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](http://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!