25x’25: Progressing Towards the Goal

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Project Coordinator

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Valley Forge, PA
25x’25: A National Alliance

- Formed through a grant from the Energy Future Coalition
- Organized to explore agriculture and forestry’s role in America’s energy future
- Evolved to now include conservation, environment, business, defense and rural development organizations and leaders
Nearly 1,000 Partners Strong:
Today’s Energy Paradigm

- Fossil fuel resources are finite
- Global energy consumption is increasing (nearly 30% by 2030)
- The world population is growing (9+ billion by 2050)
- Fast-developing economies like India and China are demanding more resources
- Greenhouse gas emissions are increasing (World carbon dioxide emissions expected to increase by 1.9% annually between 2001 and 2025)
America’s Mega Challenges

National Security

Environmental Degradation

Economy

25x25 America's Energy Future

Bringing the Vision to Life
Need a portfolio approach to meet future energy needs

- Increase energy efficiency/productivity
- Capture wind, solar, hydro, and geothermal energy where feasible
- Provide biomass for generating heat and power and for producing liquid transportation fuels
The 25x’25 Vision

By the year 2025, America’s farms, ranches and forests will provide 25 percent of the total energy consumed in the U.S. while continuing to produce safe, abundant and affordable food, feed and fiber.
Where are we now?

2013 Total Energy Production: 81.66 Quad BTU
2013 Renewable Energy Production: 9.30 Quad BTU

U.S. Primary Energy Production by source, 2013

- Coal: 24.48%
- Natural Gas: 34.72%
- Crude Oil: 19.29%
- Nuclear: 10.12%
- Renewable: 11.39%
- Hydroelectric: 3.14%
- Wind: 1.95%
- Biomass: 5.64%
- Solar/PV: 0.38%
- Geothermal: 0.27%

Source: U.S. Energy Information Administration
Where are we now?

2013 Total Energy Consumption: 97.53 Quad BTU
2013 Renewable Energy Consumption: 9.29 Quad BTU

U.S. Primary Energy Consumption by source, 2013

- Petroleum 35.99%
- Natural Gas 27.30%
- Coal 18.54%
- Renewable 9.53%
- Nuclear 8.48%
- Hydroelectric 2.63%
- Wind 1.64%
- Solar/PV 0.31%
- Geothermal 0.23%
- Biomass 4.72%

Source: U.S. Energy Information Administration
2014 Goals

1. Reframe the national agriculture energy conversation: benefits of renewable energy and adaptation strategies

2. Facilitate national biofuel framework plan

3. Protect federal RFS and states’ RES

4. Ensure biogenic carbon accounting rules allow for full benefits of biomass energy

5. Support rural electric cooperative distributed renewable energy pilot programs
Challenges

- Infrastructure remains one of the biggest challenges in bringing renewable energy online.
  - Transmission lines need to be modernized and expanded to tap into rural sources of electricity, especially wind.
  - Biofuels need expanded pipelines, rail, ports and other shipping facilities to get to urban consumers; expansion of blender pumps and flex fuel vehicles are also needed.

- Significant long term *public and private investment* is needed to achieve a new, renewable energy future.

- Policy Uncertainty
Unresolved Issues

- Renewable Electricity Standards (RES)
- Transmission (siting and financing)
- Definition of renewable biomass
- Indirect land use issues
- Expired/expiring tax credits (PTC/ITC)
- Federal debt/sequestration
- RFS2/ethanol blend wall/E15
- Assessing costs and impacts of GHG regulation and legislative efforts to stop Admin actions
Projected Outlays under the 2014 Farm Act, 2014-2018

- Nutrition: 80%
- Crop Insurance: 8%
- Conservation: 6%
- Commodities: 5%
- Other: 1%

Total outlays = $489 billion

## Energy Title
(Mandatory Funding In Millions)

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Biorefinery Assistance Program
Section 9003

- Provides loan guarantees to accelerate development of advanced biofuel, renewable chemical and biobased product manufacturing facilities
- $200 million front loaded over three years; 2nd largest funded Title IX program.
- Development, construction, retrofit projects remain eligible as before.
Bioenergy Program For Advanced Fuels
Section 9005

- Grant program designed to encourage the production of advanced biofuels, excluding corn starch ethanol
- $75 million over five years ($15 million/year).
- Advanced biofuels include production of biodiesel, biogas and wood pellets.
Rural Energy For America (REAP)  
Section 9007

- Competitive grant and loan guarantee program for ag producers, rural businesses and electric cooperatives
- REAP received the highest level of funding in the 2014 Farm Bill, $250 million at $50 million per year.
- Newly created 3-tier application process for projects below $80K; $80K-$200K; above $200K. The smaller the grant, the more streamlined the application process.
- Funding for flex fuel pump installation disallowed
Projects Eligible for REAP Funding

**Energy Efficiency Improvements:**
Any projects that save energy (electricity, propane or natural gas, or diesel fuel) are eligible. Examples include dairy pumps and cooling systems, weatherization of poultry houses, efficient lighting and ventilation, irrigation equipment, industrial motors and supermarket refrigeration systems.

**Renewable Energy Systems:**
These can include small and large wind turbines, active or passive solar energy systems, geothermal heating and cooling, anaerobic using food or livestock waste, systems using or producing biomass fuels, or facilities producing ethanol or biodiesel. Blender pumps no longer eligible.
Biomass Research and Development Initiative (BRDI)  
Section 9008

- A competitive program funding research, development, and demonstration for feedstock, biofuel, and bioproduct development received
- Program jointly administered with DOE;
- Funding reduction reflects USDA’s transitioning toward commercial scale programs, through the Biorefinery Assistance Program, Farm To Fleet, and DoD-USDA funded Navy biofuels program.
Biomass Crop Assistance Program (BCAP) Section 9010

- Cost share program to support the establishment and production of eligible crops for conversion to bioenergy.
- Third largest Title IX program funded at $125 million.
- Now includes a more detailed list of eligible crops; excluded materials include bagasse, algae and woody material sued in other markets.
- One-time payments to establish BCAP crops are limited to $500/acre ($750/acre for socially disadvantaged farmers).
- Provides Collection, Harvest, Storage & Transportation (CHST) matching payments up to $20/dry ton of biomass.
Rural Energy Savings Program (H.R. 4785)

- 2014 Farm Bill authorizes $75 million/year in discretionary funds over five years to improve energy efficiency in rural America. Places the program into statute for the first time.

- The program provides zero percent loans to cooperatives for relending to customers and paid back through monthly utility bills. Electric Cooperatives have been advocating since 2010 for an energy efficiency program similar to models in South Carolina and Kansas.

- USDA has a similar program under its administrative authority through the Rural Utility Service that was finalized in December 2013.
Energy for Economic Growth Project

- Launched in 2011 by the 25x’25 Alliance to explore how incentive policies might be used to accelerate economic development and distributed renewable energy generation through rural cooperatives and other power providers serving rural communities.
Energy for Economic Growth Project - Phase I (2012-2013)

- Examined how incentive-based rate structures have been utilized in Europe to accelerate the deployment of distributed energy generation in rural areas.
- Conducted a national review to identify candidate rural utility partners for exploring incentive programs.
- Held a Renewable Energy Study tour in Germany to provide potential utility partners with more information on incentive policies.
Tour Findings

1. The transition from centralized to decentralized generation has created economic, national security, and environmental benefits.

2. Individual energy producers and rural communities have been major beneficiaries.

3. Societal support.

4. Incentive policies were part of a long-range energy security plan.

5. Incentive policies offer transparency, longevity, and certainty.
Energy for Economic Growth Project - Phase II Path Forward

- Develop an information exchange program between U.S. and German energy cooperatives.
- Initiate collaborative dialogues on renewable energy with rural utilities in partnership with the National Rural Electric Cooperative Association.
- Join with the Cooperative Research Network in developing models of how small-scale generation can be effectively implemented without altering existing power portfolios and obligations.
- Partner with rural electric utilities in piloting and evaluating business and member engagement models for deploying distributed generation renewable energy technologies (e.g. wind, solar, biomass and hydro).
The Path Forward

- The 25x’25 goal is achievable and significant progress has been made, but there is more to be done - all forms of renewable energy must increase production.

- Policy makers and stakeholders must understand that this is a critical need for a comprehensive national energy policy that addresses our environment, invigorates our economy and enhances our national security.
Ernie Shea
25x’25 Alliance
Executive Committee

Thank you!
www.25x25.org