OVERVIEW

• Background of the Initiative
  • Why – Forest Restoration Economy
  • Direction from Three Undersecretaries
  • RD and FS accomplishments
• Current Activities
• Future Activities?
BACKGROUND

- Letter Oct. 2010 – Forest Restoration Economy
  - Comprehensive Review
  - Project Development and Support
  - Strike Team
  - Wood to Energy Program Compendium
  - Joint Outreach and Education
  - MOU – DOD, DOE, DOI, DOT
- Letter from Sept 2011 – Action Items from Comprehensive Review
WHY? FOREST RESTORATION

- Watersheds – Denver, Santa Fe
- Wildlife Habitat – Kirkland’s Warbler, Mexican Spotted Owl, Wild Turkeys, Rocky Mtn Elk
- Wildfire
- Forest Health – Insects and Disease
- Wood production
- Community benefits
- Job Creation
BARK BEETLE MORTALITY
Wallow Fire, 2011
REAP - WOOD TO ENERGY INVESTMENTS

- Total Investment of over $62M in 190 projects
- Leveraged an additional investment of $126M
- Total Energy Production of 2.27 million MWh BTU
- Enough to power almost 200,000 average homes
BIOENERGY PROGRAM FOR ADVANCED BIOFUELS

• Provides payments to producers advanced biofuels
  • 28 Pellet Manufacturers
  • 16 states
  • ~ $1.4 million in 2011
FOREST SERVICE
WOODY BIOMASS UTILIZATION GRANTS

• 2011 Refocused on Preconstruction Items Engineering, permitting, etc.

• Fill a gap in assistance for developing wood energy projects – synergy between programs

• Examples: Sawmill 2.5 MW CHP; School heating system
COMPREHENSIVE REVIEW
12 ACTION ITEMS

- State Jump-Start Teams
- Education/Outreach
- Stewardship Contracting – Two items
- Coordinating Landowner Assistance programs
- Multiple Feedstocks
- Innovative Investments
- Equipment Manufacturers/Distributors
- Credit Worthiness
- CHP checklist
- Collaboration – Social License
- Life Cycle Analysis
#3- Wood to Energy Support Teams

1. Stewardship contracting reauthorization (Supply)

2. Blended stewardship contract (Supply)

3. Life cycle analysis (Outreach)

4. Innovative investors (Financing)

5. Multiple feedstocks (Supply)

6. Education of agencies (Outreach)

7. Coordination of existing programs (Supply)

8. RD application process (Financing & Outreach)

9. Credit worthiness (Financing)

10. Collaborative efforts (Supply & Outreach)

11. Energy project checklist (Outreach)
STATE SUPPORT TEAMS

• State Level Support Teams – Why?
  • Template Team/Network:
    • FS Regional Biomass Coordinator
    • Rural Development Energy Coordinator
    • State Forester
    • State Energy
    • State Commerce/Econ Development
    • Consulting Engineers - $$
    • NGO’s – Social Acceptance – Workshops, marketing - $$
      • Forest Based Collaborative Groups
      • Economic Development
    • State DEQ
FUTURE

- Expanded Work with others – DOD, DOE, HUD, Commerce, EPA
- Funding to make it work – FS FY 2013 Budget CWE
- Focus on developing clusters – production/distribution businesses
- New Financing models
- Focus on Fuel Oil/Propane markets + CHP
  - 25 Billion gal = ~$75 Billion
  - ~177 million BDT about ½ of the Billion Ton Study
# NATIONAL FUEL OIL & LPG USE

<table>
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<th></th>
<th>Fuel Oil</th>
<th>LPG</th>
<th>Total Gallons</th>
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<tbody>
<tr>
<td>Industrial</td>
<td>8.0 billion</td>
<td>2.7 billion</td>
<td>10.7 billion</td>
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<tr>
<td>Residential</td>
<td>4.3 billion</td>
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<td>9.9 billion</td>
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<tr>
<td>Commercial</td>
<td>3.0 billion</td>
<td>1.4 billion</td>
<td>4.4 billion</td>
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<tr>
<td>Total</td>
<td>15.3 billion</td>
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<td>Price</td>
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<tr>
<td>Total cost</td>
<td>$54 billion</td>
<td>$20 billion</td>
<td>$74 billion</td>
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Top 20 States Fuel Oil and LPG in Billions of Gallons

New York 1.93
Texas 1.48
Pennsylvania 1.33
California 1.23
Massachusetts 0.92
Connecticut 0.77
Ohio 0.77
Florida 0.75
Michigan 0.73
Illinois 0.65
North Carolina 0.64
Minnesota 0.62
Indiana 0.62
Wisconsin 0.59
Iowa 0.59
New Jersey 0.58
Virginia 0.56
Louisiana 0.52
Missouri 0.51
Maine 0.49
Georgia 0.48