

Les Rendez-vous de

L'Énergie

IMAGINE QUEBEC

WITHOUT OIL!

WWW.RDVENERGIE.QC.CA

Summary of Challenges

November 2010

1. What are the Rendez-vous de l'énergie?

The Rendez-vous de l'énergie are a collective and community-building approach designed to mobilize the province of Quebec to make a transition in its thinking about energy that will be stimulating and rich in opportunity.

The observation on which this approach will be based is the fact that we can contemplate different ways of using the land, producing and consuming, heating our homes and moving around. Quebec has at its disposal a host of resources that can be used to produce various forms of renewable energy and also to use energy more efficiently. In addition, our province can count on the support of creative individuals and organizations with the capacity to innovate in order to speed us toward the future.

No one in Quebec, not even companies, the municipalities or the regions, can imagine that they might be spared the economic, social and environmental impacts resulting from the production and consumption of oil. This is why the Rendez-vous de l'énergie have already succeeded in rallying to the cause an impressive number of partners from all parts of society who will strive to inform and consult with decision-makers and the general public. Regional activities are already under way, scheduled to take place between September 2010 and January 2011. They will be followed by a province-wide forum to be held in late spring.

This document summarizes the main findings set out in the Cahier de référence* for the Rendez-vous de l'Énergie and will be used as the documentary basis for the consultation and mobilization activities.

* This document is available in the 'Documentation' area of the Rendez-vous de l'Énergie Website (www.rdvenergie.qc.ca)

For some years now, dependence on oil has been a strategic challenge for most industrialized societies. Quebec is no exception. Why?

OIL, A LUXURY?

- **Quebec depends on oil**

In Quebec, oil accounted for 38% of the energy consumed in 2007, almost as much as the figure for electricity consumption. The demand for oil-based products arises primarily from the transportation sector, which accounts for more than 70% of total consumption. Despite the fact that this energy source is very important for the economy of the province, Quebec does not produce any and we must obtain our supplies entirely from foreign markets in order to meet our needs. Those markets are now subject to heavy pressure since countries are competing to gain access to a resource that is growing scarcer and the cost of extracting the oil is rising.

- **Oil, a resources that is gradually being exhausted**

The rate of discovery of new oilfields has slowed greatly to the point where annual consumption now exceeds the capacity of sources of conventional oil discovered since the mid 1980s. The rate of growth in world demand for oil has in fact increased substantially in recent years, essentially as a result of the growth in demand from the emerging nations: a 45% increase between 1973 and 2007, more than two-thirds of which has occurred since 2000. Oil is now scarcer than it was and it is becoming necessary to look to new sources that are increasingly difficult to exploit. They require additional investment and energy. According to the International Energy Agency, deposits that can be exploited economically on a large scale using traditional techniques will experience a marked decline in their production: a reduction of 60% in 2030 over the level of production in 2007.

- **The cost of oil will inevitably increase in the future**

All these factors suggest to the great majority of specialists that the cost of oil will constantly increase. Fatih Birol, Chief Economist of the IEA, has even acknowledged that [TRANSLATION] “the era of cheap oil is over”. This cost increase also began in the early 1990s: the price of a barrel of oil at that time fluctuated between \$30 and \$40 whereas today it is hovering around \$80, meaning that it has doubled.

WHAT WILL THE IMPACT ON QUEBEC BE?

Given these challenges, many voices have been raised and heard expressing views on the fact that we must act and that the *status quo* is no longer an option, especially since aside from the issue of dependence, oil consumption is also associated with many economic, social and environmental problems.

- **Impact on the provincial economy of Quebec and on regional economies**

In 2007, spending by Quebeckers on oil and oil-based products totalled some \$11 billion, more than 4% of the province's gross domestic product. Since Quebec does not produce any oil, this amounts to a net outflow of capital from the province. Since these costs are increasing, it may be expected that the flight of capital associated with oil products will triple by 2030.

Imports of oil products accordingly make a large contribution to the worsening trade deficit. The province had its first trade deficit in 2004 and the figure has grown larger since that time, reaching \$16.5 billion in 2008. What products are primarily responsible for this large proportion of Quebec's total imports? Oil products and cars.

Beyond the impact of these increases on the overall economy of the province, the increase in the cost of oil directly affects the finances of everyone (individuals, businesses and government). Since they are already grappling with disturbing problems relating to the new generation of workers, the greying of their populations and the lack of access to services, the rural and peripheral areas of Quebec in particular may well see these problems getting worse.

- **Impact on health and safety**

Exposure to air pollutants resulting from the combustion of oil products leads to the development and exacerbation of cardio-respiratory problems. Also, the combustion of hydrocarbons is still the primary cause of air pollution: contaminants, particulate emissions, sulphur dioxide. This combustion is also the main cause of ozone and smog.

Moreover, the use of cars results in urban planning that creates cities where residents become dependent on excessive car use and this leads to an increasingly sedentary existence, growth in the rate of obesity among the population and other public health problems linked to a lack of exercise.

- **Impact on transportation and personal mobility**

Land-use planning, the expansion of cities and the growth of suburbs have made the car essential for everyday movements for a large portion of the population. The time taken to commute to and from work has accordingly exploded in recent years. Highway infrastructures, which are costly to develop and maintain, are not adequate to absorb the growing demand. It has been estimated that in 2009, the cost of congestion was close to three billion dollars solely for the greater Montreal area, a 100% increase since 2004.

- **Impact on local ecosystems**

Infrastructures designed to accommodate car travel (roads and parking lots) make a direct contribution to the phenomenon of heat islands. In addition to its impacts on human health, this phenomenon is extremely harmful to vegetation. The expansion of our cities and urban sprawl are also responsible each year for the disappearance of thousands of hectares of arable land, wetlands and natural environments.

On top of this we must also consider the direct impact on local ecosystems of the transportation of petroleum products. Year in and year out, hundreds of incidents occur and hundreds of thousands of litres of oil are spilled into the St. Lawrence River.

- **Impact on climate**

In Quebec, the combustion of oil is responsible for 60% of total emissions of GGs, 40% of this figure being attributable to the transportation sector alone. The most recent studies show that the increase in temperatures associated with increases in greenhouse gas emissions would have a multiplicity of effects in Quebec, for example, reduction in the level of the St. Lawrence River, increase in the frequency of

extreme weather phenomena, longer and more frequent episodes of crippling heat, increase in coastal erosion, increase in premature death caused by air pollution.

3. WHAT IS TO BE DONE?

The *status quo* is not an option: it would merely serve to exacerbate of all the problems described above. Thus, only few options are available for dealing with the economic implications of our dependence on oil:

1. Counter the increase in gasoline prices by cutting taxes and royalties on gasoline?
2. Produce more energy in order to increase exports of electricity or to cut imports of oil and gas in order to correct the trade imbalance?
3. Reduce oil consumption so as to reduce the impact of price increases while cutting the trade deficit?

In the case of each of these options, we must determine how it may also help reduce the economic, social and environmental impact of oil consumption (pollution, public health, congestion, etc.). The result of such an analysis is that the first two options involve a number of inconveniences and will not enable us to respond fully to the problems associated with oil consumption in Quebec.

Cutting the levels of oil consumption through energy efficiency and energy saving measures, on the one hand, and by substituting renewable energy sources for oil, on the other hand, appear to be the option that would be most effective. In the eyes of many, that is in fact the only option that will allow us to face all of the challenges now facing Quebec.

If we choose this option, a number of possible approaches can be identified that will enable Quebec to achieve an ambitious objective of reducing oil consumption. All these actions will also make it possible to contribute to significant reductions in the impact on the environment, health and the economy.

What is required is to:

- Focus on the development of public transport;
- Reduce the consumption of vehicles
- Reduce energy consumption in buildings;
- Reinvent the hearts of towns and villages;
- Substitute renewable energy for oil (electrification of transportation, biomass, biofuels).

Becoming involved in implementing this option and taking these actions pose an enormous challenge, in any event, because what is required is substantial changes for Quebec society, which will have to take place at all levels: individuals, consumers, organizations, industries, municipalities, government. It will also require the implementation of very bold public policies.

Some people have already welcomed these challenges positively and with joy because they see in them an exciting possibility for society and a way to consolidate the international leadership that Quebec has already achieved in the fight against climate change, development of renewable sources of energy and

movement toward a green economy, especially since other benefits will arise from the implementation of this option: improved air quality, commercial opportunities for industries in Quebec, increased accessibility of services, regional development, enhanced quality of life for households.

AND WHAT DO YOU HAVE TO SAY?

Le Rendez-vous de L'ÉNERGIE

Get involved in the Rendez-vous de l'Énergie

The organizers of the Rendez-vous de l'Énergie and their various partners in this endeavour invite you to take an active part in the Rendez-vous de l'Énergie process, to express your views and to invite your friends and families to do the same.

Quebec needs your ideas!

All relevant documentation and schedules will be available on the Website of Rendez-vous de l'Énergie www.rdvenergie.qc.ca

To find out more, the Bibliography in the *Cahier de reference* lists the works that have proved useful to date to the Rendez-vous de l'Énergie.

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