

TOUGH CHOICES: Addressing Ontario's Power Needs

***Final Report of the Electricity Conservation
and Supply Task Force***

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Membership

§ **Chair: Courtney Pratt**, Toronto Hydro

§ **Members include:**

- **Bruce Ander**, Canadian Energy Efficiency Alliance
- **John Brace**, Association of Power Producers
- **Gunars Ceksters**, Enersource (Mississauga Hydro)
- **Mike Crawley**, AIM Powergen Corp (Wind)
- **Don Gibson**, McCarthy Tetrault
- **Dave Goulding**, IMO
- **Duncan Hawthorne**, Bruce Power
- **Ed Houghton**, Electricity Distributors Association
- **Rebecca Macdonald**, Energy Savings Income Fund
- **Don MacKinnon**, Power Workers Union
- **David McFadden**, Stakeholder Alliance
- **Paul Norris**, Ontario Waterpower Association
- **Ron Osborne**, OPG**
- **Jan Peeters**, Olameter
- **Tom Parkinson**, Hydro One
- **Bryne Purchase**, Ministry of Energy
- **Mary-Ellen Richardson**, Association of Major Power Consumers
- **Donna Cansfield**, Parliamentary Assistant to the Minister of Energy
- **Michael Lio**, Consumers Council of Canada*

* Appointment not confirmed due to election call

** Until November 2003

Broad Consensus

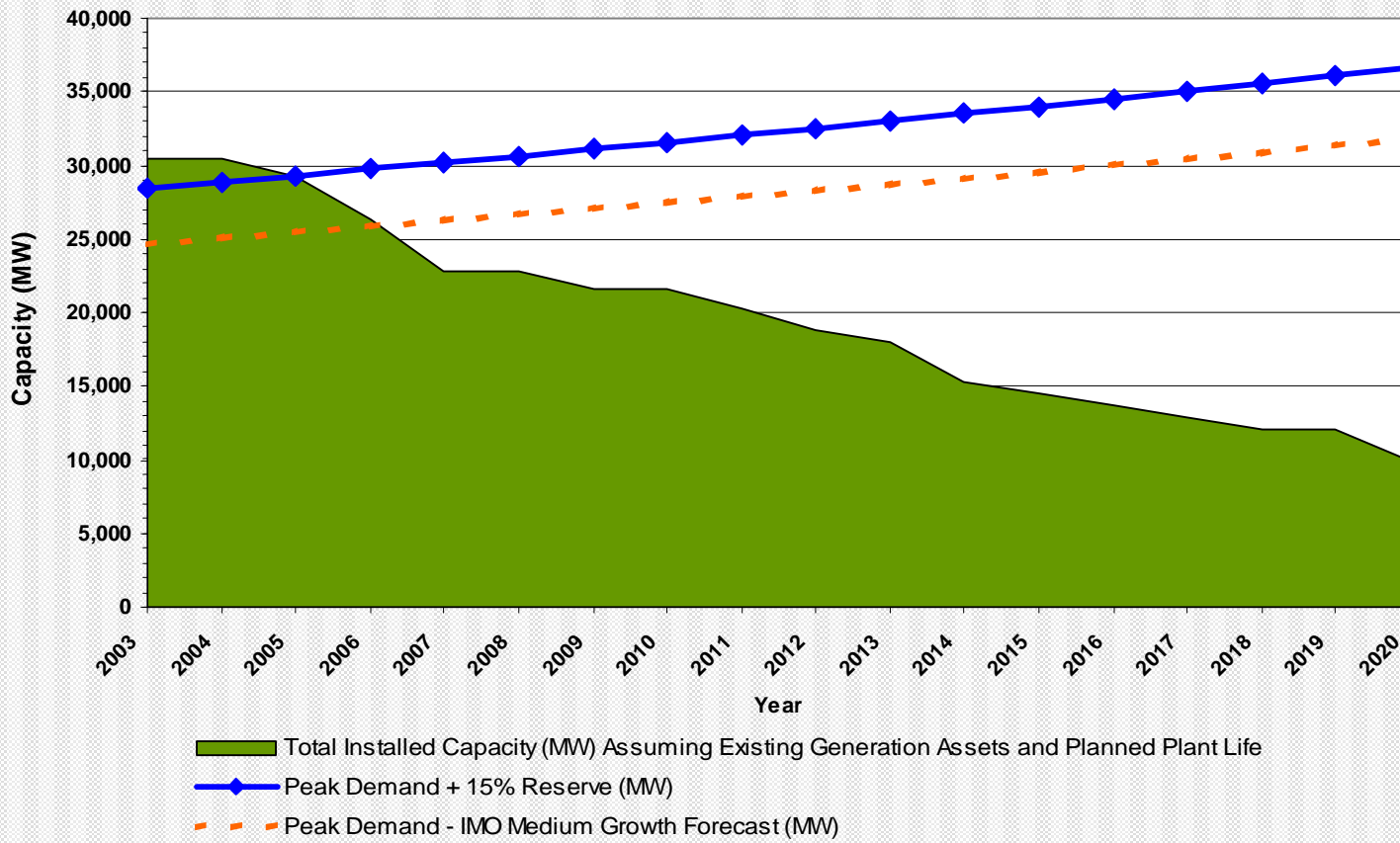
- § Task Force represents a broad cross-section of energy producers and consumers
- § Members unanimously support the broad direction set out in this report
- § Provides solid industry and consumer support for major market reforms

Task Force Mandate

- § Action Plan to attract new generation and encourage conservation.
- § Identify barriers to long-term electricity supply and conservation and recommend solutions.
- § Enhance reliability and responsiveness of grid.
- § Principles: security of supply, adequacy, affordability, reliability, environmental soundness, competitiveness of Ontario economy.

The Challenge

Existing Generation vs. Peak Demand



Key Messages

- § Everyone needs to be involved in meeting looming electricity supply shortfall: consumers, suppliers, governments, regulators.
- § New circumstances require new approaches.
- § Tough choices will be required.
- § Need to plan and contract for new supply.
- § Conservation is essential.
- § Diverse supply is needed to provide stable prices.
- § Reliable, competitively-priced power supply is a key to growth investment and jobs.

What's Changed?

- § The loss of credit-worthy electricity traders in the wake of the Enron debacle.
- § Natural gas price increases and volatility.
- § Delays and cost increases in Pickering A restart.
- § Unexpectedly volatile prices in summer of 2002.
- § Government commitment to coal phase-out by 2007.
- § Commitment to renewable and conservation targets, plus Kyoto compliance.
- § Government commitment to ongoing public ownership.
- § August 14 blackout.
- § US government support for domestic solutions: new nuclear, clean coal, hydrogen and renewables.

Task Force Approach

- § Met nearly 100 organizations and individuals.
- § Started from what consumers, large and small, want and need.
- § Agreed on desired end state.
- § Focused on practical solutions.

A Plan that Works for All Consumers

Recommendations

- § Stable, regulated prices.
- § Blended price for default supply, could include:
 - § “Heritage Power”
 - § Longer term contracts
 - § Spot and short-term contracts
- § Continuing retail choice.
- § Coordinated consumer information.
- § Peak/off-peak prices for consumers with “smart meters”.

Conservation: Our Recommendations

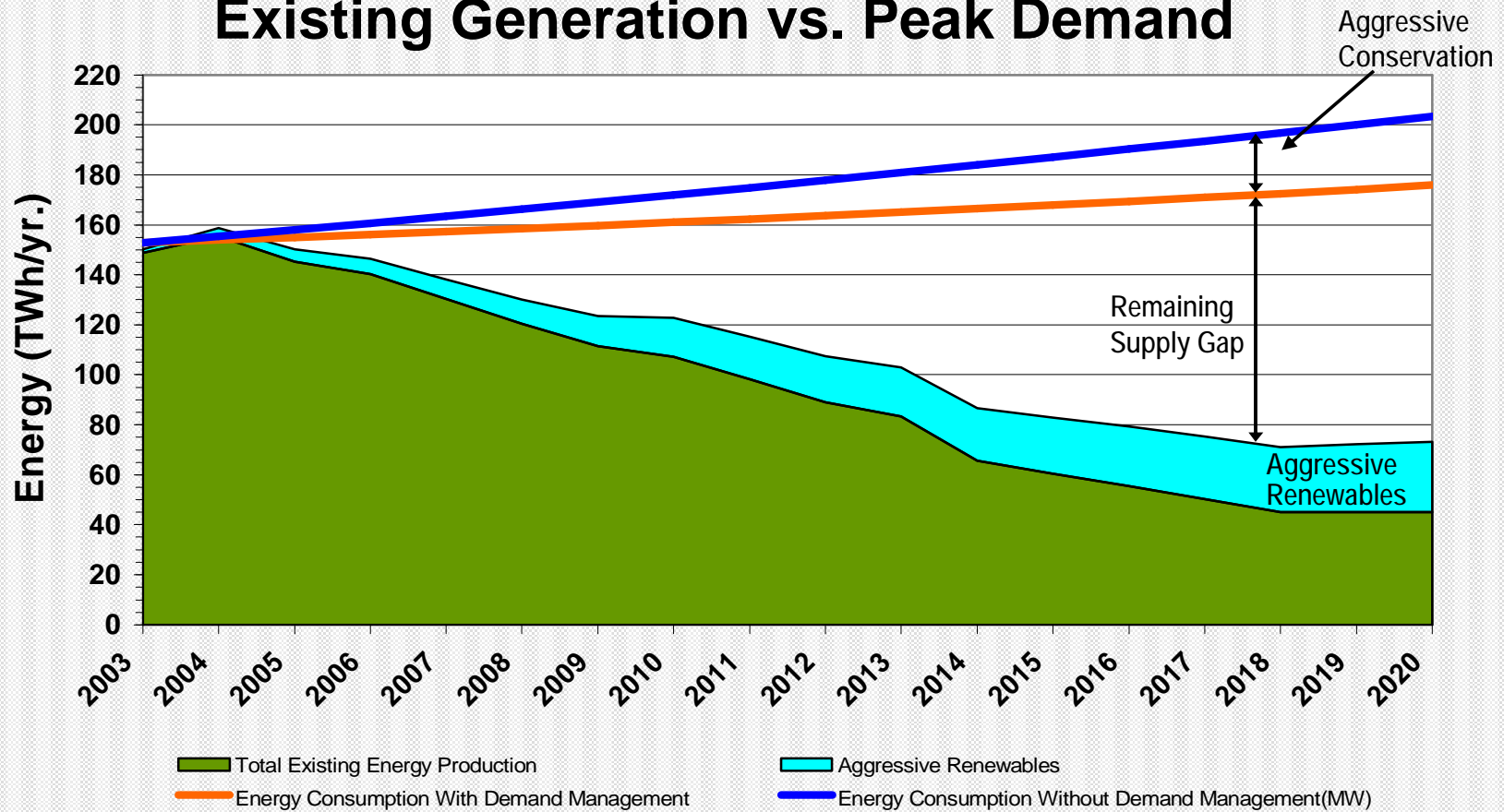
Conservation often quickest, cheapest, cleanest solution to help address tight supply.

- § Develop rules that allow and encourage demand response when prices are high.
- § Meters and other technology for load shifting.
- § Treat demand response and supply equitably.
- § Remove disincentives for LDCs to promote conservation.
- § Create “conservation champion” and conservation culture.

OEB review of funding and organization to provide detail.

Remaining Gap

Existing Generation vs. Peak Demand



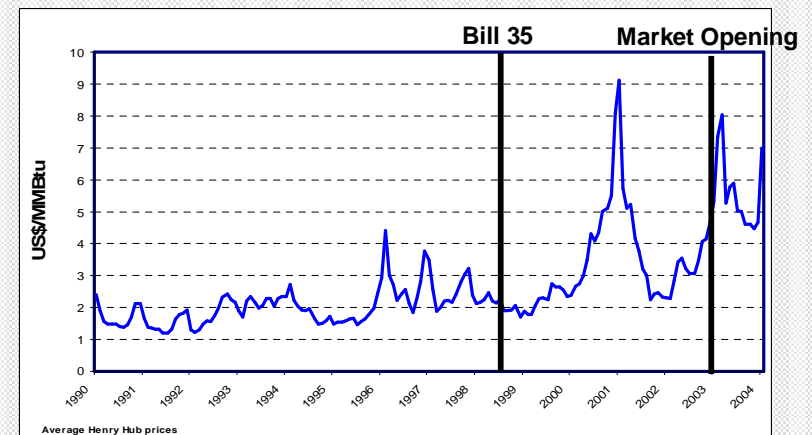
The Gas Option

Advantages

- § Limited capital outlay
- § Relatively short lead times
- § Suitable for distributed generation
- § Reasonably clean

Risks

- § Price volatility
- § Supply concerns



The Nuclear Option

- § Improved performance worldwide
- § Mixed performance in Ontario
- § Price competitiveness key
- § New build vs. refurbishment
- § Complementing water/hydrogen
- § Managing the risks

The Role of Imports

Quebec

- § Banking opportunity (due to storage capacity)
- § Could be in place within 3 years

Manitoba

- § Intermediate power
- § Imports could build over time, starting in 2005
- § Conawapa timing matches nuclear replacement need

U.S.

- § Essential for reliability and supply
- § Supports competition

New Supply: Recommendations (1)

- § Need flexible approach that supports investment in a range of supply (and demand reduction) sources.
- § Spot market to operate as balancing market.
- § Develop day-ahead and futures markets.
- § Planning and leadership: Gov't, IMO, OEB, Hydro One.
- § Contracting agency:
 - § With appropriate governance, could be IMO.
 - § Seek wide range of supply options.
 - § OEB to ensure open and accountable processes.
 - § Don't disadvantage existing private generators.
- § OPG as investor of last resort for green field projects.

New Supply: Recommendations (2)

- § Ultimate goal: contract-based market with multiple buyers and sellers.
 - § Over time, develop multiple Load Serving Entities.
- § Streamline approvals processes.
- § Implement Renewable Portfolio Standard quickly.
- § Measures to support distributed generation.
- § Maintain coal plant as required until alternative supply and conservation are in place.
- § Electricity grid as essential public infrastructure, with proactive plan, to encourage reliability and competition.

More Effective Institutions

- § Clear roles and responsibilities essential:
 - § Clearly define roles of Government, OEB, IMO, OPG, Hydro One, LDCs.

- § Demographic challenge:
 - § Coincides with need to rebuild system.
 - § Educate and train next generation of power workers.
 - § Make electricity sector “Career of Choice” for youth.

Innovation

- § US leading with major investments in new technology approaches to conservation and clean power.
- § Ontario needs to keep pace and develop Canadian strengths (nuclear, fuel cells, long-distance transmission, etc).
- § Government, industry and universities need to cooperate through Centre of Excellence for Electricity and Alternative Energy and other mechanisms to support innovation in the sector.

Conclusions

Our action plan addresses key needs:

- § Stable, competitive prices.
- § Planning and leadership.
- § Contracts for new supply capacity.
- § Tools and incentives for conservation.
- § A robust and reliable grid that supports new supply.

APPENDIX 1

Desired Sustainable State

The Task Force spent considerable time discussing the characteristics of what we call “the desired sustainable state”. The chart below describes the future electricity system to which our recommendations point

1. There is an adequate and reliable supply of power available to Ontario consumers, from either local sources or assured imports.
2. Ontario power prices are responsive to supply and demand, are reasonably stable, are seen as fair and transparent, and are competitive with those in neighbouring U.S. states.
3. Large volume consumers in Ontario are able to purchase their electricity from the spot market, or under long term contracts with competitive suppliers or other providers.
4. Small and mid-volume consumers in Ontario are able to choose between competitive retailers offering a wide array of power products, or the local provider of default supply.
5. Default supply is procured and provided in such a way that small and mid-volume consumers are not exposed to price volatility.

6. The market is composed of multiple buyers and multiple sellers, none of whom is able to influence the market price on a sustained basis.
7. Generation investments are made primarily by private sector firms operating in a for-profit context.
8. The Ontario market welcomes new players and does not discriminate between incumbents and new participants.
9. There is sufficient regulatory and policy certainty that generators, transmitters, distributors and consumers can obtain financial backing for viable investment projects.
10. Most market participants have sound credit ratings.
11. Ontario has a diversified generation mix, including significant proportions of clean and renewable generation, and is not overly dependent on a single technology, fuel, or imports.
12. All consumers have a good understanding of how the electricity market works, and have the technical capability and incentives to efficiently manage their power demand.
13. Ontario has developed a conservation culture. Energy efficiency is continuously improving in the province.
14. The Ontario market evaluates new conservation and demand response initiatives on a level playing field basis with new supply initiatives.

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15. The Ontario power industry is a technological leader. The Ontario Centres of Excellence provide long-term leadership in the development of new technologies and markets.
 16. The Ontario power industry is a leader in public and worker safety.
 17. The Ontario power industry represents an attractive career choice.
 18. Ontario is an open access jurisdiction that supports trade in electricity and related products and works co-operatively with other jurisdictions to eliminate barriers to electricity trade and investment.
 19. Ontario Hydro's stranded debt has been eliminated.
 20. Roles and responsibilities are clearly defined for the Ontario Energy Board, the Independent Market Operator, the Ontario Electricity Financial Corporation, and the local distribution companies.
 21. The IMO, the OEB and the Government consult consumers and industry stakeholders prior to implementing significant changes in the rules and policies governing Ontario's electricity system.