



Renewables + Energy Efficiency = Reduced Air Pollution

Renewable energy alternatives and wise use of energy have many benefits, including improved air quality and, in many cases, cost-savings.

States and tribes in the West are considering policies that would expand individual and corporate choices for saving energy and promoting renewable energy.

Policy options:

- Renewable Portfolio Standards and/or System Benefits Charges to increase investments in renewable energy and energy efficiency.
- State and local tax incentives.
- Government purchases that include “green” energy, such as wind, solar or geothermal power.
- Codes and standards that encourage higher energy efficiency in residential and commercial buildings.

Individual options:

- Using efficient heating/cooling systems, compact fluorescent lights and programmable thermostats.
- Replacing home appliances with Energy Star-certified appliances.

Corporate options:

- Installing energy controls, as well as efficient heating/cooling and commercial lighting systems.
- Fine-tuning energy systems that provide optimal performance in buildings.
- Following efficiency standards and providing options to switch fuels.

The Western Regional Air Partnership’s Air Pollution Prevention Forum has developed background data and policy proposals for states and tribes. General findings are available at www.wrapair.org. Tribal-specific information is available at www.wrapair.org/tribal/index.htm#renewables.

Energy Efficiency Combined with Renewable Energy Measures:

- Could reduce power demand in the West by 8 percent by 2018.
- Lowers costs for meeting air quality regulations.
- Offers savings in energy and costs of new fossil-fired power plants.
- Provides for increases in affordable and reliable electricity.
- Offers economic development opportunities for rural areas and tribal lands.



The purpose of the Western Regional Air Partnership is to develop data, tools and policies needed by states and tribes to improve visibility in parks and wilderness areas across the West.

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Web sites: www.wrapair.org and www.wrapair.org/forums/ap2/index.html.

Goals for Renewable Energy Generation by 2015

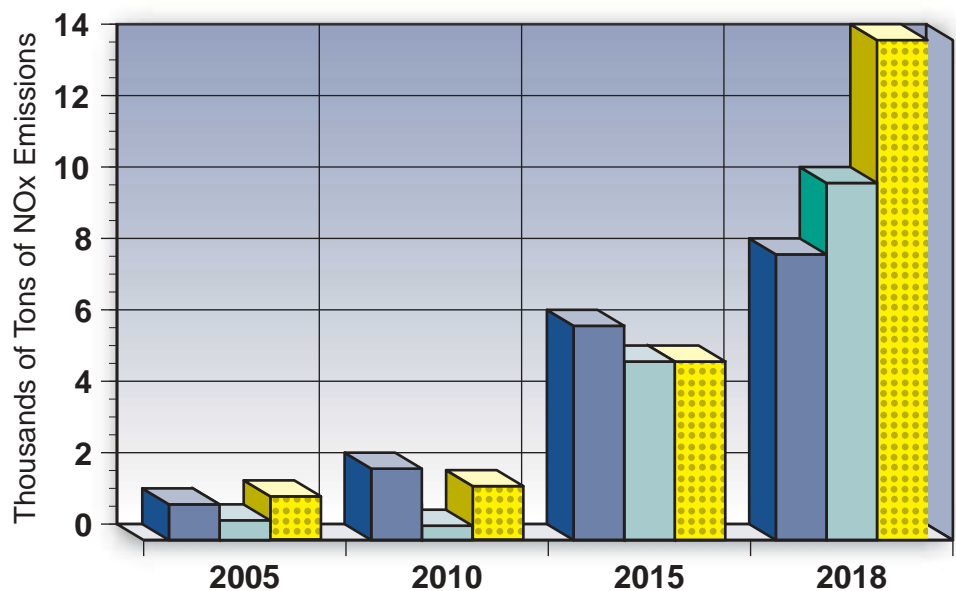


The WRAP's Air Pollution Prevention Forum found that providing financial incentives to both producers and consumers would have the best chance of increasing the West's energy generation through renewable energy sources. Those efforts, combined with state and tribal policies and incentives that increase investments in energy efficiency measures, are cost-effective strategies for preventing air pollution.

Potential Emissions Reductions In Nitrogen Oxides (NOx) for Renewables and Energy Efficiencies



*Overlapping effects of energy efficiency and renewable policies result in the combination not being the sum of both.



Examples of Costs and Savings of Energy Efficiency Measures, 2001-2026

| Action | Total Costs | Electricity Savings (megawatt-hr) | Costs of Saved Energy (\$/kWh) |
|--|---------------|-----------------------------------|--------------------------------|
| Residential installation of compact fluorescent light (CFL) bulbs | \$49,797,000 | 8,999,064 | \$0.0099 |
| Residential appliance recycling | \$40,598,000 | 2,593,122 | \$0.0204 |
| Commercial/institutional lighting, advanced measures | \$795,012,000 | 64,744,193 | \$0.0266 |
| Industrial pump system measures | \$130,051,000 | 15,459,078 | \$0.0183 |
| Commercial/institutional air-conditioning improvements, 20-ton package units | \$296,085,000 | 28,046,667 | \$0.0236 |