

Energy

Introduction

A safe, reliable energy supply is important to commerce and the city's overall health. Using renewable energy systems allows Scottsdale to become more independent and less reliant on imported fossil fuels. Moving to more reliable and affordable sources will showcase the city's commitment to a sustainable energy future. Furthermore, reducing energy consumption and encouraging conservation per capita are critical to future economic and environmental vitality.



In Scottsdale, the most viable renewable energy resource is solar energy. Other sources of renewable energies include water and wind generation; however, Scottsdale has no significant sources of these other renewable energy generation types.

The city's total demand for energy will increase with projected population growth. Therefore, Scottsdale must provide flexibility and incentives for energy efficiency and renewable energy technologies.

The goals and policies of the Energy Element seek to balance the energy needs of consumers with the sustainability of the community's renewable and non-renewable energy sources.

Goals and Approaches



1. Work toward becoming a net-zero energy community that balances energy efficiency with renewable energy generation.

- Encourage and provide incentives for efficient use of energy.
- Assess and identify policies and practices that provide for greater uses of renewable energy sources.
- Support off-site or shared renewable energy generation for a group of buildings or entire neighborhood.
- Consider the use of alternative finance options to achieve renewable energy supply goals.
- Promote renewable energy-ready designs for new construction and major remodels.

2. Reduce per capita energy consumption and promote energy efficiency.

- Develop public-private energy efficiency education programs.
- Promote use and provide education on the benefits of energy efficiency best practices.
- Explore emerging smart energy technologies and use them whenever possible.
- Support development of regional waste-to-energy facilities.
- Encourage local industries to adopt energy efficiency measures and renewable energy to minimize the environmental impacts of their operations.
- Support efforts to make energy usage and its associated impacts more transparent for greater understanding by property owners and tenants.

3. Promote building and site designs that maximize energy efficiency.

- Encourage the use of natural properties and sustainable building systems (e.g. sun, shade, thick walls, insulation) to reduce the demand for and use of mechanical cooling and heating systems.
- Encourage the use of landscaping to reduce summer solar heat gain.
- Promote solar energy opportunities in building and site design.
- Incorporate healthy, resource- and energy-efficient materials and methods in design, construction, and remodeling of buildings.
- Orient buildings and lots in ways that minimize summer solar heat gain, maximize roof solar access and natural ventilation, and limit roof solar access obstructions of neighboring structures.
- Improve the energy efficiency of the building envelope, heating and cooling systems, lighting, and appliances.

4. Seek creative means to increase the energy efficiency of City facilities and operations.

- Promote fuel conservation in City vehicles, and use clean, alternative fuels, whenever possible.
- Reduce energy consumption in the provision of municipal services and maintenance of City infrastructure, without affecting the quality and quantity of services.
- Develop strategies to lower utility costs and reinvest savings into energy efficiency measures and renewable energy.
- Perform energy audits and benchmarking of city facilities, projects, and programs to assess their energy efficiency potential.
- Incorporate renewable energy technologies in the design of City facilities.

5. Support the development of renewable energy sources that are compatible with Scottsdale's environmental and aesthetic goals.

- Support regional efforts to increase the supply of energy from renewable sources, distributed generation, and cogeneration.
- Optimize existing energy infrastructure and encourage interconnection with smart grid technologies.
- Diversify the city's energy supply sources with emphasis on cost-effective, efficient, clean, renewable, reliable, and secure energy sources.
- Promote clean and renewable energy and fuel sources to reduce the community's dependence on fossil fuels.

Related Plans and Policies:

- Environmental Regulatory Guide (2014)
- International Green Construction Code (IgCC) (2017)

Reference:

- Southern Scottsdale Residential Energy Audit Results

Element Graphic:

- Electrical Services map

JENNY LIN RD.

CIRCLE MOUNTAIN RD.

HONDA BOW RD.

ROCKAWAY HILLS RD.

DESERT HILLS DR.

JOY RANCH RD.

STAGECOACH PASS

CAREFREE HWY.

DOVE VALLEY RD.

LONE MOUNTAIN RD.

DIXILETA DR.

DYNAMITE BLVD.

JOMAX RD.

HAPPY VALLEY RD.

PINNACLE PEAK RD.

DEER VALLEY RD.

LOOP 101

UNION HILLS DR.

BELL RD./FRANK LLOYD WRIGHT BLVD.

GREENWAY PKWY.

THUNDERBIRD RD.

CACTUS RD.

SHEA BLVD.

DOUBLETREE RANCH RD.

McCORMICK PKWY.

INDIAN BEND RD.

LINCOLN DR.

CHAPARRAL RD./CAMELBACK RD.

CAMELBACK RD.

INDIAN SCHOOL RD.

THOMAS RD.

McDOWELL RD.

LOOP 202

McKELLIPS RD.

BARTLETT DAM RD.

RIO VERDE DR.

CAVE CREEK RD.

TATUM BLVD.

PALISADES BLVD.

BEE LINE HWY. (87)

96th ST.

104th ST.

112th ST.

120th ST.

128th ST.

136th ST.

142th ST.

56th ST.

64th ST.

SCOTTSDALE RD.

HAYDEN RD.

PIMA RD.

LOOP 101

Electrical Services*

Served by APS

Served by SRP

69kV Transmission Lines

115kV and Larger Transmission Lines

Substation

Future Substation
(Approximate Location)

Future 69kV Transmission Line
(Depicts an electrical connection only
and not an actual location)

Scottsdale McDowell Sonoran Preserve
(See Preservation and Environmental Planning Element)



*Locations in APS service area provided by Arizona Public Service.