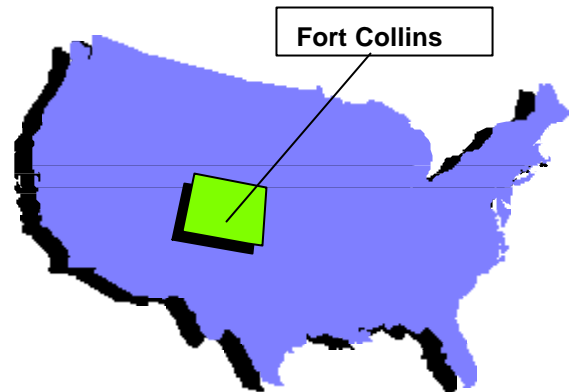


# Promoting Wind Energy

# FORT COLLINS (USA)

## ABOUT THE CITY

Fort Collins is a city of 106 000 inhabitants situated where the Front Range meets the Great Plains. This prosperous city is home to Colorado State University, and has a young age profile (median age 28.5) with a large proportion of professionals in the population. The city set up its own municipal electric utility in 1935 which jointly owns the Platte River Power Authority, the electricity wholesaler with three neighbouring municipalities. The municipal utility supplies electricity generated from hydroelectric sources and coal fired power stations using the latest "clean coal" technology and provides some of the cheapest power in the State.



## BACKGROUND

The City of Fort Collins is an environmentally aware city whose inhabitants indicated a strong desire to keep their environment clean. The local municipality owned utility wanted to offer a clean source of electricity to "fulfil these local values" and therefore decided to offer wind energy since the area lies near to some of the best wind resources in the US. While the municipal utility is in the happy situation of having paid off all its debts, it is also facing the introduction of liberalisation and like many local utilities in the US is interested in new services that it can offer to maintain consumer loyalty. The Wind Power Pilot Programme was mounted to offer wind energy to customers at a premium price.

## DETAILS OF PROJECT

### *Getting the secure market*

The Wind Power Pilot Programme is a joint project between the municipal utility and their wholesale electric supplier. Between September and November 1996 the City of Fort Collins launched a call for potential customers to commit themselves to buy wind power over a three year period for a small premium. As a result of an intensive marketing campaign more than 640 residential customers and 13 businesses subscribed to the programme and this which provided sufficient support for two turbines. This represented about 2% of the total base of residential customers in Fort Collins. A further 1500 customers (4%) asked for information but did not subscribe.

### ***Building the plant***

By April 1997 the municipal utility could sign a contract with the wholesale utility Platte River Power Authority which itself signed a contract to buy the power from two turbines to be constructed and owned by Medicine Bow Energy, a subsidiary of Northern Alternative Energy. There were problems with the first supplier chosen to construct the turbines and a new supplier was found. In the interim energy from an existing 65kW turbine about 200 kilometres from Fort Collins near Medicine Bow in the neighbouring state of Wyoming was supplied to the municipality. Two 600kW Vestas wind turbines of proven design were finally built at the same site and started delivering power in April 1998. Power from these turbines is transmitted by the network to Fort Collins and sold to the municipal utility which supplies it to customers for an additional 2 cents (approx. 0.02Euros) per kWh. The clients do not need a special meter or equipment since in practice the utility simply matches the total output of the turbines with the total consumption of the subscribers, the power actually consumed being delivered in the normal manner from the grid.

### ***Sales support***

The output of these turbines is already committed to the subscribers and the local authority has opened a waiting list for future offers of tranches of wind power and is examining the potential for more sites. A continuing information and publicity campaign has been run since the programme started. A quarterly newsletter is produced for subscribers, there is information in the local press, they have obtained three different awards for the programme. The Utility's Web site is lively and informative and even includes a participatory page where local residents can send in photos of themselves taken in front of the wind turbines.

### ***The Market Survey***

In an effort to understand the motivation of subscribers to the Wind Power Programme the utility carried out a telephone survey with financial support from State Energy Conservation Office to compare subscribers, interested non-subscribers and uninterested non-subscribers. The results demonstrated that about 60% of customers were aware of the Wind Power Pilot Programme. The average levels of income and education were higher among subscribers than the other groups, their rate of membership of environmental organisations is three times higher than for other customers, and they are generally more knowledgeable about wind power and other alternative energy sources. Subscribers do not tend to be significantly more innovating in life style than others - indeed it seems that they have a tendency to subscribe to meet a long standing environmental commitment rather than to see a bright new technology on the market place. Visual pollution and damage to birdlife were only cited as an issue by less than 10% of respondents. (The latter is a significant issue in the States since they have traditionally had many small fast moving turbines). Interestingly there remains a very high potential demand. Four-fifths of the subscribers intended to continue with the programme at the end of their commitment, and 90% would recommend the programme to others. Furthermore nearly half of the interested non-subscribers and 22% of the other customers expected to subscribe in the future. In general the effective information campaign was welcomed and appreciated by customers and over 60% of customers felt that the utility should market "green" services.

The survey also evaluated the premium which people are willing to pay for "green" electricity and found that few people dropped out up to a price of 2.5c/kWh (0.023euro/kWh). However the data indicate that while cost is not a major issue for subscribers, it is apparently an issue for those that did not subscribe. Almost 60% of interested non-subscribers said that they would subscribe for a flat rate of \$5 per month, but the figure was only 30% if the cost were \$10.

## **EVALUATION**

The city already uses a high proportion of hydropower, so it is clear that a premium simply for renewable energy could not have been justified - customers would have been paying for electricity that was already economic. However wind power is a new resource that needed this extra financing and the project is an interesting way of promoting this. Colorado utilities have the advantage of a significant hydro resource whose storage reservoirs can provide a buffer to facilitate the most efficient use of wind energy.

What is interesting about this project is not the establishment of wind turbines by a municipal utility - this is fairly widespread now. It is the affectation of a premium price specifically to wind energy and the high profile publicity and information campaign that was used to promote this which the survey shows to be effective in maintaining support for the campaign. This is in effect adopting private sector style selling techniques to promote a new product, which is thus given a certain cachet to justify a higher price. The results of the survey suggest that there is considerable potential still to be tapped and that the stakes are really considerable - if

intentions were converted into subscriptions, around 26% of the customer base would be subscribers. So a target of over 10% would not be at all unreasonable.

However a clear conclusion drawn from the results of the survey is that it is essential to maintain the publicity programme. An old advertising adage is that "You don't see the benefit of advertising until you stop doing it".

## **FUTURE PROPOSALS**

The survey they carried out had specific marketing recommendations on how to sell this green power and emphasised the need to maintain their high profile information campaign, including regular newsletters and leaflets circulated with the electricity bills. The natural target of the campaign was unsurprisingly affluent environmentally oriented customers. However it was also felt that with the wide goodwill shown towards the campaign, a programme with different levels of participation might be successful in widening the subscriber base.

Since Fort Collins announced their programme, Colorado's largest wholesale utility, the Public Service Company of Colorado, has established a wind generated electricity campaign and has signed up nearly 5000 subscribers who are willing to buy wind generated electricity in blocks of 100kWh. There is a larger premium of 2.5c per kWh (8c instead of 5.5c). Many local utilities purchasing from PSC, such as those in the towns of Colorado Springs and Aspen, rapidly sold out their allocation and put customers onto a waiting list. The funds are being used to construct a 14 turbine wind farm in the north of the State.

## **FURTHER INFORMATION**

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