

FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

April 22-23, 2015
Nashville, TN

Lessons Learned in Renewable Projects

Hosted by:



Presentation Overview

- Policy/regulation lessons learned
- Other utility coordination
- Biomass project considerations
- Other miscellaneous lessons learned

Note: Most apply regardless of implementation method

Policies/Regulations

- Ensure that your state and utility allow PPAs (if this is planned implement method)
 - http://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2015/01/3rd-Party-PPA_0302015.pdf
- Compare renewable generation to load. If some export expected, research net metering rules carefully (see http://energy.gov/sites/prod/files/2014/05/f15/fupwg_may2014_net_metering.pdf for more information)
- Utilize very conservative (if any) demand charge savings estimates, unless the contractor is willing to guarantee savings

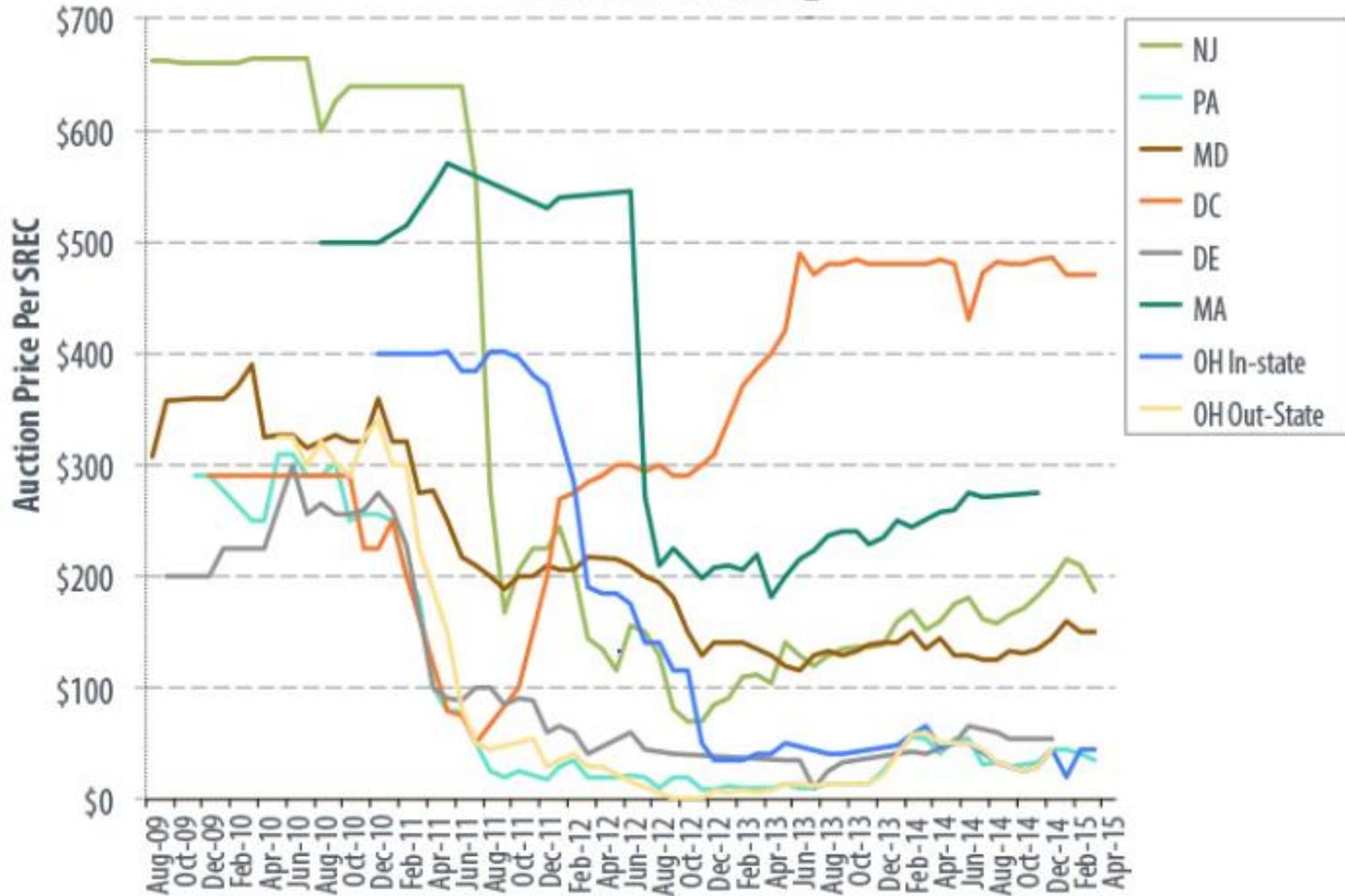
Policies/Regulations

- Interconnection – Talk to utility about the interconnection process (requirements, cost, timeline)
- Review interconnection agreement
 - See Richard Butterworth presentation at http://energy.gov/sites/prod/files/2013/10/f4/fupwg_fall12_butterworth.pdf
 - Utilize GSA Areawide Contract Exhibit D
- National Environmental Policy Act (NEPA), National Historic Preservation Act and other associated considerations – research requirements early on to understand costs and timeline impacts

Solar Renewable Energy Certificate (SREC) Sale Considerations

- Project ownership is important (private vs. government)
 - ASBCA decision (see http://energy.gov/sites/prod/files/2014/01/f7/fupwg_winter2014_white.pdf)
- SREC markets are volatile – best to award contract quickly to avoid problems associated with significant SREC price reductions
- Consider retaining RECs in out years since SREC values may be low (re-negotiate contract if it turns out they are valuable)

State SREC Pricing



Compliance market SREC weighted average price, August 2009 to April 2015

Source: [SRECTrade](#) (2015) and [Flett Exchange](#) (2015).

Research Glint/Glare Requirements

- Especially important if near an airport (within 2-5 miles)
- Sandia's Solar Glare Hazard Analysis Tool is available to analyze glint/glare
 - <https://ip.sandia.gov/technology.do/techID=120>
- FAA form 7460-1
 - <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

Other Utility Coordination

- Contact the utility early in project process to discuss all pertinent issues
 - Talk to staff experts (may not be the federal account rep.)
 - Get answers in writing
- Study your tariff and discuss how the renewable project will be treated. Tailor project and implementation approach to the regulatory environment
 - Standby charges
 - Possible tariff changes due to load characteristic changes
 - If electricity sale planned (beyond net metering): what regulations apply, such as feed-in tariff, Public Utility Regulatory Policies Act of 1978 (PURPA)
 - Determine impact to project economics
- Discuss how the renewable project will be interconnected with the site load
 - Who owns the distribution/transmission lines that will be used?
 - Are there any retail wheeling issues?
 - If the site has more than one meter, what meter will renewable electricity serve?
 - Review privatization contract (when applicable)

Biomass Project Considerations

- Fuel – availability, quality, price, who pays (federal agency vs. contractor)
- What is included in guarantee (if any)?
- Biomass plant reliability and unplanned outages
 - Costs associated with alternative energy sources
- Planned maintenance
 - Schedule outages to reduce utility cost impacts

Miscellaneous Issues

- Land ownership - BLM withdrawal, leased land (compare lease length to renewable project length)
- Understand agency approval requirements (local, regional, HQ)
 - Compatibility with site plans and agency mission
- Coordination with other tenants
- Security issues (cyber and other)
- If appropriated funds used: sign an O&M contract or ensure that there is sufficient budget available for O&M and equipment replacement (such as inverters). A performance insurance policy could be used in conjunction with O&M contract
- Roofs – age, warranty, structural analysis
- Team/champion in place and management support is critical

Questions?

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