Tempe South Water Treatment Plant Solar

March 27, 2014
Solar Timeline

2012

Alternative Energy Committee research best practices & select sites

2013

Solar RFP for city facilities
Submit for APS, SRP Incentives
SSA Legal Council
Pre-construction
Construction
Tempe Water Treatment Plant Solar

1. Alternative Energy Committee
2. Solar Request for Proposals (RFP)
3. Solar Service Agreement (SSA)
4. APS & SRP Incentives
5. Pre-construction
6. Construction & Commissioning
Alternative Energy Committee

• Why committee?
• Goals of Committee:
  – No capital costs for city
  – See immediate savings
  – Power facilities with alternative energy
• Select sites
• Best practices of RFPs and SSAs
Solar Request for Proposals

• Best Practices of Solar Requests for Proposals (RFP) and Solar Services Agreements (SSA):
  – City of Chandler
  – City of Mesa
  – Prescott Valley
  – Arizona State University

• Selected 7 sites
Solar Services Agreement (SSA)

• Third party model
  – Solar vendor installs, operates & maintains system
  – Financial partner owns system
  – City purchases power at agreed upon rate, a rate lower than the current cost of power
  – No out-of-pocket costs for city
  – Contract term 20 years
Solar Request for Proposals

- Bid Issued December 2012
- Submittals due March 2013
- 10 vendors submitted
- Interviews and evaluation by April 2013
- Legal Review of SSA
- Council approval May 2013—selected 4 vendors
- Council approved SSAs with SolarCity for SWTP & Police/Courts
APS & SRP Incentives

- APS incentives in 2013 – reverse auction
- SRP incentives in 2013 – first come first serve basis
- Incentives
  - Shovel-ready projects
  - Vendor selected
  - Must offset load use, cannot build PV system to generate more power than site demand
  - Interconnection on one continuous property
APS & SRP Incentives

• APS Production Based Incentives Application:
  – Production Based Incentive Calculation Sheet
  – PV Watts or system calculation sheet
  – Fully executed installer agreement
  – System description
  – Panels and Inverters specs
  – W-9 for system owner
  – 12 months energy consumption for building
Pre-Construction

• 5 months
• Planning and Building Safety
• Engineering review
• Risk Management
• Security – background checks
• Bi-weekly meetings

Construction – 6 weeks
Solar City SSA at South Water Treatment Plant
Solar City SSA at South Water Plant

- 923.9 kW system
- $.05/kWh for 20 years no escalator
- Current rate $0.083/kWh
- SRP incentives $.04/kWh
- Year 1 production 1,647,700 kWh
  - 15% annual energy use
  - Plant annual use is 10,667,769 kWh
  - Annual electric bill is ~ $800,000
- Periodic Buyback provision
  - at 20 years = $132,584 or fair market value
- City will pay the current rate for electricity on portion not offset by solar
- $25,536 savings in the first year, total savings $2.3 million over 20 years
South Water Treatment Plant Ribbon Cutting March 14
Next Solar Projects

• 250 kW system at Police/Courts building downtown
• 900 kW system at Johnny G. Martinez Water Treatment Plant
• Library Complex in planning phase
Next Solar Projects

SolarCity installed 3MW at Walmart Distribution Center

Tempe JGM Martinez Water Treatment Plant
Tempe South Water Treatment Plant Solar

www.tempe.gov/energy
www.tempe.gov/green