

2008 Farm Bill Energy Programs Follow-through Decisions



Andy Olsen, Environmental Law & Policy Center

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Presentation Overview



- Introductions
- Why Farm Bill Clean Energy
- 2008 Farm Bill Energy Programs
- Next Steps: Funding and Rules
- Case Studies





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Latest Farm Energy News

USDA Moves Fast On Farm Bill Energy Programs
In this update: USDA confirmed today that it will hold a public hearing next Thursday, September 4. USDA is fast-tracking two Farm Bill clean energy programs. More details on REAP.

USDA Publishes Notice on Implementation of Farm Bill Energy Programs
Here are details on plans from the United States Department of Agriculture (USDA) to write the rules to implement new Farm Bill clean energy programs. This process entails many decisions which, in sum, will determine the overall success of the program. [See also our update on this process.](#)

New Farm Bill Program Can Advance Energy Crops
The 2008 Farm Bill contained the groundbreaking Biomass Crop Assistance Program (BCAP). This program can spur a new climate-friendly and farmer-friendly energy source. BCAP, implemented well, could make a major difference for our energy future.

Hot off the AgEnergy Newswire

Potential biofuel crops thrive in North Dakota
A number of varieties of wheatgrasses and perennial grasses are being looked at as potential sources of biofuel in areas of southwestern North Dakota. According to the Farm and Ranch Guide, test plots at the Hettinger Research Extension Center are showing that the plants can grow tall and lush, even through a season of tough weather.
"Maybe switchgrass isn't going to work here," agronomist Eric Eriksmoen said. "But there are other grasses that we can grow. And those will certainly work for cellulosic ethanol."

U.S. Cattlemen's Association Supports Alternative Energy
In the midst of rising energy prices, the U.S. Cattlemen's Association (USCA) announced recently that it will support "bold, aggressive plans for America's energy future that reduce



Farm Energy Benefits Farmers, All of Us

- **Win for agriculture:** Winning farm income strategy.
- **Win for rural economic development:** jobs, diversified and strengthened farm income.
- **Win for environmental progress;** clean air and water.
- **Win for national security.**
Diversified energy system protects our economy from disruptions





Broadly Shared Clean Energy Vision

- Polls show Americans want Renewables

70.5% in North Dakota

77% of Montana

81% of Americans

Americans support clean energy across all lines – geographic, partisan, ideological





2008 Farm Bill Energy Programs The Big Picture

Emphasis on expanding advanced cellulosic ethanol production with energy crop, capital cost and production incentives.

- **Energy Title** - \$1.12 billion in mandatory funding for broad range of clean energy options.
- **Tax Title** - new cellulosic ethanol credit (\$403 million)
- **Research Title** - new renewable energy/biofuels research programs (contingent on securing funding)
- **Rural Development Title** – more specific authority clean energy loans for rural electric cooperatives





Energy Title Program Overview

Programs with Mandatory Funding

- **Rural Energy for America Program (REAP)** – incentives for on-farm and business renewable energy/energy efficiency systems/audits. (\$255 million)
- **Biomass Crop Assistance Program (BCAP)** – encourages new energy crops. (\$70 million est.)
- **Repowering Assistance** – incentives to encourage conversion of existing ethanol plant boilers from fossil fuel to renewable biomass. (\$35 million)
- **Biorefinery Expansion** – incentives to develop and construct pre-commercial and advanced biofuel production plants. (\$320 million)





Energy Title Program Overview

Programs with Mandatory Funding

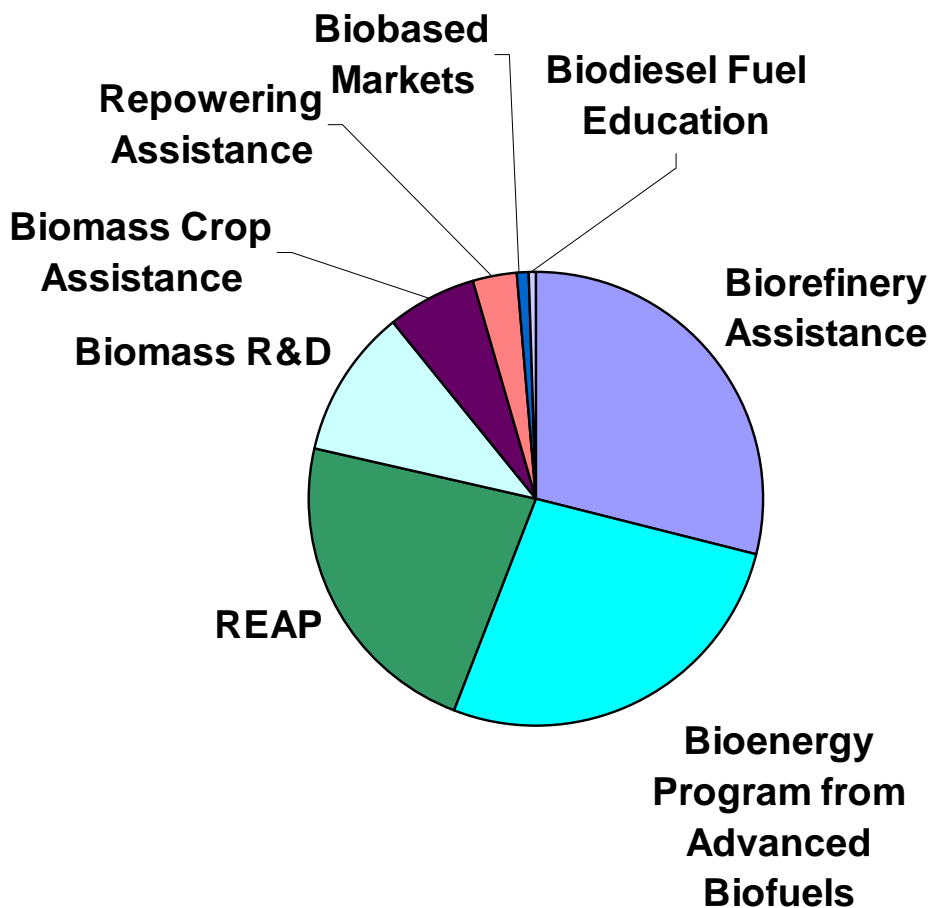
- **Biomass Research and Development**
- focused research on primarily advanced biofuels (\$118 million).
- **Biobased Markets Program** – improvements to existing program.
- **Biodiesel Fuel Education** – continues existing program (\$5 million).
- **Bioenergy Program for Advanced Biofuels** – incentives for non-corn starch biofuels. (\$300 million)





Energy Title Budget Breakdown Programs with Mandatory Funding

(\$1.12 Billion Budget)





Rural Energy for America Program Successes

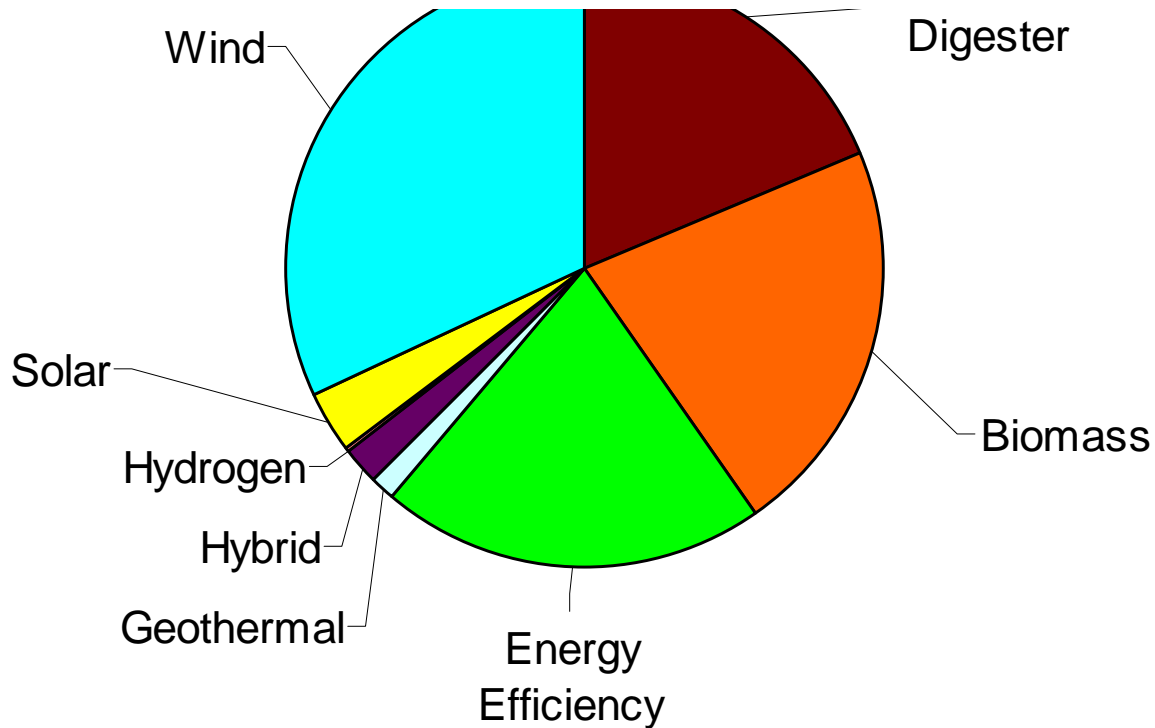
- 2,034 grant and loan guarantee recipients, 2003-2008, recipients in all 50 states.
- \$141 million in grants awarded, \$316 million requested. (Leveraged with private funds)
- \$97 million in loan guarantees, \$337 million sought.
- Aids **local ownership** and rural economic development.
- Wide range of renewable energy technologies to benefit all producers.
- Key for energy cost relief, economic stimulus.





*Section 9006 by Technology:
by Funding Totals*

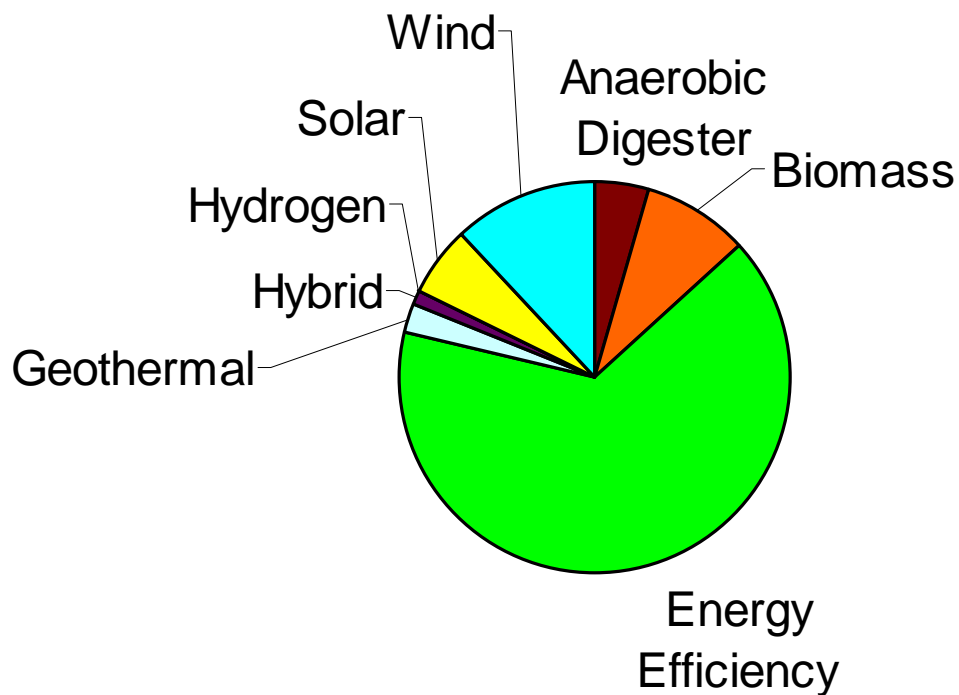
***FarmEnergy is
not just ethanol anymore!***





Section 9006 by Technology: by Project Awards

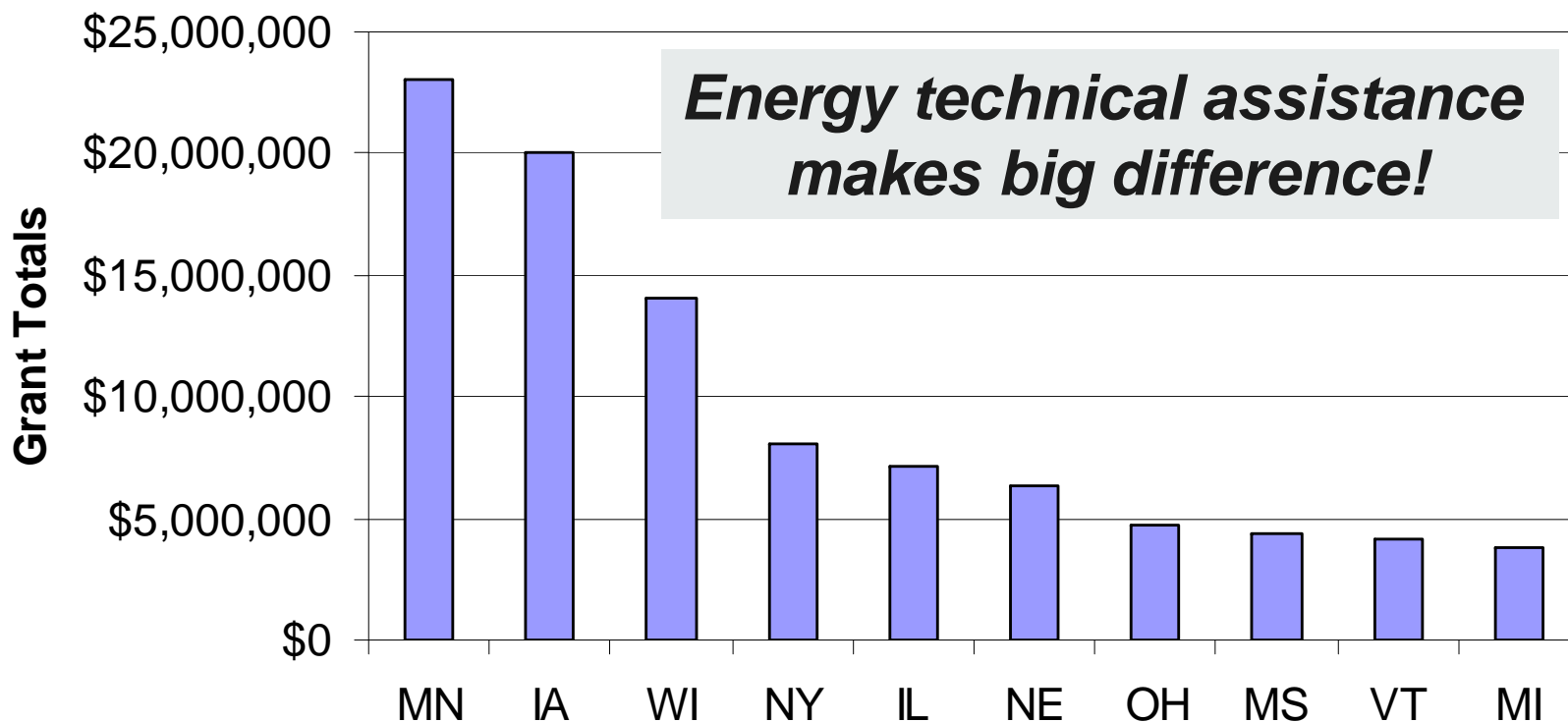
Section 9006: Award Count Totals 2003-2008 by Technology





Top States for Section 9006

Section 9006 Grant Totals by Top 10 States 2003-2008





Other States Coming Along 2008 Awards

- Georgia: \$1.3 million for 44 projects
Poultry houses, biomass, biodiesel, irrigation
- North Carolina, \$810,000 for 38 projects
- Massachusetts, \$980,000 for 15 projects
- Oregon, \$650,000 for 18 projects
- South Dakota, \$410,000 for 14 projects





Rural Energy for America Program (REAP) (§ 9007)

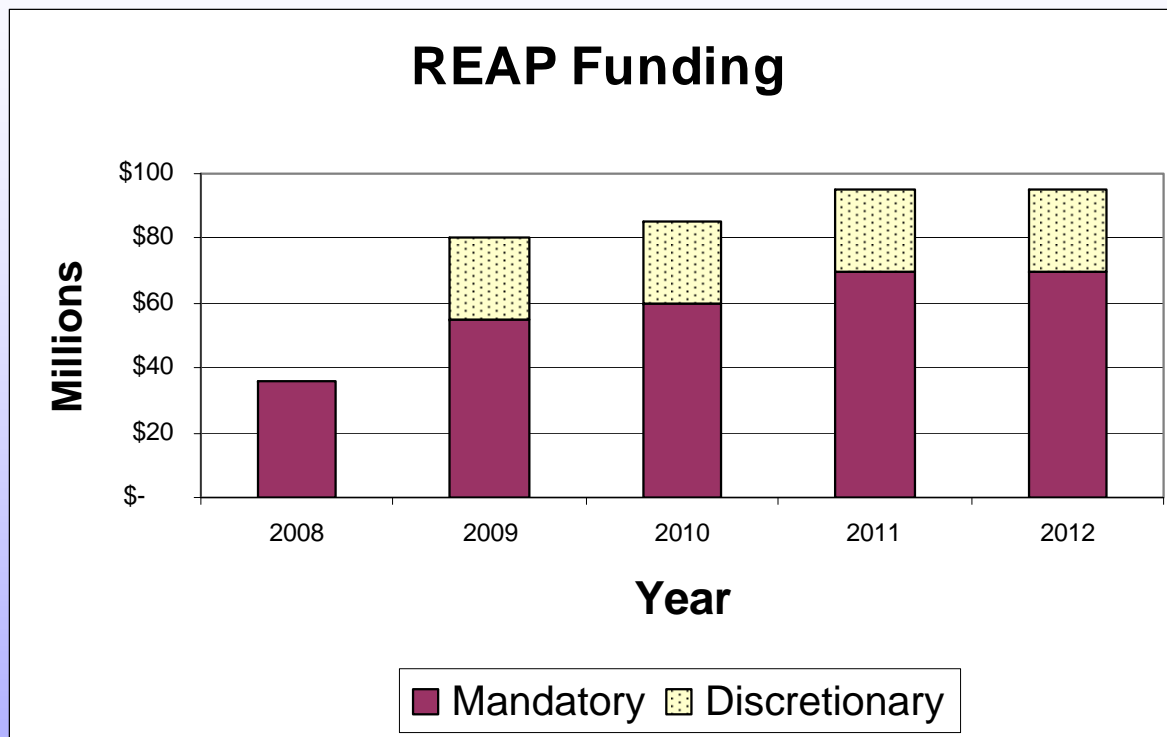
What's New to Spread REAP benefits:

- **Energy technical assistance** - grants to state or regional entities for energy audits and technical assistance. 4% of total REAP funding.
- **Feasibility studies** - 25% match for study cost. No more than 10% of program funds.
- **Encourages small, replicable projects** with a 20% funding set-aside (under \$20,000 grant).





REAP Funding

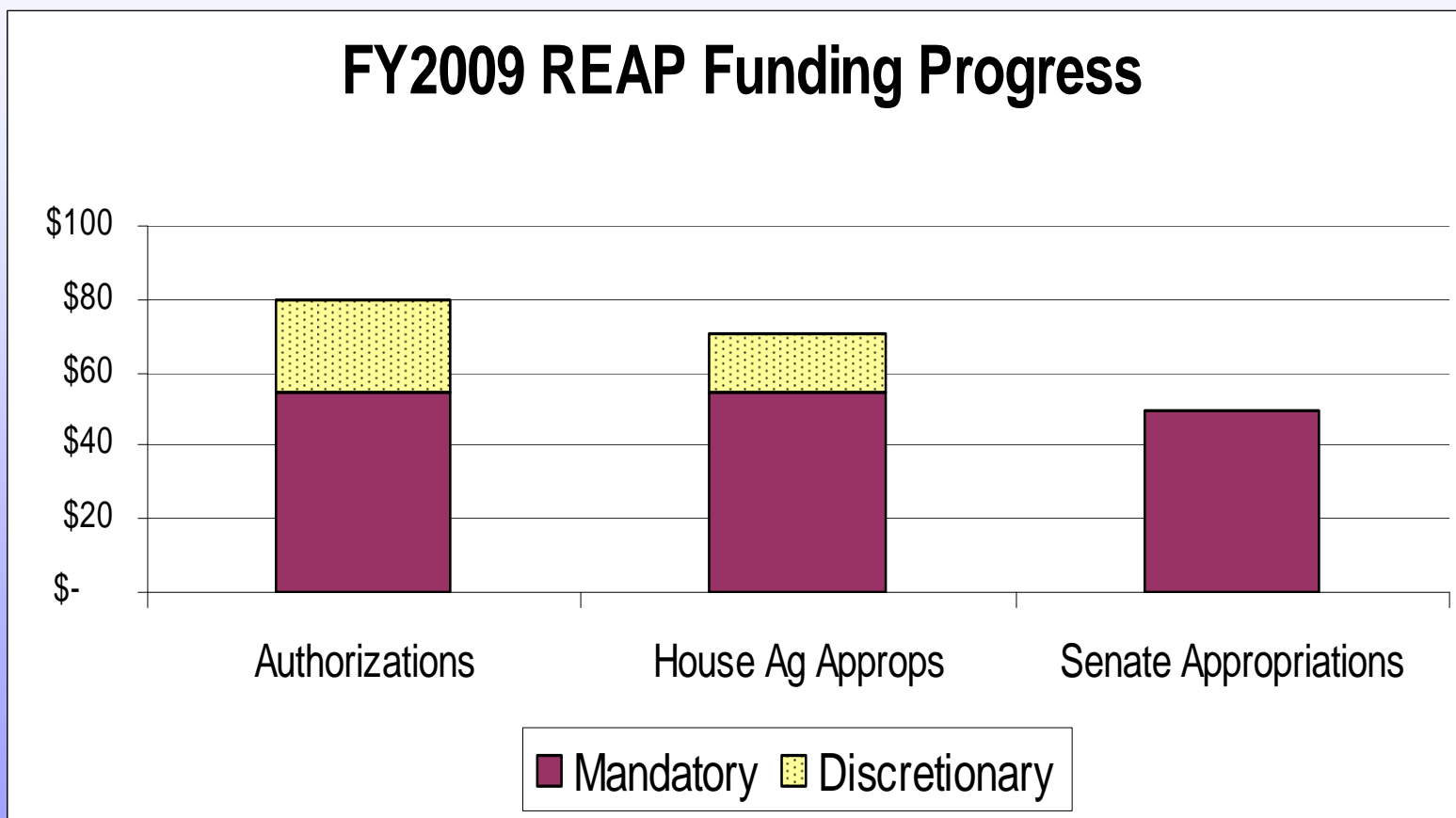


- Mandatory: \$255 million over four years
- Discretionary: \$100 million in total funding.



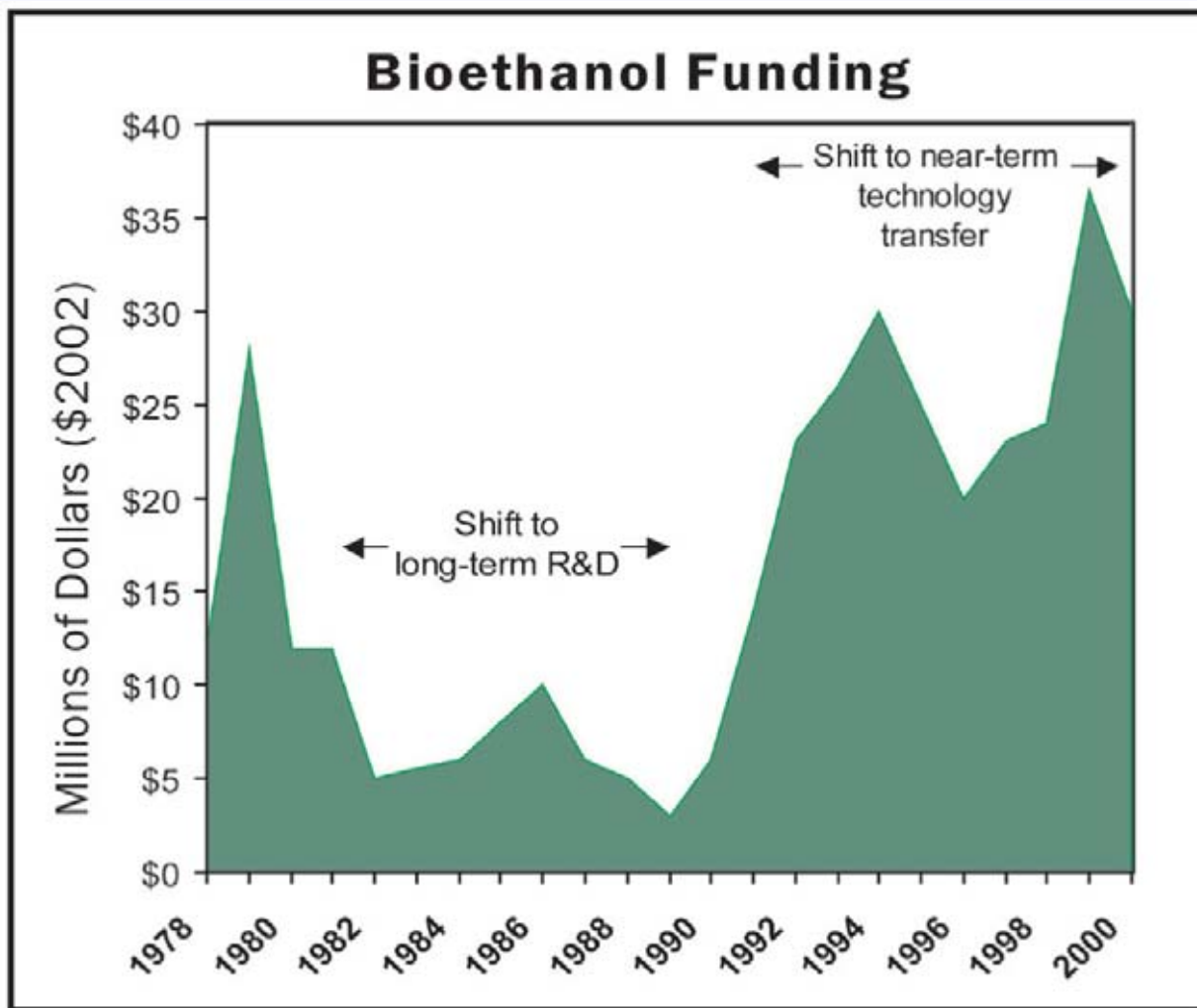


REAP FY2009 Funding





Inconsistent Support for Clean Energy Delays Progress





Biorefinery Assistance (§ 9003)

- Grants to *demonstration* plants up to 30% of costs; Loan guarantees for *commercial* plants up to \$250 million each.
- Prioritizes “advanced biofuel” production –other than corn kernel starch. Cellulosic, biodiesel.
- If funded, will accelerate cellulosic ethanol viability.
- Emphasis on moving quickly: Funding up front in first 2 years.
- USDA moving forward rapidly with rulemaking.





Biomass Crop Assistance Program (BCAP) (§ 9011)

*New program to may provide breakthrough
for dedicated energy crops*

- Pays farmers within the BCAP project areas to grow dedicated energy crops (excluding commodity crops, food and wastes and algae) for advanced biofuels.
- Offsets up to 75% of costs for crop establishment as well as harvesting, transportation and storage.
- Many projects of many sizes will provide maximum innovation.





Rulemaking is key!

- USDA needs to implement overall Farm Bill.
- Key energy programs on fast track
- Issues:
 - Loan guarantees
 - Energy technical assistance & feasibility studies
 - Sustainability criteria



Rural Energy for America Program Case Studies





Crete Food Mart, Nebraska

- Energy efficiency grant \$11,750 grant
- Produce coolers 35 years old+, other equipment old and inefficient.
- Used grant to invest in produce and milk coolers, walk-in freezer, roof and insulation and high-efficiency T-8 bulbs
- Project energy savings nearly 50% with 5 year payback
- Other benefits:
 - Lower maintenance costs
 - Better store appearance, larger sales
 - Local job protection





Common Energy Efficiency Approaches



Grain dryers

- 30% - 60% gas and elec. savings



Poultry production improvements



Irrigation improvements





Cozad Alfalfa *Cozad, Nebraska*

- Replaced natural gas boiler with biomass boiler in alfalfa pellet manufacture.
- Payback now in less than 5 years.
- Using sawdust that used to go into a landfill.
- Reduces waste, global warming pollution, saves money, improves financial health of Cozad Alfalfa.





REAP Helps Build Locally-owned Wind Projects

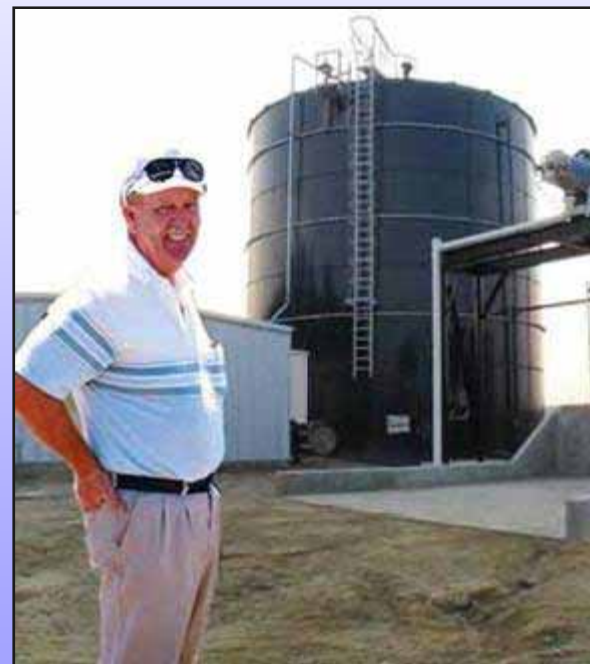
- REAP plays key role in helping fund **farmer-owned wind projects.**
- PTC doesn't benefit farmers directly
- Local ownership maximizes producer benefits, economic development, and *local acceptance*





Five Star Dairy, Wisconsin

- Manure Digester: Elk Mound, Wisconsin
- An 800-head dairy, began operating its digester in June 2005.
- The digester generates up to 775 kW of electricity, enough power to supply 600 homes.
- 34 digesters funded in Wisconsin. Outreach key by Focus on Energy, Dept of Ag
- Section 9006 Grant: \$108,000





Missouri Energy Kingsville, MO

- Use waste grass and seed residue from seed operation for fuel.
- Now converting 15 million pounds to biomass pellets with high BTU value
- Customers include coal plants and homeowners.
- \$95,000 grant.



- Company now developing other energy grasses to make biofuels for heat and power.
- Forming grower cooperatives.





Beasley Forest Products, Georgia



- Hardwood sawmill
- Expansion plans for on-site dry kiln were stymied by high fossil fuel costs
- Grant helped bring biomass compete: capital costs on par with gas boiler.
- Using wood residues.
- Less waste, more jobs and income.





FarmEnergy.org

- Tools and Resources to Help
 - Technical worksheets and checklists
 - Application templates
 - F.A.Q.
 - Program News

- Advocacy Tools
 - News on Farm Bill developments
 - Tools to communicate with Congress





Conclusion

Thank you for listening!

Andy Olsen

608-442-6998

A Olsen@elpc.org

FarmEnergy.org

