

CESA Webinar Series: Financing to Advance US Offshore Wind

***The Role of States and Public
Support Mechanism in
Supporting OSW Financing***

August 9, 2011

**Webinar Sponsored by
Clean Energy States Alliance
Co-Hosted by U.S. Department of Energy &
US Offshore Wind Collaborative**



Housekeeping

- **All participants will be placed in “listen-only” mode when joining the webinar.** You will be connected to audio using your computer’s microphone and speakers (VoIP). Or you may select *Use Telephone* after joining the Webinar: Make sure to enter your phone Audio PIN, shown in the webinar control panel, if you choose the option to join by telephone.

Toll: +1 (484) 589-1011 Access Code: 556-138-285 Webinar ID: 780-618-448

- You are encouraged to type in questions regarding today’s presentations at any time during the webinar by entering your question in the **Question Box** on the webinar console. Questions will be answered as time allows following all of today’s presentations.
- This webinar is being recorded and will be made available after the call at www.cleanenergystates.org under **Events**. Previous webinar recordings are also posted.

Clean Energy States Alliance

CESA is a non-profit, membership organization working with states, federal agencies, and municipalities to advance the renewable energy sector through:

- Information Exchange & Analysis
- Partnership Development
- Networking and Collaboration

www.cleanenergystates.org



US Offshore Wind Collaborative



The USOWC provides a forum for information sharing, problem-solving, and capacity-building among government, industry, academia, energy and environmental advocates sharing the goal of realizing the great potential for coastal and Great Lakes wind to contribute to regional clean energy production, economic development and climate change mitigation.

www.usowc.org

Webinar Series: Financing to Advance US Offshore Wind

- Objectives:
 - Examine offshore wind financing gaps and possible solutions
 - Advance thinking and recommendations
 - Increase information exchange among states, federal agencies, the industry, and the investment community
- Webinar Series:
 - Kick off Webinar: lay foundation on initiative focus (July 13)
 - Webinar #2: the role of states and public support mechanisms (August 9)
 - Webinar #3: the role of private investors (early September)
 - Webinar #4: identifying innovative solutions (late September)
 - Draft White Paper (October)

Today's Webinar: The Role of States in Advancing Offshore Wind Finance

Objectives:

- Examine the various approaches and tools being used by states to support offshore wind financing and deployment.
- Identify recommendations for government policies, regulatory approaches and public funding programs necessary to drive private investment.

Speakers:

- Overview on Government and Utility Procurement Strategies – **Malcolm Woolf, Maryland Energy Administration**
- The New Jersey Offshore Wind Economic Development Act and OREC program - **Jake Gertsman & Anne Marie McShea, New Jersey Bureau of Public Utilities**
- Use of State-managed Competitive Request Solicitations – **Brian O'Hara, North Carolina Offshore Wind Coalition**
- Lessons from Cape Wind on Procurement Strategies – **Steven Clarke, MA Executive Office of Energy & Environmental Affairs**

Contact Information

www.cleanenergystates.org

www.usowc.org

Mark Sinclair

Phone: 802-223-2554

Email: msinclair@cleanegroup.org

Fara Courtney

Phone: 617-401-3145

Email: fcourt@usowc.org

State Level Financing Solutions for Offshore Wind

Andrew Gohn
Maryland Energy Administration
August 9, 2011

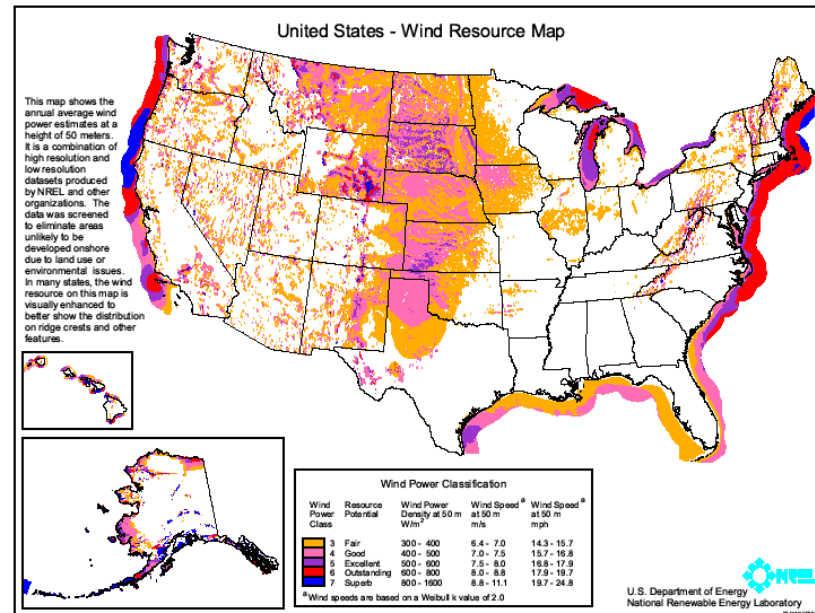


Available Renewable Resource

Many states along the East Coast of the US have aggressive renewables requirements.

Offshore wind is the most abundant renewable resource in the area.

Nowhere else in the region has such an abundant renewable resource in such close proximity to such large population centers and electricity demand. It is the natural place for Coastal states to look to satisfy need for renewables.

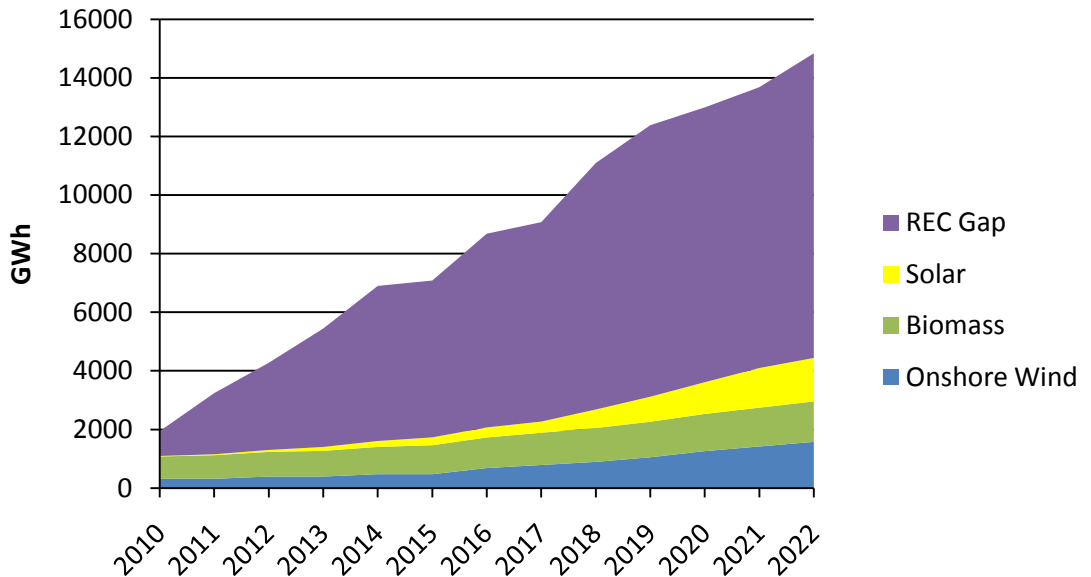


MARYLAND'S RENEWABLE PORTFOLIO STANDARD

Installation of all deployable onshore renewables will only allow us to reach **30% of our 2022 RPS targets**.

RECs can be imported, but at what cost?

Covering the entire shortfall with offshore wind energy may not be possible by 2022. However, an installation of 1 GW of offshore wind power would allow us to reduce our REC gap by 33% in 2022, reducing our vulnerability to imported REC costs.



Climate and Air Pollution Benefits

The East Coast of the U.S. is subject to some of the worst air pollution effects in the nation.

Maryland, with 3,190 miles of tidal shoreline is particularly vulnerable to the effects of rising sea levels associated with global climate change.

Offshore wind energy uses no fuel and in several studies has been identified as the technology with the lowest life-cycle carbon emissions.

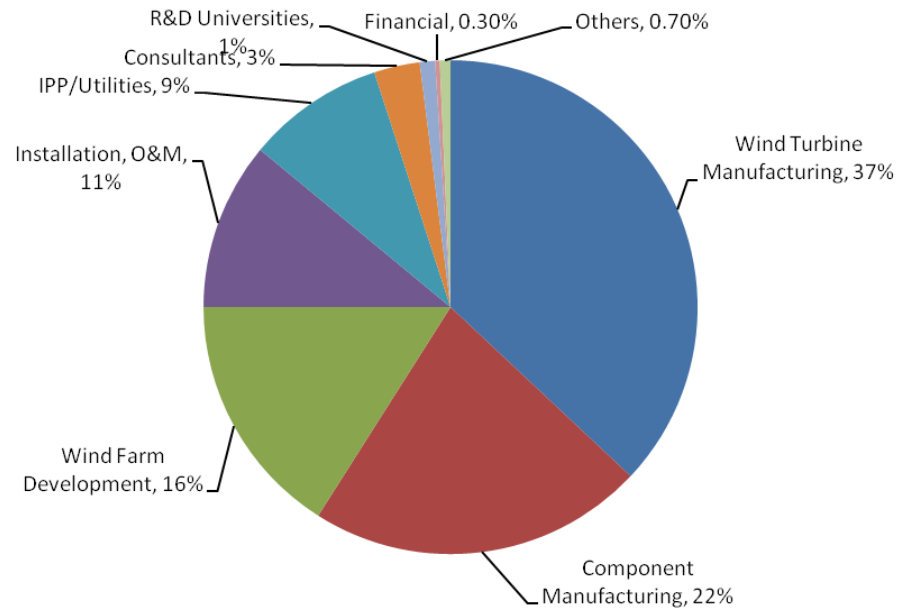
The public health benefits of offshore wind are clear. Several studies have shown that displacement of hazardous air pollution can save lives and prevent asthma, respiratory ailments and other serious health threats.



ECONOMIC DEVELOPMENT OPPORTUNITIES

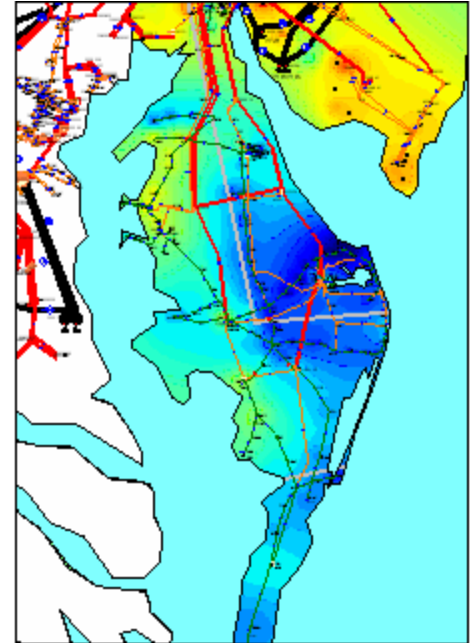
Based on a recent report from DOE, a project of this scope would create between 1,600 and 2,400 manufacturing and construction jobs for 5 years and an additional 320 to 480 ongoing supply and O&M jobs thereafter.

Additional projects, both in Maryland and in the region, would lead to a significant new sustainable industry for Maryland workers



RELIABILITY

- Maryland imports approximately 30% of the electricity we consume every year. This leads to significant transmission congestion and high line losses, which raises rates for Maryland ratepayers.
- A 600 MW project would supply enough electricity to power 95% of all the homes on the Eastern Shore of Maryland or half of Baltimore County.
- In 2008, the last year on record, Maryland imported over 90% of renewable energy required to comply with this policy. Development of an offshore wind project will generate enough clean energy to satisfy between 10 and 15 percent of Maryland's 2022 renewable energy goals.



Structural Barriers to Deployment

- Offshore wind has been successful in Europe and other areas, only as a result of a clear commitment by governments with *sovereignty* over their economies and territory.
- Efforts by U.S. State governments to deploy offshore wind energy pose a unique challenge because they attempt to achieve the same result without this sovereignty.
 - OCSLA restricts State territorial waters to 3 miles. Beyond this, States have very limited authority to permit or control the development of energy resources.
 - CZMA gives States some opportunity to influence development, but also gives this authority to other States in region.
 - Interstate Commerce Clause gives U.S. Congress jurisdiction over the channels and instrumentalities of commerce between the States. Moreover, “dormant” Commerce Clause restricts States’ ability to impede interstate commerce for the purpose of protecting in-state industries or sectors.
- Therefore, States that wish to develop this resource must overcome not only the challenges inherent in the economics and siting challenges of the technology, but must find solutions to these difficult policy issues.

Structural Barriers to Deployment

- EPA Act 2005 creates opportunity for State governments to gain a voice in development of offshore resources by creating intergovernmental State/Federal Offshore Wind Task Forces.
 - However, successful permitting through these Task Forces requires close intergovernmental and interagency coordination.
 - These processes can be time-consuming and burdensome.
 - Federal regulations can make streamlining this process difficult. For example, the Federal Advisory Committee Act makes it difficult for non-governmental stakeholders to participate directly in Task Force processes.

Structural Barriers to Deployment

- “Competitive permitting”
 - BOEMRE permitting process under 2009 Final Rule creates competitive leasing scenario which may preclude achieving lowest price through competitive electricity procurement.
 - Additionally, royalties and rents for use of OCS may be high, leading to de facto federal “tax” on ratepayers of adjacent states who may be ultimate consumers of electricity generated.

Structural Barriers to Deployment

- Commerce Clause jurisprudence on point is unclear. No judicial precedent has been established with regard to States' ability to capture economic benefits associated with State renewables policies.
 - “Economic Benefits” tests are statutory provisions designed to reject renewable energy development proposals which do not provide significant economic development and job creation opportunity to States, while surviving Constitutional scrutiny. However, this approach remains untested in federal court.
 - Identification of a clear non-economic rational basis for requiring a particular energy structure is consistent with existing Commerce Clause precedents. Examples might be:
 - Grid stability
 - Capacity demand in a transmission constrained geographic area.

Financing Challenges

- How to structure offshore wind energy policy?
 - Is the incentive offered market-based or planned?
 - Is policy housed within existing RPS or new initiative?
 - What is financial mechanism for purchase?
- Level of State intervention in market dictates level of State control over projects.
 - State-run project
 - Power Authority PPA
 - PSC mandated PPA
 - Feed-in Tariff
 - OREC
 - PSC incentive PPA

Financing Challenges

- State-run project
 - Offers total control, but incompatible with most State electricity regulatory structures
- Power Authority PPA
 - Effective in creating renewable projects, but has not been tested in offshore wind.
- PSC mandated PPA
 - Effective in Delaware in leading to the nation's first contract for offshore wind.
- Feed-in Tariff
 - Recent cases confirm that FERC has jurisdiction over wholesale power prices and States do not have an ability to set these prices for large projects
- OREC
 - New Jersey model, uses existing RPS structure.
 - Separating “environmental commodity” from energy leaves States without ability to cite non-economic rational basis for requiring specific energy structure. Forces reliance on “economic benefits” test.
- PSC incentive PPA
 - Effective in Massachusetts at creating National Grid contract with Cape Wind.
 - May add utility incentive cost.
- In all policies, individual provision details define effectiveness of policy.

Financing Challenges

- Competition offers mechanism to reduce ratepayer impact, but can be difficult to align with federal permitting, which is also a competitive process.
- Most states have laws requiring that State-led procurement processes be competitive.
 - Therefore, “energy contract” policies such as Commission or Authority-driven PPA’s can be generally thought of as competitive.
 - These have been effective in situations where procurement preceded permitting, and therefore could inject existing contract into BOEMRE “multi-factor” tests or created “fait accompli” market dynamic where other bidders are reluctant to participate.
 - E.g., Delaware, Massachusetts
 - However, selection of State-contract counterparty is not assured in BOEMRE evaluation and counterparty risks not achieving site control.
- Non-competitive processes that offer first-come first-served subsidies get around this, but do not harness market forces to lower prices.

Financing Challenges


- How to price benefits?
 - Externalities of fossil fuels
 - Public Health
 - Levy studies, Harvard SPH
 - UDE studies
 - Cape Wind EIS, Army Corps of Engineers
 - National Research Council – “Hidden Costs of Energy: Unpriced Consequences of Energy Production and Use”
 - Paul Epstein, “Full Cost Accounting for the Life Cycle of Coal”
 - Environmental Degradation
 - NRC
 - Climate Change
 - Fuel diversity
 - RPS fulfillment
 - Price Volatility

Financing Challenges

- How to price benefits?
 - Economic Development
 - Job creation
 - NREL Report -- “. . . offshore wind will create approximately 20.7 direct jobs per annual megawatt in the United States. In addition, approximately 0.8 jobs would be created for every cumulative megawatt of offshore wind in operation.”
 - » US Department of Energy (US DOE). National Renewable Energy Laboratory (NREL). Musial, W., Ram, B. (2010). Large-Scale Offshore Wind Power in the United States: Assessment of Opportunities and Barriers (September 2010. NREL/TP-500-40745)
 - Based on NREL numbers, a 500 MW project off the coast of Maryland would create 2,000 manufacturing and construction jobs for 5 years and an additional 400 ongoing supply and O&M jobs thereafter
 - Carbon Trust Report – UK to add 66,000 jobs by 2020 in offshore wind.
 - Export opportunities
 - Land based wind in US now enjoying 60% domestic content and 2010 exports of wind energy equipment topped \$142 million.
 - » (DOE 2010 Wind Technologies Market Report)

THE MARYLAND OFFSHORE WIND ENERGY ACT OF 2011

- Governor O'Malley introduced the Maryland Offshore Wind Energy Act of 2011 on February 11th.
- After 2 hearings and 6 work-sessions in both the Senate Finance Committee and House Economic Matters Committee, the Chairmen referred the bill to summer study.
- Governor O'Malley is committed to continuing to fight for this energy priority and State agencies will spend the coming months reviewing aspects of the legislation in preparation for the next legislative session.

		HOUSE BILL 1054	
C5			11r0160 CF 11r0159
<hr/>			
By: The Speaker (By Request - Administration) and Delegates Hucker, Barve, Braveboy, Feldman, Burns, Anderson, Barnes, Beidle, Bobo, Bronwell, Cardin, Clippinger, Conway, Frick, Frush, Gilchrist, Glenn, Hubbard, Lafferty, Lee, Luedtke, McIntosh, Mizeur, Morhaim, Nathan-Pulliam, Niemann, Reznik, S. Robinson, Stein, Tarrant, F. Turner, Vaughn, Waldstreicher, and Washington			
Introduced and read first time: February 11, 2011			
Assigned to: Economic Matters			
<hr/>			
A BILL ENTITLED			
1	AN ACT concerning		
2		Maryland Offshore Wind Energy Act	
3	FOR the purpose of requiring the Public Service Commission to order certain electric		
4	companies to enter into certain long-term power purchasing agreements with		
5	certain qualifying offshore wind generators under certain circumstances;		
6	providing that the Commission is responsible for approving certain contracts		
7	under certain circumstances; authorizing the Commission to utilize certain		
8	consultants and experts; requiring the Commission to develop a process to issue		
9	a certain request for proposals and receive responses by certain dates; requiring		
10	the Commission to evaluate, select, and approve certain proposals using certain		
11	criteria by a certain date; prohibiting the Commission from approving certain		
12	proposals under certain circumstances; requiring the Commission to order		
13	certain electric companies to file certain contracts for the Commission's		
14	approval based on certain requirements by a certain date; requiring certain		
15	electric companies to sell certain energy-related products into certain markets;		
16	requiring that certain renewable energy credits or environmental attributes		
17	from a certain contract shall be first offered to certain electricity suppliers or		
18	electric companies for certain purposes; authorizing the Commission to		
19	designate a certain contract administrator for certain purposes; requiring the		
20	Commission to establish a certain nonbypassable charge or other mechanism to		
21	ensure that certain costs or savings related to the purchase of certain energy		
22	and products are shared among electric customers and distribution territories in		
23	a certain manner; requiring a certain charge or mechanism to allow for the		
24	recovery of certain costs of certain electric companies from certain obligations;		
25	limiting the application of a certain charge or mechanism under certain		
26	circumstances; exempting certain energy lines from a certain prohibition on		
<hr/>			
EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW. [Brackets] indicate matter deleted from existing law.			
			

THE MARYLAND OFFSHORE WIND ENERGY ACT OF 2011

- Fundamentally, the bill does 2 things:
 - Empowers the Public Service Commission (PSC) to require utilities to enter into long-term contracts for offshore wind power.
 - Clarifies jurisdictional issues regarding cables coming ashore from offshore wind projects.
- The bill works to create a Power Purchase Agreement (PPA) between an offshore wind developer and Maryland's big 4 utilities – PEPCO, Allegheny Power, BGE and Delmarva Power & Light.
- This PPA would allow an offshore wind developer to get the necessary financing to build the project.

HOUSE BILL 1054

C5 11r0160
CF 11r0159

By: The Speaker (By Request - Administration) and Delegates Hucker, Barve, Braveboy, Feldman, Burns, Anderson, Barnes, Beidle, Bobo, Bronwell, Cardin, Clippinger, Conway, Frick, Frush, Gilchrist, Glenn, Hubbard, Lafferty, Lee, Luedtke, McIntosh, Mizeur, Morhaim, Nathan-Pulliam, Niemann, Reznik, S. Robinson, Stein, Tarrant, F. Turner, Vaughn, Waldstreicher, and Washington

Introduced and read first time: February 11, 2011
Assigned to: Economic Matters


A BILL ENTITLED

1 AN ACT concerning

2 Maryland Offshore Wind Energy Act

3 FOR the purpose of requiring the Public Service Commission to order certain electric
4 companies to enter into certain long-term power purchasing agreements with
5 certain qualifying offshore wind generators under certain circumstances;
6 providing that the Commission is responsible for approving certain contracts
7 under certain circumstances; authorizing the Commission to utilize certain
8 consultants and experts; requiring the Commission to develop a process to issue
9 a certain request for proposals and receive responses by certain dates; requiring
10 the Commission to evaluate, select, and approve certain proposals using certain
11 criteria by a certain date; prohibiting the Commission from approving certain
12 proposals under certain circumstances; requiring the Commission to order
13 certain electric companies to file certain contracts for the Commission's
14 approval based on certain requirements by a certain date; requiring certain
15 electric companies to sell certain energy-related products into certain markets;
16 requiring that certain renewable energy credits or environmental attributes
17 from a certain contract shall be first offered to certain electricity suppliers or
18 electric companies for certain purposes; authorizing the Commission to
19 designate a certain contract administrator for certain purposes; requiring the
20 Commission to establish a certain nonbypassable charge or other mechanism to
21 ensure that certain costs or savings related to the purchase of certain energy
22 and products are shared among electric customers and distribution territories in
23 a certain manner; requiring a certain charge or mechanism to allow for the
24 recovery of certain costs of certain electric companies from certain obligations;
25 limiting the application of a certain charge or mechanism under certain
26 circumstances; exempting certain energy lines from a certain prohibition on

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.
[Brackets] indicate matter deleted from existing law.



THE MARYLAND OFFSHORE WIND ENERGY ACT OF 2011

- How will the PSC select a project?
 - Proposals to PSC must be at least 20 year contracts that meet a price threshold. This price threshold would not be **projected** to impact residential ratepayers any more than \$2.00 in any month of the contract.
 - Proposals are then evaluated on:
 - Lowest cost
 - Price stability
 - Long-term reliability
 - Reductions in transmission congestion
 - Reductions in capacity prices
 - Reductions in locational marginal prices (LMP)
 - Environmental, climate and health benefits
 - Assistance in meeting the state's Renewable Portfolio Standard goals
 - Siting and project feasibility
 - Cost/benefit analysis and positive net benefits to the state
 - Corporate diversity
 - Small business participation
 - Any other criteria PSC deems appropriate

THE MARYLAND OFFSHORE WIND ENERGY ACT OF 2011

- “Summer Study” and Maryland Update:
 - Senate Finance Committee session: August 30th
 - Expected issuance of Call for Information and Nominations – mid-August.
 - Full legislative session begins: January 2012
 - Expected conclusion of competitive leasing process: Early 2012.



For more information, please contact:

Maryland Energy Administration

410-260-7655 or 800-72-ENERGY

www.energy.md.gov

Maryland Energy

ADMINISTRATION

Powering Maryland's Future



The Role of States and Public Support Mechanisms in Supporting Offshore Wind Financing



Jake Gertsman
Legal Specialist
New Jersey Board of Public Utilities

CESA Offshore Wind Webinar
Tuesday, August 9, 2011



New Jersey Board of Public Utilities, Office of Clean Energy





New Jersey Approach

- Existing framework and experience with solar / recs.
- Stakeholder engagement to identify needs, challenges and requirements
- Platform for long term financing & development (vs. single project)
- Regulatory certainty
- Economic development

-
- **NJ ratepayers benefits**



New Jersey Board of Public Utilities, Office of Clean Energy





New Jersey Experience

- 2004 OSW Feasibility Wind Study
- 2004 Blue Ribbon Panel
- 2005 ACUA Coastal Wind Farm
- 2006 Public Opinion Survey
- 2007 RFP for 350 MW OSW Project
- 2008 MET Tower Rebates
- 2008 DEP Baseline Ecological Studies
- 2010 NJ Offshore Wind Economic Development Act
- 2011 NJ BPU Offshore Wind Rules



New Jersey Board of Public Utilities, Office of Clean Energy





NJ Policy & Regulatory Framework

- EDECA: NJ Renewable Portfolio Standards
- REC Based Financing
- NJ Energy Master Plan
- NJ DEP Baseline Ecological Studies
- Met Tower Rebates
- Offshore Wind Economic Development Act
- BPU Rules for OSW applications / ORECs



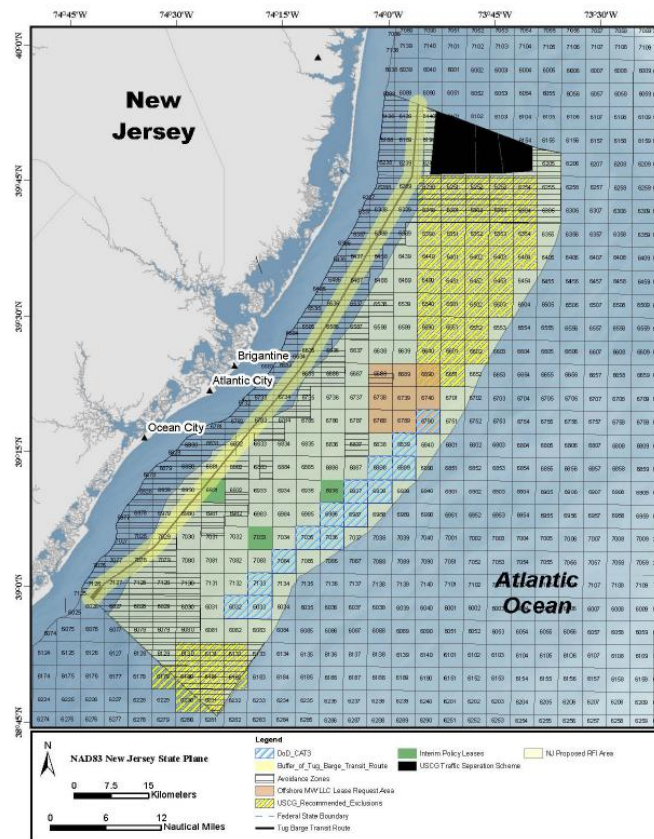
New Jersey Board of Public Utilities, Office of Clean Energy





BOEMRE New Jersey Renewable Energy Task Force

- Area of Interest to meet the goals of 1,100 MW of offshore wind;
- Large enough to attract investment in NJ OSW resources;
- Encourage and maximize competition;
- Identify ecologically or environmentally sensitive areas;
- Identify areas of potential conflict due to competing uses.
- UPDATE: 11 Responses to BOEMRE Call for Information and Nominations released Apr. 2011



DRAFT NJ Area of Interest as of Nov. 2010





Offshore Wind Economic Development Act

- Minimum RPS requirement / offset for OSW
- "Offshore wind renewable energy certificate" or "OREC" Program
- OSW application process for "qualified offshore wind project"
- 180 days review and approval process
- Financial assistance & tax credits for manufacturers



New Jersey Board of Public Utilities, Office of Clean Energy





Statutory Requirements for OSW

- Consistency with New Jersey Energy Master Plan
- Positive economic and environmental net benefits
- OREC based on actual electrical output of the project
- Balances the risks / benefits between ratepayers and developers
- Costs of non-performance borne by developers
- Developer must demonstrate financial integrity and sufficient capital





BPU Rules for OSW Applications

- Consistent with OWEDA
- 180 day application review period once deemed complete
- RFQ released to hire OSW Application Evaluation Team
- Cost-benefit analysis and economic development benefits key to success of application
- BPU Board to announce application window
- Rules set to expire August 2012. Stakeholder process to begin in 2011.

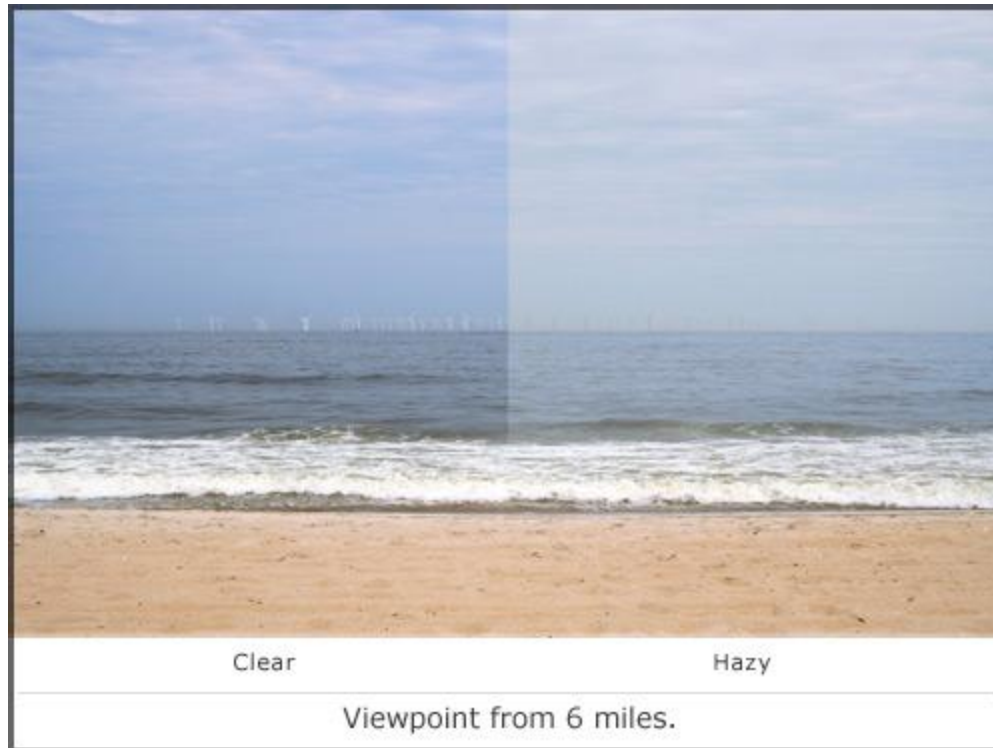




OREC

- Consistent with NJ RPS and market development
- RPS Carve-out to be established for OSW (Class I Renewable Energy resource)
- Fixed price OREC to be set by Board
- NJ Suppliers obligated to procure ORECs based on their share of statewide load
- OREC Funding Mechanism “reserved” in rules to allow for further development
- Stakeholder process for rule making underway





New Jersey Board of Public Utilities, Office of Clean Energy



Offshore Wind Policy in North Carolina

Presented by:

Brian O'Hara, NC Offshore Wind Coalition

DOE, CESA, USOWC Webinar

August 9, 2011





NORTH CAROLINA OFFSHORE WIND

C O A L I T I O N

Our Mission:

To promote a sustainable offshore wind industry that delivers clean, domestic, affordable, and stable-priced energy while creating well-paying jobs.

Who We Are:

- 501(c)(6) non-profit
- Industry, Non-Profits, Regional Economic Developers

What We Do:

- Policy
- Education & Outreach
- Regional Collaboration

<http://www.ncoffshorewind.org>



Questions to answer

1. Why is NC attractive for offshore wind?
2. What are NC's unique policy drivers?
3. What policy has been pursued and why?
4. What happened and what's next?



Thank you to our fellow states

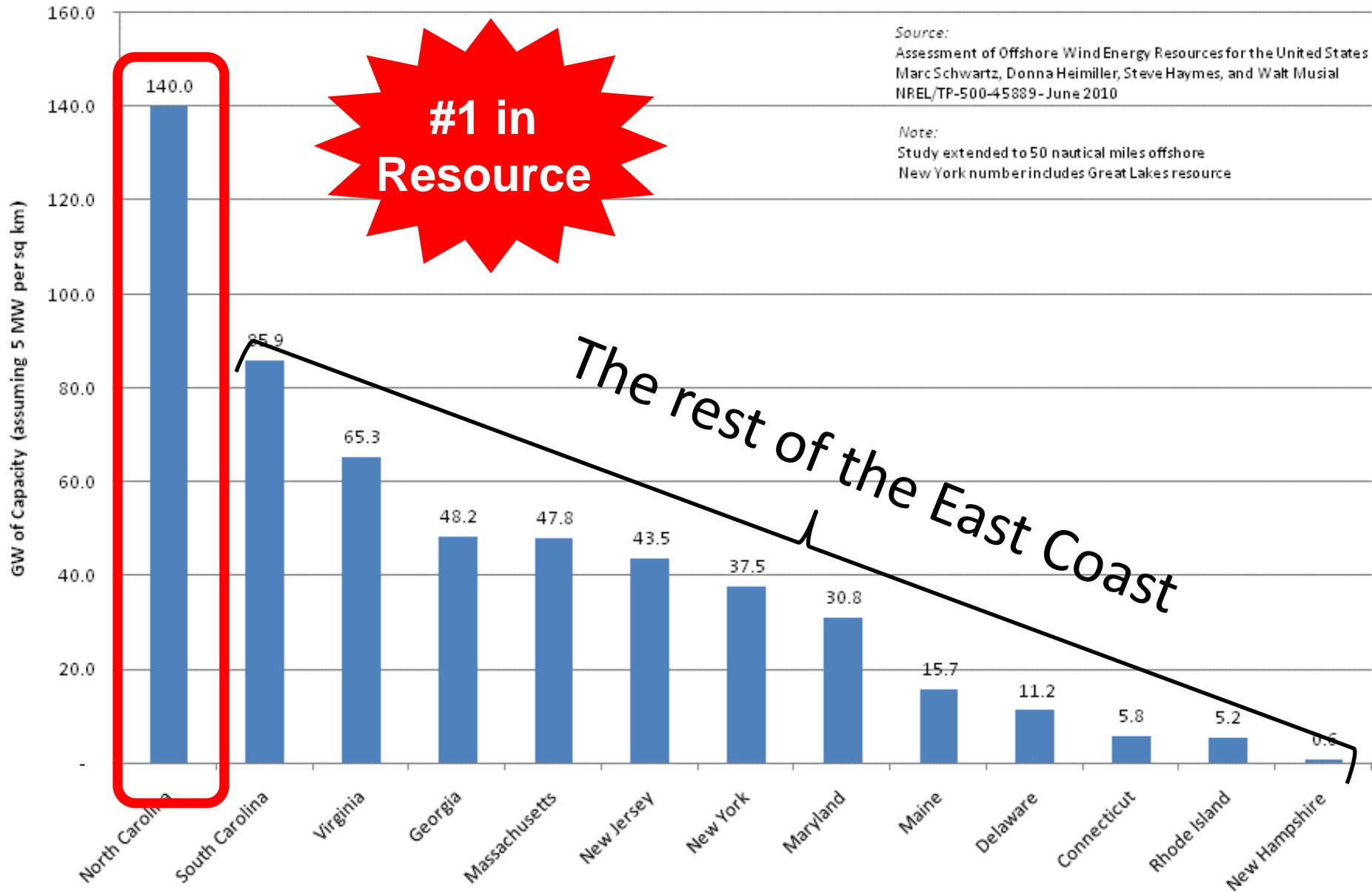


*“By three methods we may learn wisdom:
first, by reflection, which is noblest;
second, by imitation, which is easiest;
and third by experience, which is the bitterest.”*

- Confucius



Offshore Wind Resource (GW) in Water <30m Deep East Coast States



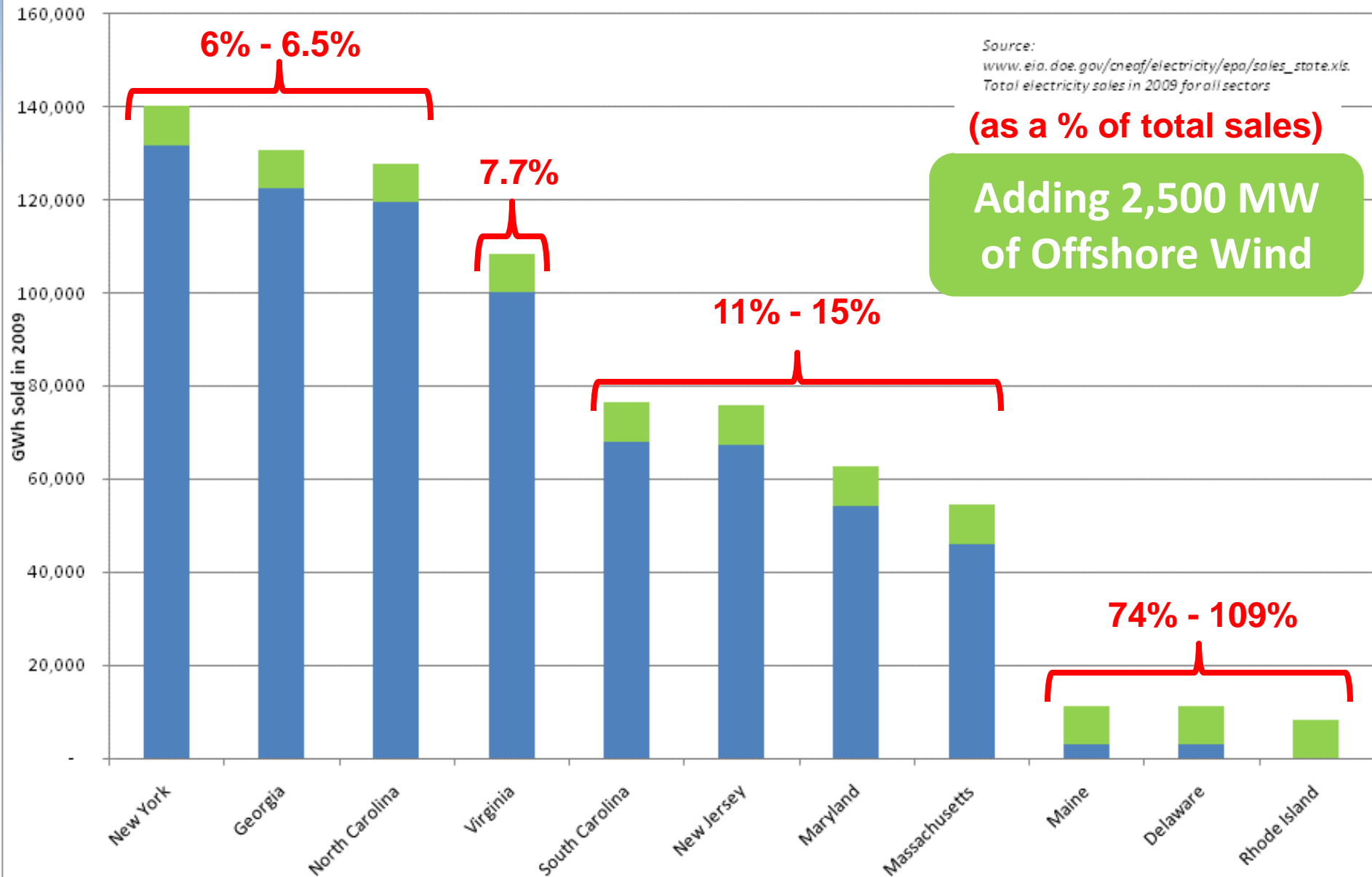
Total 2009 Electricity Sales (GWh)

East Coast States

Source:
www.eia.doe.gov/cneaf/electricity/epo/sales_state.xls
Total electricity sales in 2009 for all sectors

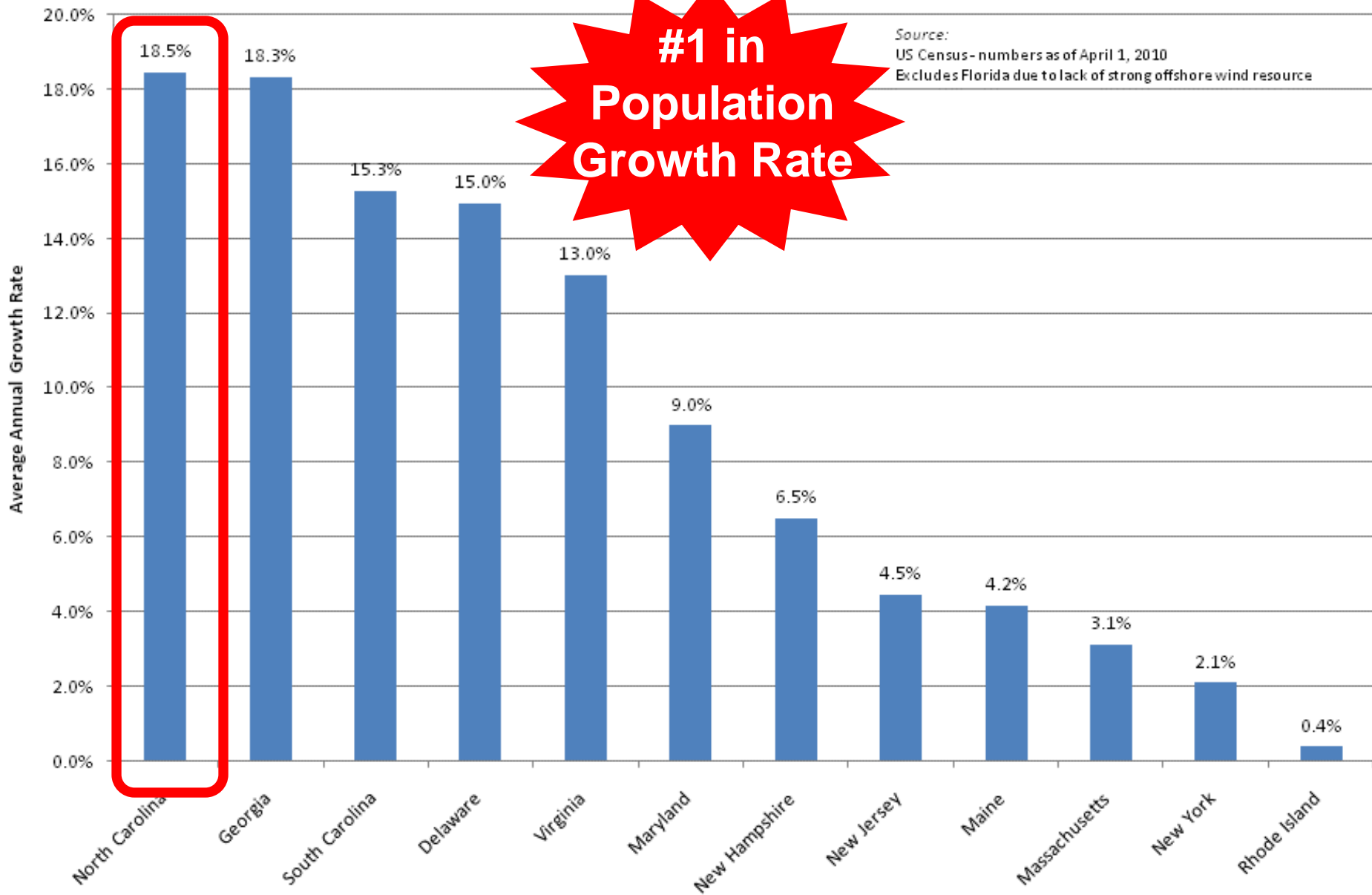
(as a % of total sales)

Adding 2,500 MW
of Offshore Wind



Population Growth Rate - 2000 to 2010

East Coast States

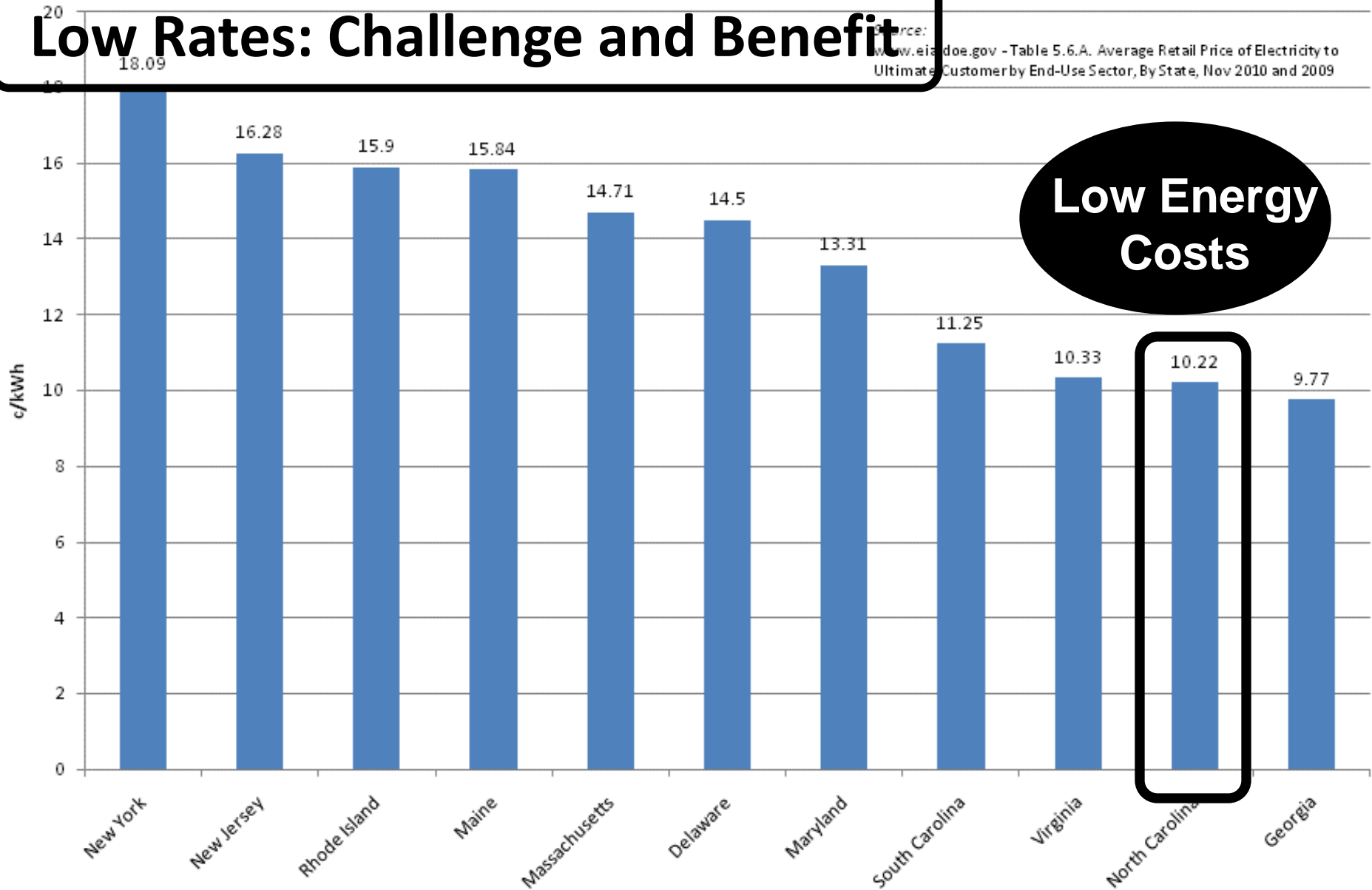


Average Retail Electricity Cost, 2010

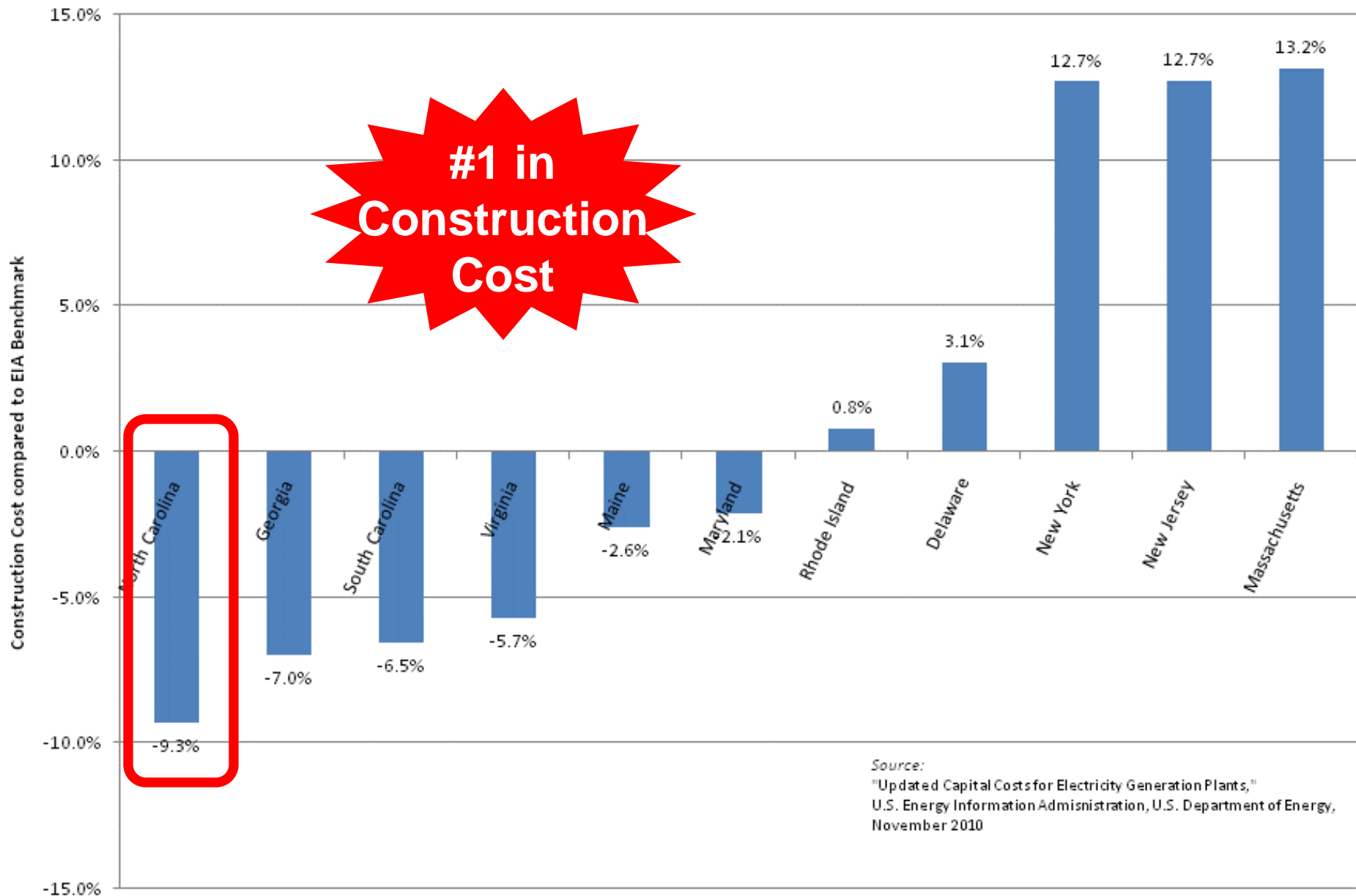
East Coast States

Low Rates: Challenge and Benefit

Source: www.eia.doe.gov - Table 5.6.A. Average Retail Price of Electricity to Ultimate Customer by End-Use Sector, By State, Nov 2010 and 2009



Relative Cost to Construct Offshore Wind East Coast States



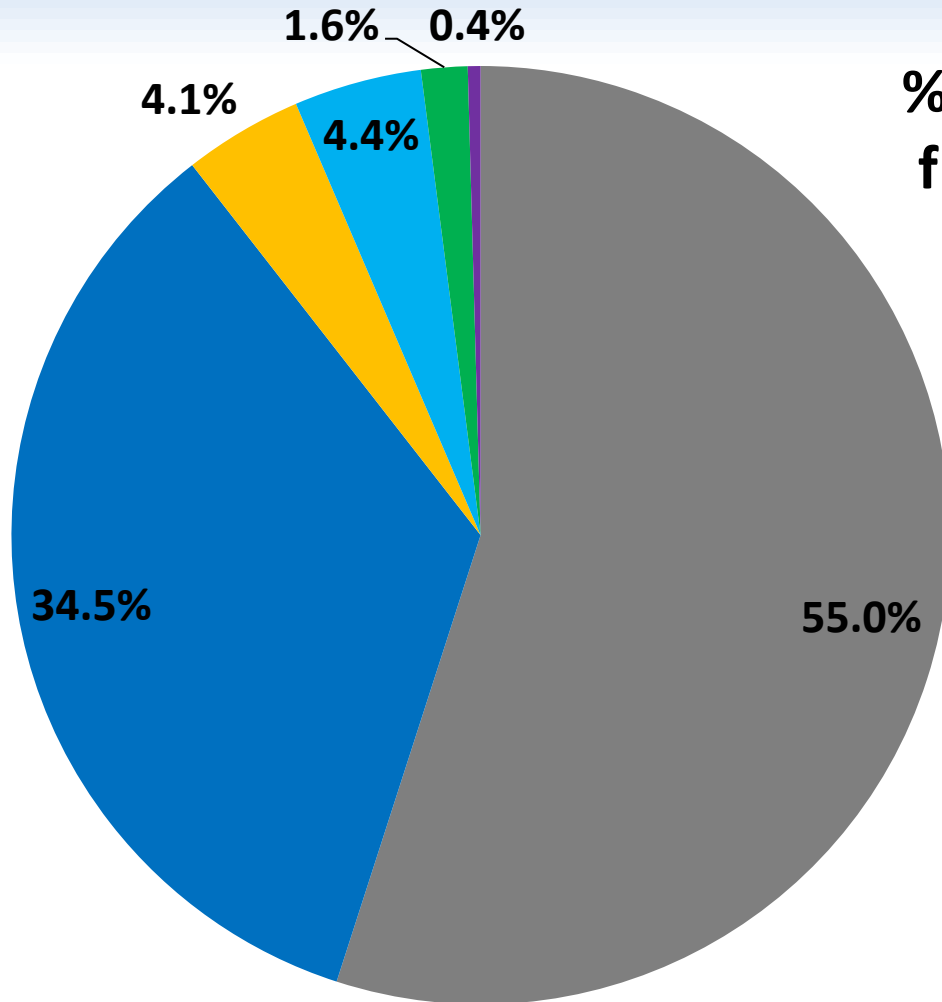
Source:
"Updated Capital Costs for Electricity Generation Plants,"
U.S. Energy Information Administration, U.S. Department of Energy,
November 2010

NC's Policy Considerations

- Regulated electricity market
- “New sheriff” & \$2.5 billion budget shortfall
- Only state in Southeast with REPS
- Poll: 83% of NC voters approve offshore wind
- Driver: Jobs (yes!) Environment (maybe...)
- Duke & Progress merger announced

 +  = ?

2009 NC Electricity By Source



% of fuel imported from out of state? **100%**

- Coal
- Nuclear
- Natural Gas
- Hydroelectric
- Renewables



Policies Considered

- Feed-in-Tarriff
- Carve-out
- Competitive Bid / RFP

Offshore Wind Jobs and Economic Development Act ([S747](#))

introduced in April 2011



What SB 747 Does Not Do

- Passing the bill does not mandate the development or purchase of offshore wind energy.
- Does not use any state budget funds.

“SB 747 lets North Carolina see what the offshore wind industry has to offer at no risk and positions the state to attract offshore wind industry jobs.”



S747 Key Components

- Requires NCUC to issue a competitive RFP for 2,500 MW of offshore wind.
 - First turbines online in 2017 and develop over 7-10 years, creating a predictable “pipeline”.
- Sets a non-binding goal of 5,000 MW by 2030.
- NC Commerce Department conducts “net economic impact” analysis on bids received.
 - Include all quantifiable costs and benefits.



S747 Key Components (cont)

- If net economic impact is
 - **Positive**: require IOUs to enter 20+ yr PPA.
 - **Negative**: no further commitment.
- Participating utilities have option to co-invest / purchase up to 50% of the project(s).
- Policy falls outside the existing NC REPS.
- Extend manufacturing tax credit out to 2020.



What Happened

- Bill got stuck in committee, not passed but not defeated.
 - Duke and Progress opposed
- Governor Perdue issued Executive Order 96, creating the “Offshore Wind Economic Development Task Force.”



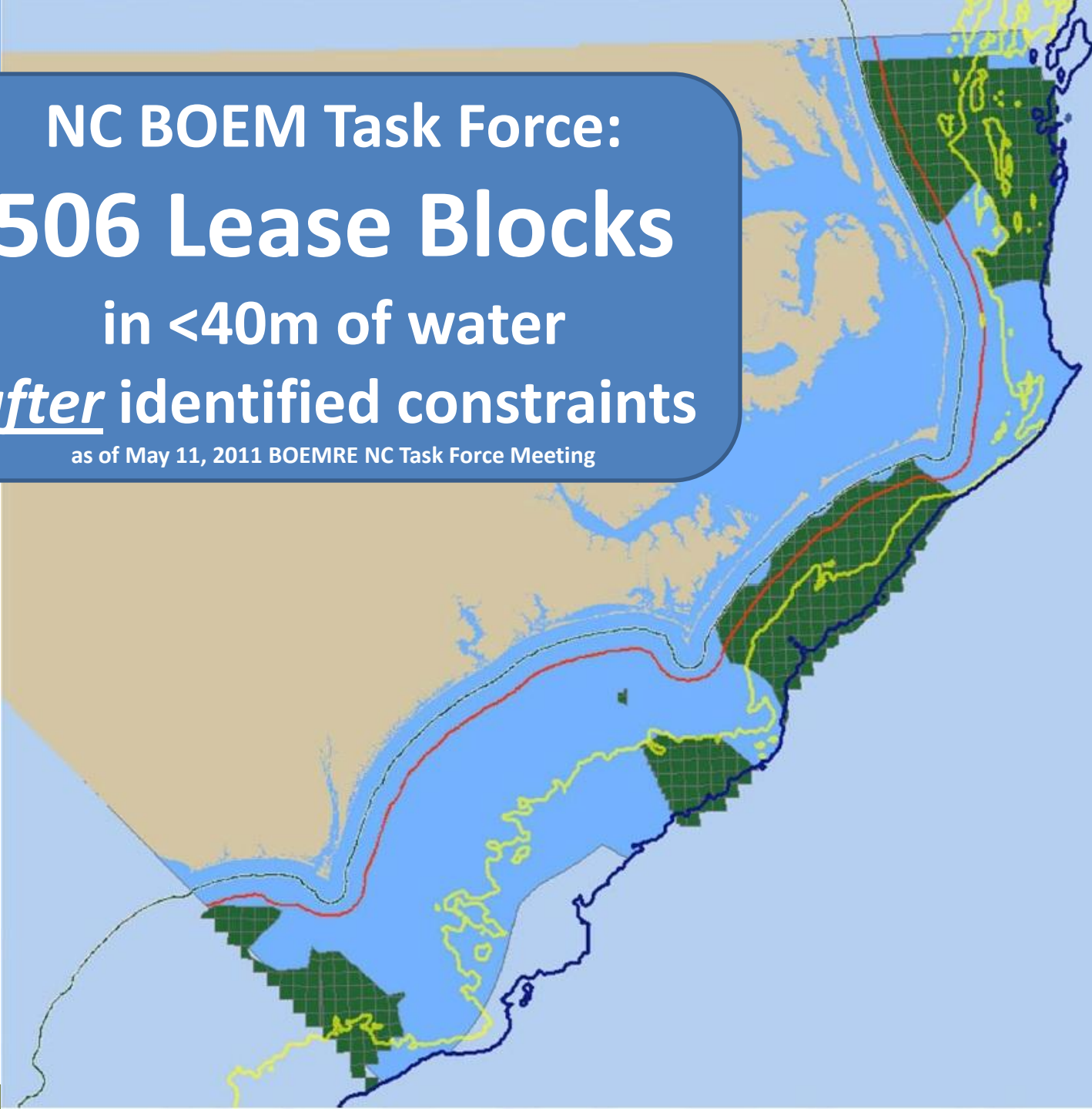
What's Next

- Duke-Progress merger, discussions, etc.
- Numerous studies underway:
 - Economic impact analysis
 - Ports study
 - Supply chain study
 - Transmission requirements
 - Resource assessment
 - Tourism survey/study
- Revisit policy in the 2012 legislative session



NC BOEM Task Force:
506 Lease Blocks
in <40m of water
after identified constraints

as of May 11, 2011 BOEMRE NC Task Force Meeting





NORTH CAROLINA OFFSHORE WIND

C O A L I T I O N

For more information:

Brian O'Hara

briano@ncoffshorewind.org

(252) 506-9463

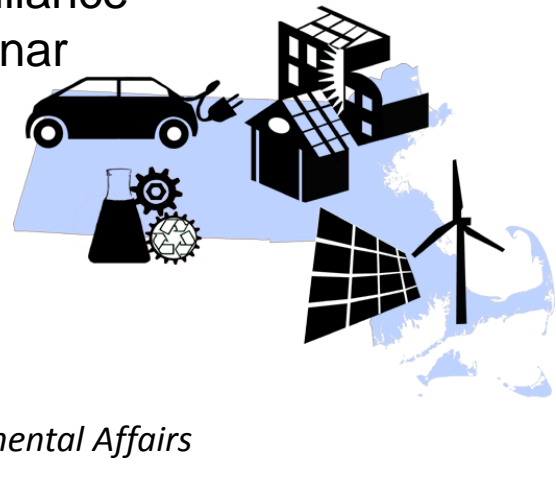


Long Term Contracts and Wind Energy in Massachusetts

Steven Clarke/Jim DeMetro
Massachusetts Executive Office of Energy
& Environmental Affairs

Commonwealth of Massachusetts

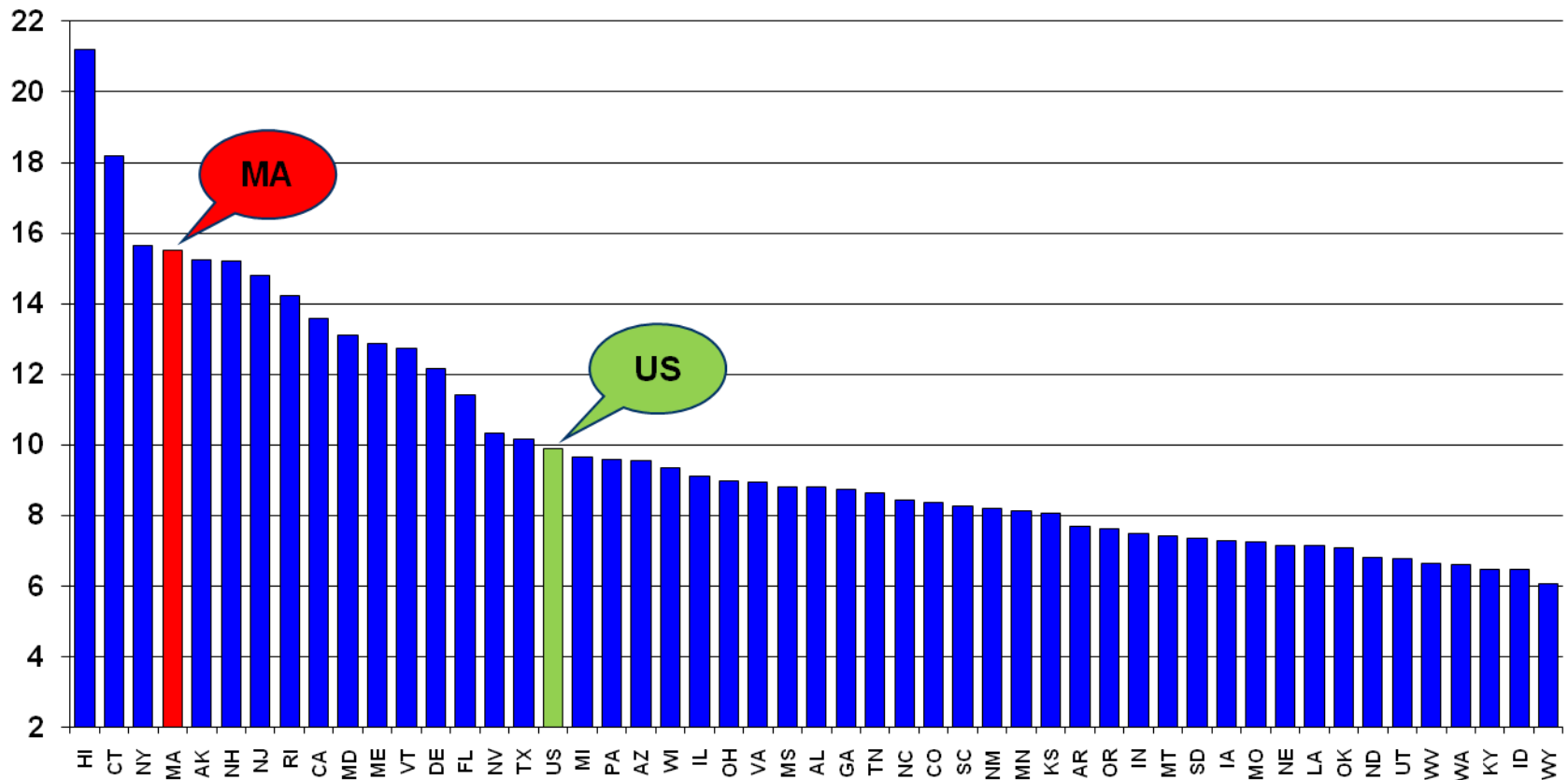
Clean Energy States Alliance
Offshore Wind Webinar
August 9, 2011



Executive Office of Energy and Environmental Affairs

MA has High Electricity Prices

2009 Average Retail Electric Price
(Cents per kWh)



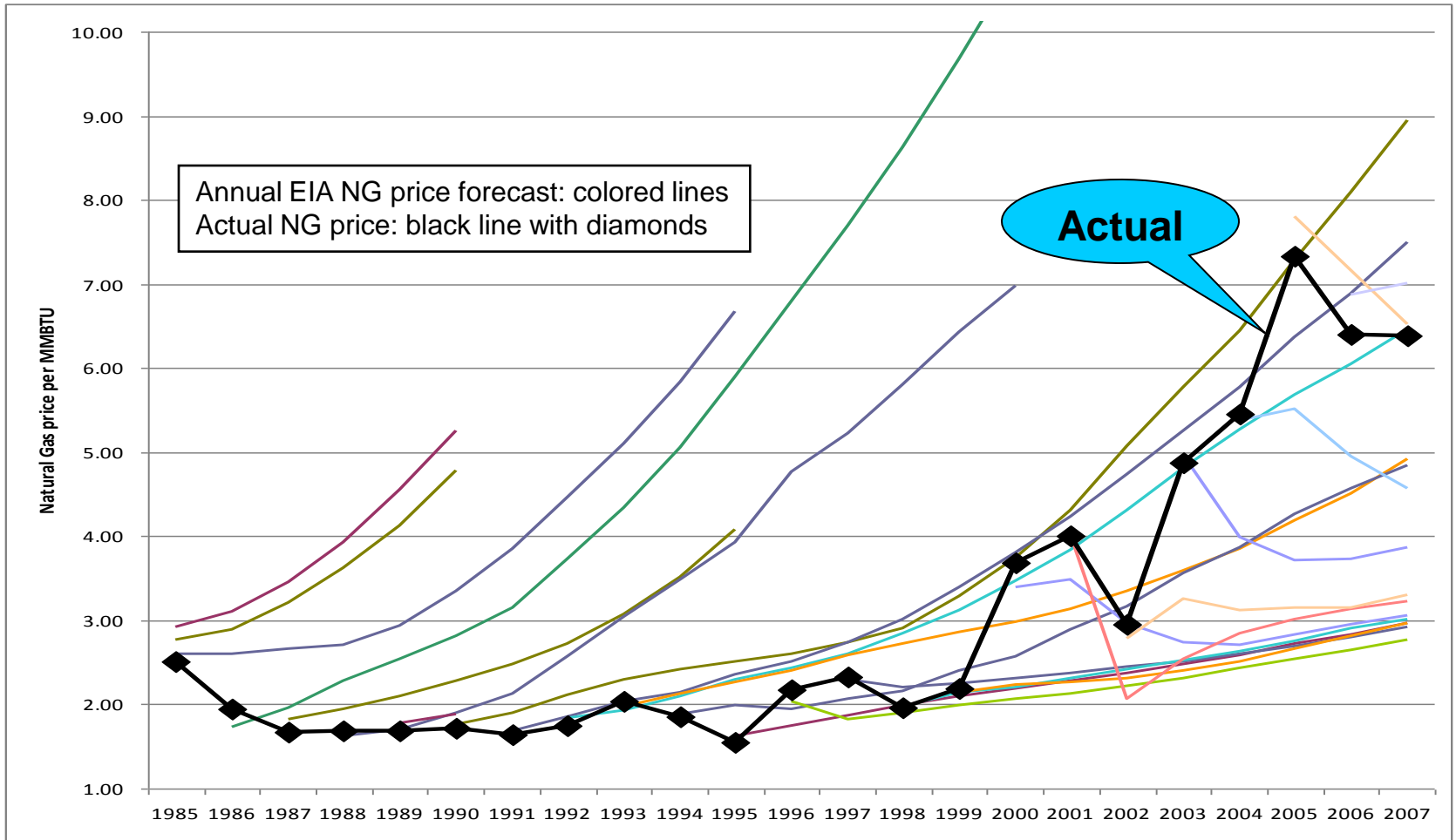
Source: EIA Form 826



Executive Office of Energy and Environmental Affairs



Difficult to Predict Future Energy Prices



MA Clean Energy Legislation 2008

- **Green Communities Act**
 - Expands EE delivery mechanisms and goals
 - RPS – expansion and strengthening targets of 1997 Act
 - Net metering provisions
 - Establishes DOER’s Green Communities Program
 - Requires utilities to issue at least 2 RFPs within 5 years for Long Term Contracts (LTC) for RPS eligible renewables
- **Global Warming Solutions Act**
 - 2020 commitments – 25% below 1990 levels
 - 2050 commitments – 80% or more below 1990 levels
- **Oceans Management Act**
 - Provides zoning-like planning of state waters
 - Identifies presumptive areas for wind development
- **Clean Energy Biofuels Act**
 - Mandate for advanced biofuels
 - Paves way for transition to LCFS

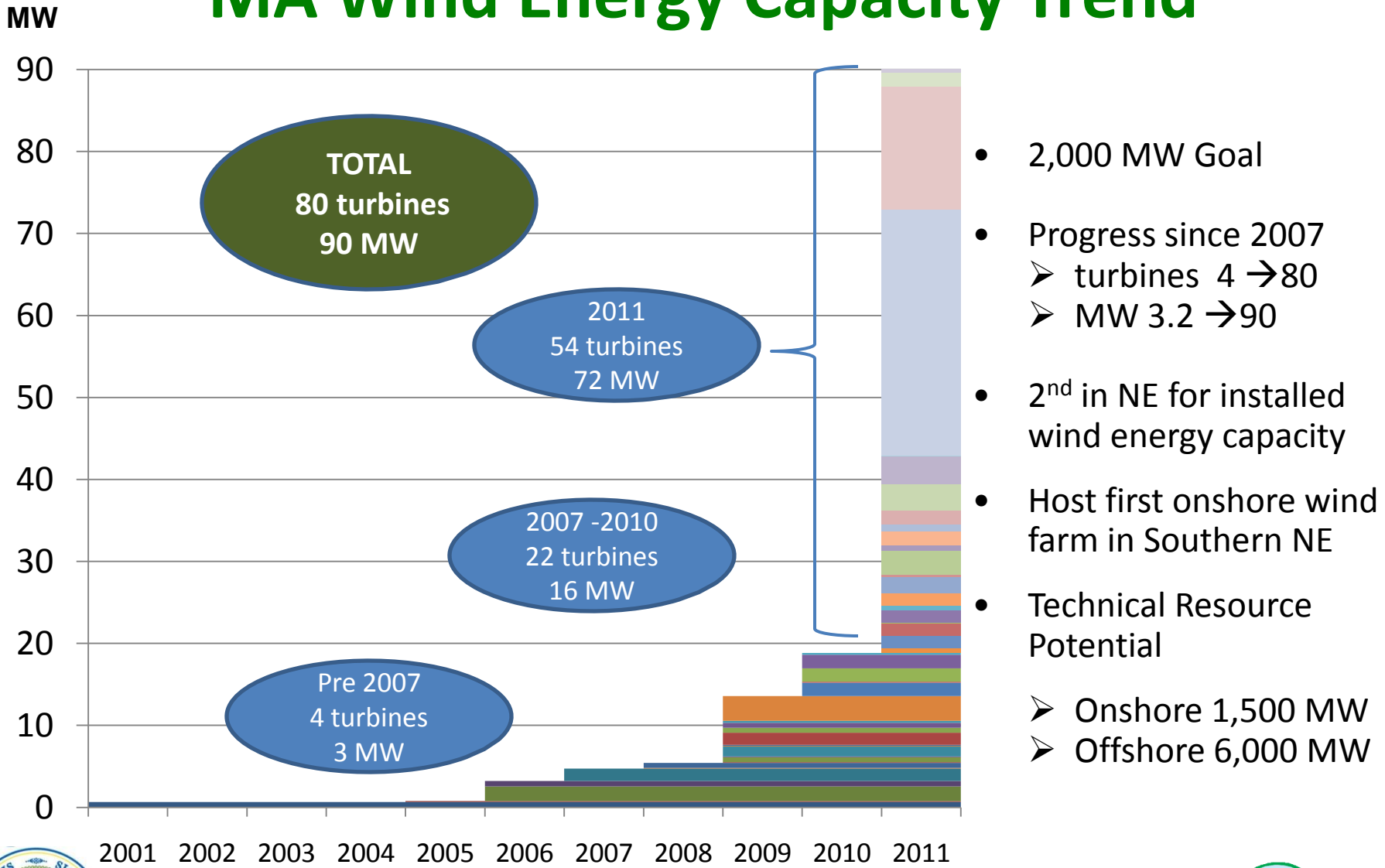


MA Wind Energy Initiatives

- Commonwealth Wind Goals: 2000 MW by 2020
- RPS (Renewable Energy Portfolio Standard)
- Long Term Contracts RFPs
- Wind Energy Siting Reform Act
- Net Metering
- Interconnection
- Technical Assistance
- Public Outreach/Awareness



MA Wind Energy Capacity Trend



MA Wind Energy Cluster

- Building the wind cluster:
 - Wind Technology Test Center
 - Cape Wind
 - Vestas R&D
 - Siemens Offshore
 - MasTank/EEW
 - New Bedford Port
 - FloDesign
 - First Wind
 - American Superconductor
 - Second Wind



New Bedford Marine Commerce Terminal



Mandate for Long Term Contracts

The Green Communities Act mandates electric distribution companies solicit proposals for new renewable energy projects

- **In particular, Section 83 requires:**

- (a) Develop a method and timetable for solicitation and execution of contracts for the Dept of Public Utilities' approval*

- (b) Conduct two approved solicitations in a 5-year period*

- (c) Enter into 10-15 year contracts for 3% of distribution sales, provided reasonable proposals are received*



Long Term Contract RFP Eligibility

Eligible projects must:

- Have a commercial operation date on or after January 1, 2008
- Be RPS qualified
- Be determined by the DPU to:
 - Provide enhanced system reliability
 - Moderate system peak requirements
 - Be cost-effective over the contract term
 - Create additional employment, where feasible
- Be a cost-effective mechanism for procuring renewable energy on a long-term basis.



Long Term Contract RFP Schedule

Electric distribution companies and DOER developed a coordinated statewide solicitation

Event	Date
Issue RFP	September 2, 2010
Bidders Conference	September 16, 2010
Submit Notice of Intent to Bid	September 20, 2010
Deadline for Submission of Questions	September 20, 2010
Due date for Submission of Proposals	October 7, 2010
Selection of Short Listed Bidders	December 21, 2010
Negotiate & Execute Contracts	February 4, 2011
Submit Contracts for MA DPU Approval	March 7, 2011

Website: www.massachusettsrenewableenergyrfp.com



Executive Office of Energy and Environmental Affairs



Three Stage Evaluation Process

Stage One: Threshold Requirements

- Meet mandates of the GCA
- Reasonable schedule with COD by Dec 31, 2015
- Site control
- Technical viability
- Bidder experience



Three Stage Evaluation Process

Stage Two: Price and Non-Price Factors

- 80% price/20% non-price
- Based on common forecast of electricity and REC prices
- Non-price factors assess likelihood of development
 - Siting & Permitting
 - Development status
 - Experience and capabilities of project team
 - Financing



Three Stage Evaluation Process

Stage Three: Final Selection

- Ranking in the second stage evaluation
- Cost-effectiveness of proposals
- Risk associated with project viability
- Extent of additional employment within the Commonwealth
- Diversity of resources by size and type



Disco Evaluation

Process of bid evaluation, selection and negotiation by electric distribution companies is not a coordinated process:

- No coordination among distribution companies or with DOER post receipt of bids
- Evaluations, selection and negotiation done individually without input from DOER
- Distribution companies will file contracts with DPU for approval within 30 days of execution



State Objectives & Roles

Objectives

- A statewide coordinated solicitation process
- A common evaluation methodology
- A Model PPA with commercially reasonable terms and conditions and that would enable projects to be financed

Roles

- Coordinate development of process among four Distribution Companies
- Assist in obtaining DPU approval of process
- Provide oversight of process
- Participate in DPU hearings on executed contracts



Other Regional Initiatives

- Massachusetts
 - Cape Wind, National Grid
- Rhode Island
 - Deepwater, Rhode Island
- Regional RFP
 - New England States Committee On Electricity (NESCOE) RFI



Thank You

Questions or Suggestions?

- Steven.Clarke@state.MA.us
- (617) 626-1049
- james.demetro@state.ma.us

