

Appendix A: Photosimulations

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

Note: A 1.5 MW turbine with a 65-meter hub height was used for the photosimulations. Photos were taken on 9/6/2007 in the afternoon. Point 021 indicates the approximate position of the turbine.

Satellite map indicating positions of sites from which below photos were taken.



Location Number	Site Description	Distance to Turbine	Turbine Visibility
022	Looking NW from Rivermoor Habitat/Third Cliff's area	0.65 miles	3 rotor blades

**SCITUATE COMMUNITY WIND PROJECT
FEASIBILITY STUDY APPENDICES**



Location Number	Site Description	Distance to Turbine	Turbine Visibility
023	Looking SW across Scituate Country Club	0.35 miles	3 rotor blades

**SCITUATE COMMUNITY WIND PROJECT
FEASIBILITY STUDY APPENDICES**



Location Number	Site Description	Distance to Turbine	Turbine Visibility
024	Looking E from Scituate Historical Society	0.75 miles	2 rotor blades

**SCITUATE COMMUNITY WIND PROJECT
FEASIBILITY STUDY APPENDICES**



Location Number	Site Description	Distance to Turbine	Turbine Visibility
025	Looking NNW from Humarock	1.8 miles	None

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Location Number	Site Description	Distance to Turbine	Turbine Visibility
026	Looking NNW from Humarock	2.7 miles	3 rotor blades

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Location Number	Site Description	Distance to Turbine	Turbine Visibility
027	Looking N from Damon Point Road	1.1 miles	3 rotor blades

**SCITUATE COMMUNITY WIND PROJECT
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Location Number	Site Description	Distance to Turbine	Turbine Visibility
028	Looking ENE from Route 3A Bridge	1.1 miles	3 rotor blades

**SCITUATE COMMUNITY WIND PROJECT
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Location Number	Site Description	Distance to Turbine	Turbine Visibility
029	Looking SSW from 83 Driftway	0.8 miles	3 rotor blades

**SCITUATE COMMUNITY WIND PROJECT
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Location Number	Site Description	Distance to Turbine	Turbine Visibility
030	Looking SSW from Scituate Marine Park	1.5 miles	1 rotor blade

**SCITUATE COMMUNITY WIND PROJECT
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Location Number	Site Description	Distance to Turbine	Turbine Visibility
031	Looking SSW from Scituate Town Center	1.3 miles	3 rotor blades

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Location Number	Site Description	Distance to Turbine	Turbine Visibility
032	Looking SSW from Lighthouse Road	2.2 miles	3 rotor blades

**SCITUATE COMMUNITY WIND PROJECT
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Location Number	Site Description	Distance to Turbine	Turbine Visibility
033	Looking ESE from Route 3A adjacent to Tack Factory Pond	1.9 miles	None

Appendix B: Scituate Zoning Bylaws for Wind Energy Conversion Systems

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

730.7 APPLICABILITY OF APPROVAL REQUIREMENTS

Applicability of approval requirements used under this section is as outlined and required in Section 770.7.

740 WIND ENERGY CONVERSION SYSTEM

The planning board is hereby established as a special permit granting authority, in connection with the construction of wind energy conversion systems (WECSs) in the Town of Scituate. A special permit may be issued for the erection of a WECS, as an accessory use, in any district, except the "D" (Saltmarsh and Tideland Conservation) District, provided that the following conditions are met:

740.1 SETBACKS FROM TRAVELED WAYS

The minimum setback distance for a WECS from any traveled way shall not be less than three-quarters times the height of the system measured from the uppermost vertical projection (including blades or rotors) to grade. Setback shall be measured to the center of the tower base.

740.2 SETBACKS FROM PROPERTY LINES

The minimum setback distance for a WECS from side and rear property lines shall not be less than 0.75 times the height of the system, as measured in Section 740.1., minus the required sideyard distance of the abutting property, as defined in Section 620.3. A setback from a common property line shall not be required when the abutters are joint owners of the WECS or when the abutting owner(s) grants an easement to the owner of the WECS.

740.3 TOWER AND FOUNDATION DESIGN

The design of the tower and any supporting foundations shall be certified by a registered professional engineer to be in conformance with the Massachusetts State Building Code (780 CMR).

740.4 PREVENTION OF TOWER ACCESS

Climbing access to the tower shall be limited:

- (1) by the installation of a fence with a locked gate around the tower base, or
- (2) by placing the tower climbing apparatus no lower than ten feet from the ground. If a fence is used, it shall be no less than five feet in height and shall be constructed so as to prevent passage through it.

740.5 CONFORMANCE TO ELECTROMAGNETIC INTERFERENCE REGULATIONS

The WECS shall be certified by the manufacturer to be in conformance with the Regulations of the Federal Communication Commission (47 CFR Part 15) relating to harmful interference with radio or television reception.

740.6 NOISE LEVEL STANDARDS

The WECS shall be certified by the manufacturer to meet the following maximum noise levels at ground level, as measured on the "A" Scale of a Type 1 Sound Level Meter, at a point one hundred feet from the tower base, with the wind speed averaging thirty miles-per-hour or less:

*Form of Historic Lining System
Revised by Town Meeting on November 13, 2006
Approved by the NGL on February 16, 2007*

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SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

(740.6 NOISE LEVEL STANDARDS cont)

Ambient Reading (without WECS operating)	Maximum Reading (with WECS operating)
45 dB or less	48 dB
45 dB	50 dB
50 dB	55 dB
55 dB	60 dB
60 dB	65 dB

740.7 ABANDONMENT

A WECS will be considered to be abandoned if it is not operated for a period of two years or if it is designated a safety hazard by the building commissioner. Once a WECS is designated as abandoned, the owner shall be required to immediately dismantle the installation.

740.8 LAPSE OF SPECIAL PERMIT

Any special permit granted under this subsection shall lapse if construction of the WECS is not commenced within two years following the date of its issuance, unless good cause for failure to begin construction can be shown.

740.9 RIGHT OF APPEAL

Any person aggrieved by a decision of the planning board under this subsection, or by its failure to act in conformance to the provisions of Massachusetts General Laws, Chapter 40A, Sections 9 or 11, as amended, shall have the right of appeal there from to the board of appeals, pursuant to its authority under Massachusetts General Laws, Chapter 40A, Section 8, as amended, and Section 1000. of this bylaw. An appeal may be brought within thirty days of the planning board's decision or failure to act (as the case may be), by filing notice of same with the town clerk. When exercising jurisdiction under this paragraph, the board of appeals shall conform to all the requirements of procedure applicable to a request for a special permit, as specified in Section 1030. of this bylaw.

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CUSHING HIGHWAY EGRESS CONTROL

Egress onto Chief Justice Cushing Highway must meet the following requirements, unless

- a. the board of appeals grants a special permit for an alternate configuration, upon its determination that safety will be adequately protected using an engineering analysis submitted by the applicant documenting compliance with common engineering standards, including A Policy on Geometric Design of Highways and Streets, dated 1984, from the American Association of State Highway Transportation Officials (AASHTO), or,
- b. the Massachusetts Department of Public Works imposes requirements precluding compliance.

*Form of Traffic Control System
Adopted by Town Meeting on November 13, 2006
Approved by the Board on February 16, 2007*

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Appendix C: Local, State, and Federal Permitting Matrix

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

Regulatory Agency ¹	Permit Type	Regulated Action	Project Phase	Agency Review or Consultation Required For This Project?	Does Agency Require Permit for This Project?	Consultation/Opinion/Permit Triggered By A Threshold?	Comment
Federal							
USEPA	NPDES Stormwater Construction General Permit	Discharge of stormwater from construction sites disturbing > 1 acre.	Pre-Construction	TBD	TBD	TBD	Requires joint approval with MDEP. Total area of disturbance dependent on location chosen.
USEPA	SPCC Plan	On site storage of oil > 1,320 gallons. Any equipment refueling, etc.	Construction	TBD	No	Yes	Threshold may be exceeded due to construction equipment at site. Exceeding threshold not expected for operational activities.
USACOE	Section 10 Nationwide Permit	Construction activities in navigable waters of the US.	Construction	No	No	No	Required for construction in navigable waters of the US.
USACOE	Section 404 Nationwide Permit	Discharge of dredge or fill material into US waters, including jurisdictional	Pre-Construction	TBD	No	No	Required if discharging fill material into U.S. waters.
USFWS	Endangered species act	Confirmation of no impacts to threatened and endangered species.	Planning	Yes	No	No	Consultation completed. Determined no impacts to threatened or endangered species.
USFWS	Migratory Bird Treaty Act Compliance	Migratory bird impacts	Construction	TBD	No	No	May be required, at the discretion of USFS, based on other federal agency involvement.
FERC	Exempt Wholesale Generator (EWG) Status	Selling electric energy at wholesale to a utility or other generator.	Construction	TBD	No	No	Assume electricity will be sold to the grid.
FERC	Qualifying Facility Certification	Qualification for PURPA benefits for small power production facility using renewable resources < 80 MW.	Construction	TBD	No	No	Assume electricity will likely be sold to the grid. This certification is for facilities producing less than 80 megawatts of power.
EPA	NEPA	Major federal action affecting the environment	Construction	Unlikely	No	No	May be required if COE individual permit needed. Project not close to federally administered land and would not likely be considered a major or federal project.
FAA	Notice of Proposed Construction or Alteration	Construction of an object which has the potential to affect navigable airspace (height in excess of 200' or within 20,000' of an airport).	Pre-construction	Yes	No	Yes	Boston Logan airport is located 20 miles from the site and Marshfield Municipal airport is located 6 miles from the site. FAA will require lighting or marking of turbines and/or temporary construction crane. Determination of No Hazard to air navigation received 11/21/07.
Federal							
USEPA	United States Environmental Protection Agency						
USACOE	United States Department of the Army Corps of Engineers						
USFWS	United States Fish and Wildlife Service						
USNPS	United States National Park Service						
FAA	Federal Aviation Administration						

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

Regulatory Agency ¹	Permit Type	Regulated Action	Project Phase	Agency Review or Consultation Required For This Project?	Does Agency Require Permit for This Project?	Consultation/Opinion/Permit Triggered By A Threshold?	Comment
State							
MEOEA	Secretary of Environmental Affairs consent	Review projects of a nature, size or location that are likely, directly or indirectly, to cause damage to the environment	Pre-construction	TBD	No	Yes	
MDPU/EFBS	Approval of the Sitting Board	Construction of an energy generating facility	Pre-construction	No	No	No	Permit only needed if >100 MW of electricity is sold to the grid
Commonwealth of MA	MGL Chapter 40A: Zoning	New Development	Pre-construction	Yes	Yes	No	General laws of MA
EOEA	MEPA Request for Determination of Applicability Environmental Notification Form (or expanded form)	Alteration of more than 25 acres of land	Pre-Construction	Maybe	Maybe	Yes	Must be filed if more than 25 acres will be directly altered or certain other are criteria met. The turbine for this project is expected to impact a total of less than 25 acres. However, MEPA has requested filing on past community wind projects, and MTC may choose to file even if the threshold is not met. The purpose of such a filing would be informational, and may not result in a formal determination.
EOEA	MEPA Review: Environmental Impact Report	Alteration of more than 50 acres of land	Construction	No	No	Yes	Environmental Impact Report required if more than 50 acres of land will be altered or other criteria met. Project will not meet 50 acre threshold.
EOEA	Protected Land Regulation Compliance	Activities on protected land	Planning	TBD	TBD for site 2. Not needed for site 1.	Yes	These laws may apply if the project requires access or easements on protected parkland. MEPA has recommended to MTC that an informational document be submitted for all wind projects.
MEOEA	Article 97 review	Change in use of existing public lands	Planning	TBD	TBD for site 2. Not needed for site 1.	Yes	Site 2 located on Scituate Conservation Commission land.
DOER	Application for Statement of Qualification pursuant to Massachusetts Renewable Portfolio Standard	Construction and operation of a new renewable energy facility proposing to sell energy to the grid.	Construction	No	Yes	No	Project would be considered a Small Power Production Qualifying Facility with respect to selling power to utilities that are required under Massachusetts law to purchase electricity from certain classes of renewable energy and distributed generation facilities.
EFBS	Transmission line approval	Transmission interconnection	Construction	No	No	Yes	Applies only if project involves a minimum of one mile of transmission line, or transmission of a particular voltage.
MDEP	Notice of Intent	Wetland alteration	Construction	Unlikely	No	Yes	Wetland impacts from wind turbine construction are unlikely.
MDEP	Noise Control Policy Compliance	Noise from wind turbine	Operation	Yes	No	No	Policy discourages a broadband noise level greater than 10 dB(A) above ambient, or pure tone noise.
MDEP	NPDES Individual Wastewater/Storm Water Discharge Permit	Wastewater discharge and storm water runoff during facility operation. NOTE: This program is jointly administered by EPA and MDEP.	Operation	No	No	Yes	Operation of a wind farm is not considered an industrial activity under the stormwater program.
MDEP	Massachusetts Clean Waters Act, Section 401 of Water Quality Certification	Required for federal activities affecting state land.	Construction	Unlikely	No	Yes	Permit required if wetlands will be altered in any way.
State							
MEOEA	Massachusetts Executive Office of Environmental Affairs						
DOER	Division of Energy Resources						
NHESP	Natural Heritage Endangered Species Program						
MHD	Massachusetts Highway Department						
ISO/NEPOOL	Independent System Operator/New England Power Pool						
MAC	Massachusetts Aeronautics Commission						
MHC	Massachusetts Historical Commission						
CZM	Office of Coastal Zone Management						
DWSP	Division of Water Supply Protection						

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

Regulatory Agency ¹	Permit Type	Regulated Action	Project Phase	Agency Review or Consultation Required For This Project?	Does Agency Require Permit for This Project?	Consultation/Opinion/Permit Triggered By A Threshold?	Comment
State							
Ma Dept of Fish and Game Natural Heritage and Endangered Species Program	Endangered Species Act Consultation / Compliance	Activities that could potentially affect threatened or endangered species	Construction	Yes	No	Yes	Conservation and Management Permit required for any take of a state endangered species.
Ma Dept of Fish and Game Natural Heritage and Endangered Species Program	Notice of Intent MESA Information Request Form	Wetland alteration. Habitat Impacts	Construction	Yes	Unlikely	Yes	Required if project is in "estimated habitat" of rare wildlife (many rare species live in the area). Wetland impacts from wind turbine construction are unlikely.
MPA	Request for Airspace Review	Structures over 200 feet tall near airports	Construction	No	Yes	Yes	Boston Logan airport is located 20 miles from the site and Marshfield Municipal airport is located 6 miles from the site.
MDOH	General Access Permit	MESA Info. Reg. - Alteration of state roads	Construction	No	Maybe	Yes	May be needed if project involves alterations to state roads.
MDOH	Wide load	Transport of oversized loads on state highways	Construction	No	Yes	Yes	Transportation of turbine components on state highways
ISO New England	NEPOOL	Interconnection system impact and facility study	Construction	No	Yes	Yes	Electricity will likely be sold to the grid. Project owner to determine participation in NEPOOL.
MAC	Airspace review	Mass. Aeronautics Commission review of potential aviation impacts involving structures greater than 200 feet in height	Construction	Yes	No	Yes; threshold exceeded	Provide courtesy notification of any projects over 200 feet tall (similar to FAA review, but not an official permit)
CZM	Massachusetts General Law Chapter 91 (Public Waterfront Act authorization)	Structures in tidelands, ponds, certain rivers and streams	Construction	Unlikely	No	Yes	Can file Determination of Applicability if applicability of Chapter 91 in question.
NHESP	MESA NOI	Notice of Intent to comply with Mass. Endangered Species Act	Pre-construction	Yes	No	Yes	Consultation completed. NHESP determined compliance with MESA as of 12/18/07.
MHC	Archeological / historical review	Identify potential project impacts on sensitive archeological / historical sites	Planning	Yes	No	Yes	Consultation needed
DWSP	Water supply protection	Projects affecting water supply protection watersheds	Pre-construction	TBD	No	No	Courtesy notification

State	
MEQEA	Massachusetts Executive Office of Environmental Affairs
DOER	Division of Energy Resources
NHESP	Natural Heritage Endangered Species Program
MHD	Massachusetts Highway Department
ISO/NEPOOL	Independent System Operator/New England Power Pool
MAC	Massachusetts Aeronautics Commission
MHC	Massachusetts Historical Commission
CZM	Office of Coastal Zone Management
DWSP	Division of Water Supply Protection

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

Regulatory Agency ¹	Permit Type	Regulated Action	Project Phase	Agency Review or Consultation Required For This Project?	Does Agency Require Permit for This Project?	Consultation/Opinion/Permit Triggered By A Threshold?	Comment
Local							
Town of Scituate	Zoning	New development and construction of a wind farm outside the scope of current zoning regulations	Pre-construction	Yes	Yes	Yes	Special permit required
Town of Scituate Conservation Commission	Wetland Protection Act and Order of Conditions	Filling of wetland habitat	Planning	Yes	No	Yes	Verbal consultation completed; not expected to fall under the jurisdiction of Mass. Wetlands Protection Act
Inspection Department	Building Permit, Electrical Permit, Storage Container Permit	New construction	Pre-construction	Yes	Yes	No	Permit fees
Fire Marshal	Fire Code Approval	New development	Construction	Yes	No	No	Possible substation inclusion in project may trigger need for this approval. (Courtesy notification)

Appendix D: National Grid Rate Structure

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

MASSACHUSETTS ELECTRIC COMPANY

Time-of-Use - G-3
M.D.T.E. No. 1110

Effective
March 1, 2007

Adjusted By:

Transition Cost Adjustment	March 1, 2007
Transmission Service Cost Adjustment	March 1, 2007
Default Service Adjustment	March 1, 2007
Residential Assistance Adjustment	March 1, 2007
Default Service Cost Reclassification Adjustment	November 1, 2006

Monthly Charge as Adjusted

Rates for Retail Delivery Service

<u>Customer Charge</u>	\$70.72	
<u>Distribution Demand Charge per kW</u>	\$3.80	
<u>Distribution Energy Charge per kWh (1)</u>		
Peak Hours Use	1.249¢	
Off-Peak Hours Use	0.017¢	
<u>Transition Charge per kW (2)</u>	\$0.75	
<u>Transition Charge per kWh (3)</u>	0.140¢	
<u>Transmission Charge per kWh</u>	1.032¢	
<u>Demand Side Management Charge per kWh</u>	0.250¢	effective January 1, 2003
<u>Renewables Charge per kWh</u>	0.050¢	effective January 1, 2003

Rates for Supplier Service

<u>Default Service Charge per kWh</u>	per Tariff for Default Service
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Minimum Charge

The monthly Customer Charge plus the Demand Charge.

Other Rate Clauses apply as usual.

- (1) Includes Default Service Adjustment Factor of 0.003¢ per kWh, Residential Assistance Adjustment Factor of 0.014¢ per kWh, and Default Service Cost Reclassification Adjustment Factor of (0.011¢) per on-peak kWh.
- (2) Includes Contract Termination Charge mitigation of (\$4.51) per kW.
- (3) Includes Contract Termination Charge mitigation of (1.360¢) per kWh and Transition Charge Adjustment Factor of (0.036¢) per kWh.

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SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

M.D.T.E. No. 1110

Sheet 1

Cancelling M.D.T.E. No. 1094-A

MASSACHUSETTS ELECTRIC COMPANY

TIME-OF-USE - G-3 RETAIL DELIVERY SERVICE

AVAILABILITY

Electric delivery service under this rate is available for all purposes, subject to the provisions of this section. A new Customer will begin delivery service on this rate if the Company estimates that its average use will exceed 200 kW of Demand.

A Customer may be transferred from rate G-3 at its request if the customer's 12 month average monthly demand is less than 180 kW of Demand for 3 consecutive months. A Customer may be transferred from rate G-3 at the option of the Company if the Customer's 12 month average monthly demand is less than 180 kW of Demand for 3 consecutive months.

The actual delivery of service and the rendering of bills under this rate is contingent upon the installation of the necessary time-of-use metering equipment by the Company; subject to both the availability of such meters from the Company's supplier and the conversion or installation procedures established by the Company.

All Customers served on this rate must elect to take their total electric delivery service under the time-of-use metering installation as approved by the Company. If delivery is through more than one meter, except at the Company's option, the Monthly Charge for service through each meter shall be computed separately under this rate.

MONTHLY CHARGE

The Monthly Charge will be the sum of the applicable Customer, Demand and Energy Charges.

Rates for Retail Delivery Service

<u>Customer Charge</u>	\$70.72
<u>Distribution Demand Charge per kW</u>	\$3.80
<u>Transition Demand Charge per kW</u>	\$5.26
<u>Distribution Energy Charge per kWh</u>	
Peak Hours Use	1.243¢
Off-Peak Hours Use	0.000¢
<u>Transition Charge per kWh</u>	1.536¢

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SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

M.D.T.E. No. 1110

Sheet 2

MASSACHUSETTS ELECTRIC COMPANY

TIME-OF-USE - G-3 RETAIL DELIVERY SERVICE

PEAK AND OFF-PEAK PERIODS

Peak hours will occur Monday through Friday, excluding holidays, on the following schedule:

January 1 – March 10	8:00 a.m. to 9:00 p.m.
March 11 – March 31	9:00 a.m. to 10:00 p.m. *
April 1 – October 27	8:00 a.m. to 9:00 p.m.
October 28 – November 3	7:00 a.m. to 8:00 p.m. *
November 4 – December 31	8:00 a.m. to 9:00 p.m.

*The Peak hours defined above are applicable during 2007 and reflect the difference between when the customer's meter records on-peak kWh consistent with the pre-2007 Daylight Saving Time schedule and the revised Daylight Saving Time schedule mandated by the federal Energy Policy Act of 2005.

Off-Peak hours will be all other hours Monday through Friday, and all day on Saturdays, Sundays, and holidays.

The Company reserves the right to change these peak and off-peak hours, but in no case will the off-peak hours be less than eleven hours per day.

The holidays will be: New Year's Day, President's Day, Memorial Day, Independence Day, Columbus Day, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. All holidays will be the nationally observed day.

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail customers taking service under this rate. For those customers, the transmission charge under this rate shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision.

TRANSITION COST ADJUSTMENT

The Transition Charges under this rate as set forth under "Monthly Charge" shall be adjusted from time to time in accordance with the Company's Transition Cost Adjustment Provision.

DSM CHARGE

Customers receiving Retail Delivery Services under this rate will be charged a DSM Charge, representing a charge for energy conservation programs, in accordance with the Company's Demand Side Management Provision.

RENEWABLES CHARGE

Customers receiving Retail Delivery Services under this rate will be charged a Renewables Charge in accordance with the Company's Renewables Provision.

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SCITUATE COMMUNITY WIND PROJECT

FEASIBILITY STUDY APPENDICES

M.D.T.E. No. 1110

Sheet 3

MASSACHUSETTS ELECTRIC COMPANY

TIME-OF-USE - G-3 RETAIL DELIVERY SERVICE

DETERMINATION OF DEMAND

The Demand for each month under ordinary load conditions shall be the greater of the following:

- a) The greatest fifteen minute peak occurring during the Peak hours period within such a month as measured in kilowatts, or
- b) 90% of the greatest fifteen minute peak occurring during the Peak hours period, of such month as measured in kilovolt-amperes.

HIGH-VOLTAGE METERING ADJUSTMENT

The Company reserves the right to determine the metering installation. Where delivery service is metered at the Company's supply line voltage, in no case less than 2400 volts, thereby saving the Company transformer losses, a discount of 1.0% will be allowed from the amount determined under the preceding provisions.

When the metering equipment is installed on the Customer's side of the transformers and the nameplate transformer rating is greater than 120 percent of the Customer's highest demand over the last twelve months, the Company may adjust the kW, KVA, and kWh meter registrations or adjust electronic meter program settings to compensate for unmetered transformer losses.

CREDIT FOR HIGH VOLTAGE DELIVERY

If the Customer accepts delivery at the Company's supply line voltage, not less than 2400 volts, and the Company is saved the cost of installing any transformer and associated equipment, a credit of 46 cents per kilowatt of the billing Demand for such month shall be allowed against the amount determined under the preceding provisions.

An additional credit of \$2.24 per kilowatt of the billing Demand for such month shall also be allowed if said customer accepts delivery at not less than 115,000 volts, and the Company is saved the cost of installing any transformer and associated equipment.

DEFAULT SERVICE

Any Customer who does not have a supplier other than the Company will receive and pay the Company for Default Service in accordance with the terms and price for Default Service established by the Department of Telecommunications and Energy.

DEFAULT SERVICE ADJUSTMENT PROVISION

The charges to all Customers receiving Retail Delivery Service under this rate shall be subject to adjustment in accordance with the Company's Default Service Adjustment Provision.

DEFAULT SERVICE COST RECLASSIFICATION ADJUSTMENT PROVISION

The charges to all Customers receiving Retail Delivery Service and all Customers receiving Default Service under this rate shall be subject to adjustment in accordance with the Company's Default Service Cost Reclassification Adjustment Provision.

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SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

M.D.T.E. No. 1110

Sheet 4

MASSACHUSETTS ELECTRIC COMPANY

TIME-OF-USE - G-3 RETAIL DELIVERY SERVICE

RESIDENTIAL ASSISTANCE ADJUSTMENT PROVISION

The charges to all Customers receiving Retail Delivery Service under this rate shall be subject to adjustment in accordance with the Company's Residential Assistance Adjustment Provision.

TERM OF SERVICE

Customers served under this rate must provide the Company with six months prior written notice before installing or allowing to be installed for its use a non-emergency generator with a nameplate capacity greater than that in place on the Customer's location as of March 1, 1998. This notice provision does not apply to facilities eligible for net metering in accordance with 220 CMR 11.03(4)(d).

FARM DISCOUNT

Customers who meet the eligibility requirements for being engaged in the business of agriculture or farming as defined in M.G.L. Chapter 128 Section 1a at their service location are eligible for an additional discount from their distribution service rates. The discount will be calculated as 10% of the Customer's total bill for service provided by the Company before application of this discount. Customers who meet the requirements of this section must provide the Company with appropriate documentation of their eligibility under this provision.

TERMS AND CONDITIONS

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

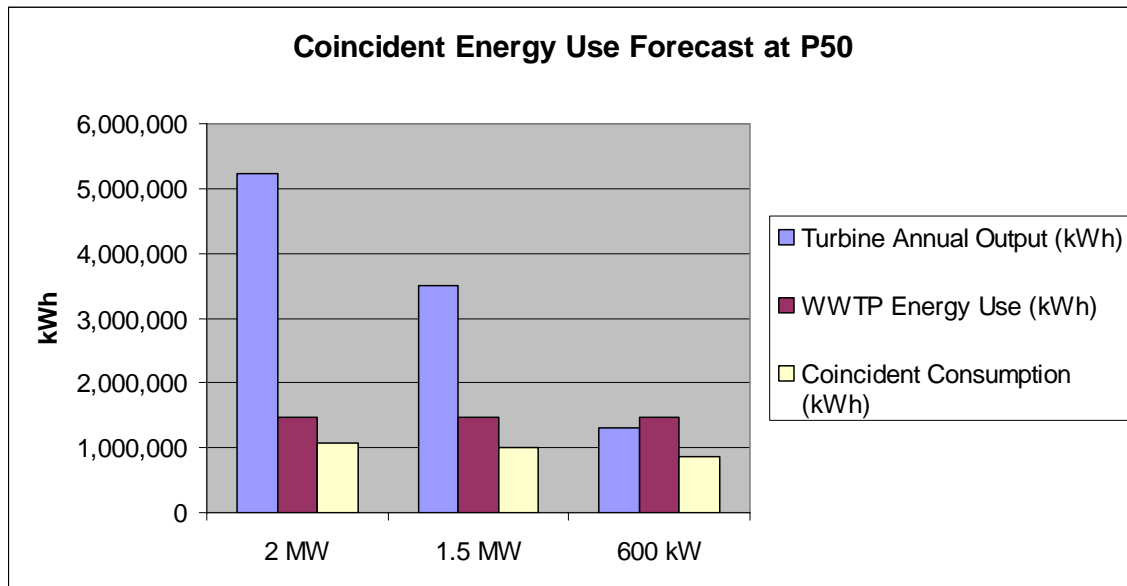
Effective March 1, 2007

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Appendix E: Financial Model Details

**SCITUATE COMMUNITY WIND PROJECT
FEASIBILITY STUDY APPENDICES**

E-1: P90 Scenario Summary Tables



P90 Town-Owned Scenarios, Ranked by NPV

NPV	Turbine Size	Virtual Net Metering	Probability
\$ 2,263,109	2.0 MW	Yes	P90
\$ 1,600,756	2.0 MW	No	P90
\$ 569,504	1.5 MW	Yes	P90
\$ 101,684	1.5 MW	No	P90

P90 Privately Owned Scenarios, Ranked by IRR

IRR	Turbine Size	Virtual Net Metering	Probability	NPV to Town (inc. hedge)
10.39%	2.0 MW	Yes	P90	\$ 1,458,002
8.98%	2.0 MW	No	P90	\$ 1,458,002
6.08%	1.5 MW	Yes	P90	\$ 1,072,008
5.12%	1.5 MW	No	P90	\$ 1,072,008

SCITUATE COMMUNITY WIND PROJECT

FEASIBILITY STUDY APPENDICES

E-2: Financial Model Assumptions

Technical Details	Turbine Model	600 FL	GE 1.5 MW sle	Vestas V90 2.0 MW
	Project Size (kW)	600	1500	2000
	Capacity Factor – P50	24.80%	26.67%	29.81%
	Capacity Factor – P90	21.51%	23.3%	26.3%
	Project Life	20 Years	20 Years	20 Years
Project Revenues	Miles to Interconnection	1	1	1
	Avoided energy use at WWTF (muni model)	\$100/MWh + 2.5%/yr		
	Price of energy sold to WWTF (private model)	\$100/MWh + 0%/yr		
	Length of PPA for onsite power	20 years		
	Value of energy sold off-site (Current Metering Policy)	\$70/MWh		
	Value of energy virtual net-metered, not used on-site (remainder consumed by town)	\$87.6/MWh		
	% of power used onsite (no expansion)	65.7%	28.4%	20.4%
	Contracted REC value	\$40/MWh		
	Length of (non-MTC) initial REC Contract	3 years		
	Spot Market REC value	\$10/MWh		
	Private financed equity percentage	100%		
	Required return for financier	10%		
	Finance term	20 years		
	Federal wind PTC and accelerated depreciation	Fully utilized		
	Municipal debt financed percentage	100%		
Financing - Private	Finance term	20 years		
	Bond interest rate	4.5%		
	Required Return	5.5%		
	MTC standard offer - REC Price	30% up front REC purchase		
	Total Contract Amount	\$ 720,000	\$ 1,800,000	\$ 2,400,000
Financing - Municipal	Capital Cost (\$/kW)	\$ 3,616	\$ 2,505	\$ 2,086
	Utility Insurance - Required by NSTAR	\$ 5,250	\$ 13,125	\$ 17,500
	Extended Warranty Cost	\$ 15,000	\$ 20,000	\$ 25,000
	Post Warranty Equipment Repair/Replace	\$ 15,000	\$ 15,000	\$ 15,000
	Project Administration	\$ 1,000	\$ 1,000	\$ 1,000
MTC Financial Support				
Project Costs				

SCITUATE COMMUNITY WIND PROJECT FEASIBILITY STUDY APPENDICES

E-3: Financial Model Output Summary Tables

600 kW Scenarios

Turbine Size	Fuhrlander FL 600 kW							
Ownership	Town				Private			
Probability of Occurrence	P50		P90		P50		P90	
Virtual Net Metering	Yes	No	Yes	No	Yes	No	Yes	No
RESULTS:								
NPV	\$ (439,068)	\$ (545,644)	\$ (663,898)	\$ (733,018)	\$633,091	\$633,091	\$589,921	\$589,921
IRR	NA	NA	NA	NA	1.02%	0.48%	-0.59%	-0.93%
REVENUES:								
Total contracted Power Revenue	\$ 2,127,456	\$ 1,831,976	\$ 2,127,456	\$ 1,831,976	\$ 1,831,976	\$ 1,831,976	\$ 1,831,976	\$ 1,831,976
Total Contracted REC revenue	\$ 860,802	\$ 860,802	\$ 837,052	\$ 837,052	\$ 860,802	\$ 860,802	\$ 837,052	\$ 837,052
Total merchant revenue	\$ 421,311	\$ 543,500	\$ 118,185	\$ 301,276	\$ 680,151	\$ 543,500	\$ 377,025	\$ 301,276
Total Sales Revenue	\$ 3,409,569	\$ 3,236,278	\$ 3,082,693	\$ 2,970,304	\$ 3,372,929	\$ 3,236,278	\$ 3,046,053	\$ 2,970,304
EXPENSES:								
Total Operating Expenses	\$ 965,946	\$ 965,946	\$ 965,946	\$ 965,946	\$ 1,449,949	\$ 1,498,582	\$ 1,496,680	\$ 1,495,923
EBITDA	\$ 2,443,623	\$ 2,270,332	\$ 2,116,747	\$ 2,004,359	\$ 1,872,981	\$ 1,737,696	\$ 1,549,373	\$ 1,474,382
Total Interest	\$ 1,135,779	\$ 1,135,779	\$ 1,135,779	\$ 1,135,779	-	-	-	-
Total Loan Principal	\$ 2,193,303	\$ 2,193,303	\$ 2,193,303	\$ 2,193,303	-	-	-	-
NET CASH FLOW	\$ (836,707)	\$ (1,009,998)	\$ (1,163,583)	\$ (1,275,972)	\$ 1,922,736	\$ 1,787,449	\$ 1,599,121	\$ 1,524,128

1.5 MW Scenarios

Turbine Size	GE 1.5 MW sle							
Ownership	Town				Private			
Probability of Occurrence	P50		P90		P50		P90	
Virtual Net Metering	Yes	No	Yes	No	Yes	No	Yes	No
RESULTS:								
NPV	\$ 1,130,133	\$ 734,300	\$ 569,504	\$ 101,684	\$ 1,183,542	\$ 1,182,558	\$ 1,072,008	\$ 1,072,008
IRR	NA	NA	NA	NA	7.76%	6.63%	6.08%	5.12%
REVENUES:								
Total contracted Power Revenue	\$ 1,443,060	\$ 2,127,456	\$ 1,443,060	\$ 2,127,456	\$ 1,443,060	\$ 2,127,456	\$ 1,443,060	\$ 2,127,456
Total Contracted REC revenue	\$ 2,174,096	\$ 2,174,096	\$ 2,144,308	\$ 2,144,308	\$ 2,176,541	\$ 2,174,096	\$ 2,144,308	\$ 2,144,308
Total merchant revenue	\$ 4,879,019	\$ 3,419,682	\$ 4,102,777	\$ 2,799,397	\$ 4,885,929	\$ 3,419,682	\$ 4,102,777	\$ 2,799,397
Total Sales Revenue	\$ 8,496,175	\$ 7,721,234	\$ 7,690,145	\$ 7,071,162	\$ 8,505,530	\$ 7,721,234	\$ 7,690,145	\$ 7,071,162
EXPENSES:								
Total Operating Expenses	\$ 1,295,497	\$ 1,295,497	\$ 1,295,497	\$ 1,295,497	\$ 1,880,827	\$ 1,872,984	\$ 1,872,673	\$ 1,866,483
EBITDA	\$ 7,200,677	\$ 6,425,737	\$ 6,394,648	\$ 5,775,664	\$ 6,624,704	\$ 5,848,250	\$ 5,817,472	\$ 5,204,679
Total Interest	\$ 1,967,154	\$ 1,967,154	\$ 1,967,154	\$ 1,967,154	\$ -	\$ -	\$ -	\$ -
Total Loan Principal	\$ 3,798,771	\$ 3,798,771	\$ 3,798,771	\$ 3,798,771	\$ -	\$ -	\$ -	\$ -
NET CASH FLOW	\$ 1,436,896	\$ 672,667	\$ 630,866	\$ 11,883	\$ 6,627,957	\$ 5,851,489	\$ 5,820,704	\$ 5,207,899

2.0 MW Scenarios

Turbine Size	Vestas V90 2.0 MW							
Ownership	Town				Private			
Probability of Occurrence	P50		P90		P50		P90	
Virtual Net Metering	Yes	No	Yes	No	Yes	No	Yes	No
RESULTS:								
NPV	\$ 2,995,216	\$ 2,135,987	\$ 2,263,109	\$ 1,600,756	\$ 1,611,525	\$ 1,611,525	\$ 1,458,002	\$ 1,458,002
IRR	NA	NA	NA	NA	12.18%	10.61%	10.39%	8.98%
REVENUES:								
Total contracted Power Revenue	\$ 2,275,196	\$ 2,275,196	\$ 2,275,196	\$ 2,275,196	\$ 2,422,936	\$ 2,275,196	\$ 2,422,936	\$ 2,275,196
Total Contracted REC revenue	\$ 2,925,863	\$ 2,925,863	\$ 2,950,481	\$ 2,950,481	\$ 2,925,863	\$ 2,925,863	\$ 2,950,481	\$ 2,950,481
Total merchant revenue	\$ 7,162,133	\$ 5,723,166	\$ 6,084,147	\$ 4,861,761	\$ 7,032,713	\$ 5,723,166	\$ 5,954,727	\$ 4,861,761
Total Sales Revenue	\$ 12,363,193	\$ 10,924,226	\$ 11,309,825	\$ 10,087,439	\$ 12,381,513	\$ 10,924,226	\$ 11,328,144	\$ 10,087,439
EXPENSES:								
Total Operating Expenses	\$ 1,532,603	\$ 1,532,603	\$ 1,532,603	\$ 1,532,603	\$ 2,156,692	\$ 2,142,119	\$ 2,146,158	\$ 2,133,751
EBITDA	\$ 10,830,590	\$ 9,391,623	\$ 9,777,222	\$ 8,554,836	\$ 10,224,821	\$ 8,782,107	\$ 9,181,986	\$ 7,953,688
Total Interest	\$ 2,185,902	\$ 2,185,902	\$ 2,185,902	\$ 2,185,902	\$ -	\$ -	\$ -	\$ -
Total Loan Principal	\$ 4,221,197	\$ 4,221,197	\$ 4,221,197	\$ 4,221,197	\$ -	\$ -	\$ -	\$ -
NET CASH FLOW	\$ 4,426,024	\$ 2,987,057	\$ 3,372,656	\$ 2,147,832	\$ 10,228,548	\$ 8,785,806	\$ 9,185,684	\$ 7,957,362