

**CIRANO note based on a report by Abraham Hollander and Yves Richelle, March 2016**

The mandate of the Commission des services électriques de Montréal (CSEM) is to bury electrical cabling throughout the territory of the City of Montreal. It subcontracts the actual work to entrepreneurs selected by means of calls for tenders. An analysis conducted by the CSEM of the results of some calls for tenders indicated that "reordering" was occurring. Reordering is observed when the total amount of a winning bidder's submission, calculated as a function of input quantities, exceeds some other bidder's total. This reordering gives rise to cost overruns equal to the difference between the total amount the CSEM paid the winning bidder to perform the contract and the total amount the CSEM would have paid another entrepreneur whose submission contained the lowest overall total, computed on the basis of input quantities actually used.

Starting in 2011, the CSEM has applied a new rule, the "proportionality rule," into its calls for tenders. It did so, to reduce the frequency of this type of reordering. First, the CSEM selects the inputs to which the rule will apply. Then, for each one, it computes (i) the average submitted price for that item and (ii) the difference (in percentage) between each supplier's submitted price and the average. All suppliers for which the percentage difference exceeds 60% in absolute value for at least one input are automatically eliminated from the call for tenders. Subsequently, for each input to which the proportionality rule applies the CSEM recalculates the average price submitted by suppliers not eliminated during the first round. Any supplier having survived the first cull and for which the percentage difference between the item price and the new mean, for at least one input that is subject to the rule, exceeds 25% in absolute value is now eliminated.

The author's mandate was to evaluate the likely impacts of introducing a proportionality rule in the CSEM's calls for tenders. They came to the following conclusions:

1. The impact of using the proportionality rule on the frequency of reordering and on the magnitude of cost overruns is cannot be determined with certainty.

2. In all likelihood, using the proportionality rule results in an increase in overall bid totals. Therefore, the CSEM's total expenditures on these projects are higher, on average, if the entrepreneur is selected in a call for tenders in which the proportionality rule is applied than they would be if the selection process did not include the proportionality rule.

3. Use of the proportionality rule increases the opportunities for collusion. The automatic elimination of bidders under the proportionality rule can be exploited strategically, providing a window for the creation of collusive groups.

These conclusions follow from the fact that the presence of the proportionality rule gives entrepreneurs an incentive to bid strategically. For example, some suppliers may seek to escape elimination by padding their bids on inputs that are subject to the proportionality rule, thereby increasing the total amount of their submission.

The authors conclude that the proportionality rule should not be used in calls for tenders. However, they suggest adapting the rules governing calls for tenders so that entrepreneurs' expectations with regard to the input quantities required to perform the contract will play less of a role in the determination of unit prices.

The full study (French only) is available on CIRANO's Website at:

<http://cirano.qc.ca/files/publications/2016RP-04.pdf>