Wind Policy Update

1. Tax credits

2. State Clean Power Plan approaches

3. Transmission

4. Siting
Production Tax Credit: The Need

Estimated Annual Wind Deployment, 2017-2020, under Different Policy Scenarios

- 2014 Annual Domestic Manufacturing Capacity
  - Nacelles: 9 GW
  - Towers: 7.2 GW
  - Blades: 7 GW
- Average Annual Wind Deployment, 2008-2014: 7.1 GW

Annual Wind Deployment (GW)
- NREL: PTC Lapse Scenario, PTC Stability Scenario
- IHS
- BNEF
- Navigant
PTC Extension White Paper

Policy Basis

1. Policy stability enables deployment and investment that drive further reductions in the cost of wind energy.

2. Wind energy is not yet at cost parity in most regions of the U.S., but the goal is coming into focus.

1. Without policy stability, U.S. wind manufacturing will move overseas, forfeiting cost gains achieved to date.
The Road to Cost-Competitiveness
What is lost if PTC Expires Now

For more information on wind-related manufacturing, see pp. 62-65 and 106-125
Clean Power Plan State Approaches

EIA: Wind is biggest contributor

Carbon reductions in 2013 from current wind turbine fleet, by state

Source: AWEA Clean Air Benefits of Wind Energy white paper, May 2014
Wind reliably provides a significant part of many states’ electricity

For more information on wind energy generation, see pp. 18-19 and 26-28
Wind Generation Records, by Grid Operator

**Bonneville Power Administration**
Record Wind Output: 4,512 MW on 2/22/2013
Percent of Generation: 39.9% on 10/20/2012

**Xcel Energy Colorado**
Record Wind Output: 1,874 MW on 5/24/2013
Percent of Demand: 60.5% on 5/24/2013

**MISO**
Record Wind Output: 10,012 MW on 11/23/2012
Percent of Demand: 25% on 11/23/2012

**CAISO**
Record Wind Output: 4,768 MW on 4/12/2014
Percent of Generation: 17.5% on 4/7/2013

**ERCOT**
Record Wind Output: 10,296 MW on 3/26/2014
Percent of Demand: 39.7% on 3/31/2014

**SPP**
Record Wind Output: 7,202 MW on 3/18/2014
Percent of Demand: 33.4% on 4/6/2013

For more information on generation records, see pp. 82-83
Comparative cost of generating technologies

Siting

**Need for Workable Permitting Regime**

- Sage grouse and bats and eagles, oh my!
- Permitting approaches can overwhelm developers and agency staff

**Currently unworkable issues:**
- Northern Long Eared Bat
- Migratory Bird Treaty Act (MBTA)
- Eagles
- Sage Grouse
Transmission

QER and Wind Vision agree: major need for high voltage inter-state transmission

- Cost allocation: build on and expand Order 1000
  - Take public policy into account
- Siting
  - FERC and DOE backstop expansion
  - 1222 3rd party transmission at DOE