

# Renewable Energy Through the Forestry Industry



**“Our Forests are the Planet’s Largest Solar Powered Cellulosic Batteries.”**

(Source: 2008 Pellet Fuels Institute Membership Conference)



Presented by:

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**November 18, 2008**

# Potomac Supply Corporation



## Products

- Lumber
- Treated Lumber
- Pallets
- Energy Products (Pellets in 2009)
- Chips, Shavings, Sawdust, & Bark

## Profile

- 60 Year History
- 300 Employees
- Located in Westmoreland County

November 19, 2008

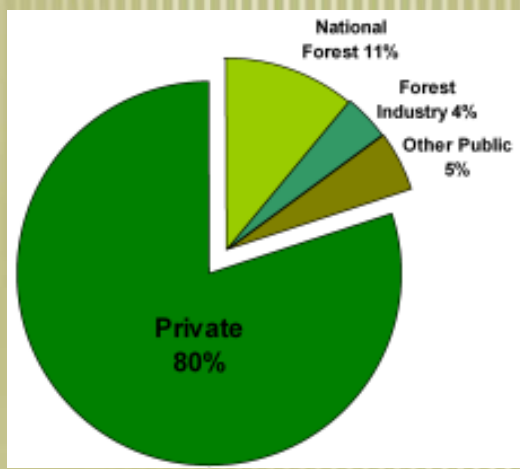
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# Virginia Forest Products Industry



**12.9 Million Total Acres of Forest Land in Virginia**  
(Source: VA Dept. of Forestry)



- **\$23.4 Billion in Revenues**
- **220,000 Employees**
- **373,600 Private Owners of Forest Land**
  - 12.9 Million Acres, 80% of Total Forests
  - 75 Acres is Average Size
- **Positive Net Growth to Removal**
  - Hardwood 1.3
  - Pine 1.17

(Source: VA Dept of Forestry)

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# Sawmill Economics 101

(Source: Potomac Recovery Studies)



- Each Log Will Yield
  - 53 % Lumber
  - 47% Bark, Sawdust, Shavings, & Chips
- Traditionally (past 60 Years), the 47% Has Sold for Less Per Ton than the Cost Paid to the Landowner
- Wood Energy Products Solve this Financial Issue



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# Incentives for the Forest as Fuel Industry



- **Federal**
  - Renewable Energy Tax Parity Act
  - Farm Bill – Community Wood Energy Program
    - For Producers of Renewable Energy
  - Electricity Creation Tax Credits
- **State**
  - Job Creation Tax Credits
  - Tax Incentives for Renewables - Consumer Only

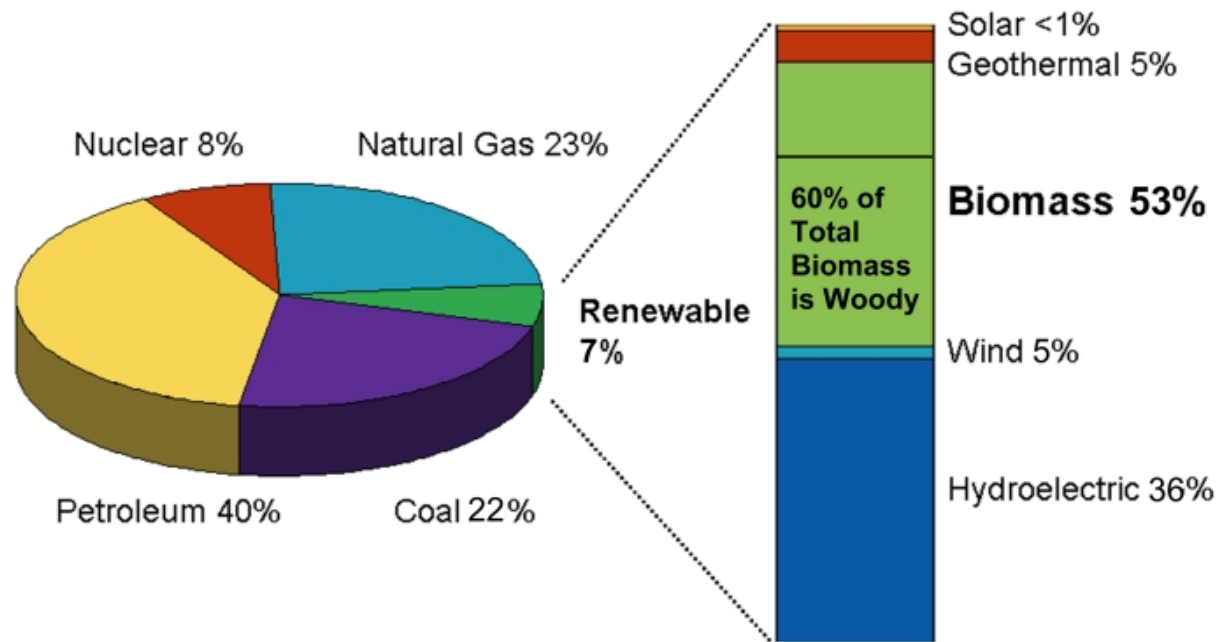
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# 2007 Renewable Energy Consumption



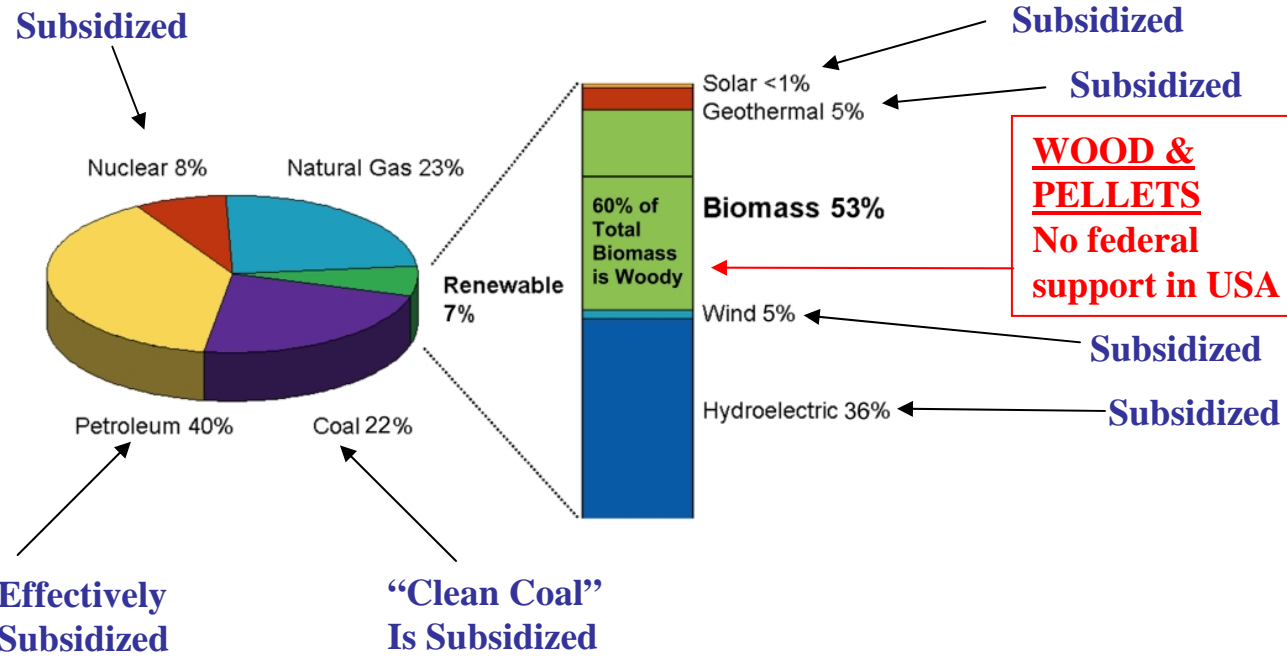
(Source: DOE-EIA)

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# Federal Support of Energy Production



(Source: DOE-EIA)

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# CASE STUDY #1

- \$3.5 Million Investment
- Payback in > 3 Years
- Processed Wood Replaces 1.2 Million Gallons of Propane Per Year
- Trucks off Road = 22,000 Gallons of Diesel Per Year Saved
- Carbon Neutral



# Potomac Supply Corporation Woody Biomass Dry Kilns



(Source: Potomac Supply Corporation)  
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# Residential School Installation



### Energy Provided by Oil Fired Boilers

- Consumption Per Year =
  - 181,199 Gallons #2 Fuel Oil
- Cost \$616,076 Projected (\$3.40/Gallon Average)
- Fuel Savings with Wood Fuel –
  - \$379,226

### Comparative Fuel Value

- Processed Wood Fuel Expressed in Gallons of #2 Fuel Oil =
  - **\$1.31/Gallon**

### Major Obstacle

- High Cost of Equipment
  - \$2.7 Million est.

(Source: Potomac Supply Corporation)

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# Home Heating

- In Germany, 20% of All Heating is Done with Wood Pellets (Usually Involves Hot Water as Well)
- Englander Stove Works
  - Headquartered in Lynchburg, VA
  - 30,000 Stoves Manufactured in 2008
    - Average Retail Cost = \$1300
    - Average Pellet Consumption with an Englander Stove = 4 Tons
    - Will Eliminate the Need for 13,830,00 Gallons of Heating Oil
      - Will Likely Save the Consumer Money
    - Less than 1% Ash
    - No Environmental Issues
    - Carbon Neutral



(Source: Englander Stove Works  
Potomac Supply Corporation)

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# Conclusions

- **Wood Biomass Fuel Products Can Play a Major Role in Reducing Virginia's Dependence on Fossil Fuels**
- **Wood Energy is Cost Effective**
- **Policy that Promotes the Use of Wood Energy Keeps Dollars and Jobs in Virginia**



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# Questions & Comments



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