
Financing the Global Adjustment

January 13, 2017

Working Draft for Discussion Purposes Only

Purpose

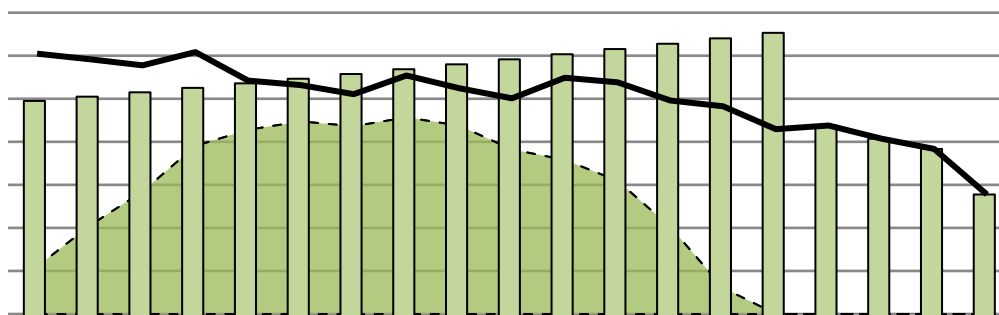
- To analyze the impact of partially financing the cost of the global adjustment (GA) to defer some of the cost to later years.
- The economic, legal and fiscal risks to ratepayers, stakeholders and government are qualitatively discussed.
- The remainder of the presentation quantitatively examines several different scenarios for financing the GA, showing:
 - The impact on residential bills; and
 - The amount of debt incurred.

Rationale for Financing the GA

- The GA is comprised of costs for regulated and contracted generation, as well as conservation.
- Some contracted generation assets are expected to have a useful life that extends beyond the term of their current financial contracts (typically 20-years).
- Similarly, conservation costs are recovered through the GA on an annual basis while conservation initiatives provide benefits to the electricity system over the course of many years.
- Since the GA only includes costs related to the contractual life of these assets, there may be an opportunity to recognize the longer-term benefit of these assets to the electricity system and “bring forward” that benefit for ratepayers today, while deferring some of the current costs.
- An indicative GA financing proposal is presented that lowers ratepayers costs over the short term by borrowing money but increases costs over the long term when GA costs are forecast to be lower.
- Note that not all generating assets will continue operations at the end of their contract term. Regulatory constraints (i.e., nuclear licences) or low demand conditions (i.e., as experienced with current expiring NUGs) would mean that some generators will shutdown at the expiry of their contract. Future ratepayers would be paying for these assets that are no longer producing power.

Indicative Proposal to Finance the Global Adjustment

- For the purpose of discussion, it is proposed that the amount of GA paid by ratepayers in each year over the forecast period is set at a fixed amount until the total amount of money borrowed has been completely paid back.
- All scenarios are assumed to begin January 1, 2017, setting the 2017 amount of GA paid by ratepayers at a value lower than the true cost of GA and increasing that amount year-over-year at inflation (assumed to be 2%) until the debt has been paid off.
- In this way, GA costs will be “tilted” over time by lowering costs in the short term and increasing costs in the long term.
- In some scenarios, the amount of GA paid by ratepayers *above* the expected true cost of GA is capped so as to limit large increases in the cost of electricity in any given year.
- All analysis is based on forecasts from Independent Electricity System Operator’s (IESO) Ontario Planning Outlook and assumes a 5% borrowing interest rate.



Sample financing: Ratepayers pay less than the cost of GA in early years, borrowing up to \$9 billion that is fully paid off in 2031 by charging ratepayers more than the cost of GA in later years.

Considerations and Risks – Ratepayer

Ratepayer:

- Borrowing money to finance the GA, while lowering costs in the short term, results in a more rapid rise in electricity prices beyond the rate of increase already expected.
- The GA financing proposal involves borrowing large amounts of money over a long period of time (16-30 years, depending on the scenario) to reduce electricity rates. This debt would be highly sensitive to interest rates which could extend repayment timelines or put significant pressure on electricity rates. A long-term interest rate of 5% is assumed for this analysis.
- GA and HOEP provide a natural hedge against each other – when one goes up, the other goes down – keeping total electricity costs relatively stable and predictable. Smoothing only the GA would lead to greater price volatility for consumers.
 - For example, if HOEP is higher than expected (due to higher gas or carbon prices, for example), all-in rates will rise significantly as the natural decrease in GA would not occur given the prescribed GA rate described in the indicative proposal.
- Should Ontario electricity demand be lower than forecasted, the cost of paying off the debt will be shared by a smaller pool of consumption, further increasing future costs for individual ratepayers.

Considerations and Risks – Legal, Fiscal and Stakeholder

Legal:

- **LSB to provide commentary**

Fiscal / Accounting:

- Further analysis is required on whether such changes to the financing of the GA would affect the Province's current accounting treatment for the GA and represent a potential fiscal risk. As such, early engagement with Legal Services Branch and Treasury Board Secretariat is advised.
- Historically electricity sector financing has been conducted by the Ontario Financing Authority, e.g., managing OEFC's stranded debt and borrowing on behalf of IESO. Further consultation with the OFA will be required to determine the appropriate vehicle for additional borrowing.
- The significant amount of additional Provincial borrowing needed to finance the GA, and associated risks (e.g., interest rates, repayment timelines), could put pressure on the Province's credit rating and overall borrowing capacity. Further analysis is required and would suggest early engagement with the OFA through which money will be borrowed.

Stakeholder:

- The significant deferral of electricity system costs over a long time-horizon and associated interest costs may draw criticism from some stakeholders as creating a new "stranded debt" in the sector. Note: the Debt Retirement Charge was removed from residential bills in 2016 and will be removed for remaining customers in 2018.

GA Debt Financing Scenarios

1. Status Quo

- Ratepayers continue paying the full cost of the GA in each year without incurring any debt.

2. Moderate short-term cost reductions with limits

- The amount of GA paid by ratepayers in 2017 is lowered by \$2.5 billion below the true cost of GA and increases at inflation (assumed to be 2%) in each subsequent year until the total amount of money borrowed is paid off.
- Future GA over-payments above the true cost of GA are capped at \$2 billion to limit electricity cost increases in any given year.

3. Maximized short-term cost reductions with limits

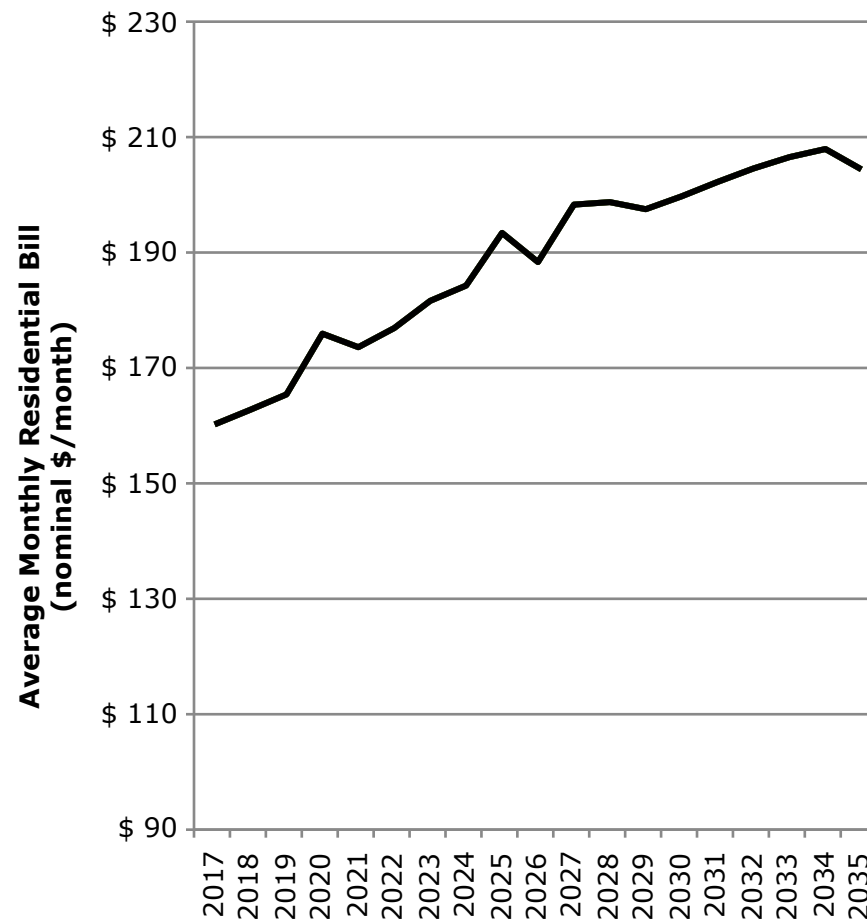
- This scenario considers the maximum amount by which ratepayer GA costs in 2017 can be reduced such that the total amount of money borrowed is paid off over a 25-30 year financing period.
- Future GA over-payments above the true cost of GA are capped at \$2 billion to limit electricity cost increases in any given year.

4. Maximized short-term cost reductions, no limits

- This scenario considers the maximum amount by which ratepayer GA costs in 2017 can be reduced such that the total amount of money borrowed is paid off over a 25-30 year financing period.
- No limit is placed on the amount charged to ratepayers above the true cost of GA.

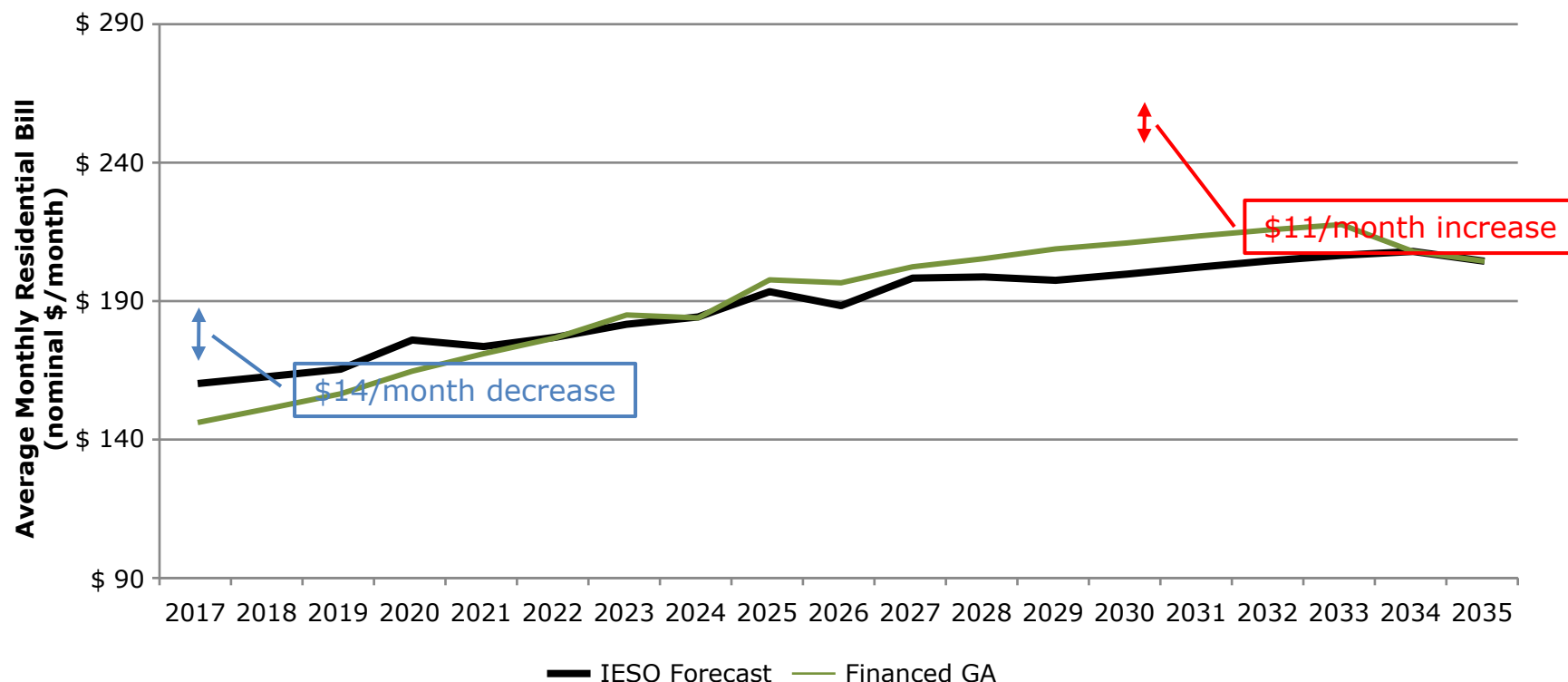
1. Status Quo – Global and Residential Impacts

- Ratepayers continue paying the true cost of GA.



2. Moderate Short-term Cost Reduction with limits – Residential Impacts

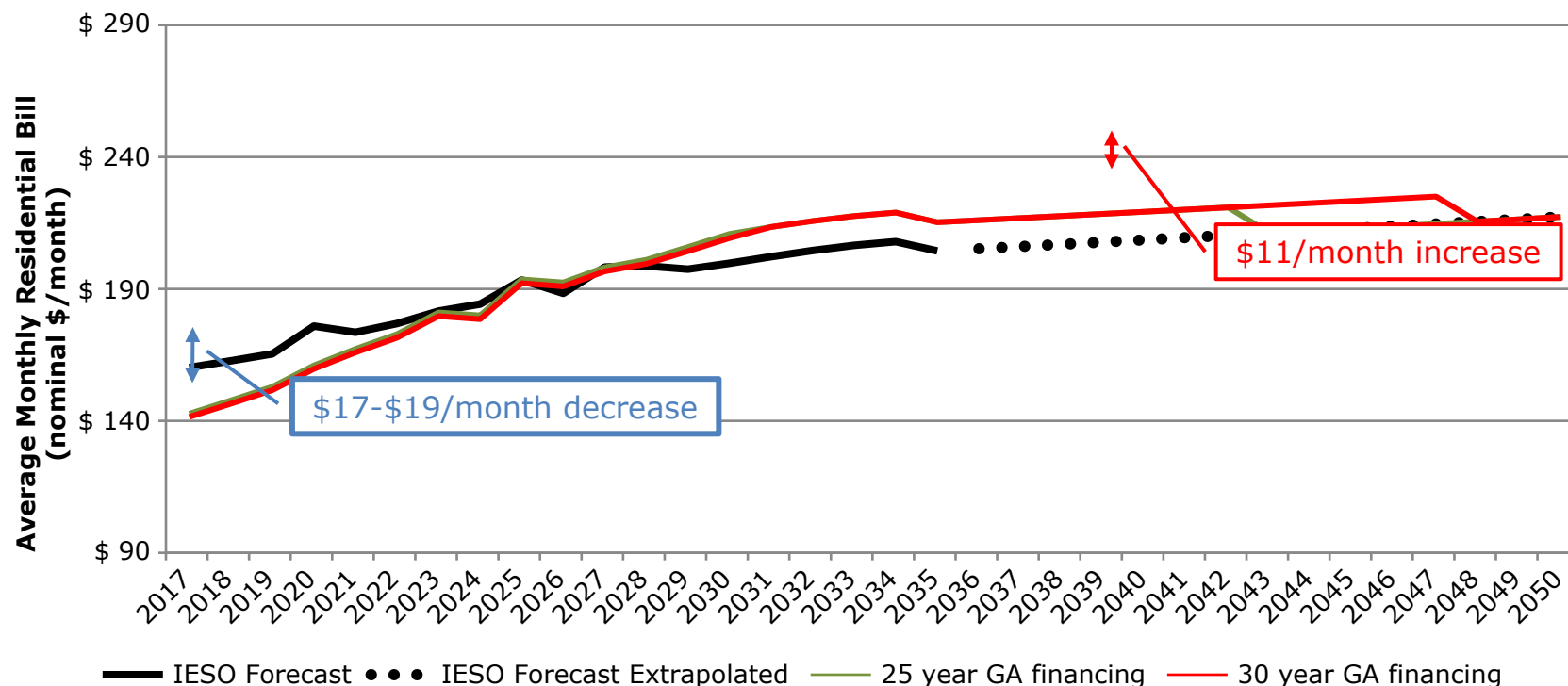
- In this scenario, the starting GA payment from all ratepayers in 2017 is lowered by \$2.5 billion below the true cost of GA and is increased at inflation in subsequent years – subject to a cap of no more than \$2 billion above the true cost of GA in any given year – until the borrowed money is repaid.



- By **borrowing up to \$10.7 billion**, this scenario results in a **short-term residential electricity cost reduction of up to \$14/month** at the cost of a **long-term increase over 12 years of up to \$11/month** above the true cost of electricity production.

3. Maximized Short-term Cost Reduction with limits – Residential Impacts

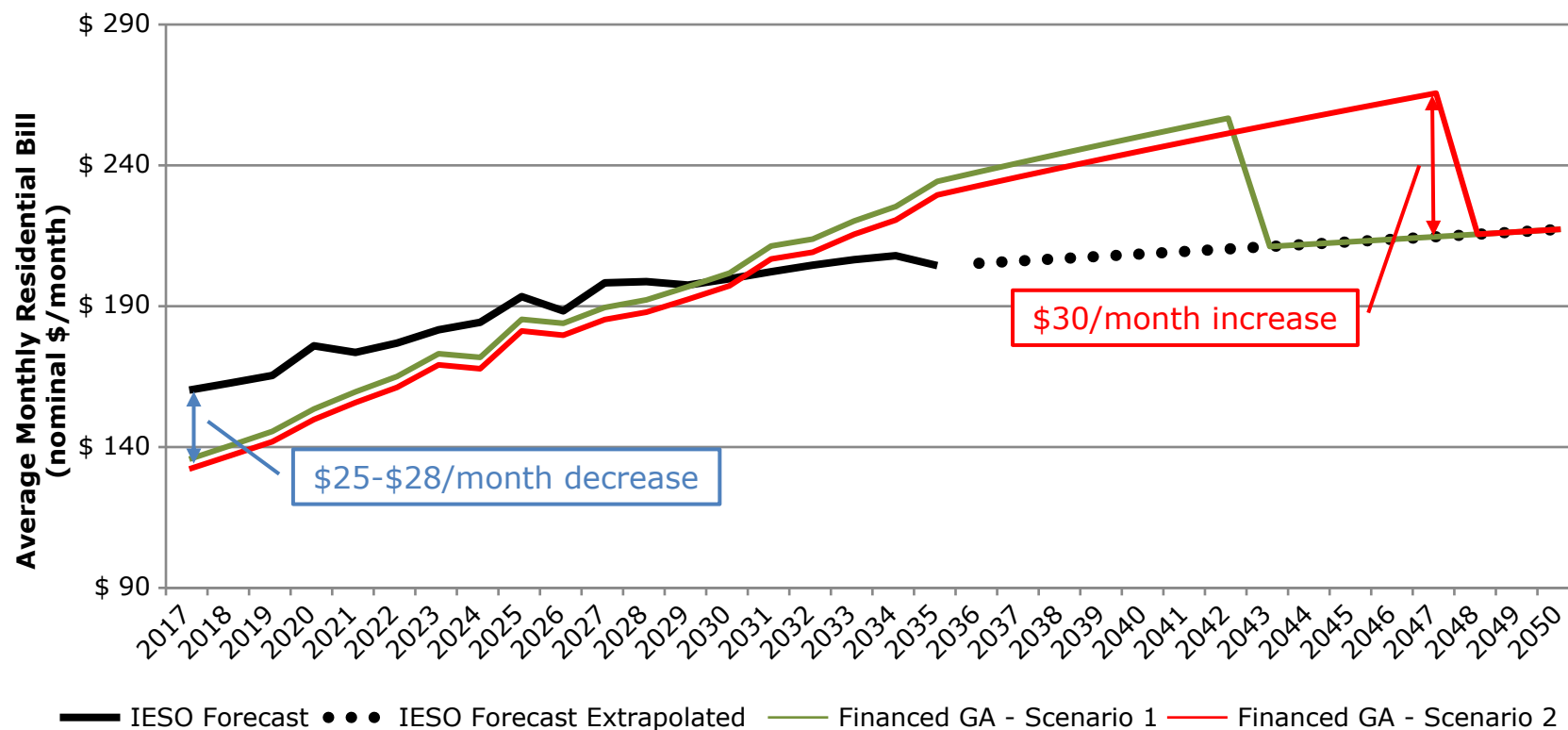
- In this scenario, the starting GA payment from all ratepayers in 2017 is lowered as much as possible and is increased at inflation in subsequent years – subject to a cap of no more than \$2 billion above the true cost of GA in any given year – such that the borrowed money is paid back in 25 years (green line) and 30 years (red line) respectively.



- By **borrowing up to \$23 billion**, this scenario results in a **short-term residential electricity cost reduction of up to \$17-\$19/month** at the cost of a **long-term increase over 17-22 years of up to \$11/month** above the true cost of electricity production.

4. Maximized Short-term Cost Reduction, no limits – Residential Impacts

- In this scenario, the starting GA payment from all ratepayers in 2017 is lowered as much as possible and is increased at inflation in subsequent years such that the borrowed money is paid back in 25 years (green line) and 30 years (red line) respectively. No limit is placed on the ratepayer GA over-payments in later years.



- By **borrowing up to \$66 billion**, this scenario results in a **short-term residential electricity cost reduction of up to \$25-\$28/month** at the cost of a **long-term increase over 12-17 years of up to \$25-\$30/month** above the true cost of electricity production.