

**Estimated Economic Impacts from the
Construction and Operation of a Wind Power Project
in the Kibby Mountain Area of Franklin County**

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Introduction

TransCanada Corporation of Calgary, Alberta proposes to build a 44 turbine 132 mw wind generation facility along the Kibby mountain range in Franklin County, Maine. This report examines the likely changes in the economy of western Maine that will result from the construction and operation of this facility. The analysis is conducted with an econometric model of the western Maine and Maine economies maintained by the Center for Business and Economic Research at the University of Southern Maine.

Affected Region

The region affected by the Kibby Wind Power project will primarily be Franklin County. Franklin County has seen a significant decline in manufacturing in recent years (employment has declined 34%, a somewhat faster decline than in Maine where manufacturing employment declined by¹). Manufacturing remains an important part of the Franklin County economy, primarily because of the presence of the International Paper mill in Jay. But manufacturing, which was the largest employer in Franklin County in 1990, has been replaced by Education & Health Services, primarily the University of Maine at Farmington and Franklin Memorial Hospital.

Unlike the rest of Maine, Franklin County has not been able to replace the jobs lost in manufacturing. From 1990 to 2004, overall employment growth in Franklin County was only 3%, compared with 13% in Maine. As a result, per capita personal income in Franklin County slipped from 85% of the state average in 1990 to 82% in 2004.

Thus, like most of rural Maine, Franklin County is struggling to diversify its economic base.

Construction Period Employment Impacts

The largest economic impacts of this project will occur during the construction period because the employment related to the project will be largest during this phase. According to TransCanada, the construction period will extend over 2 years, and an average of 200 people will be employed over these two years. Total wages estimated to be paid are \$15 million.

Table 1 shows the estimated total estimated impacts (including construction workers on the project), plus the wages and salaries generated.

¹ All figures in this paragraph are from the Bureau of Labor Statistics.

Table 1

		Employment		
		Directly Employed by TransCanada & Contractors	Indirect & Induced Impacts**	Total**
Annual Impacts	Androscoggin-Franklin-Oxford Counties	200	70	270
	Maine		30	300
Total 2 Year Impacts	Androscoggin-Franklin-Oxford Counties	200	70	270
	Maine		30	300
		Wages & Salaries (\$Millions)		
		Directly Employed by TransCanada & Contractors	Indirect & Induced Impacts**	Total**
Annual Impacts	Androscoggin-Franklin-Oxford Counties	\$7.50	\$0.82	\$8.32
	Maine		\$0.83	\$9.15
Total 2 Year Impacts	Androscoggin-Franklin-Oxford Counties	\$15.00	\$1.64	\$16.64
	Maine		\$1.66	\$18.30

There are three things that should be noted about this analysis:

- The analysis is divided between two regions: Maine and the Androscoggin-Franklin-Oxford county region. This three county region is the local region in the econometric model that covers the project. It is also the region from which most workers will likely be drawn and in which most of the impacts will occur. Of the three counties, most of the impacts will be in Franklin County.
- The “indirect and induced” impacts are the so-called “multiplier” effect. These are defined below. No direct employment is shown for regions beyond the three-county western Maine region. The indirect and induced impacts are those which result from the effects of the project both inside and outside the three-county region but still within Maine.
- The economic impacts of construction projects are somewhat different than the economic impacts of ongoing operations. Because of their relatively short duration, construction projects do not result in the creation of additional permanent jobs. Rather, the construction activity and employment as a result of the project may be said to support the wages and employment of other people in the economy.

This analysis is conducted at a regional level and provides a broad picture of the economic impact of the project. It should be noted that a substantial portion of the impacts will occur in the local economy in the northern Franklin County region, particularly during the construction period. This type of project will require large numbers of specialized construction personnel who will be located in the region for varying periods of time during the construction project. While the exact level of spending cannot be estimated without detailed information on the number of days that construction personnel will spend in the region, the result will be substantial increases in sales by the lodging, restaurant, and retail industries during the construction period in towns such as Eustis and Stratton.

Operating Period Employment Impacts

TransCanada expects to employ 10 people in the operation of the Kibby Wind Power Project. Using this figure as an input, the model calculates the resulting total employment impact per year to be about 19 employees in the Androscoggin-Franklin-Oxford region (including the direct employment) and 22 employees in Maine as a whole. Total wages earned as a result of the project (direct, indirect, and induced) in the Androscoggin-Franklin-Oxford region will be \$0.85 million per year and in Maine \$0.8 million. The distribution between direct and indirect/induced wages is shown in table 2.

Table 2

OPERATING PERIOD	Employment		
	Directly Employed by TransCanada	Indirect & Induced Impacts	Total
Androscoggin-Franklin-Oxford Counties	10	9	19
Maine		3	22
	Wages & Salaries (\$Millions)		
	Directly Employed by TransCanada	Indirect & Induced Impacts	Total
Androscoggin-Franklin-Oxford Counties	\$0.700	\$0.102	\$0.802
Maine		\$0.094	\$0.896

The same characteristics of the construction period analysis noted above also apply to this analysis. With respect to employment impacts, the operating employees are permanent employees rather than temporary ones as during the construction period. However the small number of operating period employees means that indirect and induced employment impacts should be interpreted as “jobs supported in part by the project” rather than entirely new jobs.

Other Impacts

Property tax revenues from the project cannot be precisely estimated at this time because valuation t will not be determined until after completion of the project. TransCanada estimates its annual property tax bill will be in excess of \$1 million. An estimate of \$1 million in payments would comprise about two thirds of total property tax payments from the Unorganized Territory in Franklin County² and make TransCanada by far the largest property tax payer in the Unorganized Territory in Franklin County.

The location of the Kibby Wind Power project in the unorganized territory of Franklin county presents a challenge to the funding of public services, since the property tax revenues will accrue to the state for use by the Unorganized Territory Services Fund. TransCanada has proposed a payment of \$100,000 to the town of Eustis to assist that community, which is the town closest to the project. This represents 6.1% of 2006 property tax revenues for town.³

One final aspect of economic impacts that cannot be effectively analyzed using econometric models is the potential benefit to energy security and energy costs. The proposed wind power project will sell into the New England power market. This integrated electric power market is vulnerable to price spikes as a result of instability in world fossil fuel markets. With over half of New England's energy generation coming from fossil fuels⁴, the region, including Maine, will experience periodic spikes in electricity prices that will drain away economic resources that would otherwise be used to support economic activity and associated employment. Any mitigating effects of the more stable prices of electricity from wind power would offset the negative impacts occurring from fossil fuel price instability. These economic impacts are no less real for being more difficult to predict than the employment and income impacts noted above.

About the Analysis

The employment and income figures noted here include both direct employment and wages (those people directly employed by Kibby Wind Power and its contractors) plus the indirect and induced effects. Indirect effects are the employment and wages of firms supplying goods and services to Kibby Wind Power and its contractors. Induced effects occur when the wages paid by the direct and indirect employees' wages are spent in the local economy.

This analysis was conducted using an econometric model of the Maine economy maintained by the USM Center for Business and Economic Analysis and developed by Regional Economic Models Inc. (REMI) of Amherst, Massachusetts. The REMI model is a widely used economic forecasting and impact estimation model which has been used by CBER for about 15 years. It has been used by the State Planning Office more than 25 years,

² In 2006, the valuation of the Unorganized Territory in Frankly County was \$171.3 million, and the tax rate applied to properties was 8.83 mils. This would yield revenues of \$1.512 million. Source: Maine Revenue Services.

³ Source: Town of Eustis.

⁴ Source: ISO New England

and is also used by public and private organizations throughout the country. The USM version of the model incorporates seven regions within Maine; total effects in Maine are the sum of impacts in all regions.

The impacts are estimated by comparing two forecasts of the regional economies. One is a “baseline” forecast without the project; the other is a forecast with the employment projected by Trans-Canada to be associated with the project included. The impacts are the differences between the two forecasts. The forecasts include a calculation of the purchases of goods and services by the project from all other industries within the region and from within Maine.