

## **Energy & Solid Waste Work Group Core**

Meeting Notes of April 18, 2007, 4:00 p.m.

MVC Stone Building, Oak Bluffs

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Members Present: Phil Forest (co-chair), Kitt Johnson, David Nash, Paul Pimentel, Sharon Strimling Florio (co-chair), Kate Warner

Members Absent: Don Hatch, Fred Lapiana, Bart Smith, Russell Smith, Paul Strauss, Susan Wasserman (SC liaison)

MVC Staff Present: Bill Veno

Others Present: Chris Fried

The meeting started at 4:05

### **1. Consideration of Transportation Section of Synthesis Document**

Bill distributed the three-page draft and prefaced with the note that his drafting of the Transportation section tried to focus on just the energy consumption aspects rather than on emissions reduction.

From the outset, the Core had identified transportation as one of the Work Group's four subtopics because it accounts for nearly half the Island's total energy use. Questions about where the plan will deal with the movement of people and goods – beyond the energy requirements needed – will fall upon the Transportation Work Group (which the Steering Committee has yet to create). Core members reaffirmed that transportation should remain an individual section because:

- Its large role in the Island's energy use.
- The fact that changes to transportation infrastructure and driving habits will likely be significantly harder to achieve than improvements in electricity use and building energy use.
- The transportation-related energy issues, goals, and strategies will have increased visibility.

Goals/Objectives: One objective addresses reduction in the demand for transportation energy and two objectives address transitioning the Vineyard from fossil fuel-based transportation to, ultimately, locally produced renewable energy.

Targets: Paul P's model for calibrating the changes in energy production and efficiencies for any given target level over a given time span includes assumptions regarding migrating from gasoline and diesel use. When a particular set of targets has been agreed upon, those relating to transportation can be plugged into this section. Some targets not measured in units of energy, such as transit ridership as a percentage of vehicle miles traveled, may also be employed to measure progress, but these have yet to be developed.

Strategies: Not all of the items suggested by the Work Group had yet been placed under one of the objectives, as nearly all of them will be. As our culture is highly car-oriented, strategies should emphasize incentives to get people out of their cars. These should address convenience and financial rewards. The group acknowledged that Transportation would be the hardest area to redirect people's behavior.

Kate thought the draft looked pretty good and offered to work with Bill to finish it up.

## **2. Targets**

Paul P. reviewed his spreadsheet modeling production and efficiency targets. The model's purpose is to provide ballpark numbers to evaluate the reasonableness of the targets. For inputs, the model uses the 10-year Energy Action Plan data for the different fuels, MVC population projections, and technological assumptions based on Paul's industry experience. The model is dynamic, allowing different scenarios to be tested.

The question of how aggressive to make the targets became influenced by a rudimentary estimate of the targets' impact upon Carbon reduction. Paul approximated that the Island would reach 80% reduction by 2028-29 with the aggressive set of targets and by 2042 with the more moderate set of targets. Paul said he would run the numbers again with specific factors, which will provide a more accurate estimate of Carbon reduction. Based on the anticipated difficulty in making transportation-related energy improvement, but that such improvements are critical to achieving any of the long-term targets, the Core decided to proceed with the moderate targets, except that the aggressive targets will be used for building efficiency, for which the technology exists and is easier to implement. Paul will re-run the model with that mix of targets.

The Core members complemented and thanked Paul on creating the sophisticated and useful model. It was suggested that the model's energy units be converted to symbols representing the number of, say, wind turbines that would be required to provide the amount of energy cited in the model.

## **3. Old Business**

Geothermal: The group concurred that, while the electricity requirements of geothermal systems significantly diminishes the technology's efficiency (a ground source heat pump in our climate is about 100% energy efficient when heating; a new oil fired boiler is about 82% efficient), they hold promise – especially for converting renewable electricity to building conditioning and hot water heating – and should be cited among the renewable energy options in the Production section.

Philosophical Foundation: Since the previous Core meeting, some members had been debating the merits of how "local" is "local energy" and whether the Work Group should be promoting strategies that are not "green" in the truest sense, but are "greener" than most practices in the community. It was acknowledged that the community will have to rely upon the "greener" actions to transition from Carbon-based to Carbon-free energy production and use. Thus, the plan will promote the use of biodiesel to reduce diesel use and emissions, but the ultimate goal is to not even have biodiesels on the Island. The plan should emphasize that the various technologies have to be evaluated on an individual basis against alternatives and in consideration of associated impacts such as from the source of electricity generation or energy used in shipping. This will be particularly important in keeping up with advances in technology.

All agreed that efficiency measures should be the first steps anyone should take before considering energy production systems. Efficiency is the priority.

## **4. Next Steps**

- Paul P. will run the numbers using the 2050 targets for overall, but the 2030 targets for the building energy use. He will also refine his approximation of carbon savings.

The Core's next meeting would normally be May 2. Kate observed that most of the Core members will be heavily involved in the Living Local program scheduled for April 28 and will not likely have

much time to dedicate to the Core's work. No decision was made on whether to meet then or at another time.

Next Meeting: (TENTATIVE) May 2, 2007, 4:00 p.m.

Potential Agenda:

- Finalize Proposed Production and Efficiency targets
- Finalize Bolds and Readies.
- Finalize the document introduction

The meeting concluded at 6:15 p.m.

*Notes prepared by Bill Veno*