ISLAND PLAN
CHARTING THE FUTURE OF THE VINEYARD

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Energy and Solid Waste Work Group

Meeting Notes of December 6, 2006, 4:30, VTA Building (Airport Business Park)

Present - Members:

John Abrams
Monica Alessi
Richard Andre
John Best
Dean Bragonier
Peter Canaba
Frazier Colon
Bill Cote
Chas deGeofrey
Nan Doty
Phil Forest
Chris Fried
Angie Grant
Gary Harcourt
Don Hatch
Shaun Hickey
Warren Hollinshead
Carole Hunter
Fred Mascolo
Marilyn Miller
David Nash
Peter Newman
Megan Ottens-Sargent
Sander Shapiro
Susan Shea
Elio Silva
Bart Smith
Sharon Strimling Florio
Marnie Stanton
Tom Sullivan
Bill Thorp
Lynn Thorp
Justin Tourigly
Richard Toole
Kate Warner
Bob Woodruff

Present – MVC Staff: Mark London, Christine Flynn, and Bill Veno

1. Welcome

Kate Warner welcomed attendees at 4:40 at this, the first meeting of the full Work Group. She asked the Core members of the work group to identify themselves (Kate Warner, Bart Smith, Phil Forest, Don Hatch) and she identified the core members who could not attend the meeting (Russell Smith, Kitt Johnson, Dick Knabel, Paul Strauss, Fred Lapiana). The purpose of today's meeting is twofold: 1) to examine the recommended actions from the Vineyard Energy Project's 10-Year Energy Action Plan and discuss ways for executing them, and 2) think about the state of the Vineyard in 25 years and in 50 years with regards to energy and waste issues.

2. Island Plan Overview

MVC Executive Director Mark London asked how many people in attendance knew of the Network of Planning Advisors (a little more than half) and proceeded to briefly outline the structure of the Island Planning process and the other work groups that are also underway. He invited people interested in joining the network to give their contact information on the sign-in sheet. As there are dozens of people have expressed interest in one or more of the plan's ten topics – about 80 for the Energy and Waste Work Group -

the Steering Committee felt it necessary to identify in each group a "core" of 8 to 10 members to be responsible for making sure the group executes its charge from the Steering Committee. Core members have agreed to a more involved role in the planning process, meeting more frequently and being responsible for content that reflects the input from the entire Work Group.

3. Working Premises

Kate stated that the Energy and Waste work group was, in some ways, ahead of the other work groups in that a lot of recent study and planning has been conducted upon which the core suggests the work group build rather than start from scratch. The core group suggests that making a paradigm shift throughout the community is key to accomplishing goals of the Energy Action Plan and other energy and waste changes. She referenced the draft Mission and Goal statements that had been distributed to members several days before and which appeared on the bottom of their copies of the meeting agenda. Members should take a few minutes within the smaller breakout topic groups to further discuss the draft statements.

4. Break Out Session

Kate instructed attendees to separate among four tables, each with a different topic:

Energy Efficiency/Conservation – structural (building/appliance); behavioral
Energy Production – focus on solar/wind (most technologically feasible)
Solid Waste/Biomass – "Reduce, Reuse, Recycle;" waste conversion to energy/products
Transportation –the single biggest energy user

In addition to briefly discussing the draft Mission and Goal statements, each table was give two tasks:

1. Short-term (10-Year)
   - Review recommended actions of the Energy Action Plan
   - Discuss methods of implementing each action, focusing primarily on marketing
   - Identify the one or two best implementation strategies
   - Identify the most unusual/innovative idea
2. Long term (25- and 50-Year)
   - Describe the Vineyard in 25 years and in 50 years as related to the table's topic.

5. Topic Reports

After meeting individually for 50 minutes, each topic group reported to the entire meeting its top short-term implementation strategies and visions of the future. [See each report appended to the end of these notes.]

6. Next Steps

Kate said that, next week, the information from today's meeting will be compiled and distributed as a draft for corrections to the Work Group members via the islandplan website

(www.islandplan.org), with the intend of finalizing the meeting notes by December 15. Soon thereafter, the core members will meet to identify ways to proceed.

Kate thanked people for their active participation and adjourned the meeting at 5:35 pm.

Meeting notes prepared by Bill Veno from each breakout group's tabletop notes.

Transcriptions of tabletop notes from the four breakout groups

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Energy Efficiency [EE] (John Best, Chas deGeofrey; Chris Fried, Susan Shea, Elio Silva, Marnie Stanton, Richard Toole, and table reporter Phil Forest)

Short-term (10-Year)

- Switch to more efficient light bulbs:
    - Compact (CFL) lighting demonstration at a public building to show people how good CFLs look.
    - Ask retailers to stock more CFL bulbs and fixtures; education for retailers.
    - Open house tour of homes with CFLs to show what the illumination is really like in residential setting.
    - CRL display at local businesses, such as Mansion House.
    - Create logo, make plaques for businesses to hang-up showing they only use fluorescent lighting (or don't use incandescent).
    - Develop disposal plan to address CFL mercury. Make it free to recycle/dispose of CRL's, like Rechargeable Battery Recycling Corporation (transfer station currently charges $1/bulb).
- Approach businesses that have unnecessary lighting
- Increase school energy education programs: kids ("energy detectives" or "junior energy corps") conduct energy audit of homes, businesses. Kids give prizes/awards to people and business owners that use the least amount of energy.
- Provide examples and education on how to compare life-cycle costs of appliances.
- Establish per capita energy (beyond electricity?) allowance. If people choose to go above, they pay extra, which funds EE programs.
- Gasoline quota per car; only sell limited amount (8 gals?) of gasoline per stop at the pump
- Parking meters that charge more for SUVs (already exist in England).
- Talk/educate contractors who leave diesel trucks running while working.

- Playground equipment that makes electricity; a bicycle that powers a television.
- Request auto rental agencies offer hybrids and other super-efficient, low-emissions vehicles.
- A Vineyard building code requiring greater EE; establish standards, long-term goal, milestones.
- At sale of homes, require energy audit and upgrade to EE code (similar practice to septic systems).
- Create energy "thermometer" showing how much energy Island is using each month. Could be accessed on line allowing people to visually gauge Island's progress in reaching goals for improvements/reductions.
- 10-year target: establish Island utility co-op.

Long term (25- and 50-Year)

- 25-year target: reduce non-renewable energy use on Island by 50% (Ideas – only CFLs available on Island; all old houses have upgraded insulation and appliances; rewards for people making a difference on EE; 75% of houses have solar hot water; new houses are solar-oriented; change the way electricity is transported)
- 50-year targets: Net-zero energy (Ideas – all houses have separate zones capable of being closed off when not in use and not heated; heat clusters of building with steam system generated by waste)

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Energy Production (Gary Harcourt, Kate Warner, Tom Sullivan, Warren Hollinshead, Dean Bragonier, Lynn Thorp, Monica Alessi, Peter Canaba, Bill Cote, and table reporter Kate Warner)

Mission and Goal Statements

"Energy neutral" means a balance of energy impacts. Goal of energy independence is not realistic; will never cut off cables. Federal Energy Policy Act includes that the U.S. will be energy self-reliant in 20 years.

Short-term (10-Year) [*note: this group was tasked to look at how to implement the recommendations from the Energy Action Plan, essentially limiting the discussion of energy sources to solar and wind. Group members observed that at least five household-based, Island companies presently produce a commercially viable geothermal product and, thus, geothermal should be added to the discussion. Below, geothermal only appears in the long-term discussion.*]

Perspective: Energy usage of Island vs. what it takes to produce that energy.

- Slogan: "Solution to Pollution"
- Emulate Santa Barbara's blue line demarcation on streets and buildings of projected sea level rise. Mark the 20-year and 50-year projected levels in downtown Edgartown; provide map of same; parade float with similar info.
- Get each town to install a prominent wind turbine
- Install 500 2.4 KW solar arrays similar to one at SSA building:
    - allowances for zoning variances as credits for energy self reliance
    - make town bylaw recommendations

    - towns lead by example (and demonstrate commitment) by installing one on every school, town hall, police building
    - raffle off a system
- VEP's recommendation of ten 10 KW turbines within 10 years will happen with market forces; recommend to Steering Committee to increase the target number (twenty turbines?).
- VEP's recommendation of a 100 KW and Ice Arena, school, or hospital:
- Practicality of large turbines at landfill need more research (concern of perforating landfill cap membrane). Aquinnah not practical due to distance from substation.
- Get SSA to use biodesiel in new boat, Going Home (today!). Have the ability to work with SSA (now!)

<u>Long term (25-Year)</u>

- Renewable energy mechanisms' overflow used to produce hydrogen as a storage medium and to power public transit.
- The Island will be self sufficient for electricity and fueling of automobiles by off-shore wind.
- Huge mix of new and existing technologies due to paradigm shift regarding consumption/economic viability/underpinnings.
- Will be telling story about how we saved the human race; that we were able to do this as an Island and was an example to other communities.
- Everything will be electric
- Consumption must be checked
- Biodesiel from wastewater-grown algae (currently done in New Zealand)
- Builders required to take a renewable energy course
- All new buildings will be energy neutral

<u>Long term (50-Year)</u>

- 50% of new Vineyard homes are entirely heated by geothermal energy.
- Utilize sewage, biomass, wood, wind and solar PV to produce hydrogen.
- In 50 years there will be no combustion of fossil fuels on MV
- In 50 years the Island has its own power project
- All housing will have some renewable energy generation component (starting with affordable housing)
- All Island transit powered by renewable energy

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Solid Waste/Biomass (Frazier Colon, Nan Doty, Christine Flynn, Don Hatch, Shaun Hickey, Carole Hunter, Mark London, Fred Mascolo, Marilyn Miller, David Nash, Bill Thorp, and table reporter Bob Woodruff)

Short-term (10-Year)

- Create energy task force alliance
- Reuse organic resources first:
    - create swapshops for clothing, furniture, construction debris and packaging and shipping materials (latter used for moving, gifting and shipping)
    - composting, or conversion to energy
    - recycle materials
- Convert organic resources to energy:
    - Use biomass from State Forest for school furnaces.
    - Use construction debris for wood-fired dual system/oil burner
    - Use modern incinerator (different from Nantucket's) (check on practicality and best practices)
- Educate through workshops and provide incentives to towns, business community and individuals:
    - on use of low-energy light bulbs, energy saving appliances, low-flow showerheads.
    - separate food from recyclables and trash (clarify that BFI/CMASS really recycles)
    - get citizens to do [recycle?] their own waste
    - remove roadblocks: payment, change of habits, availability of more containers
    - require several dumpsters at construction sites for material sorting
- Remove roadblocks to recycling
    - Curbside pick-up instead of homeowner taking trash/recyclables to transfer station
    - Fund pick up and disposal through taxes rather than pay-as-you-go (may also alleviate roadside- and empty-lot dumping)
- Get all waste managed under one system to create a fully functional infrastructure (Tisbury and OB are not in the regional waste district)

Long term (25- and 50-Year)

- Create waste/energy closed production system
- How to change mindset of Vineyarders for the long run? – marker/meter to show E/W use declining
- Create net zero system of some kind for Island
- Grow energy crops (as in Sweden) – cycle of growing, burning, residue disposal pulls heavy metals out of soil
- Investigate viability of MV running its own recycling/reuse/compost facility similar to Nantucket's
- Somehow use wastewater sludge/compost for production of energy
- Create better opportunities on Island to make it easier to comply with new ways

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Transportation (John Abrams, Richard Andre, Angie Grant, Peter Newman, Megan Ottens-Sargent, Justin Tourigly, Bill Veno, and table reporter Bart Smith)

Mission/Goal Statements: Reliability should be included in these statements, should measurable strategies.

The community needs to acknowledge its successes. For example: A complaint today is that "sometimes the VTA bus doesn't run in the off-season," but seven years ago, there wasn't any bus service available.

Short-term (10-year)

- Focus on reducing vehicle miles traveled as having the greatest impact on energy use and carbon emissions.
    - Rideshare program – develop an electronic database to facilitate drivers/riders finding each other.
    - Regionalize taxis, allowing them to carry passengers in two directions; centralized dispatching and track electronically.
    - Promote incentives for resorts/developments to entice customers to "leave the car behind."
    - Provide VTA more flexibility and responsiveness with use of mini-transport
    - Assess fees to developers of projects that impact traffic and parking.
    - Implement a nominal ($30) parking fee in all towns, the proceeds going to other transportation items.
    - Develop a fossil fuel impact fee for all vehicles – including planes aircraft and watercraft.
- Promote using current availability of bio-diesel.
- Through towns' licensing procedure, phase-in required percentage of rental car fleet be hybrid.
- Locally subsidize, and lobby state and federal governments to subsidize, bio-diesel and other alternative fuels.

Long term (25- and 50-Year)

- Seamless transportation system between transportation modes and between Island and mainland.
- All vehicles fueled by non-fossil fuels (preferably, locally-produced). The Island's compact size and small number of gas stations makes it a great testing ground for hydrogen-powered vehicles.
- System of multiuse paths will be as extensive as the road system. As many miles of footpaths as miles of roads.