



HEATING THE MIDWEST
WITH RENEWABLE BIOMASS

Island Resort & Casino
Harris, Michigan
October 11-13, 2016

Stuck in the Middle with You: Biomass's Challenging Political and Social Reality

Tim Portz, Executive Editor, Biomass Magazine

1. We are in a war of words and pictures.

Next 'Renewable Energy': Burning Forests, if Senators Get Their Way



Clear-cutting along Highway 30 in Oregon. A bipartisan group of senators wants the government to assume that burning forests to generate electricity does not add carbon dioxide to the air but is instead "carbon neutral." Leah Nash for The New York Times

Power struggle

Britain's most toxic power station, Drax in North Yorkshire, is going green — by burning trees ripped from the forests of Mississippi. Is this eco-madness?



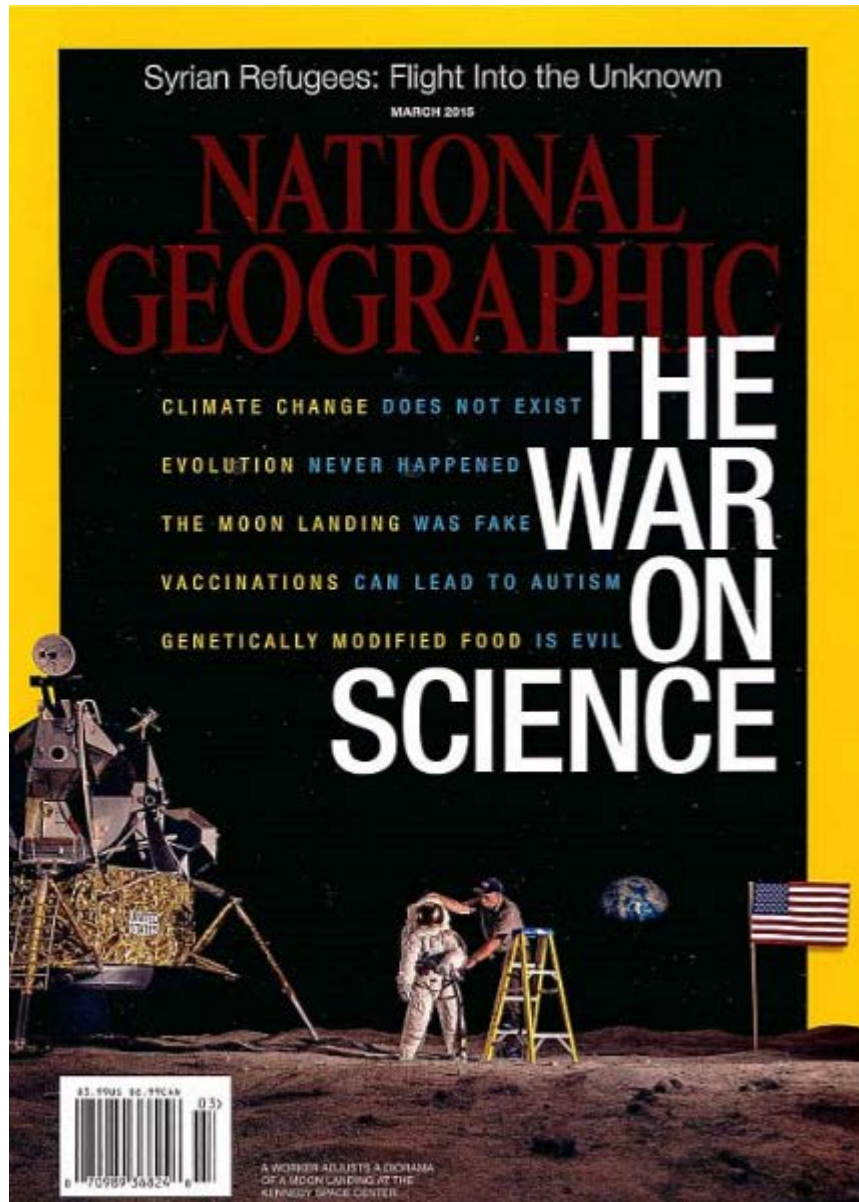
(Jez Coulson)



Pulp Fiction

The European Accounting Error That's Warming the Planet

2. Not everyone believes there is a problem to be solved.



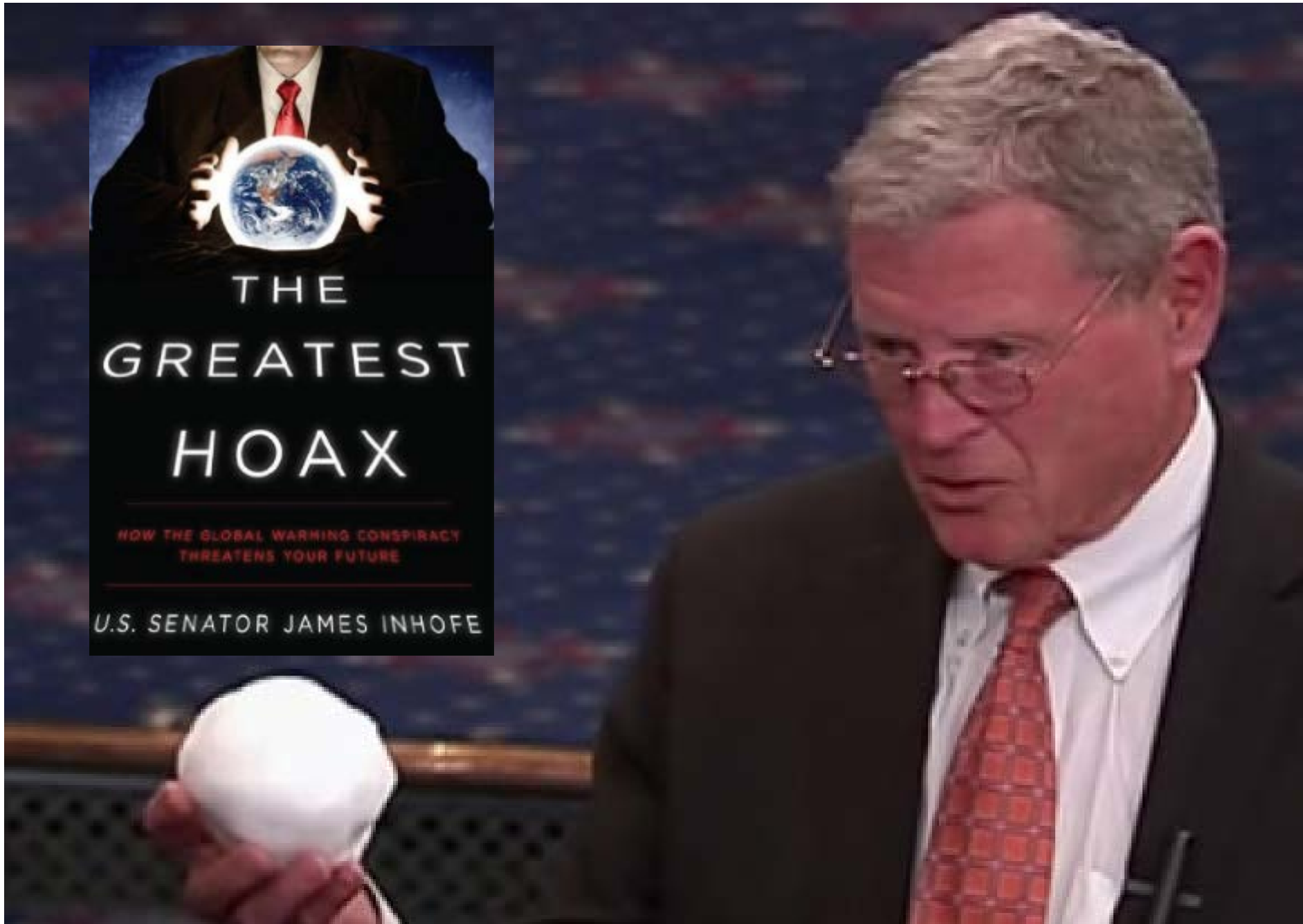
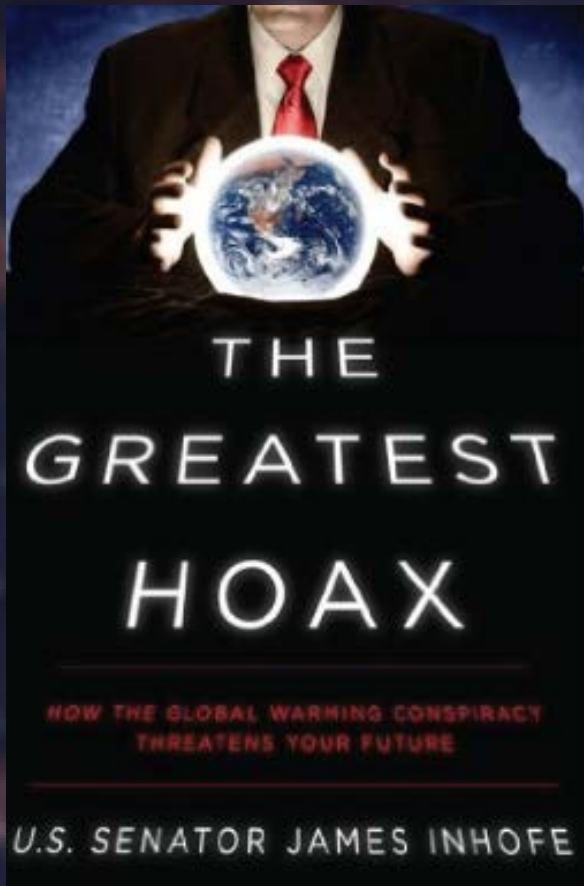
“But industry PR, however misleading, isn’t enough to explain why only 40 percent of Americans, according to the most recent poll from the Pew Research Center, accept that human activity is the dominant cause of global warming.”

- Joel Achenbach



Jenny McCarthy

The University of
Google is where I got
my degree from.



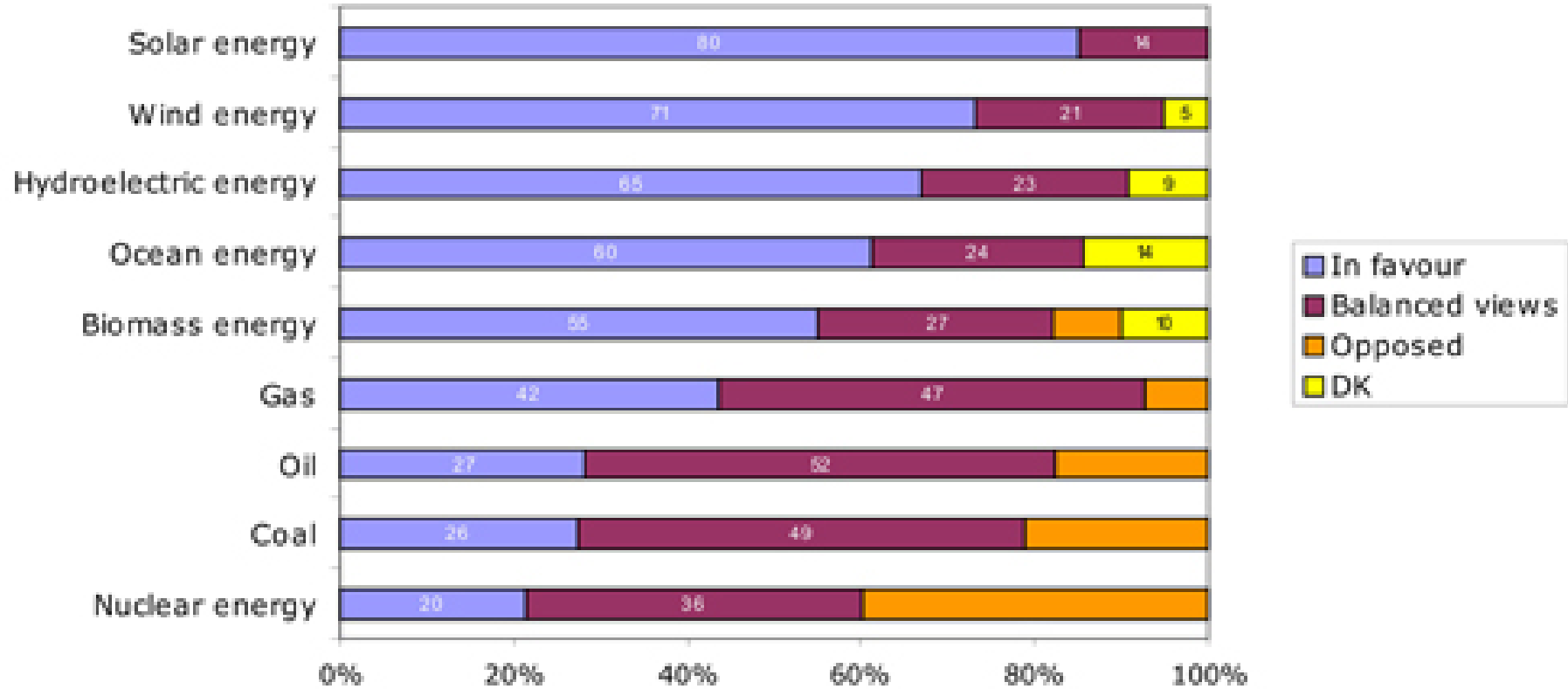
**3. We aren't renewable or green enough.
(alternate title: the anti-combustion bias)**

“You can plant new trees, but forests aren’t ‘renewable’. Natural forests, with their complex ecosystems, cannot be regrown like a crop of beans or lettuce... tree plantations will never provide the clean water, storm buffers, wildlife habitat, and other ecosystem services that natural forests do.”



NRDC
NATURAL RESOURCES
DEFENSE COUNCIL

Figure 6.2: General Attitudes Towards Energy Sources in the EU



Source: European Commission (2007c)

NICE.



MINNESOTA NICE!



Invest in Renewable Energy,
Invest in Minnesota's Future

LEARN HOW: ucsusa.org/MinnesotaCleanEnergy



**Dogwood Alliance Protest, Charlotte, North Carolina
International Biomass Conference & Expo 2015**

Power Ahead Virginia



We Can Top **14%** by 2030
Renewable Energy

**Union of
Concerned Scientists**

Act Now to Create a Better Virginia
Learn How: www.ucsusa.org/PowerAheadVirginia

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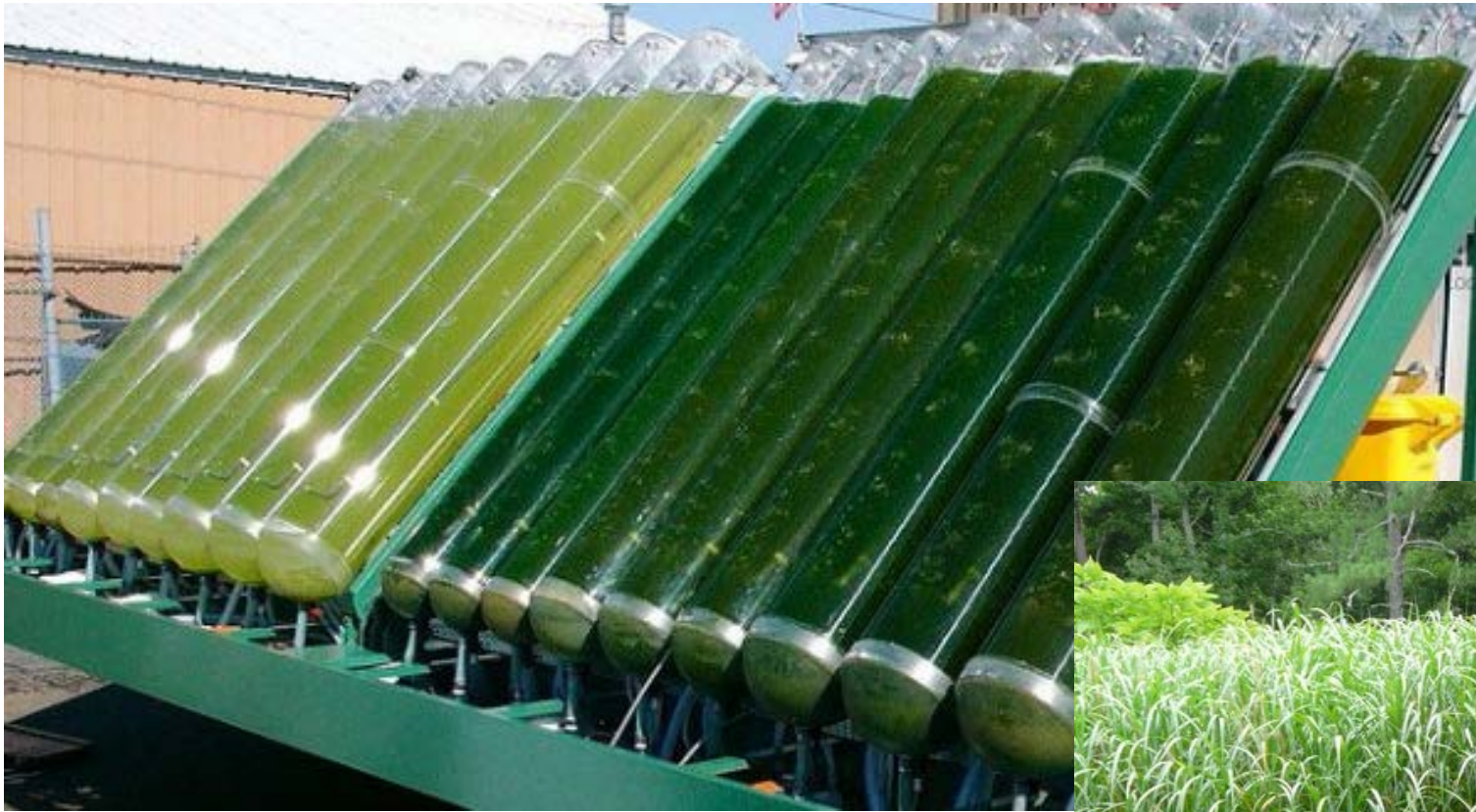
Analysis from Strengthening the EPA'S Clean Power Plan (2014); www.ucsusa.org/renewablesandcleanpowerplan

Renewable Resource	Electricity Generation Capacity Potential (gigawatts)	Electricity Generation Potential (billion kilowatt-hours)	Renewable Electricity Generation as Percent of 2012 Electricity Use
Wind			
Land-Based	10,955	32,784	809%
Offshore	4,223	16,976	419%
Subtotal	15,178	49,760	1,227%
Solar			
Photovoltaics	154,856	283,664	6,997%
Concentrating Solar Power	38,066	116,146	2,865%
Subtotal	192,922	399,810	9,862%
Bioenergy			
Subtotal	62	488	12%
Geothermal			
Hydrothermal	38	308	8%
Enhanced Geothermal Systems	3,976	31,345	773%
Subtotal	4,014	31,653	781%
Hydropower			
Existing Conventional	78	277	7%
New Conventional	60	259	6%
Subtotal	138	536	13%
Total	212,314	482,247	11,896%

Really?

Source: "U.S. Renewable Energy Technical Potentials: A GIS -Based Analysis", National Renewable Energy Laboratory. July 2012.

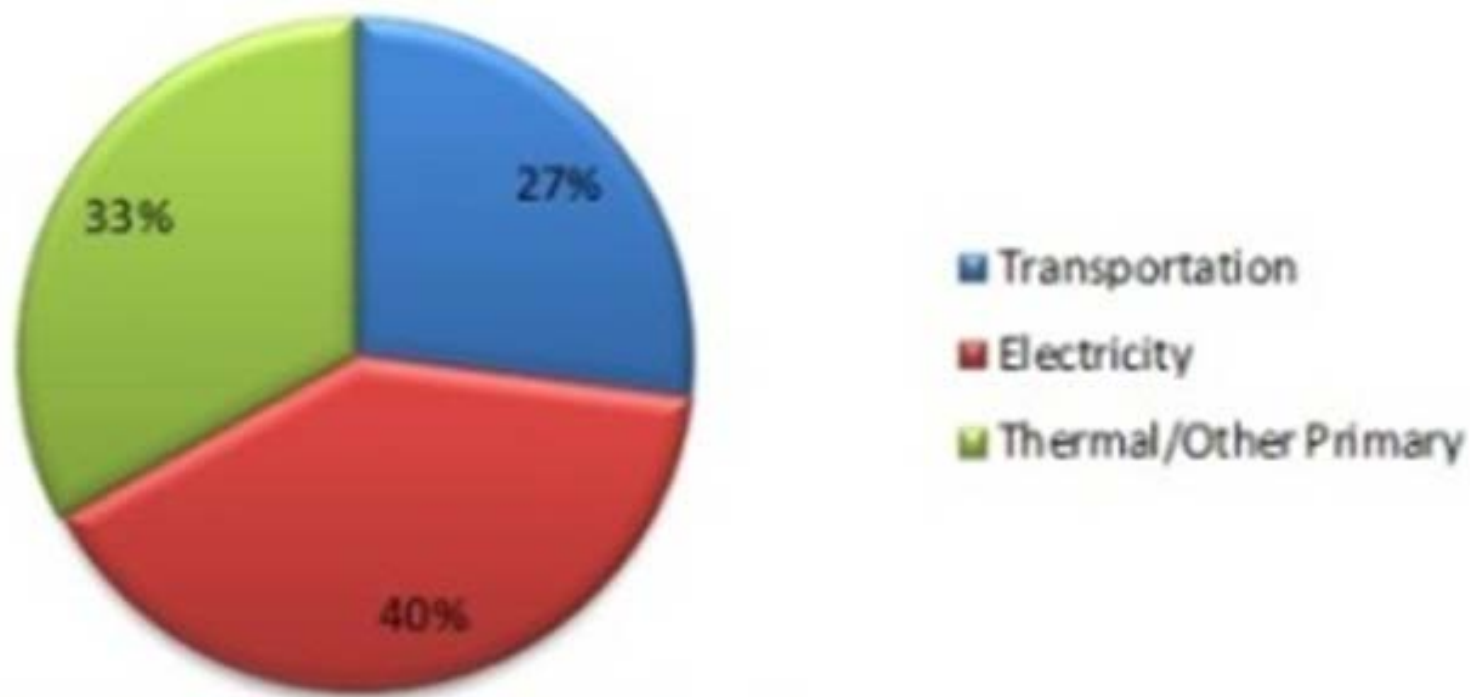
4. Other biomass is just plain cooler.



**5. Thermal energy is the forgotten leg of the energy stool.
(with a nod to the fine folks in this room)**



Energy Use in the U.S.



Source: U.S. Energy Information Administration

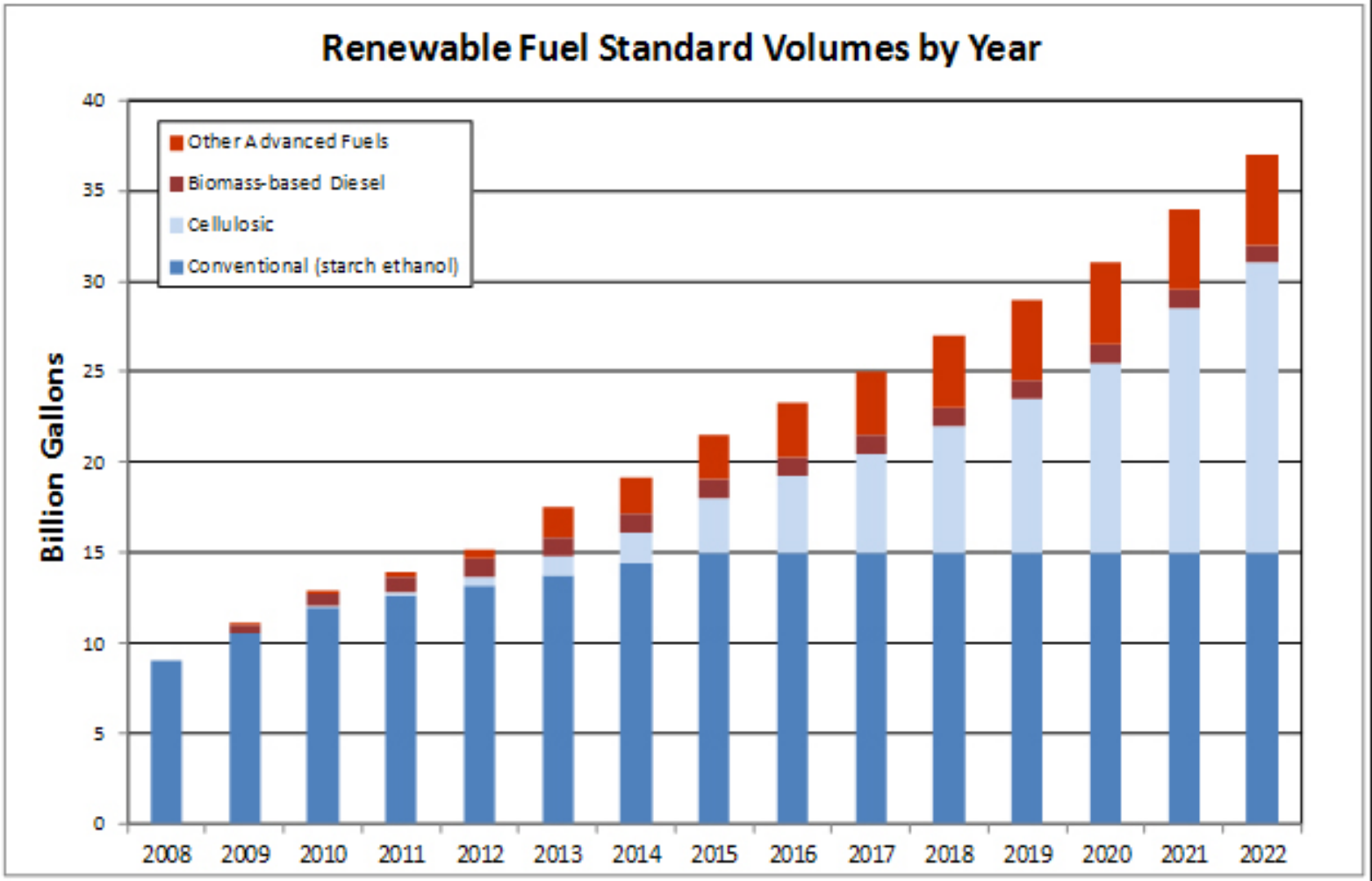
Production Tax Credits for Renewable Thermal Energy

BTEC supports the establishment of a production tax credit (PTC) for renewable thermal energy. A similar credit already exists for the production of renewable electricity (Internal Revenue Code, Title 26, Section 45). A renewable thermal energy PTC could be implemented through a modification of the existing Section 45 credits or the development of a new section in the tax code.

Active Legislation: *none noted*



Transportation got policy recognition.



**Power, while stymied and delayed did too.
(although the role biomass will play is in question)**



The Clean Power Plan Protects Our Environment, Health & Economy



The Clean Power Plan will cut harmful carbon pollution from the power sector that's fueling climate change.

The Plan protects our environment.



Thank You.