Considerations for Extending Existing Contracts

January 24, 2016

Purpose: To provide a full set of considerations around the possibility of extending existing contracts to mitigate costs for ratepayers.

Considerations: Extending contracts was an option considered by the IESO when evaluating rate mitigation measures in late 2016. However, after evaluating the impacts of extending contracts the IESO concluded that the negotiation timelines would be lengthy, the benefits (or cost reductions) would be small, and the risks and future opportunity loss would be ~~too great~~substantial and result in higher overall costs for consumers. The~~re consideration are~~refore based on existing IESO experience through contract negotiations, preliminary IESO analysis, current forecasts of system need, and the evaluation of current drivers of electricity system costs, the IESO continues to be of the opinion that that extending contracts leads to an overall loss of value to ratepayers.

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Summary:

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- It is possible to reduce near term electricity prices by extending contact terms but it is not cost free and price reduction is likely to be small
- The magnitude of the cost to consumers is higher than might first be apparent since the incremental cost to consumers would be greater than just shifting or levelizing supplier revenues from the near term to the longer term. Investors would reasonably be expected to require additional compensation that reflects:
  - loss of earning potential in the near term
  - recover any incremental costs they may feel appropriate in order to extend the life of the facility.
- In addition, the total cost should factor in the impact on future market efficiency. In particular, locking in contract extensions is in contrast to the stated goals of Market Renewal to introduce greater flexibility, address inefficiencies and create a more dynamic market. Locking in resources beyond their current contracts would put at risk some portion of the expected $3.5 billion in identified benefits
- Other factors, such as the time and complexity of contract negotiations, as well as intangible impacts such as how it would be received by the stakeholders and the market in general should also be weighed against any near term benefits

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1. **Timeline to complete negotiations**:

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Past IESO contract experience shows that renegotiations are lengthy and not consistent with rate mitigation timelines. ~~suggests that re-negotiation tends to be lengthier than originally anticipated. Given the complex nature of the contracts, the government's desired outcomes, and numbers of parties involved, the IESO would anticipate about 1.5–2 years to complete negotiations.~~

Considerations:

- Urgency provides leverage to the counterparties leading to lower bargaining power for the provinceIESO and ultimately higher costs to ratepayers.
- Negotiations ~~are expected to~~will be multi-party as there are numerous equity participants and secured lenders with a security interest in the contracts who will likely require agreement to any amendments.
- Follow-on impacts to credit agreements ~~may also~~would require renegotiation, which extend timelines and ~~could~~ introduce ~~the~~ involvement of additional parties.
- Different counterparty needs will likely result in ~~a checkerboard~~variations of different amendments (i.e., one size will not fit all), complicating the legal and financial ~~analysis and overall negotiations~~ terms
- Contract counterparties tend to co-ordinate on these types of matters, including through industry groups, where they ~~tend to share information in order to~~try, and gain, additional leverage on the province
- Most projects will be required to seek amendments to/or new Renewable Energy Approvals, which may include additional community engagement
- ~~Additional staff, technical consultants, and legal counsel will likely be required to undertake such an effort.~~

The Renewable Integration Experience: In 2012~~(2)~~ the IESO (formerly Ontario Power Authority) was required to re-negotiate wind and solar contracts to align with market rule changes to more effectively integrate these facilities in the operation of the electricity system. This renegotiation required ~~over~~ around 2 years ~~(2)~~ from initiation to implementation. At the time, parties with similar contracts banded together to leverage a greater negotiating position.

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2. Potential benefits:

Preliminary IESO analysis indicates that extending the contract term by ten years may not result in ~~much in the way of~~significant annual savings:

- Counterparties will ~~demand to be kept whole~~not entertain any proposal unless the is additional value beyond what is already provided in the current contracts;
- Extending the operational life will ~~likely mean require new~~increased capital investment prior to the currently planned end of lives~~expenses~~;
- Operating expenses w~~ould~~ill ~~necessarily~~ increase as facilities age, while reliability and output would reduce;

- Counterparties will need to recoup incremental capital and operating expenses through the new price and earn a return on any new investments.

IESO has modeled several scenarios to show the potential impact on price reduction from extending existing FIT wind agreements

Preliminary IESO Analysis			
Case 1	Add 10 Years and change nothing else	IRR up by	1.40%
	Change price to get to the same IRR (new price is $128)	Price Down by	$7/MWh
Case 2	Add 10 years and $5 Million capex to extend life	IRR up by	1.20%
	Change price to get to the same IRR (new price is $130)	Price Down by	$5/MWh
Case 3	Add 10 years and $5 M capital investment to extend life and operating cost up by $1M/year	IRR up by	0.8%
	Change price to get to the same IRR (new price is $131)	Price down by	4/Mwh
Case 4	Add 10 years and $5 M capex to extend life, opex up by $1M/year and generation down by 5000MWh	IRR up by	0.6%
	Change price to get to the same IRR (new price is $132.5)	Price down by	2.5/Mwh

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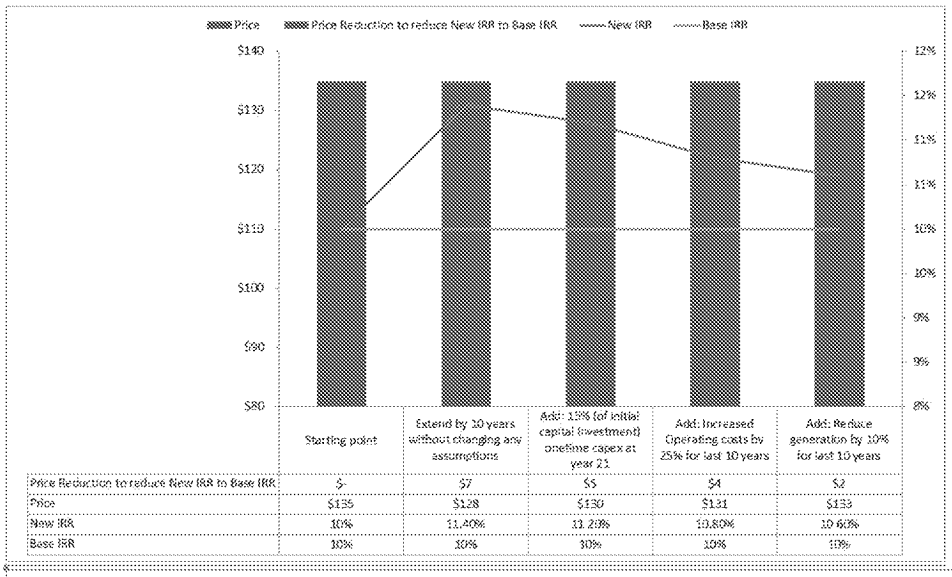

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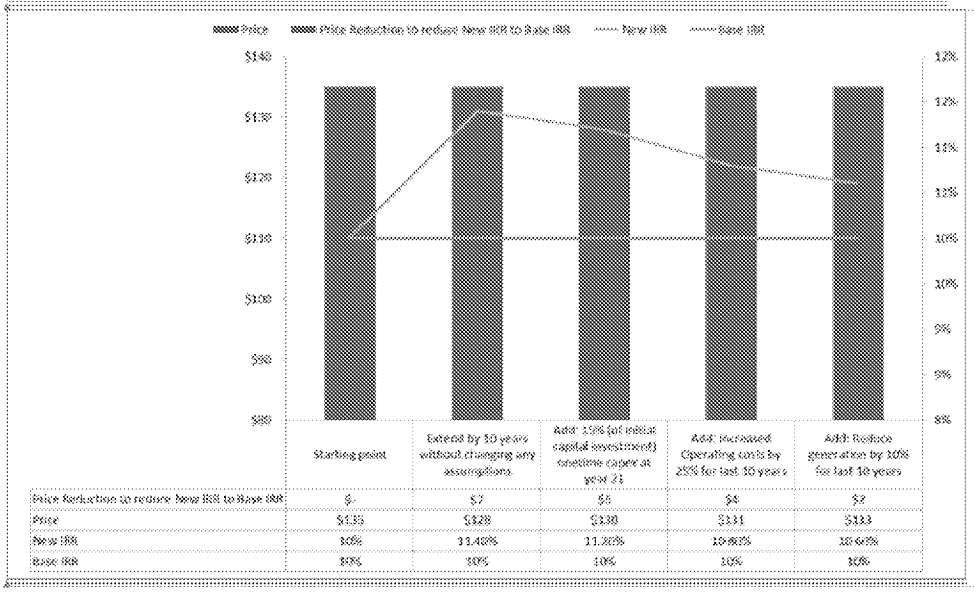

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Considerations around analysis:

- A simple extension of a 20 year FIT wind contract by 10 years leads to a 5% reduction in price if all assumptions are kept the same while only varying the price to get a supplier to the same internal rate of return (IRR).
- However, past IESO experience suggests that this is an unlikely scenario and suppliers would be estimating increased maintenance and capital costs in the additional 10 years, reduced equipment reliability, and increased IRR expectation to cover additional risks.
- IESO estimates show that the likely decrease in price would be less than 1 to 2%.
- For perspective, all of the wind generation in 2016 amounted to ~9TWh and cost approximately $1billion. The savings even at 5% would be $50 million per year.
- This analysis does not include costs to renegotiate the agreements and therefore the should the potential cost reduction be in the 1-2% range ($10 million to $20 million annually), other costs may erode that even further

~~*Additional negotiation cost risks:*~~

- ~~IESO will likely begin negotiations in very weak bargaining position, which could be further eroded if public commitments are made to presuppose the outcome.~~
- ~~The incremental cost to consumers may be greater than just shifting or levelizing supplier revenues from the near term to the longer term since asset owners will naturally attempt to extract additional benefits or value.~~
- ~~Initial analysis does not include the costs for suppliers to renegotiate their agreements, including secured lender agreements.~~

3. Future need and operability of the electricity system:

Ontario currently benefits from adequate supply, but future needs are uncertain. Locking in resources for the long term and ahead of when they are needed can appear to initially provide reliability benefits and planning certainty, but may actually come at a cost to the consumer. Locking in resources will not only stifle innovation in the sector for years to come but will also result in foregoing cost savings that arise from meeting our system needs in a more flexible manner through greater competition. In the end, it is the consumer who bears the full risk should electricity conditions or needs change, which they do frequently.

Recent examples include:

- Technology developments in renewable generation have lowered the cost of production dramatically in the space of a short time.
- Shale gas has lowered the cost of producing electricity during on peak hours more than what was previously anticipated.
- Peak demand and overall consumption have been lower than original planning projections. This has contributed to oversupply of energy and capacity and lower market prices.

Although there are no energy or capacity needs in the short-term, there is an understanding that the IESO has emerging operability needs. The IESO is addressing these needs, procuring additional regulation service and reactive control devices, and exploring sources of additional flexibility through the *Enabling System Flexibility* stakeholder engagement. If contracts were extended for renewable resources, these new agreements may continue to limit the flexibility necessary to manage the operability needs of the future (and sometimes current) system. In particular, Ontario's gas fleet currently provides much of that needed flexibility to ensure IESO can reliably operate the system and provides a valuable service to help integrate the variable nature of the wind and solar facilities.

The Non-Utility Generators (NUGs) experience: NUGs provide a recent example of what can happen when resources become inefficient and/or provide limited system value time, but remain committed through long term contracts. Contracts with Non-Utility Generators (NUGs) were signed in the 1990s primarily to provide baseload power and the incentive structure of the original contract was designed accordingly. Ontario's electricity supply mix and policy needs evolved and their value to the electricity system became negligible. In recognition of these changes, the IESO entered into negotiations with NUGs to extract *some* value for ratepayers in the final months and years of these contracts. This has led to these facilities essentially being shut down, while continuing to receive payments at a lower rate than their original contract.

4. **Opportunity Cost**:

One of the most significant drawbacks of this proposal is the lost opportunity of future value to ratepayers. ~~There are additional options available to ratepayers and the sector that will help address the fundamental issues that drive consumer costs, in particular~~ IESO's ~~the~~ *Market Renewal* Project~~, and taking advantage of future technological~~ will realize the value of innovation and cost decreases by utilizing competitive market ~~tensions~~mechanisms that have shown positive results in other jurisdictions. Extending existing contracts creates will result in consumers foregoing the benefit of meeting electricity system needs in a more efficient and cost-effective manner~~an opportunity cost, which could be stifled through contract extensions with no flexibility to avoid in the future~~.

Emerging clean tech technologies such as energy storage, demand response and energy efficiency would be shut out of the clean energy market should contracts be renewed, even if these technologies are cheaper and provide greater value to the system.

The objective of the *Market Renewal Project* is to achieve material efficiencies in the near and longer term and introduce competitive mechanisms to meet system needs to achieve cost savings for the ratepayer. Preliminary estimates suggest that the Market Renewal project could find efficiencies greater than $3.5 billion, with a significant portion of those savings coming from re-committing existing or acquiring new assets at lower costs through a competitive transparent auction process. The IESO recently implemented a similar mechanism for demand

response that has helped to reduce the cost of DR by about 20-30 percent compared to the original contracts – and new technologies and participants have entered into the sector as a result. IESO expects a comparable level of cost savings and innovative solutions from a broader capacity auction. By extending contracts, these benefits and reforms would be lost for Ontario ratepayers.

Background:
As at September 30, 2016, the IESO was managing over 28,000 contracts which have a combined capacity of over 27,000 MW. This capacity is spread across nuclear (6300 mw), wind (6065 MW), solar (2632 MW), hydro (2426 MW) and bioenergy (494 MW) fuel types and ranging in size from 10 kw to the Bruce Nuclear contract for 6300 MW.

Beginning in 2005, contracting mechanisms used have ranged from sole source negotiations; standard offer pricing, contracts and rules; to highly competitive Requests for Proposals (RFP's). Suppliers (or counterparties) of these contracts range from sophisticated international companies to the homeowner.

The IESO (and formerly the OPA) have significant negotiating experience (gas plant relocations, Bruce Nuclear Amended and Restated Implementation Agreement, and renewables integration, etc.) as well a significant day to day contract management experience (assignments, change of control, site amendments, etc).