CONTEXT

- Wood Energy is one more part of an integrated wood products industry;
- Dependent upon higher value products in most places
- Not a Silver Bullet
  - Opportunity to reduce management costs,
  - Utilize forest residues=slash
  - Restoration
  - Wildfire hazard reduction
- Solid Wood conserves energy – green building
OVERVIEW

- Background of the Initiative
  - Two Letters from Three Undersecretaries
- Current Activities
  - Action Items – 12
  - All completed
- Future Activities
  - Wood Energy Summit
  - Community Wood to Energy
BACKGROUND

- Letter Oct. 2010 – Forest Restoration Economy
  - Comprehensive Review
  - Project Development and Support
  - National 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
REAP - WOOD TO ENERGY 2011

- RD Investment ~$1 mill
- 90 projects

Advanced Biofuels Payment 2011

- 28 Pellet Manufacturers
- 14 states
- ~ $1.4 million

Rural Utility Service 2011

- No. Virginia Electric Coop – 50 MW
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, Universities
TWELVE ACTION ITEMS

- Support 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. RD application process (Financing & Outreach)
8. Coordination of existing programs (Supply)
9. Credit worthiness (Financing)
10. Collaborative efforts (Supply & Outreach)
11. Energy project checklist (Outreach)
12. Life cycle analysis (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

- Summit USDA host – July 16, 2013
- Expanded Work – DOD, DOE, HUD, Commerce, EPA, GSA
- Funding to make it work? CWE FY ‘13 - RFP
- Focus on developing clusters – production/distribution
- New Financing models – JV w/ Endowment
- Focus on Fuel Oil/Propane markets + CHP
  - 25 Billion gal = ~$74 Billion
  - ~177 million BDT about ½ of the Billion Ton Study
<table>
<thead>
<tr>
<th></th>
<th>Fuel Oil</th>
<th>LPG</th>
<th>Total Gallons</th>
</tr>
</thead>
<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>
<td>5.5 billion</td>
<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><strong>Total</strong></td>
<td><strong>15.3 billion</strong></td>
<td><strong>9.6 billion</strong></td>
<td><strong>24.9 billion</strong></td>
</tr>
<tr>
<td>Price</td>
<td>$3.56</td>
<td>$2.05</td>
<td></td>
</tr>
<tr>
<td><strong>Total cost</strong></td>
<td><strong>$54 billion</strong></td>
<td><strong>$20 billion</strong></td>
<td><strong>$74 billion</strong></td>
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</tbody>
</table>
Top 20 States Fuel Oil and LPG in Billions of Gallons

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