Renewable Electric Cooperative Renewable Development

Energy for Economic Growth
Sheering Committee Meeting
Co-op Renewable Additions by Year
by owned capacity or purchased (PPA) capacity
(excludes PMA hydro)

1990 is the total online capacity as of that year

Source: NRECA Strategic Analysis Unit
NRECA – July 2014
Cumulative Co-op Renewable Capacity
by owned capacity or purchased (PPA) capacity
(excludes PMA hydro)

MW

As of July 2014
Owned: 1.062 GW
Purchased: 4.838 GW

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Purchased: 4.838 GW

Source: NRECA Strategic Analysis Unit
NRECA – July 2014
KIUC commissioned the largest solar array in Hawaii:

Size: 12 MW
Cooperatives Cooperating
The NRECA / DOE “SUNDA” Project

- Work with Rural Electric Co-ops to develop tools and processes to reduce barriers to implementation of utility-owned, utility-scale PV systems
- Develop and streamline these “business products” through implementation of a minimum of 22 MW of PV at 14 co-ops
- Produce training and outreach materials to reach balance of 900 co-ops plus other interested utilities
- Four year project sponsored by DOE SunShot with 25% matching cost share from co-ops and NRECA
SUNDA Project Strategies

- Standardized engineering designs to minimize design and engineering costs
- Volume purchasing program through NRECA’s National Discounts Program
- A guide to business plans and financing options in conjunction with Cooperative Finance Corporation (CFC) and NRCA
- Streamlined insurance packages through Federated
- Reduced Labor Costs. Targeting a 25% reduction
- Extensive outreach and training.
Phase 1 projects in design and underway
Problem: Some coops taking an ad-hoc approach to PV policy development and execution

• Many G&Ts and statewide’s want to help, but lack the tools other than direct human capital.
• Results in inefficiencies, extra cost, lost opportunities, frustrated consumers, frustrated PV developers
# 14 Coop Participants

<table>
<thead>
<tr>
<th>Participating Co-ops</th>
<th>State</th>
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<tbody>
<tr>
<td>Anza Electric</td>
<td>CA</td>
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<tr>
<td>Brunswick EMC</td>
<td>NC</td>
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<tr>
<td>CoServ Electric</td>
<td>TX</td>
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<tr>
<td>Eau Claire EC</td>
<td>WI</td>
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<tr>
<td>Great River Energy</td>
<td>MN</td>
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<tr>
<td>Green Power EMC/ Oglethorpe</td>
<td>GA</td>
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<tr>
<td>North Arkansas EC</td>
<td>AR</td>
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<tr>
<td>Oneida Madison EC</td>
<td>NY</td>
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<tr>
<td>Owen EC</td>
<td>KY</td>
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<tr>
<td>Pedernales EC</td>
<td>TX</td>
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<tr>
<td>Sandhills Utility Services</td>
<td>NC</td>
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<td>Sussex Rural EC</td>
<td>NJ</td>
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<tr>
<td>Tri-State G&amp;T Association</td>
<td>CO with options in UT, WY, NM and NE</td>
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<tr>
<td>Vermont EC</td>
<td>VT</td>
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</tbody>
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Make replicability even simpler

- Solution: Develop a single-source driven database (modeled after the Cyber Security Guide) that enables a “Cookie Cutter” approach to PV program implementation across an entire state/system – leading to opportunities for consolidated purchasing, predictable PV policies across systems, and greater communications among systems within a G&T or statewide area. The database will be used to produce:
  - A check list of key documents, and suggested language, that are coordinated in message and contraction implications/obligations
  - Simple screening of impacts of various PV programs and Non-action
  - Simplified and coordinated communications platforms
  - And provide data to the G&T or Statewide organization that enables enhanced long-term planning, procurement, and consistent system-wide policies
Coordinated Outputs

Simple Questionnaire (Cyber Security Template)

Database

IT Requirements

Policy Docs

Contracts

Financials

Hardware Requirements

Communicators Toolkit
Pathways Software Product.

◆ A Single Source database:
  – Collects key inputs: Rates, tax incentives, interconnection parameters, system size, power costs, legal requirements...etc (this is actually where the most research is needed)

  – Think Turbo Tax
Other NRECA Initiatives

- **NRECA PV Case Studies**
  - 6-12 Case studies of coops for coops
    - Political
    - Administrative
    - Operation
    - Economics

- **NRECA Renewables Map**
  - Interactive Web Page
  - Includes articles, and write-ups on the stories behind the deployments

- **G&T “Questions to Ask” for initiating PV**

- **Updating the DG Toolkit**
Thank you

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