
Debt Financing the Global Adjustment

January 6, 2017

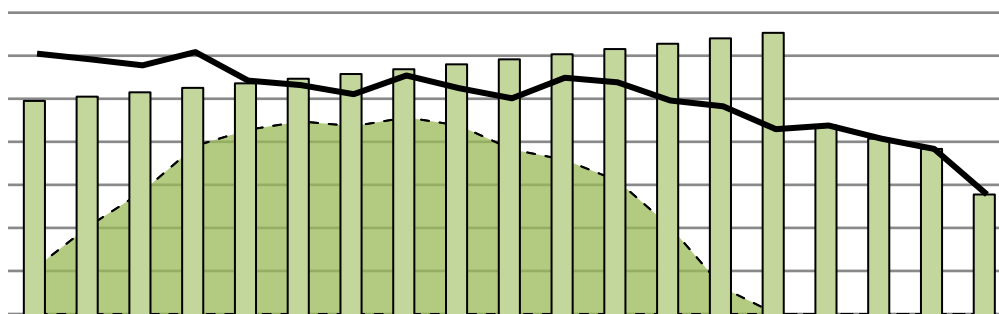
Working Draft for Discussion Purposes Only

Purpose

- To analyze the system cost and ratepayer impact of partially financing the cost of the global adjustment (GA) by incurring debt to defer some of the cost.
- The following slides provide several different scenarios for debt financing the GA and show:
 - The amount of debt incurred;
 - Impact on total system cost; and
 - Impact on residential bills.
- Additional considerations and risks associated with debt financing the GA are discussed at the end of the presentation.

Indicative Proposal to Debt Finance the Global Adjustment

- For the purpose of discussion, the amount of GA paid by ratepayers in each year over the 20 year forecast period is set at a fixed amount until the accumulated debt has been completely paid off.
- All scenarios consider 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, ratepayer costs will be “smoothed” 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.
- Analysis is based on forecasts from Independent Electricity System Operator’s (IESO) Ontario Planning Outlook.



Sample debt financing: Ratepayers pay less than the cost of GA in early years, accumulating \$9 billion of debt that is paid off in 2031 by paying more than the cost of GA in later years.

GA Debt Financing Scenarios

1. Status Quo

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

2. Maximize short-term cost reductions

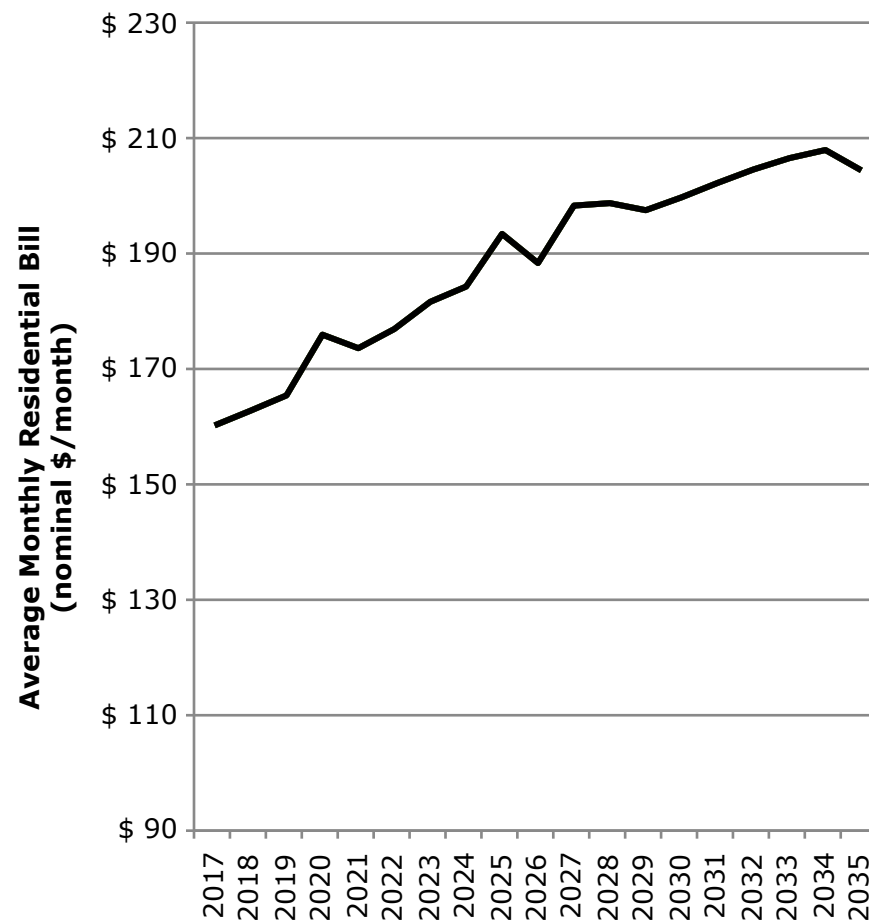
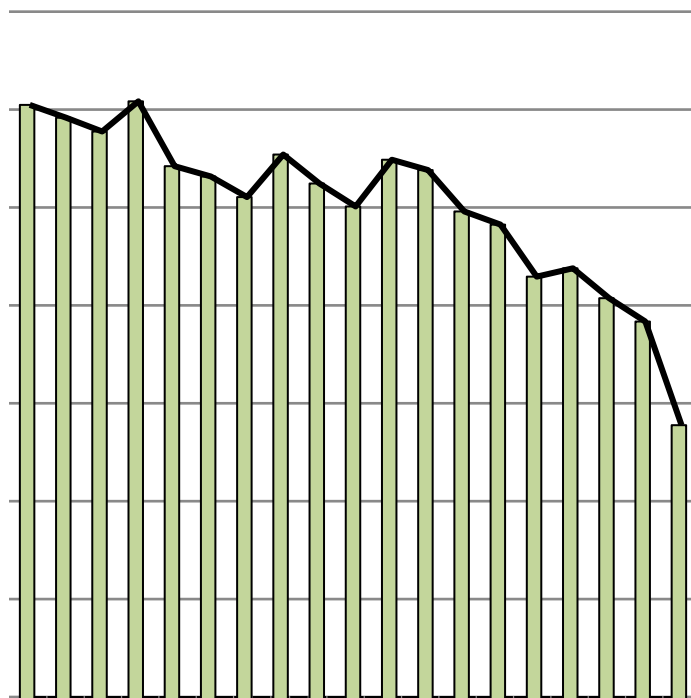
- This scenario considers the maximum amount by which ratepayer GA costs in 2017 can be reduced such that the accumulated debt is paid off by 2035 under two different debt interest rates (3% and 8% respectively).

3. Maximize short-term cost reductions with limits

- The same as scenario 2 but with GA over-payments capped at \$1 billion above the true cost of GA in any given year.

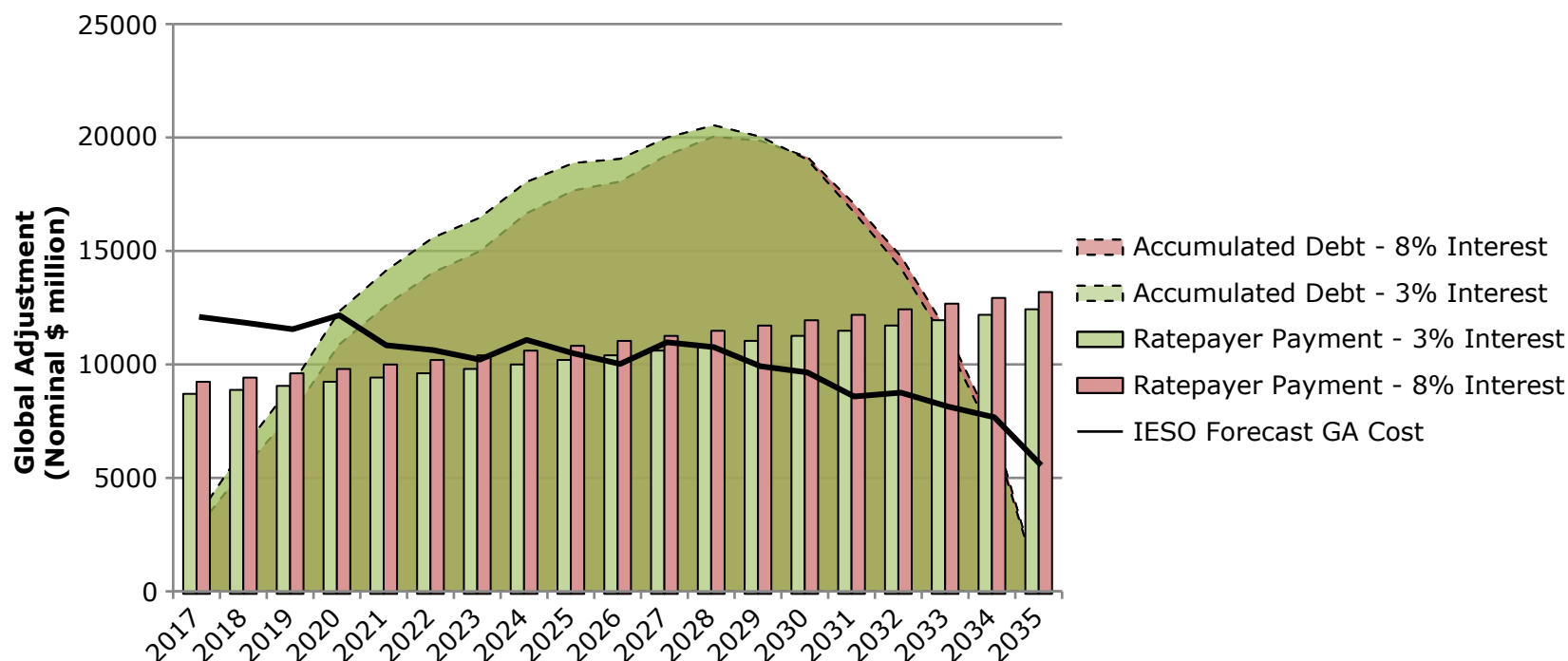
1. Status Quo – Global and Residential Impacts

- Ratepayers continue paying the true cost of GA.



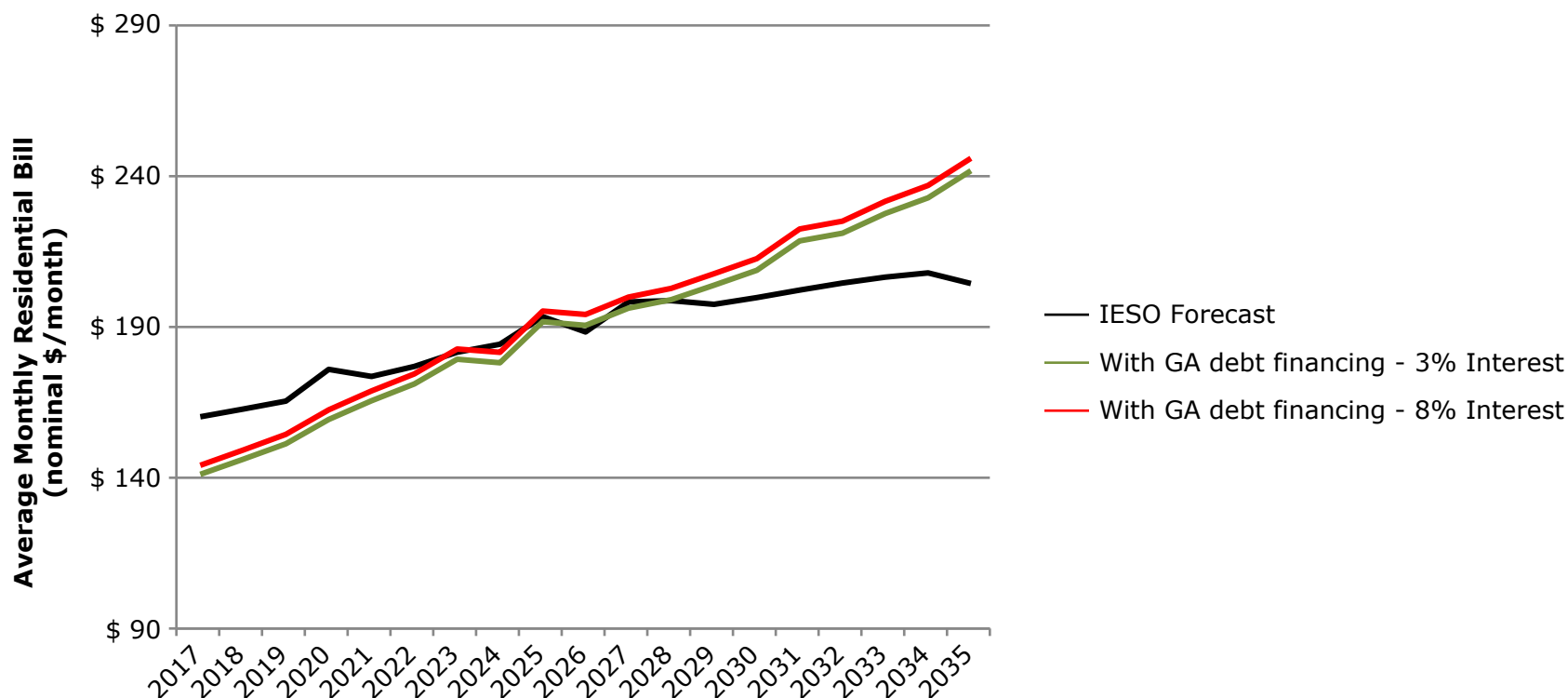
2. Maximize Short-term Cost Reduction – Global Impacts

- In this scenario, the starting ratepayer GA payments in 2017 are lowered as far as possible so that the accumulated debt is fully paid in 2035.
- Two debt interest rates are considered, 3% (green) and 8% (red).



- A **reduction of 24-28% in GA payments** in 2017 is possible in this scenario by **accumulating up to \$20 billion of debt**.
- Further reductions would require additional payments beyond those indicated in order to pay off the debt by 2035.

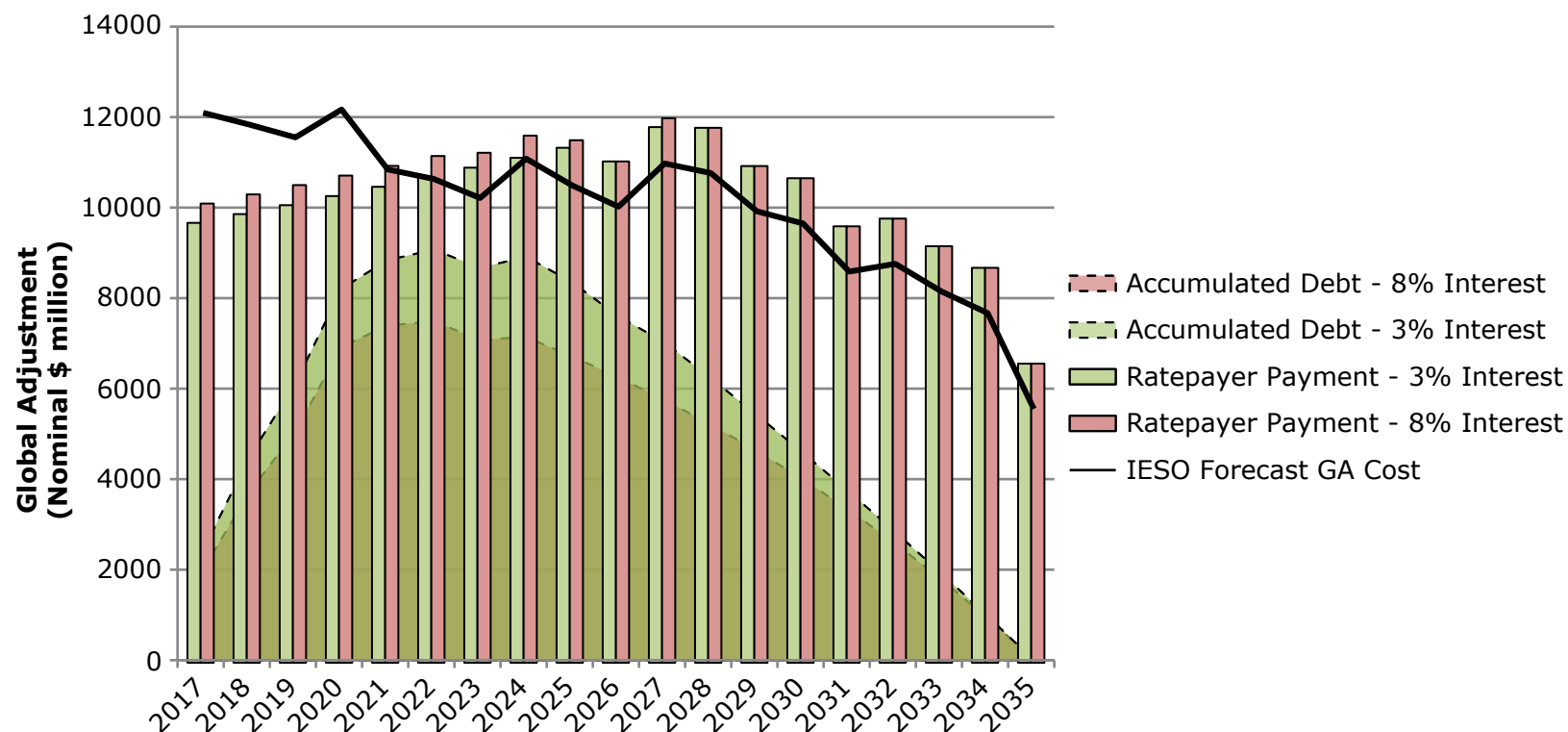
2. Maximize Short-term Cost Reduction – Residential Impacts



- This scenario results in a **short-term reduction of up \$16-\$19/month** in 2017 at the cost of a **long-term increase of up to \$37-\$42/month** in 2035 relative to the IESO forecast.
- Due to the significant increase in electricity bills in later years, the following scenario #3 considers limiting the amount above the true cost of the GA that is paid by ratepayers.

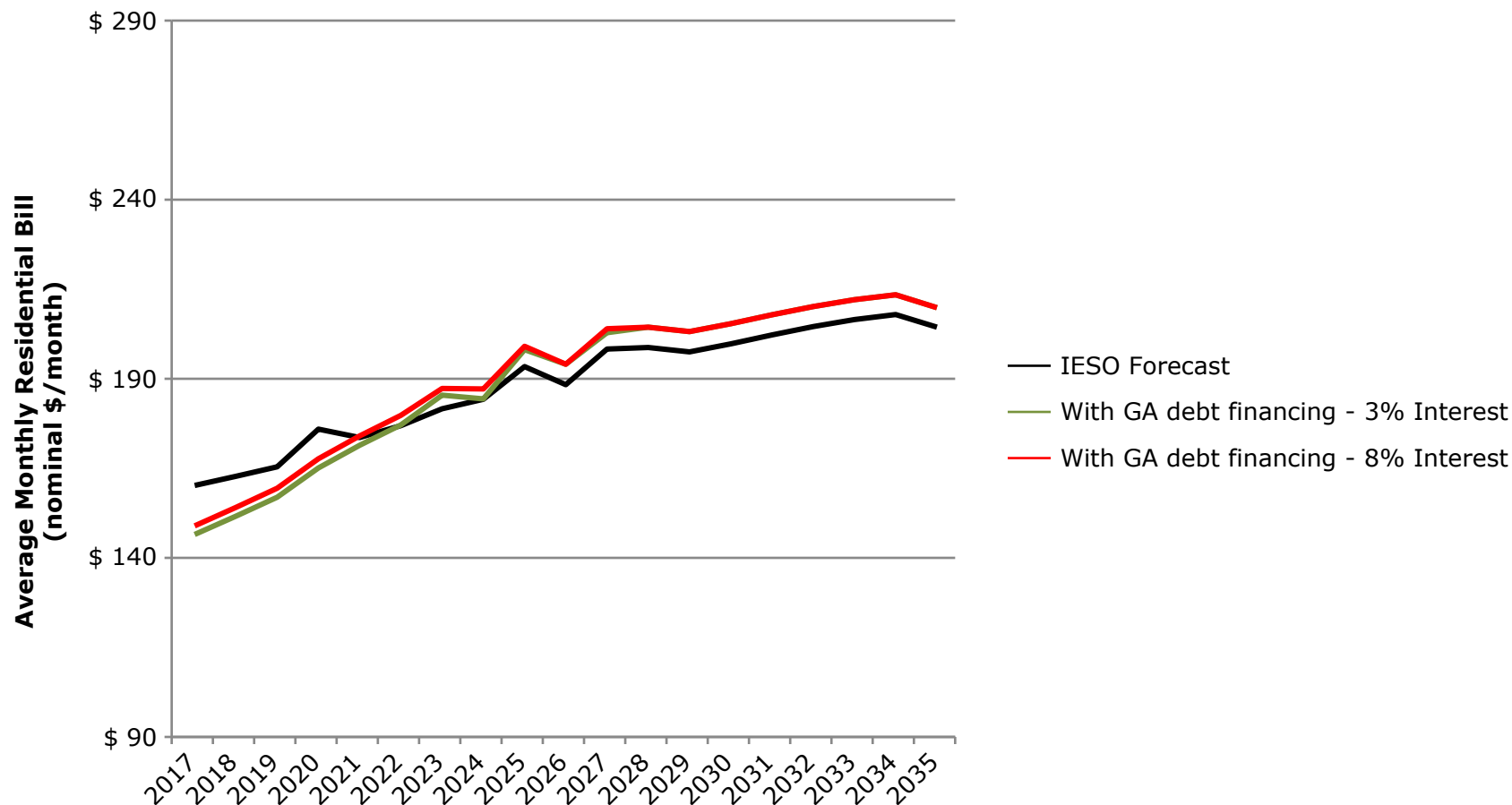
3. Maximize Short-term Cost Reduction with Limits – Global Impacts

- In this scenario, the starting ratepayer GA payments in 2017 are lowered as far as possible so that the accumulated debt is fully paid in 2035 subject to limiting ratepayer over-payments to no more than \$1 billion above the true cost of GA.



- A reduction of 17-20% in GA payments in 2017 is possible in this scenario by accumulating up to \$9 billion of debt.

3. Maximize Short-term Cost Reduction with Limits – Residential Impacts



- This scenario results in a **short-term reduction of up \$11-\$14/month** in 2017 at the cost of a **long-term increase of up to \$6/month** in 2025-2035 relative to the IESO forecast.

Additional Considerations and Risks

- Incurring debt 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 accruing large amounts of debt to reduce electricity rates. This debt would be highly sensitive to interest rates which could extend repayment timelines or put significant pressure on rates.
- GA and HOEP provide a natural hedge against each other. Smoothing only one component would lead to greater price volatility. 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.
- Conversely, if GA is higher than forecast (i.e., because of lower HOEP or additional out-of-market costs) the debt would increase to a higher amount, requiring additional debt service payments and/or a longer recovery period.
- Should Ontario 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.
- Such changes to the financing of the global adjustment may require legislative or other amendments.