

# POLLUTION PREVENTION

## 1. Utah Renewable Energy Program Descriptions

### a. Utility Integrated Resources Planning

(1) *PacifiCorp Integrated Resource Planning – Renewable Additions*

Program / Initiative: Utility Integrated Resource Planning Program – PACIFICORP – Renewable power generation additions.	Start Date:
	End Date:
Sponsoring Organizations: Public Service Commission of Utah	Lead Contact:
Implementing Organization: PACIFICORP in consultation with the Public Service Commission, its staff, the Division of Public Utilities, the Committee of Consumer Services, appropriate Utah agencies and other interested parties.	Lead Contact:
Funding Source: Utah customers of PacifiCorp through electricity rates approved by the Utah Public Service Commission	
\$ Total:	
\$ per year:	
Installed Generation Capacity: Cumulative Installed MW capacity (wind) – 2005 – 60MW 2006 – 186MW 2007 – 318MW 2008 – 414MW 2009 – 546 MW 2010 – 687 MW 2011 – 834 MW 2012 – 981 MW 2013 – 1,146MW	Renewable Contribution to the Portfolio: Percent of Renewable Generation 2005 – 1.0% 2006 – 1.6% 2007 – 2.2% 2008 – 2.8% 2009 – 3.4% 2010 – 4.0% 2011 – 4.6% 2012 – 5.2% 2013 – 5.8%
Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Public Service Commission of Utah (UPSC) requires PacifiCorp to pursue the least cost alternative for the provision of electric energy services to its present and future ratepayers that is consistent with safe and reliable service, the fiscal requirements of a financially healthy utility, and the long-run public interest. The UPSC has adopted integrated resource planning (IRP) rules to meet these goals and periodically reviews plans PacifiCorp submits to assure new utility resource acquisitions are consistent with the UPSC IRP Standards and Guidelines and are likely to yield the optimal set of resources given the expected combination of costs, risks and uncertainty. Among other requirements, the UPSC IRP rules require PacifiCorp to consider environmental externalities and their costs explicitly and to evaluate supply-side and demand-side resources on a consistent and comparable basis. All technically feasible and cost-effective improvements in the efficient use of electricity,	

<p>including load management and conservation must be evaluated. Similarly, all technically feasible generating technologies, including renewable resources, cogeneration, power purchases from other sources and the construction of thermal resources, must be assessed. PacifiCorp must submit its Integrated Resource Plan to the UPSC biennially. PacifiCorp has committed itself to updating its IRP annually. The IRP process must be thoroughly documented and afford ample opportunity for public input and information exchange. PacifiCorp's Strategic Business Plan must be related to its Integrated Resource Plan. An outline of the specific resource decisions intended to implement the Integrated Resource Plan in a manner consistent with the PacifiCorp Strategic Business Plan must be supplied to the UPSC. The UPSC IRP Standards and Guidelines must meet the needs of PacifiCorp's Utah service area, but must not ignore the rules governing similar processes in other jurisdictions to foster coordinated regional planning. The UPSC <u>REPORT AND ORDER ON STANDARDS AND GUIDELINES</u>, Docket No. 90-2035-01, articulates Utah's Integrated Resource Planning requirements.</p>			
<p>Program Components: PacifiCorp plans to purchase contracts for over 1,000MW of renewables, such as wind, geothermal or other resources, from 2003 – 2013. Solar and geothermal opportunities will also be examined on a case-by-case basis for economic merit and inclusion in the portfolio. Based on further analysis and clarification of wind and other renewable power capabilities, PacifiCorp expects to include additional cost effective wind capacity in their portfolio. These renewable power acquisitions will be included in the rates consumers pay for power. Utah customers have historically paid approximately 38% of PacifiCorp's overall revenue requirement in their rates. Because Utah customers will be paying for approximately 38% of the renewable power generation additions PacifiCorp plans to acquire for its portfolio, Utah can claim approximately 38% of these renewable power additions toward meeting the 10/20 goals articulated in Section 309 of the Regional Haze Rule.</p>			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

(2) *UAMPS Integrated Resource Planning*

Program / Initiative: Utah Associated Municipal Power Systems (UAMPS) Integrated Resource Planning Program – Demand Side Management	Start Date:
	End Date:

Sponsoring Organizations: Western Area Power Administration under the National Energy Policy Act of 1992		Lead Contact:	
Implementing Organization: Utah Associated Municipal Power Systems and its members		Lead Contact:	
Funding Source:			
\$ Total:			
\$ per year:			
Direct Energy Savings:		Indirect Energy Savings:	
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): UAMPS is a project wholesale generation and transmission entity. Municipal utilities who are members purchase power from UAMPS through project contracts and re-sell it to their retail customers. Each member is solely responsible to meet its load requirements. Members can meet their electricity needs through UAMPS or any other source. UAMPS does not have sole responsibility to serve its members' loads. As a result, UAMPS can only coordinate its Integrated Resource Planning Program activities with members. UAMPS is not regulated by the Utah Public Service Commission. UAMPS prepares an Integrated Resource Plan and files it with the Western Area Power Administration (Western) to satisfy Western's regulations and requirements contained in the National Energy Policy Act of 1992. UAMPS filed its "Integrated Resource Plan 2002" with Western. Western accepted the plan on December 27, 2002. UAMPS' "Integrated Resource Plan 2002" covered a ten year planning period, but focused primarily on actions to be taken within the next five years. The Integrated Resource Planning Program is an ongoing, dynamic process in which resource choices are continually under review and re-examination. UAMPS fundamental goal is to provide reliable, competitively priced, and environmentally acceptable power to its members. The Integrated Resource Planning Program strives to achieve this goal and effectively balance its objectives to minimize impacts on member rates, match operational need, maintain system reliability, minimize adverse environmental impacts, ensure flexibility, ensure short-term and long-terms needs are met and maintain diversity in its resource mix and market areas. UAMPS seeks member and public input on all of these matters through its Integrated Resource Planning Program.</p>			
Program Components:			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

## b. Utah Net Metering Program

Program / Initiative: Utah Net Metering Program		Start Date:	
		End Date:	
Sponsoring Organizations: All electrical corporations within Utah as required by Utah Code Sections 54-15-101 through 54-15-106		Lead Contact:	
Implementing Organization: For each distribution electrical cooperative within Utah, their Board of Directors; for all other electrical corporations within Utah, the Utah Public Service Commission.		Lead Contact:	
Funding Source:			
\$ Total:			
\$ per year:			
Direct Energy Savings:		Indirect Energy Savings:	
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Utah Net Metering Program must be offered by all electrical corporations serving Utah loads. By law, electrical corporations must allow customers with a generation system meeting the Net Metering Program requirements to generate electricity for their own primary use, supply customer-generated power to the electrical corporation and receive a credit for any excess customer-generated power produced during a billing period against the cost of electricity supplied by the electrical corporation within the same calendar year. Excess customer-generated power is the amount by which customer-generated power exceeds what has been delivered to the customer by an electrical corporation in a given billing period. All credits a customer earns, but fails to use during a calendar year expire at the end of the calendar year. To qualify for the Utah Net Metering Program, the customer generation system must be a fuel cell or generate power using the sun, wind or water. A customer generation system must have a capacity less than or equal to 25 kilowatts and be located on the customer's premise to participate in the Utah Net Metering Program. All electrical corporations serving Utah customers must permit their customers to interconnect to their transmission and distribution network so they can participate in the Net Metering Program. The customer generation system needs to meet specific requirements for interconnecting to the electrical corporation's network. An electrical corporation can discontinue offering the Net Metering Program as long as the cumulative generating capacity from customer-generators on their system equals at least 0.1% of the electrical corporation's peak demand during 2001 and at least half of the electricity counted toward the 0.1% is generated by renewable sources. Utah Code Sections 54-15-101 through 54-15-106 authorize the Net Metering Program.</p>			
Program Components:			
Organization name / Contact	Participants	Investment	Energy Savings
1. PacifiCorp Net Metering			

Service – Electric Service Schedule Number 135			
2. Other electric corporation tariffs or Board policies.			
3.			
4.			

**c. Green Pricing: PacifiCorp Blue Sky Marketing Program**

Program / Initiative: Green Power Marketing – PACIFICORP “Blue Sky”	Start Date: November 2, 2001
	End Date:
Sponsoring Organizations: PacifiCorp with approval of the Utah Public Service Commission	Lead Contact:
Implementing Organization: PacifiCorp	Lead Contact:
Funding Source: Ratepayers who agree to purchase blocks of renewable power to satisfy all or a portion of their demand	
\$ Total:	
\$ per year:	
Installed Generation Capacity:	Renewable Contribution to the Portfolio:
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The PacifiCorp “Blue Sky” Program allows certain classes of the Utah customers it serves to purchase blocks of new wind, geothermal and solar power to satisfy all or a portion of their demand. PacifiCorp’s Utah customers receiving electric service under Schedules 1, 2, 6, 6A, 9, 9A, 9B, 10, 19, 21, 23, 23B, or 25 anywhere on its interconnected system may elect to buy blocks of new wind, geothermal and solar generated power through this program. New wind, geothermal and solar generated power is available in blocks of 100KWh per block. Each block a customer agrees to purchase costs them \$1.95/month. The charge for each block a customer agrees to purchase is added to all other charges contained in that customer’s applicable tariff schedule. The customer is charged for each block they agree to purchase regardless of their actual electricity consumption. Eligible customers may apply to purchase or terminate their purchases anytime during the year. PacifiCorp does not permit customers that have a time payment agreement, have received one or more disconnect notices or have been disconnected within the last 12 months to enroll in the “Blue Sky” Program. PacifiCorp guarantees participating customers it will acquire and deliver new wind, geothermal</p>	

<p>and solar generated power within two years of their subscription to the “Blue Sky” Program. “Blue Sky” Program service is supplied according to the terms of an Electric Service Agreement it enters with participating customers. The Utah Public Service Commission approves the contents of these Electric Service Agreements. PacifiCorp’s “Blue Sky” Program has been authorized by the Utah Public Service Commission in PacifiCorp’s tariff, Electric Service Schedule 70.</p>			
<p>Program Components:</p>			
<p>Organization name / Contact</p>	<p>Participants</p>	<p>Investment</p>	<p>Energy Savings</p>
<p>1.</p>			
<p>2.</p>			
<p>3.</p>			
<p>4.</p>			

**d. Financial Incentives: Renewable Energy Systems Tax Credit Program**

<p>Program / Initiative: Renewable Energy System Tax Credit Program</p>	<p>Start Date: January 1, 2001</p>
	<p>End Date: December 31, 2006</p>
<p>Sponsoring Organizations: State of Utah</p>	<p>Lead Contact:</p>
<p>Implementing Organization: Utah Department of Natural Resources, Utah Energy Office</p>	<p>Lead Contact:</p>
<p>Funding Source:</p>	
<p>\$ Total:</p>	
<p>\$ per year:</p>	
<p>Direct Energy Savings:</p>	<p>Indirect Energy Savings:</p>
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): Utah offers individual taxpayers and business entities an income tax credit for buying and installing any active solar, passive solar, wind or hydropower system to supply all or part of the energy to the taxpayer’s pertinent residence or commercial unit. Business entities can also claim an income tax credit for buying and installing biomass systems and investing in commercial renewable energy systems to generate power for commercial sale. Taxpayers can claim the income tax credit on renewable energy systems purchased and installed between January 1, 2001 and December 31, 2006. The income tax credits provided under this program are in addition to any federal tax credits. The Utah Energy Office has the</p>	

<p>authority to promulgate standards addressing safety, reliability, efficiency, leasing and technical feasibility that residential and commercial renewable energy systems must meet to earn an income tax credit. Income tax credits can not be taken until the Utah Energy Office has certified that the renewable energy system has been completely installed and is a viable system for saving or producing energy from renewable resources.</p>			
<p>Program Components: Residential renewable energy system tax credit for individual taxpayers and commercial renewable energy system tax credit for business entities</p>			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

### e. Government Endorsed Green Power Purchases

#### (1) Supplemental Environmental Project Program

Program / Initiative: SUPPLEMENT ENVIRONMENTAL PROJECTS (SEPs)	Start Date:
	End Date:
Sponsoring Organizations: Utah Department of Environmental Quality, Air Quality Division	Lead Contact: Rick Sprott
Implementing Organization: Air permit violators through escrow established to purchase power from PacifiCorps' Blue Sky program	Lead Contact:
Funding Source: Private funds collected as part of settlements to resolve air quality permit violations.  \$ Total:  \$ per year: Varies based on the number and nature of air quality permit violations and the willingness of violators to participate in a SEP.	
Direct Energy Savings:	Indirect Energy Savings:
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives):</p> <p>In settlements of air quality enforcement actions, the Utah Division of Air Quality requires alleged violators to achieve and stay in compliance with their permit provisions and all applicable federal and state air quality laws and regulations and pay a civil penalty. In certain circumstances environmentally beneficial projects or Supplemental Environmental Projects (SEPs) may be part of the settlement.</p>	

SEPs are environmentally beneficial projects a defendant in an air quality enforcement action agrees to undertake as part of a settlement, but are not otherwise legally required. In return a percentage of the SEP costs may be used to mitigate the penalty paid by the defendant. All else being equal a final settlement penalty will be lower for a violator who performs an acceptable SEP.

A SEP must improve, protect or reduce risk to public health or the environment. EPA has identified seven specific categories of projects which may qualify as SEPs, including, "Pollution Prevention". A pollution prevention project "...reduces the amount of pollution through source reduction" and "protects natural resources through conservation or increased efficiency in the use of energy, water or other materials."<sup>1</sup> Energy conservation, efficiency and renewable energy programs can be incorporated into an approvable Supplemental Environmental Project.

The Utah Division of Air Quality has no authority to require alleged violators to perform SEPs. Alleged violators have sole discretion over whether or not to offer SEPs to help resolve air quality enforcement actions taken against them. The Utah Division of Air Quality will consider renewable energy SEPs, such as long-term purchases of PacifiCorps' Blue Sky "green power" product or the construction of new renewable energy generation capacity, as a Supplement Environmental Project option to settle air quality enforcement actions. Renewable energy SEPs approved by the Utah Division of Air Quality will contribute directly to meeting their 10/20 renewable energy goals.

Program Component Summary:

Component Name & Lead Contact	Number of Participants	Investment	Energy Savings	
			Direct	Indirect
1.				
2.				
3.				
4.				
Total				

(2) *Salt Lake City Climate Action Plan Program*

Program / Initiative: Salt Lake City Local Climate Action Plan	Start Date: February 2002
	End Date: Ongoing through 2012
Sponsoring Organizations: Salt Lake City Corporation	Lead Contact: Lisa Romney, (801) 535-7939

<sup>1</sup> See "Categories for Supplemental Environmental Projects," pg. 6, EPA Supplemental Environmental Projects Policy, issued May 1, 1998.

Implementing Organization: Salt Lake City Corporation		Lead Contact: Lisa Romney, (801) 535-7939	
Funding Source: Existing city budgets			
\$ Total:			
\$ per year:			
Direct Energy Savings:		Indirect Energy Savings:	
Efficient lighting retrofits \$33,571 in first year			
LED traffic signal lights \$32,962 in first year			
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Salt Lake City Corporation, using Cities for Climate Protection software, has developed an action plan for Salt Lake City to comply with goals articulated in the Kyoto Protocol. While focused on reducing greenhouse gas emissions, the plan relies on energy efficiency improvements and renewable energy power purchases to accomplish its purpose. Phase I of the action plan addresses steps Salt Lake City government can take to improve its energy usage and purchase less polluting power and fuel supplies for its operations. Under Phase I of its plan, Salt Lake City has already completed energy efficient lighting retrofits, installed more efficient LED traffic signals, purchased “green”, wind power from PacifiCorp under its Blue Sky program and substituted bio-diesel, B-20, fuel for regular diesel fuel in its airport vehicles. Salt Lake City has committed to investigate and implement additional energy efficiency and renewable energy projects in the future. Salt Lake City plans to concentrate on reducing vehicles emissions through expansions of its mass transit system and improving heating, air conditioning and ventilation systems efficiencies in city buildings. Salt Lake City government projects are intended to set standards for responsible growth and resource use in the local area. Phase II of the action plan extends its application to the entire community. Salt Lake City has already begun to promote and market energy efficiency programs and renewable energy consumption to its businesses and citizenry. For example, Salt Lake City recently joined PacifiCorp on a direct-mail marketing campaign of the Blue Sky, “green power”, program and sponsors E2 Business awards to recognize and promote businesses that meet environmental improvement and economic welfare goals.</p>			
Program Components:			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

## f. Technical Assistance: Million Solar Roofs Partnership Program

Program / Initiative: Million Solar Roofs Partnership	Start Date: 2002		
	End Date:		
Sponsoring Organizations: Office of the Mayor, Salt Lake City through the U.S. Department of Energy	Lead Contact: Lisa Romney - (801) 535-7939		
Implementing Organization: Office of the Mayor, Salt Lake City	Lead Contact:		
Funding Source: U.S. Department of Energy			
\$ Total:			
\$ per year:			
Direct Energy Savings: Technical support program to the Utah Public Service Commission	Indirect Energy Savings:		
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Million Solar Roofs Partnership Program is a U. S. Department of Energy initiative to install solar systems on one million buildings within the United States by 2010. Through its partnership with the U.S. Department of Energy, Salt Lake City is seeking to get 500 buildings within the city to install solar systems by 2010. The Salt Lake City Million Solar Roofs Partnership Program provides technical expertise to the Utah Public Service Commission to substantiate the cost effectiveness of partial utility funding for rooftop photovoltaic systems as one means for them to fulfill customer power demands. By clarifying the cost effectiveness of utility incentive payments for photovoltaic systems within Salt Lake City, the Office of the Mayor seeks to remove market barriers to entry and develop and strengthen demand for solar energy products locally. The Salt Lake City Million Solar Roof Partnership Program is intended to transform the local electricity market place and stimulate new technology application.</p>			
Program Components:			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

## 2. Utah Energy Efficiency Program Descriptions

### a. Utility Integrated Resource Planning

(1) *PacifiCorp Integrated Resource Planning – Demand Side Management*

Program / Initiative: Utility Integrated Resource Planning Program – PACIFICORP – Demand Side Management	Start Date:																																	
Sponsoring Organizations: Public Service Commission of Utah	End Date:																																	
Implementing Organization: PACIFICORP in consultation with the Public Service Commission, its staff, the Division of Public Utilities, the Committee of Consumer Services, appropriate Utah agencies and other interested parties.	Lead Contact:																																	
Funding Source: Utah ratepayers \$ Total: FY2003, \$21,920,642; FY2004, \$22,290,148; FY2005, \$20,001,513; FY2006, \$13,150,000; FY2007, \$13,150,000; FY2008, \$13,150,000; FY2009, \$13,150,000; FY2010, \$13,150,000; FY2011, \$13,150,000; FY2012, \$13,150,000.																																		
<p>Direct Energy Savings:</p> <table border="1"> <thead> <tr> <th>Fiscal Year</th> <th>MW<sub>a</sub></th> <th>MWH</th> </tr> </thead> <tbody> <tr><td>2003</td><td>12.13</td><td>106,246</td></tr> <tr><td>2004</td><td>12.71</td><td>111,297</td></tr> <tr><td>2005</td><td>13.70</td><td>120,044</td></tr> <tr><td>2006</td><td>12.34</td><td>108,130</td></tr> <tr><td>2007</td><td>9.00</td><td>78,840</td></tr> <tr><td>2008</td><td>9.00</td><td>78,840</td></tr> <tr><td>2009</td><td>9.00</td><td>78,840</td></tr> <tr><td>2010</td><td>9.00</td><td>78,840</td></tr> <tr><td>2011</td><td>9.00</td><td>78,840</td></tr> <tr><td>2012</td><td>9.00</td><td>78,840</td></tr> </tbody> </table>	Fiscal Year	MW <sub>a</sub>	MWH	2003	12.13	106,246	2004	12.71	111,297	2005	13.70	120,044	2006	12.34	108,130	2007	9.00	78,840	2008	9.00	78,840	2009	9.00	78,840	2010	9.00	78,840	2011	9.00	78,840	2012	9.00	78,840	Indirect Energy Savings:
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committed itself to updating its IRP annually. The IRP process must be thoroughly documented and afford ample opportunity for public input and information exchange. PacifiCorp's Strategic Business Plan must be related to its Integrated Resource Plan. An outline of the specific resource decisions intended to implement the Integrated Resource Plan in a manner consistent with the PacifiCorp Strategic Business Plan must be supplied to the UPSC. The UPSC IRP Standards and Guidelines must meet the needs of PacifiCorp's Utah service area, but must not ignore the rules governing similar processes in other jurisdictions to foster coordinated regional planning. The UPSC REPORT AND ORDER ON STANDARDS AND GUIDELINES, Docket No. 90-2035-01, articulates Utah's Integrated Resource Planning requirements.

Program Components: The energy efficiency measures PacifiCorp employs for Demand Side Management (DSM) in its IRP program vary in dispatchability, firmness of results, term of the load reduction benefit and persistence over time. PacifiCorp separates DSM measures it offers into four general classes or components. Class 1 – Fully dispatchable DSM resources. Load reductions from this group of measures occur through active customer load controls. Once customers agree to participate in Class 1 DSM measures, the timing and duration of any load reduction is involuntary on their part within limits and parameters to which they have previously agreed. Examples include residential and commercial central air conditioner load control, irrigation load control, electric water heat load control and interruptible tariffs. Class 2 – Non dispatchable, growth neutral DSM resources. Energy and capacity savings from this group of measures are realized through technological improvements in appliances, equipment or structures. Savings last for the life of the installed systems. Reductions in power usage do not affect business or economic output. Examples include incentives to replace existing or upgrade new customer-owned equipment such as lights, motors, air conditioning systems, etc. Class 3 – Non dispatchable, load shedding buydown DSM measures. Energy and capacity savings from this set of measures have a short duration and are achieved through voluntary actions customers take in response to financial incentives PacifiCorps offers them to reduce loads. Examples include Energy Exchange and curtailable tariffs. Class 4 – Non dispatchable, conservation education measures. Energy and capacity savings stem from behavioral changes better informed customers make. Example include Power Forward, 20/20 Customer Challenge, public education and awareness campaigns to promote power savings through conservative thermostat settings, turning off appliances when not in use and inverted block and time-of-use pricing structures.

Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

(2) *UAMPS Integrated Resource Planning – Demand Side Management*

Program / Initiative: Utah Associated	Start Date:
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Municipal Power Systems (UAMPS) Integrated Resource Planning Program – Demand Side Management		End Date:	
Sponsoring Organizations: Western Area Power Administration under the National Energy Policy Act of 1992		Lead Contact:	
Implementing Organization: Utah Associated Municipal Power Systems and its members		Lead Contact:	
Funding Source:			
\$ Total:			
\$ per year:			
Direct Energy Savings:		Indirect Energy Savings:	
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): UAMPS is a project wholesale generation and transmission entity. Municipal utilities who are members purchase power from UAMPS through project contracts and re-sell it to their retail customers. Each member is solely responsible to meet its load requirements. Members can meet their electricity needs through UAMPS or any other source. UAMPS does not have sole responsibility to serve its members' loads. As a result, UAMPS can only coordinate its Integrated Resource Planning Program activities with members. UAMPS is not regulated by the Utah Public Service Commission. UAMPS prepares an Integrated Resource Plan and files it with the Western Area Power Administration (Western) to satisfy Western's regulations and requirements contained in the National Energy Policy Act of 1992. UAMPS filed its "Integrated Resource Plan 2002" with Western. Western accepted the plan on December 27, 2002. UAMPS' "Integrated Resource Plan 2002" covered a ten year planning period, but focused primarily on actions to be taken within the next five years. The Integrated Resource Planning Program is an ongoing, dynamic process in which resource choices are continually under review and re-examination. UAMPS fundamental goal is to provide reliable, competitively priced, and environmentally acceptable power to its members. The Integrated Resource Planning Program strives to achieve this goal and effectively balance its objectives to minimize impacts on member rates, match operational need, maintain system reliability, minimize adverse environmental impacts, ensure flexibility, ensure short-term and long-terms needs are met and maintain diversity in its resource mix and market areas. UAMPS seeks member and public input on all of these matters through its Integrated Resource Planning Program.</p>			
Program Components: Demand side management activities supported by UAMPS across its member system; demand side management activities underwritten by individual members on their systems			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			

4.			
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## b. Residential Energy Efficiency

### (1) *Low-income Weatherization Program*

Program / Initiative: Low-income Residential Weatherization Program	Start Date: July 1, 1975
	End Date: Ongoing
Sponsoring Organizations: Utah Division of Community Development with the U.S. Department of Energy	Lead Contact: Michael Johnson - (801) 538-8657
Implementing Organization: Bear River Association of Governments, Davis County Aging Services, Salt Lake Community Action Program, Housing Authority of Utah County, Six County Association of Governments, Five County Association of Governments, Uintah Basin Association of Governments, and Southeastern Utah Association of Local Governments	Lead Contact:
Funding Source for Fiscal Year 2002-2003: \$2,102,745 US DOE Weatherization Grant \$1,137,523 Low-income Home Energy Assistance Program Transfer \$1,030,435 TANF Grant \$ 300,000 Utah Power/PacifiCorp Grant \$ 250,000 Questar Gas \$ 16,000 State of Utah  \$ Total: \$4,836,703  \$ per year:	
Direct Energy Savings:	Indirect Energy Savings:
Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Low-income Residential Weatherization Program makes one-time energy efficiency improvements to dwellings occupied by low-income Utahans, reducing their energy costs while safeguarding their health and safety. Occupants must meet income guidelines established by the U.S. Department of Energy and the State of Utah to qualify to have energy saving improvements made to their dwelling through the program. Qualified low-income applicants' dwellings are audited to assess their energy performance and to identify the most effective energy saving measures to install using the National Energy Audit Tool (NEAT). NEAT is a software program developed for the program by the Oak Ridge National Laboratory. Based on the audit results, energy measures are incorporated into the dwelling and/or more efficient appliances are substituted for inefficient ones. Energy efficiency measures that may be taken at low-income residences include, but are not limited to, ceiling,	

<p>wall, floor, foundation, duct, water heater and pipe insulation, combustion appliance testing, tune-ups, repairs and replacement, home envelop infiltration testing and leakage sealing, duct leakage testing and sealing, compact fluorescent lighting substitutions, electrical appliance replacement, health and safety improvements and energy related repairs. Low-income program participants also receive information on additional steps they can take to save energy and reduce their energy bills. Local public and non-profit agencies that work with low-income citizens carry out the program. On a national basis, natural gas consumption in low-income dwellings participating in the program has been reduced 21.9% compared to their usage before weatherization. To date, 47,500 homes with low-income residents have been weatherized.</p>			
<p>Program Components:</p>			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

(2) *Residential Energy Efficiency Program*

<p>Program / Initiative: Residential Energy Efficiency Program</p>	<p>Start Date:</p>
	<p>End Date:</p>
<p>Sponsoring Organizations: Utah Energy Office; Utah Energy Conservation Coalition, Energy Rated Homes of Utah</p>	<p>Lead Contact: Mark S. Eldredge, (801) 765-0034; Cris Peterson and David A. Wilson, (801) 765-0034</p>
<p>Implementing Organization: Utah Energy Conservation Coalition and Energy Rated Homes of Utah</p>	<p>Lead Contact: Cris Peterson, David A. Wilson and (801) 765-0034</p>
<p>Funding Source:</p> <p>\$ Total:</p> <p>\$ per year:</p>	
<p>Direct Energy Savings:</p>	<p>Indirect Energy Savings:</p>
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): Utah has adopted and enforces the residential energy efficiency building standards contained in the 2000 International Energy Conservation Code. The Utah Uniform Building Standards Act establishes statewide building energy construction standards. These standards are enforced by local building inspectors. Utah trains inspectors and offers technical assistance to code enforcement officials to assure new home construction meets specified energy performance standards. In addition, Utah sponsors numerous market-based</p>	

activities to help home owners identify cost-effective energy efficiency improvements they can incorporate into their homes, to give home buyers information they can use to distinguish energy efficient homes from other, less energy efficient homes that might be on the market, and to offer more attractive home financing terms to energy efficient home buyers. Utah has made a commitment to improving its “as built” environment by promoting a resource efficient, sustainable and ecologically friendly “whole-systems” approach to home building practices.

Program Components: Residential Energy Code, Residential Energy Code Training, Residential Energy Auditor Training, Home Energy Rating System, Energy Efficient Mortgages, and Greenenergy Homes Initiative

Organization name / Contact	Participants	Investment	Energy Savings
1. Utah Department of Commerce, Division of Occupational and Professional Licensing 2. Utah Energy Conservation Coalition/Mark S. Eldredge 3. Utah Energy Conservation Coalition/David A. Wilson 4. Utah Energy Conservation Coalition and Energy Rated Homes of Utah/Cris Peterson 5. Utah Energy Conservation Coalition and Energy Rated Homes of Utah/Cris Peterson 6. Utah Energy Conservation Coalition and Energy Rated Homes of Utah/Cris Peterson		\$70,000 FY2002/2003	\$350,000+/year

**c. Commercial and Industrial Energy Efficiency**

*(1) Commercial and Industrial Energy Efficiency Demonstration Program*

Program / Initiative: Commercial and Industrial Energy Efficiency Demonstration Loan Program	Start Date: 1997
	End Date: May 2000 although 33% of loans remain active and energy savings persist
Sponsoring Organizations: Utah Energy Office	Lead Contact: Jon Allred, (801) 538-4713
Implementing Organization: Participating industrial and commercial facilities	Lead Contact:

Funding Source: Petroleum Violation Escrow Account funds			
\$ Total: \$1,390,000			
\$ per year:			
Direct Energy Savings: Approximately \$250,000 annually		Indirect Energy Savings:	
Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Utah Commercial and Industrial Energy Efficiency Demonstration Loan Program offered low-interest loans to finance the incremental costs of installing energy efficient process and system improvements and equipment replacements in commercial and industrial establishments. Participating commercial businesses and industries conducted energy audits to identify cost-effective energy saving measures for which they sought loan financing from the program. The energy efficiency measures funded by the program were projected to payback initial investments through energy savings in five years or less. Approximately 67% of the original loan amounts have already been repaid. No new loans are being made since the program was designed to demonstrate the benefits commercial and industrial participants could derive from making energy efficient improvements and stimulate future private investment from conventional lenders. The Utah Energy Office may continue to monitor the energy savings from each loan project, resolve project issues, and collect any outstanding account delinquencies.			
Program Components:			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

(2) *Industries of the Future Program*

Program / Initiative: Industries of the Future	Start Date: May, 1999
	End Date: August 28, 2005 unless extended by mutual agreement
Sponsoring Organizations: U.S. Department of Energy and the State of Utah	Lead Contact: Jack Jenkins (303) 275-4824 and Jon Allred (801) 538-4713
Implementing Organization: Utah Energy Office, Utah Department of Natural Resources	Lead Contact: Jon Allred (801) 538-4713



Program / Initiative: State Building Energy Efficiency Program (SBEEP)		Start Date: June 23, 1999	
		End Date: 2010 unless Executive Order is extended	
Sponsoring Organizations: Governor's Office of the State of Utah		Lead Contact:	
Implementing Organization: State of Utah, Department of Natural Resources, Utah Energy Office		Lead Contact: Mike Glenn (801) 538-5436	
<p>Funding Source: Funding for SBEEP comes from a variety of sources including settlement funds held in Petroleum Violation Escrow accounts, federal energy program funds and a portion of the energy savings generated through SBEEP. The most significant source of funding is private capital that Energy Services Companies are willing to invest through performance contracts with the State of Utah.</p> <p>\$ Total:</p> <p>\$ per year: In Fiscal Year 2003, \$331,602 has been budgeted to administer this program.</p>			
Direct Energy Savings: \$3,067,473 through June 30, 2002		Indirect Energy Savings:	
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The State Buildings Energy Efficiency Program (SBEEP) is a comprehensive, multi-faceted set of activities designed to reduce energy costs for Utah government buildings by a cumulative total savings of \$20 million by 2010. SBEEP activities include energy efficient improvements to existing state facilities, retro-commissioning to optimize efficiency gains from these improvements, technical engineering assistance, energy efficient new building design standards and incentives, a statewide energy management system for tracking energy use, education and training for building occupants and managers, and promotion of energy efficient equipment purchases by state agencies.</p> <p>The State Buildings Energy Efficiency Program was authorized by the Quality Growth Act of 1999 (HB 119, 1999 General Session) and is being implemented through Executive Order of the Governor. SBEEP applies to each state agency, including each executive, legislative, and judicial branch department, agency, board, commission, or division and each state educational institution.</p>			
Program Components: Existing building retrofits, new construction standards and design review, building commissioning and re-commissioning, energy efficient procurement and systematic energy management, tracking and training.			
Organization name / Contact	Participants	Investment	Energy Savings
1. Utah Department of Natural Resources, Utah Energy Office/Mike Glenn (801) 538-5436			
2. Utah Department of Natural Resources, Utah Energy Office/Jim Hood (801) 538-5251			
3. Utah Department of			

Natural Resources, Utah Energy Office/Jim Hood (801) 538-5251 4. Utah Division of Purchasing/Reed Taylor (801) 538-3709			
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(2) *Schools and Public Buildings Energy Efficiency Program*

Program / Initiative: Schools and Public Buildings Energy Efficiency Program	Start Date:		
	End Date:		
Sponsoring Organizations: Utah Energy Office	Lead Contact: Bernell Loveridge, (801) 538-5413		
Implementing Organization: Utah Energy Office, Utah Office of Education	Lead Contact: Bernell Loveridge, (801) 538-5413; Larry Newton, (801) 538-7668		
<p>Funding Source: Funding for the Schools and Public Buildings Energy Efficiency Program activities comes primarily from settlement funds held in Petroleum Violation Escort accounts. Another significant source for funding may be private capital that Energy Services Companies are willing to invest through performance contracts with schools and local government entities.</p> <p>\$ Total: \$1,870,000</p> <p>\$ per year:</p>			
Direct Energy Savings: Over \$620,000 per year	Indirect Energy Savings:		
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): Utah offers a broad range of technical assistance, energy auditing and financial assistance services to schools and units of local government through its Schools and Public Buildings Energy Efficiency Program. For purposes of this program, units of local government include cities, towns, counties, sewer districts and public buildings such as libraries and recreational facilities. The Schools and Public Buildings Energy Efficiency Program helps local governments to identify and finance energy efficiency improvements within their existing buildings and the facilities they operate and maintain. This program also supports engineering reviews of plans for new schools and additions to existing schools as well as on-site construction inspections to assure school buildings comply with current energy code requirements.</p>			
<p>Program Components: Auditing and technical assistance to identify cost-effective energy efficiency improvements local governments can make to their existing buildings and the facilities they operate and maintain, a limited low interest loan pool for financing energy efficiency improvements in local government buildings, and new school design review and inspection assistance for assuring energy code compliance.</p>			
Organization name / Contact	Participants	Investment	Energy Savings

1. Utah Energy Office; Bernell Loveridge, (801) 538-5413		\$60,000	
2. Utah Energy Office; Bernell Loveridge, (801) 538-5413		\$1,800,000	About \$620,000/year
3. Utah Office of Education; Larry Newton, (801) 538-7668		\$10,000	
4.			

(3) *Salt Lake City Climate Action Plan Program*

Program / Initiative: Salt Lake City Local Climate Action Plan		Start Date: February 2002	
		End Date: Ongoing through 2012	
Sponsoring Organizations: Salt Lake City Corporation		Lead Contact: Lisa Romney, (801) 535-7939	
Implementing Organization: Salt Lake City Corporation		Lead Contact: Lisa Romney, (801) 535-7939	
Funding Source: Existing city budgets			
\$ Total:			
\$ per year:			
Direct Energy Savings:		Indirect Energy Savings:	
Efficient lighting retrofits	\$33,571 in first year		
LED traffic signal lights	\$32,962 in first year		
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Salt Lake City Corporation, using Cities for Climate Protection software, has developed an action plan for Salt Lake City to comply with goals articulated in the Kyoto Protocol. While focused on reducing greenhouse gas emissions, the plan relies on energy efficiency improvements and renewable energy power purchases to accomplish its purpose. Phase I of the action plan addresses steps Salt Lake City government can take to improve its energy usage and purchase less polluting power and fuel supplies for its operations. Under Phase I of its plan, Salt Lake City has already completed energy efficient lighting retrofits, installed more efficient LED traffic signals, purchased “green”, wind power from PacifiCorp under its Blue Sky program and substituted bio-diesel, B-20, fuel for regular diesel fuel in its airport vehicles. Salt Lake City has committed to investigate and implement additional energy efficiency and renewable energy projects in the future. Salt Lake City plans to concentrate on reducing vehicles emissions through expansions of its mass transit system and improving heating, air conditioning and ventilation systems efficiencies in city buildings. Salt Lake City government projects are intended to set standards for responsible growth and resource use in the local area. Phase II of the action plan extends its application to the entire community. Salt Lake City has already begun to promote and market energy efficiency programs and renewable energy consumption to its businesses and citizenry. For example, Salt</p>			

Lake City recently joined PacifiCorp on a direct-mail marketing campaign of the Blue Sky, “green power”, program and sponsors E2 Business awards to recognize and promote businesses that meet environmental improvement and economic welfare goals.			
Program Components:			
Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

(4) *Salt Lake Airport Electricity Conservation Program*

Program / Initiative: Salt Lake Airport Electricity Conservation Program		Start Date: 1998
		End Date: Ongoing
Sponsoring Organizations: Salt Lake City, Department of Airports Capitol Improvement Project Committee		Lead Contact:
Implementing Organization: Salt Lake City, Department of Airports		Lead Contact: John K. Cluff, (801) 575-2956
Funding Source: Revenues to the Salt Lake City Department of Airports		
\$ Total:		
\$ per year:		
Direct Energy Savings: \$90,600 annually		Indirect Energy Savings:
Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): The Salt Lake City Department of Airports manages a systematic program to identify and complete energy savings projects at the terminal, airport parking facilities and administrative offices. The Salt Lake City Department of Airports has already upgraded its terminal and concourse lighting using more energy efficient fixtures, installed occupancy sensors to eliminate unnecessary power usage, and improved power quality at the airport. Additional energy savings projects have been identified and work is underway to complete them. The Salt Lake City Department of Airports plans to continuously analyze its energy use and make further, economical facility improvements to conserve power.		
Program Components:		

Organization name / Contact	Participants	Investment	Energy Savings
1.			
2.			
3.			
4.			

### e. Technical Assistance

#### (1) *Energy Education in Schools Program*

Program / Initiative: Energy Education in Schools Program		Start Date: 1997
		End Date: Ongoing
Sponsoring Organizations: Various		Lead Contact:
Implementing Organization: Utah Energy Office with cooperation from participating Utah School Districts		Lead Contact: Bernell Loveridge, Utah Energy Office, (801) 538-5413; Sunny Dent, National Energy Foundation, (801) 908-5800.
Funding Source: U.S Department of Energy, Utah School Districts, Questar Gas, Johnson Controls, Inc., Utah Energy Office		
\$ Total:		
\$ per year:		
Direct Energy Savings:		Indirect Energy Savings:
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): Energy consumption in schools and homes is a function of systems, equipment and appliance efficiencies, occupant behavior and personal habits. Utah's Energy Education in Schools Program offers grade appropriate energy curriculum to teach students how to reduce energy consumption in their schools and homes through conscious, small behavioral changes and low-cost investments in more energy efficient technology. Students participating in the program are given opportunities to apply classroom lessons to help reduce energy usage at their school. The Program encourages participating schools to monitor energy consumption so students can observe the impact they can have on energy use when they are informed and conscientious.</p>		
Program Components: Jordan School District Energy Action in Schools, Utah EnergySmart Schools in Action Program, and Energy Smart Schools Partnership		

Organization name / Contact	Participants	Investment	Energy Savings
1. Jordan School District Energy Action In Schools, Duane Devey, (801) 567-8770	Jordan School Dist., Utah Energy Office, Johnson Controls, Inc., Questar Gas	Between \$14,000 and \$121, 500 per year	
2. Utah EnergySmart Schools in Action Program, Denise Beaudoin, (801) 567-8770	Voluntary participation by Utah School Districts	FY2002-2003; \$40,000	
3. Energy Smart Schools Partnership, Bernell Loveridge, (801) 538-5413			
4.			

(2) *Power Forward Program*

Program / Initiative: "PowerForward"		Start Date:
		End Date:
Sponsoring Organizations: Office of the Governor		Lead Contact: Natalie Gouchnor
Implementing Organization: Partnership between state, local and federal government, communities, utilities, businesses, energy service companies and educators		Lead Contact: Jeff Burks
Funding Source:		
\$ Total:		
\$ per year:		
Direct Energy Savings:		Indirect Energy Savings:
<p>Brief Narrative Summary of Project (include project purpose / intent, participant types, components, incentives): "PowerForward is a multifaceted energy conservation marketing program designed to reduce peak electricity demand in Utah. The Governor serves as the principle spokesperson for the campaign. The "PowerForward" Campaign maintains an energy "alert network" to provide a color-coded energy status to Utah consumers daily. Each status level is linked to a well-publicized set of easy to understand and implement energy conserving measures that consumers can follow to lower peak electricity demand on the system. Peak electricity demand associated with new summer cooling loads primarily is growing nearly twice as fast as average energy consumption in Utah. The "PowerForward" Campaign promotes purchases of energy efficient cooling devices and adoption of load control measures. The "PowerForward" Campaign actively encourages participation by utilities, commercial, industrial and retail businesses and educators. Energy conservation media releases, consumer information, a website, and promotional events are packaged under the "PowerForward" label to raise consumer awareness and motivate them to respond favorably.</p>		

Program Components:			
Organization name / Contact	Participants	Investment	Energy Savings
1. "PowerForward" Alert Network			90MW during peak hours in 2001
2.			
3.			
4.			