

CNS MEMBERS PROMOTING NUCLEAR ENERGY IN PUBLIC DEBATE – AN EXAMPLE FROM QUEBEC

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Abstract

For approximately two years, several members of the Quebec branch of the Canadian Nuclear Society have publicly expressed their views in favour of nuclear energy in Québec. This paper summarizes their participation in the BAPE public hearings on the environment (“Bureau d’Audience Publique sur l’Environnement”), in the hearings of a Quebec Parliamentary Commission on economy and labour, and in the United Nations Conference on Climate Change in December 2005 in Montreal. The focus is mainly on a debate around the possible refurbishment of the Gentilly-2 nuclear power plant, the only operating nuclear plant in Québec. Antinuclear groups are well organized and their message is transmitted loudly to the public by the mainstream media. Industry professionals must therefore express themselves publicly to counterbalance this biased message. In conclusion, we see a need for the formation of a coalition of all who support nuclear power in Quebec to support the refurbishment of Gentilly-2.

Introduction

For the past few years, several members of the Quebec branch of the Canadian Nuclear Society have taken a public position in the debate about the role of nuclear energy in the Province. This article describes their activities, as well as their guiding philosophy.

1. The nuclear energy debate in Quebec

A single nuclear power plant is in operation in Quebec, the Gentilly-2 generating station, with a maximum installed capacity of 675 MWe. With an average annual capacity factor of 80% since its commissioning in 1983, the station supplies 4.7 TWh to Quebec’s electrical grid every year.

Even though nuclear is Quebec’s second largest source of electrical energy, few Quebecers are even aware of its existence. It is true that Hydro-Québec places much emphasis on hydroelectricity (which represents 95% of its total production) and more recently on wind power. This situation is changing, following Hydro-Québec’s request to the Government to authorize the refurbishment of the station, to extend its operating life to the year 2038 [1]. In the debate about nuclear energy in Quebec, the loudest voice is that of the antinuclear activists.

a. Anti-nuclear activism

Both national and local antinuclear groups are active in Quebec. The former include Greenpeace and the Sierra Club, the latter groups like Le regroupement vert Mauricie (“the Greens from Mauricie region”).

These groups are well organised and make use of all available public forums to spread their message. The following are some examples:

- As part of the visit of the ship “Arctic Sunrise” to the town of Trois-Rivières on September 5 2005, Greenpeace organized a demonstration against the refurbishment of Gentilly-2. This demonstration made the front page of one of the local newspapers (Figure 1).
- On the web site of the Quebec Centre for Climate Change Action one may find a page titled “Nucléaire 101,” which denigrates the nuclear industry under a thin veil of objectivity, without once mentioning the fact that nuclear reactors don’t emit greenhouse gases [2]. The only reference it recommends for further information is antinuclear activist Gordon Edwards’ CCNR web site.
- These groups regularly write articles that are published in mainstream Quebec media [3], or they give interviews to journalists [4,5], which comes to about the same thing, as journalists all but ignore any sort of critical analysis with regards to the antis.
- The groups also run petition and letter-writing campaigns targeting the Quebec Government [6].

Antinuclear groups also seek to sway other groups into taking a position against nuclear energy, even when such a position is in no way related to the mandate of these groups. Some examples of groups that have adopted a position opposed to nuclear energy in Quebec are:

- The Green Kyoto Coalition of Quebec (a group promoting greenhouse gas reductions)
- Équiterre (a group which promotes fair international trade practices)
- AFÉAS - "Association féminine d'éducation et d'action sociale" – a group dedicated to the advancement of women.

b. The need for industry professionals to take a stand

There is little doubt that the public in Quebec has the lowest confidence in nuclear energy nation-wide [7,8]. Nevertheless, communities in the vicinity of the plant show a greater degree of support for nuclear, as they tend to be more familiar with the industry [9].

In such a context, it becomes necessary for nuclear industry professionals to take a public stand, if only to dispel the biased information fed to the public. This is especially true in Québec, since publicity campaigns from the Canadian nuclear industry are aimed almost exclusively at Ontario. Citizens ought to have a chance to hear both sides of the story, if they are to make an informed opinion.

According to recent polls, the public is much more likely to listen to the advice of professionals and scientists, than to industry managers. Consequently it is incumbent upon us to meet expectations, by ensuring that our facts and figures are correct and referenceable.

c. The message

In the particular context of Québec, the strong points in favour of nuclear are numerous. CNS-Québec members emphasize the following:

- ♦ Nuclear does not emit greenhouse gases
- ♦ The nuclear industry has significant spin-off benefits in Quebec
- ♦ It is important to maintain a diverse portfolio in energy production
- ♦ A nuclear plant occupies very little land area compared to a hydro reservoir or a wind farm of similar capacity

2. Gentilly-2 refurbishment

a. The BAPE hearings

In October of 2004, the Quebec Minister of the Environment directed BAPE (the "Bureau des Audiences Publiques en Environnement," or Office of Public Hearings on the Environment) to hold public hearings on Hydro-Québec's proposed expansion of radioactive waste storage facilities and refurbishment of Gentilly-2. Hydro-Québec prepared numerous supporting documents concerning the refurbishment project, addressing all environmental, social and economic issues.

Some sixty interveners made presentations to BAPE officials, including the Quebec branch of the CNS. The number of detractors and supporters of the project turned out to be fairly balanced. Media coverage however, was quite restrained, if not nonexistent.

In the end, BAPE officials recommended that only phase 1 of the project go ahead: expansion of the radioactive waste storage facility, in order to accommodate plant operation from 2007 to 2010.

BAPE declared however, that it considers any judgement on subsequent project phases (necessary for plant refurbishment) premature, chiefly because of the unresolved question of long term spent fuel management. BAPE therefore refused to pass judgement on anything going beyond the operation of Gentilly-2 to the end of its useful life.

b. The CNSC hearings

Nuclear plant operating permits and authorizations for projects like the expansion of spent fuel dry storage facilities and plant refurbishments, are granted by the Canadian Nuclear Safety Commission (CNSC). CNSC hearings for Gentilly-2 refurbishment are yet to take place – probably later this year.

Since a large antinuclear contingent is expected at these hearings, CNS-Quebec shall make a presentation there as well.

3. Québec's energy future

a. The Parliamentary Commission

Towards the end of 2004 the Quebec Government issued a document titled "Quebec's Energy Sector -- Context, Stakes and Questions." Then in early 2005 it convened a general public consultation on this document, as part of the activities of a Parliamentary Commission.

The document mentions the possibility of refurbishing Gentilly-2, but doesn't envisage the construction of any new nuclear power plants in Quebec in the coming years.

It is for that reason that we decided to make a presentation to the Parliamentary Commission: To point out that nuclear energy should be considered as an equally valid choice for Quebec's future energy supply as any other energy source.

Our presentation cites the advantages of nuclear energy relative to other energy sources. Among them are economic competitiveness, a high capacity factor, an existing plant site, and low greenhouse gas and other pollutant emissions.

A copy of the presentation may be found at: http://www.cns-snc.ca/branches/quebec/Memoire_SNC-Quebec_comission_parlementaire.pdf.

G. Sabourin and E. Varin delivered the presentation to the Parliamentary Commission hearings on March 8, 2005. Twelve ministerial deputies representing the three political parties in the National Assembly were present. This was a unique opportunity to give elected officials a sense of the positive aspects of nuclear energy.

We had 20 minutes to deliver our presentation and 10 minutes to answer questions from the floor. In order to add an element of interest for the deputies, we displayed a 37-element CANDU fuel bundle. The presentation went very well. We were able to make all the salient points. The deputies showed interest, even if somewhat sceptical. A video of the presentation may be found at:

<http://diffusion.assnat.qc.ca/video/cet/cet200503081520-100.wmv>. Figure 2 shows one of the slides from our PowerPoint presentation. Although not shown on the Figure, there is space for two other nuclear power plants (i.e. Gentilly-3 and Gentilly-4).

Our main point was that Hydro-Québec (or the government of Québec) should perform a study to compare the construction of a new nuclear power station with the construction of other types of generating stations currently planned.

Following the Parliamentary Commission, the Government issued a new, shorter document, in which it describes its main energy objectives for the coming years ("Energy for the Prosperity of Quebec: the objectives and orientations of Quebec strategy"). There is no mention in it of any possibility of building new nuclear power stations or even of conducting a study. Another public consultation was opened on this document, this time in electronic format. Several members of CNS-Quebec participated in this electronic consultation, expressing their dismay at the fact that nuclear was left entirely out of the picture.

b. The Energy Board

The Energy Board is a government organisation which regulates the electricity market in Québec (as well as petroleum products and natural gas). Hydro-Québec Distribution and Transénergie (but not Hydro-Québec Production) are subject to the regulation of the Energy Board. Every three years, Hydro-Québec Distribution must submit its electricity supply plan for the next ten years for approval to the Board. This supply plan is discussed in public hearings.

Hydro-Québec Distribution submitted its 2005-2014 supply plan to the Energy Board on the 1st of November 2004. No mention was made of nuclear energy, apart from the Gentilly-2 refurbishment. Public hearings were held from the 21st to the 26th of April 2005. To participate in public hearings, each group or association has to demonstrate its specific interest in the supply plan and be declared eligible by the Energy Board.

The Quebec branch of the CNS asked to participate in the public hearings. We wanted to raise the fact the nuclear power was not considered on an equal footing with hydroelectricity or wind farms. The Energy Board declined to grant us intervenor status.

The Energy Board process is very legalistic. We would have needed a lawyer's services to advise us. In the future, it would be more beneficial to be associated with groups already having intervenor status, like the Quebec Electrical Industry Association or the Consumers Union.

4. The Climate Change fight

a. The COP/MOP conference in Montréal

The Kyoto Protocol came into force in February 2005, with 35 industrialised nations and the European Community legally bound to reduce their emissions of six major greenhouse gases. However, since the early years of Kyoto negotiations, both the Clean Development Mechanisms (CDMs) and Joint Implementation (JI) elements have excluded nuclear activities that members could take credit for. The CDM allows countries to carry out projects that reduce emissions in return for certified emission reductions (CERs). CERs can be used to help a country meet its emissions targets under the Kyoto Protocol. JI allows countries to carry out projects that reduce emissions or remove carbon from the atmosphere in return for emission reduction units (ERUs). Like the CERs, ERUs can also be used to help a country meet its emissions targets under the Kyoto Protocol. Despite being a low-emissions energy source, nuclear gets neither CER nor ERU credits.

In the months leading up to the eleventh annual Conference of the Parties to the Kyoto Protocol (CoP-11, references [10,11]) in December in Montreal, the picture already started to change. First, in October, a declaration signed by a cross-party group of European Parliament MEPs called for nuclear energy to play a leading role in future climate change policies. Then, on 16th November 2005, European Parliament MEPs voted by 453 to 204 to delete an anti-nuclear clause from a climate change report that said the CDM and JI elements "must continue to exclude nuclear activities."

The Montreal group's participation in the COP was facilitated by the CNA and by the group headed by Lisa Stiles-Shell, President of the North American Young Generation in Nuclear (NA-YGN) and the US Nuclear Energy Institute's Manager of State Initiatives.

The US NEI, NA-YGN and CNA organised teleconferences prior to the Montreal meeting and created a collaborative spirit of all the nuclear participants.

Despite a relatively poor location in the Palais de Congrès conference centre, the nuclear booth seemed to be a clear success. It was often busy with visiting delegates from various countries around the world. Some, from countries without any nuclear industry, asked questions one would expect from people shopping around for low-emissions energy sources, including nuclear, without prejudice.

The younger age profile of NA-YGN representatives who staffed the booths over the two weeks created a good "future-focussed" image of an industry all too often represented by (much) older figureheads. The standard of the engagement of the booth staffers with delegates was very high. They were often able to refer to their own experiences working on a nuclear plant.

Participants from AECL's Montréal Office included Gilles Sabourin, Michel Saint-Denis, Luke McSweeney, Pascal Hernu and Jaro Franta. The group was satisfied that the event was successful, especially regarding people amongst the general public who visited the second booth at the Complexe Guy Favreau (which was open to the public, while the Palais des Congrès was strictly for delegations and authorized organisations). We received very interesting questions both from people for and against nuclear energy or "not convinced" as some described their position regarding the nuclear option.

Many people from the public who did not know anything about nuclear energy were amazed by the fact that a very small pellet of uranium can replace around 800 kg of coal or around 650 L of oil. Moreover, many people were also wondering why people like us from the nuclear industry usually don't do anything to inform the public on a large scale. For those of us from Canada, this sent a strong message, if we want the public to be in favour of the refurbishment of the only nuclear power plant in Québec (Gentilly-2).

The joint participation of NEI/ NA-YGN from the US and CNA/ CNS from Canada was very positive for the whole nuclear industry, as we could reach delegates from many countries around the world and also people from the local public. We look forward to participating in other opportunities in the future in order to inform people on nuclear energy and its benefits.

b. The Climate Change Salon

One month before the UN conference, the Sustainable Development Salon 2005, whose theme was 'climate change', was held in Montreal. This salon was organized by the Quebec Centre for Climate Change Action (QCCCA). According to their website, this salon was focused on 'practices, technologies, and initiatives in Québec linked with reduction of greenhouse gas emissions, and adaptation to climate change' (translation) [12]. The QCCCA invited groups and companies from Québec which aim to reduce greenhouse gases, to set up booths during the salon.

The Quebec branch of the CNS applied to participate, but the QCCCA refused our application, without any substantive reason. CNS-Québec issued a press release on that occasion [13]. The press release was ignored by the media.

While preparing for the Salon, we produced a leaflet entitled 'Nuclear is part of the solution.' It illustrates the link between an increase of greenhouse gases, and the closure of some nuclear power plants in Ontario. A graph from this leaflet is reproduced in Figure 3.

5. Conclusion

In conclusion, it is important for nuclear industry professionals to participate in debates surrounding nuclear energy. The objective is to give the general public the opportunity to gain an informed opinion on the issues.

We also see the need for the creation of a coalition advocating the refurbishment of Gentilly-2, a coalition of all individuals, associations or firms that support nuclear power in Québec. Recently, there were more media editorials opposing Gentilly-2 refurbishment [14]. Without a coalition promoting the necessity of Gentilly-2 refurbishment, the government and the public in general will, once again, hear only the antinuclear side.

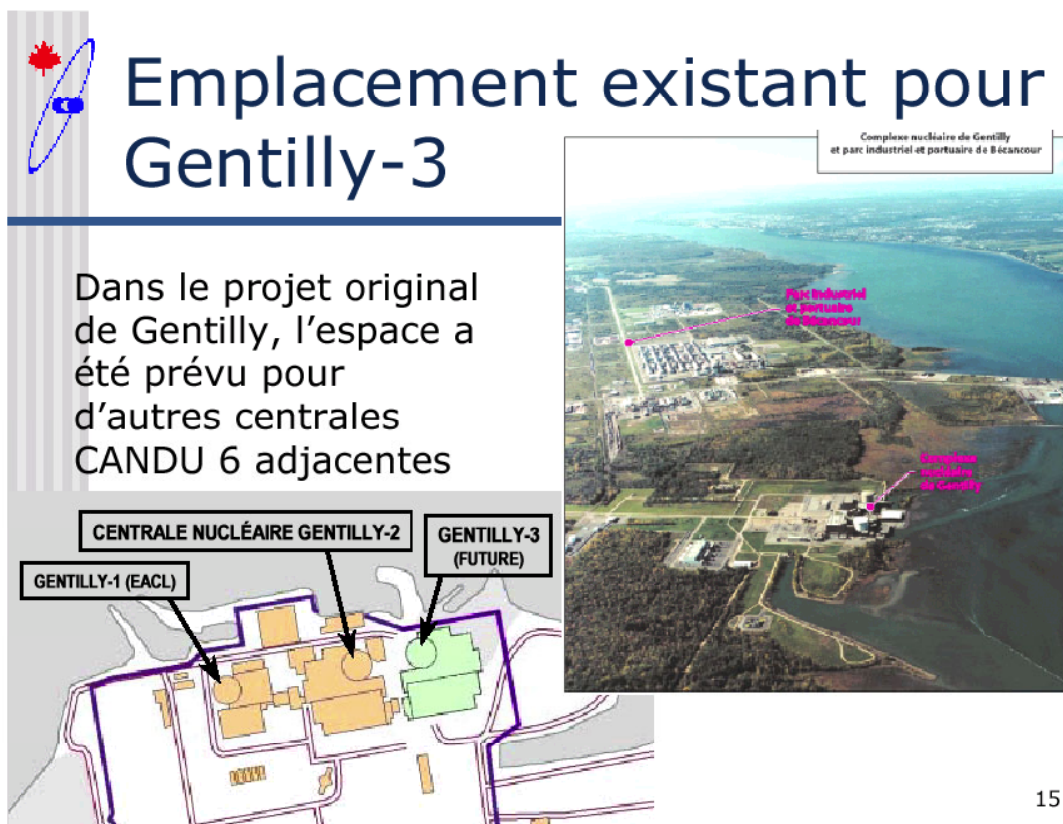
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14. The Gazette, “Hydro expansion is a natural for Quebec”, editorial, March 16, 2006.

Une centaine de personnes ont pris part à la manifestation de Greenpeace. On demandait au premier ministre Jean Charest d'obliger Hydro-Québec à fermer la centrale nucléaire en 2010.



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Figure 2 One page of the presentation made before the Parliamentary commission

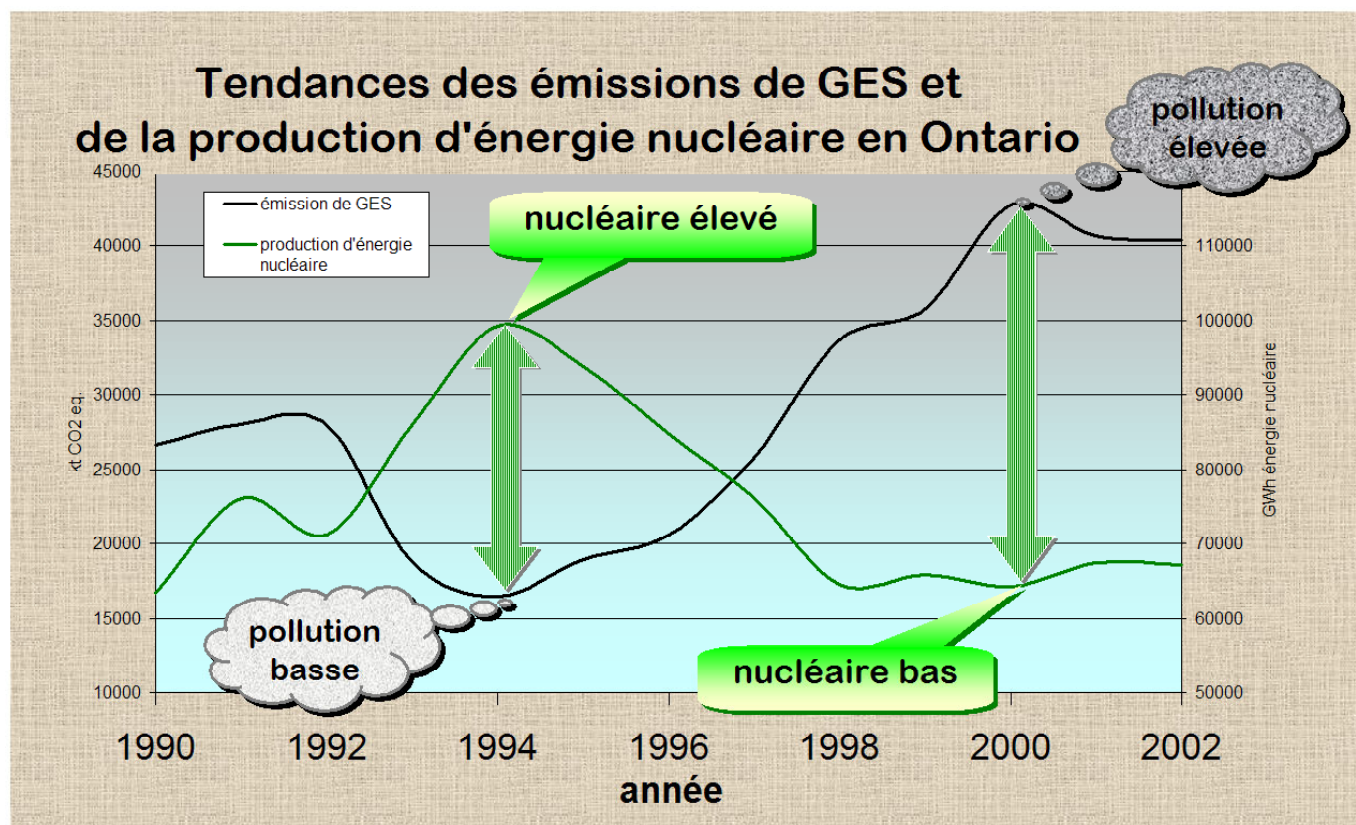


Figure 3 Trends in GHG emissions and nuclear power production in Ontario from 1990 to 2002