

Chapter 13

Energy Conservation

Statewide Planning Goal 13 “Energy Conservation” requires cities to manage and control land use and development to “*maximize the conservation of all forms of energy, based on sound economic principles.*” As a small community, the City of Scio has little involvement in state, regional or national energy policy development and implementation. However, its citizens, businesses and governmental entities are energy consumers, who make daily choices about energy use and consumption.

In 2012, the Governor’s Oregon Energy Action Task Force and the Oregon Department of Energy released a *10-Year Energy Action Plan* recommending the State of Oregon embrace several actions and initiatives to:

- Reduce Oregon’s dependence on carbon-intensive fuels and foreign oil,
- Develop home-grown renewable energy resources,
- Mitigate greenhouse gas emissions,
- Improve energy efficiency and create rewarding local jobs, and
- Boost Oregon’s economy through investment and innovation.¹

The action plan sets statewide energy goals that apply to local communities:

Goal #1 – Energy Conservation: “*Maximize energy efficiency and conservation to meet 100% of new electric load growth*”.

Energy efficiency and conservation are expected to be the cornerstone of Oregon’s energy policy.² The action plan states: *Today, energy efficiency is more important than ever. It is clean and emission free. It is also low cost relative to new energy generating resources. It serves our national goals of reducing our carbon footprint and enhancing our energy independence. In short, it is the world's most environmentally and economically friendly energy resource.*³

The Northwest Power and Conservation Council’s *6th Northwest Conservation and Electric Power Plan* agrees and states “*energy efficiency improvements provide the most cost-effective and least risky response to the region’s growing electricity needs.*”⁴ The Northwest Power & Conservation Council projects most of the growth in energy demand in the Pacific Northwest through 2030 will come

¹ *Oregon 10-Year Energy Action Plan*, Oregon Department of Energy, December 2012., p. 7. Oregon Department of Energy Governor’s Ten Year Energy Plan, http://www.oregon.gov/energy/pages/ten_year/ten_year_energy_plan.aspx

² Ibid., p. 11.

³ Ibid., p. 22.

⁴ *6th Northwest Conservation and Electric Power Plan*, Northwest Power and Conservation Council, February 2010, Action Plan, p. AP-1.

from residential and commercial consumers.⁵ However, as a small community with very modest residential growth and limited commercial/industrial growth, the City of Scio does not anticipate significant energy consumption increases. Pacific Power and Northwest Natural Gas officials agree there are limited economic development opportunities in the smaller rural communities that are located away from the I-5 transportation corridor. Over the next 10 years Northwest Natural Gas officials anticipate declines in the average natural gas use per residential and commercial customers in their Albany service area which includes much of Linn and Benton counties.⁶

Utility representatives encourage local communities and citizens to be partners in implementing energy efficiency and conservation measures.⁷

- Residential and Business Energy Conservation Programs and Tax Incentives: Residential and business utility customers can take advantage of residential and business energy efficiency and tax incentive programs available through the Oregon Department of Energy, the Energy Trust of Oregon and private businesses.
- City and School Conservation Measures. Cities and school districts can lead by example. Reducing daily energy consumption saves taxpayer money by controlling daily operating costs. The City of Scio and Scio School District can take advantage of SB 1149, the Energy Trust of Oregon or similar energy conservation programs by completing energy audits and implementing effective energy conservation measures at schools, pump stations and other public buildings. Installing energy efficient control systems, windows and lighting, retrofitting or replacing pumps and HVAC systems, replacing inefficient street lights and designing new facilities for energy efficiency are all ways city officials and school administrators can lead by example. The City can work with Pacific Power to replace inefficient street lights with LED or other more energy efficient lighting.
- Education: Support efforts by Energy Trust of Oregon, Northwest Energy Efficiency Alliance, Pacific Power, Northwest Natural Gas and others to educate citizens about energy efficiency options and small steps consumers can take. Voluntary conservation measures by end use consumers may include purchasing and installing energy efficient appliances, HVAC systems, heat pumps, water heaters, indoor/outdoor lighting fixtures and consumer electronics.

Goal #2 – Enhance Clean Energy Infrastructure: *“Reduce reliance on fossil fuels and encourage development of wind, solar and other renewable energy resources.”*

⁵ Ibid., pp. 3-4 to 3-6. 2010 electricity demand forecast by Northwest Power and Conservation Council. Residential demand increases are expected due to increased use of home electronics, entertainment and air conditioning.

⁶ Gary Bauer, Director, Government and Community Affairs, Northwest Natural Gas. Email to City of Scio, August 18, 2015.

⁷ Interview with Doris Johnston and Alan Meyer, Regional Business Managers, Mid-Willamette Valley Region, Pacific Power, July 2015.

Oregon imports 100% of its petroleum, coal and natural gas.⁸ Transportation is single largest contributor to Oregon's greenhouse gas emissions. Oregonians consume 1.5 billion gallons of gas and drive 33 billion miles per year and fuel costs comprise 7% of disposable income. To reach Oregon's 2020 goals, the state will need an approximately 30 percent reduction from 2010 greenhouse gas levels, which roughly translates to a 30 percent reduction in fossil fuel use.⁹

Oregon cities and counties can adopt building codes, land use policies and provide local transportation infrastructure and systems that encourage energy conservation and help reduce reliance on fossil fuels. As a small City, Scio can support regional programs that improve transit systems, carpooling and telecommuting. The city can adopt zoning regulations to encourage compact land use with business, schools and services within walking/biking distance of neighborhoods and make bicycle/pedestrian projects a priority.

In Scio, the community can take several actions:

- Provide high speed Internet service to create opportunities for telecommuting. The Scio Mutual Telephone Association can continue to provide fiber-optic and high-speed Internet service to its customers.
- The City may participate in Pacific Power's Blue Sky renewable energy program. As a Blue Sky customer, the City may apply for grant funds to help finance a small-scale renewable solar or wind energy project at a city-owned building, water or wastewater facility.¹⁰
- Plan for local pedestrian/bike networks connections that provide access to recreation, schools, neighborhood / community services and stores within a 10-minute walk of home.

In recent years there have been rapid technological advances in the area of renewable energy resources including solar, wind power and hybrid/electric vehicles. At the local level, the City can ensure local zoning regulations do not impede development of needed public utility services and small-scale solar or wind power projects.

⁸ Oregon Energy Task Force Recommendations to the Governor, March 2012, pp. 3 to 5.

⁹ *Oregon 10-year Energy Action Plan*, p. 13.

¹⁰ Interview with Doris Johnston and Alan Meyer, Pacific Power, July 2015.

GOALS AND POLICIES

ENERGY CONSERVATION

STATEWIDE PLANNING GOALS

GOAL 13 – ENERGY CONSERVATION: Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

CITY OF SCIO GOALS AND POLICIES

Goal EC-1: To efficiently utilize energy, maximize the conservation of non-renewable energy resources and encourage the use of renewable energy resources

Policy EC-1: The City of Scio encourages citizens to conserve energy and implement energy conservation measures. The City will support actions by the Oregon Department of Energy, Energy Trust of Oregon, private utilities and other agencies to increase citizen awareness of energy conservation and efficiency measures and available energy conservation programs.

Policy EC-2: The City will encourage energy efficiency and implement cost-effective conservation measures at city facilities.

- Work with Energy Trust of Oregon and local utilities to periodically audit city energy use in city buildings and equipment.
- Work w/ Pacific Power to remove inefficient street lighting and replace them with energy efficient / dark sky lighting.
- Review vehicle and equipment specifications to ensure purchase of energy efficient and cost-effective equipment.
- Evaluate the costs and benefits of implementing renewable energy projects at city-owned facilities.

Policy EC-3: The City of Scio will encourage the planting and maintenance of trees to create a more beautiful city, provide shading, and reduce heat buildup in open spaces, parking lots and structures.

Policy EC-4: The City of Scio will plan for the development of safe and accessible sidewalks, trails and bikeways to/from residential neighborhoods so schools, businesses and community services are within a 10-minute walk of home.