

## 14 ENERGY

### STATEMENT

Energy use is a component of all aspects of community well being. It has a direct impact on the Town's economic development interests, public health and safety, air quality, and environment. As a result, it is essential that we plan for the energy resources upon which we depend, how they get to us, how we can cost effectively manage their use, and how we can respond when the supply of vital energy resources are suddenly and unexpectedly curtailed or interrupted.

The Energy Element includes goals and policies focusing on energy used to (a) condition the spaces in which we live, work and play, (b) deliver water, power machinery and cook food, and (c) fuel the vehicles we drive. The primary energy resources upon which the Town currently relies include electric power, natural gas and transportation fuels. The role of locally-derived solar energy is greatly expanding.

Energy planning entails making sound land use, transportation and infrastructure decisions as well as promoting gains in energy efficiency and encouraging the development of renewable energy sources. The benefits of long-term energy sustainability include improvements to our local economy, reliable and secure energy supplies, emergency preparedness, and reduced environmental impacts.

### GROWING SMARTER/PLUS REQUIREMENTS

Managing energy resources wisely is increasingly important to the well-being of Oro Valley. Additionally, Growing Smarter/Plus statutes include requirements for Energy Elements. They are as follows:

- A component that identifies policies that encourage and provide incentives for efficient use of energy.
- An assessment that identifies policies and practices that provide for greater uses of renewable energy sources.

While these requirements are mandated only for communities of 50,000 or more, the Town has chosen to address them as optional elements.

### GENERAL PLAN POLICY APPROACH TO ADDRESSING ENERGY ISSUES

Because energy is a significant factor in all aspects of community well being, the Energy Element interrelates with the following General Plan components: Community Design, Economic Development, Housing, Transportation/Circulation, Water Resources, Environmental Planning and Public Safety.

### KEY POLICY ISSUES

**ECONOMY**– Forward thinking and vibrant businesses are gaining an advantage over competitors by investing in energy efficiency and renewable energy. Both large and small businesses are reducing their energy costs and capitalizing on consumer interest in green operations, products and services. The benefits are furthered by enhanced employee recruitment and retention.

**AWARENESS** – Enhancing public awareness of the need for and benefits of cost-effective management of energy resources is critically important to the future success of Oro Valley.

**EDUCATION** – The Town has a great opportunity to help its residents and businesses assess and implement measures which cost-effectively conserve energy, utilize renewable resources and otherwise manage energy use wisely.

**DELIVERY INFRASTRUCTURE** – The Town has an obligation to work with energy suppliers to ensure that the energy delivery infrastructure (a) is upgraded and expanded as required to meet the current and reasonably-anticipated future needs of the Town and its residents and businesses, (b) mitigates the adverse impacts of sudden, unexpected, prolonged supply shortages or outages, and (c) is compatible with the Town’s objectives for preserving views of its natural beauty and community aesthetics.

**COMMUNITY RESILIENCY** – Protecting public health and safety requires that the Town be prepared for (a) sudden, unexpected, prolonged shortages, or outages of the supply of critical energy resources and (b) the potential public safety-related impacts of a changing climate.

## **GOALS AND POLICIES**

### **14.1 To promote use of renewable energy.**

The Town shall:

- 14.1.1 Advocate increased use of renewable energy by the Town’s residents, major employers, schools, and key regional stakeholders.
- 14.1.2 Support renewable energy technology research industries, manufacturers, and commercial scale providers as an economic development strategy.
- 14.1.3 Support installation of renewable energy through expedited permitting and technical assistance.
- 14.1.4 Work collaboratively with regional partners to create and maintain web-based information portals such as Solar One Stop, uniform renewable energy standards, submittal requirements, electronic permitting, and inspection procedures.
- 14.1.5 Identify potential locations for large and/or utility scale renewable energy projects and adopt a renewable energy development district to attract industry, develop standards, and streamline the review process.
- 14.1.6 Support regional and state programs, policies, and legislation that promote viable renewable energy deployment, financing, and markets.
- 14.1.7 Protect sunlight access for established residential and commercial solar systems by avoiding potential shade impacts of new vegetation and structures on adjoining properties.
- 14.1.8 Ensure new residential, multi-family, and commercial buildings, as appropriate, are constructed with cost effective measures to accommodate future solar systems.

- 14.1.9 Develop design guidelines and incentives to encourage the passive and active solar orientation of lots during the planning stages of new subdivisions.
- 14.1.10 Review, identify and address Town polices and ordinances that are potentially detrimental to renewable energy production.
- 14.1.11 Establish design guidelines to address the positioning of pole-mounted solar systems.
- 14.1.12 Assess emerging renewable technologies for potential application in Oro Valley.

**14.2 To further energy savings through gains in efficiency and conservation.**

The Town shall:

- 14.2.1 Promote land use, water conservation, and transportation planning practices that reduce energy consumption and provide economic and environmental benefits.  
  
(See also Policy 1.3, Development Density; Policy 1.5, Land Use and Air Quality; Policy 2.1, Built Environment; Policy 5.3, Transportation Efficiency; Policy 5.6 Multi-Modal Transportation; Policy 5.8 Transit Connectivity; Policy 5.9 Bicycling; Policy 12.3, Water Conservation)
- 14.2.2 Reduce heat absorption for buildings, parking surfaces, and outdoor public areas by employing appropriate building, surfacing, and planting strategies.
- 14.2.3 Adopt the most up-to-date International Energy Conservation Code in concert with regional jurisdictions and stakeholders.
- 14.2.4 Provide builders an array of opportunities to stand out in the marketplace by promoting model green building and energy innovation efforts .
- 14.2.5 Enable voluntary participation in regional green building programs and use of a net zero energy building code.
- 14.2.6 Implement methods to reduce fuel consumption in the design of all new public streets and significant transportation investments.
- 14.2.7 Improve Intelligent Transportation Systems by coordinating the timing of traffic signals to minimize congestion and the number of vehicle stops and starts.
- 14.2.8 Promote development of electric vehicle, biofuel, and CNG infrastructure.

**14.3 To develop and implement educational and collaborative outreach opportunities.**

The Town shall:

- 14.3.1 Provide educational opportunities and assistance to residents, businesses and schools regarding energy conservation strategies in coordination with existing programs offered by the utilities.
- 14.3.2 Promote buyer awareness of building energy costs as a key factor in purchasing a home.
- 14.3.3 Increase awareness of the substantial energy involved in water delivery and opportunities to reduce consumption of both resources.
- 14.3.4 Develop and implement an educational program to ensure individual, family and business preparedness for short- and long-term energy shortages and outages.
- 14.3.5 Seek funding opportunities and partnerships to ensure continued energy conservation and emergency preparedness outreach efforts.

**14.4 To enhance cooperative working relationships with energy and utility providers.**

The Town shall:

- 14.4.1 Hold periodic “energy summits” by bringing together providers, key landowners, businesses, and Town staff to identify and resolve issues and discuss plans for future growth.
- 14.4.2 Work closely with energy providers and property owners to evaluate land use and development proposals to assess infrastructure needs.
- 14.4.3 Forge cooperative agreements with utility providers that articulate Town expectations, procedures and requirements for new installations and upgrades.
- 14.4.4 Develop a means to equitably implement General Plan policy 11.3.2 (promoting placement of utility lines underground) and protect the visual character of the Town.
- 14.4.5 Facilitate replacement and timely upgrade of aging infrastructure to eliminate and prevent electricity overload issues.
- 14.4.6 Support economic development by coordinating with energy providers to plan for future utility services in Innovation Park and other key employment and commerce sites.
- 14.4.7 Provide the community up to date information about proposals for new booster or transmission facilities.
- 14.4.8 Participate in short and long range energy infrastructure planning to maximize community compatibility.

**14.5 To provide leadership by implementing model energy efficiency, water conservation, alternative fuel and solar projects in all municipal facilities and operations.**

The Town shall:

- 14.5.1 Provide an annual energy report card to track savings and integration of energy considerations into Town operations, purchasing and operational practices.
- 14.5.2 Support workforce training for the installation and maintenance of energy technologies.

**14.6 To increase community resiliency by preparing for shortages or outages of critical energy resources and potential vulnerabilities.**

The Town shall:

- 14.6.1 Continue emergency preparedness planning to address energy shortages or outages in collaboration with all emergency responders and utility providers.
- 14.6.2 Build redundancy in energy sources for key government and emergency response facilities and strategic community-gathering areas.
- 14.6.3 Increase awareness that residential structures designed for low energy use serve as ideal shelters during an extended loss of power or extraordinary weather events.
- 14.6.4 Participate in a regionally-coordinated plan that addresses all potential safety risks associated with changes in local climate.
- 14.6.5 Seek local reductions to energy-related air pollution and greenhouse gas emissions.
- 14.6.6 Protect energy infrastructure in collaboration with property owners and utility providers.

**DEFINITIONS:**

Renewable Energy - an energy resource that is replaced rapidly by a natural, ongoing process and that is not nuclear or fossil fuel.

Energy Efficiency - all changes that result in a reduction in the energy used for a given energy service (heating, lighting...) or level of activity.