

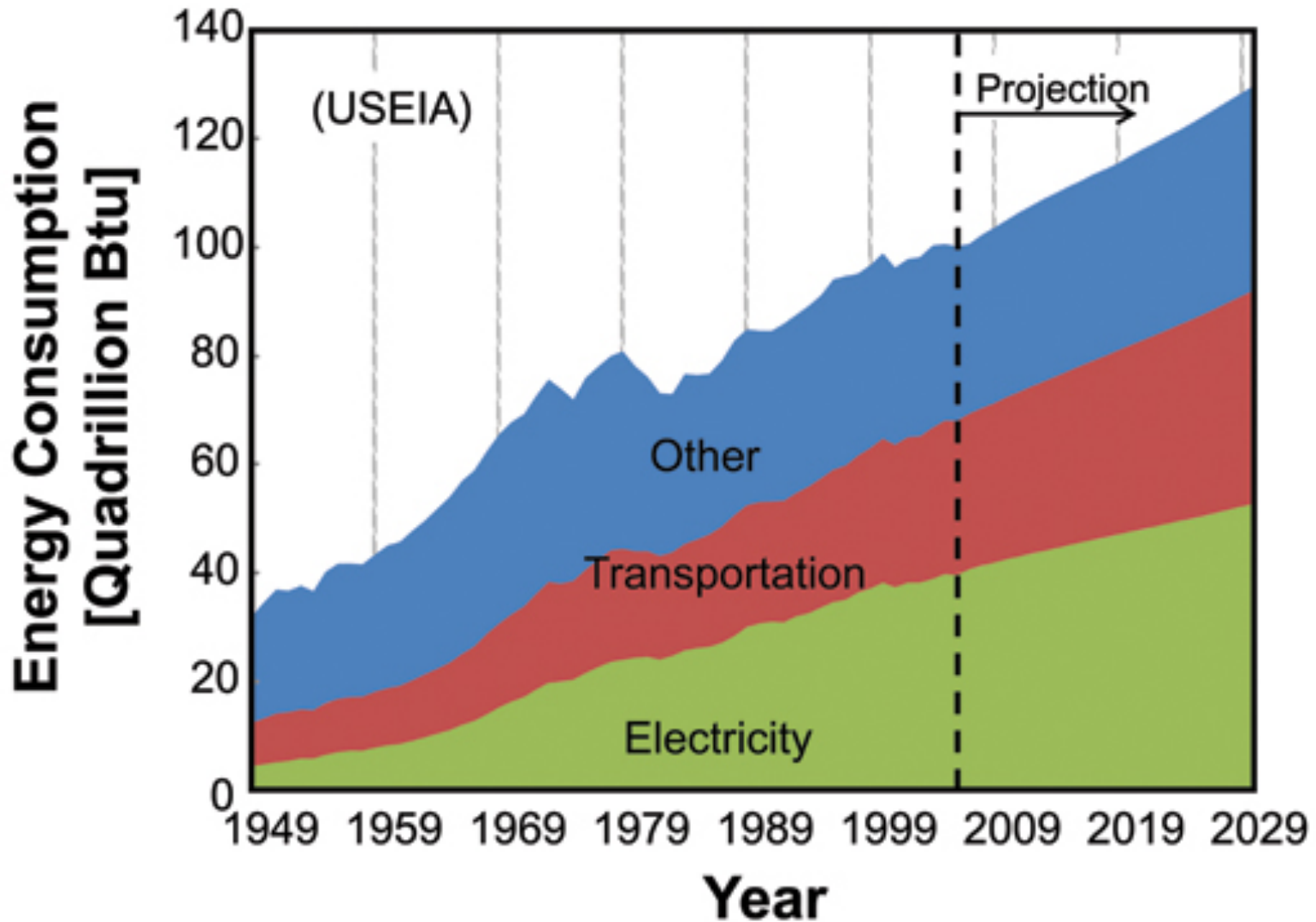
north of what you expect

new north

Energy Economic Development

Energy on Wisconsin
1/16/2013

Energy Consumption Increasing

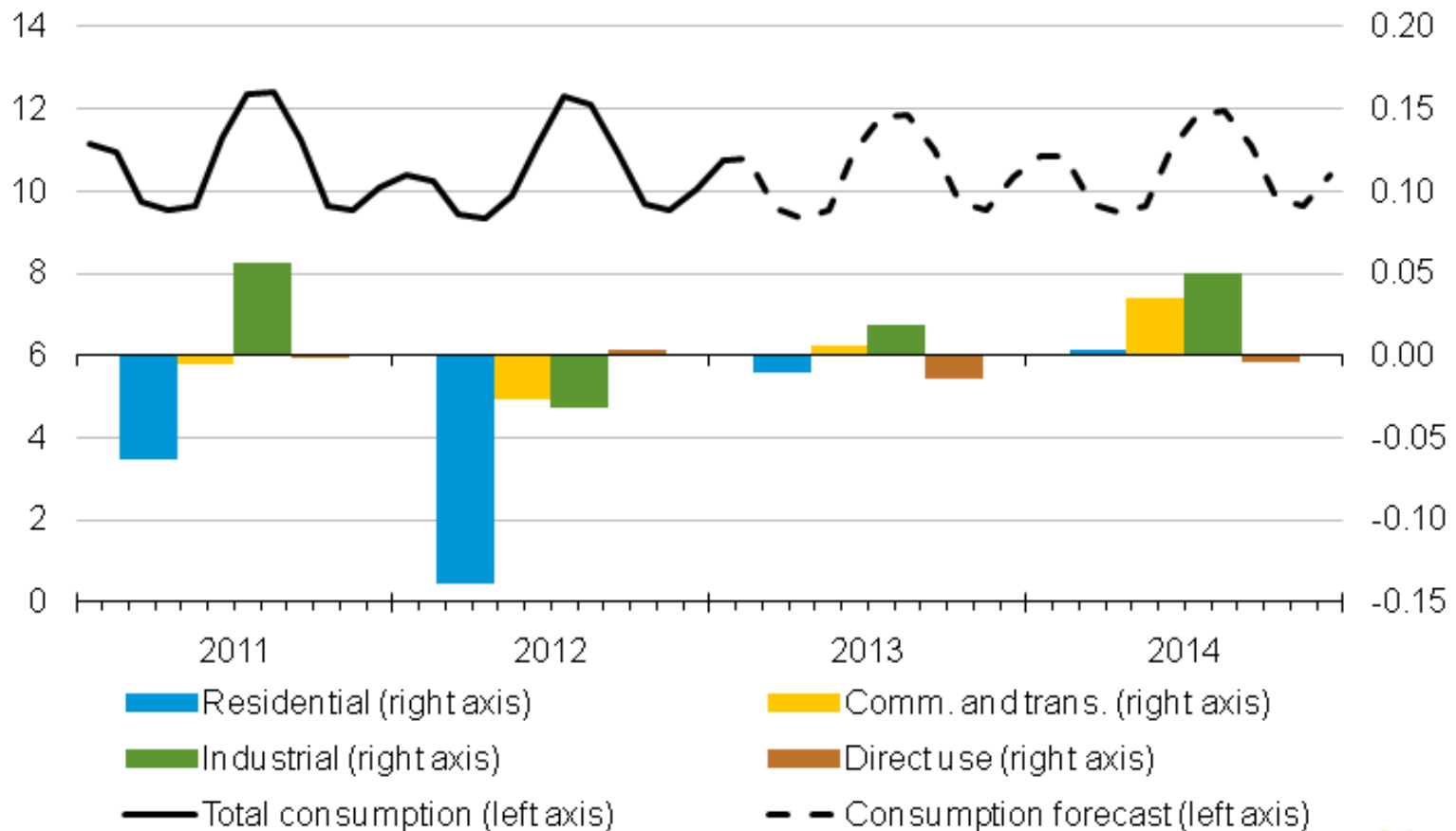


U.S. Energy Consumption

U.S. Electricity Consumption

million kilowatthours per day (kwh/d)

annual change (million kwh/d)

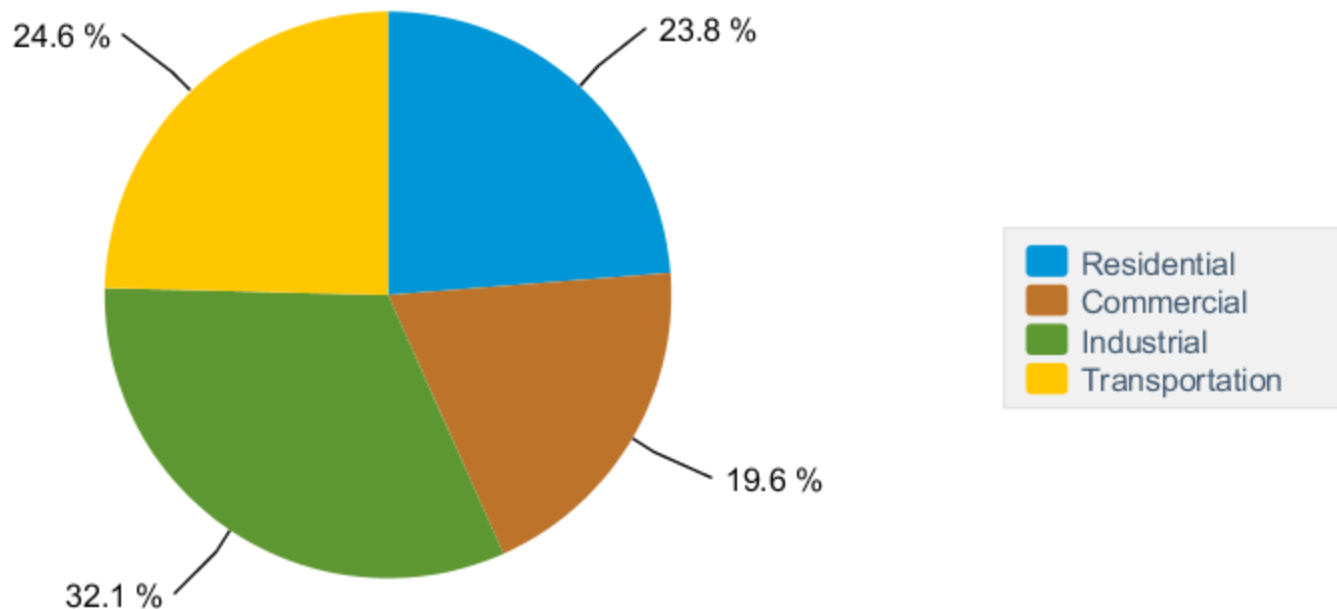


Source: Short-Term Energy Outlook, January 2013



Wisconsin energy consumption by End Use-Sector

Wisconsin Energy Consumption by End-Use Sector, 2010

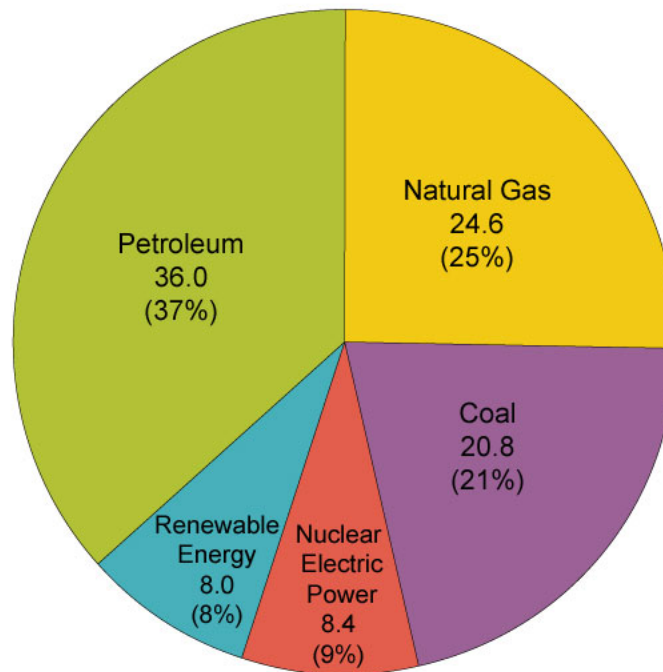


Wisconsin Total End Use Energy Consumption

Primary Energy Use by Source, 2010

Quadrillion Btu and Percent

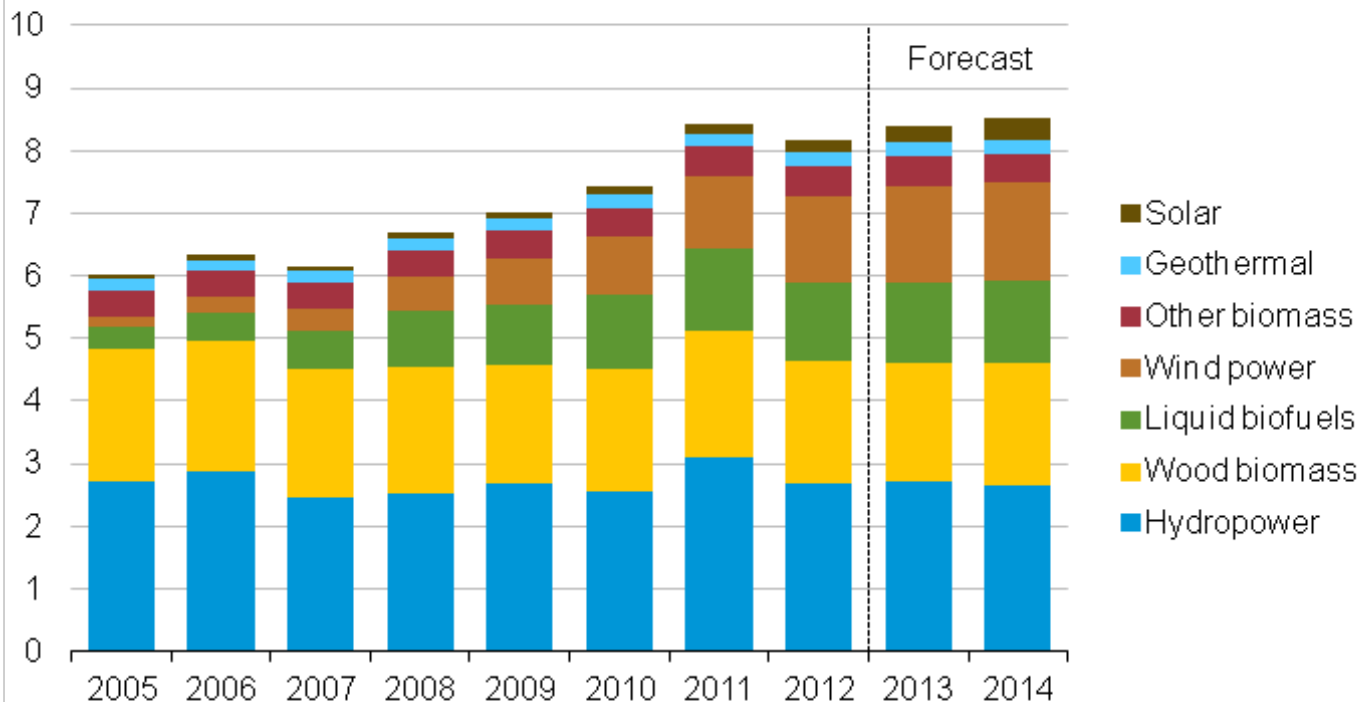
Total U.S. = 98.0 Quadrillion Btu



Source: U.S. Energy Information Administration, *Annual Energy Review 2010*, Table 1.3 (October 2011).

Wisconsin Renewable Energy Production

U.S. Renewable Energy Supply
quadrillion British thermal units (Btu)



Note: Hydropower excludes pumped storage generation. Liquid biofuels include ethanol and biodiesel. Other biomass includes municipal waste from biogenic sources, landfill gas, and other non-wood waste.

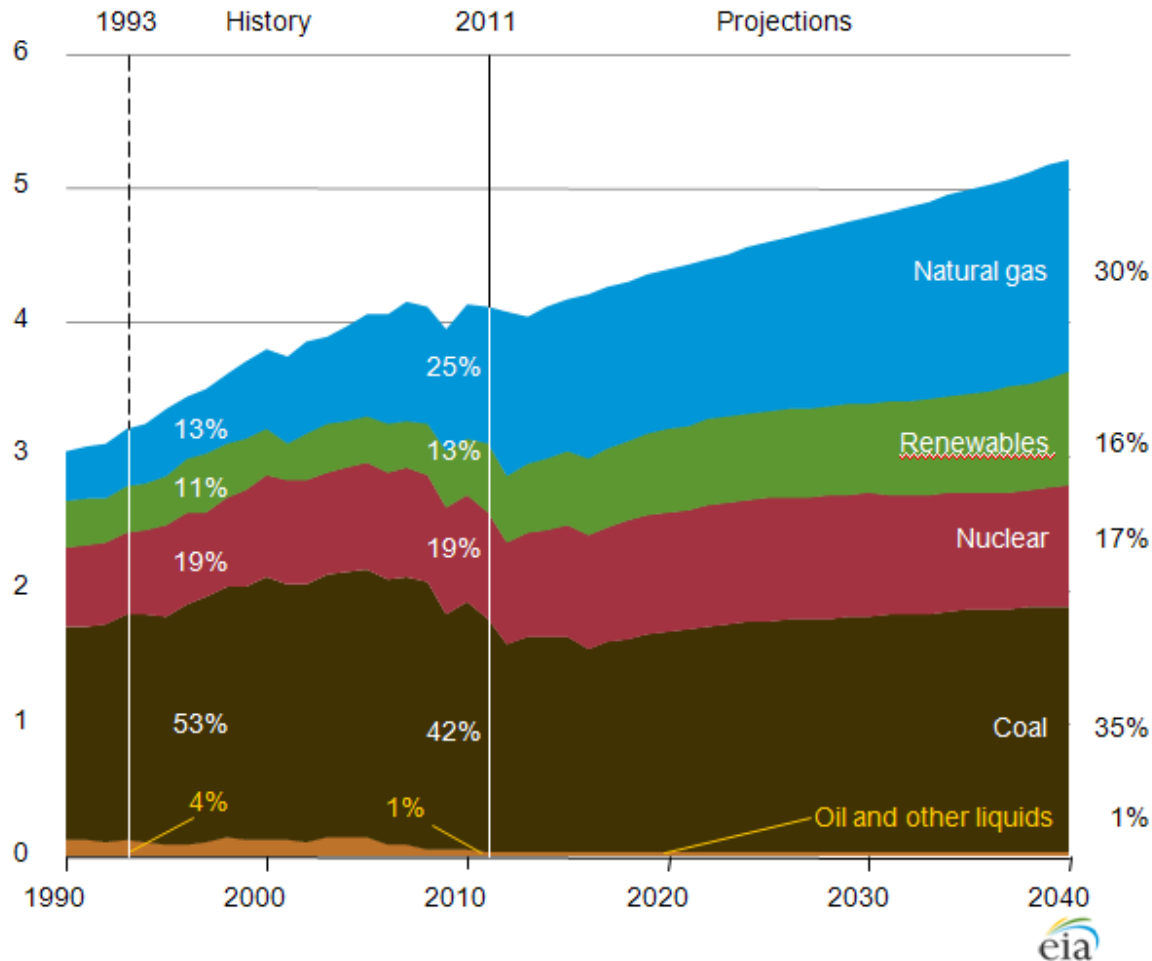
Source: Short-Term Energy Outlook, January 2013



Renewable Electricity Generation Growth Projections

Non-Hydropower Renewable Generation Trillion Kilowatts per year

Figure 12. Electricity generation by fuel, 1990-2040
trillion kilowatthours per year

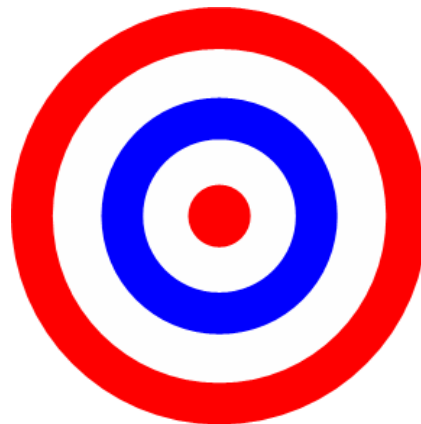


Economic Development Drivers Alternative/Energy



Object of economic development

- ✔ Make more of the existing economic landscape; increase the business volume of the existing economy
- ✔ Attract more investment around existing economy; accommodate expansion
- ✔ Attract new investment...based on a differentiated element or elements on the economic landscape.
- ✔ Grow new economic elements; added to the existing economic landscape by innovation, entrepreneurship and risk capital.



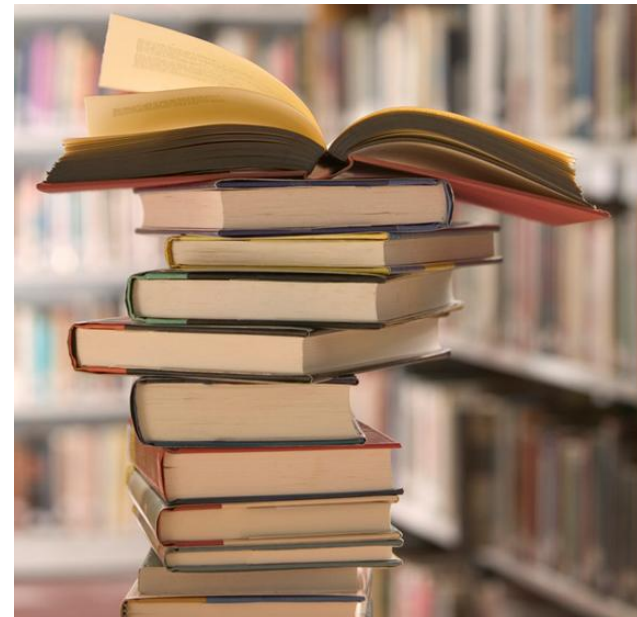
New North's regional energy drivers

📌 Feedstock affinity

- Food production waste
- Woody bio mass legacy
- Municipal waste streams

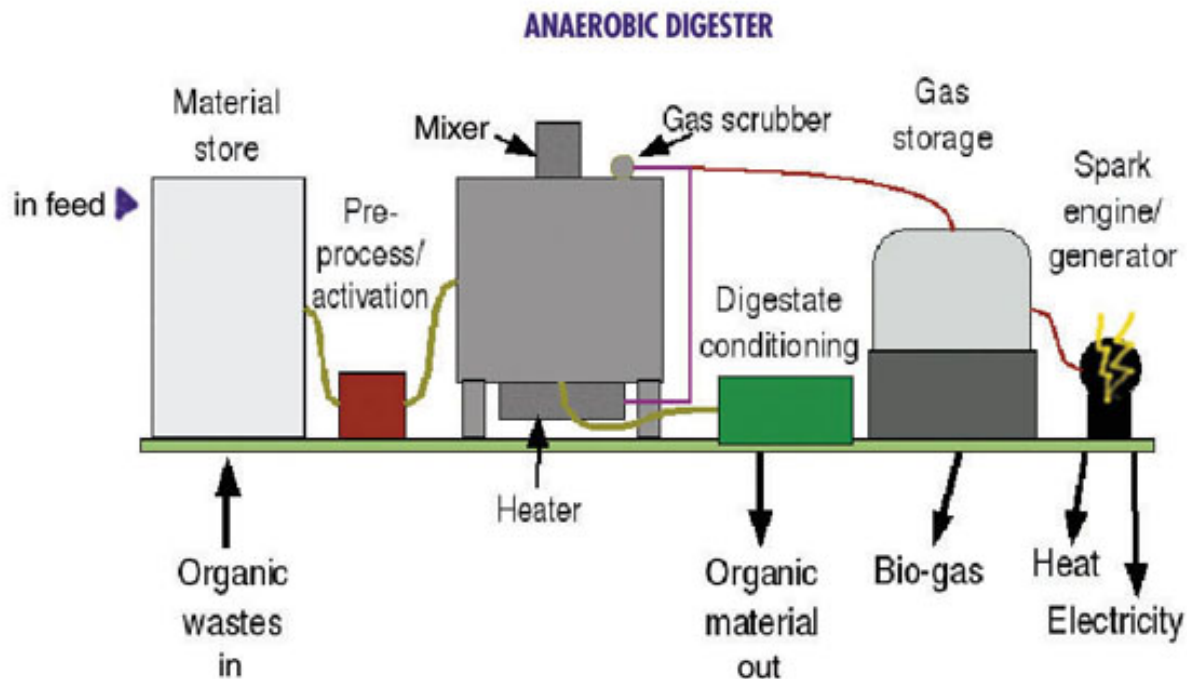
📌 Public policy

- Environmental drivers
- Cost containment drivers
- Self determination objectives



Technology

- ✔ Bio digesters (dairy, food production, dry-waste digestion)
- ✔ Wind turbines (Niagara Escarpment)
- ✔ Private wood-fired boiler systems (paper industry)



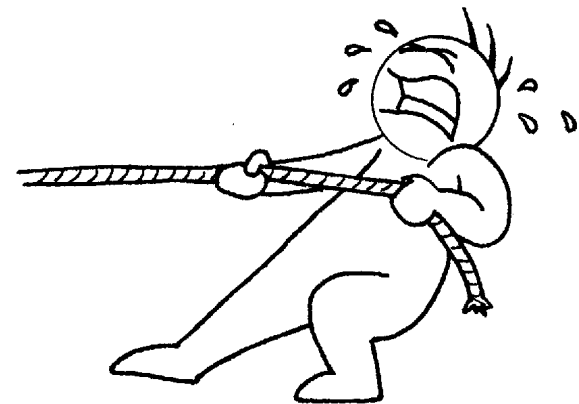
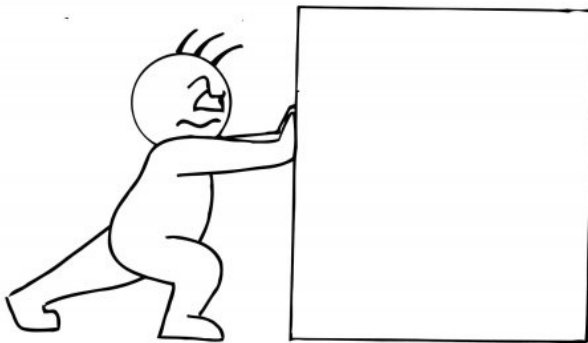
Investment Capital

- ✔ Production tax credits
- ✔ Private – equity
- ✔ Public funding
- ✔ Utility underwriting
- ✔ Others



Market Demand

- ✔ Unstable capital/public policy support over time.
- ✔ The global national and regional economy (energy impacts)
- ✔ Push – pull dynamics
 - Dairy industry and food production
 - 12,100 licensed dairy farms in Wisconsin
 - Pulp/paper and paper aligned industries
 - Over 15,575 pulp/paper related jobs in 2010 New North region



New North's Landscape

- ✔ Feedstock affinity
- ✔ Manufacturing prowess
- ✔ Cluster logic
 - Aggregation
 - Coordination
 - New brand derivatives



Thank you!

New North, Inc. | 1716 Lawrence Dr. | De Pere, WI 54115 | 920-336-3860

www.thenewnorth.com

