West Virginia Energy

Energy Snapshots
Counties with Power Plants that Used WV Coal in 2009
West Virginia’s Wind Projects (Operating and Permitting)
West Virginia Energy

Plans, Programs and Legislation
Energy Opportunities Document Goals

• Initial 5 year plan developed in 2007, the year Division of Energy was established by statute.

• Identifies fossil, renewable and energy efficiency resources – quantifies production goals in BTUs for each source.

• Establishes a goal of advancing new energy production equivalent to the BTU content of imported oil used in West Virginia.
Energy Opportunities Document Goals (cont.)

• Each resource/technology (e.g. wind, coal to liquids, residential energy efficiency) has an identified list of action items.

• The next 5 year plan will be developed using the Center of Business and Economic Research at Marshall University and the Bureau of Economic Research at WVU.
2007 Plan
Developments

• Announcement of 1st WV Coal-to-Liquids plant. (EOD long-term goal of 10 plants)

• New 700 MW advanced supercritical coal plant; one of the cleanest in the nation.

• 555 MW of wind energy w/ additional 370 MW permitted and in development.

• $40 million dedicated to improved energy efficiency in state and local government buildings. (ARRA)
2007 Plan Developments Cont.

- Hydroelectric at 327 MW operating, 38 MW under construction, 35 MW licensed and 630 MW preliminary permits.

- 1st landfill gas recovery project in WV.

- Solar Tax Credit of $2000 (solar heating, solar space heating, photovoltaics)

- Marcellus Shale development leading to lower natural gas costs and provide a stable natural gas supply.
2007 Plan
Challenges

• AEP withdraws from US DOE CCS project in Mason County.

• WV Coal production declines by 30 million tons/yr, 18%.

• EPA MACT regulations could increase this decline to 26%.

• 14% of WV’s coal based electric gen. targeted for closure by 2014.
2007 Plan Challenges Cont.

• Surface mining of coal meeting w/ increasingly restrictive regulatory policies.

• Continued resistance of WV Legislature to adopt 2009 IECC.

• Issue of carbon neutrality of wood put a halt to biomass development projects.

• WV electricity rates have increased 50% in 4 years.
• Alternate Transportation Fuels Development
• Building Energy Code Training and Adoption
• Portfolio Manager Services
• Industrial Energy Assessments
• Technical Assistance to Industry
• Online Recycling Markets Database

• Geothermal Development
• Green Collar Job Training
• Promotion of Surface-mined Land Reuse
• E3-WV Services for Manufacturers, Cities and Counties
• Fossil and Renewable Energy Development
Alternative and Renewable Energy Portfolio: 25% of retail electricity sold in West Virginia, by 2025, to originate from alternative and renewable sources.

Alternative Fuel Sources
- (A) Advanced coal technology
- (B) Coal bed methane
- (C) Natural gas
- (D) Coal gasification or liquefaction
- (E) Synthetic gas
- (F) Integrated gasification
- (G) Waste coal
- (H) Tire-derived fuel
- (I) Pumped storage hydroelectric projects
- (J) Recycled energy

Renewable Fuel Sources
- (A) Solar electric energy
- (B) Solar thermal energy
- (C) Wind power
- (D) Run of river hydropower
- (E) Geothermal energy
- (F) Biomass energy
- (G) Biologically derived fuel
- (H) Fuel cell technology
SB 518 provides enhanced direction for WV Division of Energy. It mandates that the division:

• Shall work with the President of the United States and his/her admin. to develop a plan that would allow WV to become the leader in transitioning the US to a new energy future.

• Determines the best way for WV to utilize its resources and any federal funding to develop the technologies that are necessary for such a transition.
Legislation
2010 – SB518 Cont.

• Clearly articulates WV’s position on an energy solution for the US that encompasses clean coal, natural gas, transtech energy technologies and renewable energy technologies.

• Determines the best way for WV to utilize its resources and any federal funding to develop the technologies that are necessary for such a transition.
SB 465, Marcellus Shale Development Act:

- Promotes value-added uses for natural gas including incentives for ethane cracker plant. (ethane to ethylene)

- Provides tax incentive for natural gas and electric vehicles (up to $7,500).

- Provides tax credit for alternative vehicle refueling infrastructure (up to 50% for private use and 62.5% for public use).
Legislation

• Expanded the Strategic Research and Development Tax Credit to include equipment and the cost associated with the design of a new manufacturing process.

• Preferential tax treatment for drilling rigs, cracker plants and natural gas infrastructure.