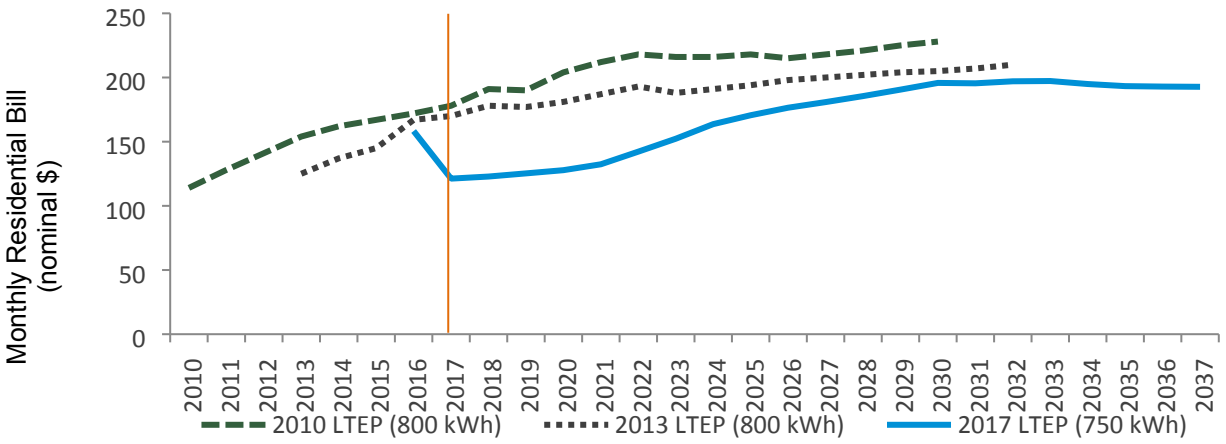
Long-Term Energy Plan: Part 2

Premier, this week at Cabinet we have part two of the Long-Term Energy Plan. As you will recall, part one focused on the major initiatives that will be featured in the document itself: grid modernization, improving value for consumers and giving them more choice, conservation and innovation, meeting climate objectives, and supporting Indigenous capacity and leadership.

This submission comes after a significant amount of modelling by the IESO, and shows final outlooks for:

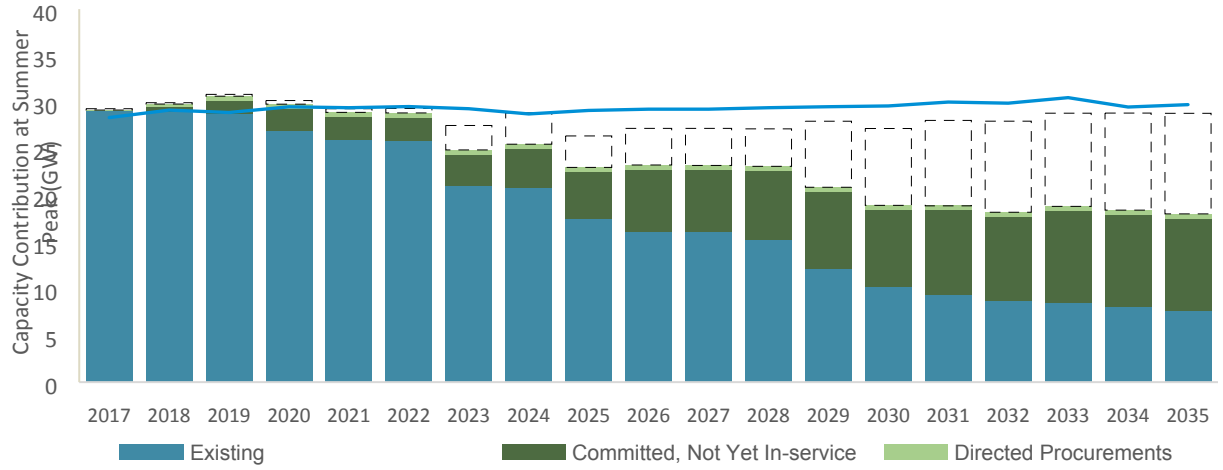
- Price Projections for the Average Residential Hydro Bill
- Price Projections for the Average Large Industrials and Small-Medium Enterprises
- Greenhouse Gas Emissions Forecast (both electricity and fuels)
- Electricity Supply and Demand
- Fuels Supply and Demand, and Natural Gas Price Projections

The most important piece here from a public perspective, following on the work of the Fair Hydro Plan, will be the residential price projections. As you will see from the chart below, residential rate projections will be lower throughout the entire 20 year planning horizon, compared to the 2010 and 2013 LTEP projections. The main factor in this, particularly in the early years, is the Fair Hydro Plan reallocation of the Global Adjustment, and associated costs that were removed from the system. Additionally, to deal with the debt repayment in the out-years, and to take further actions to smooth out the price increases, the price forecast includes significant cost savings from the IESO's market renewal initiative. Market renewal involves competitive auctions for capacity and related services, where the IESO contracts on a shorter term basis to address system needs as they arise. Given how quickly new technologies are emerging, we no longer need to issue procurements for hundreds of Megawatts and sign 20-year contracts with generators.

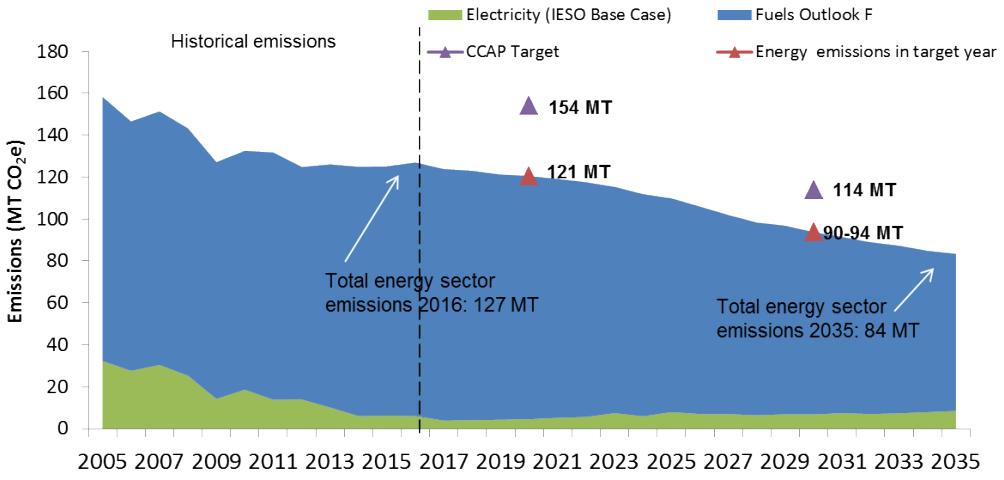


This leads us to the supply and demand outlooks in LTEP. Ontario continues to be in a very good supply situation, and does not need new to procure additional resources until the early 2020s (which will be done through market renewal, as mentioned above). The need for new resources appears as existing contracts expire in the 2020s, and gives us a great deal flexibility to meet our needs at the lowest cost, and embrace new technologies as they arise for the benefit of ratepayers.

Electricity demand, on the other hand, remains relatively flat over the next 20 years. This forecast includes increased uptake of electric vehicles (we assume 2.4 million on the road by 2035) and greater electrification throughout the economy. The reason demand can remain flat despite increased electrification is that households are becoming significantly more efficient (newer appliances, better insulation, smart thermostats to regulate energy use). Coupled with efficiency are our efforts in conservation, which do much of the heavy lifting to keep demand flat as the economy grows.

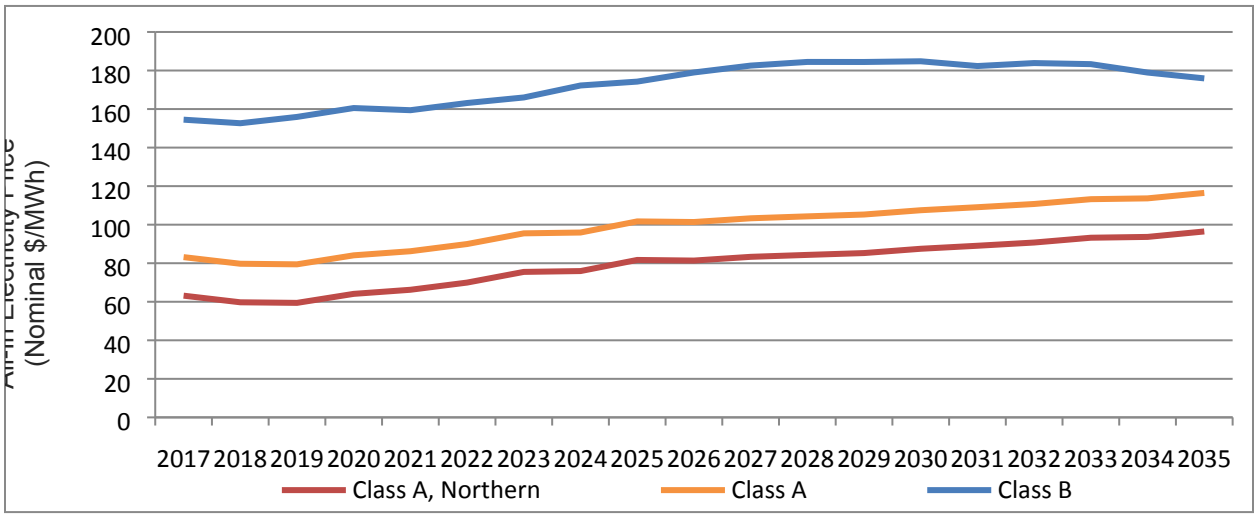


The LTEP will show an integrated GHG emissions forecast for the entire energy sector. It will show that when combining GHGs from the electricity and fuels (i.e. natural gas), we expect overall GHG emissions from energy use to decrease by 35% by 2035, putting us ahead of our Climate Change Action Plan targets (see chart below). You will note that the line for electricity-specific GHGs, while very low already, could see a slight uptick as nuclear units come offline for refurbishment in the 2020s. This is because, for cost purposes, the IESO assumes that natural gas (which is currently the cheapest source of generation) will be used to fill the gap – hence the GHG increase. However, we know that new technologies like storage, demand response, and distributed generation are on track to be cost competitive with gas in that timeframe, and market renewal auctions will let them bid in to replace the gas assets in the system. So the text of the LTEP will outline that narrative clearly for the public, while showing low costs, and an overall *energy* sector emissions profile that is decreasing significantly. *Note: larger versions of charts are available in the cabinet deck.*



For commercial and industrial consumers, the chart below outlines their projected costs. Class A and Northern industrial consumers will continue to benefit from greatly reduced electricity prices. Price increases are projected to be held to inflation over the 20 year period. For Class A customers (ICI program), the actual price they pay is dependent on their ability to shift electricity consumption to avoid peak hours, so many can achieve prices that are much lower than depicted below.

You will note that Class B customers pay a higher price per MWh. These are SMEs who are not eligible for ICI (even with the lowered threshold), but are too big to qualify for the 25% reduction from the Fair Hydro Plan. These customers will benefit from the removal of the Debt Retirement Charge from their bills in April 2018, but we recognize that more support is needed for these businesses. Energy is working with MEDG and key stakeholder associations on what rate mitigation packages might look like for these customers, and we will signal this work in LTEP.



Overall, the LTEP will demonstrate the considerable actions the government has taken to reduce electricity rates in the province. As we signalled at the time of the Fair Hydro Plan, the LTEP also demonstrates the work we have done to make the structural changes in the system to keep costs low and predictable for the coming decades.

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Phil Donelson, 647-530-6642