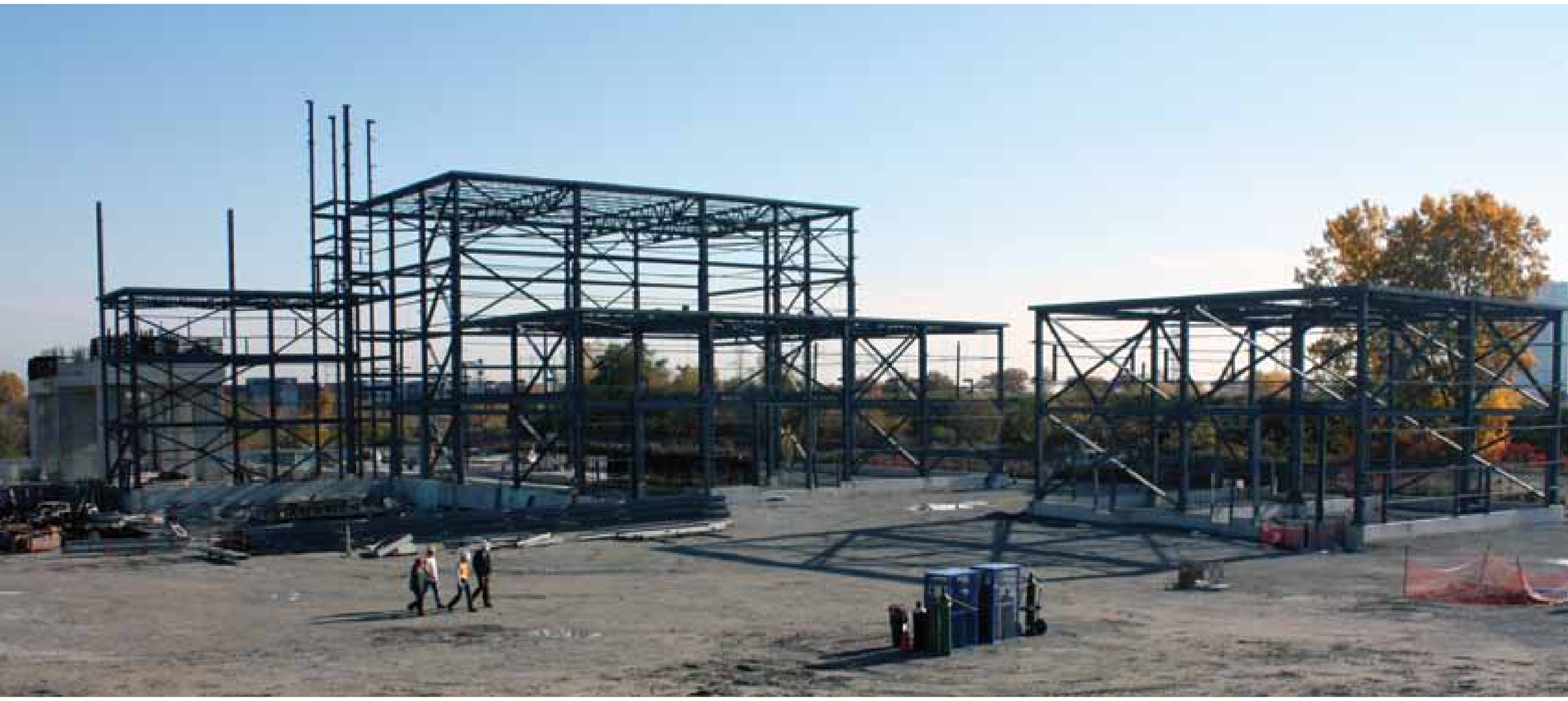
Mississauga Power Plant Cancellation Costs

Special Report

April 2013



Office of the Auditor General of Ontario

Office of the Auditor General of Ontario

To the Honourable Speaker
of the Legislative Assembly

I am pleased to transmit my Special Report on the Mississauga Power Plant Cancellation Costs, as requested by the Standing Committee on Public Accounts under Section 17 of the *Auditor General Act*.

Jim McCarter
Auditor General

April 2013

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Special Report

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Background

Upon taking office in 2003, the Liberal government faced some challenges with respect to Ontario's future electricity needs. At the time, the province had about 30,000 megawatts (MWs) of "installed capacity" (that is, it could produce up to 30,000 MW at full capacity) from the following five sources:

- nuclear (10,061 MW);
- renewables—hydroelectric (7,880 MW);
- coal (7,546 MW);
- gas (4,364 MW); and
- renewables—wind, solar, bioenergy (155 MW).

Coal-fired power, which was about one-quarter of total installed capacity, was produced by five plants that were aging and polluting the air. The government therefore planned to phase out coal-fired generation altogether, originally by 2007, but later moved to 2014. This, along with an expected increase in the demand for electricity, meant there would be a supply shortfall. The first of several processes for procuring more power involved a request for proposals (RFP) issued by the Ministry of Energy in September 2004. It was for about 2,500 MW of new electricity from cleaner sources.

There was no requirement for the proposed power sources to be located in the same general area as any of the coal-fired plants scheduled to be closed. For example, the Lakeview coal station, which supplied about 15% of the province's coal-fired capacity and was shut down in 2005, was located in Mississauga, but the RFP specified only that any proposed new plant be located in Ontario. However, the evaluation process for the RFP favoured bidders who were proposing a plant located in the GTA.

On December 9, 2004, the government passed the *Electricity Restructuring Act, 2004,* which established the Ontario Power Authority (OPA) as the province's long-term energy planner. As such, the OPA signed the contracts that the Ministry of Energy awarded in 2005 from the RFP. In total, seven contracts were awarded to supply a combined generating capacity of 2,515 MW.

The five largest projects were for "combined-cycle natural-gas-fired" facilities. Compared to coal-fired power plants, gas-fired plants pollute less and have lower capital costs. Also, given the government's plan to increase the use of wind and solar renewable energy, the province's electricity supply mix would have to include a source like natural gas that can be more quickly turned on and off to "fill in the gaps" of these intermittent electricity sources. Combined-cycle generation, where heat produced during the combustion of natural gas turns a gas turbine and steam produced from the excess heat of combustion turns a steam turbine, is considered the most efficient way of generating electricity from natural gas.

One of the bidders to the RFP was Eastern Power Ltd., owned by the Vogt family. In the 1990s, Eastern Power had built two small power plants that generate electricity from methane in landfills (a 30-MW facility in the Keele Valley landfill in Vaughan and a 27-MW facility in the Brock West landfill in Pickering). Because it was among the lowest bidders, Eastern Power was awarded three of the seven contracts, including one for the Greenfield South Power Plant. This was proposed as a 280-MW combined-cycle gas-fired facility to be located in Mississauga and to operate over a 20-year period. Ultimately, it was the only contract Eastern Power executed. For various reasons, including Eastern Power's challenges in securing financing, the other two projects were terminated. The Greenfield South contract was signed in April 2005.

A detailed chronology of events relating to the Mississauga plant from 2004 to 2012 is provided in Figure 1.

Figure 1: Chronology of Key Events Relating to the Mississauga Power Plant Cancellation

Prepared by the Office of the Auditor General of Ontario

April 2004	Independent Electricity System Operator releases 10-year outlook regarding Ontario's energy needs; states that new electricity generation needed in the GTA by 2006
September 2004	Ministry of Energy (Ministry) releases a request for proposals (RFP) for clean energy supply
December 2004	Ontario Power Authority (OPA) created through the *Electricity Restructuring Act, 2004*
March 2005	Ministry directs OPA to execute and deliver seven contracts awarded from RFP, three of them to Eastern Power
April 2005	OPA and Greenfield South Power Corporation, a subsidiary of Eastern Power, sign contract for Mississauga plant
August 2005	One of Eastern Power's other contracts from the 2004 RFP terminated (third proposal never reached contract stage)
September 2005–July 2008	City of Mississauga, Region of Peel Medical Officer of Health, City of Toronto Medical Officer of Health and various citizens and citizens' groups request that Ministry of the Environment carry out further environmental assessments on situating Greenfield's plant at proposed site; Ministry eventually denies these requests
	City of Mississauga passes amendments to zoning by-laws that do not allow plant to be built at proposed site
	Greenfield appeals amendments to Ontario Municipal Board, which approves building the plant at the site
March 2009	OPA amends contract with Greenfield, extending completion date and providing a significantly higher monthly payment for the electricity produced once the plant is operational
March 2010	Greenfield obtains the required building permits for the Mississauga plant
May 2011	Greenfield secures project financing for construction
June 2011	Construction begins at the Mississauga site, with target completion of July 2014
September 2011	Liberal Party announces that Mississauga plant will be relocated if Liberal Party re-elected
October 2011	Liberal party wins a minority government in Ontario election
	Minister of Energy requests that OPA begin discussions to effect cancellation of Mississauga plant
November 2011–July 2012	OPA negotiates with Greenfield to cancel construction of Mississauga plant and relocate gas plant elsewhere. Construction stops November 21, 2011
	OPA/Ministry enter into 10 side and interim agreements granting concessions to Greenfield to suspend work on the plant while the terms of a final agreement are negotiated
July 2012	Facility Relocation and Settlement Agreement reached and becomes effective
	Minister of Energy announces that the plant will be relocated to Ontario Power Generation's Lambton Generating Station site and that the total cost of relocation is $180 million (later revised to $190 million)
September 2012	Standing Committee on Public Accounts requests that the Auditor General examine Greenfield South/Eastern Power Mississauga plant contract, focusing specifically on the cost of cancellation to taxpayers

Audit Objective and Scope

On September 5, 2012, the Standing Committee on Public Accounts (Committee) passed the following motion:

> The Standing Committee on Public Accounts immediately request the Auditor General examine the contract between the Ontario Power Authority and Greenfield South Power Corp./Eastern Power regarding the cancelled Mississauga gas plant, focusing specifically on the cost to taxpayers, and that the Auditor General report back to the committee in the form of a special report before September 1, 2013, notwithstanding any prorogation of the House.

We accepted this assignment under Section 17 of the *Auditor General Act*, which states that the Committee can request that the Auditor General perform special assignments.

Our audit was mainly conducted at the OPA's Toronto office. We reviewed documents relating to the initial procurement of the Greenfield plant in 2004, all agreements between the OPA and Greenfield South Power Corporation (Greenfield), including contract amendments, and related documentation both from the OPA and the Ministry of Energy. We interviewed key personnel within the OPA involved in the negotiation and settlement of the cancellation costs. We also conducted a search for any payments that the OPA or the Ministry of Energy may have made to Greenfield or Eastern Power to ensure that they had been considered as possible cancellation costs.

We also discussed the relocation of the Greenfield plant with officials at Hydro One, the Independent Electricity System Operator and Ontario Power Generation to understand how it would affect the province's electricity system. We discussed the relocated plant's natural-gas connection and management costs with the Ontario Energy Board and the gas distributor in Lambton.

The OPA retained an independent engineer to certify the expenses Greenfield claimed it incurred in the cancelled plant's development and construction. We met with the independent engineer to determine the due diligence conducted on the amounts that the OPA reimbursed to Greenfield for these expense claims. The independent engineer also accompanied us when we viewed the equipment purchased for the Mississauga plant, which is anticipated to be used at the relocated plant.

Summary

We estimate that the decision to cancel the Mississauga power plant and relocate it cost about $275 million. This is the amount that we think the public will be "out of pocket" as a result of the cancellation and relocation. All told, there were about $351 million in costs associated with the cancellation and relocation, but the move also results in around $76 million in savings, leaving a cost to the public of $275 million. Of this, $190 million is being paid by taxpayers and the remaining amount is being paid by electricity ratepayers.

The $275 million consists of the following:

- Payments amounting to $72.4 million were made to Eastern Power, the parent company of the company contracted to build the plant, Greenfield South Power Corporation (Greenfield). The payments comprised:
  - Greenfield's sunk costs not paid directly by the OPA to its suppliers—$43.8 million;
  - the cost of an interest-free loan provided to Eastern Power for the construction of the relocated plant—$16 million;
  - the cost of settling a dispute Eastern Power had with the Ontario Electricity Financial Corporation (OEFC) (Eastern Power demanded this settlement before it would negotiate with the OPA to permanently

    - stop construction of the Mississauga plant and relocate it)—$8.4 million; and
    - the OPA's reimbursement to Eastern Power of the purchase price of the cancelled plant's site and an adjacent warehouse—$4.2 million.
- The OPA paid $149.6 million to the lender that was financing Greenfield's construction of the Mississauga plant, $90 million of which related to penalties and fees for cancelling the project.
- The OPA paid Greenfield's suppliers $64.6 million for equipment and other sunk costs.
- A total of $4.4 million in legal fees and other professional fees was incurred as a result of the cancellation-and-relocation decision.
- We estimated there will be about $60 million in extra future costs for delivering power from Lambton County, the site of the relocated plant, rather than from Mississauga.
- The total of the preceding payments, costs and fees of $351 million is likely to be reduced by about $76 million in savings. The savings are in two areas:
    - The contract for the relocated plant specifies a price for the electricity to be produced that is lower than the price in the former contract for the Mississauga plant's electricity. The price reduction amounts to about $20 million (present-value dollars) over the 20-year term of the contract and was negotiated to reflect the fact that some of the equipment, supplies and other items relating to the Mississauga plant can be used in the construction of the relocated plant. The price reduction partially offsets the cost of the items that the OPA paid for.
    - The OPA contends that none of the power that the Mississauga plant would have produced (presumably starting in July 2014) would have been needed until at least 2018. Not having to make payments for power that is not needed is a 100% saving in the OPA's view because there are no offsetting costs to replace the lost Mississauga power. Although the reason for the plant in the first place was the shortage of power in the southwest GTA, the OPA advised us that the power supply situation has changed considerably since 2009 when the Mississauga plant was given the go-ahead for construction. Aside from the uncertainty over whether there will actually be any offsetting costs to replace the lost Mississauga power, there is also uncertainty over when the Mississauga plant would have actually been completed. We do nevertheless acknowledge that there will be savings relating to the fact that no payments for electricity from a Greenfield plant will likely be made until at least 2017 and have included estimated savings of $56 million, about three-quarters of the OPA's estimate.

We also found that the circumstances surrounding the decision to cancel the plant—particularly the need to quickly halt construction of the project—weakened the OPA's negotiation position, which most likely resulted in some of the above costs being higher than they would otherwise have been. Once the Minister of Energy announced in fall 2011 that construction would stop and that the plant would move to another location, every day that construction continued put the government in a more untenable position. Continued construction by Greenfield would also have increased the amounts that would have to be paid to Greenfield in damages. We believe that Greenfield recognized this, and that by continuing construction after the government's decision it enhanced its negotiating position—it would have the upper hand in terms of what it could obtain to stop construction and renegotiate a new deal. At the same time, the OPA recognized that forcing a halt to construction through legislation or other legal mechanisms, rather than through negotiation, would have other undesirable consequences—lawsuits among them.

As a result, from the beginning of negotiations in November 2011 through to when a new settlement was finalized in July 2012, Greenfield was in the position of strength. It was able to get the OPA to make concessions in return for its temporarily suspending construction and then stopping it altogether and relocating the plant. In particular:

- As noted earlier, Greenfield's parent company, Eastern Power, demanded a settlement of a longstanding dispute it had with the OEFC before it would even begin negotiating. Eastern Power had a contract to supply power through its Keele Valley landfill-gas plant. In 2009, Eastern Power appealed a 2008 court decision that refused to grant it $121 million it claimed it was owed. Instead, the court ordered Eastern Power to pay the OEFC's court fees. The 2008 decision did say Eastern Power might be eligible for nominal damages of up to $5 million relating to one issue, so in its 2009 appeal Eastern Power sought damages of $8.5 million or a new trial. At the time of the cancellation decision, a new trial had been granted and was still pending. Eastern Power demanded $15.4 million to resolve the matter and come to the bargaining table. The OEFC paid $10 million of this amount and forgave $700,000 in court fees Eastern Power had been ordered to pay it. The OPA paid the $5.4 million difference.
- The OPA and the Ministry of Energy agreed to provide $45 million as an upfront loan for the construction of the relocated plant. The loan is interest-free, repayment starts only after the new plant is finished (expected to be in 2017) and the repayment period extends over the following 13 years. Effectively, the only security the OPA received—and will be entitled to after the Lambton plant begins operations if Greenfield defaults on any of its obligations—is a $1.4-million letter of credit. In comparison, in the original contract to build the Mississauga plant, Greenfield was not provided with any upfront loan and was required to provide initial upfront security of $14 million to ensure it fulfilled its contractual obligations.
- The OPA paid Eastern Power about $41 million in labour costs that Greenfield said it had incurred between 2004 and 2012 (we advised the OPA that $5 million of this amount is HST and can probably be claimed back from the federal government by the OPA). Eastern Power initially claimed $79 million for an average of 17 full-time employees as well as consultants who it claimed were working during this eight-year period. In support of these costs, Greenfield provided only a list of staff, the hours that employees worked and industry-average billing rates for the work being done. When pressed, it provided sworn statements of the hours selected employees had worked, as well as consultant invoices, but the rates actually charged were blanked out on those invoices. Neither we nor the independent engineer hired to certify Greenfield's costs were able to get copies of payroll, T4 or other information to support these costs.
- Although the OPA reimbursed Greenfield for the $4.2 million it had paid for the Mississauga plant site and an adjoining warehouse ($2.6 million for the site and $1.6 million for the warehouse), it still allowed Greenfield to retain title to them. The OPA told us it did so to avoid the work and expense of restoring these properties, although it did not seek to find out what that expense would be. Infrastructure Ontario compared sales of undeveloped land in Mississauga in 2010 and 2011 and estimated the fair market value of the Mississauga site around the time of the settlement to be in the range of $4.8 million to $5.3 million.
- As part of a legal settlement, the OPA agreed to pay a U.S.-based company that was financing most of the Mississauga plant's construction all costs Greenfield was potentially liable for if the plant construction did not proceed. This settlement resolved the company's litigation against Greenfield, the province and the OPA, which involved damage claims

of $310 million. Greenfield had arranged for this company, EIG Management, to give it an eight-year, $263-million line of credit, with funds drawn at an interest rate of 14%, compounded quarterly. The lending agreement also included heavy penalties were Greenfield to back out of the arrangement. The OPA and the Ministry of Energy, in addition to repaying EIG the $59 million that Greenfield had drawn from the line of credit over six months, also paid EIG an interest-payment/penalty fee of $90 million, for a total outlay of $149 million to EIG. When the OPA initially agreed to pay for any financing costs Greenfield would be liable for, it never expected the penalty costs to be anywhere near this amount. The OPA told us it had asked to see Greenfield's lending agreement with EIG, but Greenfield refused to provide it. The OPA went ahead and signed the agreement to take on Greenfield's financing liabilities. Undoubtedly, the urgency to have construction halted was an important factor in doing so.

- Some of the equipment bought and plans developed for the Mississauga plant, already paid for in full by the OPA, will be reused at no cost to Greenfield at the Lambton plant, thereby reducing Greenfield's construction costs. In recognition of this, the OPA negotiated a 4% reduction in the price paid for electricity generated by the new plant. We estimated that the items paid for by the OPA that Greenfield will be able to reuse are worth about $100 million. However, the 4% price reduction is worth only about $20 million (in present-value dollars).

There will be approximately $60 million (in present-value dollars) in future additional costs incurred from:

- power loss resulting from the greater distance electricity now has to travel to the GTA and other areas;
- the net costs of upgrades to part of the province's electricity system that will be required sooner because the plant is located in Lambton County instead of in Mississauga; and
- hydro and gas connection costs at the Lambton site (Greenfield would have covered these costs if the plant had been built in Mississauga, but the OPA agreed to pay them as part of the relocation agreement).

One financial benefit of relocation should have been the much lower pipeline cost to transport the natural gas needed to generate electricity at the Lambton plant, because the plant is located much closer to the natural-gas distribution hub near Sarnia. Under normal circumstances, the savings from lower natural-gas transportation costs would be passed on to electricity ratepayers through the negotiated or tendered electricity price to be paid. We estimated these potential savings to be about $65 million (present-value dollars). The OPA told us that it was aware of these potential savings but had estimated them at the time of negotiations to be about $36 million. However, the savings were not ultimately reflected in the price the OPA will be paying for the Lambton plant's electricity under the new deal and will therefore be kept by Greenfield.

ONTARIO POWER AUTHORITY RESPONSE

The Ontario Power Authority (OPA) appreciates the importance of providing a public accounting of the costs of relocating the Mississauga power plant to Sarnia. The OPA's role in the relocation was to negotiate an agreement that:

- halted construction in Mississauga;
- compensated Greenfield South for costs incurred; and
- relocated the power plant.

In complex legal and commercial circumstances and under intense pressure to have construction of the plant halted, the OPA aimed to balance fairness to the power-plant developer, who had a legally binding contract, with the short- and long-term interests of electricity ratepayers.

When evaluating the negotiations, it is important to look at the deal as a whole rather than trying to quantify each of the give-and-takes on matters like net revenue requirement (NRR) (the monthly amount that Greenfield will receive for plant-generated electricity, allowing it to recover its costs and earn a reasonable rate of return), provision of security and gas delivery costs. As with any complex negotiation, all parties made concessions and neither side was able to achieve all of its goals.

On balance, the OPA believes that a commercially reasonable deal was negotiated. The OPA notes that almost all of the upfront payments to Greenfield (approximately $100 million) were accounted for in the reduction of the NRR ($20 million) and in the unreduced savings related to the deferral of NRR payments ($75 million). If the value in upfront payments was factored into the NRR it would increase to about $17,200/MW/month, which reflects commercial conditions in 2012. The last competitive procurement process which the OPA ran for a combined-cycle plant resulted in an NRR of $17,277 MW/month. Factoring in economies of scale, the cost to competitively procure a plant similar in size to the Greenfield facility is likely to be higher. Furthermore, if the plant is built for the cost that the OPA believes is typical for a plant of this type, Greenfield's rate of return will not be significantly different than Greenfield expected it would have been in Mississauga. Capital expenditure is the main driver of project costs, and hence returns.

The OPA respectfully disagrees with the audit's conclusion that only recognizes 75% of the savings for deferred NRR payments (the savings related to starting payments later because the relocated plant's in-service date is later than the original plant). The OPA believes that there is no basis to conclude that the already partially constructed Mississauga plant might have been delayed due to financing issues or that replacement power will be necessary in the 2014 to 2017 time period.

The OPA notes that the previously reported $190 million in costs, which cannot be reused at the new site, focused on contract-related costs as known at the time. Adding in system-related costs for bulk transmission and line losses largely accounts for the difference in relocation costs reported in the Audit.

In the end, the negotiations to relocate the Mississauga plant to Lambton concluded in a result that avoided potentially expensive litigation and delivered a plant that will help meet Ontario's electricity needs for decades, at a commercially reasonable price.

AUDITOR GENERAL COMMENT

The OPA is referencing the cancelled Oakville plant as the example of its last procurement of a comparable gas plant that resulted in an NRR of $17,277/MW/month. This NRR would have reflected significant gas transportation costs and GTA construction costs that Greenfield is not incurring at Lambton because that plant will operate much closer to the natural-gas distribution hub. For that reason, we question whether that procurement is directly comparable.

We do not agree with the OPA's conclusion that Greenfield's rate of return will not be significantly different than what it would have been in Mississauga. We believe Greenfield has the potential to earn a significantly higher rate of return in Lambton for the following reasons:

- Greenfield will benefit from an estimated $65 million in savings due to lower natural-gas transportation costs.
- The OPA is funding upfront $80 million in construction costs (consisting of $100 million in payments that will benefit the Lambton plant minus the $20-million reduction in the NRR payments for Lambton). If the cost of constructing the Lambton plant does not exceed the cost of the Mississauga plant by

this amount, any savings will be a benefit to Greenfield.

- Greenfield was incurring a 14% interest rate on its $263-million credit facility for the Mississauga plant. As part of the negotiated relocation settlement, the Ministry of Energy is committed to helping Greenfield secure financing for constructing the Lambton plant. We believe this will help Greenfield obtain financing at a much lower interest rate, especially given the current low interest-rate environment.

Detailed Audit Observations

OVERVIEW OF MISSISSAUGA PROJECT BEFORE CANCELLATION OF PLANT

The Contract and Project Progress, 2005–2008

Under the 2005 contract, the project timeline was for a 280-MW gas-fired plant to be operational by February 2008. Greenfield was responsible for designing and constructing the plant, including securing its own financing. Once the plant was complete and generating power, the OPA would pay Greenfield a monthly amount over the 20-year life of the contract. This amount, called the Net Revenue Requirement (NRR), a standard component of the OPA's natural-gas power contracts, is intended to enable the developer, Greenfield, to recover its costs for building and operating the plant plus earn a reasonable rate of return, or profit. It is expressed as an amount per MW per month—under the contract, the amount was $8,350/MW/month (this was also Greenfield's bid for the project in the 2004 RFP). For a 280-MW plant, that equates to about $28 million a year, or about $350 million (present-value dollars) over the 20-year life of the contract.

The contract also included "force majeure" provisions in case of extraordinary events occurring beyond the control of the contracting parties. Such events would obligate the OPA to push back the date when the plant would have to be operational. If they were to continue for more than 36 months, the OPA could terminate the contract without costs or payments of any kind. As with other gas-fired power generation contracts the OPA has, this contract did not include a "termination for convenience" provision whereby the OPA could terminate the contract at any time without any reason (in return for a negotiated settlement with Greenfield).

Events beyond the control of Greenfield and the OPA did occur, beginning in September 2005, as detailed in Figure 1. They continued for 34 months, to July 2008, making it impossible for construction of the plant to begin. The OPA therefore extended the completion date to September 1, 2012. The delays prevented Greenfield from securing construction and major equipment supply contracts within its original budget, and Greenfield advised the OPA that it was unable to proceed under the original NRR rate of $8,350/MW/month. Greenfield therefore asked the OPA to consider changing the contract's economic terms.

The Amended Contract and Project Progress, 2009–2011

In 2009, the OPA amended the contract to reflect the new September 2012 completion date of the plant (further delays extended that date to July 2014). Also, while not obligated to do so, the OPA agreed to raise the NRR. The new monthly payment, once the plant was operational, was set at $12,900/MW/month or a 54% increase from the originally tendered price of $8,350/MW/month. This increased the total 20-year amount to be paid from about $350 million to about $540 million (both in present-value dollars). In justification for the increase, the OPA told us that it believed Greenfield would not have been able to build the Mississauga plant at the original NRR it had proposed in 2005 and that the NRR for a replacement project would likely have been more than $12,900/MW/month.

It also stated in a presentation to its board that the Greenfield plant in Mississauga was needed to help address local area supply concerns.

Greenfield secured financing for the project in May 2011 and obtained all necessary municipal and provincial approvals and permits. Construction of the plant began in June 2011.

CANCELLATION AND RELOCATION NEGOTIATIONS

On September 24, 2011, an Ontario Liberal Party news release announced as an election-campaign promise that the Greenfield plant in Mississauga "would not go forward at its current location" and that "Ontario Liberals will work with the developer to find a new location for the plant." The Liberal Party won the election on October 6, 2011.

On October 12, 2011, Mississauga City Council passed a resolution asking the government to take immediate action to fulfill its election promise, cancel the contract with Greenfield, stop construction of the plant and restore the site to its pre-construction condition. On October 24, the Minister of Energy requested that the OPA immediately start discussions with Greenfield.

As already noted, the OPA's contract with Greenfield had no termination-for-convenience clause that the OPA could invoke to legally terminate the contract (paying whatever charges such a clause would have stipulated). In the absence of an "out" in the contract, the OPA and the Ministry of Energy considered a number of approaches, each with its own disadvantages:

- *Unilaterally terminate the contract anyway*—rejected because of the likelihood that this would trigger lawsuits by both Greenfield and the investment firm from which Greenfield had obtained financing of $263 million for building and operating the plant (as discussed later, this firm still filed a claim for damages against the Crown and the OPA).
- *Pass legislation to terminate the contract and set the amount of compensation to be paid to Greenfield*—rejected because participants in the electricity market would see this as an unfair way of doing business, and it could have a negative effect on the OPA's and the province's future tendering processes with the private sector.
- *Allow Greenfield to finish constructing the plant but do not allow it to operate*—the OPA considered this to be possibly the cheapest option but rejected it because of the difficulty of convincing the community that the plant would not operate and because the government would have been seen as having paid money for nothing.
- *Try to negotiate a settlement with Greenfield*—although this posed the risk of Greenfield refusing to co-operate and/or requiring possibly costly incentives to stop construction during negotiations, the OPA decided it was the best option.

The OPA was correct in expecting negotiations to be challenging, and construction continued on the plant. On November 10, 2011, the OPA board's chairman informed the Minister of Energy that "to date the OPA's preferred approach has been to reach an agreement with Greenfield South to stop construction and negotiate an arrangement to relocate the plant or terminate the contract. Since then it has become clearer that Greenfield South may not agree to such an approach. In light of this, the next logical step appears to be to notify Greenfield South that the OPA will not be proceeding with the contract. I wish to assure you that even after taking this step, the OPA will seek to continue discussions with Greenfield South to arrive at an agreement on appropriate compensation."

The Minister responded on November 14 by reiterating the government's commitment to have the Greenfield plant relocated. However, with construction continuing weeks after the government had announced the plant would not be built at that site, the media was paying more attention to the matter, heightening government pressure on the OPA to have Greenfield stop construction.

Beginning on November 18, the OPA reached the first of a series of interim agreements with Greenfield. Under these agreements, the OPA made various payments to Greenfield's parent company, Eastern Power (as incentives to suspend work on the plant while the terms of a final agreement were negotiated) as well as to Greenfield's suppliers. On November 21, the Minister of Energy announced that Greenfield had agreed to immediately stop construction. At that point, according to the OPA, construction of the plant was about 30% complete.

Negotiations on relocating the plant and the costs to be paid by the OPA continued after that date, and in May 2012, the Ministry of Energy hired an outside negotiator to represent it and help the OPA reach a final agreement with Greenfield. The final agreement, called the Facility Relocation and Settlement Agreement (FRSA), became effective July 9, 2012. Its key terms included the following:

- Greenfield would permanently stop construction work on the Mississauga plant.
- Greenfield and the OPA would relocate the plant under specified terms.
- The OPA would reimburse Greenfield for all design, development, permitting and construction costs incurred up to July 9, 2012.
- Greenfield would provide the OPA and an independent engineer with a detailed list of these costs along with the documentation the engineer needed to substantiate them.
- The OPA would become directly responsible for the costs associated with connecting the relocated plant to a gas source and the province's electricity grid.
- Once the relocated plant is operational, the OPA would pay Greenfield an NRR of $12,400/MW/month. [This is less than the previous contract's $12,900/MW/month. Over the 20-year life of the agreement, it totals about $520 million, compared to the previous contract's $540 million (both in present-value dollars). The NRR's reduction was meant to at least partially recoup the OPA's upfront reimbursement of certain of the Mississauga plant's costs that will reduce Greenfield's construction costs for the new plant.]

On July 10, 2012, the Minister of Energy announced that the Greenfield South Generation Station would be relocated to Ontario Power Generation's Lambton Generating Station site, about 10 kilometres from Sarnia. He also stated that the total cost of the relocation would be approximately $180 million. The Minister of Finance later stated that the cost would be $190 million, which includes $10 million for the settlement of litigation that Eastern Power had brought against the Ontario Electricity Financial Corporation (OEFC). The targeted date of commercial operation of the new plant in Lambton is September 2017.

CANCELLATION AND RELOCATION COSTS

As shown in Figure 2, we estimate the total net cancellation and relocation costs to be about $275 million. Details of these costs are provided in the following sections.

Cost of Upfront Payments—$291 Million

Payments to Eastern Power—$72.4 Million

We calculate that the upfront payments to Greenfield and Eastern Power cost the public $72.4 million, made up of:

- settlement of Eastern Power's dispute with the OEFC—$8.4 million;
- Greenfield's sunk costs not paid directly by the OPA to its suppliers—$43.8 million;
- reimbursement of site and warehouse purchase price—$4.2 million; and
- loan costs consisting mainly of forgone interest and lost value of money over time—$16 million.

Figure 2: Costs of Cancelling Greenfield South Mississauga Plant and Relocating to Lambton ($ Million)

Source of data: Ontario Power Authority

	Amount
Cost of Upfront Payments	
To Eastern Power (Greenfield's parent company)	72.4
To EIG Management Ltd. (Greenfield's lender)	149.6
To Greenfield's suppliers	64.6
Legal and other professional fees	4.4
Subtotal	**291.0***
Future extra costs for delivering power from Lambton vs. from Mississauga	60.0
Subtotal — Upfront Payments and Future Extra Costs	**351.0**
Reduction in NRR payments, 2017–36	(20.0)
Deferral of NRR payments	(56.0)
Total	**275.0**

* Actual upfront payments totalled $321 million. They included a $45-million interest-free loan to be recovered over 13 years after the Lambton plant is operational. We calculated the cost of this loan to be $16 million (primarily forgone interest and lost value of money over time). Subtracting the $29-million difference brings the cost from $321 million to $292 million. Upfront payments also included a $15.4-million out-of-court settlement of a 13-year-old dispute Eastern Power had with the Ontario Electricity Financial Corporation. Based on earlier comments from a court decision, we assumed a $7-million award if the matter had gone to trial, making the net cost of the settlement $8.4 million. Subtracting the $7-million difference brings the cost from $292 million to $285 million. We have also included in the cost of upfront payments an amount of $6 million still to be paid to settle a claim brought against Greenfield by one of its suppliers, which brings the cost from $285 million to $291 million. More details on the loan, the settlement and the supplier's claim are in the section Cost of Upfront Payments.

Settlement of Eastern Power's Dispute with the OEFC—$8.4 Million

A power supply contract for Eastern Power's Keele Valley landfill gas plant had been in place since 1994, held and administered by the OEFC. Eastern Power had been disputing the interpretation of payment provisions of this contract for about 13 years. The dispute began with six claims brought by Eastern Power against the OEFC for a total of $121 million. In a 2008 decision, the judge dismissed five of the six claims. The judge was unable to rule on the exact amount of the damages for the sixth, a claim for $18.5 million, but indicated that Eastern Power might be eligible for nominal damages of up to $5 million. This resulted in no damages awarded to Eastern. Moreover, the judge ordered Eastern to pay the OEFC $1.1 million in court fees (later reduced on appeal to $700,000). In a 2009 appeal, Eastern Power sought damages of $8.5 million or a new trial for the outstanding claim. In 2010, the appeal judge, while agreeing with the conclusions reached by the original judge, estimated the amount for nominal damages to be about $7 million but ordered a new trial to resolve the issue.

Eastern Power demanded a settlement for the Keele Valley lawsuit of $15.4 million as a precondition to beginning any negotiations regarding Greenfield South. The OEFC agreed to pay $10 million, the absolute maximum amount it felt a court could have awarded, including interest (it also forgave the $700,000 in court fees Eastern Power had been ordered to pay). Under a November 25, 2011, side agreement, the OPA agreed to pay the $5.4 million difference to satisfy Eastern Power's demand so that negotiations on stopping construction at Mississauga could get started. The side agreement deemed this a prepayment toward a new power-supply contract with the Keele Valley plant—but also allowed Eastern Power to keep the money if Keele Valley was found not to be a viable site for providing power. Our review of documents found that the OPA had already questioned—before agreeing to the payment—whether it would be possible to extract methane gas from the site, much less negotiate a power supply contract for it. No new power supply contract for this site ever materialized, and therefore Eastern Power kept the $5.4 million.

The OEFC told us that if the government had not cancelled the Mississauga plant, it would have waited for a trial decision for a settlement. In the view of the OPA, whatever that settlement would have been should be offset against this $15.4 amount, reducing it somewhat as a cost of the cancellation decision. Our calculation assumes a trial settlement that would have awarded Greenfield an amount in nominal damages that the judge in the 2010 decision felt Eastern Power might be eligible for. This amount—$7 million—reduces the cost of this negotiated settlement to $8.4 million.

Greenfield's Sunk Costs—$43.8 Million

The OPA paid Eastern Power a total of $43.8 million to cover Greenfield's sunk costs. Most of this amount was prepaid to Eastern Power during the settlement negotiations so that Greenfield would continue to suspend work on the Mississauga plant. Greenfield was expected to provide support for the costs at a later date. We found this support to be adequate for $8 million of costs. However, we found that about $36 million in reimbursements to Eastern Power for labour costs, including the cost of external consultants, was never properly supported (although the OPA did tell us when our report was being finalized that the engineer hired to certify Greenfield's costs had agreed to sign off on the labour costs, more than a year after the costs had been reimbursed). The details of the payments provided are as follows.

Once Greenfield signed its contract with the OPA in April 2005, it began incurring costs for things such as labour, goods and services, interest on the money drawn from its lenders, legal fees, and fees associated with letters of credit it issued. Under a December 14, 2011, side agreement, the OPA agreed to provide $35 million as a prepayment to partially cover these sunk costs. Under a January 20, 2012, side agreement, the OPA provided a further $6 million as prepayment for sunk costs.

The FRSA required that Greenfield provide detailed support for all of its costs and that these costs be independently verified. We found that this was done for $8 million in non-labour-related costs.

Eastern Power initially claimed labour costs of $79 million for 17 full-time equivalent employees as well as consultants it said had worked to develop the plant between 2004 and 2012. In support of these costs, Greenfield provided only a list of staff, the hours that employees worked and industry-average billing rates for the work being done. When pressed, it provided sworn statements of the hours selected employees had worked as well as consultant invoices, but the rates charged were blanked out on those invoices. In the end, Eastern Power received about $36 million from the OPA for labour costs it said Greenfield had incurred. (This does not include $5 million in HST; we advised the OPA that this $5 million should be refundable from the Canada Revenue Agency. The OPA told us it would file the claim.)

Aside from the total amount of time being charged between 2004 and 2012, we also questioned the reasonableness of some of the purported labour costs. For instance, almost $900,000 over eight years, or about $110,000 annually, was reimbursed for an employee with the title of administrative assistant. Neither we nor the independent engineer hired to certify Greenfield's costs were able to get copies of payroll or T4 information to support costs like these, nor did Greenfield provide any further supporting information to the engineer. While payroll and T4 information might not contain all reimbursable benefits, it certainly would have enabled confirmation of most of the purported labour costs.

We did note that in a May 2011 plant budget that Greenfield submitted to its lenders, actual engineering and plant management costs incurred up to May 24, 2011, were listed as totalling only $19 million, as compared to the $28 million that the OPA paid to Greenfield to cover labour costs up to this date, which was later certified by the independent engineer.

The OPA estimated that only $10 million of the $43.8 million it paid Greenfield for sunk costs would be transferrable to the new plant and would reduce that plant's future costs. We discuss this further in the section Reduction in NRR Payments—$20 Million in Savings.

Reimbursement of Site and Warehouse Purchase Price—$4.2 Million

Under a March 26, 2012, side agreement, the OPA agreed to reimburse Eastern Power the price paid for the 10.5-acre site on which the cancelled plant was being built and an adjoining 17,000-square-foot warehouse used to store equipment. Greenfield adequately supported the purchase amounts—$2.6 million for the site and $1.6 million for the warehouse. However, the side agreement allows Eastern Power and Greenfield to retain title to the properties. The OPA advised us that it allowed Eastern Power and Greenfield to keep title to the site to save it from having to pay to restore the site. However, this would not have applied to the warehouse, which needed no restoration.

Around the time of the cancellation, Infrastructure Ontario, at the Ministry's request, estimated the fair market value of the site alone to be in the range of $4.8 million to $5.3 million (this amount was arrived at by reviewing the sales of comparable undeveloped industrial land in Mississauga in 2010 and 2011). With such an increase in the land's value since Greenfield purchased it, the OPA may have realized a net gain if it had chosen to restore the site, and we believe it should have assessed this option more formally. The OPA told us that it believes that Infrastructure Ontario was not able to take into account all the relevant factors in its assessment of the value of the site. In any event, the decision to cancel the plant resulted in a $4.2-million expenditure that otherwise would not have been made.

At the time of our audit, Greenfield had not settled on a specific site for the Lambton plant, which it will be responsible for purchasing. The Ministry had offered Greenfield a site owned by Ontario Power Generation (OPG) that it believed would be accepted by the community with little opposition (given that it is next to OPG's existing coal power plant). If Greenfield chooses this site, the purchase price is to be fair market value as determined by independent appraisals.

Loan Costs—$16 Million

Under a July 9, 2012, side agreement, the OPA and the ministry negotiator agreed to provide Greenfield with a $45-million loan for working capital for the construction of the relocated plant. The loan is interest-free, and repayment starts only after the new plant is finished (expected to be in 2017). The repayment period extends over the following 13 years. Assuming that Greenfield successfully constructs the new plant and repays the loan over the 13-year repayment period, the cost of providing Greenfield with this amount of interest-free working capital and not being fully repaid for it until 2030 at the earliest is about $16 million (consisting largely of lost interest and the time value of money).

Not only did Greenfield not have OPA-supplied working capital in the original contract to build a plant in Mississauga, but it had to provide $14 million in initial upfront security to ensure that it fulfilled its contractual obligations. Under the FRSA, the amount of the performance security for the Lambton plant was reduced to $1.4 million.

The OPA can set off the repayment of the loan against the NRR payments if Greenfield defaults on the loan repayments. If the FRSA is terminated through default by Greenfield, Greenfield and Eastern Power must pay back the outstanding amount of the loan within seven days of the FRSA's termination (although no personal guarantees from the company shareholders were obtained as additional security to ensure that they do so). If the FRSA is terminated for any other reason than default by Greenfield, Greenfield can keep the $45 million.

Internal correspondence shows that OPA staff were concerned that $45 million approximates the amount of equity Greenfield would need to inject into constructing the relocated plant (that is, the amount of its own money Greenfield would have to put up for the project). In the words of investment bankers, with the OPA providing this upfront money, Greenfield had "no skin in the game." Normally, the contractor is required to put up a reasonable portion of its own money to give it an adequate incentive to successfully complete the project.

We believe that the $16 million in forgone interest and other lost value is a cost of the cancellation because it would not have been incurred had the plant not been relocated.

Payments to EIG Management Ltd.—$149.6 Million

Back in 2004, when Greenfield bid for this gas-plant project, it submitted letters of financing commitment from Canadian lenders. In the end, however, Greenfield secured financing from a U.S.-based investment firm, EIG Management Ltd., through a May 26, 2011, agreement. Under the agreement, EIG gave a Greenfield holding company an eight-year, $263-million credit facility (a line of credit available as standby funding) for the engineering, construction, operation and maintenance of the gas plant. Greenfield was required to pay an interest rate of 14%, compounded quarterly, on funds drawn. Greenfield's collateral for the credit facility consisted of warrants (which EIG could exercise for up to 24% of the equity in the Greenfield holding company), equipment, shares of Greenfield and an interest in the contract with the OPA.

Penalties for Greenfield's defaulting on the agreement were heavy: Greenfield would have to immediately pay back all amounts drawn with interest, as well as interest on the full undrawn amount for the full eight-year term of the agreement. The interest rate would be 14%, discounted by the U.S. Treasury rate.

EIG informed Greenfield in a letter dated November 18, 2011, that if the OPA were to proceed with cancelling the plant, EIG would hold Greenfield in default of its agreement and would ask for compensation of about $225 million for Greenfield's backing out of the contract.

The OPA was unaware of any of these onerous penalty terms when it signed a November 25, 2011, interim agreement to pay the costs for releasing Greenfield from its lender. The OPA told us that it had asked Greenfield for its lending agreement but that Greenfield refused to provide it. The OPA still proceeded to sign the interim agreement, undoubtedly owing to the urgency of getting Greenfield to stop construction. At that point, Greenfield had drawn about $59 million from the EIG credit facility over a six-month period. In December 2011, EIG followed through on what it had earlier told Greenfield and formally asked for a $228-million settlement. In March 2012, EIG filed the claim against Greenfield in a court in the state of New York. At the same time, EIG also filed, in Ontario, a much higher $310-million claim for damages against the Crown and the OPA.

The OPA asked two law firms for their opinion on whether a court would award EIG's claim, given that the amount claimed was so significantly in excess of the $59 million actually advanced. A key legal issue was whether paying the equivalent of 14% interest for eight years on the full $263-million line of credit would exceed the legal maximum "criminal rate" of interest that could be charged (the Criminal Code of Canada defines a criminal rate as anything over 60%). Both felt there was a good chance a court would opt to set the award at a 60% interest rate on the actual amount of $59 million drawn for the six-month period. The OPA estimated this to be about $28 million in interest. One of the firms gave the $28-million award a 70% probability of occurring.

The Ministry of Energy received approval from Treasury Board to settle EIG's claim up to a maximum of $98 million (on top of the $59 million). This was based on the assumption that a $28-million settlement was 70% likely, with a settlement of EIG's request of $310 million, minus the $59 million drawn ($251 million), to be 30% likely. The Ministry and the OPA arrived at the $98-million amount by adding 70% of $28 million ($19.6 million) to 30% of $251 million ($75.3 million) and throwing in $3 million for legal fees, which totals about $98 million. In the end, the ministry negotiator arranged to pay EIG $90 million in penalty interest plus the $59-million drawn amount—a total payment of $149.6 million. As part of this settlement, EIG fully released the OPA, the province and Greenfield from all existing and future claims.

We noted that EIG alleged that Greenfield had breached 17 covenants of the lending agreement as of January 2012. These breaches included missing deadlines for providing financial information and permitting construction liens to be filed against the plant. Since some of these covenants had been breached prior to the cancellation of the plant, Greenfield may well have been potentially in default of the agreement and, if so, possibly subject to penalties at the time the plant was cancelled. The OPA told us it believes that those breaches that EIG alleges occurred before the plant was cancelled were minor.

We also noted that Greenfield did not provide the OPA and the independent engineer with adequate documentation on what it did with the $59 million it received from EIG. We were able to determine that about half was used to buy equipment (our review of invoices showed that the OPA had paid equipment suppliers directly for all of the equipment except for about $30 million in equipment purchases made during the six months Greenfield had the $59 million). For the remaining $29 million, the OPA gave us, at the time our audit was being finalized, a list of invoices that Greenfield claimed were also paid by EIG funds. About $25 million of this came from invoices that Greenfield said it paid to outside suppliers for construction-related activity. The remaining $4 million, however, was made up of amounts paid primarily to Eastern Power and another company related to Greenfield called North Green Limited.

A side agreement obligates the Ministry of Energy to also, if necessary, help Greenfield secure financing for constructing the Lambton plant.

Payments to Greenfield's Suppliers—$64.6 Million

The OPA expects its payments to Greenfield's suppliers will total $58.7 million: almost $47 million is to be paid for equipment and about $12 million has been paid to other suppliers. It also expects to pay $6 million in future to one supplier to settle a claim. The details of these payments are as follows.

In accordance with the FRSA, the OPA expects to pay about $77 million for equipment that will be relocated to the plant in Lambton. As just noted, about $30 million of this amount was paid out of the $59 million that Greenfield borrowed from EIG and that the OPA paid back to EIG. At the time of our audit, the OPA was in the process of paying the remaining almost $47 million directly to the equipment suppliers, which have provided all necessary purchase orders and invoices. All of the equipment the OPA will pay for is expected to be used at the new plant, reducing Greenfield's future construction costs.

If Greenfield defaults on repaying the $45-million loan for working capital or on any of its other commitments under the FRSA, a lien that the OPA registered against the equipment would allow it to take ownership of it up to the commercial operation date of the new plant. However, Greenfield will likely have to pledge the equipment as collateral to secure financing for the Lambton plant, in which case the OPA will have to reduce its security interest.

In addition to the almost $47 million being paid to equipment suppliers, the OPA has paid $12 million to other suppliers for goods and services. About $4 million of this amount was for equipment rental. These costs could have been largely avoided if the equipment had been returned as soon as construction on the Mississauga plant stopped in November 2011. In March 2012 (when rental charges were at $1 million), the independent engineer informed the OPA that this equipment was sitting idle at the site of the cancelled plant and continuing to incur rental charges. He also said that the idle equipment could get damaged, which would result in even higher costs. He offered to arrange for the equipment to be returned. However, no action was taken until an additional $3 million in rental costs was incurred. Most of the heavy equipment was finally returned by December 2012.

The OPA informed us shortly after our fieldwork was completed that it was in the midst of negotiating the settlement of a claim that had been brought against Greenfield by one of its major suppliers. The OPA expected that it will have to pay about $6 million to settle the claim. We have therefore added this amount to the cancellation costs.

Legal and Other Professional Fees—$4.4 Million

More than $4 million in legal and other professional fees have been incurred as a result of the cancellation-and-relocation decision, mainly by the OPA and the Ministry of Energy. They include the cost of the independent engineer that the OPA retained to review the costs Greenfield claimed to have incurred in developing and constructing the Mississauga plant and the cost of the outside negotiator hired to assist the Ministry and the OPA in reaching a final agreement with Greenfield.

Future Extra Power Delivery Costs—$60 Million

Cost of Electricity Lost Travelling Over a Greater Distance—$40 Million

The Greenfield plant, regardless of its location, must meet the electricity demands of the southwest GTA. As a result of the relocation to Lambton, power will have to travel a considerable distance through transmission lines to reach its destination. Some energy will be lost along the way, mostly as heat. The OPA has estimated the cost of these losses to be about $40 million over the 20-year term of the FRSA.

We reviewed this estimate and noted that it is based on several assumptions relating to, among other things, future growth in the demand for electricity in the southwest GTA, future developments in generation and transmission systems, and what will happen with all existing and future electricity-generating facilities over the 20-year life of the FRSA. It therefore could well be higher or lower, but overall we concluded that it is reasonable.

System Upgrades—$13 Million

At the time of our audit the Independent Electricity System Operator (IESO) had just completed an assessment of the impact of the relocation of the Mississauga plant to Lambton and had forwarded it to Hydro One. Hydro One confirmed to us that the assessment did not identify the need for significant upgrades to the electricity grid because of the relocation.

The OPA and Hydro One told us that the upgrades that were needed were limited to the following, both in the GTA:

- A set of transformers near Milton will have to be built one year ahead of schedule. The OPA estimates the cost of moving up the construction date of this $270-million project to be about $10 million.
- Transmission lines near the Manby Transformer Station in Etobicoke will have to be upgraded. At the time of our audit, Hydro One had not yet completed its review of the IESO assessment but expected this cost to be about $3 million (Hydro One told us it would complete the review by April 2013 but had not yet done so at the time this report was finalized).

Consistent with what Hydro One told us, the OPA also said it did not expect the relocation to require any major electricity infrastructure upgrades west of the London area. This region is already served by other gas plants of about the same efficiency as the planned Greenfield plant. Once the Greenfield plant is operational, it will for the most part just be competing with those plants to provide the electricity to meet demand. In addition, the government's 2011 long-term energy plan had already set in motion a project to improve the area's transmission capacity to make room for more renewable electricity. Even if the Greenfield plant were to add to the area's transmission load, these upgrades could likely handle it. The improvements are expected to be completed by the end of 2014, about three years before the Greenfield plant should be in service.

Gas and Hydro Connections—$7 Million

Gas and hydro connection costs were the responsibility of Greenfield under the Mississauga-plant contract. Under the FRSA, they are the responsibility of the OPA.

The gas connection costs will vary depending on which site in Lambton Greenfield chooses for the plant. If it chooses the OPG site, the gas distributor estimates that connecting the plant to the gas source will cost from $2 million to $5 million. A second, privately owned site being contemplated by Greenfield at the time of our audit carries minimal connection cost. Accordingly, we have assumed a cost of $3 million.

With respect to connecting the new power to the transmission grid, Hydro One could provide us with only a preliminary estimate of from $3 million to $5 million for this (irrespective of which Lambton site). A more exact cost will be available when Hydro One finishes its review of the IESO's assessment of the relocation's impact on the grid, which is expected by April 2013. The review was not completed at the time this report was finalized, and we have assumed a $4-million cost for this connection cost.

Savings Associated with New NRR Payments—$76 Million in Savings

There are two major areas of potential savings resulting from the cancellation of the Mississauga plant and the agreement to build a plant in Lambton:

- reduction in NRR payments, 2017 to 2036—$20 million; and
- deferral of NRR payments to 2017—$56 million.

Reduction in NRR Payments, 2017 to 2036—$20 Million

The OPA, the Ministry-appointed negotiator and Greenfield recognized that some of the items that the OPA's upfront payments paid for can be used in the construction of the Lambton plant. Since these items have already been paid for, they will reduce the cost of the plant to Greenfield. Therefore, Greenfield's "net revenue requirements" (NRR) will be that much less than they were for the Mississauga plant (that is, its costs to build and operate the Lambton plant plus earn a similar rate of return will be lower). The OPA, together with the ministry negotiator, were able to bring the NRR for the Lambton plant down to $12,400/MW/month from $12,900/MW/month. We calculated that this reduction is worth about $20 million (in present-value dollars) over the 20-year term of the FRSA and partially offsets the costs associated with cancelling and relocating the Mississauga plant.

However, adding up all the items that the OPA has paid for upfront that can be reused amounts to about $100 million: $77 million in equipment, $10 million in engineering labour and the $16-million cost of the OPA's interest-free working capital loan to Greenfield. Therefore, the $20-million NRR reduction certainly does not recover the full value of the upfront items that the OPA has paid for, the shortfall being about $80 million.

As noted earlier, the NRR is intended to enable Greenfield to recover its costs for building and operating the plant plus earn a reasonable rate of return, or profit. Consequently, the $80 million in construction costs ultimately being funded by the OPA may be a significant benefit to Greenfield depending on what Greenfield's costs for building the Lambton plant turn out to be. Therefore, Greenfield may end up earning a much higher rate of return for the Lambton plant than it would have for the Mississauga plant. The OPA told us it believes that Greenfield's cost of constructing the plant in Lambton may be about $100 million higher than the $260 million Greenfield told its lender the Mississauga plant would cost. If so, according to the

OPA, the $12,400/MW/month, combined with the upfront payments, will provide Greenfield with a rate of return similar to what it would have received for the Mississauga plant.

Deferral of NRR Payments—$56 Million

Greenfield was targeting July 2014 as the completion date of the Mississauga plant. If Greenfield had met this deadline, the OPA would have then begun paying it the agreed-upon NRR of $12,900/MW/month. The OPA contends that, with the cancellation and with the Lambton plant not being completed until 2017, three years of NRR payments have been deferred. The OPA estimates the resulting savings to be about $75 million (present-value dollars), which are net of the present value of the NRR payments to be made over the three-year period between the end date of the Mississauga plant's contract (2033) and the end date of the Lambton plant's contract (2036).

However, there are uncertainties associated with this. For instance, if Greenfield would not have been able to complete the Mississauga plant on time, these payments would have begun later. One of the factors that could have delayed completion is Greenfield's violations of its lending agreement (as mentioned earlier in our report, EIG alleged that Greenfield had breached 17 covenants of the lending agreement as of January 2012; even if Greenfield were not already subject to penalties when the plant was cancelled, it may well have continued with infractions and run into financial trouble). In addition, the OPA believed that Greenfield would not have been able to complete the plant within its budget and available credit of $260 million, further putting Greenfield at risk of running out of money and not being able to complete the plant on time if it could not quickly raise additional financing.

We also questioned why the savings envisioned by not paying for the power supplied by the Mississauga plant would not at least be partially offset by the cost of replacing this power, especially given that a key reason for the plant in the first place was the need for power in the southwest GTA. The OPA told us that the province will have excess supply over this period and does not need any of the power the Mississauga plant would have produced. Therefore, according to the OPA, there are no other power costs associated with replacing the lost Mississauga power that would offset part of the avoided NRR payments.

The OPA told us that its position on the province's power supply needs has changed since 2009 when it voluntarily increased the Mississauga plant's NRR partially because it viewed the plant as a necessary source of supply starting in 2014. By contracting for the Lambton plant, it clearly believes additional gas-fired power will be needed, but now not until 2018, with no additional supply needed for the 2014–17 period. In the OPA's opinion, the main reason the province will run out of surplus supply by 2018 will be the need to refurbish elements of Ontario's nuclear fleet at that time.

In our view, any estimate of savings relating to deferred NRR payments must reflect the uncertainties around the power supply situation and when the Mississauga plant would actually have been completed. But we do acknowledge that there will be some savings because the OPA will likely not be making any NRR payments to Greenfield before 2017. We further acknowledge that, just as the Mississauga plant may not have been completed on time, the Lambton plant may not be completed on time. This would further defer the start date of NRR payments and result in more savings. Given these uncertainties, we have included estimated savings of about three-quarters of the $75 million estimated by the OPA, or $56 million. These potential savings partially offset the costs associated with cancelling and relocating the Mississauga plant.

ALLOCATION OF CANCELLATION COSTS

Initially, all payments associated with the cancellation were paid through the Global Adjustment account funded by electricity ratepayers. Amounts that typically flow through this account arise mostly from differences between the market price of electricity and the price actually paid to generators. Amounts paid through the Global Adjustment account are recovered through charges on ratepayers' monthly electricity bills.

An August 2012 Treasury Board order authorized $190 million to pay for sunk costs associated with the Mississauga plant cancellation. Since payments made to date had already been charged to the Global Adjustment account, the order reimbursed the account for this amount. This $190 million is therefore the amount of total costs that will be funded by taxpayers, with the remaining costs being paid by electricity ratepayers through the Global Adjustment charge.

OTHER BENEFITS TO GREENFIELD

Most of the natural gas supplied to southwestern Ontario, including the GTA, originates at the Dawn Hub in Sarnia. It will be much less expensive to pipe this gas to a plant in Lambton County than it would have been to a plant in Mississauga. If the plant had remained in Mississauga, Greenfield would have had to pay a number of companies for the use of their pipelines—specifically, Enbridge Gas, Union Gas and TransCanada Pipelines. Now, Greenfield has to pay for using the pipelines of only one company (Union Gas) to deliver the gas over a relatively short distance.

We estimate that Greenfield will save about $65 million (in present-value dollars) in pipeline charges over the 20-year life of the Lambton contract. The OPA told us that it was aware of these savings during its negotiations with Greenfield, although with the information available at the time it estimated them to be only about $36 million. In any case, however, no amount of savings was able to be negotiated and reflected in the price the OPA will pay for the Lambton plant's electricity under the FRSA. As a result, Greenfield will earn a higher rate of return on its investment than it would have if the plant had remained in Mississauga. In essence, this represents savings that will not be passed on to either taxpayers or electricity ratepayers to offset some of the costs that the relocation has incurred.

Another area where Greenfield will reap savings relates to interest costs on its upfront security deposit. As noted earlier, Greenfield has had to provide only $1.4 million in security for the Lambton plant, compared to the $14 million it put up for the Mississauga plant. It will pay far less interest on this greatly reduced security amount. We estimate its savings in this area will total about $4.8 million over the term of the agreement—again, savings not passed on to taxpayers or ratepayers.