

West Coast Collaborative
Clean Diesel Agriculture Leadership
Forum
Sacramento
March 28, 2007



USDA RD

- Committed to Future Rural Development
- Improving the quality of life
- Increasing economic opportunity



USDA Energy Council

- Coordinate Department Collaboration and Leveraging of Resources for Renewable Energy & Energy Efficiency Developments
- Committees
 - Research & Development
 - Commercialization
 - Marketing/Outreach
 - International Energy Collaboration





USDA's Energy Council (Con't)

- R&D Committee
 - R&D Plan
- Commercialization Committee
 - Matrix
 - Intra-Agency Coordination
- Marketing/Outreach Committee
 - Renewable Energy Conference
- International Energy Collaboration
 - Coordination of USDA Participation in numerous international related energy initiatives





USDA Agencies and Programs with Biofuels Contributions

- **Office of the Under Secretary**
 - Research, Education and Economics
 - Rural Development
 - Natural Resources and Environment
 - Administration
- **Agricultural Marketing Service**
- **Agriculture Research Service**
- **Cooperative State Research, Education and Extension Service**
- **Economic Research Service**
- **Farm Service Agency**
- **Foreign Agricultural Service**
- **Forest Service**
- **Global Change Program Office**
- **Natural Resources Conservation Service**
- **Office of Budget and Program Analysis**
- **Office of Communications**
- **Office of Energy Policy and New Uses**
- **Risk Management Agency**
- **Rural Development**



Renewable Energy

- \$ 500 million in RE and EE
- 1000 projects
- Leveraged \$ 1.5 Billion in private investment



2007 Farm Bill Energy

- \$500 million RE and EE Grants
- \$2.1 billion in loan guarantees for cellulosic ethanol projects



Farm Bill

- \$150 million biomass research competitive grants, focus Cellulosic ethanol
- \$500 Bioenergy & Bioproduct Research

25 X 25

- Farm Bill piece \$4.7 billion, first year, \$23.9 billion over 5 year

Farm Bill

- Section 9006: Grant & Loan Guarantee for RE and Energy Efficiency
- Section 9010: Perennial grasses and short rotation trees
- Biomass / Bioproducts Development
- Section 9002: Fed procurement of bioproducts
- Section 9008: Biomass R&D Initiative universities and private corporations for conversion and utilization of biomass to energy and co-products
- Section 6401: Value Added Producer Grants- development of biorefinery co-products

Local Ownership

- 50 MGPY Ethanol Plant
- 100% Outside Ownership = 133 jobs
- 25% Local Ownership = 162 jobs
- 50% Local = 191 jobs
- 75% Local = 220 jobs

Eligible Projects

- Biomass and Bioenergy Projects
- Anaerobic Digester Projects
- Geothermal, Electric Generation
- Geothermal, direct use
- Hydrogen production from renewables
- Solar, small and large; Electric and Thermal
- Wind, small and large
- Energy Efficiency Improvement



Project Eligibility

1. The project must be for the purchase of a renewable energy system or to make energy efficiency improvements.
2. The project must be for pre-commercial or commercially available and replicable technology.

Eligible Project Costs

Must be an integral and necessary part of the system:

- 1. Post application purchase/installation of equipment;**
- 2. Post-application construction or improvements;**
- 3. Energy audits or assessments;**
- 4. Permit and license fees;**
- 5. Professional fees (except application preparation-**

Eligible Project Costs

- **6. Feasibility studies and technical reports;**
- **7. Business plans;**
- **8. Retrofitting;**
- **9. Construction of a new energy facility when it is used for same purpose, is approx. same size and will provide more energy savings than improving an existing facility;**
- **10. Working capital;**
- **11. Land acquisition.**



Passive Investor

An equity investor that does not actively participate in management and operation decisions of the business entity as evidenced by a contractual arrangement.

Feasibility Study

- A business level feasibility study will be required on all renewable energy system projects with total eligible project costs exceeding \$200,000.
- Must be completed by an independent qualified consultant.

Energy Audit

- An energy audit or energy assessment must be included on all energy efficiency improvement projects with total eligible costs exceeding \$50,000.
- Conducted by a Certified Energy Manager or Professional Engineer.

Technical Report

- Use Appendix A to RD Instruction 4280-B for projects with total eligible costs less than \$200,000.
- Use Appendix B to RD Instruction 4280-B for projects with total eligible costs exceeding \$200,000.



Evaluation Criteria

1. Quantity of Energy Replaced, Produced or Saved.
2. Environmental Benefits.
3. Commercially Available.
4. Technical Merit Score. (NREL will make Determination)

Evaluation Criteria

5. Readiness. (Grants Only)
6. Small Agricultural Producer/ Very Small Business.
7. Simplified application
8. Previous Grantees and Borrowers.
9. Return on Investment.
10. Loan Rate (Guaranteed Loan Only)



Summary

- Biodiesel:
- Biofuel Refinery Integration
- Alternative Fuels:
- Research, Development, Funding