

DISTRIBUTED ENERGY: BENEFITS AND BARRIERS

Presentation to The Ontario Rural Council –
“Forum on Renewable Energy”

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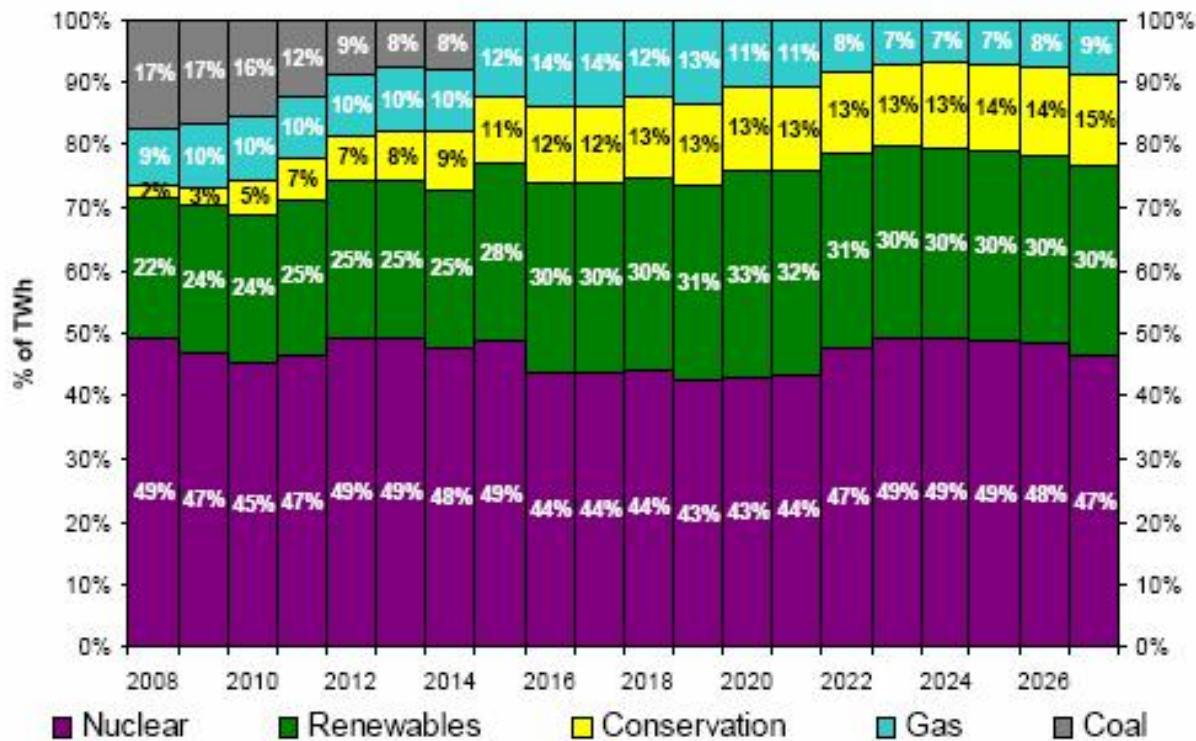
November 7, 2007

Ontario Energy Context

- About 80% of Ontario's electricity infrastructure requires rehabilitation/replacement in the next 20 years
- Key policy drivers have been provided by Ministerial Directive:
 - Ensure reliable supply
 - Create a conservation culture
 - Develop more renewable energy
 - Strengthen transmission infrastructure
- Regulations are now in place to cease burning of coal by 2014
- Conservation is defined to include: energy efficiency, load shifting, fuel switching and self generation (e.g. distributed energy)
- Government initiatives lead North America:
 - 6,300 MW of conservation targeted to 2025
 - Net metering, renewable and clean energy standard offer programs
 - Enabling regulations for connections and technical standards
 - Incentives for renewable installations and energy efficient products

Perspectives on System Planning

- The independent Ontario Power Authority has submitted its Integrated Power System Plan (IPSP) for regulatory review
- Ontario's system is projected to use considerably more conservation and renewable resources:



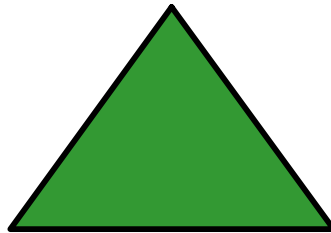
Source: 2007, OPA

Benefits Of Distributed Energy

Benefits may include:

Customers

- Make money
- Increase reliability
- Improve service flexibility
- Enhance conservation behaviour



Power System

- Reduce wires system losses
- Reduce need for new wires infrastructure
- Diversify Ontario supply sources
- Flexibility to make system additions

Society

- Reduce environmental emissions
- Stimulate new technology development
- Diversify local incomes/economies
- Strengthen industrial competitiveness

Distributed Energy Barriers

- Distributed energy is still a relatively new aspect of North American power systems – and jurisdictions everywhere are taking actions to overcome regulatory, institutional and financial challenges
- The Government has previously stated its commitment to address barriers to the development of renewable power in Ontario
- Recent government actions:
 - Release of OEB consulting study and staff paper
 - Property tax treatment of wind power amended by MOF
- The Ministry seeks to better understand DE development issues, key obstacles encountered and practical remedies
- Stakeholders have broadly identified three categories of barriers:
 - Wires Connection
 - Taxation Impacts
 - Municipal Bylaws

“Patience, n. A minor form of
despair, disguised as a virtue.”

Ambrose Bierce

1842-1914