

## DRAFT OF ADDENDUM TO FINAL REPORT

In our final report, the Renewable Energy/Wind Power (REWP) Committee recommended that a municipally owned and operated 600KW or similar turbine be installed on Site 1 in the Orleans Watershed. The recommendation was based on a successful financial feasibility study completed by Weston and Sampson for the municipal ownership model. Included in that recommendation was a caveat that stated:

*“... if any of the variables that led the Committee to this recommendation change, such as electrical rates, net metering legislation, and regional ownership opportunities (CVEC), that the Board of Selectman should re-visit this recommendation and modify it if necessary, so that this recommended action is in the best interest of the Town. “*

Recently, the Cape and Vineyard Electric Cooperative (CVEC) financial pro-formas (attached) for a wind project in Orleans became available. On September 14<sup>th</sup>, the Committee at our regularly scheduled meeting reviewed them and discussed the original recommendation. The pro-formas from the CVEC covered two conditions: one for a single 1.5 MW turbine, the second for two 1.5 MW turbines. Both pro-formas were for installations in the Orleans Watershed.

Based on the Committees final report, this new regional information was significant and it needed to be compared to the variables that led the Committee to its original conclusion. The Committee compared the financial benefits to the town for both the municipal and the CVEC models. The closest comparison we were able to make was between the single 1.5MW project and the Town 600KW project. We would like to note that a single 1.5 MW turbine in the watershed results in far more return to the town than does the single municipal 600KW turbine. In fact, the two 1.5MW turbine proposal provides even greater returns than does the single turbine CVEC model. .

## FINANCES OF WIND TURBINES

We do note that the project scale in both cases involves larger wind turbines that are inherently more efficient and powerful than the scale recommended in our final report. In wind, economies of scale exist such as the larger the kW rating for the turbine, the lower the installed purchasing costs per kW of output. If the output of a turbine can match the municipal electric load of the Town then the total output of the turbine can be sold back at retail rates. This maximizes avoided electrical costs. In the case of the CVEC, it has a larger load (total membership load) and the ability to distribute 100% of the production of either project to those member towns at retail rates. This allows the

CVEC model to put up turbines that are more efficient and powerful yet still distribute 100% of the production at retail. This method offers the best deal back to the host Town.

#### NET METERING

In order for a Town or agency to take advantage of “net metering” on a wind turbine project, that Town must list all accounts to be used or offset by the facility (net metering Schedule Z). The value of the energy produced by the turbine is only available to accounts pledged. Thus, providing power to any future load will not be allowed unless the energy is delivered on existing accounts supplied. If any new town loads were added, such as a new Town building, a different renewable energy project would be needed to supply that electricity via net metering.

#### REGIONAL OPPORTUNITY

In the case of the CVEC model it clearly provides Orleans with significant financial advantages. Regional projects can seemingly better manage and absorb potential uncertainties. In the case of the CVEC Orleans pro-forma the cash lease payment figure can be used as a buffer to uncertainty in the estimates. In addition, the CVEC model allows Orleans to become a player in the larger CVEC community by supporting member CVEC towns on the Cape & Islands with the excess power produced by our turbine(s) it also increases the strength of the regional base with regard to creating renewable energy, funding, pricing and reduction of downside risk for all member towns.

In conclusion, the Committee voted to modify our original recommendation and submit this addendum to our final report. The Committee recommended that the CVEC model be considered for development of a wind turbine in the Orleans watershed. The Committee felt that it was the best ownership model for financial returns to the town. We believed that it would have been the lower risk model if governance details and conditions could have been worked out and understood. We also believed that there could be additional financial benefits negotiated for the town as compared to the financial data presented.

The Committee felt that governance of a wind project is an important issue. The major difference being that for the municipal model the town is in charge and has complete responsibility for success or failure. However, in the CVEC model, the town is a single member of the responsible organization.

The Committee believed that beyond our financial and liability recommendations, an evaluation of CVEC legal commitments should be done by the Town Administration dealing directly with the CVEC.

#### FINAL DECISION

Even though the inherent advantages of larger turbines will not be realized at this point, the Committee very much supports the Selectmen's September 16th decision to go with the original project of a municipally owned and operated turbine, 600KW class or similar, in the Orleans Watershed.

Should the Town reach a roadblock with the municipally owned project, the CVEC model should then be explored.

Meanwhile, the Committee is poised to help move this project forward for the Town.