

## ***Case Study: Municipal renewable power***

### **Challenge**

Since 1635, the landscape of the Town of Orleans on Cape Cod in Massachusetts has included windmills; the Town's seal features an old-time windmill. In 2003, the Town decided to evaluate the economic and practical feasibility of installing and operating a modern wind turbine to power a drinking water treatment facility. The Town sought the assistance of the Massachusetts Renewable Energy Trust (since replaced by the Massachusetts Clean Energy Center). At the time, the Trust promoted renewable power development in the state, including helping develop community-scale wind power projects in multiple towns statewide. The Town of Orleans became the first town to join the Trust's Community Wind Collaborative program.

The Town determined that a two turbine, 3 MW project would be technically feasible. The Town and the Trust agreed to work out the financial details of the project. The Trust hoped to structure the project to attract private investors; the Town's goal was to have the project provide sufficient financial compensation to justify the Town acting as the site host. These included the price of power sold by the project to the town, property taxes, and other project payments. The discussions were complicated by the financial impact of significant turbine price increases. The Trust and the Town agreed to use a pro-forma financial model developed earlier by Birch Tree Capital for the Community Wind Collaborative program as the basis for negotiating specific financial terms. The Town's officials and volunteers, however, lacked experience with such models. The Committee asked Birch Tree Capital for help.

### **Approach**

The Town engaged Birch Tree Capital to provide context on the economics and financing of wind projects and to assist in the financial negotiations with the Trust. The Birch Tree Capital team reviewed the Trust's model and the Town's financial compensation objectives. The team identified the model's electricity pricing and other operating assumptions relating to the Town, compared them with industry norms, and identified options for adjusting the model structure and assumptions to reflect the Town's needs. At the Town's request, Birch Tree Capital modified the Trust's model to incorporate certain of the options and prepared a memo explaining the model changes and their impact on the project's overall projected financial results. The Town adopted the modified model and the Birch Tree Capital memo as the Town's official position in the negotiations with the Trust.

### **Solution**

Birch Tree Capital's familiarity with financial models for community wind power projects and with financing options for such projects helped the Town clarify its own financial goals first amongst its own staff and then with the Town's negotiating partner. The Town ultimately decided not to proceed with the project to avoid perceived insufficient financial return on their role.

**Quote:** *"Birch Tree Capital provided valuable assistance in explaining how wind power projects are financed. They worked hard on our behalf translating our needs into the precise language of a financial model and delivered what we asked for."* – Kevin Galligan, Chairman, Town of Orleans Wind Energy Committee.