Energy Development Challenges and Opportunities with Tribes

WAPA Webinar

August 2011
Presentation Topics

• RPS
  – LADWP Portfolio
• RPS – The Future
  – SBx1-2 / SB-23 Overview – Future RPS Targets
  – Project Evaluation Principles
• RPS Future Opportunities / Challenges
Renewable Projects Regional Map

Columbia River Corridor:
- PowerEx Small Hydro
- Pebble Springs Wind
- Willow Creek Wind
- Linden Wind Farm
- Windy Point Wind

Pacific DC Transmission

Barren Ridge-Inyo Transmission

Small Hydro – Aqueduct
- Pine Tree Wind

Local In-Basin Solar

Gas Pipeline – Landfill / Biogas

Pleasant Valley SW Wy Wind

Milford Wind I / II

STS Transmission
Renewable Portfolio Standard (RPS)

Renewable Resource Portfolio - 2010

Type of Resource

- Wind: 41%
- Small Hydro: 35%
- Solar: 1%
- Geothermal: 5%
- Biogas: 18%

Ownership Options

- Owned or Option to Own: 51%
- Power Purchase Agreements: 34%
- Short-Term Purchases: 15%

RPS 2010 Percentages

*Power Purchase Agreements (PPA) expire between 2015 and 2025.
LADWP Wind Projects – Site Photos

Windy Point / Linden – Washington

Pine Tree - California

Milford Phase 1 & 2 - Utah
Utilities can procure RPS energy under three different procurement classifications (commonly referred to as “buckets”) for those agreements executed on or after June 1, 2010.

Agreements entered into prior to this date are “grandfathered” as eligible.

- **Bucket 1**: In-state projects or directly connected to DWP
- **Bucket 2**: Firmed & Shaped products delivered through other systems
- **Bucket 3**: Unbundled/REC-Only deals

There are varying thresholds for each of the “buckets:”

<table>
<thead>
<tr>
<th>Compliance Period</th>
<th>Minimum % for Bucket 1</th>
<th>Maximum % for Bucket 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 1, 2011 – Dec 31, 2013 (RPS Target: 20%)</td>
<td>50%</td>
<td>25%</td>
</tr>
<tr>
<td>Jan 1, 2014 – Dec 31, 2016</td>
<td>65%</td>
<td>15%</td>
</tr>
<tr>
<td>“Reasonable progress” to ensure 25% renewable energy by the end of this period</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan 1, 2017 - Dec 31, 2020</td>
<td>75%</td>
<td>10%</td>
</tr>
<tr>
<td>“Reasonable progress” to ensure 33% renewable energy by the end of this period</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These additional “buckets” and the associated limitations will impact the market availability of RPS projects.
LADWP RPS Supply and Goal 2011-2020
(All Figures in GWh)

Year

-10000  0  1000  2000  3000  4000  5000  6000  7000  8000  9000

Renewable Energy (GWh)

Projects In-Service
Projects Under Construction
Projects Planned
Deficit
Goal

RPS Strategy & Goals
1. Geographic Diversity of projects is important
2. Maximize use of existing LADWP transmission & land
3. Maintain options/flexibility
4. Regionally “cluster” renewable projects to achieve operation and main
5. Ownership of projects using proven technology is part of the current RPS Policy
RPS Gates includes:
- Resource Diversity
- Ownership Options
- Project Size
- Utility Scale Project Experience

A project under evaluation needs to pass through these gates, before consideration for full scoring and short listing.

RPS Scoring Criteria includes:
- Geographic Diversity
- Experience/Completion/Compliance Confidence
- Delivery at LADWP Balancing Authority / Project Clustering
- Labor
- SBx1-2 / SB23 RPS Bucket Allocation
- Firm Transmission Rights or Availability
- Pricing
Each proposal will be given a total score based on the evaluation by the review team.

The total score will be split into price and non-price issues:

- Economic factors
- Technical and commercial (non-price) factors

Breakdown of Technical and Commercial factors:

Project Viability Factors
- Technical Information
- Degree of Site Control
- Environmental Compliance Plan
- Dependence on Govt. Subsidies
- Certainty of Renewable Resource
- Operation and Maintenance Plan
- Project Schedule
- Strength of Financing Plan
- Bidder Qualifications and Experience

LADWP Preference Factors
- Project Ownership Arrangement
- Project Location
- Arrangements for Delivery of Power
- Product Type
- Offers to Other Parties