

Alec Giffen - Panel

# Maine's Wind Power

Briefing for the Maine's Land Use  
Regulation Commission

December 16, 2009

R. Alec Giffen

Department of Conservation

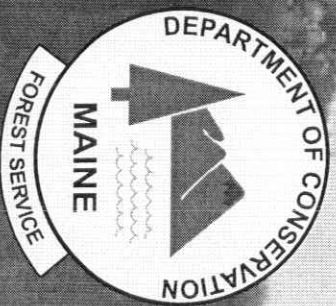
Maine Forest Service

22 State House Station

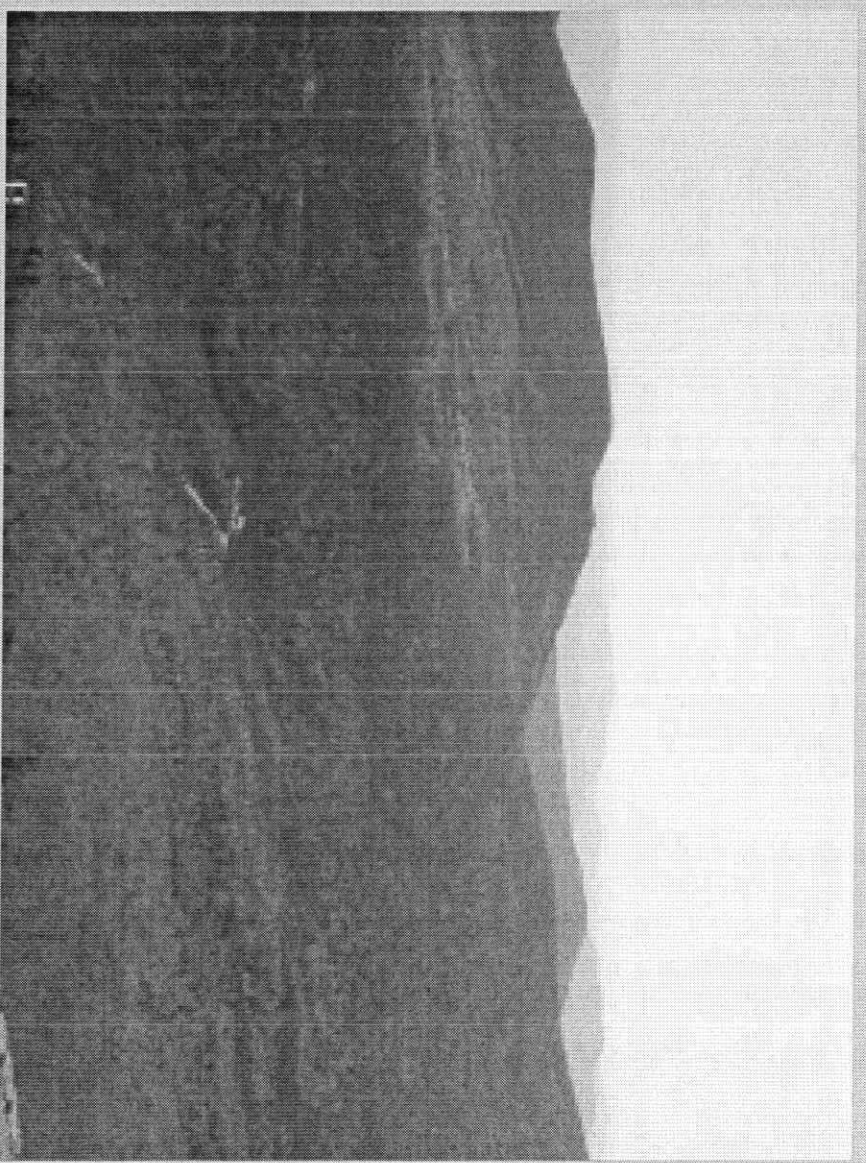
Augusta, Maine 04333

[www.maineforestservice.org](http://www.maineforestservice.org)

*We help you make informed decisions about Maine's forests*



**From the  
proposal in  
2006 until the  
decision in  
March 2008,  
“Redington”  
Project  
generated  
controversy**

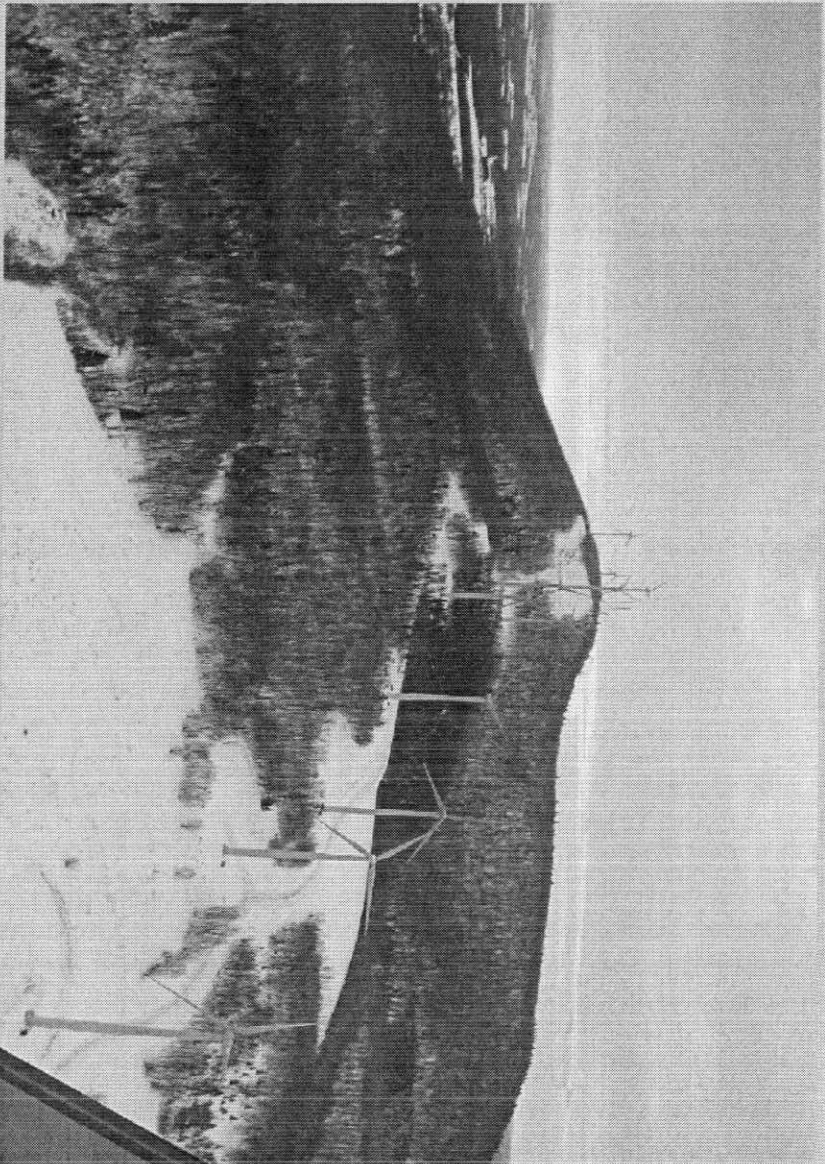


# **In May 2007, Governor formed the Wind Power Task Force:**

- R. Alec Giffen (Chair), Director, Maine Forest Service
- Senator Phillip Bartlett
- Juliet Browne, Verrill Dana LLP
- Pete Didisheim, Director of Advocacy, Natural Resources Council of Maine
- Judith A. Dorsey, Retired Lawyer
- Representative Stacey Fitts
- Senator Walter Gooley
- Jody Jones, Wildlife Ecologist, Maine Audubon Society
- John Kerry, Director, Governor's Office of Energy Independence & Security
- Kathleen Leyden, Coastal Program Manager, State Planning Office
- David Littell, Commissioner, Dept. of Environmental Protection
- Representative W. Bruce MacDonald
- Milton McBreairty, Business Manager, IBEW Local Union 567
- Patrick McGowan, Commissioner, Dept. of Conservation
- Dave Publicover, Appalachian Mountain Club (alternate member)
- Steve Timpano, Environmental Coordinator, Dept. of Inland Fisheries & Wildlife
- David Wilby, Executive Director, Independent Energy Producers of Maine

# The Mars Hill Project

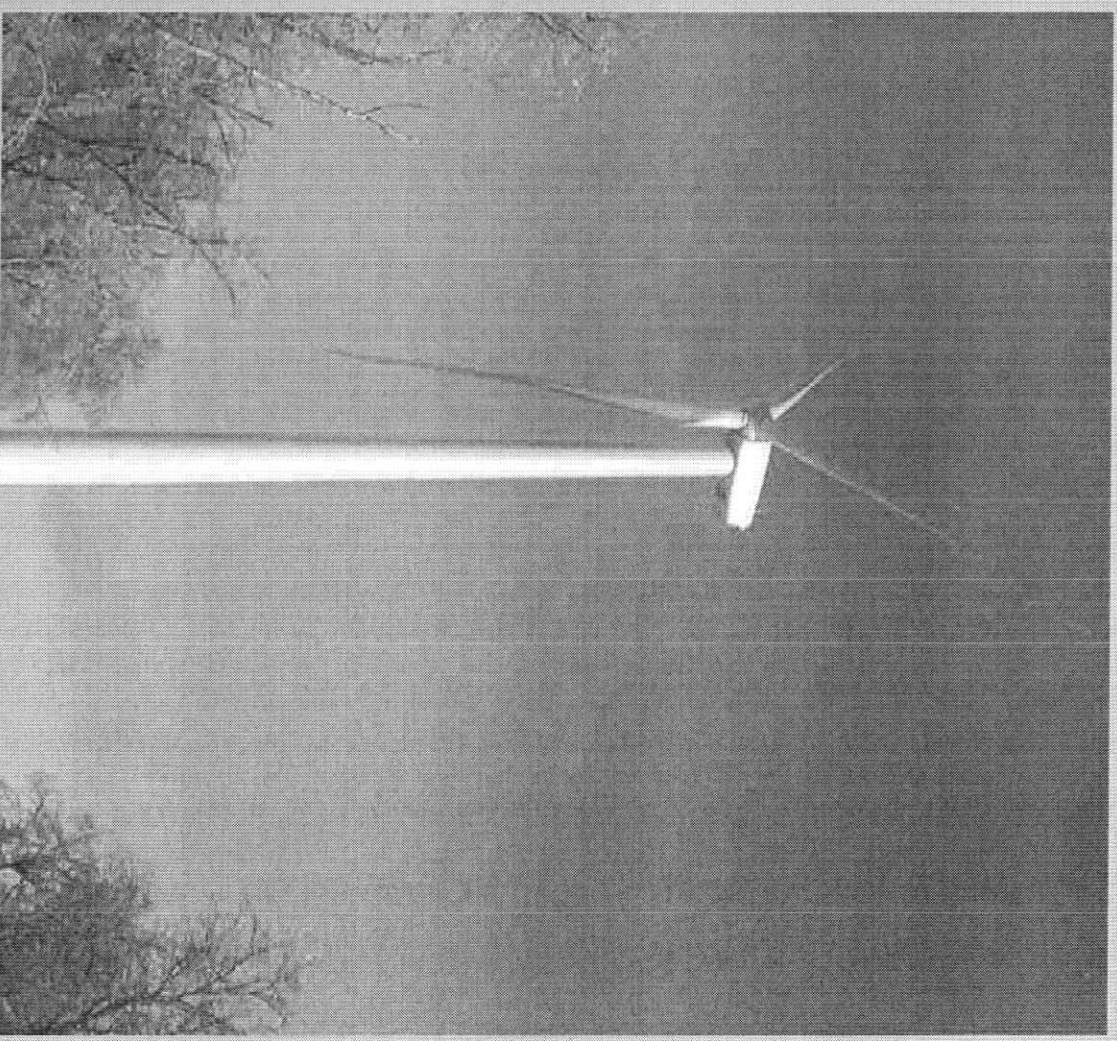
- 33 turbines
- 49.5 or 50 MW of capacity



# **Governor asked this Task Force to develop recommendations that would:**

- Make Maine a leader in wind power development;**
- Protect Maine’s quality of place and natural resources; and**
- Maximize the tangible benefits Maine people receive from wind power development.**

**The Task Force  
fulfilled its  
charge with  
unanimous  
agreement, and  
reported to the  
Governor in  
February 2008**



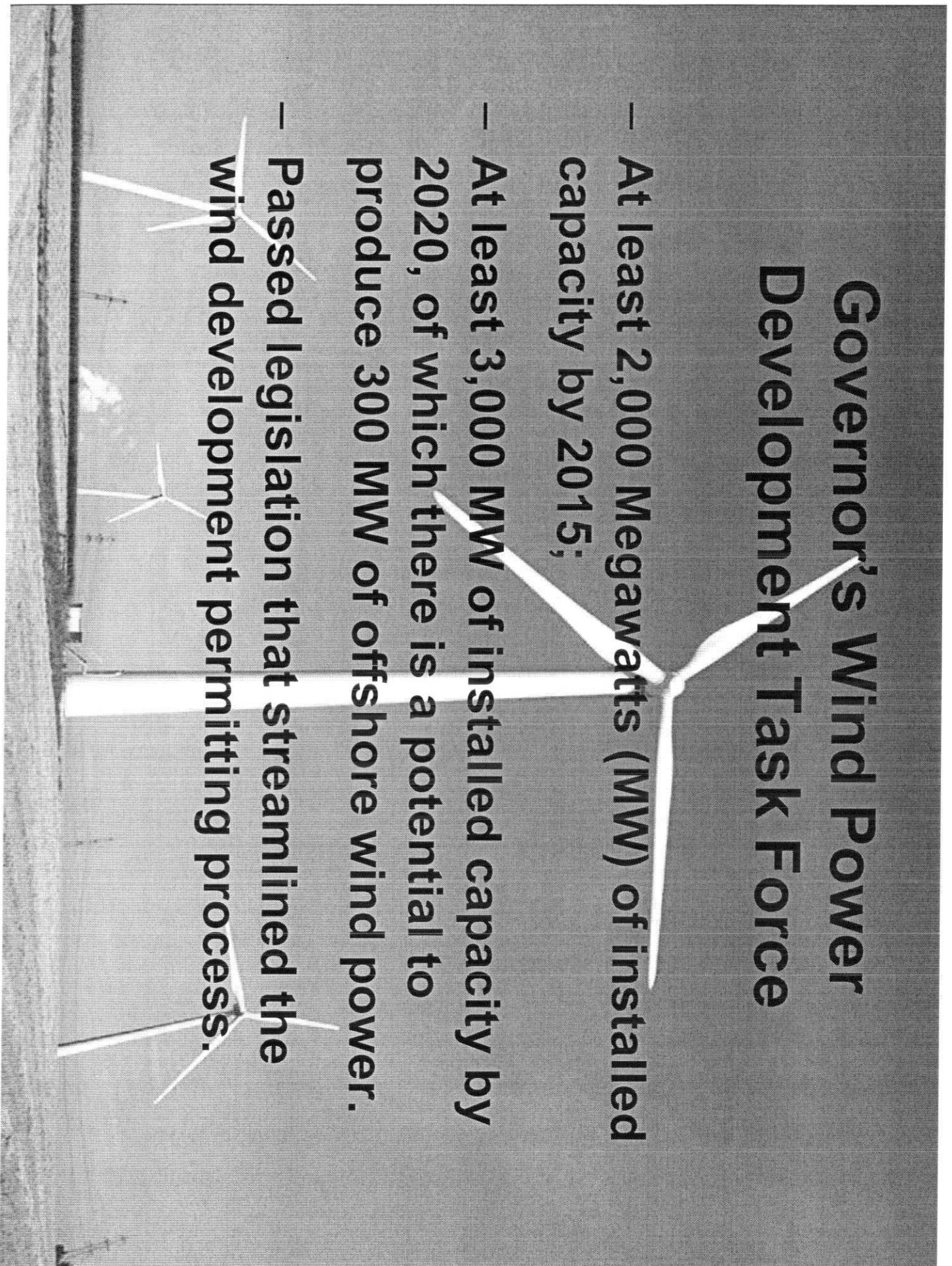
## **The report calls for:**

- Establishing aggressive goals for wind power development – goals which will:
  - Make Maine a global leader in renewable energy, and
  - Enable Maine to produce its annual energy needs from renewables
- Addressing the most difficult issues confronted by wind power
- Identifying the area of Maine where Task Force believes wind power permitting should be expedited

Continued

# Governor's Wind Power Development Task Force

- At least 2,000 Megawatts (MW) of installed capacity by 2015;
- At least 3,000 MW of installed capacity by 2020, of which there is a potential to produce 300 MW of offshore wind power.
- Passed legislation that streamlined the wind development permitting process.

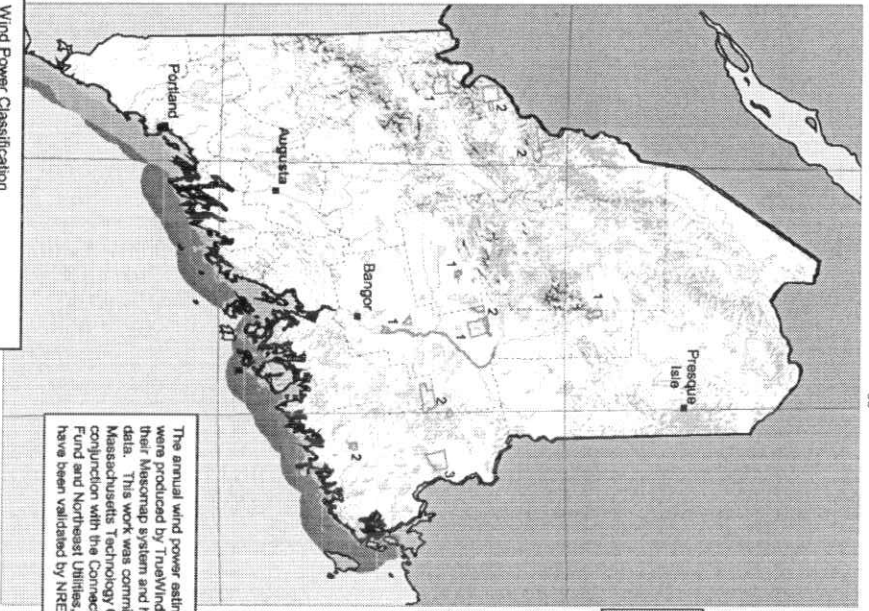




## The report:

- Identifies specific measures to expedite wind power permitting with standards appropriate for wind power
- Identifies measures to protect scenic resources of state or national significance
- Calls on wind power developers to show what their projects are doing for Maine communities and people
- Articulates a plan for capturing Maine's offshore wind potential
- Identifies specific measures to encourage community and small scale wind

# Maine - 50 m Wind Power



Indian Reservation  
 1 Penobscot  
 2 Passamaquoddy  
 3 Indian Township

The annual wind power estimates for this map were produced by TrueWind Solutions using their Mesomap system and historical weather data. This work was commissioned by the Massachusetts Technology Collaborative, in conjunction with the Connecticut Clean Energy Fund and Northeast Utilities, and the results have been validated by NREL.

Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m <sup>2</sup>	Wind Speed at 50 m m/s	Wind Speed at 50 m mph
1	Poor	0 - 200	0.0 - 5.6	0.0 - 12.5
2	Marginal	200 - 300	5.6 - 6.4	12.5 - 14.3
3	Fair	300 - 400	6.4 - 7.0	14.3 - 15.7
4	Good	400 - 500	7.0 - 7.5	15.7 - 16.8
5	Excellent	500 - 600	7.5 - 8.0	16.8 - 17.9
6	Outstanding	600 - 800	8.0 - 8.8	17.9 - 19.7
7	Superb	> 800	> 8.8	> 19.7

Wind speeds are based on a Weibull k value of 2.0

U.S. Department of Energy  
 National Renewable Energy Laboratory

06-FEB-2007 1.1.4

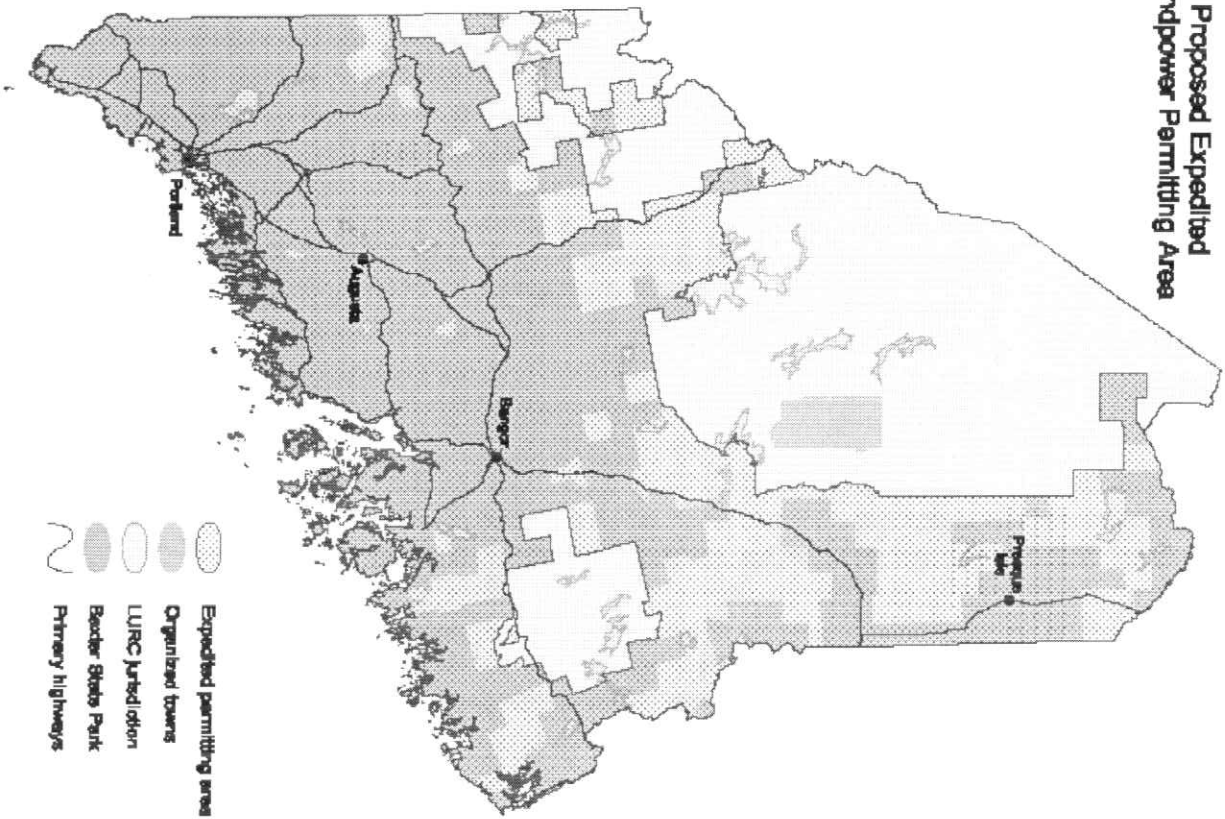
**The Legislation closely tracking the report was adopted by Maine Legislators and signed into law, April 18, 2008:**



# The Legislation:

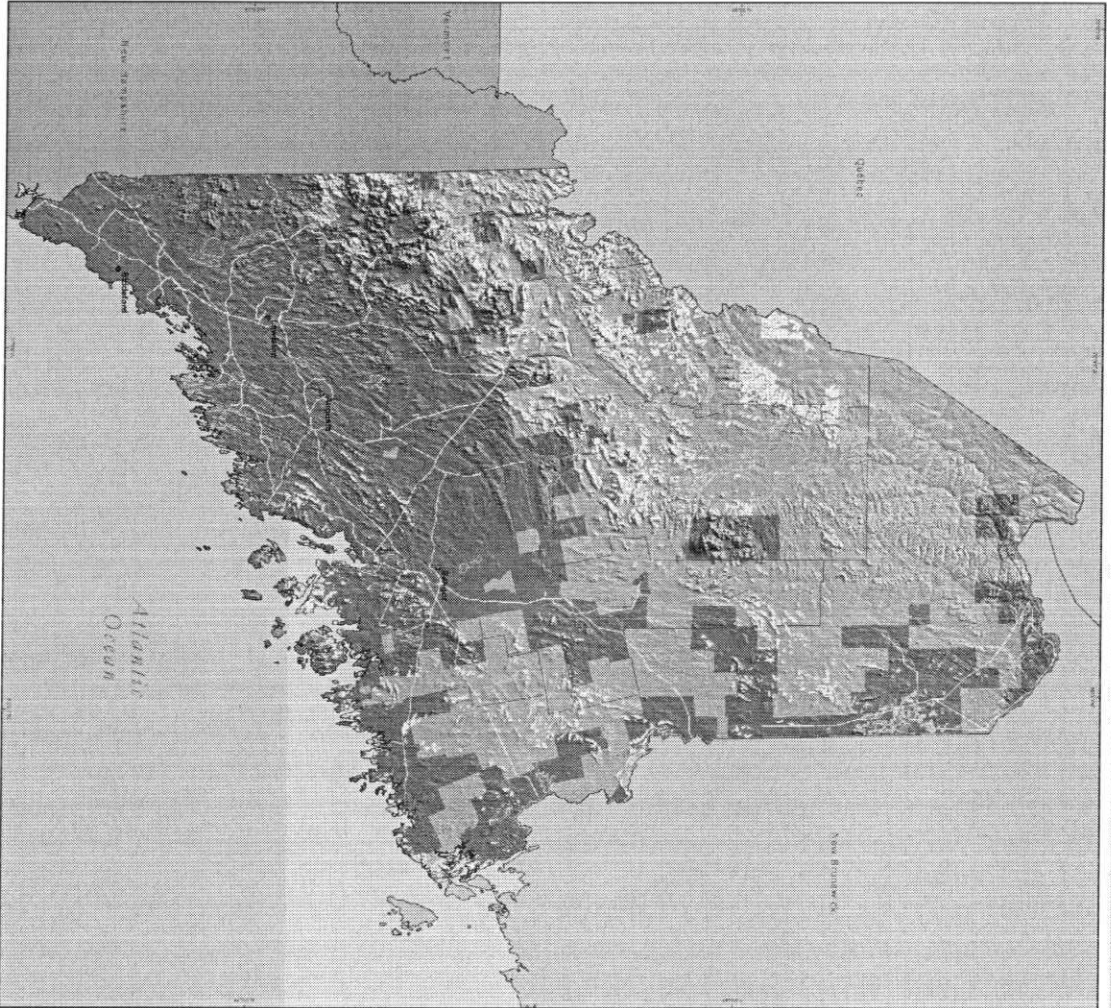
- Identifies area for expedited permitting
- Eliminates fits harmoniously standards from a scenic perspective - replace with a test limited to unreasonable adverse impacts on scenic resources of state or national significance
- Eliminates LURC rezoning
- Streamlines permit processing at DEP:
  - Commissioner to make all original decisions
  - BEP to function on appeal
  - Legal challenges to the law court

# Proposed Expedited Windpower Permitting Area

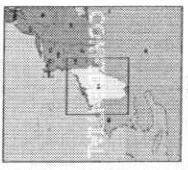


**The report and legislation charts a course for wind power developers in Maine which is:**

- Appropriate for wind development
- Predictable, and hence, attractive to wind power developers
- Protective of Maine's extraordinary resources
- Beneficial for Maine's economy and people



# MAINE SITE SCREENING



- Point Range @ Sea**
- 300 - 400 Wm/2
  - 400 - 500 Wm/2
  - 500 - 600 Wm/2
  - 600 - 700 Wm/2
  - 700 - 800 Wm/2
  - > 800 Wm/2

- Legend**
- City
  - County
  - Water Body
  - Transmission Lines @ 345kV

**SITE SCREENING**

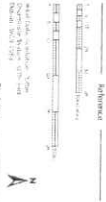
Prepared by: **AMS Townsend**

Project: **Site Screening**

Date: **11/11/03**

Scale: **1:100,000**

Map No: **MS-001**



**Disclaimer**

This map is intended for informational purposes only. It is not intended to be used for legal or regulatory purposes. The user assumes all responsibility for the use of this map. AMS Townsend is not responsible for any errors or omissions in this map.

# **Status of Wind Power Projects in Maine**

**4 Large-Scale Wind Projects in Operation:**

**A total of 169.5 MW of installed capacity**

**3 Large-Scale Projects Under Construction:**

**Total: 96 MW of capacity under construction.**

**2 Large-Scale Projects Permitted:**

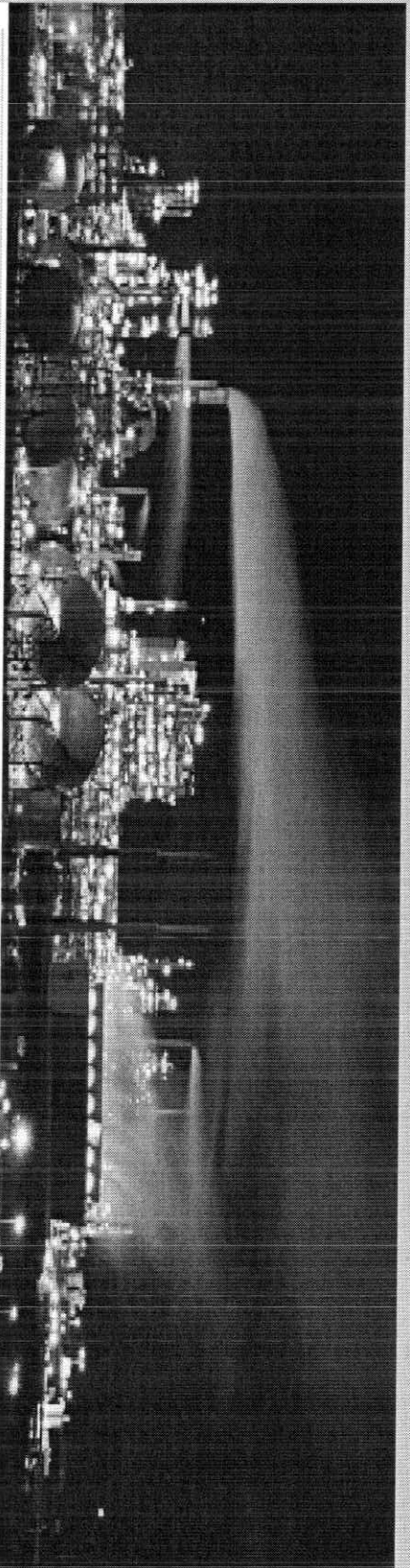
**Total: 115 MW of capacity permitted.**

**6 Large-Scale Projects In Development:**

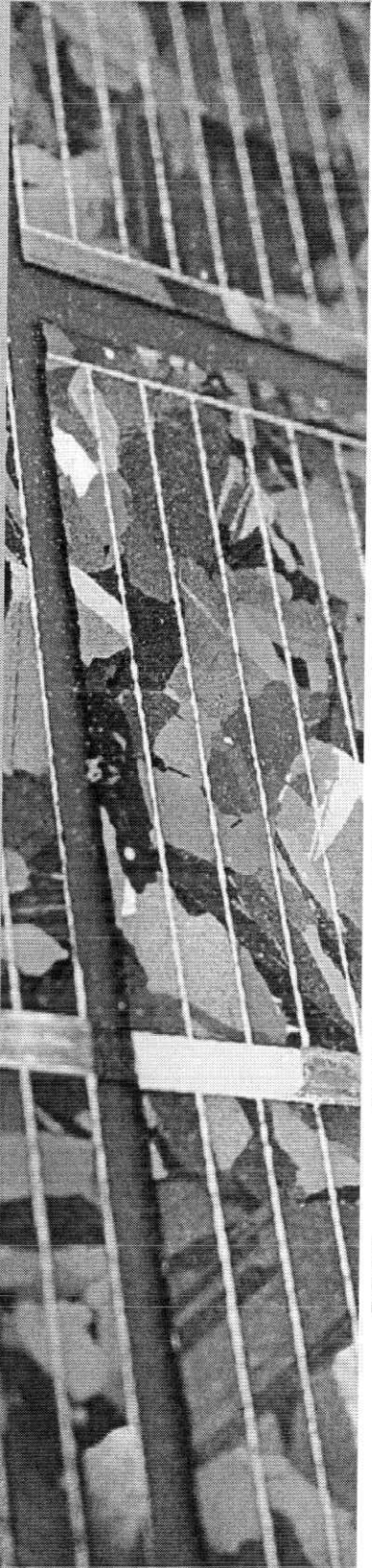
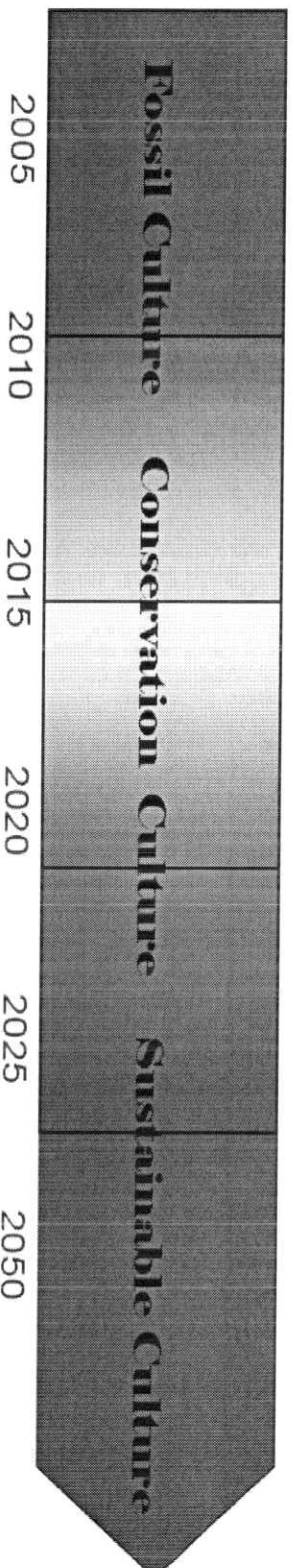
**Total: Approx 472 MW of capacity in development.**



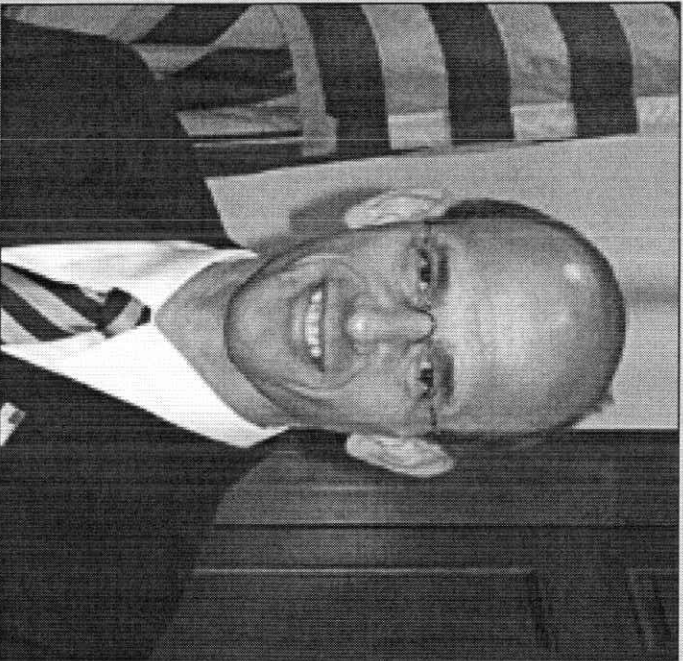
# Wind Power is part of a larger vision



## Energy Independence for Maine



# **Vision of the Governor**

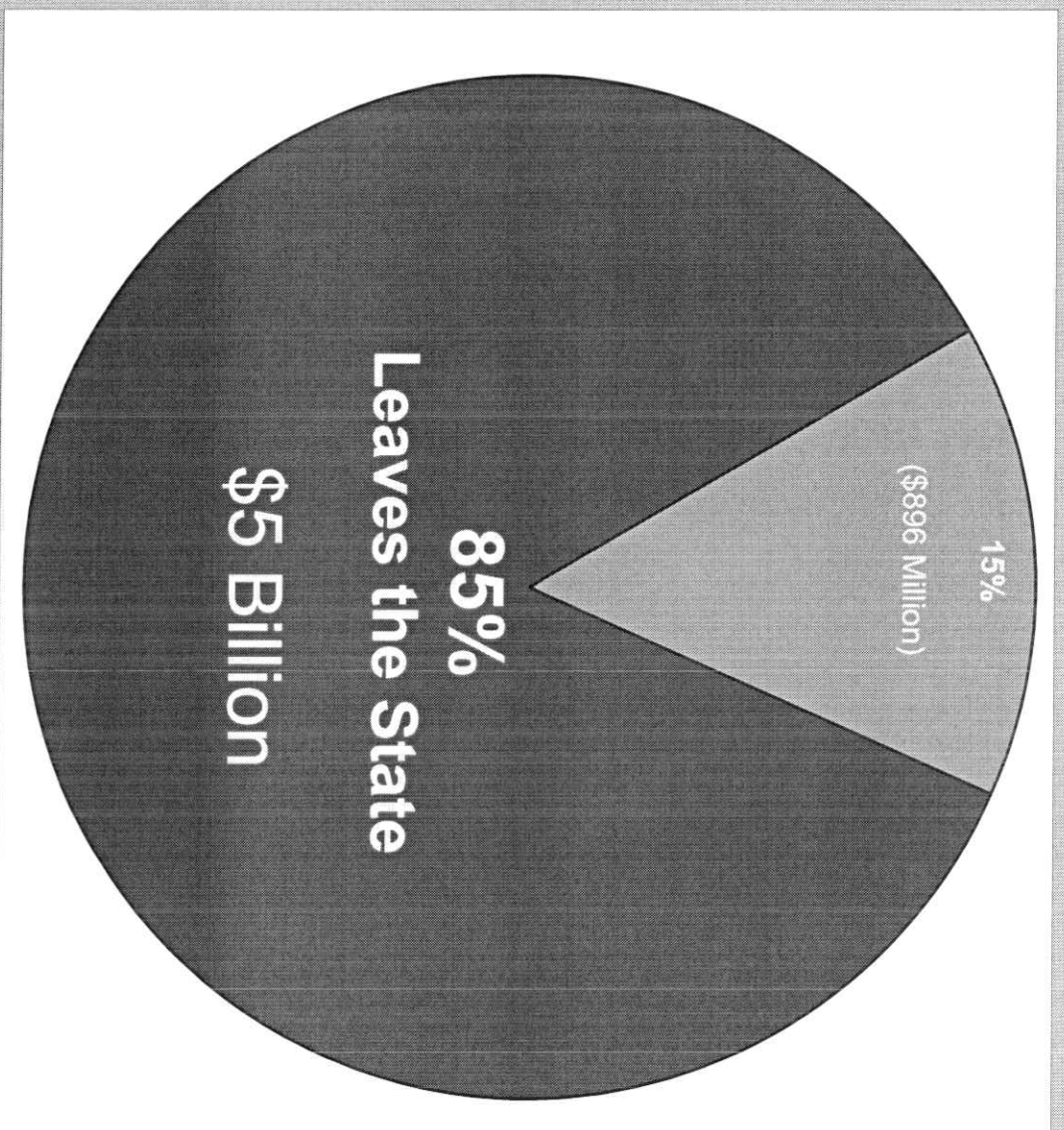


**To provide leadership in the development of public and private partnerships that aspire to achieve the State of Maine's goals of energy independence and security with clean, reliable, affordable, sustainable, indigenous and renewable resources.**

## **Governor's Ocean Energy Task Force**

- **Governor Baldacci established the Task Force in November, 2008 to examine the potential to develop Maine's vast ocean resources especially offshore wind and tidal power.**
- **Recommendations to the Governor on next steps will be finalized in November, 2009.**

# Petroleum Expenditure Effect on Maine's Economy 2008



# The “Petro-Dependence Tax”

- Total tax revenue for Maine in FY 08:
  - \$3.04 Billion

Estimated “Petro-Dependence Tax” on ALL Maine Citizens, Business and Industries in 2008:

**-\$5 Billion**

\*Based on Bureau of the Budget Forecast