

BPA Sounding Board Briefing: Conservation Programs and Initiatives

February 5, 2004

Discussion Outline

1. BPA's Conservation Strategy for the 2002-06 Rate Period
2. Previous Cost Reductions for the Rate Period
3. BPA's Conservation Staffing Reductions
4. Progress Toward Meeting the Council's aMW Conservation Target
5. Program Challenges and Risks
6. "Conservation and Renewables Discount" (C&RD) Budget
7. "Conservation Initiatives" Budget: Review Each Line Item
8. Potential Opportunities for Cutting Spending in 2004-05

Background Information

- Regional Conservation Accomplishments and Potential
- BPA's Conservation Accomplishments and Expenditures
- BPA's Key Conservation Drivers, Targets and Commitments
- Value of Conservation: Many Dimensions

BPA's Conservation Strategy for the Rate Period

Objective: Achieve the cost-effective conservation in the loads we serve at the lowest cost and rate impact possible while allowing for a high degree of customer flexibility and initiative.

Target: BPA's conservation target for the rate period is 220 aMW, as defined by the Northwest Power and Conservation Council.

Portfolio Approach: BPA has in place a variety of programs that are designed to achieve specific conservation goals and support the infrastructure necessary to deliver the desired results.

Cost Management: Reductions (since 2001) in the planned conservation budgets over the 2002-06 period are more than \$148 M capital and \$44 M in expense. We continue to work with our customers and other delivery partners to drive the cost of conservation down.

BPA Conservation Programs and Initiatives: Previous Cost Reductions for 2002-06

- Conservation and Renewable Discount (C&RD): Rate Case assumption was \$200 M (\$40 M/year); now we anticipate it will be \$175 M (\$35 M/year).
- Conservation as Part of Augmentation (ConAug): Original capital budget was reduced from \$290 M to \$152 M while not adjusting the ConAug delivered savings target; this has resulted in about \$40 M in expense reductions (interest).
- BPA has been successful in driving the cost of the signed utility ConAug contracts down over time:

FY 01 = \$1.84 M/aMW

FY 02 = \$1.38 M/aMW

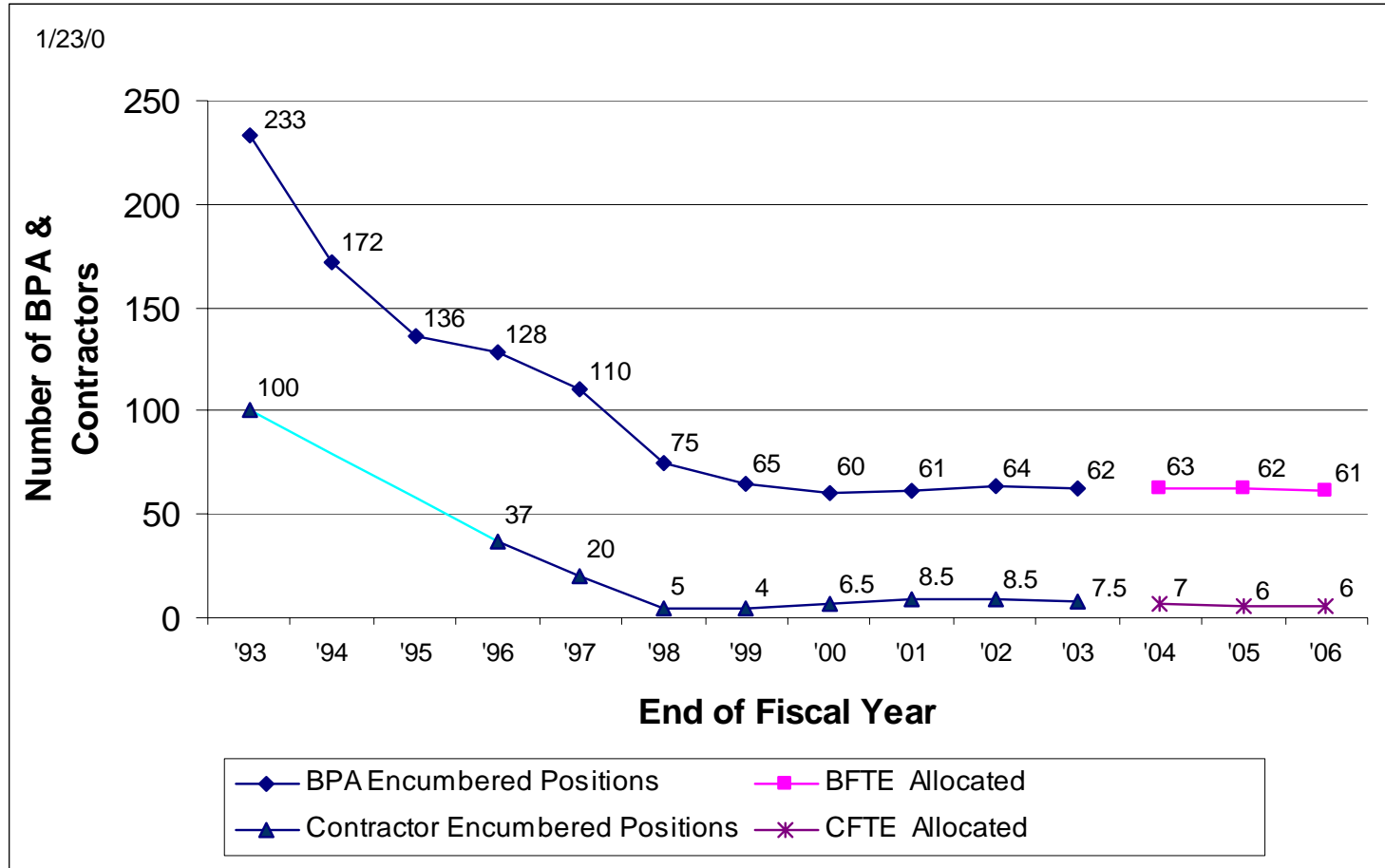
FY 03 = \$1.11 M/aMW

FY 04 = \$1.09 M/aMW

Average = \$1.32 M/aMW

- Energy Web: Closed out the \$10 M capital program which resulted in about \$2.4 M expense reductions (interest).

BPA & Contractor Staffing for Conservation Related Activities



Delivered and Planned Savings from BPA's Existing Conservation Programs for the Current Rate Period (in aMW)

<u>Programs</u>	----- <i>actuals</i> -----			///	----- <i>planned</i> -----			<u>Total</u>
	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>		
C&RD	4.3*+	16.4+	16.7+	10.1	7.0	5.0	59.5	
ConAug	3.8*	23.3	20.6	15.0	20.0	17.3	100.0	
Market Transformation	--	12.0	16.0	10.0	10.0	10.0	58.0	
Low Income Wx	--	0.3	0.3	0.3	0.3	0.3	1.5	
Fed. Reimbursable (non-ConAug)	--	--	--	0.3	0.3	0.4	1.0	
Totals	8.1	52.0	53.6	35.7	37.6	33.0	220.0#	

Note: BPA's target from all conservation programs is **220 aMW** minus the **113.7 aMW** we achieved in FYs 01, 02 and 03 = **106.3 aMW left to capture**. This means we have to average about 35 aMW/year for FYs 04, 05 and 06 to meet the 220 aMW target.

+ - The *actual* numbers include the aMW savings associated with the C&RD donations to the Alliance and the Energy Trust of Oregon; they exclude the irrigation scheduling savings since they have only a 1-year measure life.

* - Because of the 2000/01 energy crisis, BPA started these programs 8 months earlier than the planned 10/1/01 launch date.

- This number represents the potential savings that could result from the approved funding levels for BPA's conservation programs over the rate period. Because all programs will not be completed at the targeted level, these preliminary numbers will be adjusted as we get closer to BPA's 220 aMW target.

Conservation Program Challenges and Risks

- C: The conservation supply curve is upward sloping. There are limits to how far you can go in driving down the cost of conservation.
- C: Cost-effective conservation is more expensive in a “roller coaster” approach to funding.
- R: Invoices under current contracts could come in for more than the amount we have budgeted (Legacy, NEEA, LIWx, etc.).
- R: The “free-ridership” risk is exacerbated as we drive down the amount we are willing to pay (i.e., increases the risk that measures won’t be incremental).
- R: Driving down BPA’s willingness to pay could result in fewer utilities participating in ConAug (i.e., asking them to cover more of the program costs becomes prohibitive).

Project: "C&RD" Conservation & Renewables Discount (\$ in millions)	FY01	FY02	FY03	FY04	FY05	FY06	FY01-03 Average	FY03-FY06 Average	FY04-FY06 Average	FY03-FY06	FY04-FY06
										Average Above Above (or Below)	Average Above Above (or Below)
August 2002 Forecast	\$ 0.0	\$ 34.9	\$ 37.0	\$ 37.0	\$ 37.0	\$ 37.0	\$ 24.0	\$ 37.0	\$ 37.0	\$ 37.0	\$ 37.0
<i>Growth Rate</i>		NA	6.0%	0.0%	NA	NA					
August 28, 2003 Rate Case Forecast	\$ 0.0	\$ 35.2	\$ 34.8	\$ 37.0	\$ 37.0	\$ 37.0	\$ 23.4	\$ 36.4	\$ 37.0	\$ 36.4	\$ 37.0
<i>Growth Rate</i>		NA	-1.2%	6.3%	NA	NA					
Current 2004 Update	\$ 0.0	\$ 35.2	\$ 35.0	\$ 37.0	\$ 37.0	\$ 37.0	\$ 23.4	\$ 36.5	\$ 37.0	\$ 36.5	\$ 37.0
<i>Growth Rate</i>		NA	-0.6%	5.7%	NA	NA					
Current 2004 Update Above (or Below) August 28, 2003 Rate Case Forecast	\$ -	\$ -	\$ 0.2	\$ -	\$ -	\$ -	\$ 0.1	\$ 0.1	\$ -	\$ 0.1	\$ -

Strategic Objective(s) of Program Area
<p>Summary of Tier 2 strategic objective(s) that this program area is (are) linked to:</p> <p>PF S2: BPA supports regional development of renewables, conservation, and nonconstruction alternatives to Transmission, at least cost to BPA. Capture 220 aMW of conservation savings from all EE programs during the 2002-06 rate period.</p>
<p>What is the Tier 2 target(s) for this program area for FY04?</p> <p>By 9/30/04, capture 40 aMW conservation savings from all EE programs.</p>
<p>Specific initiatives for FY04 relating to the specific program area.</p> <p>By 9/30/04, capture 13 aMW of conservation savings from the C&RD program. By 9/30/04, help ensure that \$6M are spent on renewable resource related initiatives under the C&RD program. Continue to work with customers and the RTF to get more "bang" for the C&RD credit spent</p>
<p>Drivers of Change</p> <p>FY03: Actuals v. Aug. 28, 2003 Forecast</p> <p>Net requirements loads under subscription contracts (C&RD credit is based on 0.5 mil times the load placed on BPA).</p>

Project: "Conservation Initiatives" Generation Conservation (\$ in millions)	FY01	FY02	FY03	FY04	FY05	FY06	FY01-03 Average	FY03-FY06 Average	FY04-FY06 Average	FY03-FY06	FY04-FY06
										Average Above or Below FY01	Average Above or Below FY01
August 2002 Forecast	\$ 28.0	\$ 32.7	\$ 33.7	\$ 32.8	\$ 32.8	\$ 32.8	\$ 31.5	\$ 33.0	\$ 32.8	\$ 5.0	\$ 4.8
<i>Growth Rate</i>		16.5%	3.2%	-2.7%	0.0%	NA					
August 28, 2003 Rate Case Forecast	\$ 28.0	\$ 28.2	\$ 29.1	\$ 28.9	\$ 29.0	\$ 29.0	\$ 28.4	\$ 29.0	\$ 28.9	\$ 0.9	\$ 0.9
<i>Growth Rate</i>		0.8%	2.9%	-0.5%	0.2%	NA					
Current 2004 Update	\$ 28.0	\$ 28.2	\$ 30.3	\$ 30.3	\$ 29.0	\$ 29.0	\$ 28.9	\$ 29.6	\$ 29.4	\$ 1.6	\$ 1.4
<i>Growth Rate</i>		0.8%	7.3%	0.0%	-4.5%	NA					
Current 2004 Update Above (or Below)											
August 28, 2003 Rate Case Forecast	\$ -	\$ -	\$ 1.3	\$ 1.4	\$ -	\$ -	\$ 0.4	\$ 0.7	\$ 0.5	\$ 0.7	\$ 0.5

Strategic Objective(s) of Program Area
<p>Summary of Tier 2 strategic objective(s) that this program area is (are) linked to: PF S2: BPA supports regional development of renewables, conservation, and nonconstruction alternatives to Transmission, at least cost to BPA. Capture 220 aMW of conservation savings from all EE programs during the 2002-06 rate period. Provide energy efficiency and related services while enhancing customer satisfaction. Act as a facilitator in meeting federal and tribal DSM needs and coordinate other stakeholder interests. Provide cost effective non-construction alternatives for BPA's transmission planning process. Deliver conservation savings at the lowest cost possible to BPA.</p>
<p>What is the Tier 2 target(s) for this program area for FY04? By 9/30/04, capture 40 aMW of conservation savings from all EE programs. All new ConAug funding commitments must be at or below the \$1.3M/aMW level. In collaboration with Roundtable/Stakeholders, continue NCA methodology development, to include evaluating 3 new trans. projects. By 9/30/04, net revenues from EE's Federal reimbursable activities meets or exceeds \$1.5M. Manage EE's internal costs such that they do not exceed \$28.6M.</p>
<p>Specific initiatives for FY04 relating to the specific program area. Increasing LIWx funding by \$500,000 to help meet the additional needs of the low income community. By 9/30/04, capture 10 aMW from our Market Transformation (NEEA support) activities. Keep PBL's DEMX program viable but at the lowest cost possible.</p>
<p>Drivers of Change</p>
<p>FY03: Actuals v. Aug. 28, 2003 Forecast 30.3/28.9 - \$1.4M increase due to moving more programs to reimbursable category (with new numbers).</p>

Components of the “Conservation Initiatives” Budget (in millions of \$)

	SOY <u>FY 02</u>	Actuals <u>FY 02</u>	Actuals <u>FY 03</u>	Aug. 03 SNCRAC <u>FY 04</u>	1st Qtr. <u>FY 04</u>	<u>SNCRAC/Planned</u>	
						<u>FY 05</u>	<u>FY 06</u>
EE Development (Reimbursable Program)	14.2	10.1	9.1	9.2	10.8	9.3	9.3
Market Transformation (NEEA Support)	12.2	7.8	9.3	10.0	10.0	10.0	10.0
Low Income Weatherization (includes Tribal LIWx)	3.6	3.2	3.9	4.0	4.2	4.0	4.0
Legacy (Contract Closeouts)	4.5	5.4	3.6	3.9	4.0	4.0	4.0
Energy Web	0.0	0.0	0.1	1.0	0.5	1.0	1.0
Tech. Leadership (with I/E/O) (formerly SEI)	<u>3.7</u>	<u>1.7</u>	<u>4.3</u>	<u>0.8</u>	<u>0.8</u>	<u>0.7</u>	<u>0.7</u>
Totals	38.2	28.2	30.3	28.9	30.3	29.0	29.0

Potential Opportunities for Cutting Spending in 2004-05

ConAug: spent \$62M, committed \$55M = \$117M from \$152M = \$35M. If BPA terminates the rest of the ConAug program right now, it would save \$5.6M in expense (interest) in FYs 05 and 06; this could result in a 20-25 aMW shortfall in achieving the conservation target for the rate period.

C&RD: can't change since part of 2002 Rate Design; but, utilities could help BPA accomplish more with the available C&RD credits.

Reimbursable: rate neutral with a net revenue target of \$3.5 M.

Market Transformation: BPA could not sign the new agreement (FY 05-09), but we would still be on the hook for close out costs through 2006 (up to \$23M); another option would for BPA to sign the new agreement for a lower contribution, but this would result in all parties reducing their shares thus undermining the leveraged approach that has been so successful. Also, eliminates the least expensive aMW available to achieve Council's target.

LIWx: current commitments locked in via contracts with States and Tribes.

Legacy: current contracts allow customers to invoice BPA up to amount specified in agreements for measures previously installed.

Energy Web: further cuts would severely limits EE ability to support the non-wires solutions initiatives and curtails BPA's ability to leverage/partner with others on implementing new technologies.

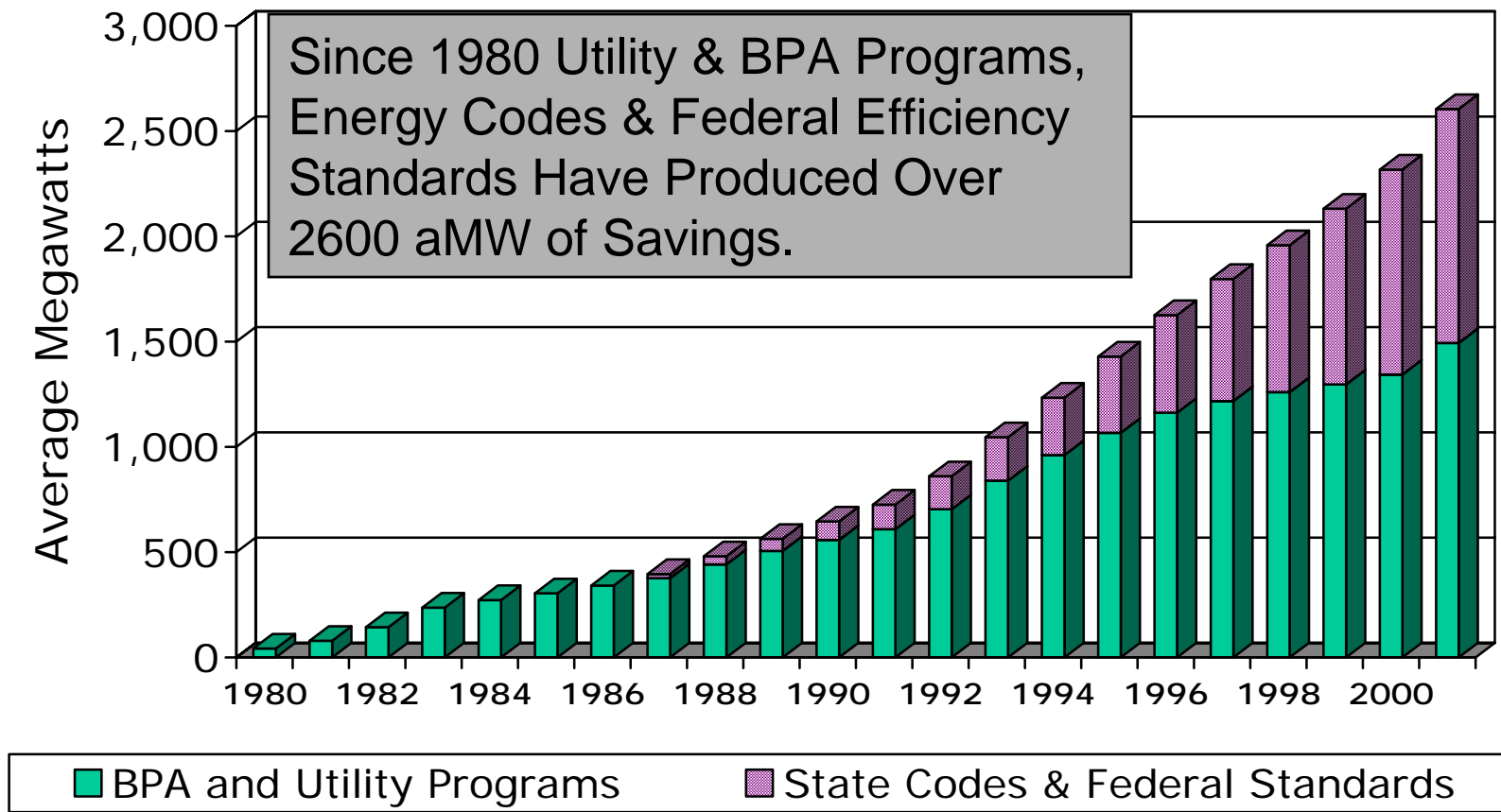
Technology Leadership: additional cuts would eliminate BPA's support for customers on scoping potential conservation programs/projects, including the entire information/education/outreach effort.

Background Information

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- BPA's Key Conservation Drivers, Targets and Commitments
- Value of Conservation: Many Dimensions

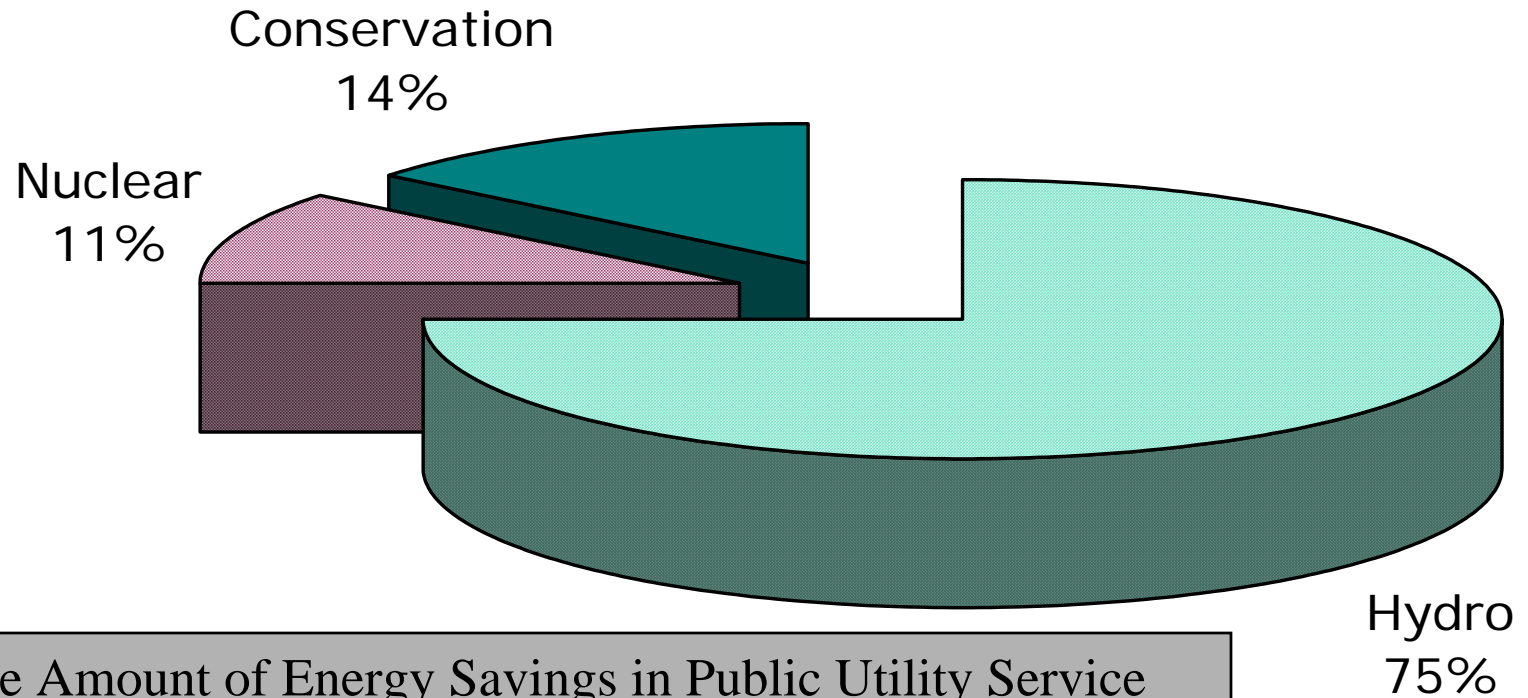
20 Years of Progress

Total PNW Conservation Savings



Source: NPCC

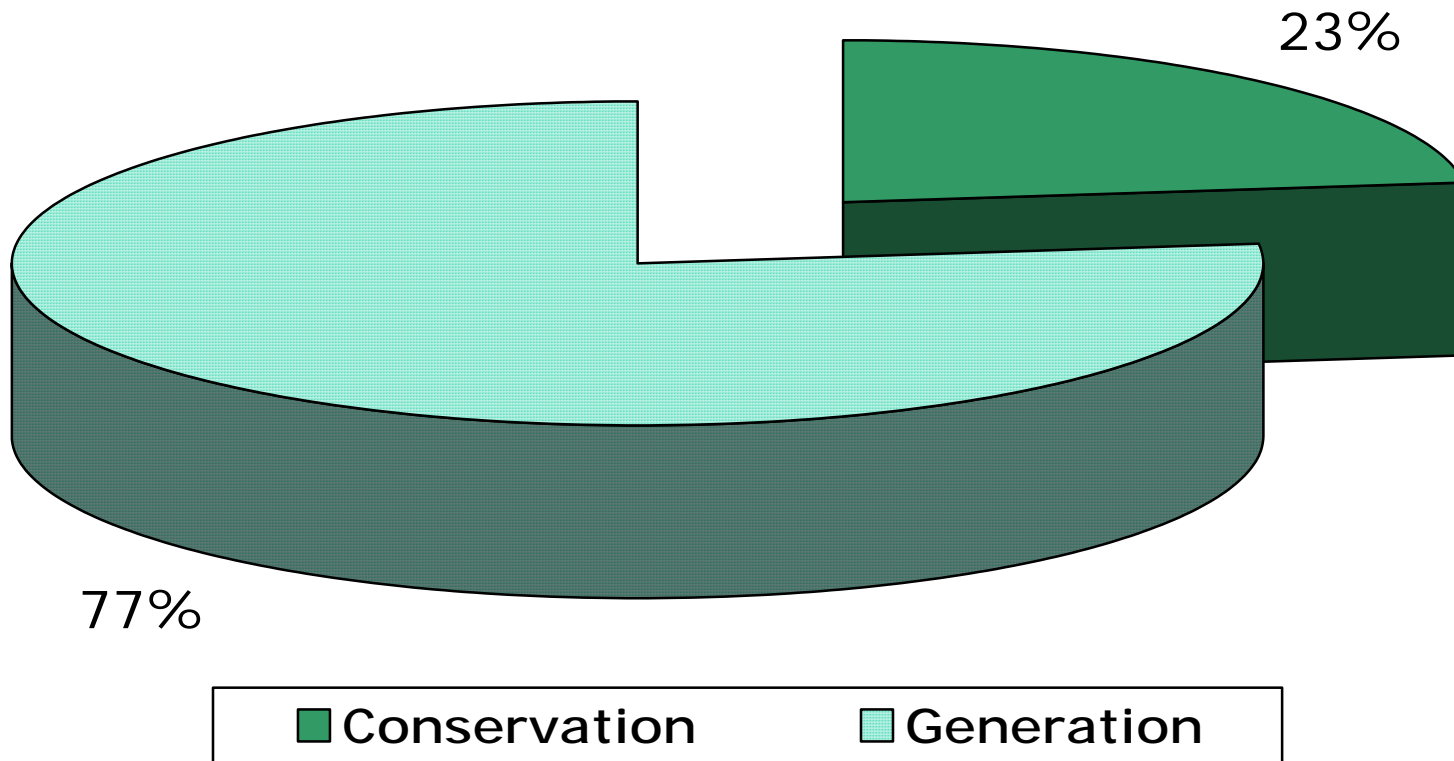
Conservation Is Now The Second Largest Single Federal Power Firm Energy Resource



The Amount of Energy Savings in Public Utility Service Territories from Conservation Programs, Codes and Standards Is Equivalent to Three Times the Annual Firm Energy Output of Bonneville Dam

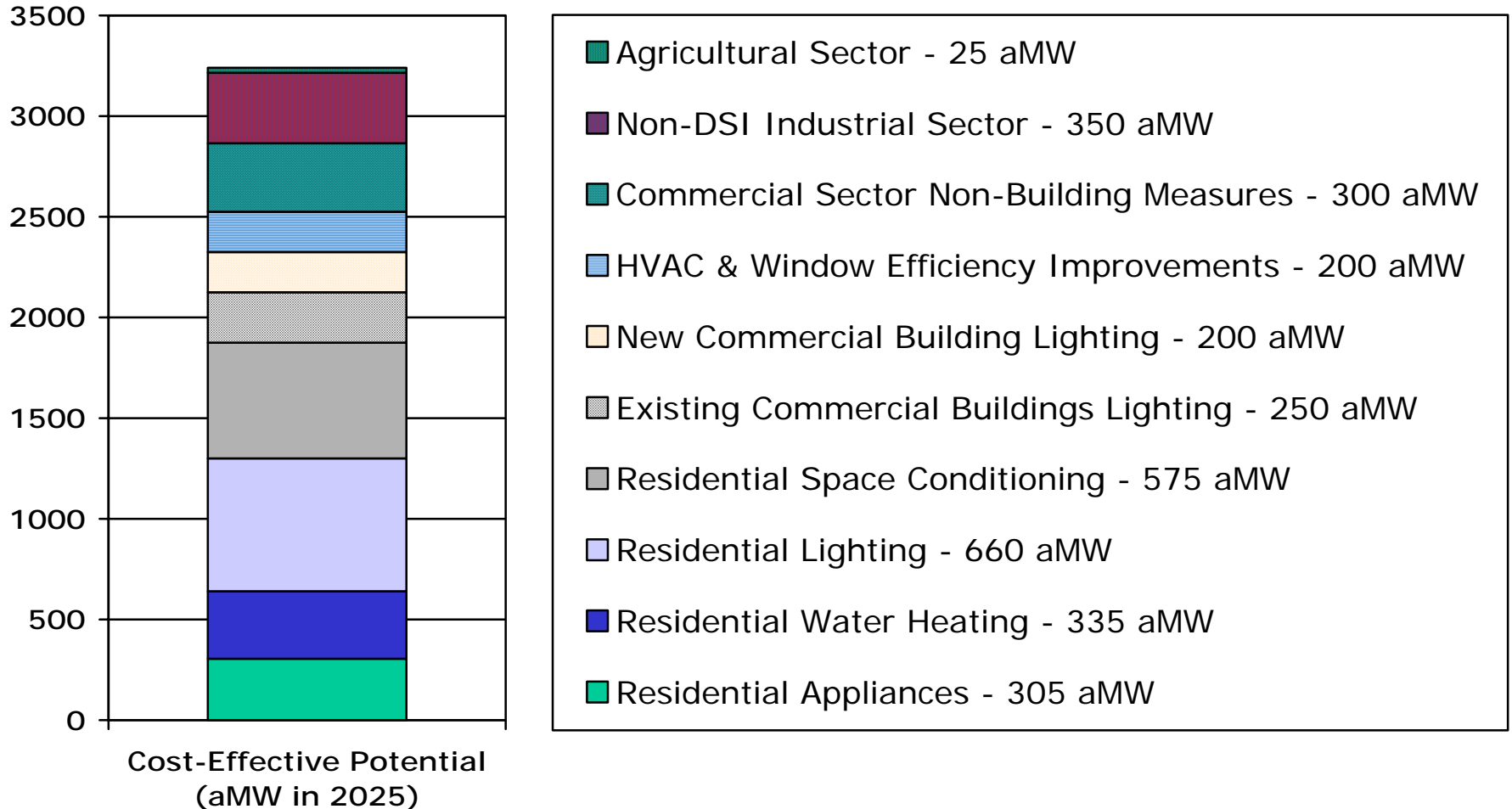
Source: NPCC

Conservation Met Approximately 1/4 of the Regional Load Growth Between 1980 - 2002



Source: NPCC

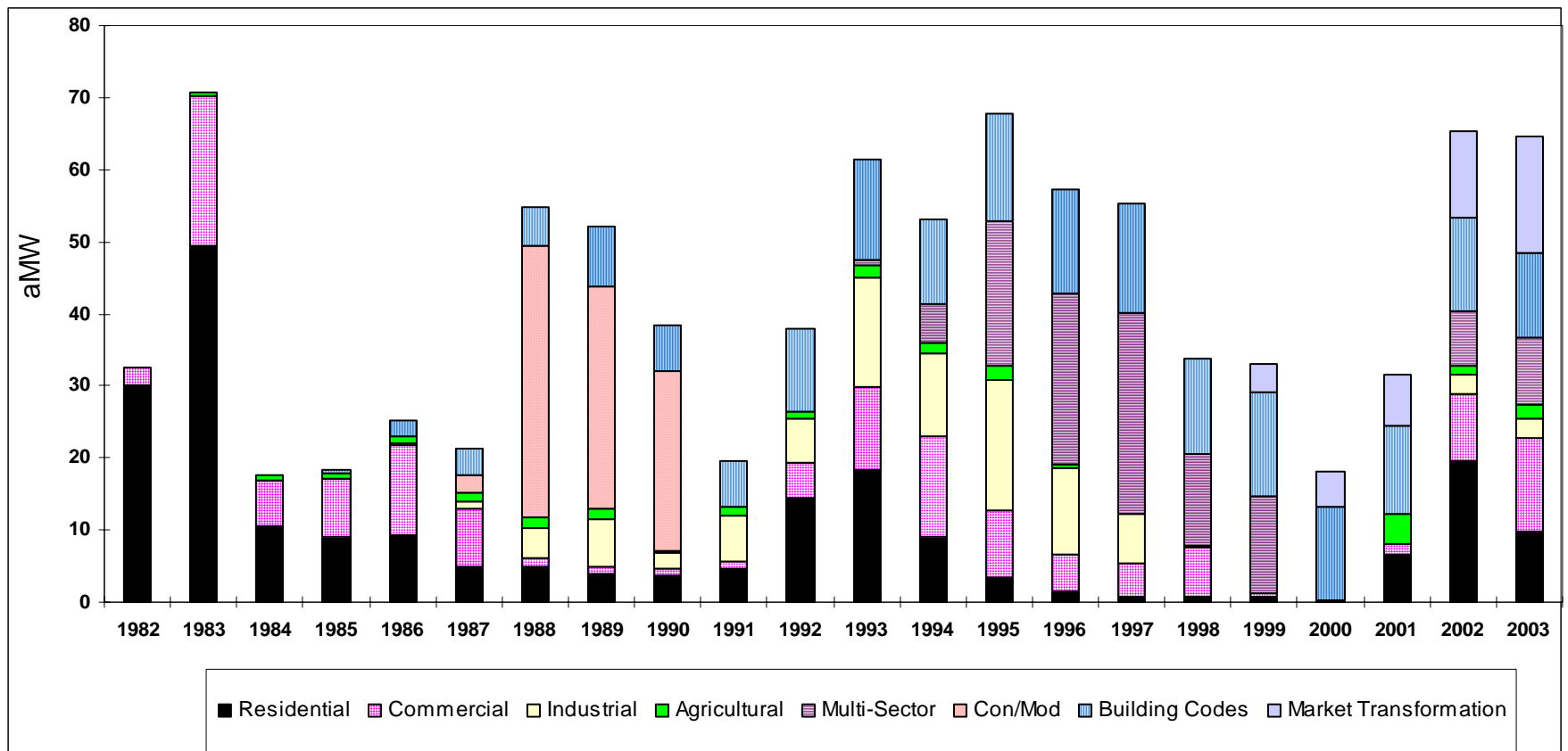
PRELIMINARY Assessment of Cost-Effective Conservation Potential



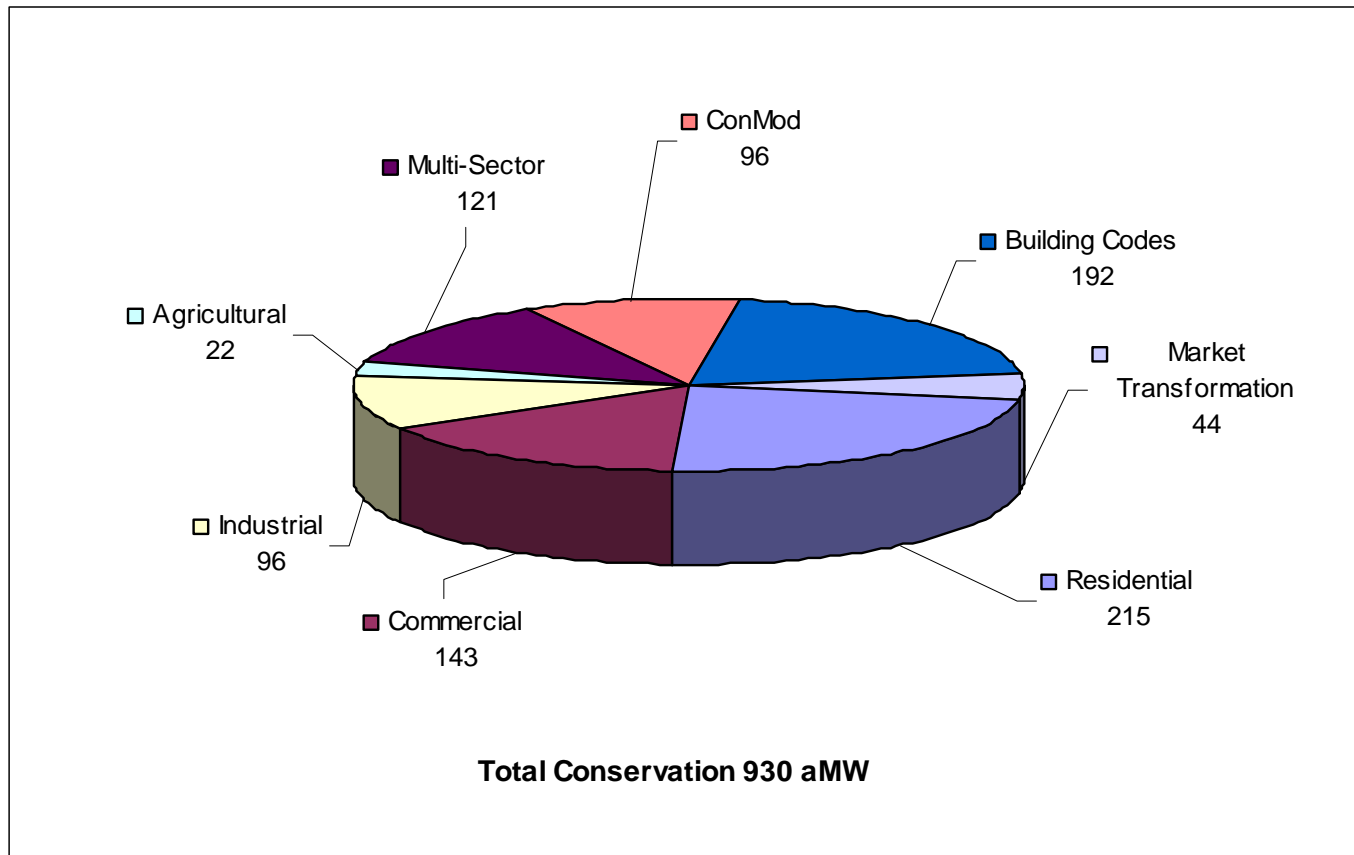
Source: NPCC

BPA's Historical Conservation Savings from Acquisition Programs, Con/Mod and Improved Building Codes (FY 1982-2003)

Total Conservation 930 aMW

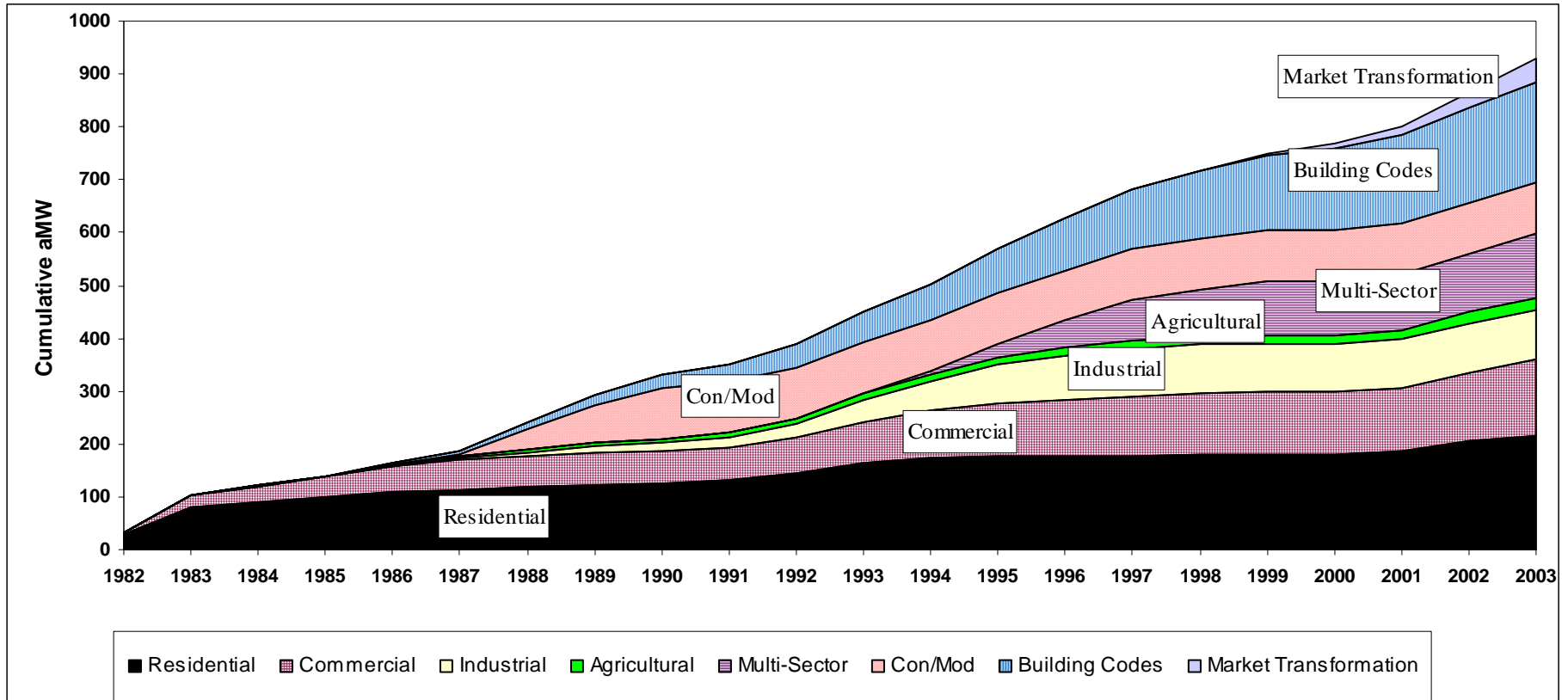


BPA'S Historical Conservation Savings FY 1982 – 2003 aMW



BPA's Historical Conservation Savings from Acquisition Programs, Con/Mod, and Improved Building Codes (FY 1982 - 2003)

Cumulative Savings (aMW)
Total Conservation 930 aMW



Total BPA Conservation Costs by Sector Accrued & Committed

Loaded Nominal Dollars (000's) ^{1/}

Fiscal						Multi-		Total
Year	Residential	Commercial	Industrial	Con/Mod	Agricultural	Sector	Misc.	Incremental
						Acq.	Costs ^{2/}	Costs
1982	\$50,346	\$11,247	\$0	\$0	\$0	\$0	\$5,321	\$66,914
1983	\$162,114	\$39,892	\$1,409	\$0	\$895	\$0	\$2,689	\$206,999
1984	\$57,374	\$8,656	\$513	\$0	\$1,309	\$0	\$7,242	\$75,094
1985	\$77,907	\$26,553	\$957	\$0	\$2,098	\$0	\$20,232	\$127,747
1986	\$79,898	\$13,007	\$1,013	\$0	\$3,546	\$0	\$7,458	\$104,922
1987	\$60,651	\$7,546	\$2,233	\$0	\$1,918	\$0	\$11,008	\$83,356
1988	\$40,979	\$14,144	\$3,297	\$1,881	\$2,166	\$3,950	\$8,483	\$74,900
1989	\$37,269	\$15,467	\$5,889	\$4,726	\$1,428	\$3,000	\$5,479	\$73,258
1990	\$40,016	\$18,062	\$5,681	\$6,063	\$1,428	\$3,232	\$3,515	\$77,997
1991	\$49,808	\$19,554	\$6,181	\$6,254	\$3,257	\$2,959	\$3,495	\$91,508
1992	\$80,949	\$25,334	\$8,397	\$4,553	\$2,593	\$6,673	\$4,134	\$132,633
1993	\$89,241	\$32,485	\$13,899	\$4,179	\$2,187	\$7,944	\$1,977	\$151,912
1994	\$77,726	\$45,764	\$22,383	\$6,462	\$2,617	\$17,133	\$0	\$172,085
1995	\$49,783	\$23,061	\$17,346	\$4,045	\$1,712	\$26,676	\$0	\$122,623
1996	\$29,071	\$13,540	\$9,839	\$4,595	\$1,227	\$34,330	\$3,033	\$95,635
1997	\$11,316	\$7,770	\$3,988	\$2,744	\$338	\$16,373	\$0	\$42,529
1998	\$5,944	\$10,495	\$3,674	\$2,358	\$173	\$12,857	\$2,136	\$37,637
1999	\$4,093	\$5,888	\$1,902	\$280	\$49	\$20,438	\$9,049	\$41,699
2000	\$2,486	\$85	\$0	\$0	\$5	\$0	\$11,500	\$14,076
2001	\$11,500	\$988	\$327	\$0	\$875	\$2	\$10,381	\$24,072
2002	\$32,105	\$23,469	\$3,345	\$0	\$395	\$402	\$14,807	\$74,523
2003	\$24,341	\$17,247	\$5,114	\$0	\$597	\$14,438	\$8,718	\$70,455
Total	\$1,074,916	\$380,255	\$117,387	\$48,140	\$30,813	\$170,406	\$140,657	\$1,962,574

1/ Loaded costs include all direct costs related to these activities, indirect costs, and corporate overhead.

2/ FY 1999 Includes Market Transformation costs. FY 2000-2003 includes C&RD Donations Credit, C&RD Administration costs and Market Transformation costs.

BPA's Key Conservation Drivers, Targets and Commitments

- BPA is Committed to Achieving Its Share of the Northwest Power and Conservation Council's Conservation Target for the Region: Under the 1998 Power Plan, the high forecast scenario was projected to be 270 aMW for BPA; under the low forecast scenario, it was projected to be 170 aMWs. BPA split the difference and set a 220 aMW target over the rate period from all BPA conservation programs. BPA's conservation budgets for the rate period were developed with this goal in mind (to provide sufficient funds to deliver conservation at a rate of about 44 aMW per year).
- Market Transformation Support via the Northwest Energy Efficiency Alliance (NEEA):
 - Phase 1: \$37.5 M, agreement signed 12/96 for 1997-99 at a rate of about \$12.5 M/year.
 - Phase 2: \$50 M, agreement signed 10/1/99 for 2000-04 at a rate of about \$10 M/year.
- Conservation and Renewables Discount (C&RD): In the 2002 Rate Case, BPA committed to providing a 0.5 mil discount (times the amount of load placed on BPA) off power sales customers' firm power rates over the rate period if customers spend the funds on approved conservation initiatives and/or renewable resource-related activities. Further, BPA guaranteed that at least \$6 M/year would be spent on renewables.
- Low Income Weatherization (LIWx): In the 2002 Rate Case, BPA committed to continue its support of the LIWx infrastructure (State and CAP agencies) at a level of \$15M over the rate period (or 3M/year). This was supplemented by an additional \$500,000 for Tribal activities and, early in 2004, an additional \$500,000 was committed to State/CAP agencies.

The Value of Conservation: Many Dimensions

- Lowers the electricity bills without reducing comfort and convenience.
- Contributes to a diversified resource portfolio helping to improve reliability and stretches the existing resource base.
- Helps address peak capacity constraints for both transmission and generation.
- Provides a buffer against market volatility.
- Lightens the footprint we leave on our environmental.
- Stimulates economic development and creates jobs, especially at the local level.
- Fits well with new technologies that are opening up significant new opportunities for efficiency and load management.
- Makes us more secure and self-sufficient from an energy standpoint; the ultimate distributed resource.