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# **COSTS AND BENEFITS OF NOBLE CHATEAUGAY AND BELLMONT WINDPARKS ISSUES FOR COUNTY OF FRANKLIN IDA'S CONSIDERATION**

Prepared for:  
**County of Franklin Industrial Development Agency**

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# **COSTS AND BENEFITS OF NOBLE CHATEAUGAY AND BELLMONT WINDPARKS**

## **ISSUES FOR COUNTY OF FRANKLIN IDA'S CONSIDERATION**

June, 2007

### **SUMMARY**

On balance, the proposed wind farm represents a significant opportunity for Franklin County. Alternative development options are limited in the near term. The spectacular success of Tech Valley\* initiatives in the Capital District has stimulated development pressure north of Saratoga County and, we believe, will eventually yield spillover benefits to Franklin County. Tangible impacts are well in the future, however.

While a positive development, the direct economic impact of the wind farm on Franklin County is very small. Ongoing economic activity is quite modest. Because of the rural character of the Franklin County economy and the relatively small industrial base, most of the benefits will be disbursed. We do consider the impact on both Franklin and Clinton County. While larger than the impacts on Franklin County alone, the impacts are still rather modest. The construction impacts, while likely substantial statewide, will be quite modest within the context of the two counties and do not extend over the life of the project.

This particular site has conspicuous economic value as a wind farm.

- ❖ Rural and distant from major markets, Franklin County has been a welcoming community, reducing siting costs relative to more populous regions.

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\* Tech Valley is a 19-county region of eastern New York State that spans from just south of Montreal to just north of New York City.

- ❖ Wind is a compatible “alternative crop” for Franklin County farmers; reimbursement is high enough to be appealing to many landowners.
- ❖ The Chateaugay-Bellmont site is exceptionally promising by virtue of its wind potential and its proximity to a transmission line.
- ❖ The proximity of the site to Noble’s Clinton County facilities provides Noble with economies of scale, both in maintenance and in managing the disposition of the power.

Just as hydroelectric power can only be generated from unique sites, wind power can only be harnessed once, and the community has every right to be compensated for allowing this scarce site to be used by Noble Environmental Power. Today’s negotiation with wind developers brings to mind the negotiation recently completed with the New York Power Authority over a license renewal for the state’s large St. Lawrence FDR hydroelectric dam at Massena. The citizens of St. Lawrence County, for example, had every right to expect compensation from NYPA for the right to exploit this natural resource for the benefit of the rest of the state.

The benefits for hosting land owners are clear. It is the responsibility of the Franklin County Legislature and, therefore, the County of Franklin Industrial Development Agency, to represent the interests of the county as a whole. Given the nature of the project and the relative narrowness of the county economy, the only benefit for Franklin County in awarding a permit is for the county to negotiate payment-in-lieu-of-tax and community hosting agreements that compensate them for the exploitation of this valuable resource.

## Contributing Staff

David Landry and Sergey Zinger provided invaluable help as interns in conducting research. Rochelle Ruffer and Kent Gardner conducted the analysis and wrote the report.

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## Staff Team

Kent Gardner and Rochelle Ruffer engaged in the research, conducted the analysis, and wrote the report. David Landry and Sergey Zinger helped to conduct the research and provided some additional information when requested.

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## PROJECT UNDERSTANDING

Noble Environmental Power and the County of Franklin Industrial Development Agency (FIDA) have requested a complete cost benefit analysis of the proposed wind farm project to be situated on the SW quadrant of the Town of Chateaugay (72 towers) and the adjacent NE quadrant of the Town of Bellmont (14 towers).

Alternative energy development has become a priority at both the state and national levels. A renewable portfolio standard (RPS) was adopted by the New York State (NYS) Public Service Commission in 2004.\* New York's RPS requires that the state be obtaining 25% of its total electricity load from renewable sources by 2013. Wind power is expected to play an important role in New York's drive to achieve this goal.

While it is clear that there are many potential benefits to wind power, there are also some potential costs. One often-cited concern is the visual impacts that wind farms have on the surrounding areas. FIDA is particularly concerned with the potential impacts that the change in the view may have on property values, follow-on investment, infrastructure, and housing starts in Franklin County. A more comprehensive evaluation of the benefits and costs is therefore warranted.

The wind farm exploits a resource that is, to some degree, a community asset, not just the property of the hosting landowner. The benefits of the wind farm should also be captured by the larger community.

The purpose of this study is to provide guidance to FIDA in their negotiation of the payment-in-lieu-of-tax (PILOT) agreement with Noble Environmental Power. The economic impact of the wind farm is one part of the puzzle. It is also important to understand the Federal and State programs available to aid Noble in their project, as

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\* See <http://www.nyserda.org/rps/about.asp>

well as the potential profit that may be gained to Noble in developing the wind farm. All of these factors will help to guide FIDA in determining the appropriate PILOT for which to negotiate.

## ASSESSING THE COSTS AND BENEFITS OF A WIND FARM

### Effects of Wind Farms on Property Values and other Investment Inconclusive

There have been multiple studies on the effects of wind farms on property values. Most have failed to prove a significant negative impact on property values, although results vary as discussed below.

Unfortunately, most of these studies have conducted in such a way that the results are inconclusive or unreliable.

A study may find, for example, that housing prices stayed the same or rose after the wind farm was built. Yet the correct comparison is not price trends in the same area before the wind farm was constructed, but relative price trends of other homes in comparable markets, i.e.: How has the change in the value of houses in the viewshed compared to the change in the value of comparable houses not in the viewshed over that time period? Many of the studies do not address this question.

In addition, many studies treat all houses within a five-mile radius as being equal. Very few studies document details of individual home sites, recognizing that any impact will be felt differentially by site.

Finally, many studies rely on opinion surveys of homeowners, realtors, or assessors. While instructive, opinion surveys do not produce definitive information on the relationship between an impact on the viewshed and real estate prices.

### *A Literature Review of Property Value Studies*

Unfortunately, there are relatively few quantitative studies of the impact of wind farm development on property values. The following section discusses the more often cited studies and provides a brief critique of each. In brief, there is no reliable evidence that wind farms affect market values; at the same time, evidence supporting the absence of an impact is weak.

### **REPP: Effect of Wind Development on Local Property Values**

The Renewable Energy Policy Project (REPP) studied approximately 24,000 transactions surrounding 11 different wind farms\*. The study contrasts average transaction values of houses within a five-mile radius of the wind farm to average transaction values for houses in a control group outside of the viewshed. Perhaps the most cited of wind farm property value studies, REPP's analysis comes to the conclusion that "There is no support for the claim that wind development will harm property values" (p. 9)

Curiously, of ten sites included in the analysis, REPP reports that prices *increased* relative to the "control" sites in eight of the locations. This result highlights the problem with REPP's relatively simplistic model. Although the large number of transactions would appear to make this a robust test, the authors implicitly assume that all other factors affecting price trends will balance out across the transactions within the viewsheds of the projects and the control areas. This rather blunt approach might be sufficient to detect a very large effect—a difference in the market that would overwhelm other neighborhood and local market influences—but is manifestly inadequate to detect what most would expect to be a relatively small difference, perhaps five to ten percent. Additional comments about the REPP study appear in the Hoen study, discussed below.

### **Impacts of Windmill Visibility on Property Values in Madison County, New York**

Benjamin Hoen studies property values surrounding a 20-turbine wind farm in Fenner, NY (Madison County)†. While the area is similar to Franklin County, the size of the wind farm is one-quarter the size of the proposed Franklin County project. Hoen begins by providing a literature review and assessment of current property value studies. CGR agrees with much of Hoen's criticism of previous studies.

Hoen follows the conventional definition of "viewshed" by including any property within a five-mile viewshed of the wind farm. Most

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\* Renewable Energy Policy Project (REPP). The Effect of Wind Development on Local Property Values, May 2003

† Hoen, Benjamin. Impacts of Windmill Visibility on Property Values in Madison County, New York, Bard Center for Environmental Policy, April 30, 2006

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studies treat all properties the same within the viewshed. However, Hoen engages in what he terms “ground-truthing” by visiting every property in his study to determine the exact visibility, if any, of the wind turbines. He assigns each property a score from 0 to 60 based upon number of turbines visible, as well as the observable portion of any visible turbines. Hoen’s model attempts to capture other factors influencing the price of a home as well. In addition to the impact of the turbines on the home’s viewshed, he also considers characteristics such as square feet, central air, age, pool, acres, and number of rooms.

Hoen employs a linear regression model to measure potential impact of the towers\*. He concludes that “our analysis ... failed to uncover any statistically significant relationship between either proximity to or visibility of the wind farm and the sale price of homes” (p. 34).

CGR believes that this study is the best designed analysis of the question. Unfortunately, the Fenner wind farm has only 20 turbines, thus has a much smaller visual impact than the project intended in Franklin County. As the first commercial scale project in the region the Fenner project also preserves a certain “novelty” effect for the project that can be expected to support real estate values, an effect that can be likely to wane over time.

Hoen’s conclusions are weakened by a relatively low number of actual sales (140 following the construction of the wind farm), only a subset of which involve properties with a high “visual impact” score. A study of the Fenner project conducted as part of Noble Environmental Energy’s environmental impact statement of the Chateaugay and Bellmont projects notes that there are few properties that have experienced a significant impact on their viewshed (see below). This confers limited explanatory power on the Hoen model.

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\* It is not clear that the linear model is the appropriate framework for studying this issue, although it is commonly used in most housing study literature. Hoen does test for some problems associated with linear models and concludes that the linear model is appropriate.

We hope that Hoen or others continue to monitor sales within the viewshed, thus adding to the power of the model.

**An Economic Analysis of a Wind Farm in Nantucket Sound**

This economic analysis of a proposed off-shore wind farm in the Nantucket Sound of Cape Cod\* addresses the potential impact of the wind farm on property values. The authors conducted a telephone poll of homeowners in the area inquiring as to their belief of the current value of their property and the potential effect of the proposed wind farm. Based on this poll, the report concludes that property values will almost surely be harmed (on average, by 4%) by the wind farm (p. 34-35). The authors also contacted 45 realtors and asked the same questions. The results from realtors indicate that, on average, home values will depreciate about 5% as a result of the wind farm (p. 36).

Unfortunately, this is not a reliable methodology. As the project is only hypothetical at this point and wind farms are relatively new to American homeowners and realtors, the opinions of both groups are founded on very thin knowledge and experience.

Nor would this property value study be relevant to Franklin County in any event. Not only is the Nantucket Sound wind farm offshore, but it is in a region with heavy tourism centered on the ocean, specifically the beautiful beaches. We would expect that the property values in question in the Nantucket Sound project would be far more sensitive to changes in their vista.

**Study of Property Value Impacts in Madison and Wyoming Counties, NY for Noble Environmental DEIS**

To determine the effect of wind farms on property values for the proposed wind farms in Franklin County, NY, Noble Environmental† contracted with property appraisal firm Klauk, Lloyd and Wilhelm Inc of Buffalo to analyze the impact of three existing wind farms on residential home values. Two (the towns of Madison and Fenner) are located in Madison County, NY, while the third is in the town of

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\* Beacon Hill Institute. An Economic Analysis of a Wind Farm in Nantucket Sound, May 2004

† Noble Environmental Power. Chateaugay and Belmont Draft Environmental Impact Statement: Appendix L, Property Value Analysis and Addendum L. Klauk, Lloyd and Wilhelm Inc. Real Estate Consulting Report of Influence of Wind Farms on Local Real Estate Values, December 2006

Wethersfield, Wyoming County, NY. The author, Darrel Lloyd, collects sales data of residential properties within a five mile radius for each of the respective wind farms. He separates the data into two groups by transaction date: 1995-1999 and 2000-2006.

Two addenda, one for each town, were added to the aforementioned appendix in April 2007. The new information consists largely of a summary of each town's typical economic indicators such as figures on population, income, employment, etc., in apposition to a section on similar data for Franklin County as a whole.

The author concludes that there is no evidence that the wind farms have had a negative influence on property values, yet he notes that "due to limited data a comprehensive statistical analysis . . . would not be relevant." Furthermore, his drive-by inspection revealed that "there were a minimal number of properties with a view of the wind farm due to the extreme topography . . ."

Mr. Lloyd performed a careful pairwise analysis of sales within the viewshed and found no evidence of property values that had declined as a result of the wind farms studied, subject, of course, to the caveats noted above, that there were limited observations overall and particularly limited observations among properties with a view of the wind farms.

### **Economic Impacts of Wind Power in Kittitas County**

As part of its study of a proposed wind farm in Kittitas County, WA, ECONorthwest\* conducted a phone survey of tax assessors for counties that recently had wind turbines installed in their areas. The total survey sample includes 22 wind farms and 13 counties. Of the 13 counties reviewed, six said that there was no effect on property values, six said there were no residential properties in view of the wind farm, and one said that it was too soon to tell (p. 4). The report comes to the conclusion that there is "no evidence supporting the claim that views of wind farms decrease property value" (p. 2). This is a useful contribution to the discussion, although it should be noted that it is a compilation of the opinions of six county assessors.

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\* ECONorthwest. Economic Impacts of Wind Power in Kittitas County, May 26, 2006

### **Impact of Wind Farms on the Value of Residential Property and Agricultural Land**

Using a similar approach to that of ECONorthwest, the Royal Institution of Chartered Surveyors (RICS) polled surveyors in the United Kingdom to determine the effect of wind farms on property values\*. Surveyors in regions with wind farms were assigned a higher weighting. The RICS poll concludes that 60% of surveyors think that wind farms negatively affect residential property values (p. 3). A much more substantial majority think that agricultural property values are not affected or actually increased in value.

The results of the poll also determined that the biggest reduction in property values comes during the planning application period and wanes over time, suggesting that the fear of blight is the biggest catalyst to any depreciation in value.

### **Impact of Wind Farms on Residential Property Prices – Crystal Rig Case Study**

The Edinburgh Solicitors' Property Centre† compares residential property prices from 2000 to 2006 of the town of Dunbar (10km north of the Crystal Rig wind farm) to those of the greater East Lothian region. In so doing, the study finds a very high degree of correlation between the town and the region, suggesting that the wind farm has no effect on property values.

### **Public Attitudes to Wind farms**

Survey research firm MORI-Scotland polled 1,810 residents in Wales regarding their opinion of living near wind farms‡. Various questions were asked regarding their satisfaction with their living area, multiple questions regarding attitudes towards various aspects of wind farms, visibility of turbines, effects on landscape, etc. These polls led the study to conclude that in general, people living near wind farms tend not to notice them, or, in some cases, appreciate them. In fact, the poll suggests that the people living closest to wind farms are their biggest supporters, and are those most likely to favor wind farm expansion. However, as the critiques of other property value studies

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\* Royal Institution of Chartered Surveyors' (RICS's). Impact of Wind Farms on the Value of Residential Property and Agricultural Land, November 4, 2004.

† Edinburgh Solicitors' Property Centre. Impact of Wind Farms on Residential Property Prices – Crystal Rig Case Study, February 2007.

‡ MORI-Scotland, Public Attitudes to Wind farms, 2003

repeat, the conclusions that can be reached using this information are very limited due to the limitations of a resident to predict the market value of their home after a fundamental change in the market.

### **Impacts of the Dairy Hill Wind Farm Project on Local Property Values**

P. Barton DeLacy of Cushman & Wakefield Inc. discusses the possible consequences for residential property values of constructing the UPC Wind Dairy Hill project in Cohocton, NY (Steuben County).<sup>\*</sup> He reviews the available literature and discusses four operational wind farms that DeLacy deems comparable to the proposed Dairy Hills wind farm including Maple Ridge, NY, Fenner, NY, Searsburg, VT, and Kittitas Valley, WA.

DeLacy notes that few quantitative studies of wind farm property impacts are available, concurring with CGR that the Hoen study is the best designed. Between his review of what analysis currently exists and his review of the Dairy Hill site, he expresses his belief that the project will not affect residential property values.

### **A Real Estate Study of the Proposed Forward Wind Energy Center: Dodge and Fond du Lac Counties, WI**

This 2005 study by Poletti and Associates reviews real property transactions in the vicinity of two wind farms in Wisconsin and Illinois.<sup>†</sup> Poletti compares the average transaction values for properties within the “target area” with those outside in the “control area.” In so doing, Poletti concludes that “there is not sufficient evidence in the data to warrant rejection of the claim that wind farms have an effect on property values.”

Unfortunately, Poletti has relative few transactions to study. In Kewaunee County, for example, arms-length sales within the viewshed totaled only 26, thus making his finding relatively weak.

However, as Ben Hoen’s critique notes, his study falls short by failing to account for distance from the turbines, as well as failing to classify properties according to their view of the turbines. Still, dismissing the

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<sup>\*</sup> DeLacy, P. Barton. Impacts of the Dairy Hill Wind Farm Project on Local Property Values (A Technical Memorandum), Cushman & Wakefield, May 26, 2006

<sup>†</sup> Poletti, Peter. A Real Estate Study of the Proposed Forward Wind Energy Center: Dodge and Fond du Lac Counties, WI, May 2005

study as inconclusive on these grounds does not make much of a difference, since the conclusion of the study itself is inconclusive.

## Conclusion

There are a number of studies available that have taken on the task of determining what effect, if any, wind farms have on property values. There are two main methodologies employed throughout these reports: surveys and quantitative analyses of actual transactions.

The survey-based studies reveal expectations and impressions but cannot be regarded as a rigorous test of what actually happens in the marketplace.

The transaction-based studies hold the most promise for a more definitive conclusion on the effects of wind farms on property values. To date there are few well-constructed studies; those that are well-designed have too few transactions to allow researchers to draw a strong inference on the absence of an impact on property values.

That being said, what evidence has been gathered suggests that an impact on property values in Franklin County will be small or negligible.

### *The Effect of Wind Farms on Follow-On Investment*

To our knowledge, no studies of the effects of wind farms on follow-on investment exist.

Moreover, the potential investment opportunities in Franklin County are difficult to quantify.

Franklin County is on the edge of a region of New York State—dubbed “Tech Valley”—that is growing rapidly and can be expected to spill over into Franklin County within the next decade.

Warren County is one county in the Hudson Valley that has experienced renewed growth in the last few years, at least partly due to the Tech Valley initiative and the growth occurring in New York’s Capital District, the engine of Tech Valley. Warren County’s experience is instructive as the growth trend continues to move north.

## Comparison of Warren and Franklin Counties

The table below gives some comparative statistics of the two counties using data from both the U.S. Census and the Bureau of Labor Statistics (BLS).

COUNTY	2006 Population	Square Miles	2006 Population Density per sq mi	Growth from 2000 to 2006 in ..		
				Employment	Total Wages	Population
Franklin	50,968	1,632	31	2%	17%	0%
Warren	66,087	870	76	10%	26%	4%

The Warren County Economic Development Corporation (EDC) was particularly helpful in providing data on their current investment opportunities. We were unable to get historical data on investment opportunities, but have detailed information about the current 2007 project priorities.

In Franklin County, while a number of pending projects promise significant returns in the future, the economy has not been expanding rapidly. Over the last 16 years, the average investment was \$7 million (about \$9.4 million in 2006 dollars).

The table below shows the investment per capita and per square mile in both Warren and Franklin Counties. While the comparisons are not exact, it is very clear that Franklin County has much room for investment growth compared to Warren County. Using the average annual investment over time for Franklin County and comparing to Warren County, clearly the investment per capita and investment per square mile in Warren County shows the effect of its participation in an expanding marketplace.

COUNTY	Year	Investment	Investment per Capita	Investment per square
Franklin	avg 90 to 06 (\$06)	\$9,361,393	\$184	\$5,736
Warren	2007	\$106,528,000	\$1,612	\$122,446

We believe that the potential investment opportunities for Franklin County are substantial within the coming decade. A number of significant investment projects are already in the development “pipeline” and can be enhanced by the wind project. Promising projects include the expansion of McCadam Cheese, an extension of

the St. Lawrence Gas pipeline into the county, ethanol production facilities and a number of wood product initiatives.

- ❖ These projects—investments in the growth of Franklin County’s economy—can be substantially accelerated through PILOT and royalty payments from the Noble projects. Franklin County’s industrial infrastructure is quite underdeveloped. New business ventures are impatient—few are willing to wait for a community to develop infrastructure to accommodate their needs. PILOT payments to FIDA will enable the county to transform its capacity to attract new development.
- ❖ Inexpensive power and financial assistance from Noble Environmental can also boost specific initiatives in the county.
- ❖ A cautionary note is in order: The possible negative impact of wind towers on adjacent lands remains unproven. Some developments—particularly tourism-related developments—may be hindered by construction of the wind farms.

**Assessing the impact on investment in the viewshed of the wind farm**

Three significant investment projects in Warren County would plausibly be affected by an impairment to the individual project’s viewshed. The first is the Adirondack Rail Line Project which seeks to renovate a “scenic rail line between Saratoga Springs and North Creek” (a \$22 million dollar project). The scenery along this rail line is the “product” that makes this line possible.

The second is the North Creek Ski Bowl, which is supposed to become a four-season resort facility (currently with \$13 million in committed funds). The question of the potential impact of a wind farm on this project will be explored as there is a joint venture between Reunion Energy and Barton Mines to build a wind farm right on top of North Creek Ski Bowl on Gore Mountain.

Finally, the hotels surrounding Lake George are planning an expansion. Again, a wind farm could have a dampening effect on the viability of these individual investments.

None of these projects are in Franklin County and again, only represent a potential for Franklin County into the future. Unlike Warren County, Franklin County does not appear to have any

investment projects on their 2006 list that would be affected by being in the view shed of a wind farm.

In any case, this information only gives us a snapshot of the current picture, not a prediction of what might happen as a result of the existence of a wind farm. There are no studies that address the issue of an impact on housing starts.

**Study Follow-on  
Investment Within  
Viewshed; Explore  
Property Value Impacts**

These two questions—whether wind farms have a chilling impact on investment and whether property values are impaired—have not been satisfactorily answered. The number of wind development projects underway across the nation is substantial. As a result, these questions have a particular immediacy.

CGR recommends that the communities of Franklin County consider delaying further action on the Noble project or other wind development projects, pending a more satisfactory resolution of these questions.

*Possible Alternative  
Uses for the Site*

CGR is unable to determine possible alternative uses for the site. Given that the wind farm is located on farm land and is currently owned by private owners, it is difficult to forecast what might be the potential of that land if the landowner decided to sell the land. The discussion in the previous section addresses some of the concern of the impact on investment within the viewshed.

*Infrastructure Impact*

Like alternative uses for the site, it is difficult to determine the infrastructure impact of the wind farm. CGR is unable to find any significant impacts in terms of this issue.

**Federal and State  
Incentives**

The Federal and State incentives strongly support wind power development. Together they add 3.5¢ per kWh.

*Federal Incentives*

There are currently two primary pieces of federal tax legislation that are applicable to wind-powered utilities. First, there is the Renewable Energy Production Credit (REPC), sometimes called a Production Tax Credit (PTC), which provides a tax credit based on output. Specifically, this credit of 1.5 ¢/kWh is provided for the first 10 years of a renewable energy facility's operation, and is adjusted for inflation. The inflation-adjusted PTC is currently 2.0 cents/kWh.

The law is set to expire on December 31, 2008, and qualifying facilities must therefore be in service before January 1, 2009. Currently, there is proposed legislation (H.R. 197) for a 5-year extension of the REPC.

Second, there is an accelerated depreciation allowance available for wind turbines. This applicable recovery period of said allowance is 5 years. CGR does not use the accelerated depreciation allowance in estimating the profitability of Noble's project as this would require more understanding of the Noble's tax position than we currently possess. This does improve the financial position of the project, however.

It should be mentioned that there is proposed legislation (H.R. 969) that would create a national Renewable Portfolio Standard (RPS). The terms of this legislation would require utilities to generate or buy 20% renewable energy by 2020. If passed, the project could acquire federal Renewable Energy Certificates (RECs).

### *New York State Incentives*

New York State's Renewable Portfolio Standard (RPS) stipulates that New York State must increase its renewable resources to at least 25% of the state's electricity supply by 2013. Of the 25%, 1% is expected to occur from natural development of the renewable energy market. The remaining 24% will be accounted for by an incentive-based program managed by the New York State Energy Resource and Development Authority (NYSERDA) paid for by a surcharge levied on the delivery bills of customers of investor-owned utilities. These incentives will be based upon actual production and are restricted to those renewable energy producers who sell and deliver in New York State. Firms with renewable energy to sell are allowed to bid for Renewable Energy Certificates (RECs). At present, the publicly available price of a REC is about 1.5¢/kWh.

Noble has a 10 year term contract with NYSEERDA for 95% of the wind output. NYSEERDA is unable to release information as to the price negotiated with Noble. CGR does not believe the PTC negotiated is less than 1.5¢/kWh.

Additionally, there is a 15-year property tax exemption equal to the increase in assessed value attributable to the wind energy system in question. Eligible systems must be constructed before January 1, 2011. However, this exemption may be disallowed by each county, city, town, village, and school district (excluding the city school districts of New York, Buffalo, Rochester, Syracuse, and Yonkers). To disallow an exemption, counties, cities, towns, and villages must pass a local law, while school districts must pass a resolution. In November of 2006, Chateaugay and Bellmont both passed local laws disallowing the real property tax exemption for wind energy projects.

Finally, New York State offers a sales and use tax exemption available for machinery and equipment used in a wind power project (turbines, generators, towers, and other equipment relating to power generation). These items are exempt from sales tax.

### *Competition for Renewable Power from Massachusetts*

Massachusetts's RPS is having an influence on the NYS market. By establishing stiff penalties for noncompliance—5.7¢/kWh—Massachusetts has encouraged a vigorous market for its RECs. The price has risen as high as 5.45¢/kWh, nearly four times the price for RECs in New York. While Noble has already entered an agreement for 95% of its generated power, the situation in MA may have positively impacted the price in which Noble was able to negotiate with NYSERDA.

### **Estimating the Economic and Fiscal Impact**

To perform the economic analysis, CGR derived multipliers and other information from the IMPLAN regional input-output modeling system. CGR also employed Jobs and Economic Development Impact (JEDI) a spreadsheet model available from the U.S. Department of Energy that specifically addresses the economic impacts of wind.

IMPLAN is a recognized tool for economic impact analysis. In a study funded by the U.S. Department of Energy/National Renewable Energy Laboratory (DOE/NREL), M. Pedden reviewed 13 economic impact studies from June 2004 to January 2005 of rural areas. Of those studies that specified a model, 5 of 8 used IMPLAN. Two others used similar input-output analysis developed specifically for their state (North Dakota and California) and one other study

used an input-output model from the US Bureau of Economic Analysis (RIMS II).

*Assumptions Used to Estimate the Economic Impact*

Noble Environmental provided a version of the JEDI model. CGR worked within the context of this version of JEDI and the Noble assumptions incorporated into the model provided. At the request of both Noble and FIDA, CGR created estimates for the combined area of both Franklin and Clinton Counties. The data summarizing the specifics of this particular wind farm are presented in the table below.

**Chateaugay-Bellmont Wind Plant - Project Data Summary**

Year of Construction	2007
Project Location	Franklin County, NY
Project Size - Nameplate Capacity (MW)	128
Turbine Size (kW)	1500
Number of Turbines	86

**Counties Included**

While the wind farm is located in Franklin County, the impact will most likely be felt by both Franklin and Clinton counties. Franklin County (particularly the northern portion) benefits from being part of a North Country economy to which this wind project will provide benefits. Thus, the economic impact will be estimated for the combined economic region of Franklin and Clinton counties.

**Project Cost**

The cost assumptions incorporated into JEDI and used in the modeling of the economic impact are acceptable. According to a recent report by the Energy Information Administration, the estimated costs (in \$2005) of building a 50 MW wind farm is estimated at \$1206/kW.\* These cost estimates are an average for the U.S. and must be adjusted for labor cost differences in a particular region. Once the estimate is adjusted for both regional differences in costs and inflation, the comparable figure (in \$2007) is approximately \$1460/kW. Noble's estimates of costs are much larger than that, but given the increase demand for turbines (and subsequently, the price of turbines), we cannot rule out their cost estimate as too high. We do not have any information that would allow us to reject the cost information provided by Noble. Thus, we have used the cost

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\* See "Assumptions to the Annual Energy Outlook 2007", DOE/EIA #0554(March 2007), page 80.

### **Aggregate Sector Multipliers**

information provided by Noble in our estimates of economic impacts, property tax payments, and net revenue calculations.

CGR's estimates of the appropriate multipliers are lower than those assumed by Noble and included in JEDI. These differences have only a modest impact on the results, however.

It appears that the multipliers developed for Noble were derived from sectors that were aggregated before the multipliers were created. The preferred approach in IMPLAN is to create the model based on disaggregated sectors, then aggregate results if an aggregated reporting format is deemed desirable. Multipliers generated by aggregated sectors are larger than those created by disaggregated sectors.

CGR created multipliers using disaggregated sectors, then aggregated the results to conform to JEDI. CGR matched its aggregation as closely as possible to the JEDI sectoring scheme, although as current IMPLAN sectors are built on the North American Industry System Classification (NAICS) system, the aggregation by the older SIC codes is imperfect.

### **Local share**

The model provided by Noble included some implausible estimates about the local construction market. CGR used IMPLAN's regional purchase coefficient (RPC) estimates to help develop their set of assumptions about local shares.

Interestingly, the default local purchase coefficients built into JEDI are much smaller than what CGR or Noble uses, with the exception of local permits and fuel. The table on the following page shows the assumptions on local share of Noble, CGR, and the default embedded in JEDI.

### **Personal Consumption Expenditure**

Finally, the model results provided by Noble did not allow for an adjustable Personal Consumption Expenditure (PCE), thus implying that residents of Franklin and Clinton Counties spend all of their disposable income within the county. CGR again used IMPLAN to help estimate a PCE ratio of 55.5%. In addition, CGR estimated the share of personal income spent (after taxes and savings) based on the national average. While the model initially used 100%, CGR's calculations estimate the share of personal income that consumers spend is closer to 87% and have adjusted the model accordingly.

### *Direct, Indirect, and Induced Effects*

Economic impacts can be described as direct, indirect, and induced. Direct effects are the on-site or immediate effects created by an expenditure of the developer of the wind farm, Noble. The direct

<b>Construction Costs - Local Share Assumptions</b>	<b>Original Noble Assumptions</b>	<b>CGR Assumptions</b>	<b>Jedi Model Default</b>
<b>Construction Costs</b>	<b>Local Share</b>	<b>Local Share</b>	<b>Local Share</b>
Materials			
Construction (concrete, rebar, equip, roads and site prep)	90%	40%	16%
Transformer	0%	0%	0%
Electrical (drop cable, wire, )	50%	30%	0%
HV line extension	75%	10%	0%
Labor			
Foundation	100%	40%	13%
Erection	75%	40%	3%
Electrical	75%	30%	6%
Management/supervision	0%	0%	0%
<b>Equipment Costs</b>			
Turbines (excluding blades and towers)	0%	0%	0%
Blades	0%	0%	0%
Towers	0%	0%	0%
<b>Other Costs</b>			
HV Sub/Interconnection	80%	30%	8%
Engineering	0%	0%	0%
Legal Services	100%	32%	0%
Land Easements	100%	100%	100%
Site Certificate/Permitting	100%	100%	100%
<b>Total</b>			
<b>Operating and Maintenance - Local Share Assumptions</b>			
<b>Personnel</b>			
Field Salaries	100%	100%	100%
Administrative	100%	100%	100%
Management	100%	100%	100%
<b>Materials and Services</b>			
Vehicles	100%	11%	0%
Misc. Services	72%	32%	6%
Fees, Permits, Licenses	84%	84%	100%
Utilities	100%	100%	100%
Insurance	0%	0%	0%
Fuel (motor vehicle gasoline)	0%	0%	100%
Tools and Misc. Supplies	50%	30%	13%
Spare Parts Inventory	0%	0%	0%
<b>Total</b>			
<b>Personal consumption expenditures</b>	100%	56%	100%
<b>Share of personal income spent</b>	100%	87%	100%

effect includes the wind farm's payroll expenditures to on-site contractors and crews hired to construct the plant. It also includes any purchase of goods and services that Noble makes from suppliers, such as turbine manufacturing plants and tower and blade factories.

Spillover impacts are typically described as indirect and induced. Indirect effects refer to the increase in economic activity that occurs

as a result of the spillovers attributed to the direct spending of Noble on services, supplies and materials. For example, the construction firm hired by Noble to build the wind farm will in turn hire staff and purchase construction materials as a result of that initial expenditure by Noble. Or the construction firm may be financed by a local banker or have a local accountant who keeps the contractor's book. These are all possible spillover expenditures as a result of the project.

Induced effects are the spillover impacts of spending by the persons directly and indirectly employed by the project. This would include spending on food, clothing, day care retail services, public transit, utilities, cars, oil, property & income taxes, medical services, and insurance by those directly and indirectly employed by Noble.

### *Economic Impact*

CGR estimated the economic impact using both the assumptions generated by CGR as well as those generated by the default JEDI model. The table on the previous page shows the economic impact using the JEDI default assumptions.

In this case, the economic impact, in terms of jobs, is relatively small. It is estimated that during the construction period, 68 jobs will be created, with an additional 44 in spillover employment. The earnings impact is a little over \$4.5 million for the construction period.

The annual impact of the operation of the wind farm using these assumptions is \$1.3 million. Estimated annual employment is 34.

#### **Local Economic Impacts - Summary Results (JEDI Default Assumptions)**

	<b>Jobs</b>	<b>Earnings (\$M)</b>	<b>Output</b>
<b>During construction period</b>			
Direct Impacts	68	\$3.33	\$6.08
Construction Sector Only	57	\$3.09	
Indirect Impacts	18	\$0.49	\$1.30
Induced Impacts	26	\$0.72	\$2.17
<b>Total Impacts (Direct, Indirect, Induced)</b>	<b>111</b>	<b>\$4.54</b>	<b>\$9.56</b>
<b>During operating years (annual)</b>			
Direct Impacts	26	\$1.07	\$1.75
Plant Workers Only	13	\$0.69	
Indirect Impacts	3	\$0.10	\$0.27
Induced Impacts	5	\$0.13	\$0.38
<b>Total Impacts (Direct, Indirect, Induced)</b>	<b>34</b>	<b>\$1.29</b>	<b>\$2.40</b>

Notes: Earnings and Output values are millions of dollars in year 2007 dollars. Construction period related jobs are full-time equivalent for the construction period. Plant workers includes operators, maintenance, administration and management. Economic impacts "During operating years" represent impacts that occur from plant operations/expenditures. The analysis does not include impacts associated with spending of plant "profits" and assumes no tax abatement unless noted. Totals may not add up due to independent rounding.

When CGR uses its more generous local share assumptions, the construction impact increases, although the annual operating impact is less.

The difference between the CGR and JEDI default results deserves an explanation. JEDI default assumes a much lower local share of spending during the construction period, but assumes that all personal expenditures—those of landowners receiving lease payments from Noble and Noble’s permanent employees—will be made locally. CGR is more willing to accept Noble’s ability to hire locally but believes that only a little over half of the personal spending of employees and local leaseholders will be local. Thus the CGR assumptions predict a much higher construction period impact and a lower ongoing impact.

#### Local Economic Impacts - Summary Results (CGR Assumptions)

	Jobs	Earnings (\$M)	Output
<b>During construction period</b>			
Direct Impacts	207	\$12.45	\$18.81
Construction Sector Only	195	\$12.11	
Indirect Impacts	57	\$1.58	\$4.27
Induced Impacts	67	\$1.89	\$5.64
<b>Total Impacts (Direct, Indirect, Induced)</b>	<b>332</b>	<b>\$15.92</b>	<b>\$28.72</b>
<b>During operating years (annual)</b>			
Direct Impacts	23	\$0.98	\$1.22
Plant Workers Only	13	\$0.69	
Indirect Impacts	2	\$0.07	\$0.18
Induced Impacts	3	\$0.09	\$0.27
<b>Total Impacts (Direct, Indirect, Induced)</b>	<b>29</b>	<b>\$1.14</b>	<b>\$1.68</b>

Notes: Earnings and Output values are millions of dollars in year 2007 dollars. Construction period related jobs are full-time equivalent for the construction period. Plant workers includes operators, maintenance, administration and management. Economic impacts "During operating years" represent impacts that occur from plant operations/ expenditures. The analysis does not include impacts associated with spending of plant "profits" and assumes no tax abatement unless noted. Totals may not add up due to independent rounding.

On the basis of the CGR assumptions, the annual impact of the operation of the wind farm is estimated at 29 jobs (both direct and spillover) with earnings of \$1.1 million.

#### *Fiscal Impact*

CGR estimates both the sales tax revenue received by Franklin County plus the property tax revenue that would be anticipated in the absence of a payment-in-lieu-of-tax (PILOT) agreement.

#### **Sales Tax**

Franklin and Clinton counties are likely to receive about \$17,000 annually in sales tax receipts once the wind farm is operating. The

sales tax is generated from personal expenditures of landowners due to the increase in income from the payments. In total over the construction period the increase in sales tax in both counties will be about \$115,000.

## Property Tax

With most of the turbines in the Town of Chateaugay, this town would receive the bulk of the new taxable assessed value were a PILOT agreement not negotiated with Noble. We assume here that the assessed value will be equal to the cost of construction.\*

<b>New Taxable Value</b>	<b>\$million</b>
Town of Chateaugay	\$189.22
Town of Bellmont	\$36.79
Chateaugay Central School District	\$226.01
Franklin County	\$226.01

Reflexively, we would assume that the tax paid would be equal to the taxable assessed value multiplied by the current tax rate. This would yield the result below.

<b>Annual Property Tax Payment</b>	<b>Estimated Payment (\$ million): Assumes tax rate unchanged</b>	
Town of Chateaugay	\$	1.79
Town of Bellmont	\$	0.22
Chateaugay SD	\$	4.26
Franklin County	\$	1.48
<b>TOTAL</b>	\$	<b>7.75</b>

What makes this picture incomplete—and inaccurate—is that the new property value is very large relative to the total taxable assessed value of the two towns and the school district. As a consequence, the addition to value will have the effect of driving down tax rates substantially. This is, of course, very beneficial for current residents. It also reduces the total tax revenue that would be paid under these conditions by Noble Environmental Power. If spending by the taxing jurisdiction—the tax levy—does not change, then the tax rate

\* The wind farm is likely to be considered “specialty property” under New York’s Real Property Tax Law. Specialty property is assessed at current replacement value less depreciation (straight line, 39 years).

will fall significantly. The table below shows the percentage change in the tax rate, if the levy stays unchanged.

**Estimated Reduction in Tax Rate**

Town of Chateaugay	79%
Town of Bellmont	29%
Chateaugay Central School	66%
Franklin County	9%

An estimate of taxes likely to be paid by Noble (as a result of the lower tax rates) if not granted an exemption by the towns, school district and county, appears below.

<b>Annual Property Tax Payment</b>	<b>Estimated Payment (\$ million): Assumes levy unchanged</b>	
Town of Chateaugay	\$	0.38
Town of Bellmont	\$	0.16
Chateaugay SD	\$	1.44
Franklin County	\$	1.35
<b>TOTAL</b>	<b>\$</b>	<b>3.33</b>

Thus without a tax exemption, Noble Environmental Power would pay about \$3.3 million in property taxes annually, just slightly less than \$26,000 per MW of capacity.

**Cost of Community Services**

The impact of the Noble project on the cost of community services is, we believe, very small beyond the construction period. During the construction period we anticipate an increase in traffic, thus some increase in road maintenance expenses that will likely be offset by the increase in sales tax revenue to the county. New roads required to service the turbines will be private and the responsibility of the company.

The school district may or may not add permanent enrollment given the very small staff Noble expects to hire for the project. Enrollment would increase only if the new employees live within the Chateaugay Central School District, have school aged children, and do not already reside in the community.

## *Estimating Noble's Revenue*

In order to estimate Noble's net revenue, a number of variables need to be estimated. CGR will discuss the assumptions used to determine revenue. As mentioned in the previous section, CGR has no basis for disagreement with Noble's cost calculations and have used them in our analysis.

## **Wind Capacity**

The quantity of wind available at the site—the facility's "fuel"—and price are the two main predictors of revenue. We have assumed that the wind capacity of the site will be about 30%. Capacity refers to the share of the potential production of the wind turbines. Each of the turbines planned for the Chateaugay-Bellmont project has a theoretical production capacity of 1,500 kW or 1.5 MW. Over a year under optimal conditions (steady wind at a sufficient speed), the turbine would produce 1.5 MW x 365 days x 24 hours or 13,140 MWh of electricity.\* While some wind farms in Texas and California have higher average capacity, Noble predicts 28% to 32% at this site.

The average wind capacity for Maple Ridge Wind Farm was 31% for 2006. This was calculated using US Department of Energy Power Plant Generation and Consumption Data for 2006.

## **Price**

It is difficult to determine what price to use as there are many factors that might affect price in the future. Prices could rise as a result of the ongoing energy crisis, or just as possible, prices could fall if additional generation—renewable or not—comes on line.

As a starting point, CGR averaged the locational based marginal pricing (LBMP) price in the day ahead market published by the New York Independent System Operator (NYISO) for 2006 (assuming constant around-the-clock production, selling into the North Zone). The average over the year was \$54. Realistically, Noble Environmental is not likely to earn this price for a number of reasons. There are additional costs involved in delivering power to the buyer; Noble may enter into a long term contract with a buyer at lower average price; daily fluctuation in wind intensity is not likely to match the periods during the day when electricity is more valuable.

We then used the wind shape curve to determine the percentage of total wind generation per hour, to estimate the weighted average

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\* Traditional thermal generation (burning coal or natural gas) has a higher relative efficiency—perhaps 35% to 40% for older generators and up to 60% for state-of-the-art natural gas combined cycle generation. The fuel that is not converted to power either goes up the stack or become waste heat.

price over the calendar year for Zone D.\* The weighted average is \$51.10 per MW. CGR used that price, along with a \$19 production tax credit and \$15 for the NYS REC, to estimate revenue.

We note that in the Windpark Easement Agreement, Noble quoted a range of \$50-\$68 per mWh as the price, including the RECs. Our estimate falls within this range.

### **Interest Rate**

The default interest rate for debt payment in the JEDI model is 10%. At the moment, the interest rate on 10-year A rated Corporate Bonds is about 5.7% and 6.2% for 20-year A rated Corporate Bonds. CGR is confident that Noble and its principal owner, JP Morgan, will be able to secure financing for much less than 10%. We assumed an interest rate of 6%.

### **Estimating Revenue Over Time**

As discussed previously, there are many things that make the calculation of profits very speculative. First, the LBMP price could go higher or lower depending on the price of fuel (particularly natural gas), the disposition of New York's Article X siting law (that is intended to stimulate the development of new power plants), and other policies adopted by Governor Spitzer's administration.

In addition, we do not know what is likely to happen with the tax credits: While the PTC is indexed to inflation, the RECs are not. We have retained the 10-year financing period as the state and federal credits also run out at the end of 10 years. While there is some gain by Noble once they pay of their debt, a substantial portion of the gain is offset by the loss of the tax credits.

For all of the above mentioned reasons, CGR assumes that profit in the first year will be consistent over the life of the contract. While we realize this is not true, it is the best assumption we can make given the many issues that remain unresolved.

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\* The wind shape curve was based on a 141.1 MW turbine in Zone D (North Zone). See "The Effects of Integrating Wind Power on Transmission System Planning, Reliability, and Operations" by GE Power Systems Energy Consulting, Feb. 2, 2004. The report statistically derived hourly wind output in MW for one full calendar year.

## An Estimate of Noble's Revenue

The table below provides one estimate of profit using 30% wind capacity, \$51/MWh for the wholesale price of electricity, a 6% interest rate with debt financed over 10 years and payments to landowners estimated at \$944,000. This estimate of net return to equity is calculated before any PILOT payments to the community and assumes a complete exemption from property, sales and use taxes.

### An Estimate of Noble's Annual Net Revenue

<b>Total Annual Output</b>				
Average capacity factor		30%		
Potential hours (MWh)		1,139,328		
Average annual output (MWh)		341,798		
<b>Price Information (per MWh)</b>				
Price	\$	51		
Federal tax credit	\$	(20)		
NYS RPS credit	\$	(15)		
<b>Cost Summary</b>		<b>TOTAL</b>	<b>Per MW</b>	<b>Per MWh</b>
Total Annual Cost	\$	33,566,598	\$ 260,206	\$ 98
Total Annual Cost (without return to equity)	\$	25,791,698	\$ 199,936	\$ 75
Total Annual Cost (without debt, equity, taxes, lease	\$	1,888,272	\$ 14,638	\$ 6
<b>Net Financial Outcome (before taxes/PILOT)</b>		<b>TOTAL</b>	<b>Per MW</b>	<b>Per MWh</b>
Gross revenue, including PTC and RECs	\$	29,428,842	\$ 228,131	\$ 86
Annual net revenue (without return to equity)	\$	3,637,144	\$ 28,195	\$ 11
<b>Rate of return to equity</b>			8%	

## Use of Wind Farm Windfall

While the total sum is the subject of negotiation, Noble Environmental Power has the capacity to make significant payments to the community in exchange for the right to “mine” Franklin County’s valuable wind resource.

The question of what to do with the funds is critically important and will influence the future of the Franklin County economy. As taxpayers, we might reflexively wish to use the windfall exclusively for a reduction in tax rates. CGR urges the community to consider concentrating the funds for the purpose of building up local infrastructure and positioning Franklin County to take advantage of the expanding Tech Valley initiative.

## Possible Investments

How the funds get distributed is the subject of negotiation. We recognize that other promising projects may be proposed. Yet the following IDA-recommended projects would support an expansion

**North Country  
Community College  
Renewable Energy  
Initiatives**

of the county economy, thus turning payments from Noble Environmental Power into “seed corn” for the economy of the next generation.

With wind farms in many locations across the North Country and bio fuels initiatives in the planning stages, a portion of funds from Noble (and available inventory and in-kind support) should be devoted to supporting a degree program in renewable energy and a training program devoted to wind power technology.

**Chateaugay Industrial  
Park**

Business firms seeking a new location have little patience for permitting and infrastructure development. To be able to be responsive to requests for viable industrial sites, Franklin County must complete the infrastructure development of the Chateaugay Industrial Park.

**Paul Smith’s College  
Incubator**

Wood products have long been a mainstay of the North Country economy. Changing technology presents new opportunities in the wood products arena; Paul Smith’s College is an ideal institution at which to establish a wood products innovation incubator.

**Chateaugay Boralex**

The proximity of Noble (and Horizon’s) Power’s project to the Chateaugay Boralex facility on NYS 374 offers a meaningful opportunity to exploit complementary assets. Commitment to establishing subsidized power for third party follow on investments at this location (McCaddam Cheese whey drying facility, Wood Pellet Plant, Celulosic ethanol plant, etc.) combined with NYS Empire Zone delivery, would offer the most desirable investment location in the North Country.

**St. Lawrence Valley  
Partnership**

Substantial investment in alternative energy is occurring in the bi-national region of the St. Lawrence River Valley – such that it offers a meaningful opportunity for investment promotion. This is one direction the existing St. Lawrence Valley Partnership is considering. Dedicated funds for such an institution should leverage substantial federal funding from the proposed “Northern Border Economic Development Commission.”

**Payment-in-lieu-of-  
Tax (PILOT)**

County of Franklin IDA has principal responsibility to negotiate a payment-in-lieu-of-tax (PILOT) agreement with Noble

Environmental Power. In this role, FIDA must balance the reasonable expectations of the developer against the needs of the community and the costs that will likely be imposed on Franklin County by the development.

CGR obtained the terms of the PILOT agreements for five wind farms in New York State. However, we caution that comparison will be difficult. On top of other differences between projects, the law governing the tax exempt status of wind farms excludes special taxing jurisdictions (fire, lighting, etc). These additional payments might vary across region and must be taken into consideration. Nor do we have complete information on host agreements that may add to the PILOT payments. Thus, the information provided is merely as an indication of what has been negotiated in the past. CGR recommends that FIDA consider all aspects of this report in negotiating a PILOT, particularly the profit estimates provided earlier in the report.

### *PILOT Payments for Other NYS Wind Farms*

The Town of Eagle (Wyoming County) negotiated a 15-year agreement for the 67-turbine Noble Bliss Wind Farm, stipulating payments of \$1,600 per megawatt of production capacity. However, after additional fees under a licensing agreement, Noble will end up paying the Town of Eagle a total of \$8,000 per installed megawatt. The agreement also has an option for a 5-year extension.

Horizon Energy's agreement with the Town of Madison in Madison County stipulates 15 annual payments of \$30,000, which averages to about \$2,600 per megawatt of capacity for the 7 turbine facility. Madison County contains another wind farm in Fenner, owned by Canastota Windpower This wind farm has 20 turbines and generates 30 MW of power. The PILOT agreement for this wind farm requires 15 annual payments of \$5,000 per megawatt of capacity.

Maple Ridge Wind Farm of PPM Energy and Horizon Wind Energy is located in the Tug Hill region. Maple Ridge boasts 120 turbines for a total capacity of 198 megawatts. However, due to the fact that it is located in an Empire Zone, Maple Ridge's payments are determined by a more complex calculation that includes the assessed value of turbines and tax credits received through Empire Zone benefits.

The Maple Ridge PILOT agreement does provide for the possibility that, for whatever reason, Empire Zone benefits are no longer available, in which case the terms may be relevant for Franklin County. When such a “fallback year” occurs, payments resort to a policy of \$5,000 per MW of capacity, multiplied by an “Escalation Factor” meant to account for inflation.

Finally, FIDA has reviewed recently negotiated terms between Clinton County and Noble. In this case, the company agrees to provide \$5,000 per MW as the PILOT as well as an additional \$3,000 per MW for a community host agreement. For the first five years, Noble will provide a “Capacity Royalty” of \$1,000 per MW.

### *Suggested PILOT Starting Points*

As discussed above, without a PILOT agreement, Noble Environmental would pay the equivalent of about \$26,000 per MW in property tax. This sum would increase as the cost of construction rose, less depreciation of the existing turbines (which would be calculated on a straight line basis over 39 years).

While CGR has provided an estimate of Noble’s return on equity, we have many reasons to believe that the project might be more profitable than our estimate indicates. First of all, we do not have specific information on the RECs agreement Noble negotiated with NYSEERDA and believe it to be a minimum of \$15/MW (the assumption used in the model). Also, we are hopeful that Noble may be able to keep their costs for the project under those estimated and provided to us. Third, we were rather conservative about the wind capacity, and any additional capacity over 30% will also increase revenue. Fourth, while we cannot guess what will happen to price, we are optimistic that, given the current price of energy, the 2006 weighted average price of \$51.10 is perhaps lower than the price that Noble will receive when the wind farm is generating wind. For all of these reasons, we believe our estimate of Noble’s profitability is probably on the low side. However, it is difficult to account for any of these uncertainties and speculative issues at this time.

To the extent that some of these issues are resolved in the favor of wind power, then the net revenue stream from this project may be substantial. On the other hand, we have cautioned earlier in the

report about the speculative nature of this entire project. While our estimate is most likely on the low side, there are factors that could sway the pendulum in the opposite direction.

**Divide Windfall Between Current and Future Tax Reduction**

Funds provided to the community through this development project should not simply be used to reduce current taxation. The goal of the community should be to allocate a portion of funds for projects that will grow the economic base, thus making way for *future* tax reductions through economic expansion.

We recommend that the community divide the proceeds into two portions: A share of the total—we tentatively suggest about \$5,750 per MW of capacity—would be used for tax rate reduction (or other projects envisioned by the appropriate elected officials). A second portion of the total, however, would be sequestered in a dedicated economic development fund.

Since the Agency can negotiate any PILOT they deem reasonable – with the concurrence of the affected taxing jurisdictions – in this scenario we would propose an allocation as recommended in the above table. The PILOT payment we propose would be annual, lasting for a period of 15 years. We also recommend the PILOT have a cost of living adjustment (COLA) tied to the payment.

**Payments to Community from Noble Environmental Power**

<b>Community Hosting Agreements</b>		<b>per MW</b>	<b>Total</b>
Town of Chateaugay	\$	4,000	\$ 432,000
Town of Bellmont	\$	4,000	\$ 84,000
Chateaugay Central School	\$	1,000	\$ 129,000
Franklin County	\$	750	\$ 96,750
Community Investment Fund	\$	3,250	\$ 419,250
<b>TOTAL</b>	\$	9,000	\$ 1,161,000

**Create Private Economic Development Corporation**

As we consider the administration of the community investment fund, we suggest that the community consider the creation of a new entity, probably a 501(c)(3) nonprofit, that would manage the economic development funds forthcoming from this project and, conceivably, additional development projects. This new entity would include significant business representation, including a representative

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from each of the businesses capitalizing the fund, Noble Environmental Power in this first instance. As the county's economic development agent, FIDA would also be included on the governing board. From our perspective at CGR, we also believe that your institutions of higher education—Paul Smith's College and North Country Community College—are such significant contributors to the future of the economy and are so positioned within the community as to warrant one representative each. The County Legislature may also wish to appoint a second representative in addition to the FIDA representative.

## **Conclusion**

The proposed wind farm is a significant opportunity for Franklin County. However, the use of this particular site is also a great opportunity for Noble Environmental Power. Given the nature of wind resource, this particular site has conspicuous economic value as a wind farm. It is an exceptional site with good wind production and close proximity to a transmission line. In addition, it may be possible to sell the electricity into the New England market, thus Noble may have access to more than one market when selling its power. For all of these reasons, the potential for this site is very lucrative.

There are also risks associated with the project. CGR suggests that FIDA consider all the information in this report in negotiating a fair PILOT that will be within Noble's ability to pay, but will compensate Franklin County for Noble's use of the resource.