



Utah Solar Outlook

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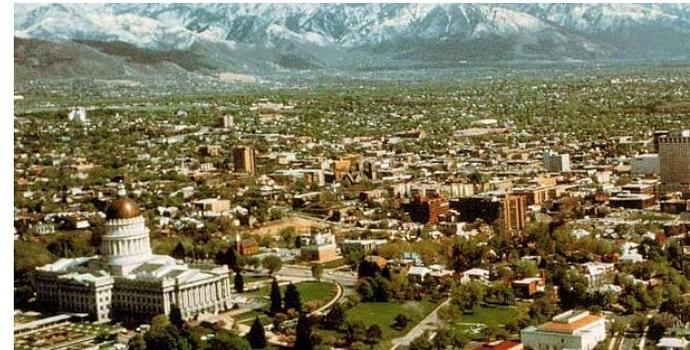
www.utahcleanenergy.org

U.S. Dept of Energy Solar America Cities Initiative: **Solar Salt Lake Project**

Goal: The Solar Salt Lake Project will develop a fully-scoped city and county-level implementation plan to facilitate at least 10 megawatts (or an additional 10,000 solar PV systems) of new solar photovoltaic (PV) installations in the government, commercial, industrial, and residential sectors by 2015.

Activities

- Identify and reduce barriers to solar deployment in Salt Lake City and County;
- Implement a comprehensive plan for Salt Lake City and County that establishes a long-term commitment to solar deployment;
- **Partner with private entities, including land developers, to advance residential solar installations in new housing developments;**
- Work to adopt innovative financing mechanisms for commercial and residential solar



25 Solar America Cities

Ann Arbor, MI
Austin, TX
Berkeley, CA
Boston, MA
Denver, CO
Houston, TX
Knoxville, TN
Madison, WI
Milwaukee, WI
Minneapolis – Saint Paul, MN
New Orleans, LA
New York City, NY
Orlando, FL

Philadelphia, PA
Pittsburgh, PA
Portland, OR
Sacramento, CA
Salt Lake City, UT
San Antonio, TX
San Diego, CA
San Francisco, CA
San José, CA
Santa Rosa, CA
Seattle, WA
Tucson, AZ

Solar Salt Lake Project Partners

Phase I Partners (2007-2009)

The Salt Lake City Corporation (Project Lead)
Utah Clean Energy (Project Facilitator)
Salt Lake County
Kennecott Land
Rocky Mountain Power

Kennecott Land



Phase II Partners (2010-2012)

The Salt Lake City Corporation (Project Lead)
Utah Clean Energy (Project Facilitator)
Salt Lake County
Ballard Spahr, LLC
Interstate Renewable Energy Council
Utah Governor's Office of Economic Development
Utah State Energy Program
Kennecott Land

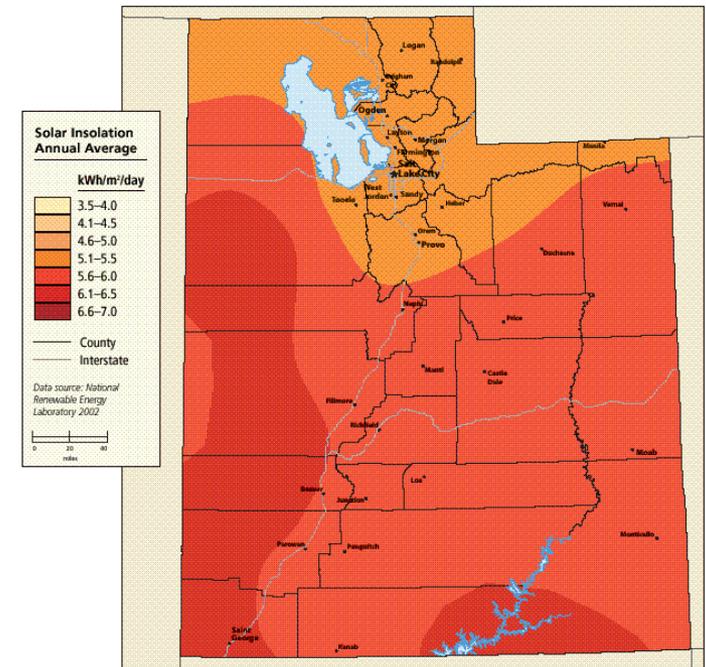


http://www.solaramericacities.energy.gov/cities/salt_lake_city/



Utah's Solar Resource

- Technical Market = roof space X PV power density
 - Total roof area by 2010: 488 million sq. feet = 8,472 football fields
 - PV Power density of solar systems by 2010 = 10.2 watts/sq. feet
- Technical market by 2010
 - **5 GigaWatts** (yields approx 8.2 MWh/year)
 - **974,000 Utah homes**
- Technical market by 2025 = 7.8 GigaWatts



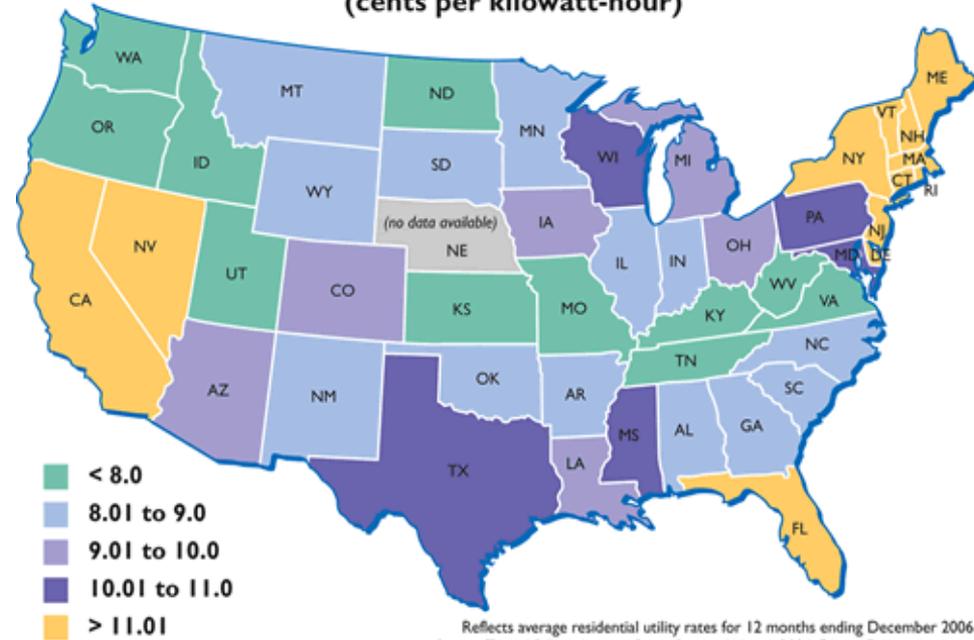
Assumes: Assumes 65% of commercial rooftop area and 22% of residential rooftop area is available for PV
Sources: “Renewable Energy Atlas of the West,” J. Nielsen, S. Innis, L.K. Pollock, H. Rhoads-Weaver, A. Shutek prepared by The Energy Foundation, 2002 and M. Chaudhari, L. Frantzis, T.E. Hoff, “PV Grid Connected Market Potential in 2010 under a Cost Breakthrough Scenario,” prepared by Navigant Consulting, 2004.

Energy Costs in Utah are Low

Electricity

Natural Gas

Total average residential rates by state (cents per kilowatt-hour)



Utah's residential gas rates have been the lowest in the continental U.S.

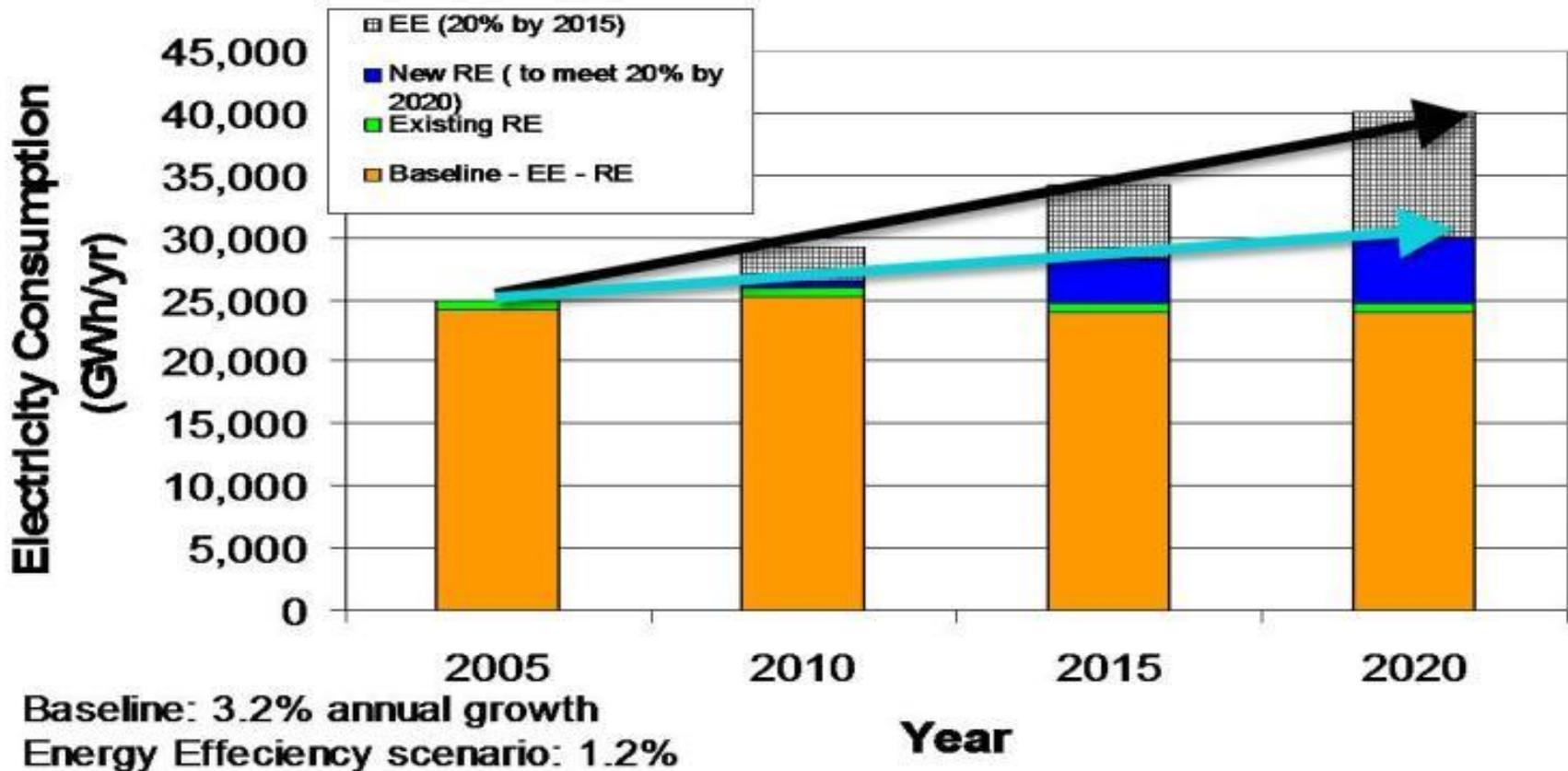


\$ per Mcf. Source: U.S. Energy Information Administration; Hawaii and Alaska removed due to unique supply situations



Utah's Demand is on the Rise

Utah Electricity Savings with 20% by 2015 EE Goal and Impact of 20% by 2020 RPS



Energy Demand vs. Peak Demand

“The demand for electricity during the **summer peak season is increasing at twice the rate** of the growth in the area. The **single biggest impact** on the growth of that peak demand is the conversion from evaporative cooling **to central air conditioning** in the area.”

- Rich Walje, President Rocky Mountain Power

Energy demand: increasing 3% per year

Peak demand: increasing 6% per year

Solar Progress to Date

- Barrier Identification Workshops
- Residential and Commercial Financing Studies (Ballard Spahr)
- Salt Lake City Sustainable Codes Project
 - Reduced permitting fees for Solar
- **Kennecott Land/Daybreak Solar Homes**
 - Gold Medallion, Garbett Homes, and Rainey Homes leading the way!!
- Salt Lake Community College Courses
 - Solar PV Installer
 - Solar Teacher Training Course (Regional DOE Grant)
- Solar Code Training

Solar Progress: Policy & Regulatory

- Net Metering (SB 84, 2008 & PSC Rulemaking 2009)
 - Utah gets an ‘A’ in *Freeing the Grid Report (2009)*
- PSC Rulemaking: Interconnection Standards (04/2010)
 - Utah expected to improve from current ‘F’
- Third-party Financing (PPAs) for government, churches, schools (HB 145 – 2010)
- ARRA funds
 - City and County are considering solar loan options for residential and commercial
 - State Energy Program Solar for Schools
 - State Energy Program Solar Rebate



Progress to Solar Goal in SL County (10 MW by 2015)

	JAN 08	JAN 09	AUG 09
PV kW Capacity Installed (Residential)	147	198	294
PV kW Capacity Installed (Commercial)	4	27	95
PV kW Capacity (Total) on Municipal Buildings/Sites	0	25	45
PV kW Capacity (Total) on Public Schools	0	2	2

UPCOMING SOLAR PROJECTS:

Salt Lake County – 800 kW

Garbett Homes with Solar

Utah State Energy Program Rebate just announced

Blue Sky Renewable Energy Projects



NEW! State Energy Program Solar Rebate Program

- SOLAR PV
 - Residential \$2/watt DC up to \$8750
 - Commercial \$2/watt DC up to \$50,000
- Solar Thermal
 - Residential \$30 per sq foot up to \$2500
 - Commercial \$30 per sq foot up to \$10,000
- Wind
 - Residential \$1.50/watt DC up to \$5,000
 - Commercial \$1.50/watt DC up to \$5,000
- MORE INFO: <http://geology.utah.gov>



Utah's Solar Future: Key Areas of Focus

- Expansion of Rocky Mountain Power Solar Rebate
- Residential Financing Options
 - PACE and other options
- Legislative Interim (2010)
 - Study of net metering and value of solar
- Commercial Financing Options
 - Expansion of Third-party market; Leasing
 - State or utility incentives? Feed-in-Tarrif?
- Implementation Plan Report (Spring 2010)
- Salt Lake County Solar Map and Website (2010)
- Solar Access, Rights, and Ordinances
- Streamlined Permitting and local codes



Solar Resources

- Utah Clean Energy: www.utahcleanenergy.org
- Questar ThermWise : www.thermwise.com
- Rocky Mountain Power:
www.rockymtnpower.net
- Utah State Energy Program:
www.geology.utah.gov/sep/
- Governor's Energy Advisor Office:
www.energy.utah.gov
- Federal Energy Incentives DSIRE USA:
www.dsireusa.org
- Interstate Renewable Energy Council:
www.irecusa.org



Utah's Energy Future is Right Now



Thank you!

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