Planning for Energy Development

Strategic Energy Planning

Renewable Energy Demonstration Center Concept

Mecca, CA

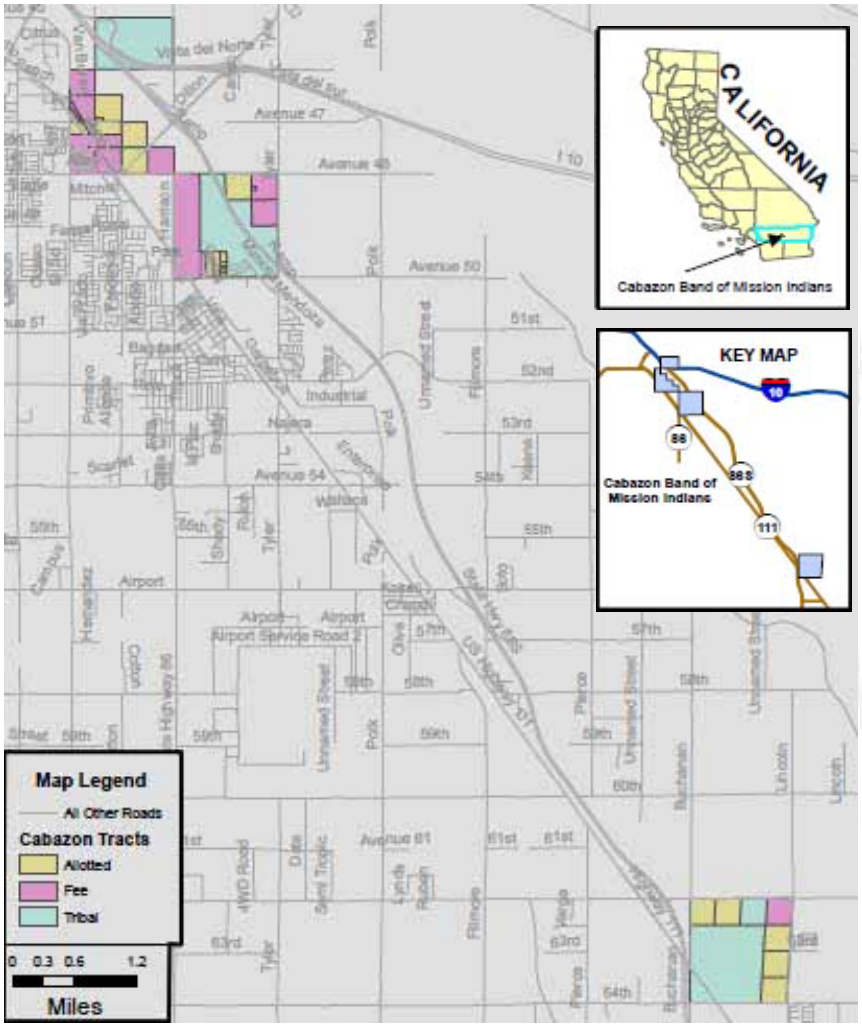
Awardee:

Cabazon Band of Mission Indians

Chairman David Roosevelt

November 18, 2011

CBMI Reservation



- **Eastern Coachella Valley (CA)**
  - § 1,610 Acres
    - Trust
    - Allotted
    - Fee: 272 Acres
- **Four Main Sections of Land**
  - § Casino Resort
  - § Housing
  - § Cabazon Resource Recovery Park (CRRP)
- **Two Major Highways**
  - § Interstate 10
  - § State Hwy 86

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Background

- Long-range goals of the CBMI;
  - § Create local jobs, job advancement, career opportunities, introducing a new sector of jobs,
  - § Supply educational opportunities for both the community and tribal members,
  - § Improve the well being of both the community and tribal members,
  - § Foster economic diversity
- CBMI will not sacrifice their commitment to the careful stewardship of the environment.
- CBMI believes that renewable energy based on conversion technology offers a path to achieving its goals. The foundation was set 20 years ago with the creation of the Cabazon Resource Recovery Park (CRRP).
- CBMI was one of many tribes to enter the gaming industry and now aspires to be one of the many tribes to develop a renewable energy model that other Native American Indian tribes throughout the U.S. may use.

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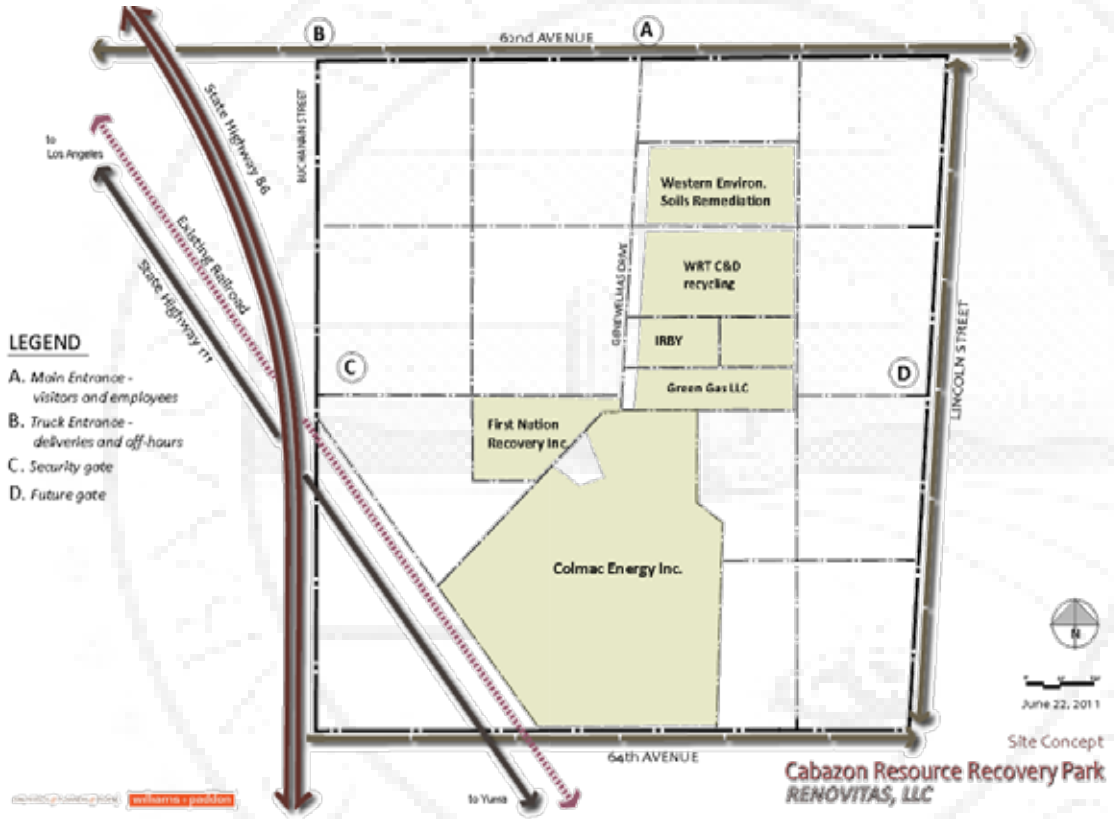
Existing CRRP

- 590 Acre Site
- 20-year history as a resource recovery & energy park
- Existing 47 MW biomass energy plant
- Tire Derived Fuel plant, Construction & Demolition, and Soil Recycling operations



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CRRP Approved Programmatic Environmental Impact Statement (EIS)

- **In 1999 the CBMI submitted and received approval to develop the CRRP for a variety of waste-to-energy conversion technologies and other recycling industries**

- **Incoming Waste Streams such as;**
  - Wood, Municipal Solid Waste (MSW), Bio-solids, Rubber, Metals – Nonferrous/Precious/Ferrous, Metals, Plastics, Paper, Cardboard, Green Waste, Organic, Soils, C&D Debris, and Waste Oil

- **Projects & Facilities such as;**
  - Biomass Power, Organic Recycling, Metals Recovery/Processing, Waste-to-Energy, Biomass Gasification, Material Recovery, Rubber Recycling, Used Oil Refining, and Soil Remediation

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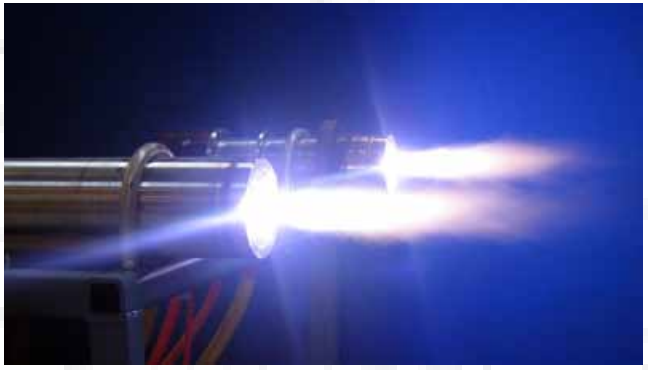
CRRP Grant Objectives

- Expand renewable energy technologies at the CRRP
- Building alliances with public and private companies and other government programs to increase commercialization of renewable energy technologies with national relevance at the CRRP
- Strengthen alliances with community by creating renewable energy jobs for local families and complementing existing educational opportunities by working with local colleges



DOE-FY2011-422 Grant Strategic Energy Planning

- Task 1 “where we are and where we want to go”
  - § Baseline Assessment of CRRP Activities
    - Present renewable energy activities
      - § 47 MW biomass power plant
    - Present energy usage of existing CRRP operations
  - § Vision Statement for the expansion of CRRP with renewable energy focus
    - To support long-term tribal goals;
      - § Create local jobs, job advancement, career opportunities, introducing a new sector of jobs,
      - § Supply educational opportunities for both the community and tribal members,
      - § Improve the well being of both the community and tribal members,
      - § Foster economic diversity

DOE-FY2011-422 Grant Strategic Energy Planning (cont.)

- Task 2 “Action Plan”
  - § Supply and Demand Analysis - what are the renewable energy opportunities and resources in the Coachella Valley area of Riverside County (CA)?
  - § Develop Action Plan to attract;
    - new renewable energy technologies
    - new tenant companies
    - renewable feedstock
    - funding sources

Could a Renewable Energy Demonstration Center (REDC) attract renewable energy technology companies to CRRP?

Renewable Energy Testing Center (RETC) Model for the CRRP and REDC

- RETC has one of the largest number of pilot-scale renewable energy technologies under one roof for test and validation in the country
  - § Operated by Technikon, Inc. (non-profit) in Sacramento, CA for the U.S. Army
- CRRP/REDC could be graduation site for viable technologies

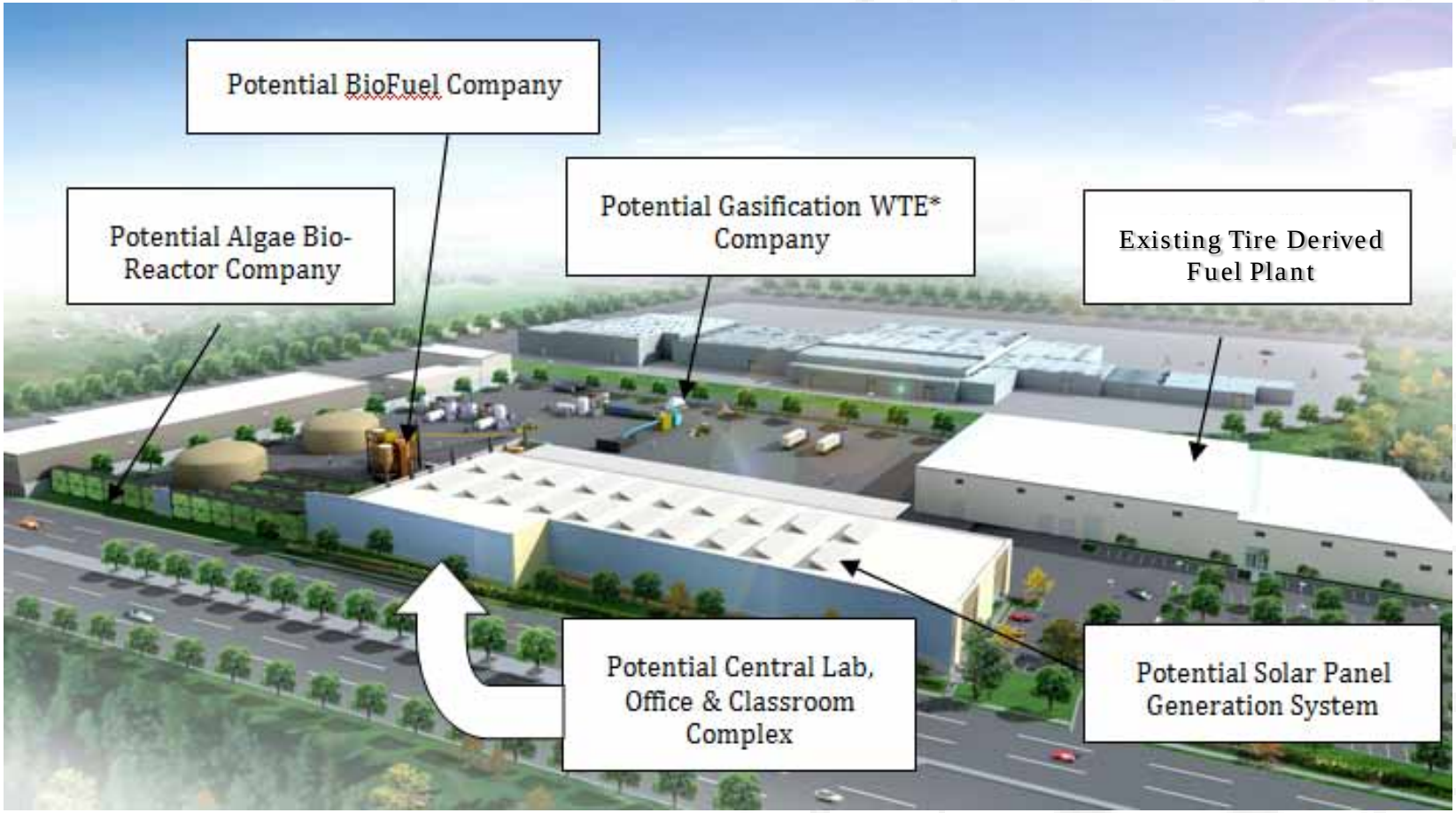
- 3 Gasifier companies
- Fischer Tropsch Diesel Fuel System
- Algae Bioreactor
- 3 Gas-Cleaning Systems
- Solar Reformer
- Anaerobic Digestion Technology

REDC Concept

- There is a need for industrial proving grounds for commercial demonstration of emerging renewable energy technologies that REDC could fulfill

- REDC reduces costs to companies by providing;
  - § Close proximity to major highways & rail service
  - § Multiple sources of renewable energy feedstocks are available and covered in the CRRP Environmental Impact Statement (EIS)
  - § Technical support – scientific, experienced technical staff and partnering with local colleges and universities that have renewable energy programs
  - § Support in state & federal air permitting for operations and new processes
  - § A comprehensive Environmental Health and Safety Management Program for entire park based on ISO14001

REDC Concept Layout with Support Buildings



DOE-FY2011-422 Grant

The Plan for the 422 grant (in the next 12 months);

- Refine our knowledge of the renewable energy technologies that would be a match for the existing CRRP
- Determine the availability of renewable energy resources in the surrounding area of the CRRP (Baseline Assessment)
- Develop Vision Statement for the expansion of renewable energy technologies at the CRRP
- Determine the economic opportunity for renewable energy production (Supply and Demand Analysis)
- Complete an Action Plan for the Cabazon Resource Recovery Park that would be implemented to add renewable energy companies to site

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