

FEDERAL POLICY ON BIOMASS POWER: THE CLEAN POWER PLAN & BEYOND

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EESI

Environmental and
Energy Study Institute



EESI
Environmental and
Energy Study Institute

- Founded in 1984 by a bipartisan Congressional caucus as an independent non-profit organization (but receives no Congressional funding)
- Source of non-partisan information on energy and environment policy development for Congress and other policymakers
- [Climate change](#) is one of the most serious problems facing civilization today – impacting infrastructure, water supply, agriculture, public health and natural ecosystems

Biomass is an Abundant Resource



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Courtesy of Wikipedia



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Why biomass?

- Is a **flexible renewable resource**: liquid fuels, heating and cooling, electricity
- Biomass electricity can provide **base load power** to more intermittent renewables
- Biomass can be **co-deployed** with other renewable and non-renewable electricity
- Works well as a **distributed generation** capacity



Biomass – Utilizing Waste Materials

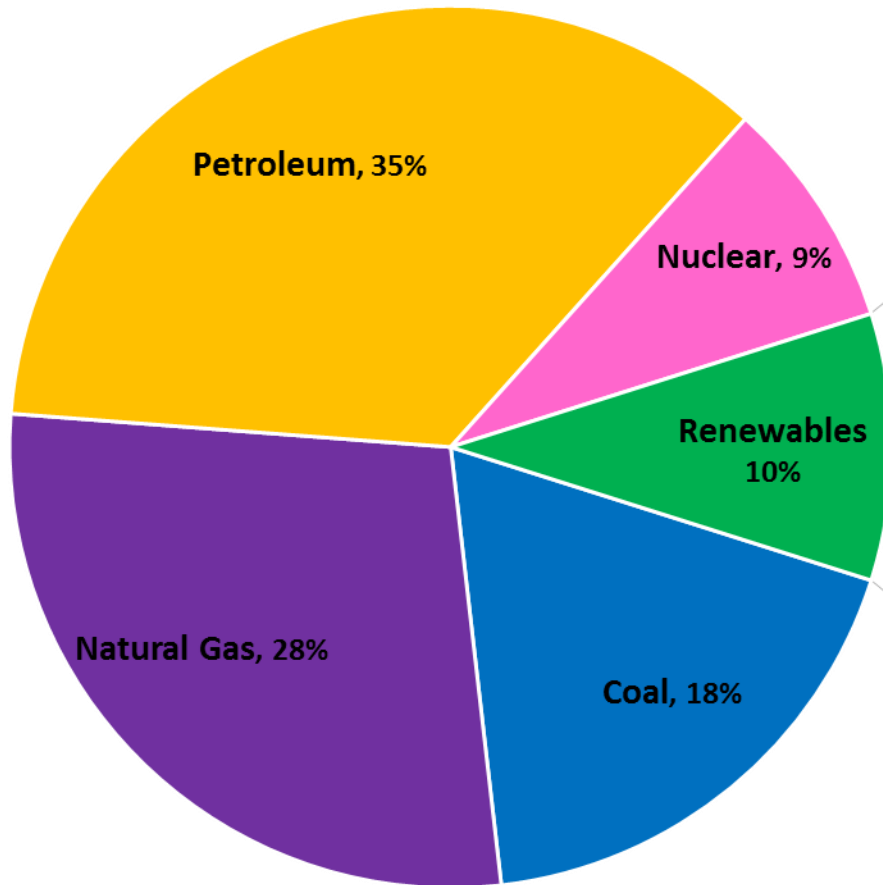
- Biomass is commonly disposed of as waste
- A renewable resource that, **if not managed sustainably, can contribute to environmental degradation** and climate change
 - Municipal solid waste → Landfill gas
 - Hazardous fuel build-up → Forest fires
 - Untreated manure → Nutrient loading in watersheds



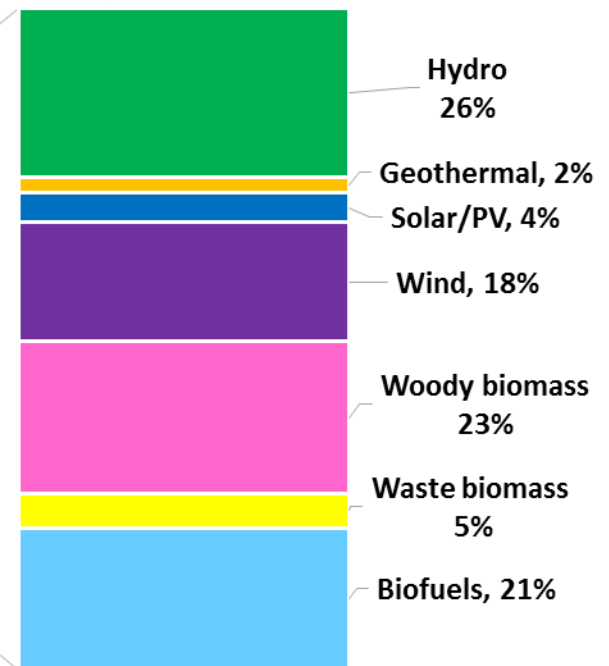
Biomass Plays an Important Role in Renewables

U.S. Energy Consumption by Energy Source, 2014

Total energy consumption = 98.6 quadrillion BTUs



Total renewable consumption = 9.6 quadrillion BTUs



Source: U.S. Energy Information Administration, *Monthly Energy Review* (Sept. 2015)



What is the Role of Biomass in the Clean Power Plan?

- EPA recognizes the role that using “waste-derived feedstocks” and “forest-derived industrial by-products” can play in the low-carbon economy, as they “are likely to have minimal or no net atmospheric contributions of biogenic CO₂ emissions, or even reduce such impacts, when compared with an alternate fate of disposal.”
- Key questions remain to be answered by EPA’s scientific advisory panel regarding GHG accounting
- Expecting finalized *Framework* for biomass late 2015/early 2016

Low-Risk Biomass Utilization

Despite uncertainties on GHG accounting, **consensus exists on waste utilization**

- Forestry residue
- Wood culled from:
 - Pine beetle kill
 - Accumulated hazardous fuels
- States are moving forward on these low-risk, accepted uses.
 - Avoids sending to landfill, open burns
 - States looking to EPA for policy certainty

Federal & State Support of Biomass

- Role of biomass in **carbon** management, **renewable** generation, **forest** management is recognized by:
 - U.S. Global Change's National Climate Assessment
 - Renewable Fuel Standard
 - Farm Bill Programs
 - Department of Interior, U.S. Forest Service, Department of Energy
- States are already utilizing biomass as part of state **Renewable Portfolio Standards (RPS)**

Federal support of biomass & biogas

- Renewable Fuel Standard
 - Biogas now has a pathway under the RFS – has provided HUGE boost to industry
- Production Tax Credit Sect. 45
- Energy Title (Title IX) of the 2014 *Farm Bill*
 - Significant support for renewable energy, energy efficiency
- President's Biogas Roadmap (part of methane strategy)
 - Voluntary compliance
- DOI, USFS and others recognizing importance of woody biomass to hazardous fuels reduction
- EPA's *Clean Power Plan* 111(d)
 - Policy signal that carbon will be increasingly expensive



Takeaways:

- Already see **consistent federal support** of biomass
- But, EPA **still working through biogenic carbon issue**
- **States have been integrating biomass** into state RPS
 - 29 States, D.C., and 2 territories have an RPS
- Barriers include **public perceptions** & lack of knowledge on technology
- States need to be able to utilize **low risk biomass feedstocks** as a renewable source of energy, need policy consistency & certainty

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THANK YOU

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