

# Efficiency Maine Trust Board Presentation Alternative Energy Programming

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Presented by:

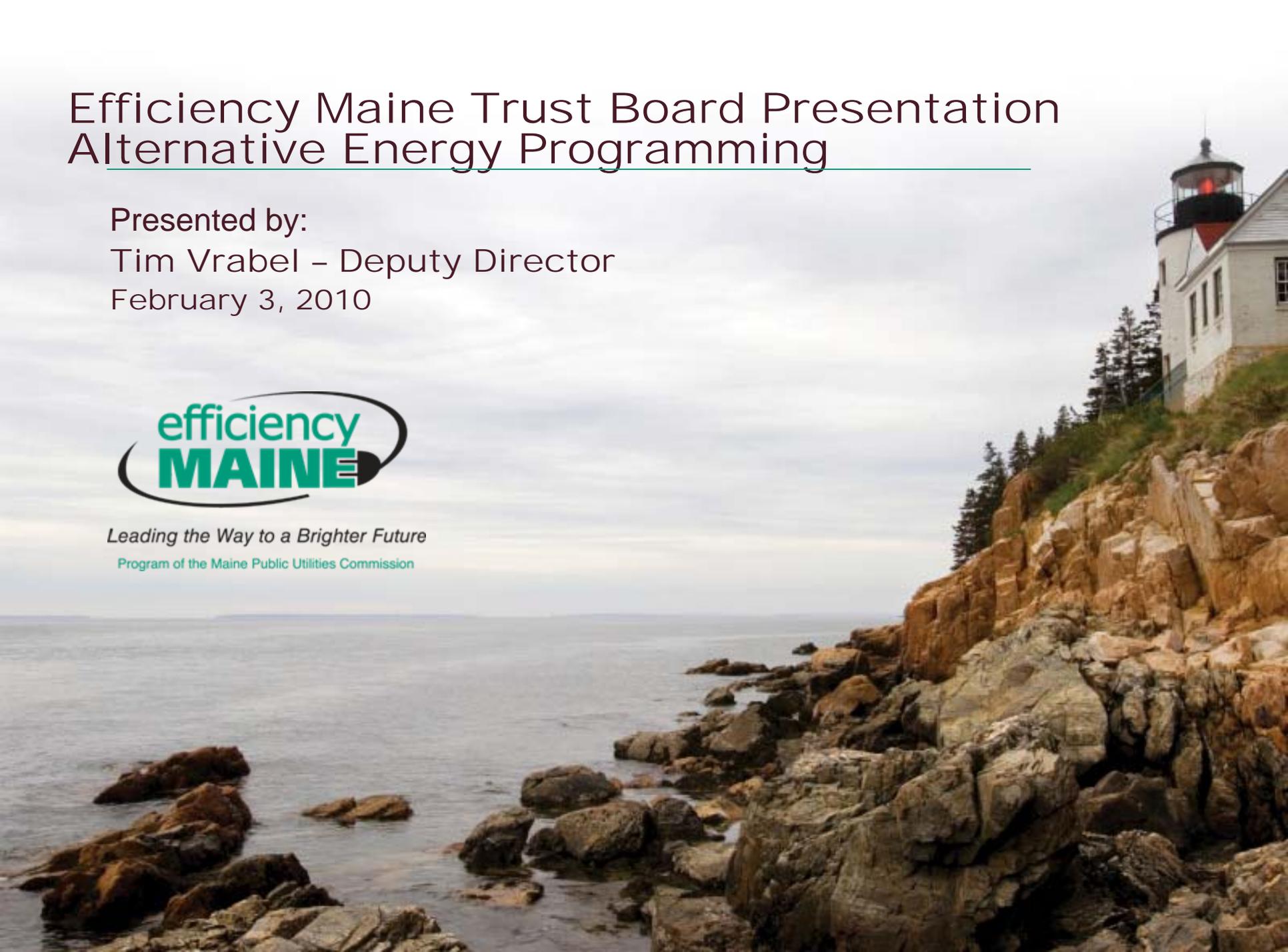
Tim Vrabel – Deputy Director

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*Leading the Way to a Brighter Future*

Program of the Maine Public Utilities Commission





Prior to LD 1485, Efficiency Maine's Renewable Energy responsibilities have been carried out through:

- Legislatively structured solar and wind rebates
- A portion of the federal State Energy Program dollars
- The Voluntary Renewable Resource Fund contributed by Maine electric ratepayers.

LD 1485 creates a new role **“for the purposes of developing, planning, coordinating, and implementing energy efficiency and alternative energy resource programs in the State...”**



## **Efficiency Maine's Solar and Wind Rebate Program**

- \$500,000 annual budget (\$500,000 added in 2010 and 2011 from ARRA)
  - Minimum of 20% to Solar Hot Water
  - Minimum of 20% to Solar PV
  - Minimum of 20% to Wind
  
- \$40,000 pilot program in 2010 added a \$2,000 incentive for higher turbine height and all funds are either awarded or reserved
  
- Solar Hot Water and photovoltaic training provided through KVCC



- M.R.S.A. Title 35-A §3210 "Renewable Resources" provides for development of renewable, efficient, and indigenous resources of electricity production in this State. :

The money is targeted for:

- Maine-based nonprofit organizations
- Consumer-owned electric cooperatives
- Quasi-municipal corporations and districts
- Community based nonprofit organizations
- Community action programs using renewable energy technologies meeting the definition of "Renewable Resource" as provided by Title 35-A §3210.2.C (1) and (2)



- More than 20 projects over the last three years including:
- **Norway Wastewater Dept:** Solar-Bee PV system to power wastewater circulators; 350,000 kWh per year; technology which can be transferred to 37 other systems in Maine; annual estimated savings for powering aeration facilities is over \$37,000.
- **University of Maine at Presque Isle:** 400-700 kW wind turbine - 1,000,000 kWh/year - significant energy and environmental savings for university
- **Downeast Salmon Federation, East Machias:** 6,000 watt PV system power display aquaria at new laboratory and teaching facility; conversion oriented "green building;" collaboration with Washington Academy
- **Ocean Energy Institute – Vinalhaven:** Restoration of historic tidal power dam on Vinalhaven Island; all power generated will go to Vinalhaven School - 335,800 kWh per year
- **Middle School of the Kennebunks:** 5.6 kW PV system - ground mounted panels - signage, curriculum tie-in community support
- \$600,000 in ARRA funds added in 2010 for additional projects, RFP due out 3/10

**A Modest biofuels program is funded through State Energy Program dollars, and is described on the Efficiency Maine web site:**

**Biofuels For Maine:**

According to a growing body of scientific research, biofuels can replace diminishing fossil fuels while building a local, indigenous, and cleaner fuel supply. Maine entrepreneurs and fuel suppliers are building the biofuels industry in communities across the state.

Links include:

[Biofuels for Maine Marketwatch](#)

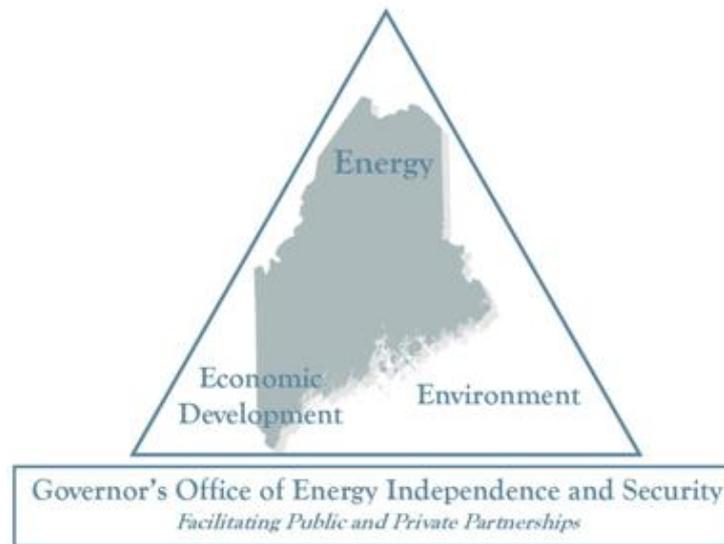
[Read the Biofuels for Maine Newsletter](#)



**Rules for a “Feed-In Tariff” have been adopted by the PUC, through which renewable energy generation such as through photovoltaics or wind can receive up to ten-cents per kWh payment for generation, for up to 20 years.**

**The tariff is expected to be in place in the March-April**

## Align our thinking with the Office of Energy Independence\* and Security Comprehensive Energy Plan



\* Funded in part through PUC

In its letter to the Maine Legislature presenting the Comprehensive Energy Plan, OEIS states that Maine must:

- Reduce its inordinate dependence on foreign fossil fuels
- Provide the vision and the leadership in the development of public/private partnerships
- Achieve economic prosperity, environmental integrity and energy security with clean, reliable, affordable, sustainable, and indigenous renewable resources
- Identify the principles, the timeframes, the organizational framework and the concrete steps necessary to advance the vision for an energy independent and secure state,
- Unite the Legislature, utility regulators, energy industries and all other citizens, businesses and industries in the state unite to create a clean, affordable, sustainable and secure energy future.”



## II. FOSTERING RENEWABLE ENERGY (WIND, SOLAR, TIDAL AND GEOTHERMAL. COGENERATION/TRIGENERATION

- Encourage Maine’s businesses and residences to invest in distributed renewable generation of energy.
- Work with State agencies, the Governor’s Ocean Energy Task Force, Maine Maritime Academy (MMA) and private developers to promote tidal power in Maine.
- Support research at the University of Maine to create cellulosic ethanol from paper making waste.
- Assist in the development of “bio-fuel” and “bio-mass” energy plants using Maine renewable resources.
- Increase use of bio-fuels and alternative energy in state-occupied buildings
- Assist public schools with converting from fossil fuels to bio-fuels.
- Encourage the development of ethanol-blend fueling stations.
- Increase the development and use of cogeneration and tri-generation in the State of Maine. I.
  - Encourage the strategic location and development of industrial and district heating energy generation clusters.
- Assist the University of Maine and other colleges with the use of bio-mass/bio-fuel cogeneration and tri-generation energy systems.
- Increase the generation of renewable power into the State of Maine’s electricity portfolio.



- **University of Maine System** (currently operating the wind anemometer program)
- **Maine Community Colleges** (currently offering renewable resource training)
- **Maine Technology Institute (MTI)** a crucial source of R&D support and funding
- **Trade organizations and technology sector organizations**
- **State Departments such as DEP, OEIS, DOL, SPO, DECD, DOC and many others**
- **Agencies such as MaineHousing, FAME, CEI**
- **Educational organizations**
- **Regional initiatives such as MRRA**



## **MRRA**

The Midcoast Regional Redevelopment Authority (MRRA) is a non-profit, quasi-public organization established by the Maine State Legislature to implement the NASB Reuse. The Reuse Master Plans for the NASB and the Topsham Annex represent a unique opportunity to establish:

- A vibrant live, work, learn, and play environment
- **Centers of excellence for technology innovation, environmental sustainability, and "green" community development**
- A variety of corporate, business, academic, recreational, and community services
- A strong sense of place based on smart growth principles



In a January 27 meeting with **Steve Levesque, Executive Director of MRRA**, he enthusiastically supported a collaborative relationship with Efficiency Maine, citing plans including:

- Energy Product Manufacturing
- Renewable Energy Generation/Distribution
- Renewable Energy Research and Development**
- The retired Naval Air Station is an exciting opportunity for a “Living Laboratory” demonstrating renewable energy research, development, product testing, and community education. This is an ideal example of how inter-agency and organizational collaboration can lead to great successes.