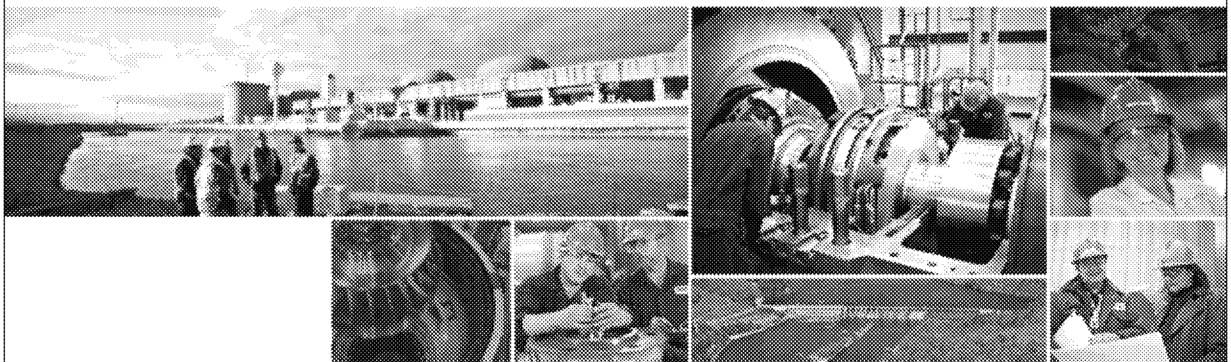

Customer Bill Reduction Opportunities

Briefing to the Deputy Minister of Energy and Chief of Staff
June 14, 2017

ONTARIO POWER GENERATION

Executive Summary

- **Purpose:** This analysis was prepared in response to a May 25th request for potential actions that can be taken to minimize the rate of rise in electricity prices after the Fair Hydro Plan 2% cap rolls off, which the Province has estimated to be in the order of 6.8% per year.
- **Results:** The options presented below can reduce the rate of increase by up to 3.7%.

Reduction to RPP Customer Annual Rate Increases during the straight line period

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Sector Opportunity:	Rate Impact
1) Conservation program adjustments	(1.5)%
2) ICI program adjustments	(1.3) - (1.5)%

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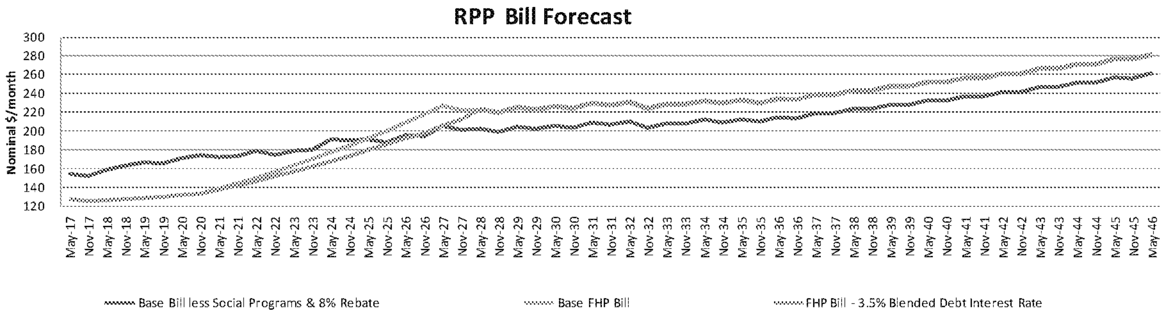
OPG 1: Enhance FHP Borrowing

Reduced interest rates on FHP debt through combination of:

- Clear and supportive regulations and contracts to support a favourable credit rating
- Maximize the benefit of current short/medium term borrowing costs and assume these rates will continue
    - See further assumptions on the following page



Case	Total Debt ($B)	Change in Straight Line Period Rate of Bill Increase (%/yr)	Recovery Charge Max % of Bill (%)	Amortization Start Year
3.5% Interest Rate	28.1	-1.7%	9.3%	2028

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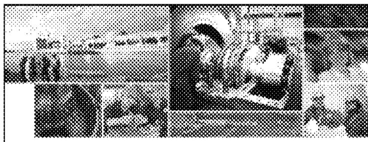
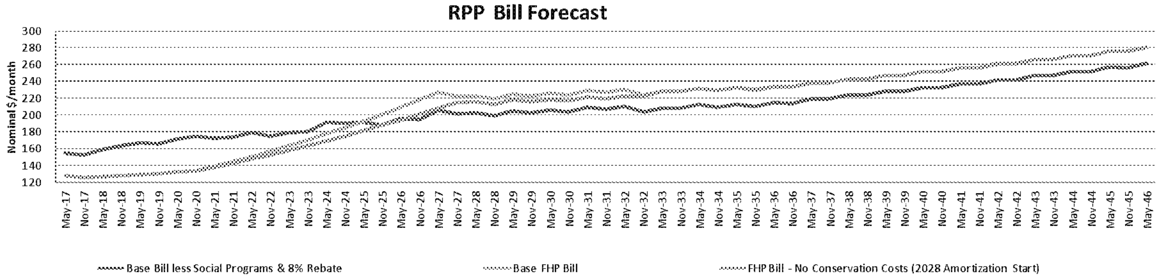


Sector 1: Conservation Program Adjustments

Adjust or realign the Conservation Programs to reduce the impact on residential customers

- Conservation programs directly impact the Global Adjustment and can be reconsidered under current market conditions
  - In 2016, 93% of the hours had baseload generation on the margin. While these conditions prevail, any additional demand can be met with low marginal cost and zero incremental CO2 from hydro that was spilled or wind generation that was exported.
  - The new capacity requirements that conversation programs seek to defer or eliminate are years away
  - Increased emphasis on the Ratepayer Impact Measure (RIM) could further align conservation spending with objectives of lowering customer price or reducing GHG at a reasonable cost
- Shifting emphasis to low cost conservation programs such as codes and standards that have long-term impact on demand and deferring other more immediate programs can reduce overall GA by over $500M per year



Case	Total Debt ($B)	Change in Straight Line Period Rate of Bill Increase (%/yr)	Recovery Charge Max % of Bill (%)	Amortization Start Year
Conservation Program Adjustments (2028)	24.5	-1.5%	9.3%	2028

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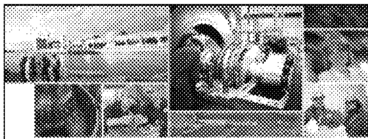
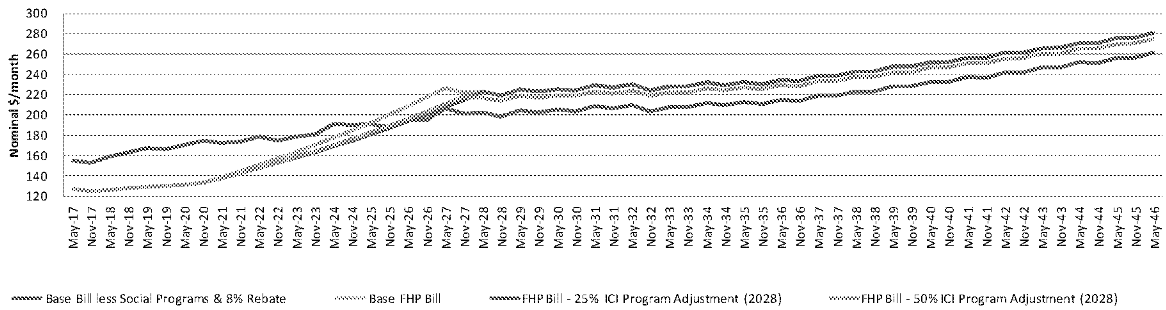


Sector 2: ICI Program Adjustments

Adjust or realign the Industrial Conservation Initiative (ICI) to reduce the impact on residential customers

- A review of the ICI mechanism may reduce the costs shifted to residential customers. A decrease of 25%-50% of the costs borne by residential customers is illustrated below
  - The ICI rewards large customer for avoiding peak days, but has the consequence of shifting Global Adjustment (GA) costs to residential and small commercial customers. Similar to Conservation programs, the ICI program reduces demand at a time when there is a capacity surplus and presents an opportunity for program redesign.
  - GA costs vary because of the difference between the market price (HOEP) and fixed, contracted costs for generators plus conservation programs.
  - Costs shifted from the ICI program in 2017 are ~$1.5B and decrease to $0.8B by 2035 due an increasing portion of the costs being covered by the HOEP (and paid by ICI customers) with the expected increase in HOEP over time
  - To sustain the same level of benefits to large customers, the government will need to consider alternative mechanisms

RPP Bill Forecast



Case	Total Debt ($B)	Change in Straight Line Period Rate of Bill Increase (%/yr)	Recovery Charge Max % of Bill (%)	Amortization Start Year
25% ICI Program Adjustment (2028)	26.1	-1.3%	9.7%	2028
50% ICI Program Adjustment (2028)	23.8	-1.5%	9.0%	2028

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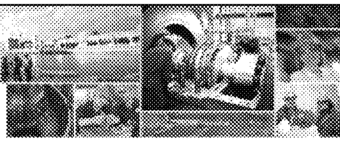
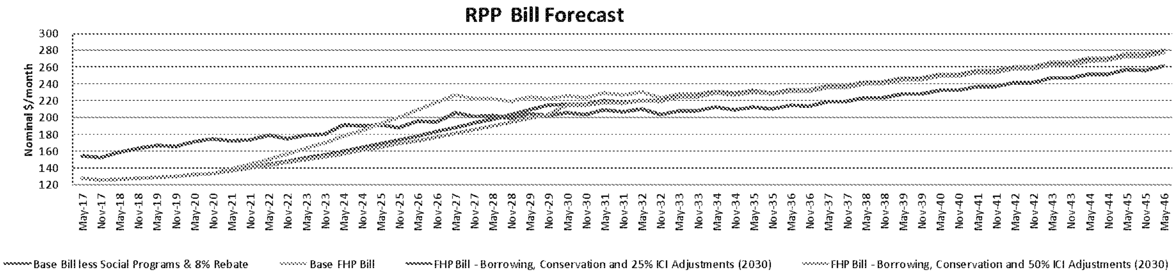


Combined Impacts

Combine the FHP borrowing, Conservation programs, and ICI adjustments options

- Combining the three options above could significantly reduce the rate of rise in customer bills following the inflation-capped period
  - Combining these options reduces costs accumulated during the inflationary-capped period and allows the deferral of amortization until 2030
  - Impact is to reduce the rate of rise of customer bills by as much as 3.1 to 3.7 percentage points over the straight line increase period



Case	Amortization Start Year	Total Debt ($B)	Change in Straight Line Period Rate of Bill Increase (%/yr)	Recovery Charge Max % of Bill (%)
Combined Borrowing, Conservation, and 25% ICI Adjustments	**2030**	26.2	-3.1%	9.5%
Combined Borrowing, Conservation, and 50% ICI Adjustments	**2030**	26.7	-3.7%	9.7%

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