

SSTI Monthly Newsletter

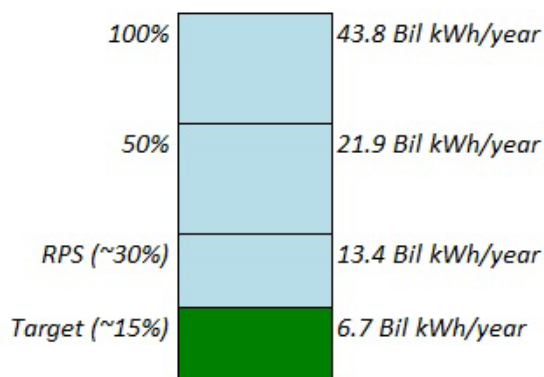
Maximizing Regional Solar Potential Across the Southwest

May 2012

Market Potential Studies: Initial Results Show 4.8GW and \$9Billion in Economic Activity Possible

As part of the SSTI program deliverables, all participating municipal agencies will receive a local and regional solar market potential report. The report will highlight the opportunity for the PV market to expand dramatically, considering high-level factors such as target solar penetration levels on the grid as well as local factors such as the existing housing stock and available roof space. The report will also highlight programs that can be used to help develop the local market, including streamlining the permitting processes, innovative financing options, and targeted community programs. Shown below is a summary of the local potential across all 41 participating agencies:

Electricity Usage Estimates - 41 Jurisdictions



5 Year Regional Economic Impact Forecast

\$9+ Billion in economic activity
4,800 MW in installed solar capacity
46,000 Jobs



The graphic above shows the total electricity consumption within the 41 partner SSTI municipalities, along with a representative RPS target (the actual RPS goal varies from 20% in UT to 33% in CA). For municipal agencies that want to meet this RPS goal with local sources of power, solar is one of the most viable options. We believe this local component is important – not only is it more efficient to produce power locally to avoid the need for transmission infrastructure and associated losses, but development of local power sources presents an opportunity for economic activity and job creation. For planning purposes, the potential for local solar project activity was set at a modest half of the overall RPS goal. By comparison, more and more municipalities are setting very aggressive goals (ex: San Francisco is targeting 100% renewable power by 2020) and California is targeting 60% of all new solar to be distributed generation.

To that end, the green arrow shows the cumulative local economic impact of meeting this solar target across the 41 SSTI jurisdictions over the next 5 years. These numbers are derived using the Department of Energy's Job and Economic Development Impact (JEDI) model, which estimates the local impact of solar system construction and operating power generation facilities. This impact - \$9 billion in economic activity and 46,000 jobs – would be realized primarily via the local/regional solar installation and financing industry; it is assumed that most materials (panels and inverters) are manufactured outside the region.

The SSTI program will be providing resources to help drive this market activity so that participants can capture this significant opportunity. Based on our preliminary findings, prime sites within the residential rooftop segment can accommodate 10-15% of this solar production target. This segment forms the backbone for the local solar market and is a primary focus for the SSTI. We'll also be looking at additional programs to build on this segment to complete the solar picture; this includes commercial sites, municipal and school sites, community solar, and utility driven programs.

Stay tuned for the rollout of detailed market potential studies for each jurisdiction this summer.

Site Visits Complete, What Happens Next?

Over the last 5 weeks, the SSTI team conducted site visits and meetings with 41 municipal agencies, a dozen utilities, partners from state energy offices and regional sustainability organizations, and fellow SunShot teams across four states. These visits were a great opportunity for the SSTI team to meet our local partners and to understand the needs and opportunities in each region. Now that the dust has settled, what happens next?

The next phase of the SSTI program involves tailoring a roadmap for each participating municipality. While there are commonalities across the board in what constitutes a set of model best practices in building a solar friendly community, there are different pieces of that puzzle that are most relevant for each particular region. Some jurisdictions have a need for a more streamlined permitting process, others need more definition in zoning ordinances, and others have very solar-friendly municipal policies but lack the market maturity to drive adoption.

The roadmap process considers the regional environment in determining which goals are most critical to driving more market activity in your area. The on-site visits were a great chance for the SSTI team to understand the particulars of each region, as well as to identify the focus for each jurisdiction – those important, actionable items that can have an immediate impact on the market. We look forward to developing these tailored solutions for your region over the following weeks.

What's Happening This Month

The SSTI team will be compiling data obtained during site visits in April. Participants may expect to be contacted with follow up items and information requests as the data gathering process wraps up.

Participant News: Lake County, CO

Lake County recently went solar at several municipal facilities. Development sites include a road & bridge facility, landfill, and airport. The sites were procured together under a power purchase agreement (PPA). The systems were built and financed by a third party, and the County purchases the power they produce for a fixed kWh rate.

Pictured below is a 100kW system at the Colorado Mountain College in Leadville.



Pictured below: Regional meeting with the Nevada Association of Counties



Solar Financing Options – Matching Payments with Savings

In recent years, financing options for solar PV have propagated widely. In addition to community solar programs discussed last month, many other avenues exist for going solar without paying upfront or even buying the system!

One common option is the power purchase agreement (PPA). This financing structure involves a 3rd party financier who owns the system and provides it to the buyer. The homeowner enters into an agreement to purchase the energy produced by the system for a predetermined price per kWh. The goal is for the monthly payments to be close to or less than the amount saved on monthly utility bills. This financing method not only defers the upfront cost, but also reduces risk and shifts the ownership responsibilities of operations and maintenance to the financier. More than half of all residential systems in both California and Colorado are now financed by 3rd parties.

On the other hand, direct ownership is still chosen by many homeowners and solar buyers. Due to the simpler finance structure, the total cost of ownership may be lower than with financed systems. Loans to purchase renewable energy systems are most commonly obtained through home equity lines of credit, but some local banks and credit unions are beginning to implement loan programs specific to energy efficiency and renewable energy upgrades.

One of the goals of the SSTI program is to ensure that appropriate financing avenues are available in our regions and that these programs are marketed and well known within the community.

More information on solar financing can be found in Chapter 2 of the Solar Powering Your Community guidebook:

[Link: Solar Powering Your Community.](#)

Participant News: Fernley, NV

The City of Fernley, located in Nevada's sprawling Lyon County, employs a solar-specific building permit application. In addition, the City allows for electronic submittal of solar permit applications. City Building Department staff found that scanned copies of solar permits and plans qualify as meeting Nevada's "wet stamp" requirement.



About Optony

Optony is a global research and consulting firm focused on enabling governments, schools, investors, and commercial organizations to bridge the gap between solar energy goals and real-world results. Leveraging our independence, domain expertise and unique market position, our clients are empowered to make informed decisions that reduce risk, optimize operations, and deliver the greatest long-term return on their solar investments.

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About SEI

Strategic Energy Innovations (SEI), a nonprofit organization established in 1997, helps empower schools and universities, small businesses, local governments, affordable housing agencies, and agricultural communities to reduce pollution and save money through energy and resource efficiency.

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