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# Quebec Energy Performance Contracts for the School System: New Rules of the Game

**Jean Drouin**

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OECD

PEB Exchange Programme on Educational Building

### Appraisal of AMPs

DfEE will appraise all LEAs' Asset Management Plans to ensure that they are robustly put together and that LEAs' partners were involved in the process. It will also check AMPs for consistency and robustness, if necessary, by checking a sample of schools and asking for further information on some schools.

Appraisal will involve marking each AMP. Where the AMP is up to the required standard the LEA will receive its capital allocation, which it can then use to address its priorities. It may also be assured of funding over a number of years.

Where the AMP is not up to standard, DfEE will require further information on individual projects and will then determine and direct the funding.

DfEE will issue guidance on how it will carry out the appraisal of AMPs.

### Programme

The following guidance has been issued so far:

Section 1 – AMPs framework

Section 2 – Premises information and data systems

Section 3 – Condition survey

Section 4 – Suitability assessment

Time-scales for remaining guidance are as follows:

Section 5 – Sufficiency guidance
December 1999

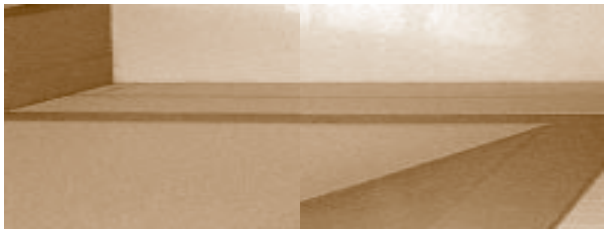
Section 6 – Guidance on options appraisal
March 2000

Section 7 – Guidance on implementation
March 2000

DfEE hopes that 90% of Local Authorities will have fully developed AMPs by end of year 2000.

*This article was contributed by Mukund Patel, Head of the Architects & Building Branch of the Department for Education and Employment, United Kingdom.*





# QUEBEC
# ENERGY PERFORMANCE CONTRACTS FOR THE SCHOOL SYSTEM: NEW RULES OF THE GAME

### Introduction

This article takes a brief look at the new rules covering energy performance contracts for Quebec school boards. It discusses the following questions:

- the school boards' educational buildings;
- the school boards' energy performance;
- regulations with regard to the awarding of contracts in the public and quasi-public sectors;
- the new rules for awarding energy performance contracts in education.

### The school boards' educational buildings

From a legal standpoint, a school board is a legal entity under public law. It is administered by a committee made up of people who are elected or appointed under the law on school elections. In addition to ensuring that the pupils that come within their sphere receive the educational services to which they are entitled, school boards are also responsible for:

- purchasing or renting the movables and real estate required in order to carry on their activities and those of their teaching establishments;
- building, repairing and maintaining their movables and real estate;
- deciding how their goods should be used and administering them.

There were 152 school boards during the 1997/98 school year, but with the mergers and remapping of the areas covered by school boards, their numbers have fallen to 72 since 1 July 1998. Previously, there were a number of very small school boards, covering barely 1 000 pupils, and some very big ones like the Montreal Catholic School Board, with 75 000 pupils. As a result of the mergers, the smaller ones have all but disappeared, and the average board is responsible for some 16 000 pupils.

In the 1998/99 school year, the school boards owned 3 996 buildings; they were put to use as follows:

| Use | Number of buildings |
|---|---|
| Teaching | 3 459 |
| Administrative centres | 138 |
| Sports chalets, day nurseries, warehouses | 116 |
| Residences | 30 |
| | **3 743** |

The 253 buildings not listed are what are called surplus buildings, i.e. buildings that are not necessarily used for educational or teaching purposes.

## The school boards' energy performance

Table 1 gives the results of the school boards' energy assessment for 1995/96 and 1996/97, thereby showing their energy performance.

As can be seen from Figure 1, standard consumption by school board buildings fell by 28% over ten years before stabilising at 0.8 Giga Joule per square metre.

## Regulations

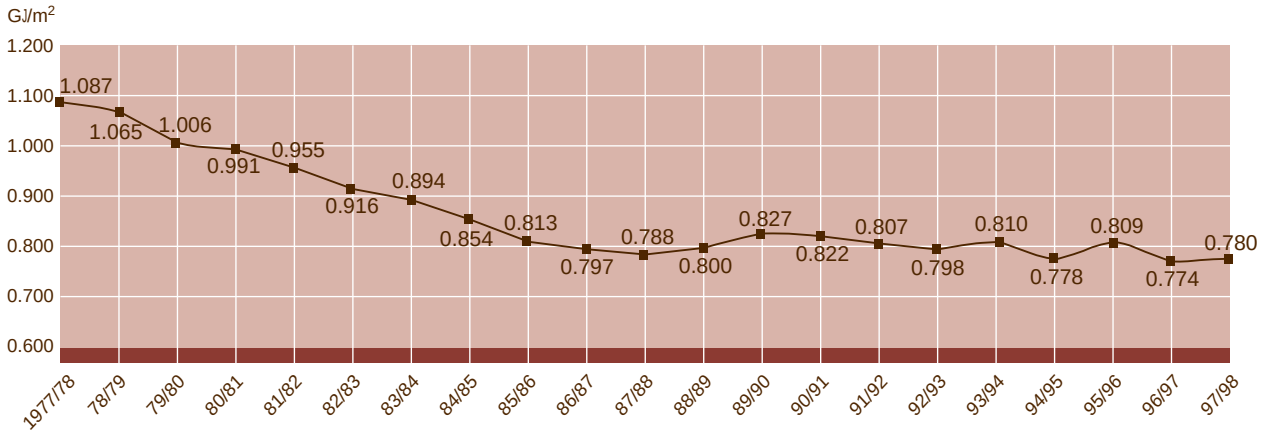
In Quebec, the Regulation on Construction Contracts for School Board Buildings (Decree 1015-90) applies as follows:

Table 1. **Results of the 1996/97 energy assessment by comparison with the previous year**

| | 1995/96 | 1996/97 |
|---|---|---|
| **GENERAL INFORMATION** | | |
| Number of buildings | 3 469 | 3 464 |
| Total surface area, $m^2$ | 14 761 422 | 14 855 368 |
| **CONSUMPTION** | | |
| Total energy consumption, gross GJ million | 11.75 | 11.45 (-2.6%) |
| Standard unit consumption, $GJ/m^2$ | 0.809 | 0.774 (-4.3%) |
| **Breakdown of energy sources** | | |
| Electricity, in GJ | 5 957 388 (50.7%) | 5 789 732 (50.6%) |
| Natural gas, in GJ | 4 783 069 (40.7%) | 4 800 626 (41.9%) |
| Fuel oil, in GJ | 1 006 259 (8.6%) | 863 950 (7.5%) |
| **Number of buildings by source of energy for heating pruposes** | | |
| Electricity | 1 612 (46.5%) | 1 627 (47.0%) |
| Natural gas | 1 247 (35.9%) | 1 279 (36.9%) |
| Fuel oil | 610 (17.6%) | 558 (16.1%) |
| **FINANCIAL ASPECT** | | |
| Total cost of energy, million Canadian dollars (CAD) | 155.9 | 157.0 (+0.7%) |
| Unit cost of energy, $CAD/m^2$ | 10.56 | 10.57 (+0.1%) |
| **Costs per unit of energy, CAD/GJ** | | |
| Ordinary electricity | 23.94 | 24.56 (+2.6%) |
| Bi-energy electricity | 8.31 | 8.58 (+3.2%) |
| Natural gas | 7.11 | 7.41 (+4.2%) |
| Fuel oil | 6.71 | 7.84 (+16.8%) |
| Overall | 13.27 | 13.71 (+3.3%) |



**Figure 1. Trend in standard consumption by school board buildings since 1977/78**



- When the estimated cost of the work is at least 50 000 Canadian dollars but does not exceed CAD 100 000, school boards may proceed with an open public tender or by means of invitations.
- When the estimated cost of the work is in excess of CAD 100 000, school boards must have recourse to an open public tender.

The regulation was considered to be an irritant for school boards which wanted to draw up energy-saving projects, and also for firms specialising in energy efficiency which wanted to offer their services, since it did not make provision for "turnkey" type projects.

In practice, what this regulation meant was that, once a school board had accepted a proposal for an energy-saving project, it had to invite tenders to carry out the work if the estimated cost thereof was CAD 50 000 or more.

## New rules for awarding energy performance contracts

The *Ministère de l'Éducation du Québec* (Quebec Ministry of Education) therefore decided to suggest to the government that it amend the regulation on construction contracts so as to enable all sectors of the education system to award contracts aimed at making savings through improvements to a building's energy efficiency, these contracts being paid out of the savings made and including both the provision of professional services and the execution of the construction work. A whole section has been added to the regulation in question.

Depending on the size of the project, a school board will have to decide whether it is going to call for candidates and then request proposals, or call for proposals.

If the school board should wish to improve the energy performance of its buildings, it will call for candidates in order to allow firms to show their interest in the project and demonstrate their experience and ability to carry it out. The school board will therefore preselect at least three firms on the basis of a minimum of five criteria, two of which are compulsory: the firm's experience and its financial capability. The school board will then invite them to submit proposals.

The quality of the proposals will be assessed by a selection committee, using a scale drawn up by the school board, which has to include at least five criteria, one of them compulsory, namely: "proposed measures and savings" and an appraisal of the plausibility of the proposed measures and savings.

If the school board calls directly for proposals, without calling for candidates, which would normally suggest a small-scale project, the quality of the proposals will also be assessed by a selection committee, using a grid drawn up by the school board which has to contain a minimum of five criteria, three of them compulsory:

- the firm's experience;
- the firms' financial capability;
- the proposed measures and savings.

The proposals considered will be those that, in terms of their quality, give a result of at least 50% for each individual criterion and a result of at least 60% for the criteria as a whole.

The selection committee will then assess the economic value of each of the proposals to have achieved the required marks, the value of a proposal being the sum of the net annual energy savings made over the actual duration of the proposal.

Finally, the contract ought normally to be awarded to the firm obtaining the highest weighted economic value: the economic value of the project multiplied by the result, in percent, obtained for all of the criteria.

## Conclusion

These new rules ought to enable firms specialising in energy efficiency to provide the education system with a comprehensive service, and those in the education sector commissioning the work to further improve their energy performance.

*This article was contributed by Jean Drouin, Engineer, of the* Ministère de l'Éducation du Québec *(Quebec Ministry of Education).*

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*Jean Drouin, Eng.*
*Chef de la Division de l'analyse des plans et devis, MEQ*
*Tel.: 1 418 644 2525, fax: 1 418 643 9224*