Innovative REC Strategies for Project Finance

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Renewable Choice Energy

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Presentation Outline

• Market and Policy Context
• RECs 101 and Market Exploration
• Optimizing Value for Environmental Attributes
Renewable Choice Background

- Founded 2001
- Headquartered in Boulder, Colorado
- Leading national renewable energy provider
- Commercial market development and leadership:
  - Whole Foods Market 1st 100% purchaser
  - 1000+ LEED-certified projects
  - High-profile Fortune 500 clients
- Innovations:
  - Wind Power Card™
  - Green Your Phone™
  - Steelcase® Wind Farm
Market and Policy Context
Significant Growth is Underway

Carbon Project Growth Worldwide

U.S. Wind Power Capacity (MW)

Compliance vs. Voluntary REC Demand

Source: Bloomberg New Energy Finance

Source: AWEA 2008 and 2009 Market Reports

Source: National Renewable Energy Laboratory
Demand is Growing for Renewable Energy

- Compliance and voluntary market demand continues to grow in the future.
- This demand is captured in the form of demand for the purchase and retirement of RECs.

* Demand for “new renewables” – projections based on RPS & voluntary growth estimates

Source: Lawrence Berkeley National Laboratory and National Renewable Energy Laboratory.
First Climate and Renewable Electricity Standard bill to pass the House (American Clean Energy and Security Act)

Covers stationary sources emitting 25,000 tons per year

Targets (% below 2005 CO2 levels)

<table>
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<tr>
<th>Year</th>
<th>Target</th>
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<tbody>
<tr>
<td>2012</td>
<td>3%</td>
</tr>
<tr>
<td>2020</td>
<td>17%</td>
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<tr>
<td>2030</td>
<td>42%</td>
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<tr>
<td>2050</td>
<td>83%</td>
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Includes Renewable Electricity Standard – 20% by 2020

<table>
<thead>
<tr>
<th>Year</th>
<th>Target</th>
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<tbody>
<tr>
<td>2012</td>
<td>6%</td>
</tr>
<tr>
<td>2014</td>
<td>9.5%</td>
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<tr>
<td>2016</td>
<td>13%</td>
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<tr>
<td>2018</td>
<td>16.5%</td>
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RPS Update

- 29 States and the District of Columbia have Renewable Portfolio Standards
  - In 2009 KS introduced RPS of 20% by 2020
  - Last year CA, CT, DE, DC, HI, NV and OR all increased targets
  - CA & CO increase to 30+% in 2010
  - H.R. 2452 passed the House in 2009 and includes a national RES of 20% by 2020
Renewable Energy Credits 101 and Market Exploration
Revenue Streams:
The Four Legs of Wind Energy

- Depreciation
- PTC / ITC / Cash Grant
- Electricity Sales
- Renewable Energy Credits
One Commodity – Two Markets

Compliance

Voluntary

Renewable Energy Credits
One Commodity – Many Compliance Markets

29 states + DC have an RPS
(6 states have goals)

www.dsireusa.org / April 2010
All RECs are NOT created equal

- **Value to End User**
- **Markets** (Dozens of markets, wide range of prices)
- **Eligibility** (Tier 1, Class II, Green-e, EPA, etc.)
- **Project** (technology, location, online date, etc.)
- **Marketing & Story** (geography, technology, online date, etc.)

→ Value to End User
REC Opportunities
Optimizing Value for Environmental Attributes
Key Considerations

- Energy – Bundled or Unbundled?
- Term
- Volume
- Firm or Unit Contingent
- Active or Passive management of portfolio?
- Objective: Maximize value or known revenue stream?
Opportunities to Innovate

- Creating value with different markets
  - Compliance/Voluntary
  - Carbon Markets
- Upfront cash value
  - Early Payments
  - Options
- Partnership options
  - Environmental management
  - Corporate sponsorship
Success Story: Whole Foods Market & Panther Creek

- #2 on EPA’s 100% Green Power Purchaser list
- Renewable Choice arranged unique purchase with developer to secure favorable pricing to help support a specific project
- Deal structure provided unique marketing/PR opportunity for Whole Foods and E.ON Climate & Renewables
Success Story: Steelcase & New Growth Wind

- First corporate sponsorship of a commercial-scale wind farm
- RCE used existing relationships to bring Steelcase and John Deere together
- Steelcase received a 2009 EPA Green Power Leadership Award due in part to this unique financing arrangement
- Story is told in the whitepaper *Expanding Green Power: A New Business Model*
Conclusions

• Many ways to receive value for environmental attributes
• Value and opportunity driven by regulation, legislation, and market innovation
• Rapidly changing environment
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