Current Utility-Scale Solar Efforts at SRP

Stephen Mellentine
Senior Planning Analyst, Resource Planning
Salt River Project
• Third largest public power utility in the nation
• Over 940,000 electric customers in Phoenix area
• 7,400 MW generation portfolio
• Largest water provider in Phoenix area
• Delivers nearly 1 million acre-feet annually
SRP & Arizona Perspective of Utility Solar

• SRP not regulated by Arizona Corporation Commission, regulated by own Board of Directors
• IOUs under ACC regulation subject to different solar requirements
• SRP strategy of technology balance, resource size, geographic dispersion and interconnection w/in SRP service territory
• SRP is non-taxable status; can’t utilize federal incentives
Drivers for Acquisition of Renewable Generation

- Customer/Stakeholder Input
- Environmental leadership
- Water consumption
- Renewable portfolio standards
- Carbon emissions
SRP Sustainable Portfolio

- Retail Requirements:
  - 20%
  - 15%

- CONSERVATION - Energy Efficiency and Demand Response:
  - 10%

- HYDRO RESOURCES:
  - 5%

- RENEWABLE RESOURCES:
  - 0%

FY2006 to FY2020

DOE Tribal Leader Solar Energy Forum
Mellentine
Solar Photovoltaic RFP

- Request for proposals (RFP) for utility scale solar photovoltaic (PV) projects issued July 2010
- Requested a total of up to 100 megawatts (MW) in two phases
  1) Up to 50 MW by third quarter 2012 ("A" Phase)
  2) Up to 50 MW by third quarter 2013 ("B" Phase)
Solar Photovoltaic RFP (cont.)

• Projects’ preferred sizes between 5 and 50 megawatts each
• Accepted solar panel technologies were crystalline and thin film; orientation was fixed tilt or single axis tracking
• Projects interconnecting to SRP’s distribution system or transmission voltages less than 230kV were preferred
Solar Photovoltaic RFP (cont.)

• Evaluation Criteria
  – Price
  – Panel Manufacturer
  – Developer Creditworthiness
  – Interconnection

• “A” Phase process resulted in signing PPA w/ juwi Solar in 2011.
  – Queen Creek Solar project located in Queen Creek, AZ
  – 19 MW
  – Interconnected to SRP 69kV sub-transmission system
Solar Photovoltaic RFP (cont.)

- “B Phase process still ongoing
- Finalist(s) selected and negotiations underway
Copper Crossing Solar PV

- Owner: Iberdrola Renewables
- 20 MW
- SunPower monocristalline panels w/single axis tracking
- Florence, AZ
- Contract Term: 25 years
- Commercial Operation Date: September, 2011
Community Solar

- Offers schools and residential customers an alternative to installing solar on their rooftops
- No upfront costs, solar maintenance or repair costs
- Price certainty
- Net metered to output of Copper Crossing facility
- Intent is to expand program to and commercial and industrial customer classes
Questions?

Contact Information
Stephen.Mellentine@srpnet.com

www.srpnet.com
Backup Slides
Relative Generation Costs
New Resources (Q111)

Integration, Delivery, & Risk Premiums
Base Levelized Cost

$/MWh

Nuclear
Coal
Combined Cycle
Geothermal
Wind
Solar PV
Hybrid Solar Thermal
Wind and Solar Cost Trends
Levelized Bus Bar Cost

$/MWh

Solar PV (Utility Scale)

Solar Thermal
(Excluding Storage or Co-fire)

Wind

Year
2008 2009 2010

EE