Ontario Energy Board

Commission de l'Énergie de l'Ontario

Ontario

EB-2005-0490

Ontario Power Generation

Reliability Must-Run Contract for the Lennox Generating Station

BEFORE: Pamela Nowina
Presiding Member and Vice Chair

Gordon Kaiser
Member and Vice Chair

DECISION

Background

Ontario Power Generation ("OPG") filed an application dated September 22, 2005 with the Ontario Energy Board seeking approval of the reliability must-run contract ("RMR Contract") entered into with the Independent Electricity System Operator ("IESO") in relation to OPG's Lennox generating station ("Lennox"). The Application was made under section 5 of OPG's Licence, which requires that any reliability must-run contract be approved by the Board prior to its implementation.

Lennox is a 2,140 MW dual-fuelled (oil- and natural gas-fired) generating station located near Kingston, Ontario. On July 15, 2005, OPG submitted to the IESO a "Notice of Request to De-register" Lennox. On August 4, 2005, the IESO denied OPG's request on the grounds that removal of Lennox will or is likely to have an unacceptable impact on the reliability of the IESO-controlled grid. The IESO and OPG signed the RMR Contract in September, 2005.

Subject to Board approval, the RMR Contact comes into effect as of October 1, 2005.

Some salient provisions of the RMR Contract include:

- term of 1 year, without renewal or extension;
- payments to OPG of an estimated $62 million over the contract term (comprised of OPG's fixed and variable costs for Lennox, a "margin amount" of $1.283 million, and additional revenues equivalent to 5% of the gross revenues earned by or attributed to Lennox in the IESO-administered markets); and
- an obligation on OPG to offer into the IESO-administered markets the maximum amount of energy and operating reserve from Lennox in a commercially reasonable manner and in accordance with stated performance standards.

In accordance with the Market Rules, the total net cost of the RMR Contract would be recovered by the IESO from wholesale market participants as part of the monthly non-hourly uplift.

The Board issued a Notice of Application on November 2, 2005 with respect to this matter. The Notice was published as directed by the Board on November 15, 2005. The IESO, Union Gas Limited, Coral Energy Canada Limited and TransAlta Energy Marketing Corp. were granted intervenor status in the proceeding. No party was denied intervenor status.

The Board reviewed the Application and set out a list of issues to be addressed by the Board in relation to the Application. The list of issues was attached as Appendix "B" in Procedure Order No. 1 issued on December 15, 2005.

In Procedural Order No. 1, intervenors and Board staff were invited to file written interrogatories directed to any other party to the proceeding by December 23, 2005. Board staff submitted interrogatories to OPG and the IESO on December 22, 2005. There were no interrogatories submitted by other intervenors. Both OPG and the IESO provided responses to the Board staff interrogatories on January 13, 2006.

The Board issued Procedural Order No. 2 on February 17, 2006 indicating that it would proceed with this matter by way of a written hearing. Intervenors were invited to file submissions and to comment on specific provisions of Article 3.3 (Participation in Markets) of the RMR Contract by March 1, 2006. The Board received one submission from the IESO. None of the other intervenors filed a submission. The Board received a reply submission from OPG on March 8, 2006.

Issues

The Board identified three issues with the Application as outlined in Appendix "B" of Procedure Order No. 1 issued on December 15, 2005:

1. **Does the RMR Contract comply with OPG's Licence?**

   Section 5 of OPG's Licence requires that a reliability must-run contract comply with the applicable provisions of the Market Rules. Specifically, does the RMR Contract comply with Chapter 7, section 2.4: De-registration of Facilities (the process); Chapter 5, section 4.8: Reliability Must-Run Resources; Chapter 7, section 9.6: Definition and Principles of Must-Run Contracts and Chapter 7, section 9.7: Terms and Conditions of Must-Run Contracts?

2. **Are the financial provisions of the RMR Contract reasonable?**

   Specifically:

   a. Should the RMR Contract provide for recovery of 100% of the fixed and variable operating costs (both fuel and non-fuel) of the Lennox generating station?

   b. Should the RMR Contract provide for the payment of a fixed "margin amount" in addition to the recovery of the fixed and variable operating costs? If yes, is $1.283 million appropriate?

   c. Should the RMR Contract include a revenue sharing mechanism? If yes, is 5% of gross revenue appropriate?

d. Should the RMR Contract include performance-based incentives? If yes, are the performance targets and associated rewards/penalties appropriate?

3. What are the incentive effects, if any, of the RMR Contract?

Specifically, does the RMR Contract provide incentives that may cause OPG to alter its offering behaviour? If OPG's offering behaviour is altered, what is the potential impact on wholesale electricity prices and other market participants?

In Procedural Order No. 2 issued on February 17, 2006, the Board requested parties to provide submissions on Article 3.3 (Participation in Markets) of the RMR Contract. Specifically, the Board requested that parties clarify (1) what is meant by "*acting in a commercially reasonable manner with respect to any given activity includes, other than in exceptional circumstances, that the Physical Service Provider will offer a unit economically over a sustained period of time based on its cost*"; (2) does the phrase "*based on its costs*" refer to OPG's costs prior to or after receipt of any reimbursement of such costs by the IESO? and (3) under what "*exceptional circumstances*" is OPG, as the Physical Service Provider, not required to act "in a commercially reasonable manner"?

Applicant's Position

OPG submitted that the Board should approve the RMR Contract as filed with the Board. OPG relied upon the IESO's determination that Lennox is required for system reliability and on the fact that the IESO rejected OPG's request to deregister the facility. OPG also agreed with and adopted the submissions that were made by the IESO in this matter.

OPG acknowledged the Board's jurisdiction to review the RMR Contract in accordance with Part 1, Paragraph 5.2 of OPG's Generation Licence (EG-2003-0104) ("OPG's Licence"), but asserted that the Board's jurisdiction is limited to considering whether the RMR Contract complies with the Market Rules.

OPG further submitted that the financial provisions of the RMR Contract are reasonable and that each of the components of the financial structure, including:

- the ability of OPG to recover the fixed and variable costs associated with keeping Lennox available and producing electricity;
- the true-up mechanism to ensure that OPG is compensated for its actual costs (including the requirement that OPG notify the IESO of significant increases in project costs);
- the ability of the IESO to conduct financial and operation audits of OPG information, including verification of billing and costs under the contract;
- the inclusion of a margin amount to cover costs and risks not otherwise compensated in the RMR Contract;
- the incentive provisions, including the Retained Gross Revenue Amount; and
- the performance based reward and penalty mechanism;

are appropriate provisions, negotiated between the parties and are consistent with similar provisions contained in reliability must-run contracts in other jurisdictions.

OPG pointed out that the RMR Contract also allows the IESO to terminate the contract at any time should the IESO determine that Lennox is no longer required to maintain reliability of the IESO-controlled grid.

In terms of incentive effects, OPG also submitted that the financial provisions of the contract have no effect on its offering behaviour in the IESO-administered markets as it is obligated by Article 3.3 of the RMR Contract to act in a commercially reasonable manner.

OPG asserted that the resulting RMR Contract is consistent with the Market Rules and OPG's Licence and requested that the Board approve the RMR Contract as submitted.

Intervenor Positions

The IESO was the only intervenor who participated in the interrogatory process and filed a written submission. As requested by the Board, the IESO provided a copy of the technical assessment conducted in relation to Lennox under Chapter 7, section 2.4 of the Market Rules. The analysis shows a requirement for at least 3 Lennox units and likely 4 units for high demand periods over the next three years.

With respect to Issue 1 outlined above, the IESO submitted there are no other alternatives currently under consideration or which could be brought to bear in a timely manner to continue maintaining the reliability of the IESO-controlled grid. Accordingly, the IESO denied OPG's request to de-register Lennox and, in compliance with the applicable provisions of the Market Rules, negotiated a reliability must-run contract with OPG.

With respect to Issue 2, the IESO submitted that the financial provisions of the RMR Contract are reasonable and compare very favourably with various forms of reliability must-run contracts in other jurisdictions in Canada and the U.S. The IESO stated that the RMR Contract is a cost-based contract and specifically requires OPG to offer Lennox into the IESO-administered markets in a commercially reasonable manner. As requested by the Board, the IESO further clarified what is meant by the requirement to act in a "commercially reasonable manner" with respect to the provision of energy and ancillary services in the contract. The IESO indicated that this phrase means that over a sustained period of time, OPG will offer each Lennox unit at no less than its variable costs taking into account factors such as minimum run-times, minimum output levels, regulatory requirements, and IESO operational directions.

With respect to Issue 3, the IESO submitted the RMR Contract contains terms and conditions which protect against the potential for inducing OPG to alter its offer behaviour in the market versus OPG's offer behaviour prior to execution of the RMR Contract. Specifically, the IESO pointed out certain contractual provisions, including those requiring ongoing true-ups against actual approved costs, notification of significant events such as new projects or significant increases in costs of projects in Article 3.8.5, and the audit provisions in Article 4.4 of the RMR Contract as safeguards against any potential for OPG to alter its offer behaviour.

Board Findings

A. The Board's Jurisdiction

The Board's review mandate with respect to this matter is contained in section 5.2 of OPG's Licence, which reads as follows:

> *5.2 Where an agreement is entered into in accordance with paragraph 5.1, it shall comply with the applicable provisions of the Market Rules or such other conditions as the Board may consider reasonable. The agreement shall be subject to approval by the Board prior to its implementation. Unresolved disputes relating to the terms of the Agreement, the interpretation of the Agreement, or amendment of the Agreement, may be determined by the Board.*

The “agreement” noted in section 5.2 refers to “an agreement for the supply of energy or such services” for the purpose of “maintaining the reliability and security of the IMO-controlled grid.”[1]

OPG submitted that the Board’s review of the RMR Contract is limited to a consideration of whether the RMR Contract complies with the Market Rules. The Board disagrees with OPG with respect to this issue.

In reviewing its mandate pursuant to OPG’s Licence, the Board notes that the RMR Contract must "comply with the applicable provisions of the Market Rules or such other conditions as the Board may consider reasonable.” The words “or such other conditions as the Board may consider reasonable” make clear that the Board’s mandate is not strictly limited to a consideration of compliance with the Market Rules, but extends to other considerations, including, in this case, a review of the financial provisions for reasonableness and consideration of any incentive effects that may be created through the language in the RMR Contract.

The Board has, therefore, considered compliance with both the Market Rules and other conditions as identified herein in its review of the RMR Contract. This analysis is provided below.

[1] Electricity Generation Licence, EG-2003-0104, Ontario Power Generation Inc., issued October 31, 2003, Section 5.1.

B. Issues as Identified in Procedural Order No. 1

1. Does the RMR Contract comply with OPG's Licence?

Section 5 of OPG's Licence requires that a reliability must-run contract comply with the applicable provisions of the Market Rules. Chapter 7, section 2.4.5 of the Market Rules provides that if a party requests de-registration of a facility and, after conducting a technical assessment the IESO concludes that the facility will or is likely to have an unacceptable impact on the reliability of the IESO-controlled grid, then the IESO and that party shall commence negotiations with a view to concluding a reliability must-run contract for the facility in question.

OPG and the IESO provided evidence that OPG followed the process for de-registration, the IESO conducted the required technical assessment and concluded that removing any of the four generation facilities at Lennox will or is likely to have an unacceptable impact on reliability, and the IESO and OPG conducted negotiations culminating in the RMR Contract. The Board is satisfied that the parties complied with the Market Rules in concluding the RMR Contract.

The IESO was authorized by Section 9.6.7.2 of the Market Rules to negotiate with OPG, as a single potential supplier, for the RMR Contract. Section 9.6.9 of the Market Rules authorizes the IESO to enter into a reliability must-run contract, other than a standard form reliability must-run contract and to include such compensation provisions as the IESO determines is appropriate. The Board finds that the processes for developing and negotiating the RMR Contract complied with the Section 9.6 of Chapter 7 Market Rules.

Chapter 7, section 9.7 of the Market Rules sets out required terms and conditions of the reliability must-run contracts. The Board has determined that all of the requirements of this section have been met in the RMR Contract. In particular, the Board notes that:

- the duration of the RMR Contract does not exceed 1 year (Article 7 of the RMR Contract);
- the RMR Contract addresses the situation in which units at Lennox may be called by the IESO (Article 3.1);

- the RMR Contract specifies the situations under which the terms of the RMR Contract may be terminated (Articles 7.3 and 7.4);
- the nature and timing of any advance notice required for the IESO to call upon Lennox is addressed through reference to the Market Rules and the requirement for OPG to offer into the IESO administered markets (Articles 2.1, 3.1, 3.3 and Schedule A – Costs and Payments, Section 1);
- the payment terms, including the amount and timing of any availability payment are provided (Article 8 and Schedule A – Costs and Payments);
- the agreed upon dispatch data to be used to require Lennox to operate under the RMR Contract is contained in Article 3.3 and Schedule A – Costs and Payments, section 1, wherein Lennox is required to offer the maximum amount of each category of energy and operating reserve into the IESO-administered markets in a commercially reasonable manner and make each facility available if that facility is physically capable of responding to dispatch instructions, consistent with good utility practices and dispatch data from the IESO and consistent with the Market Rules (Article 4.1);
- the RMR Contract specifies the process for amending the RMR Contract (Article 9.3); and
- the RMR Contract provides penalties for failure to satisfy performance obligations (Article 3.9 and Schedule B – Performance Standards).

In assessing the application, interrogatory responses and the submissions of OPG and the IESO, the Board is satisfied that the RMR Contract complies with OPG's Licence conditions and the Market Rules.

2. Are the financial provisions of the RMR Contract reasonable?

The Board accepts the IESO submission that there are no other alternatives to the continued operation of Lennox that are currently under consideration or that could be brought to bear in a timely manner to maintain the reliability of the IESO-controlled grid. Therefore, the Board did not apply a cost prudence review of the Lennox facilities. The Board recognizes Lennox is a higher cost facility relative to other generating stations in the Province and notes the IESO's estimate that the RMR Contract will add $0.39/MWh to the costs to wholesale market participants during the one-year term of the contract.

With respect to whether the RMR Contract should provide for recovery of 100% of the fixed and variable operating costs (both fuel and non-fuel) of the Lennox generating station, the Board believes the cost-based financial structure of the contract is appropriate for reliability must-run contracts. Other jurisdictions like Alberta and New England also apply the cost-based principle. The Board finds that allowing OPG to recover 100% of its fixed and variable operating costs for Lennox is appropriate.

With respect to the appropriateness of the payment to OPG of a fixed “margin amount” of $1.283 million in addition to the recovery of the fixed and variable operating costs, the Board accepts the submissions of OPG and the IESO that there are other costs and risks associated with the RMR Contract in addition to fixed and variable operating costs. OPG noted that head office costs (other than those associated with fuel purchasing and fuel trading) are not included in the operating costs. There are also risks associated with fuel contracts and supply. The Board finds the fixed “margin amount” of $1.283 million to be a reasonable proxy to compensate OPG for the costs and risks not included in the fixed and variable operating costs.

Regarding whether the RMR Contract should include a revenue sharing mechanism and whether the “Retained Gross Revenue Amount” of 5% of the gross revenues is appropriate, the Board accepts the evidence that some form of revenue incentive could provide benefits to both parties. This mechanism supports the IESO’s reliability objectives by providing incentives to OPG to use Lennox to generate electricity in all hours and particularly during peak hours since the amount of retained revenue is highest when market prices are at their highest levels. This evidence was not disputed and the Board therefore considers the 5% “Retained Gross Revenue Amount” to be acceptable.

With respect to whether the RMR Contract should include performance-based incentives, the Board notes the evidence that indicated that performance rewards and penalties are a common feature of reliability must-run contracts. The RMR Contract in this case uses Equivalent Force Outage Rate – Operation (“EFOR-OP”) targets of between 4% and 6% during peak periods and between 6% and 8% during off-peak periods. This performance based reward/penalty mechanism is stated to provide an incentive for OPG to meet or exceed the historical Lennox reliability performance. There is also stated to be a reliability benefit to the IESO if the actual EFOR-OP performance is better than the above targets. The Board accepts the evidence that the performance based reward/penalty mechanism and the EFOR-OP targets in the RMR contract are appropriate.

3. What are the incentive effects, if any, of the RMR Contract?

The RMR Contract requires OPG to act in a commercially reasonable manner and to offer the power generated by Lennox economically over a sustained period of time based on its costs. The Board took note of the evidence provided with respect to reliability must-run contracts in other jurisdictions and noted in particular, for example that in the New England ISO, the standard reliability must-run contract restricts the generator's bids to "Stipulated Bid Costs" which are computed using stipulated marginal costs, start-up costs and no-load costs. By contrast, in the present RMR Contract, the meaning of the phrase "based on its costs" was not as clear. As a result, the Board sought clarification from all parties as to whether the phrase "based on its costs" refers to OPG costs prior to or after receipt of such costs by the IESO.

The Board accepts the clarification provided by OPG and the IESO that the phrase "based on its costs" refers to OPG's variable costs prior to the reimbursement of any such costs by the IESO. The Board also agrees with the IESO that the RMR Contract contains other terms and conditions like ongoing true-ups against actual approved costs, notification of significant events such as new projects or significant increases in costs of projects in Article 3.8.5, and audit provisions in Article 4.4 all of which act as safeguards against any potential for OPG to alter its offer behaviour. The Board therefore concludes that the RMR Contract does not provide incentives for OPG to alter its offer behaviour.

Based on the Application and the evidence and submissions of both the IESO and OPG, the Board is satisfied that the RMR Contract complies with OPG's Licence conditions and the Market Rules, that the financial provisions of the RMR Contract are reasonable and that the RMR Contract does not contain incentives for OPG to alter its offer behaviour. The Board therefore approves the RMR Contract as submitted.

DATED At Toronto, March 13, 2006

ONTARIO ENERGY BOARD

Signed on behalf of the panel

Pamela Nowina
Presiding Member and Vice Chair