



Shaping the Future of Business on Long Island

Solar and Wind Workshop

**Carol E. Murphy, Executive Director
Alliance for Clean Energy New York**

SUNY Stony Brook
Small Business Development Center
May 11, 2011



Alliance for Clean Energy New York, Inc.

- Formed in 2006 as a not-for-profit 501(c) (3) organization. Based in Albany, New York.
- Comprised of over 75 leading clean energy developers, energy efficiency companies, environmental organizations, business groups, academic institutions, and consultants to the energy sector.
- Mission: to promote the use of clean, renewable electricity technologies and energy efficiency in New York State, in order to increase energy diversity and security, boost economic development, improve public health, and reduce air pollution.

NEW YORK'S ENERGY POLICY IS MOVING IN THE RIGHT DIRECTION



New York's Energy Policy

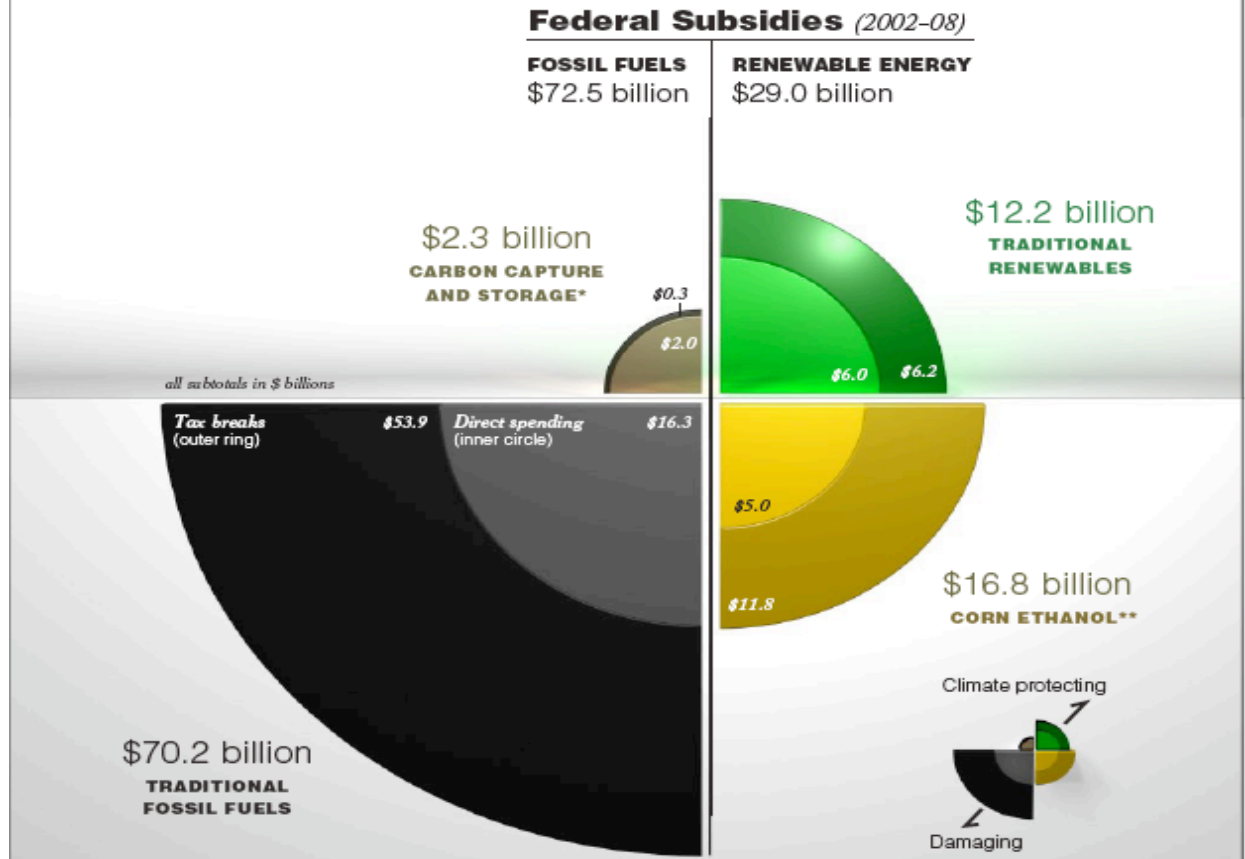


- Renewable Portfolio Standard 30% by 2015
- Governor's Task Force - recommendations on renewables, energy efficiency, green jobs training
- State Energy Plan adopted in 2009
- Regional Greenhouse Gas Initiative (RGGI)
- Climate Action Plan- 80% reduction below 1990 levels of greenhouse gas emissions by 2050
- New York ISO - transmission, integration into grid

Energy Subsidies Black, Not Green

A soon-to-be released study of federal energy subsidies by the Environmental Law Institute, a nonpartisan research and policy organization, shows that the federal government has provided substantially larger subsidies to fossil fuels than to renewables. Subsidies to fossil fuels totaled approximately \$72 billion over the seven-year study period, while subsidies for renewable fuels totaled \$29 billion over the same period. The vast majority of subsidies support energy sources that emit high levels of greenhouse gases when used as fuel. Moreover, just a handful of tax breaks make up the largest portion of subsidies for fossil fuels, with the most significant of these, the Foreign Tax Credit, supporting the overseas production of oil. More than half of the subsidies for renewables are attributable to corn-based ethanol, the use of which, while decreasing American reliance on foreign oil, has generated concern about climate effects. These figures raise the question of whether scarce government funds might be better allocated to move the United States towards a low-carbon economy.

THE TRUTH ABOUT GREEN POWER SUBSIDIES



Notes: *Carbon capture and storage is a developing technology that would allow coal-burning utilities to capture and store their carbon dioxide emissions. Although this technology does not make coal a renewable fuel, if successful it would reduce greenhouse gas emissions compared to coal plants that do not use this technology. **Recognizing that the production and use of corn-based ethanol may generate significant greenhouse gas emissions, the data depict renewable subsidies both with and without ethanol subsidies.
 Sources: Internal Revenue Service, U.S. Department of Energy (Energy Information Administration), Congressional Joint Committee on Taxation, Office of Management and Budget, & U.S. Department of Agriculture, via Environmental Law Institute.

New York's Renewable Portfolio Standard

- *Original RPS Goal – “25% renewable energy by 2013” Governor’s 2009 State of the State Address (45 x 15)*
 - 30% renewable energy by 2015
 - 15% reduction in energy use by 2015
- *Main tier is centralized procurement by NYSERDA with competitive, pay as bid, 10 year contracts for Renewable Energy Credits (RECs)*
- *Bids evaluated on price and economic benefits to NY (70/30)*
- *RPS also includes funding for customer-sited solar, fuel cells, digesters, and solar thermal*
- *Net metering law allows for all customer classes to net meter solar and wind up to 2 MW*
- *Remote net metering passed by Legislature May 9, 2011!*
- *The RPS evaluation shows for every \$1 spent, NY receives \$6 in direct benefits*

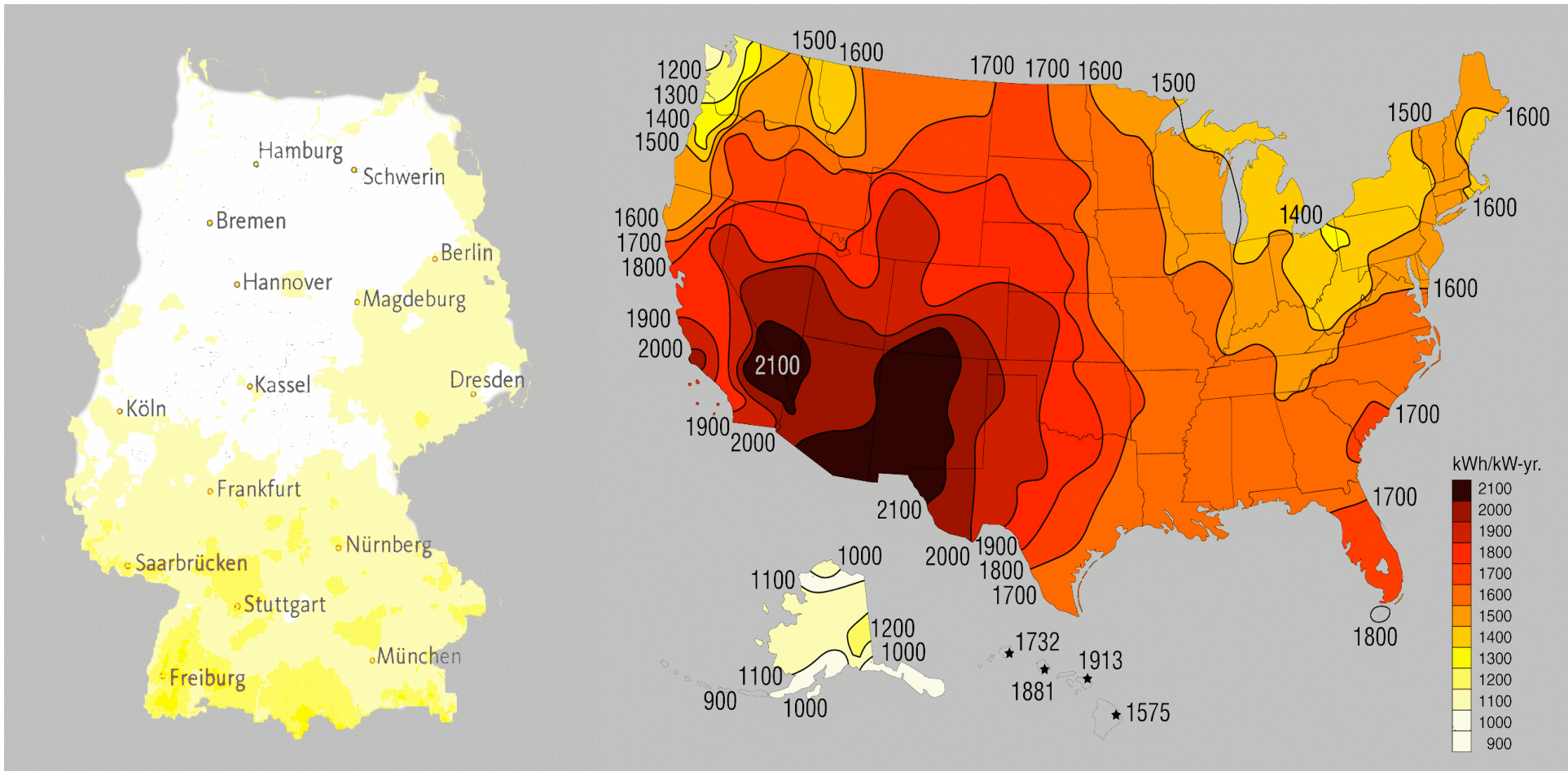
Main Tier Eligible Technologies

- Main tier resources deliver their electricity directly into the grid and the competitive wholesale power market administered by the New York Independent System Operator (NYISO)
- Hydropower, including tidal, kinetic, and ocean
- Wind
- Biomass, including landfill gas, and co-fired biomass

Customer-Sited Tier Technologies

- Smaller “behind the meter” technologies, energy is used on-site by the customer
- Solar Photovoltaics (PV)
- Fuel Cells
- Anaerobic digesters
- Small on-site wind
- Solar thermal - added in 2010

PV Resources in Germany VS United States



Slide courtesy of SunEdison

Non-RPS Solar Initiatives in NYS

- LIPA's successful ongoing solar program
- LIPA's 50 MW RFPs projects under construction
- NYPA's 100 MW solar RFP
 - ✓ *Awaiting awards*
- Legislation - Solar Jobs Development Act
 - ✓ *S4178 (Maziarz)/ A5713 (Englebright)*
 - ✓ *5,000 MW of solar by 2025*
 - ✓ *Obligation on LSEs*
 - ✓ *PPAs*

Offshore Wind Initiatives in NYS

- LI-NYC Offshore Wind Project
 - ✓ *Collaboration of Con Edison, LIPA, NYPA, Port Authority of NY/NJ, NYSERDA, MTA, NYCEDC*
 - ✓ *350-700 MW in Outer Continental Shelf*
 - ✓ *Status: Conducting Feasibility Studies*

- *NYPA Great Lakes Offshore Wind (GLOW)*
 - ✓ *Lake Erie and/or Lake Ontario*
 - ✓ *120-500 MW*
 - ✓ *Developer to be selected early 2011 (environmental/regulatory review will then commence)*

WHY INVEST IN RENEWABLE ENERGY?



Photo courtesy of Invenergy: High Sheldon Wind Farm

Price Stability & Green Jobs

- Known pricing can offer hedge against fuel price volatility risk
- Electricity from renewables is inflation-proof once installed
- Green jobs created in R&D, manufacturing of components, materials, installation, and O&M



Fuel Diversity & Environmental Benefits



- Domestic energy source
- Inexhaustible supply
- Reduces greenhouse gas emissions
- Reduces water consumption

Global Electricity from Renewable Energy

Figure 3. Share of Global Electricity from Renewable Energy, 2008

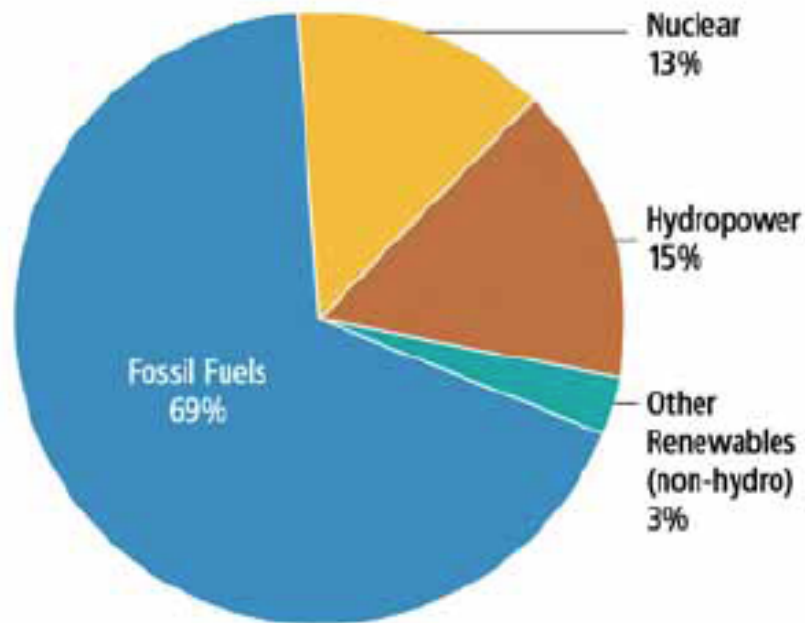
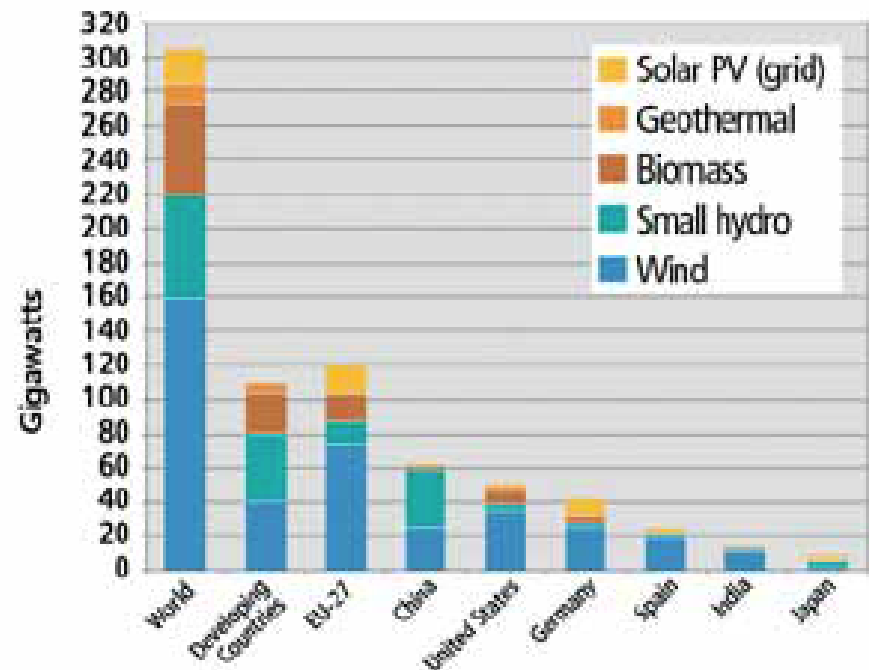


Figure 4. Renewable Power Capacities: Developing World, EU, and Top Six Countries, 2009



Slide from: UN Renewables 2010
 Global Status Report



For More Information Visit:

Alliance for Clean Energy New York

WWW.ACENY.ORG

(518) 432-1405

Fall Conference - Oct. 25-26, 2011

Desmond Hotel, Albany, NY