



Cornell University
Cooperative Extension

Marcellus Shale Community Task Forces

Building Energy Literacy
for informed decision making

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State Level Action & Legislation

- Federal-State-Regional/Local energy policies
- Actions nested within a structure dependent on decisions made at higher levels
- Revised draft sGEIS – June 2011 (?)
- Interpretation of NYS Environmental Conservation Law
- What is within the legal purview of local jurisdiction

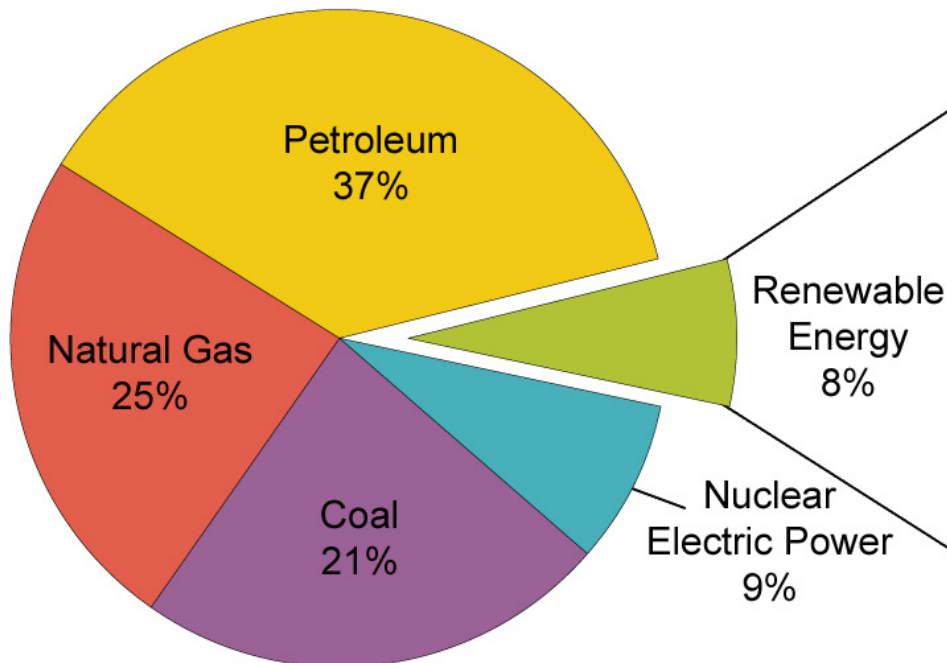
Community Responses

- Landowner Coalitions
- Community Task Forces
- Community based approaches to environmental management, greater local participation
- Social, economic and ecological considerations
- Sustainable Communities

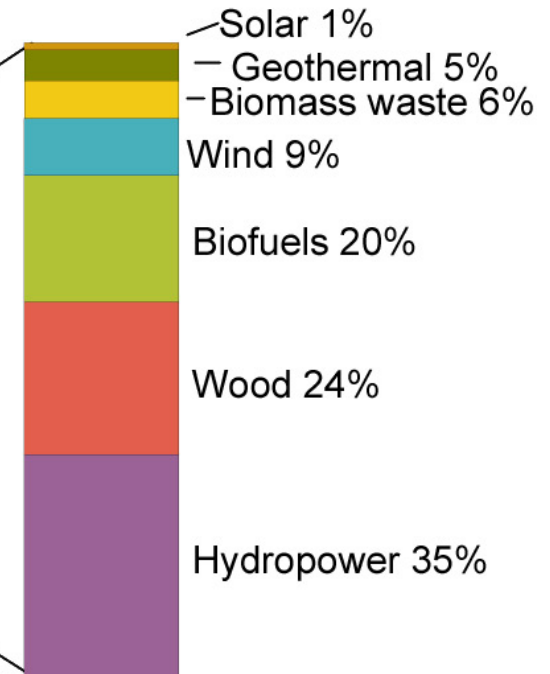
Building Awareness

U.S. Energy Consumption by Energy Source, 2009

Total = 94.578 Quadrillion Btu



Total = 7.744 Quadrillion Btu

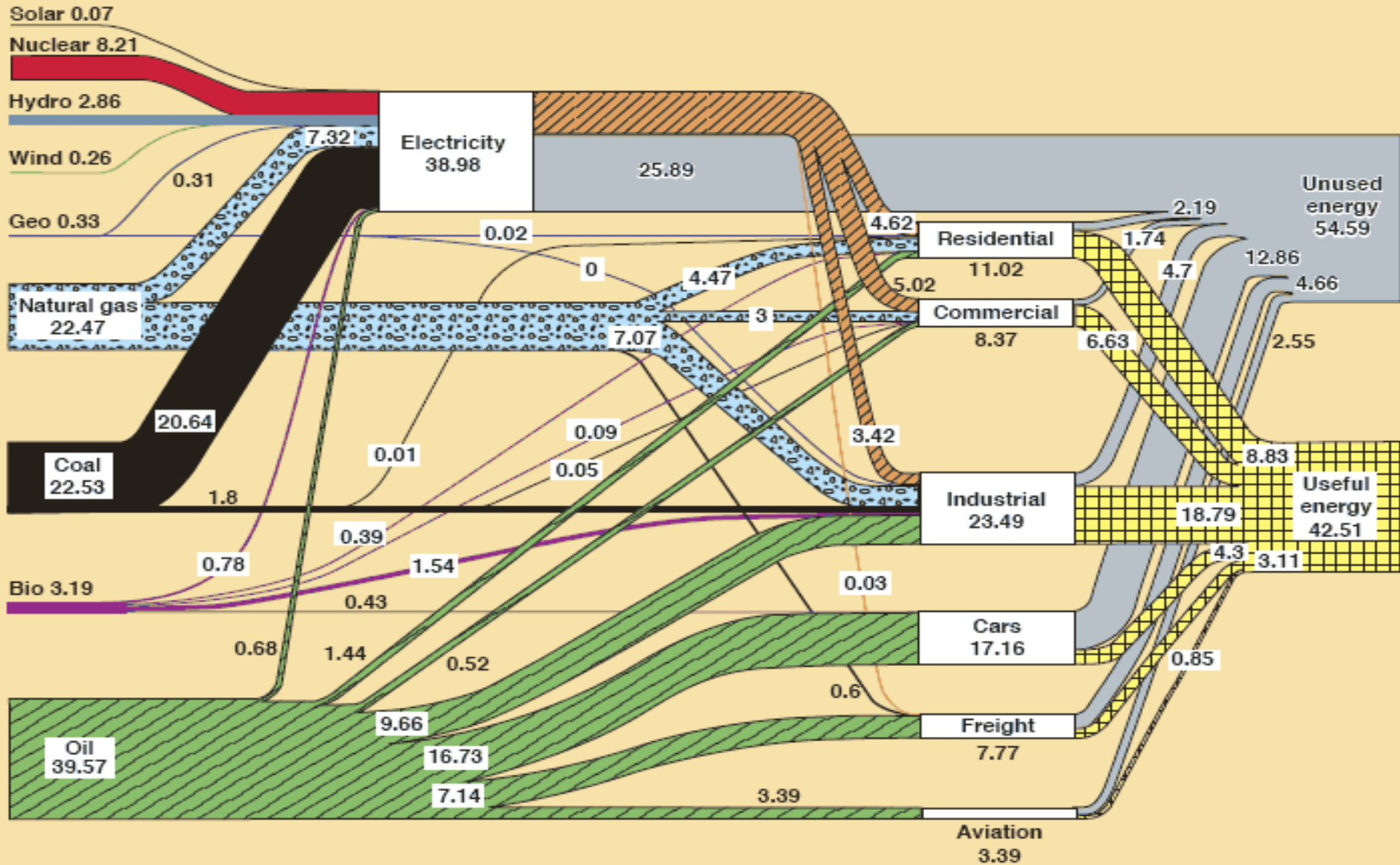


Note: Sum of components may not equal 100% due to independent rounding.

Source: U.S. Energy Information Administration, *Annual Energy Review 2009*, Table 1.3, Primary Energy Consumption by Energy Source, 1949-2009 (August 2010).

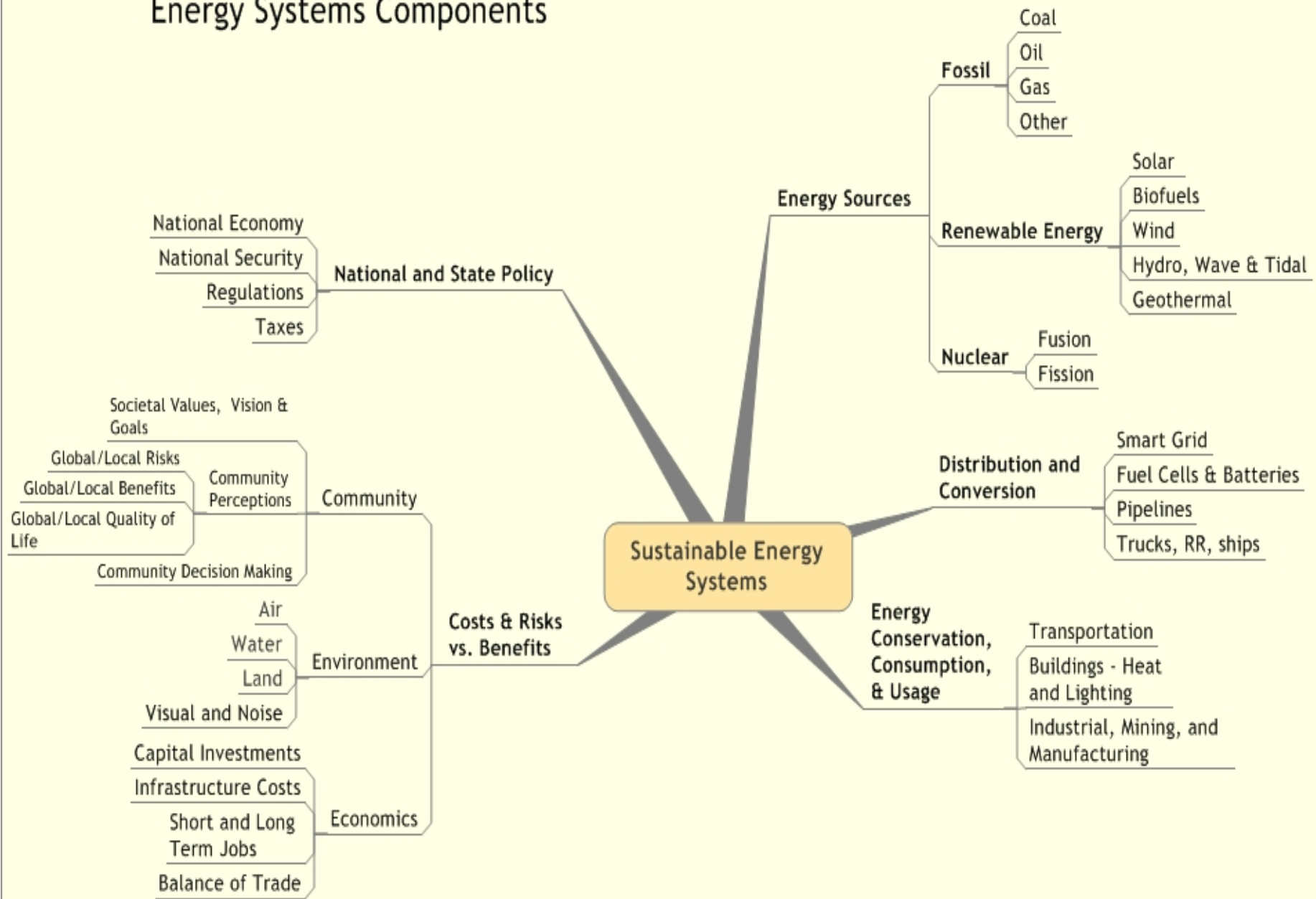


Estimated Energy Usage in 2006: ~97.1 Quads



Source: LLNL 2008; data is based on DOE/EIA-0584(2006), June 2007. If this information or a reproduction of it is used, credit must be given to the Lawrence Livermore National Laboratory and the Department of Energy, under whose auspices the work was performed. Distributed electricity represents only retail electricity sales and does not include small amounts of electricity imports or self-generation. Energy flows for non-thermal sources (i.e., hydro, wind, and solar) represent electricity generated from those sources. Electricity generation, transmission, and distribution losses include fuel and thermal energy inputs for electric generation and an estimated 9% transmission and distribution loss, as well as electricity consumed at power plants. Total lost energy includes these losses as well as losses based on estimates of end-use efficiency, including 80% efficiency for residential, commercial, and industrial sectors, 20% efficiency for light-duty vehicles, and 25% efficiency for aircraft.

Energy Systems Components



Task Forces: Key Elements

- Minimizing
- Mitigating
- Monitoring
- Maximizing

Resources

“When asked what resources helped the capacity of the task force, different members alluded to different resources of political and social capital, technical or legal knowledge, and financial resources, all that have increased the capacity and efficiency of what task forces have been able to accomplish.”

Town of Caroline Pilot: Guidelines for Energy System Modification Decisions

Introduce 4 “Basic” goals

- Cost Efficacy
- Local Sustainability
- Energy Independence
- Environmental Friendliness

Cover Standard and Alternative Power Sources

- one-page visual summary of each technology’s merits and advantages
- provide technical data on each technology using a series of standardized metrics
- show cost-efficacy data to assist local governments

Cover Widely Applicable Energy Saving Techniques and Technologies

- summaries of strengths and weaknesses
- possible financing plans for each technology in order to maximize energy saved
- methods to select which energy saving techniques are significant return investments

Energy Literacy

The ability to understand and employ information about energy in various contexts.

Literacy will vary from audience to audience.

A basic level of energy literacy for the general public.

For municipal officials energy literacy needs to be connected to “capacity building”.



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Communications/Trainings

Website: *Naturalgas.cce.cornell.edu*

E-mail: marcellusshale@cornell.edu

Listserv:

CCE-MARCELLUSSHALEOUTREACH-L@cornell.edu

Upcoming events

*March 31: A Systems Approach to Energy Transitions:
Land, Economic and Community Transformations*

*Tentative: June 24 in Binghamton, Home
Rule: Preparing for Natural Gas Drilling in the
Marcellus Shale Region*