Ontario

MINISTRY OF
ENERGY

Rate Mitigation Plan – GA Smoothing Options

Working Draft

February 3, 2017

CONFIDENTIAL DRAFT

1. Residential Bills Lowered 25% (with Tax-Base Funded 8% Rebate and Social Programs)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

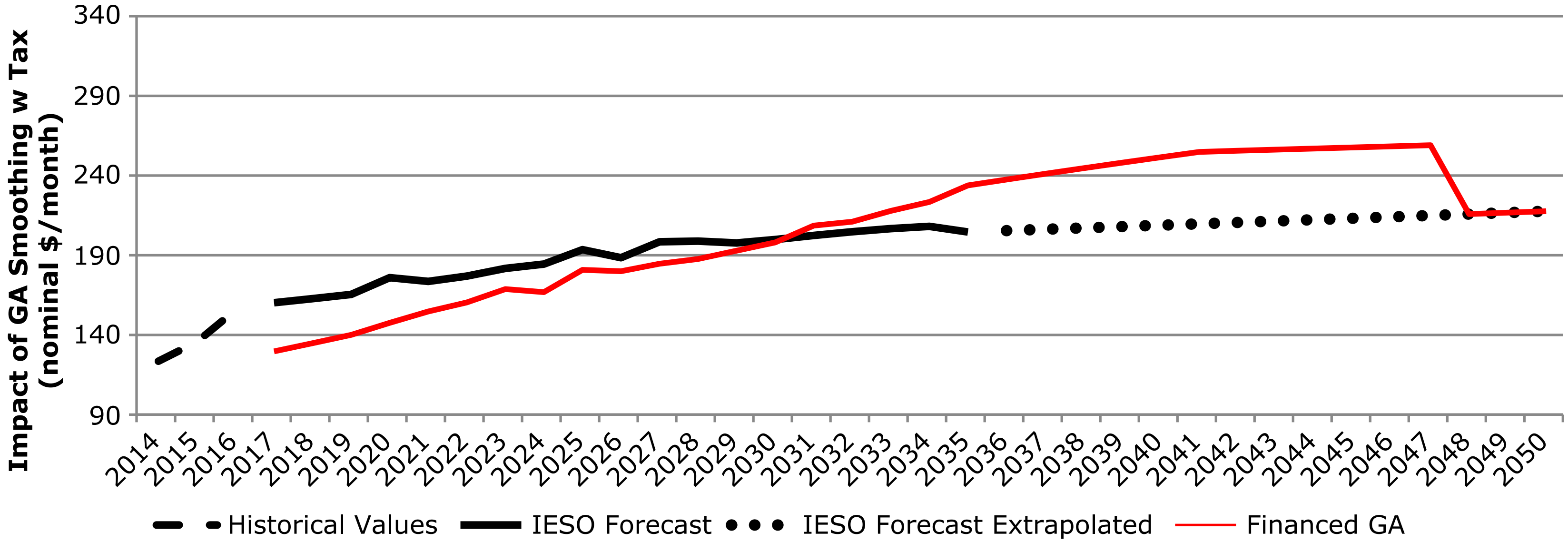
Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**163**	**172**	**175**	**178**	**189**	**187**
Total Bill (excludes HST)	145	153	155	158	168	165
Impact of GA Financing		-27	-25	-22	-25	-17
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		123	128	133	140	146
8% rebate		-10	-10	-11	-11	-12
HST		16	17	17	18	19
Revised Bill (includes HST)	**163**	**129**	**134**	**139**	**147**	**153**
Change from Total Bill (includes HST)		-43	-41	-39	-42	-34
Year-over-Year Change		-21%	4%	4%	6%	4%
Change from Forecast		**-25%**	**-23%**	**-22%**	**-22%**	**-18%**

Average Class A ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Impact of GA Financing		-22	-20	-19	-21	-14
Impact of Tax-Basing Social Programs		-3	-3	-3	-3	-3
Revised Total (excludes HST)	**90**	**65**	**69**	**66**	**71**	**79**
Change from Total Bill (excludes HST)		-26	-24	-22	-24	-17
Year-over-Year Change		-27%	6%	-5%	8%	11%
Change from Forecast		**-28%**	**-26%**	**-25%**	**-25%**	**-18%**

Fiscal Impact ($M)	17-18	18-19	19-20	20-21
Tax-Basing Social Programs	362	409	450	485
Change from Status Quo Rebate	TBC	TBC	TBC	TBC

Notes: Based on IESO's revised OPO forecast as of December 2016. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

1. GA Smoothing (Borrow $5 billion in 2017)



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average Monthly Residential Bill Impact of GA Smoothing, pre-tax *($/month)*	-27	-25	-22	-25	-17	-15	-11	-16	-11	-8	-12	-10	-4	-2	5	6	10	14	26	28	31	33	35	38	40	40	40	40	39	39	39	0
Total Accumulated Debt *($ billion)*	5	9	14	19	23	27	30	34	38	41	46	50	53	56	58	60	61	62	60	58	55	52	48	43	38	33	27	20	14	7	0	0
Total Change in Accumulated Debt *($ billion)*	5	5	4	5	4	4	3	4	4	3	4	4	3	3	2	2	1	1	-2	-2	-3	-3	-4	-5	-5	-6	-6	-6	-6	-7	-7	0

Notes: Assumes 30 year financing period and a nominal interest rate of 5.12% per year (compounded annually). Ratepayer GA payments increase annually beyond 2017 at inflation with GA over-payments capped at $7.5 billion above the true cost of GA in any given year. IESO forecast is based on IESO's revised OPO forecast as of December 2016. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

2. Residential Bills Lowered 33% (with Tax-Base Funded 8% Rebate and Social Programs)

- Total bill below is based on a revised IESO forecast. See footnotes for more information.

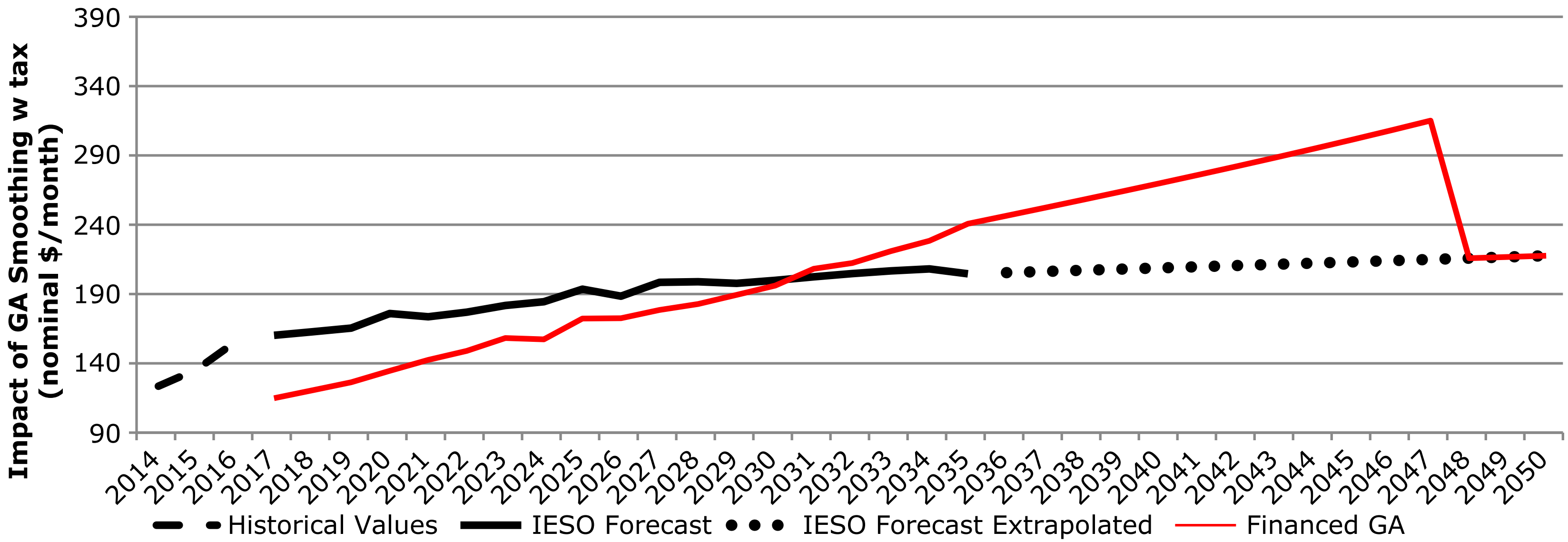
Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Total Bill (includes HST)	**163**	**172**	**175**	**178**	**189**	**187**
Total Bill (excludes HST)	145	153	155	158	168	165
Impact of GA Financing		-40	-37	-35	-37	-28
Impact of Tax-Basing Social Programs		-2	-2	-2	-3	-3
Subtotal		110	115	120	128	135
8% rebate		-9	-9	-10	-10	-11
HST		14	15	16	17	18
Revised Bill (includes HST)	**163**	**116**	**121**	**126**	**135**	**142**
Change from Total Bill (includes HST)		-56	-54	-52	-54	-45
Year-over-Year Change		-29%	5%	5%	7%	5%
Change from Forecast		**-33%**	**-31%**	**-29%**	**-29%**	**-24%**

Average Class A ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Total (excludes HST)	**90**	**91**	**93**	**88**	**95**	**96**
Impact of GA Financing		-33	-31	-29	-30	-23
Impact of Tax-Basing Social Programs		-3	-3	-3	-3	-3
Revised Total (excludes HST)	**90**	**54**	**59**	**56**	**61**	**70**
Change from Total Bill (includes HST)		-37	-34	-32	-34	-26
Year-over-Year Change		-39%	8%	-5%	10%	14%
Change from Forecast		**-40%**	**-37%**	**-36%**	**-35%**	**-27%**

Fiscal Impact ($M)	17-18	18-19	19-20	20-21
Tax-Basing Social Programs	362	409	450	485
Change from Status Quo Rebate	TBC	TBC	TBC	TBC

Notes: Based on IESO's revised OPO forecast as of December 2016. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

2. GA Smoothing (Borrow $7 billion in 2017)



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average Monthly Residential Bill Impact of GA Smoothing, pre-tax *($/month)*	-40	-37	-35	-37	-28	-25	-21	-24	-19	-14	-18	-14	-7	-3	5	7	13	18	32	36	41	45	50	54	59	63	68	73	78	83	89	0
Total Accumulated Debt *($ billion)*	7	14	21	28	35	41	47	53	59	65	71	77	83	88	91	95	97	99	98	96	94	90	85	80	73	64	55	44	31	16	0	0
Total Change in Accumulated Debt *($ billion)*	7	7	7	8	6	6	6	7	6	6	6	6	5	5	4	3	3	2	-1	-2	-3	-4	-5	-6	-7	-8	-10	-11	-13	-14	-16	0

Notes: Assumes 30 year financing period and a nominal interest rate of 5.12% per year (compounded annually). Ratepayer GA payments increase annually beyond 2017 at 2.7 percentage points above inflation with no limit on GA over-payments. IESO forecast is based on IESO's revised OPO forecast as of December 2016. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.

3. Residential Bills Lowered 25% (with Tax-Base Funded 15% Rebate)

- Total bill below is based on a revised IESO forecast and is adjusted by the Ministry to reflect the proposed expansion of RRRP and OESP. See footnotes for more information.

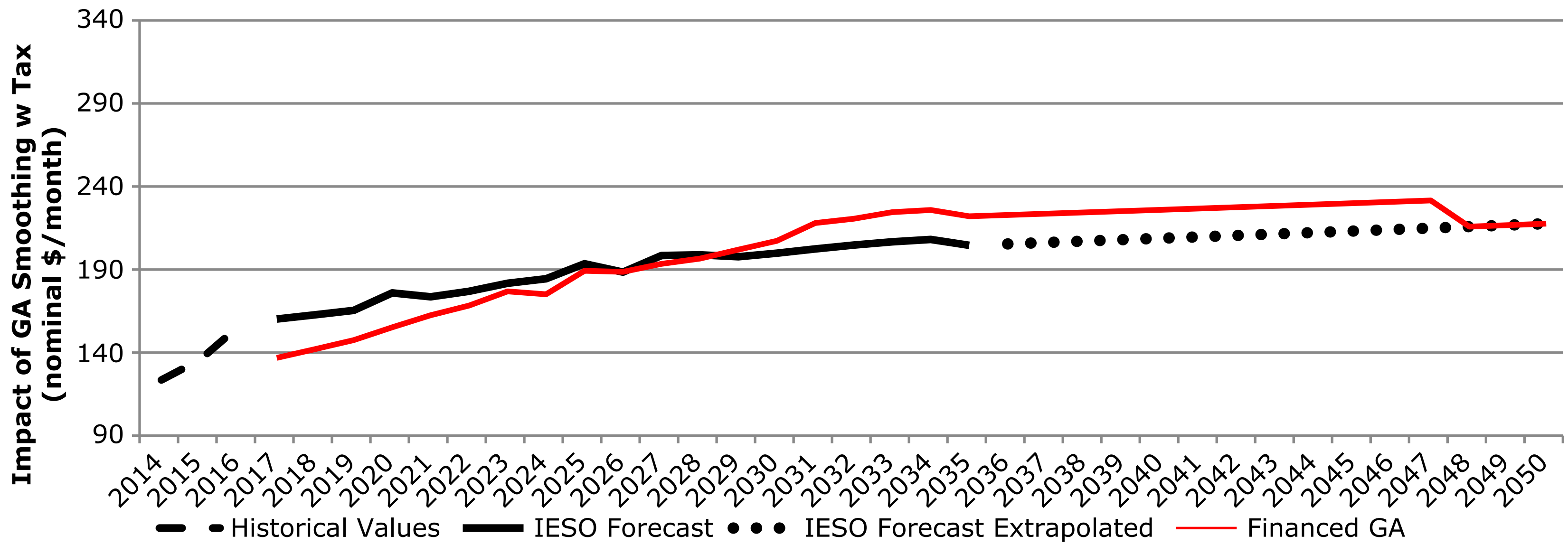
Residential (750 kWh/month)	Actual 2016	2017	2018	2019	2020	2021
Social Programs Expansion		0.5	0.7	0.9	1.1	1.2
Total Bill (includes HST)	**163**	**173**	**176**	**179**	**191**	**188**
Total Bill (excludes HST)	145	153	156	158	169	167
Impact of GA Financing		-21	-18	-16	-18	-10
Subtotal		132	137	143	150	157
15% rebate		-20	-21	-21	-23	-24
HST		17	18	19	20	20
Revised Bill (includes HST)	**163**	**130**	**135**	**140**	**147**	**154**
Change from Total Bill (includes HST)		-43	-41	-39	-44	-34
Year-over-Year Change		-20%	4%	4%	5%	4%
Change from Forecast		**-25%**	**-23%**	**-22%**	**-23%**	**-18%**

Average Class A ($/MWh)	Actual 2016	2017	2018	2019	2020	2021
Social Programs Expansion		0.7	1.0	1.3	1.4	1.6
Total (excludes HST)	**90**	**92**	**94**	**89**	**96**	**98**
Impact of GA Financing		-17	-15	-13	-15	-8
Revised Total (excludes HST)	**90**	**74**	**79**	**76**	**81**	**89**
Change from Total Bill (includes HST)		-18	-15	-13	-15	-9
Year-over-Year Change		-17%	6%	-4%	7%	10%
Change from Forecast		**-19%**	**-16%**	**-15%**	**-16%**	**-8%**

Fiscal Impact ($M)	17-18	18-19	19-20	20-21
Change from Status Quo Rebate	804	984	841	1127
Change from Status Quo Rebate	TBC	TBC	TBC	TBC

Notes: Based on IESO's revised OPO forecast as of December 2016 and adjusted by the Ministry to estimate a 1,500 kWh consumer connected to Toronto Hydro. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer. "Social programs" refers to existing RRRP and OESP. While initiatives would take several months to implement, the above estimate for 2017 reflects a full-year impact. The 8% rebate above represents savings compared to status quo due to the reduction in the sub-total from GA financing.

3. GA Smoothing (Borrow $4 billion in 2017)



	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048
Average Monthly Residential Bill Impact of GA Smoothing, pre-tax *($/month)*	-21	-18	-16	-18	-10	-8	-4	-8	-4	0	-4	-2	4	7	14	14	16	16	15	15	15	15	15	15	15	15	15	15	15	15	15	0
Total Accumulated Debt *($ billion)*	4	7	10	14	16	19	20	23	25	26	28	30	31	31	30	29	28	27	25	23	22	20	18	16	14	12	10	8	5	3	0	0
Total Change in Accumulated Debt *($ billion)*	4	3	3	4	2	2	2	3	2	1	2	2	1	0	-1	-1	-1	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-3	-3	0

Notes: Assumes 30 year financing period and a nominal interest rate of 5.12% per year (compounded annually). Ratepayer GA payments increase annually beyond 2017 at inflation with a limit of $2.8 billion above the true cost of GA in any given year. IESO forecast is based on IESO's revised OPO forecast as of December 2016. Includes the cancellation of LRP II and EFW, expansion of ICI. Does not include smoothed OPG rates. Above residential bill is based on a 750 kWh per month Toronto Hydro customer.