

***Informational Hearing On
Energy Efficiency and
Renewable Energy
&
Committee on Global
Warming and Climate Change***

November 6, 2009

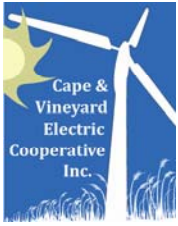




Agenda

- Cape & Vineyard Electric Cooperative, Inc. – Joe Soares
- Residential Energy Efficiency Programs - Briana Kane
- Commercial & Industrial Energy Efficiency Programs – Vicki Marchant





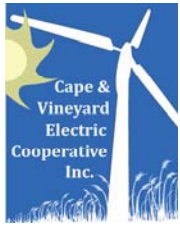
Cape & Vineyard Electric Cooperative

- Organized on September 12, 2007
- Three initial members: Cape Light Compact, Barnstable County and Town of Barnstable
- Currently 14 members
- Founding purpose – develop renewable energy projects



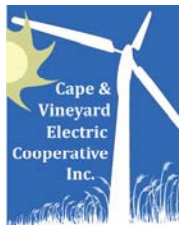
Why Did We Pursue Forming an Electric Cooperative?

- Financing large scale renewable energy projects will generally not affect a Town's individual debt obligations
- Lower cost financing (Rural Utility Service, Cooperative Finance Corporation, potential financial backing with state renewable energy trust funds)
- Regional Benefits
 - Professional and technical expertise in the energy field
 - Central contract for purchasing, operation and maintenance, and general administration



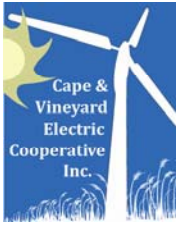
Benefits of Joining the Cape & Vineyard Electric Cooperative

- Lower cost financing (Rural Utilities Service, Cooperative Finance Corporation)
- Electric Cooperative structure generally limits member liability exposure to member pledge or capitalization
- Benefits of net metering law will bring financial savings to towns and consumers
- Develop projects that will benefit all ratepayers



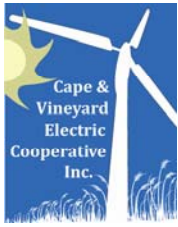
Scope of Authority of the Cape & Vineyard Electric Cooperative

- Law allows cooperative to, among other things: (1) purchase and own generation, transmission and other projects and property; (2) enter into contracts and incur liabilities; (3) borrow money, issue notes and bonds; (4) private/public collaboration (contractual); (5) purchase, sell and distribute energy; and (6) sell electricity to any consumer within cooperative member communities



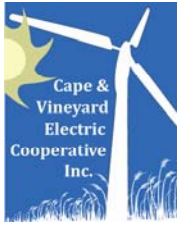
Membership

- Eleven Towns (Barnstable, Bourne, Brewster, Dennis, Eastham, Edgartown, Harwich, Mashpee, Orleans, Provincetown and Tisbury)
- Two Counties (Barnstable and Dukes)
- Cape Light Compact
- Applications pending for the Towns of Falmouth, Sandwich and Yarmouth



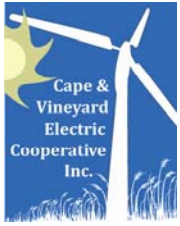
Rights and Obligations of Membership

- The Compact is entitled to receive 10% of the annual energy output.
- The Host Member is entitled to net meter up to ninety percent (90%) of the energy output (but not capacity or RECs) from any projects located on municipal land against such Member's municipal accounts up to the limit of project output or municipal load.
- The remaining energy output shall be allocated to other Cooperative members on a *pro rata* basis.



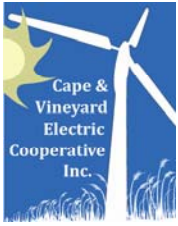
Proposed Renewable Projects

- The following land based wind projects are in various stages of feasibility study or pending RFP for EPC contract:
 - CVEC, one to two 1.5 MW wind turbines
 - Town of Brewster, two to four 1.65 MW wind turbines
 - Town of Harwich, two 1.5 MW wind turbines



Structure of Projects – Power Purchase Agreements

- With the Host Member Town
 - The Cooperative will sell up to 90% of the power from a project to the Host for the Host to net meter its municipal load
- With the Compact
 - The Cooperative will sell 10% of the power from each project to the Compact to benefit all ratepayers
- With other Member Towns/Counties
 - The Cooperative will sell any remaining power on a *pro rata* basis to its other Members



Cape & Vineyard Electric Cooperative PV Project

- Collaborating with a private entity to invest \$5 - \$10M in PV installation (916 KW).
- Round One of installations to be completed by December 31, 2009
- Private entity owns PV installation for 15 years and flips ownership to Cooperative
- Cooperative has 15 year fixed price power purchase agreement and REC agreement with private entity
- Host town participates in net metering, estimated savings of 5 cents/kWh per year over life of the PV system (assumes energy prices remain constant)

Cape Light Compact

- Represents all 15 Cape Cod and 6 Martha's Vineyard towns and 2 Counties
- Inter-municipal Organization
- Formed in 1997
- Municipal Aggregator, obtain competitive power supply
- Administer Energy Efficiency Programs
- Advocate for Consumers



Energy Efficiency Programs

- Commercial/Industrial/Government
- Residential
- Low Income
- Annual 2009 Budget of \$10.0 Million

- Proposing Significant Increases as part of statewide implementation of Green Communities Act beginning in 2010
→ *more info about our 2010-2012 Energy Efficiency Plan is on our website*



Residential Energy Assessment

- **Education and Information**
- Instant savings measures installed:
 - ENERGY STAR Lighting, pipe wrap, weather-stripping
- **Energy Efficiency Incentives – shared costs**
 - Insulation, air sealing, refrigerator replacement incentive, digital setback thermostats, heating system rebates, ENERGY STAR® qualified window rebate
 - Call to sign-up **1-800-797-6699**



Residential Energy Assessment

- How It Works
- Call **1-800-797-6699**
- Visit is scheduled (approx 4 week wait)
- Audit (between 1 – 2 hours)
- Recommendations and Incentives Offered
- Choose all/priority items and proceed with work (CLC contractor or your own pre-approved contractor)



Increased Incentives

More Customers Served

- **75% of cost (up to \$2000) toward recommended air sealing and insulation measures**
- **Zero/low interest HEAT Loan**
- **Special 100% enhanced program for income eligible customers**



Expanding Residential Pilot Projects

**microCHP
combined heat
and power
produced
from natural
gas**



**Deep Retrofit
greater than
50% energy
savings for
major mods**



Low Income Programs

- Eligibility: Household income at 60% or less than median
- Community Action Agency – Fuel Assistance
 - South Shore, Plymouth 1-877-383-5243
- Energy Efficiency Programs
 - 100% Funded
 - Cape Light Compact 1-800-797-6699
- Utility Discount Assistance Rates
 - National Grid - Gas 1-800-532-9600
 - NSTAR Electric 1-800-566-2080



Winter Energy Saving Tips

- Stop air leaks and drafts by installing weather stripping, spray foam and caulk
- Clean and tune-up heating system, change furnace filters
- Install programmable thermostat – 10% saved for 10 degree reduction for eight continuous hrs



Commercial and Industrial Programs

- C&I New Construction
- Large C&I Retrofit
- Small C&I Retrofit
- Government Agencies
- C&I Products and Services



C&I Program Goals

- Energy efficient buildings
- Enhanced working environment
- Reduced environmental impact
- Energy funds administered locally



C&I New Construction

- New or substantial reconstruction, renovation, or remodeling
- Equipment replacement
- Technical and design assistance
- Financial Incentives
 - Municipals @ 100% up to \$150,000
 - New construction incremental cost



Large C&I Retrofit

- Existing buildings with >300 kW monthly electric demand use
- Technical and design assistance
- Measures include lighting, controls, HVAC, motors and drives, compressed air systems
- Financial Incentives
 - Municipals @ 100% up to \$150,000
 - Project cost of labor and material



Small Commercial & Industrial Retrofit Program

- Existing facilities with <300kW monthly electric demand use
- Turn-key program from audit to installation of approved measures
- Expert installation by CLC's vendor Rise Engineering
- Financial Incentive
 - Municipal 100% up to \$150,000
 - Direct invoice from Rise to CLC



Town of Falmouth Program Participation

Reported for Fiscal Year 2009
July 2008 through May 2009

- 957 participants
- \$304,109 in energy cost savings
- 1,520,544 kWh energy savings

- 45 businesses
- 580,669 kWh energy savings

- Falmouth Artist Guild

- Falmouth Service Center

- US Coast Guard at Little Harbor Rd

- Waquoit Bay National Estuarine Research Reserve



Town of Falmouth Municipal Participation

- Energy Scoping Assessments
- Energy Star Portfolio Analysis
- Energy Audits and Benchmarking
- Energy Efficiency Staff Training



Town of Falmouth Municipal Participation

- Falmouth Town Hall
- Falmouth Water District
- Gus Canty Recreation Center
- Fire and Police Facilities
- DPW Facilities
- Falmouth Public Libraries
- Falmouth Public Schools
 - Falmouth High School
 - School Administration Building
 - Elementary Schools Benchmarking



C&I Program Products and Services

- Training and Education
 - Best Practices Workshops
 - Building Operator's Certification
 - Advanced Buildings Training
 - Energy Management Planning
- 08 December 2009 @ MMA
 - Energy Planning for Today and Tomorrow
 - Energy Codes
 - LEED and CHPS
 - ARRA Activity
 - American Recovery and Reinvestment Act



Cape Light Compact Contacts

- www.capelightcompact.org
- Energy Audit 1-800-797-6699
- Energy Education
 - Debbie Fitton 508-375-6703
- Power Supply
 - Joe Soares 508-375-6623
- Residential Programs
 - Briana Kane 508-744-1277
- Commercial & Industrial Programs
 - Vicki Marchant 508-744-1278



Thank you!

