



KCEC Solar Canopy Energized 1/12/2010

Kit Carson Electric Solar Program
Presented to: Science, Technology and
Telecommunications Committee
July 19-20th 2010
Presented By: Luis Reyes, CEO

KIT CARSON ELECTRIC COOPERATIVE AND SERVICE AREA INFORMATION

Headquarters in Taos, NM

Date Incorporated - 1944

Operates Electric, Telecom, and Propane Subsidiary, 3rd Party Call Center

- Total Consumers – Electric - 28,185
Propane - 3,533
Telecom - 1,621 - Total 33,339
- Counties Served – Electric - Taos, Rio Arriba, Colfax;
Propane – Taos, Colfax, Rio Arriba, Santa Fe;
- Telecom – Taos, Rio Arriba, Colfax, Union, San Juan,
McKinley, Sierra, Hidalgo, Cibola
- Total Annual Revenues (2009) – Electric - \$ 33,595,319
Propane -\$ 4,203,233
Telecom -\$ 1,903,804- Total \$ 39,702,356

Kit Carson Electric Cooperative General Information

- Power Supplier – Tri-State Generation and Transmission
- KCEC average peak of 82 MW (Annual);
- KCEC kWh usage for 2009 -303,035,265
- Expected load growth for the KCEC service area -2 to 2 ½ % annually (No major changes expected in load growth);
- 60+ miles of fiber optic for SCADA and Smart Green Grid operations (constructed in last 5 years);



KIT CARSON ELECTRIC SOLAR PROGRAMS

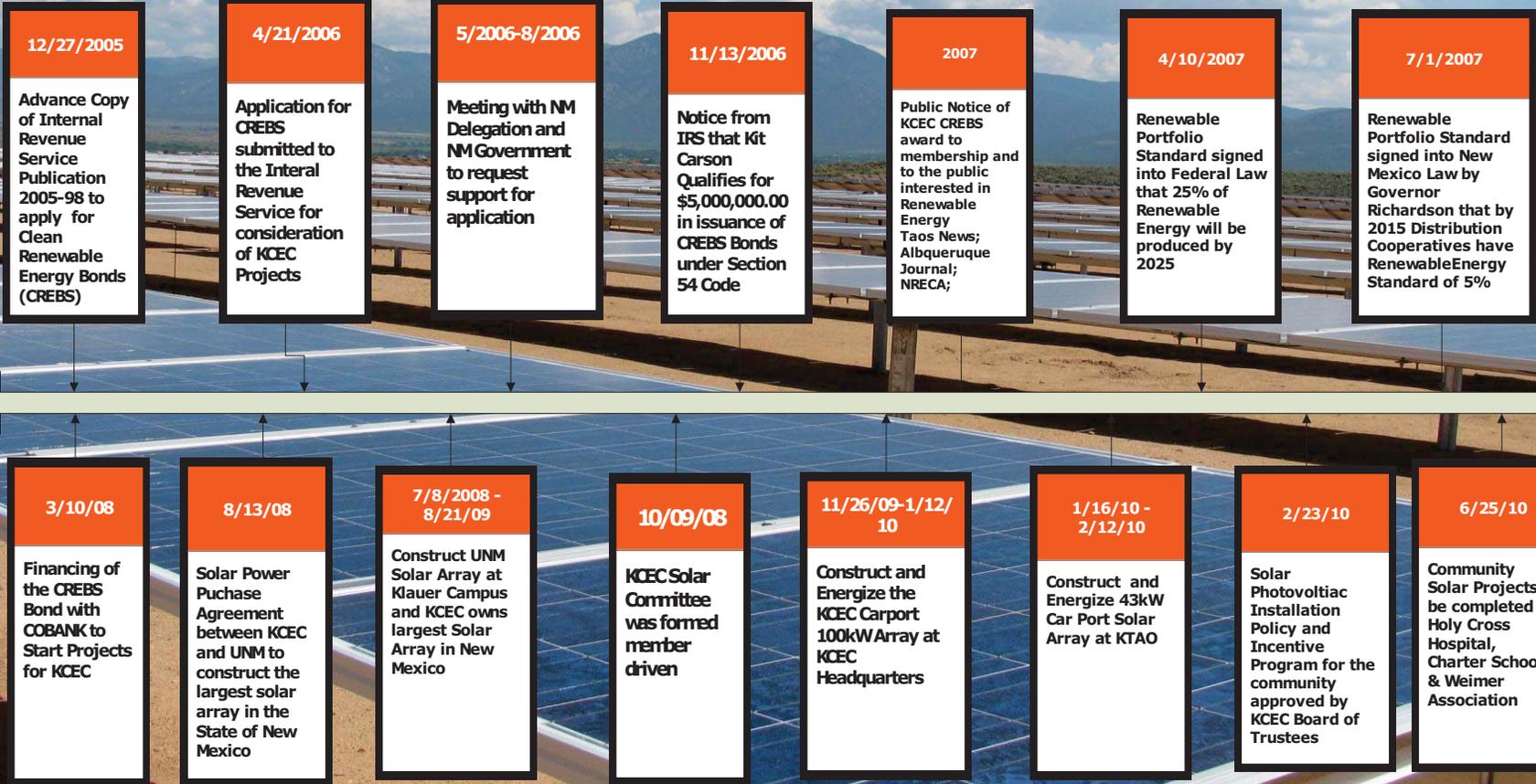
- 1. Voluntary Renewable Program;**
- 2. Cooperative Owned ;**
- 3. 3rd Party Partnerships (PPA);**
- 4. Community Solar Project – Joint owned/Utility and its members;**
- 5. Net Metering**
- 6. Roof Top Installations;**
- 7. Community Partnerships;**

KIT CARSON ELECTRIC COOPERATIVE SOLAR PROGRAM GOALS

- Enhance and attain RPS standards and targets;
- Develop local distribution generation sources;
- Encourage & Support economic development;
- Reduce carbon footprint in the event of climate change legislation;
- Create a Green Economy locally and at a manageable level;
- Research and provide funding resource information for ways for finance solar applications for all those who wish to utilize solar in their homes and businesses;
- Work Force Development –Solar Energy Efficiency that be exportable and marketing these ideas for energy efficiency and upgrades;
- Explore Technology for advanced Solar available in markets today that applies to roof top, solar array, distributive generation, interconnection and net metering applications;
- Member Participation;
- Enhance technical electric system deficiencies or weaknesses such as enhance voltage profile, reduced line loss, increased capacity support, stable power supply;
- Defer capital projects;
- Make solar attainable by anyone who desires it, i.e. making solar “mainstream”;
- Encourage local and regional colleges and high schools to provides students with instruction that will make the workforce ready in the area of Renewable Energy Sources;
- Educate the community on how the Solar Energy Program can assist homeowners and businesses to install their own solar system;

Kit Carson Electric leads New Mexico Cooperatives in implementation and sale of Renewable Energy. The Solar Committee was created in October 2008 to assist the Board in accomplishing those goals.

Solar Program Historical Timeline



Voluntary Renewable Program

VOLUNTARY RENEWABLE ENERGY STATISTICS

Currently, Kit Carson Electric has 1,652 residential consumers

- In 2009 25,787,700 kWh of Renewable Energy sold as of which is approximately 9% of Kit Carson Energy Produced, trend is about the same;
- KCEC ranks 1st in number Green Power Blocks sold amongst all NM Co-ops;
- In Tri-States System of (44 Co-ops) KCEC ranks 4th in number of blocks subscribed;

Since 1998, Tri-State has provided the opportunity for consumers of its 44 member cooperatives to participate in the Green Power Program. As a power provider, Tri-State offers renewable resource energy to end-use consumers through a voluntary sign-up program with its member cooperatives.

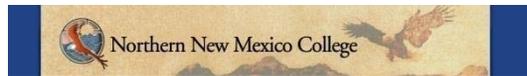
Kit Carson Electric Cooperative Owned Solar Facilities

COOPERATIVE OWNED PROJECTS

UNM TAOS KLAUER CAMPUS 500
KW ARRAY-ENERGIZED 8/29/09



KCEC SOLAR PARKING CANOPY
100 KW - ENERGIZED 1/12/10



CREBS Projects – Taos ECO Park & Northern NM Community
College – 250 kW



KTAO Solar Array 43 kW-Energized 2/12/10

Kit Carson Electric Cooperative Inc., was allocated \$5,000,000.00 in 1996 under the Clean Renewable Energy Bonds (CREBS). With CREBS and loan funds these renewable energy projects will promote solar renewable energy in Northern New Mexico.

3rd Party Partnerships

3RD PARTY PROJECTS



Under Contract – Chevron Venture Technology 1.2 MW
Operational December 2010



Standard Solar LLC - Rio Costilla Livestock
Association (RCCLA) 1.5 MW – In Due Diligence



New Mexico Solar Power, LLC

3.5 MW – In Due Diligence



4.5 MW – In Due Diligence



FTH Resource Marketing, Missouri City Texas
5.0 MW – In Due Diligence

Community Solar Array Program

SOLAR COMMUNITY ARRAY OBJECTIVES

- To offer a Solar Power Incentive Program to encourage and facilitate the installation of photovoltaic (PV) systems;
- Encourage the community to participate in the community solar initiative, which allows affordability and accountability to all members;
- Creation of environmental consciousness among citizens;
- Members will lease portions of the array within their economic means & receive a proportional credit on their bill;

Projects:

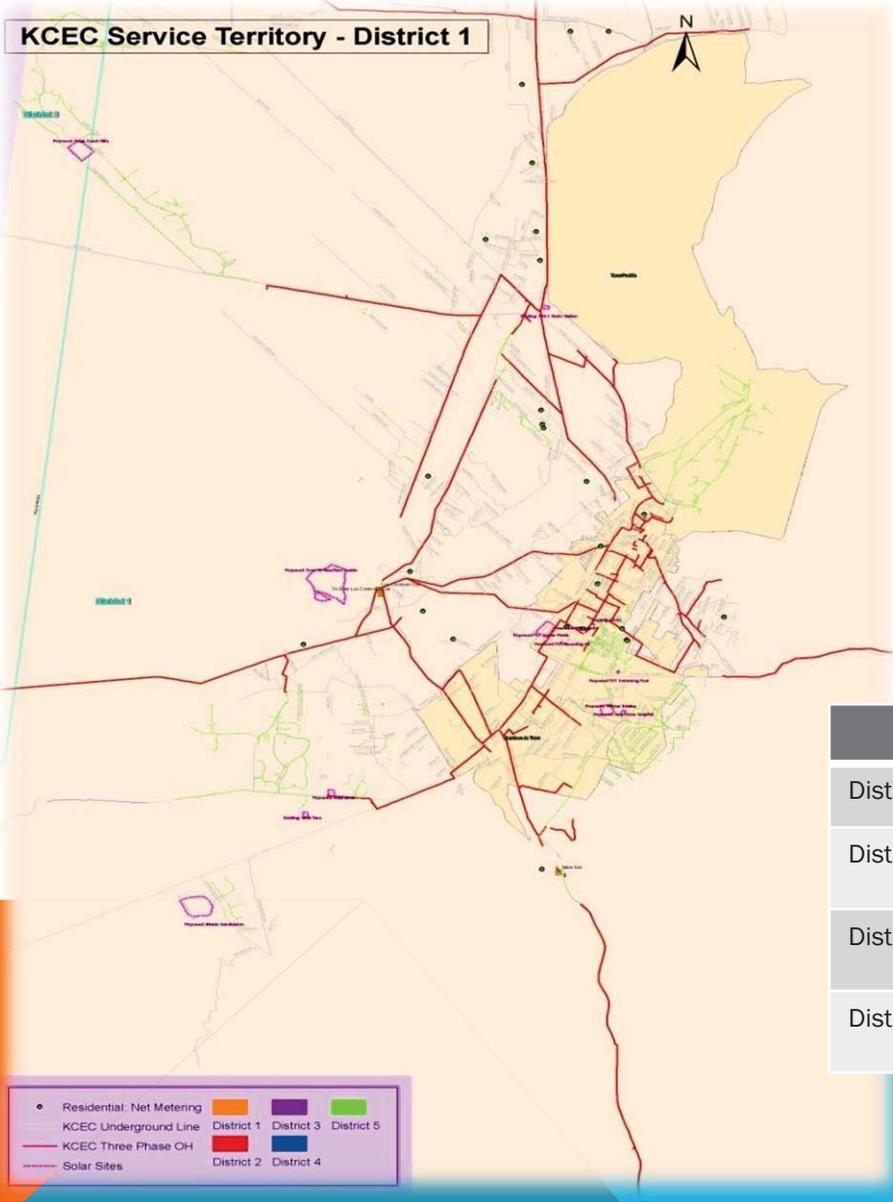
Taos Charter School 245kW

Holy Cross Hospital 500kW

Net Metering

Net metering is an electricity policy for consumers who own renewable energy facilities, such as wind, and solar power. Under net metering, a system owner receives credit for at least a portion of the electricity they generate..

NET METERING CONSUMERS AND LOCATIONS



What is Net Metering?

- Net metering is an electricity policy for consumers who own renewable energy facilities, such as wind, and solar power;
- System owner receives credit for at least a portion of the electricity they generate;
- All electricity meters accurately record in both directions, allowing a no-cost method of effectively banking excess electricity production for future credit;
- Rules vary significantly by country and possibly state/province;
- Net Metering laws involve monthly roll over of kWh credits, a small monthly connection fee, require monthly payment of deficits;
- Net Metering can be implemented solely as an accounting procedure, and requires no special metering, or even any prior arrangement or notification.

Current Net Metering Accounts by District

Area/District	# of accounts	Area/District	# of accounts
District 1	48	District 5	6
District 2	1	Total	60
District 3	4	Total Connected kW	186.611
District 4	1	Average Size (kW)	3.16 kW

Roof Top Project

- Develop a Strategy to assist, integrate implementation of Roof Top Facilities;
- Determine what level Kit Carson Electric will Participate
 - Rebates;
 - Offset cost with material procurement;
- Technical Support;

Community Partnerships

Kit Carson Electric works with it's members who have already been funded for Solar Projects and assists with completion of the Projects.

Partnerships Include:

Taos High School -50kW;

Penasco Independent Schools – 50kW;

Several Other Projects in Collaboration with Municipalities and other Associations in the Community;