates to their residential and commercial energy codes as part of their normal code revisions cycles.

These changes in federal and state standards and codes capture only a portion of all of the regional cost-effective efficiency improvements identified in the 5th plan. This occurs for two reasons. First, most of the new federal standards do not become effective until 2007. Second, the efficiency levels of the standards do not achieve all regionally cost-

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<sup>2</sup> See: [http://www.eere.energy.gov/buildings/appliance\\_standards/pdfs/congressional\\_report\\_013106.pdf](http://www.eere.energy.gov/buildings/appliance_standards/pdfs/congressional_report_013106.pdf)

effective savings.<sup>3</sup> Therefore, utility and system benefits charge administrator programs will still be required to secure the remaining cost-effective conservation opportunities.

Since the adoption of the 5<sup>th</sup> Plan, most of the region's investor-owned utilities and several of the larger public utilities have completed integrated resource planning processes. Staff review of these plans indicates that efficiency investments are increasing. For example, Avista increased its conservation target by 20% between 2005 and 2006. Idaho Power Company recently released its 2006 IRP in which it anticipates nearly doubling its annual investment in energy efficiency. Washington voters recently passed Initiative 937 (I-937) which calls upon that state's larger utilities to acquire all conservation resources in their service territories that they find to be cost-effective using the Council's methodology. This requirement does not take effect until 2010. However, it is anticipated that those utilities covered by I-937 will begin modifying their programs before 2010. Staff believes that the overall impact of I-937 will be to increase local utility conservation acquisitions.

In Oregon, the Energy Trust has had to restrict participation in its programs due to funding limitations. As a result, the Oregon Public Utility Commission and Portland General Electric are now discussing the feasibility of increasing Energy Trust conservation funding. Such funding would be made available from the states investor owned utilities if their integrated resource planning processes finds that addition conservation investments would be justified. It is anticipated that legislation concerning this matter will be introduced during the 2007 session.

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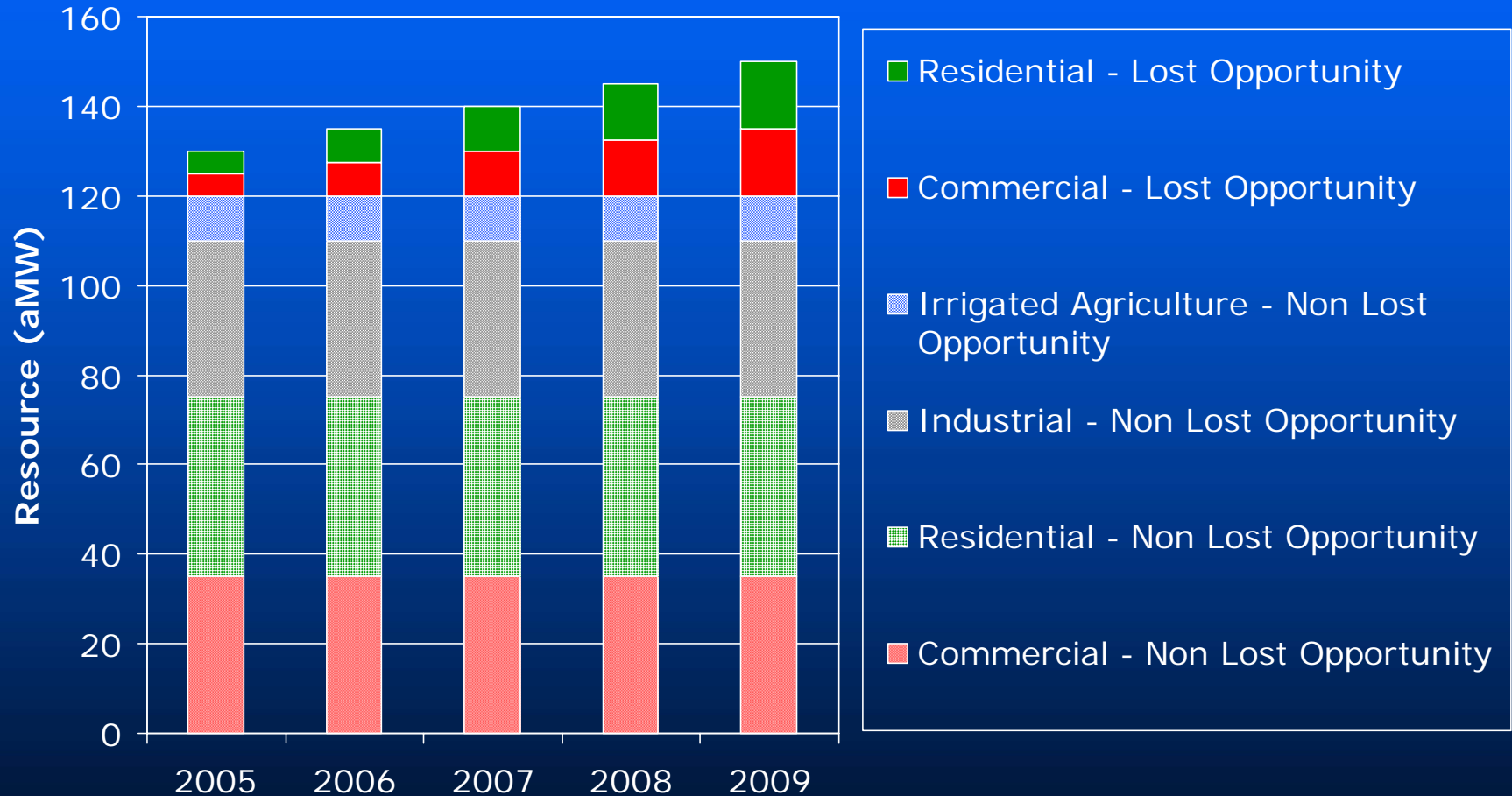
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<sup>3</sup> For example, the recently adopted revisions to Washington's residential code will require windows to achieve a U-factor of 0.35 or lower. The Council's plan identified windows with a U-factor of 0.30 or lower as being regionally cost effective.

# Fifth Plan Biennial Assessment Interim Report: Conservation Implementation

December 12, 2006

# Are We Achieving the 5<sup>th</sup> Plans Near-Term Conservation Targets? (2005-2009) = 700 aMW



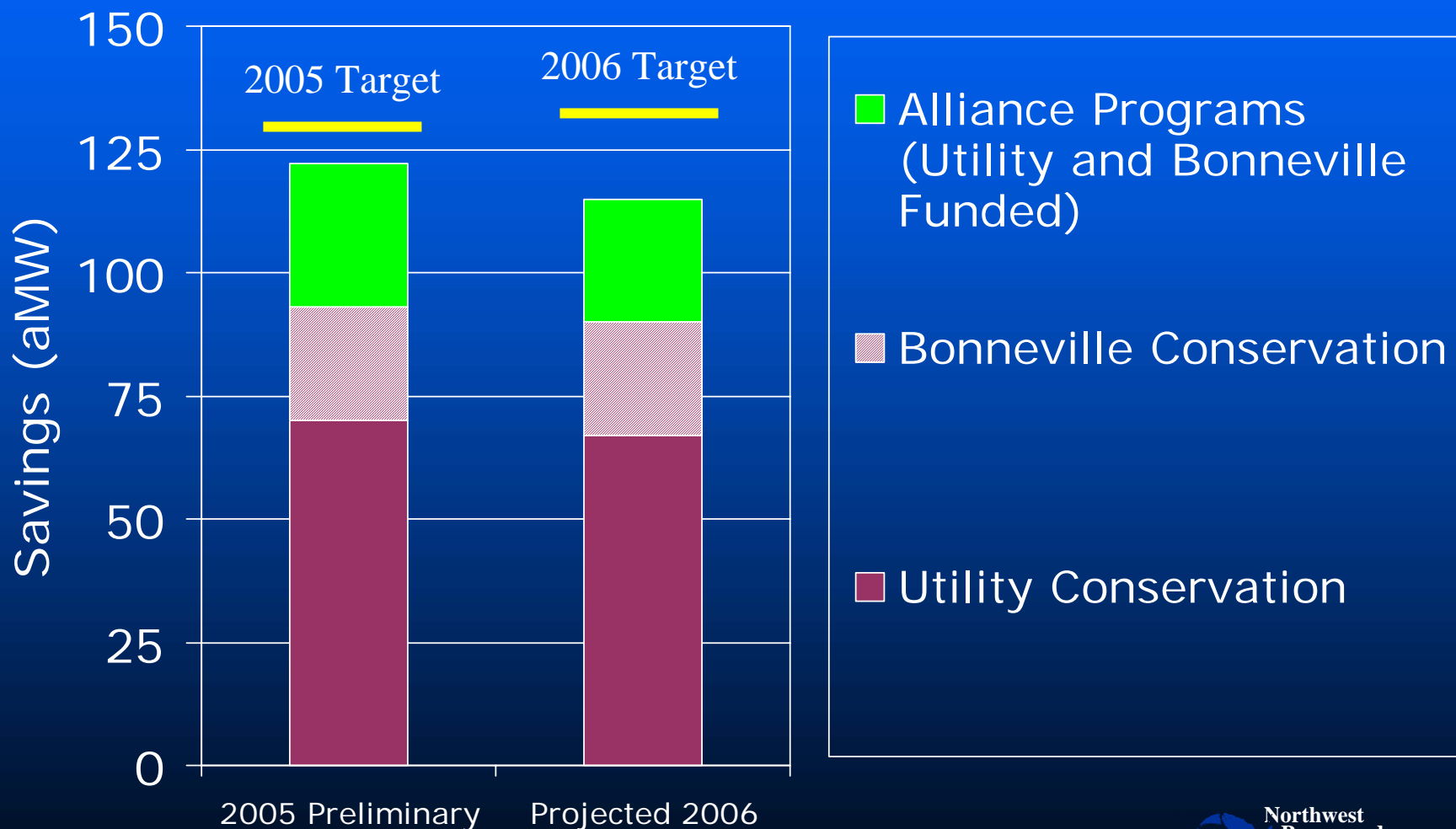
# Council's Regional Technical Forum Is Surveying Utility Progress on Conservation



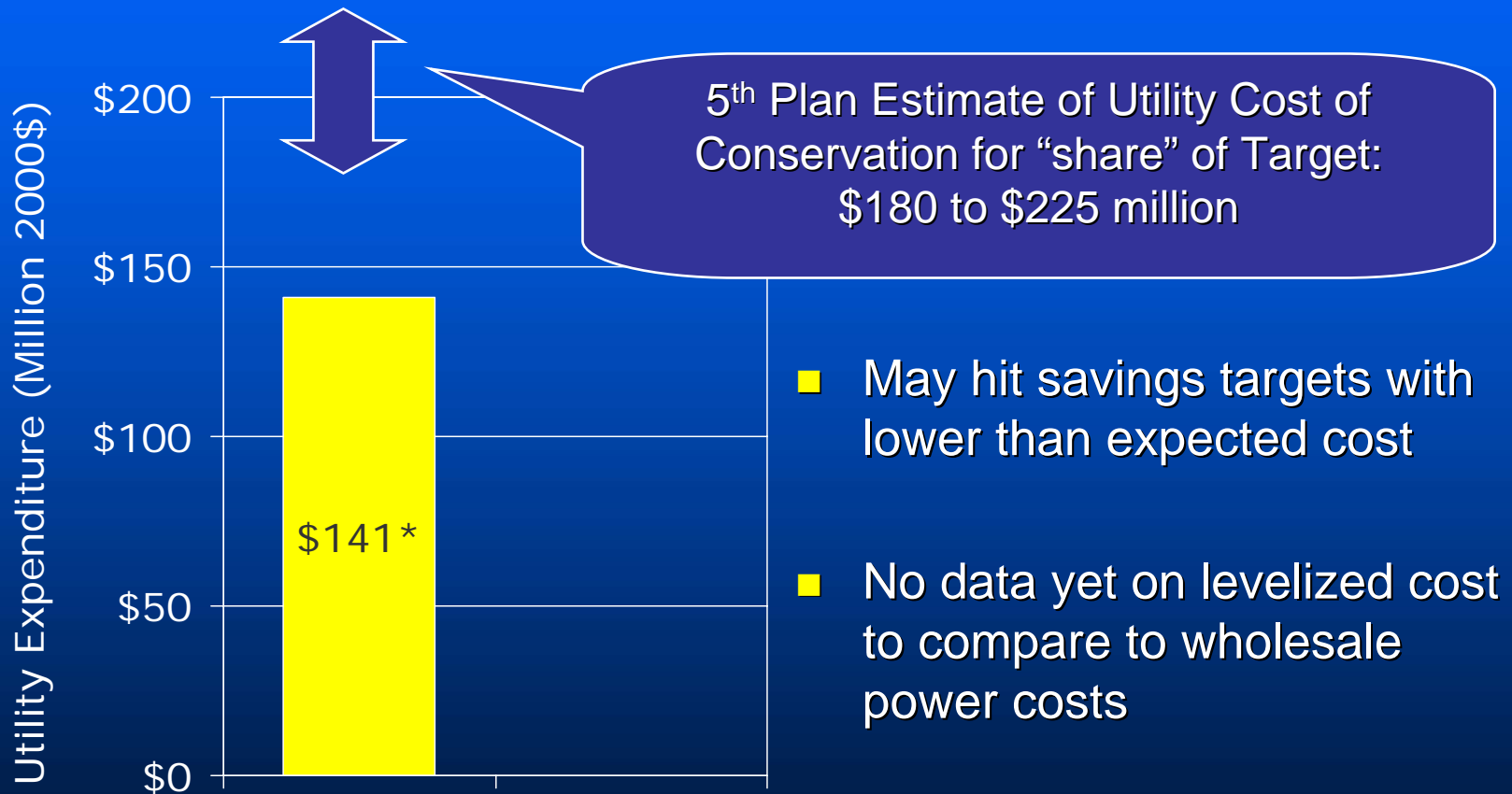
Not All  
Returns  
Have Been  
Counted

*40 Utilities  
84% of Regional  
Load*

# Early Returns Show We're Close on the Savings



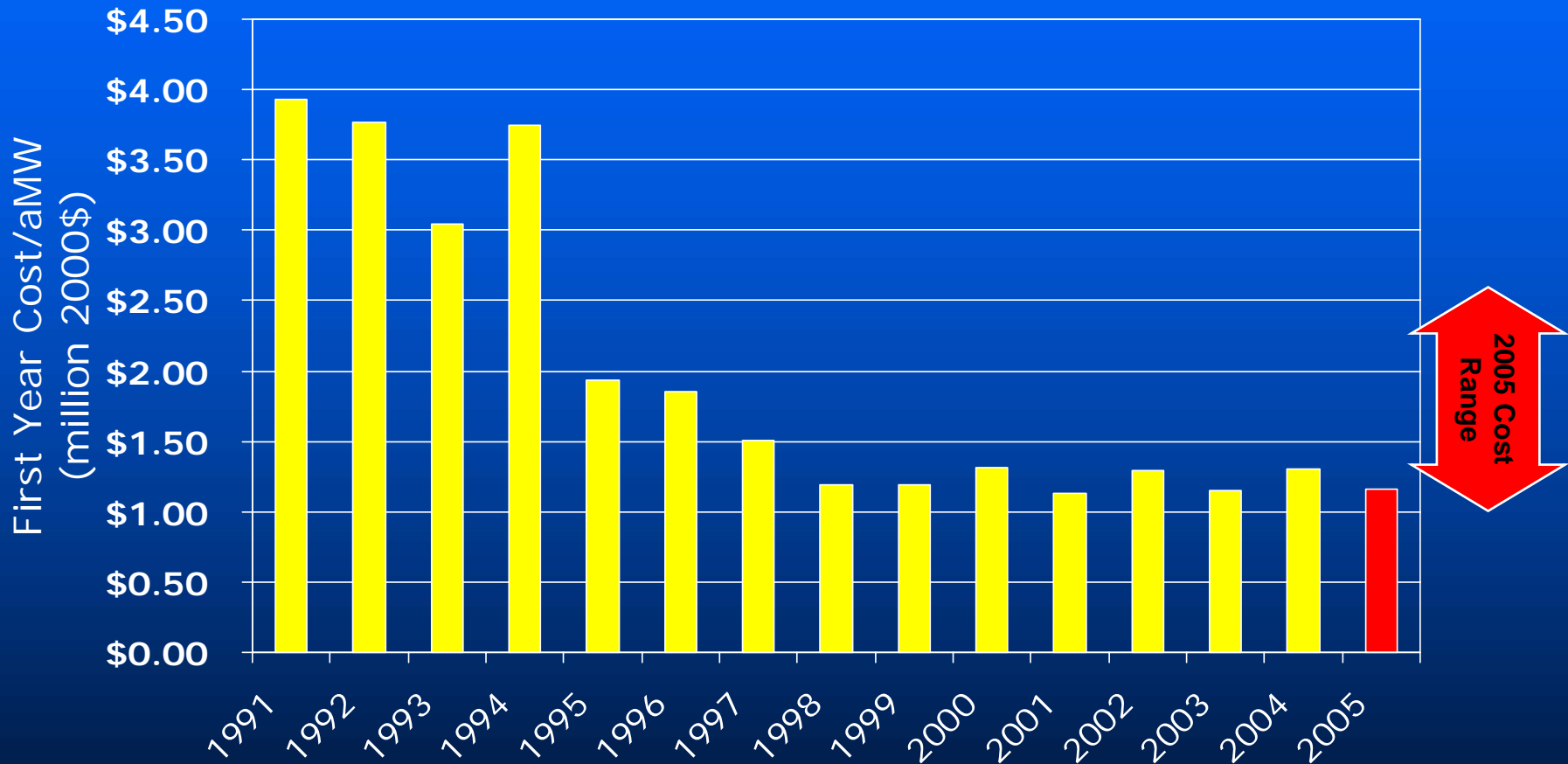
# Conservation Appears to Be Lower Cost . . . At Least To Utilities



**\*Equivalent to 1.75% of Regional Retail Revenues**



# Utility Cost of Conservation Continues to Decrease





*"Bummer of a birthmark, Hal."*
















Are  
Individual  
Utilities  
"Making  
Their  
Targets?"

# Caveats on Utility “Targets”

- “Targets” are based share of regional load, hence assume all utilities look like the “region” – NOT SO!
- Conservation potential varies due to customer mix, gas/electric market share, load growth, etc.
- Utility IRPs will differ from Council Plan
- Lumpy-factor: Annual program volume varies
- Still, many utilities want to know their “share” of the regional conservation targets

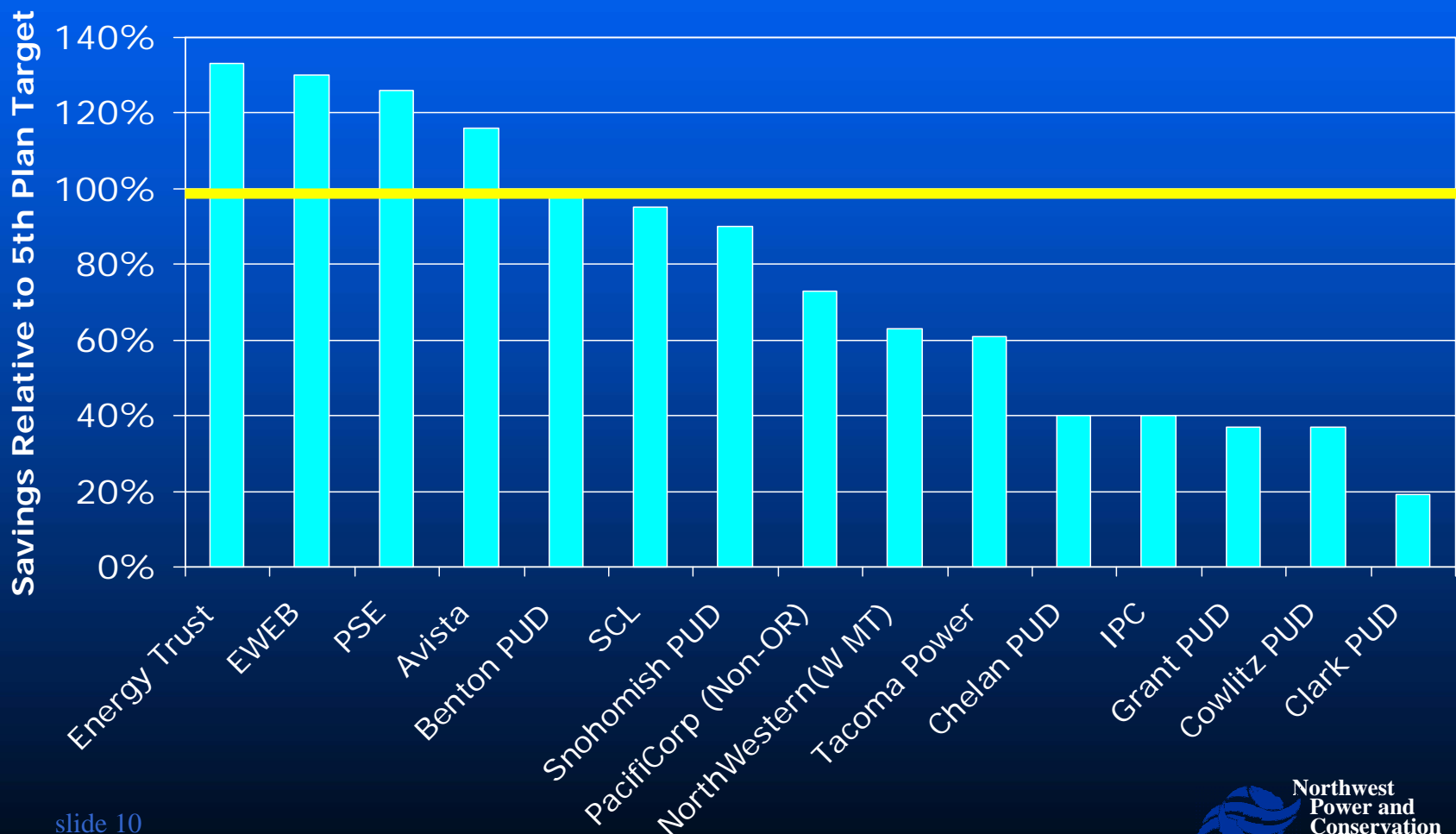
# 2005 Preliminary Findings by Utility

15 Largest Utilities or 80% of Regional Loads

- Four utilities far exceed targets    
  - 15 to 35% above “share” of regional target
- Three utilities within 10% of target   
- Eight utilities fell short        
  - Five achieved less than half of their “share” of regional target

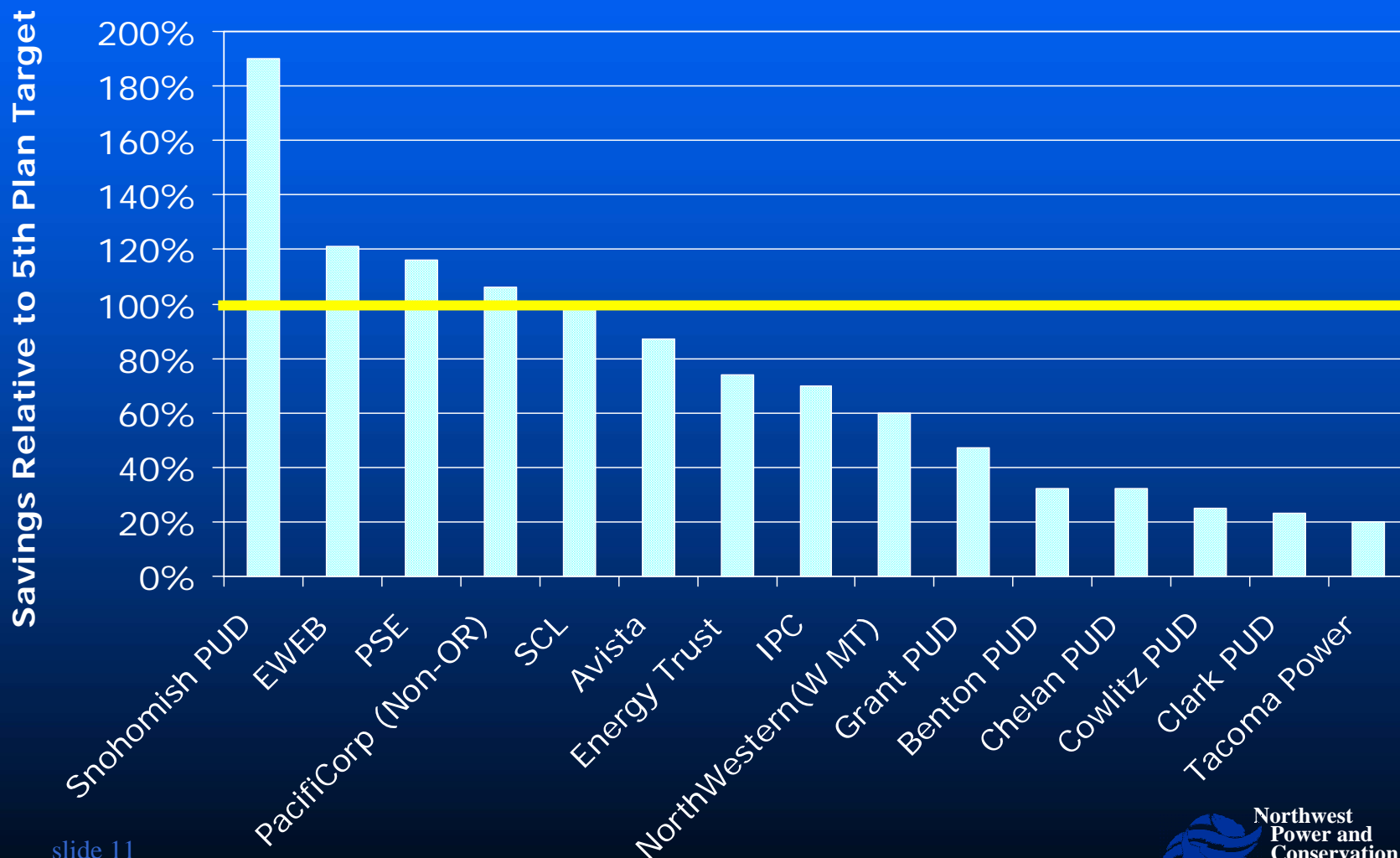
# 2005 Preliminary Results

## 15 Largest Utilities – 80% of Regional Loads



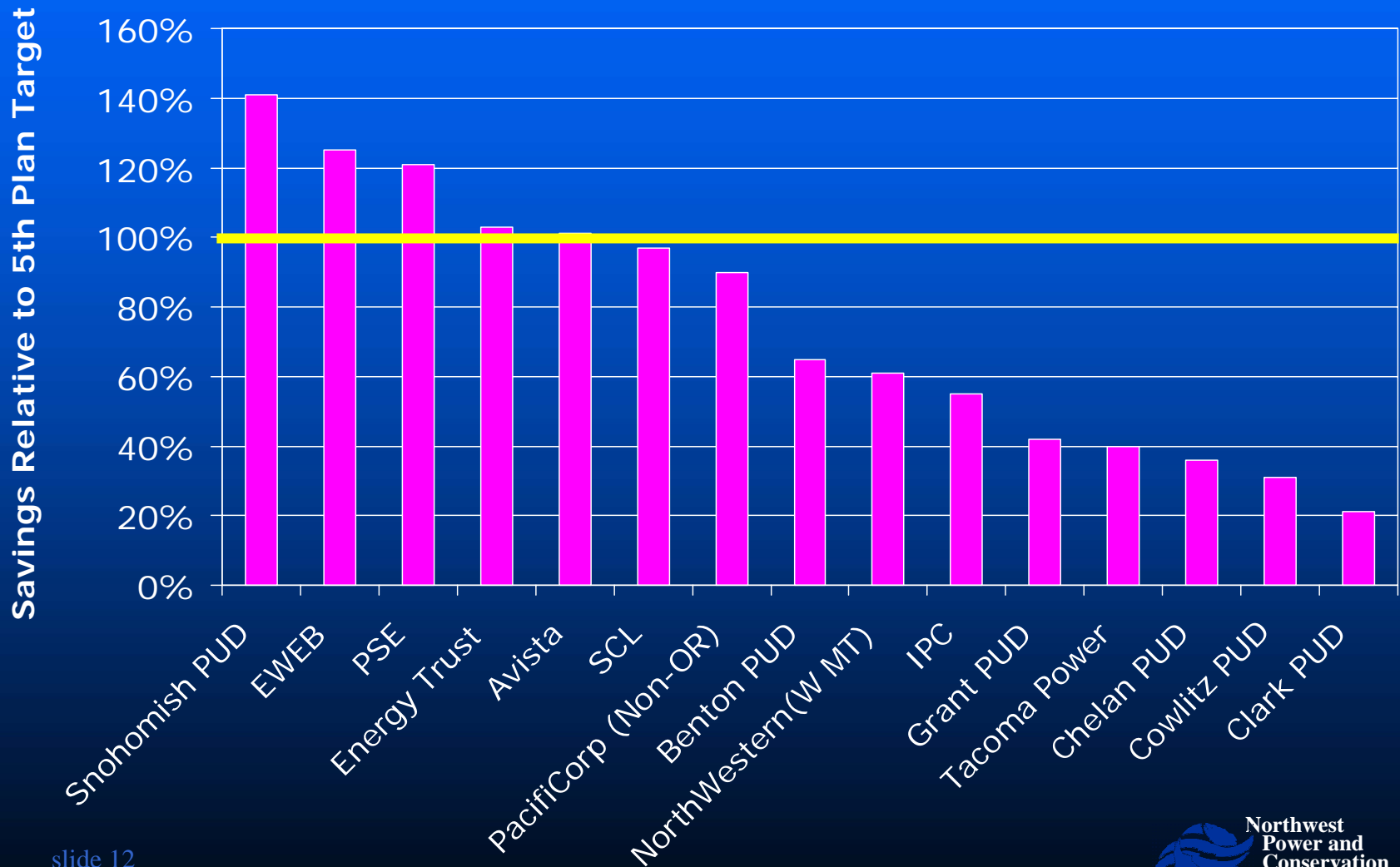
# 2006 Preliminary Results

## 15 Largest Utilities – 80% of Regional Loads

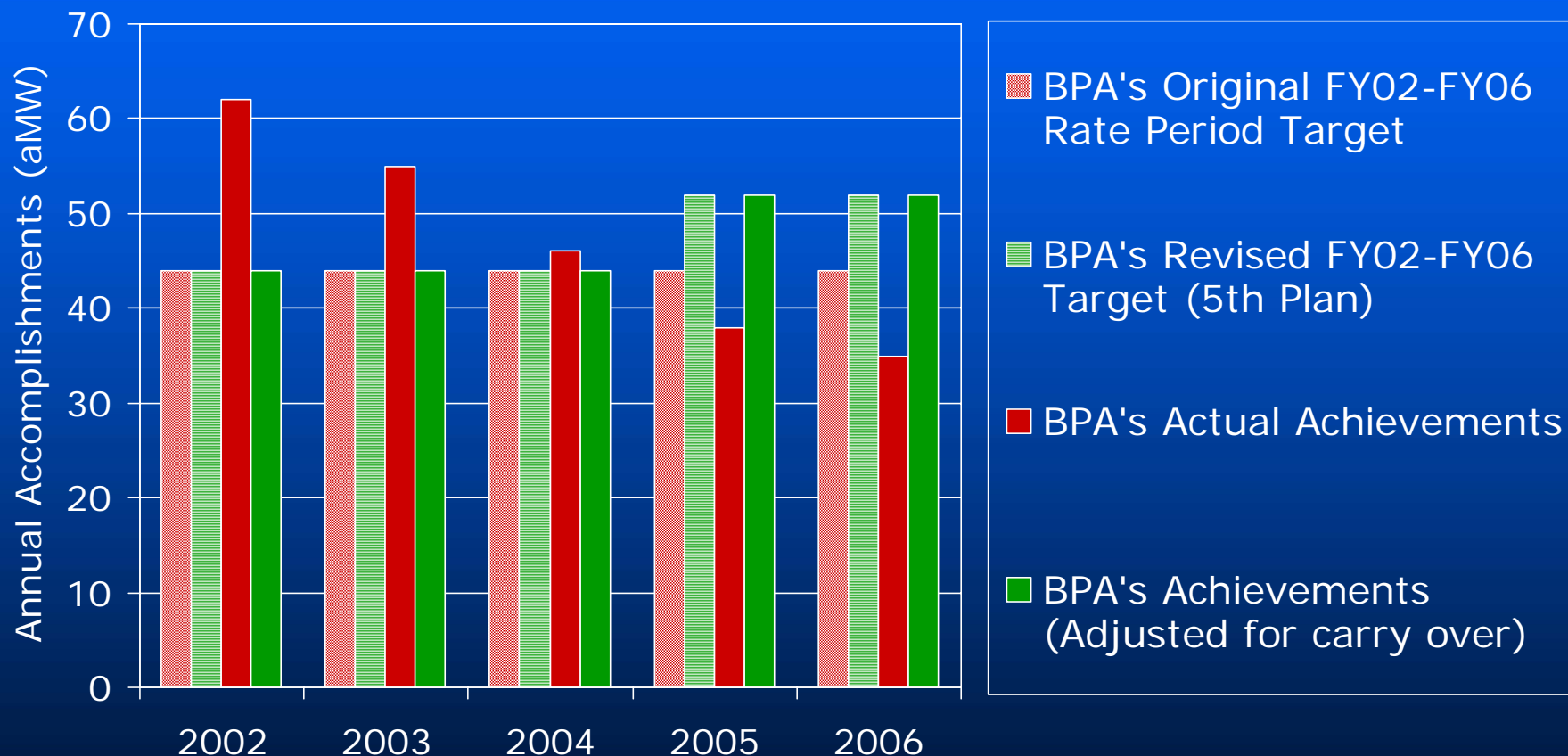


# Average 2005-06 Preliminary Results

## 15 Largest Utilities – 80% of Regional Loads



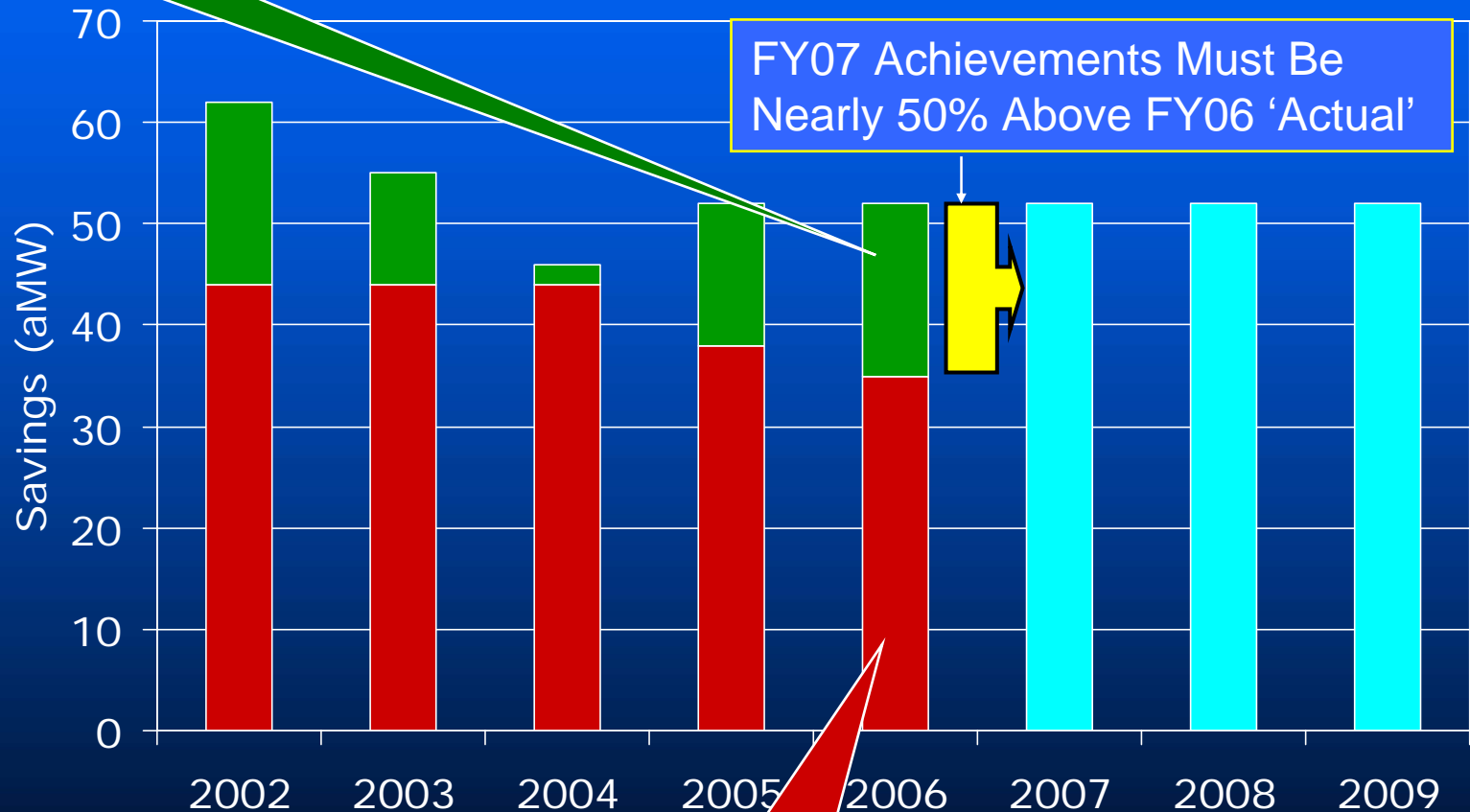
# Bonneville Achieved It's 2002-2006 Targets





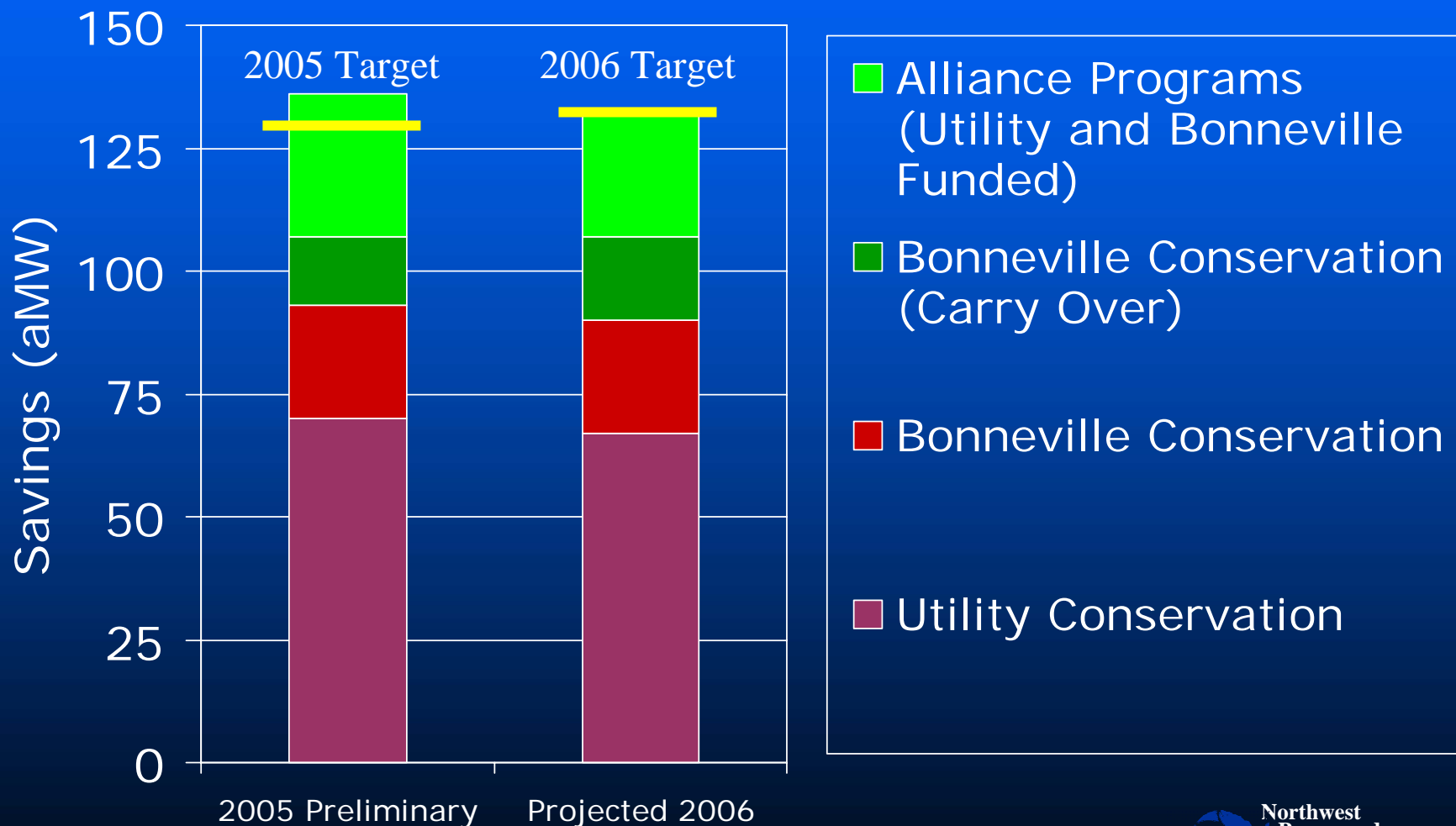
# However, BPA Has Exhausted Its "Surplus"

Surplus Savings from Carry-Over



Actual Savings

# With Bonneville's "Carry Over" The Region Exceeds the 5<sup>th</sup> Plan 2005 -2006 Targets



# The Road Ahead – A Brighter Future @ Lower Wattage

- Over 7 million CFLs sold in 2005
  - PNW has 16% of all US installs



- State & Federal standards for 17 appliances
  - Help hit targets beginning 2008

- BPA has several new regional initiatives underway



slide 16

- Commercial & Industrial program participation is up



# The Road Ahead – Utilities Appear to Be “Ramping Up”

- PSE is developing a “green utility” strategy
- Avista conservation goals are up by 20%
- Idaho Power to double expenditures 2007
- PGE desire to increase Energy Trust funding

# I-937 Passed



# I-937 Failed In Most Counties Served by Utilities Who Do Not Appear to Be Achieving the 5<sup>th</sup> Plan's Targets

