

# HIGHER ELECTRICITY PRICES CAN UNLEASH THE VALUE OF QUEBEC'S ENERGY POTENTIAL

The Quebec Energy Board recently authorized an average increase of 1.92% in electricity rates, effective April 1, 2007. Hydro-Québec had sought a 2.8% rise. Various consumer groups, business people and politicians said they were reasonably satisfied with the board's ruling. But the fact remains that this measure contributes to Quebec's relative impoverishment. The so-called "social pact" under which Quebec's electricity demand must be met at the lowest possible price needs to be called into question. For the well-being of all citizens, rates have to be raised to match the true value of electricity.<sup>1</sup>



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## A waste of resources

Consumer groups oppose the price rise mainly on behalf of low-income households. Wealthier users have kept a low profile: they actually benefit more from low prices than the poor. Some businesses demand low electricity prices to maintain their supposed "competitive advantage".<sup>2</sup> Politicians are happy to go along with this since they can reap easy electoral benefits from a policy of low prices. Quebec society thus puts up with energy resources being controlled by a well-intentioned but ill-informed coalition of elected representatives, business people, trade unionists and self-proclaimed defenders of consumer interests.



This has resulted in misdirected development of energy resources. Prices are manipulated downwards to the benefit of certain groups, and potential benefits from optimal use are squandered. Current rate-setting policy for electricity takes the form of massive subsidies to specific businesses and of standard prices that are simply too low. This creates a potentially huge cost to society and to the government, now and in the future. It favours the development of electricity-intensive economic activities at the expense

of other activities that could create far more employment and wealth, once the true value and relative costs of various factors of production are taken into account.

It also leads to under-investment in the energy sector, especially in hydroelectric power, given the lower earnings in the energy sector caused by artificially low electricity prices. These prices reduce income from hydroelectric investments directly, and from investments in other energy sources indirectly, because of unfairly strong competition from electricity.

More generally, this policy of low prices distorts business investment decisions in many ways, reducing the ability of our economy to create jobs,

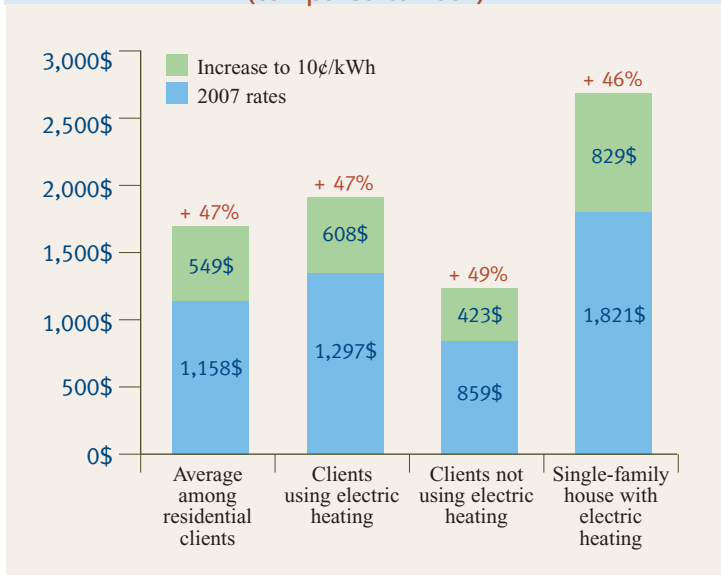
raise productivity and fulfil our potential to create goods and services – the main indicators of growth, wealth and competitiveness.

Low prices also produce a regressive transfer from the poor to the rich since they favour over-consumption by the latter and deprive the government of resources needed to finance proper assistance programs aimed at the poorest citizens. It also harms sustainable development by leading some of

1. On the same topic, see also Marcel Boyer, *Raise Electricity Prices in Quebec – and Benefit Everyone*, C.D. Howe Institute, March 2005, [http://www.cdhowe.org/pdf/ebrief\\_13\\_english.pdf](http://www.cdhowe.org/pdf/ebrief_13_english.pdf).  
2. See for example the recent Economic Note from the Montreal Economic Institute by Gérard Bélanger and Jean-Thomas Bernard, *Subsidies for aluminum producers: Benefits that don't add up*, April 2007.

FIGURE 1

Projection of the average annual increase in electricity bills for residential customers if rates were set at market prices (compared to 2007)



our potential foreign customers to substitute relatively polluting electrical energy sources (such as coal-fired power plants in the northeastern U.S.) for the cleaner hydroelectric power we could be selling them.

## The true cost of electricity

Compared to prevailing rates elsewhere in Canada or the U.S., the price of electricity in Quebec is very cheap. According to Hydro-Québec's data<sup>3</sup>, the average price per kilowatt-hour (kWh) in the residential sector was 6.6¢ in Montreal in April 2006 compared to 11.2¢ in Toronto, 19.2¢ in New York and 23.8¢ in Boston. Gaps in commercial and industrial rates are similar.

Despite this price differential that supposedly favours Quebec, GDP per capita in 2004 as stated on a comparable basis (in other words, adjusted to take the cost of living into account) was US\$29,100 in Montreal, US\$34,900 in Toronto, US\$52,800 in New York and US\$58,000 in Boston.<sup>4</sup> While there are obviously

many factors that explain Quebec's relative poverty in the North American context, low electricity prices certainly come nowhere close to compensating for the gap in living standards that separates it from its neighbours. GDP per capita expressed in purchasing power parity is 80% higher in New York and 100% higher in Boston than in Montreal, despite the fact that electricity prices in Montreal are three times lower than in New York and three-and-a-half times lower than in Boston.

The true cost of electricity to Quebecers is not its production cost, which has been exceptionally low over time thanks to a bountiful natural heritage, but its opportunity cost. What else might we do with our kilowatt-hours if we did not consume them ourselves? What do we give up by consuming them at such a low price? In the current context, Hydro-Québec's marginal cost of electricity supply (in other words, the cost of the last kilowatt-hours produced) is in the range of 9¢ per kWh, while the average price that Hydro-Québec could have obtained for exports was about 10.2¢ per kWh in 2005. The opportunity cost thus falls into a bracket lying between 9¢ and 10.2¢ per kWh. With each kilowatt-hour we consume, we lose the income we could obtain by exporting it. This is the true cost. To ensure better electricity use, a signal must be sent to residential, commercial and industrial users regarding the real cost of this resource.

## Unexploited potential

Quebec's energy potential is huge in terms of natural resources, human skills and available outlets. This potential goes beyond merely selling energy at the average export price. Since wholesale electricity prices in North America were deregulated a decade ago, the value of our hydroelectric reservoir facilities has grown tremendously.

*Low electricity prices certainly come nowhere close to compensating for the gap in living standards that separates Quebec from its neighbours.*

3. Hydro-Québec, *Comparison of Electricity Prices in Major North American Cities*, 2006, p. 20, [http://www.hydroquebec.com/publications/en/comparison\\_prices/2006/pdf/comp\\_2006\\_en.pdf](http://www.hydroquebec.com/publications/en/comparison_prices/2006/pdf/comp_2006_en.pdf).

4. OECD, *OECD Territorial Reviews: Competitive Cities in the Global Economy*, 2006, [http://www.oecd.org/document/2/0,2340,en\\_2649\\_34413\\_37801602\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/2/0,2340,en_2649_34413_37801602_1_1_1_1,00.html).

The enormous flexibility this provides could enable Hydro-Québec, if given broader latitude than it has now, to take fuller advantage of major price fluctuations on wholesale markets, selling at high prices when demand rises (during daily, weekly and seasonal peaks) and buying cheaply when demand is low (at night, for instance). Hydroelectric facilities have the required flexibility to help Hydro-Québec get top prices on wholesale markets when selling outside Quebec. This is not possible with thermal power plants that normally have to operate continuously. It is a sizable advantage that we are not exploiting adequately, despite the fact that nearly 40% of Hydro-Québec's income in 2005 came from its operations on foreign markets.

### The advantages of proper pricing

Proper pricing of energy and electricity involves setting prices objectively based on market value. This tool produces greater technological innovation and clearer behavioural changes than punitive or regulatory measures. It enables all businesses to adapt effectively, each in its own way, according to its technology along with information concerning competitive pressures on its suppliers' and customers' markets. Businesses can thereby gain some benefit from these adjustments and innovations. This provides a powerful incentive not only to meet customer demand but also to protect the environment (through optimal resource use and the advent of green technologies, including the development of alternative technologies for energy production such as wind or geothermal power, in addition to natural gas).

Proper energy pricing is thus more effective than direct orders and controls since it leads consumers to act more responsibly. Manipulating electricity prices downwards also distorts the price signals sent to customers. Even as Hydro-Québec and the Quebec government invest in energy efficiency programs and set ambitious energy-saving goals, they are neglecting the least costly, most equitable and most effective means of promoting energy savings, namely a price equal to the true cost.

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Putting too low a value on Quebec's energy potential produces debt levels and taxes that are too high. It also results in inadequate infrastructure and public services, a factor in Quebec's disappointing economic performance. In the last 25 years, we have experienced lower growth and employment rates than our North American competitors, weaker overall productivity, anemic job creation and a higher jobless rate.

If electricity rates were raised to market prices for all categories of consumers, the average rise in residential bills would be about 50%<sup>5</sup> (see Figure 1). The additional income generated this way<sup>6</sup> could be used for many purposes: lowering taxes significantly, paying off the debt, investing more in education and adult training, improving our infrastructure, and so on. These possibilities are powerful economic levers that can help make our economy more productive.

However, the main purpose of raising electricity prices should not be to impose an additional tax but rather to apply a policy of true prices, the most vital factor in an economic policy focused on creating collective wealth. Even if the profits gained through a price rise were fully redistributed to citizens, the operation would be effective from an economic standpoint, given the advantages that result from proper pricing. An annual royalty could be paid to each person in Quebec (along the lines of Alberta's "prosperity dividend") reaching many hundreds of dollars per person each year.<sup>7</sup> In most cases, this royalty would fully cover the increase in residential electricity bills – and even go beyond it.

We often hear that "the entire population benefits from low prices." Nothing could be further from the truth. Quebec residents have the illusion that they all benefit from low prices since they get savings on their electricity bills. However, what they fail to see is that, due to these low prices, their tax load is higher and their public services lower in quality since the government has to find this missing money elsewhere. At present, small-scale consumers actually subsidize large-scale consumers, whether residential (such as owners of huge houses with heated pools) or industrial (such as aluminum smelters).

5. Assuming abolition of the daily subscription fee required by Hydro-Québec, to simplify rate-setting.

6. Speaking to the Association de l'industrie électrique du Québec (AIEQ) in March 2005, André Boulanger, CEO of Hydro-Québec Distribution, mentioned a figure of \$5.3 billion more each year, which he said was equivalent to three major hospital complexes per year, or the salaries of every National Hockey League player and extensions to ten highways.

7. With \$5 billion in added income each year, the royalty would reach about \$700 per inhabitant, or \$2,800 for a family of four (this estimate is conservative and does not take account of the extra profits that could be generated thanks to new investments and to a clear policy of placing greater value on Quebec's energy potential).



Obviously, if letting the price of electricity rise to reflect its real cost (between 9¢ and 10¢ per kWh) ends up hitting hard at households with lower incomes, the government could protect them adequately through various assistance programs (for instance, refundable tax credits like those applied to property tax).

## For fairness among shareholders

According to Hydro-Québec, the energy bill for an average house (158 square metres) with electric heating went up 14.4% during the nearly eight years from May 1, 1998, to April 1, 2006, while the bill for a similar house heated with fuel oil or natural gas rose by 130% or 58% respectively.<sup>8</sup> This observation raises many questions for everyone in Quebec concerning the fairness of electricity prices being manipulated downwards. Hydro-Québec presents these gaps in heating cost changes as highly favourable to electricity users and thus to its customers.

If we view Hydro-Québec first and foremost as a supplier of electric energy to all Quebec consumers, this type of change is truly praiseworthy. But if we see Hydro-Québec as a company of which everyone in Quebec is a joint owner or shareholder, the position is quite different. In the latter case, there is reason to ask why these shareholders would wish to favour a subgroup among them, namely those who use electric energy to heat their homes, as opposed to

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the other subgroup, namely users of alternative energy sources (light fuel oil, natural gas) for the same purpose. What concept of fairness can justify favouring certain citizens in this way at the expense of others by offering “unusually” low electricity rates? This situation means that homeowners who use alternative energy sources are being exploited to the benefit of others who use electricity for all their needs.

All citizens are in some way Hydro-Québec owners or shareholders. The aim of treating all citizens equitably in setting rates adds to our comfort in recommending that electricity rates be raised to market prices. Hydro-Québec’s earnings for all Quebecers are impressive, with net income reaching \$3.71 billion in 2006. But this is still much less than it could be.

Announcing a rise in electricity prices to the level of their opportunity cost, perhaps spread over several years, would send a credible signal that wealth creation, based on creativity, innovation and truth in pricing, will from now on set the standard for sound management and good governance in public affairs. Defending such a policy would rely on Quebecers’ abilities in the areas of creation, innovation, adaptation and entrepreneurship. It would proclaim an end to the current policy that holds back our development and deprives us of resources we will surely need in the years ahead.



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8. Hydro-Québec Distribution, *Requête du Distributeur et pièces ou soutien de la demande*, Régie de l'énergie du Québec (File R-3610-2006), Item B-1, August 16, 2006, page 15.