Policy & Wind Energy
FEDERAL
Production Tax Credit (PTC)

- Production tax credit (PTC) of 2.3 cents/kWh for large wind projects available through 2012
  - Extended through 2013
  - Projects are eligible as long as construction was started in 2012
- Previously, eligibility was determined if a project was producing energy
- The PTC helps to put wind energy on a level playing field with conventional fuels because it lowers the cost to developers, thus to consumers
Federal RES/CES

• With new Congress, proponents of clean energy have broadened Renewable Electricity Standard (RES) to include low carbon sources in a Clean Energy Standard (CES)

• Gasoline prices, EPA regulations, and challenges with natural gas, nuclear, and coal drive interest in acting on renewable energy
RPS and Wind Power Capacity Installations


STATE
Virginia’s Energy Policy

Title 67 - Virginia Commonwealth Energy Policy (67-102) that relates to wind, used to achieve VA’s energy objectives (2011)

1. Support research and development of, and promote the use of, renewable energy sources

2. Ensure that the combination of energy supplies and energy-saving systems are sufficient to support the demands of economic growth

3. Promote the generation of electricity through technologies that do not contribute to greenhouse gases and global warming

4. Promote the use of motor vehicles that utilize alternate fuels and are highly energy efficient
Local governments’ role in achieving policy objectives (67-103):

“In the development of any local ordinance addressing the siting of renewable energy facilities that generate electricity from wind resources, the ordinance shall:

1. Be consistent with the provisions of the energy policy set forth in subsection C;

2. Provide reasonable criteria to be addressed in the siting of a renewable energy facility. The criteria shall provide protection of the locality in a manner consistent with the goals of the Commonwealth to promote generation of energy from wind resources; and

3. Include provisions establishing reasonable requirements upon the siting of any renewable energy facility, including provisions limiting noise, requiring buffer areas and setbacks, and addressing generation facility decommissioning.

Any measures required by the ordinance shall be consistent with the locality’s existing ordinances.”
Renewable Portfolio Standard (RPS)

- RPS or Renewable Energy Standard (RES) are renewable energy production targets for utility companies to meet by a certain date.

- VA’s RPS is voluntary:
  - Virginia enacted a voluntary renewable energy portfolio goal in 2007.
  - 2009 expanded the goal, encouraging investor-owned utilities to participate.
  - 2012: Investor-owned utilities allowed to meet up to 20% of a renewable energy goal through certificated research and development activity expenses related to renewable energy.

- Utilities can recover costs for RPS Programs:
  - Virginia State Corporation Commission (SCC) also offers utilities an increased rate of return (profit) for each “RPS Goal” attained from qualified renewable energy generation facilities approved before January 1, 2013 or offshore wind and nuclear power facilities after July 1, 2013.

Source: http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=VA10R
Virginia’s RPS

• Investor-owned electric utility must report to the SCC annually by November 1st:
  – Efforts to meet the RPS Goals
  – Overall generation of renewable energy
  – Any advances in renewable generation technology

• Fine print: Electricity must be generated in Virginia or in the interconnection region of the regional transmission entity

• Complex schedule for progress by the utilities, but basically Virginia is aiming to get to 12% by 2022
  – Investor-owned incumbent electric utilities can gain approval to participate in the voluntary RPS program from the SCC if the utility demonstrates that it has a reasonable expectation of achieving the 12% target in 2022

Eligible Technologies
Eligible energy resources include solar, wind, geothermal, hydropower*, wave, tidal, and biomass energy:

  – Onshore wind and solar power receive a double credit toward RPS goals
  – Offshore wind receives triple credit toward RPS goals
  – Existing renewable energy generators are eligible for RPS compliance

* Hydropower excludes pumped storage, and the amount of wood derived from trees that would be otherwise used by Virginia lumber and pulp manufacturers is capped at 1.5 million tons annually.

Source: http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=VA10R
Permit By Rule

• 2009 Legislation gave DEQ Authority to develop a Permit By Rule (PBR):
  – “...for the construction and operation of small renewable energy projects, including such conditions and standards necessary to protect the Commonwealth’s natural resources.”
• PBR Regulation finalized December 2010
• Applies to projects up to 100 MW
• DEQ has no authority over siting and decommissioning- left to local government
• The PBR is a streamlined process whereby an applicant must meet certain criteria, submit a proposal with the required ancillary documents, and if the application is complete and adheres to the criteria, the project is authorized under the PBR.
PBR Criteria:
1. Notice of intent
2. Local government certification
   - project complies with land use ordinances
3. Interconnection studies
4. Final interconnection agreement
5. PE certification of generation capacity
6. Analysis of impacts on NAAQS
7. Analysis of impact on natural resources
8. Determination of likely significant adverse impacts; mitigation plan & post construction monitoring
9. PE certification of design
10. Operating plan
11. Site plan
12. Certification re environmental permits
   - applied for or received
13. Public meeting
14. Public comment period

Major Goals of PBR:
• Promote renewable energy:
  - Provide certainty, timeliness, reasonable regulatory requirements
• Protect natural resources:
  - Provide enforceable standards that are protective of wildlife & historic resources at/near project site
Model Ordinances

- Utilized at the local level
- Models for various scales of wind energy
  - Residential
  - Community
  - Utility
- Solar
- Guidelines for wind projects
  - Setbacks
  - Height
  - Sound
  - Visual impacts/Shadow flicker
  - Construction/safety provisions
  - Decommission

Power Purchase Agreements (PPA)

- PPA: Legal contract between a producer of electricity and a buyer(s) of the electricity for a set period of time
- Dominion’s pilot PPA program applies only to Dominion territory
- Provisions:
  - 50MW maximum total installed solar/wind generation over the 2-year span of the program
  - Minimum of 50kW project per customer
    - Excludes homeowners, applies to small business/commercial interests
    - Minimum doesn’t apply for non-profit organizations (churches, schools, local governments, etc.)
  - Maximum of 1MW capacity per project
Benefits of PPA’s

• Power purchase agreements (PPAs) can be beneficial for all parties:
  — Utilities/Developer:
    • Revenues of project may be uncertain; guaranteed consumers for X years can make a project viable
    • Utilities want to be protected from cheaper fuels/imported energy, or varying energy costs (fossil fuels)
  — Consumers:
    • Consumers of large amounts of energy (like Cargill, Miller-Coors, or JMU) can calculate long-term electricity costs-easier for budgeting
    • First served on power produced- more energy security
Minnesota Flip Model

- Alternative business model for ownership of wind projects
- Designed to benefit investors of wind projects and local landowners by partnering to develop wind projects
  - Allows an investor and local landowners/energy consumers to partner in a project, so communication and engagement is essential throughout
  - Partners form an LLC company
    - Security: Local landowners’ personal equity not attached in any way to wind development
    - Developer/investor can take advantage of the production tax credit (PTC) or other government credits
  - After the project developer has recouped the investment, the ownership of the project is transferred to the local landowners (LLC) for the remainder of project’s useful life
  - Can make an otherwise unattractive project viable because both sides are guaranteed benefits
Questions?

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