

## Hydro One Facts & Figures

### Response to FOCA Questions

**FOCA:** Tell us about the nature of Hydro One's rural infrastructure (size of the grid, number of maintenance and repair crews around, where the infrastructure and human resources are typically deployed etc):

- Hydro One serves 1.3 million customers directly (homes, cottages, farms, businesses) mostly in rural area and small urban centres
- owns and operates Ontario's high voltage transmission system (28,000 km, the line you see mostly on steel towers) and a 122,000 km local distribution system which includes about 1.6 million wood poles. Total assets worth about \$12 billion.
- 4,000 staff responsible for planning, designing, operating, maintaining, and repairing (including emergency response during storms) this extensive infrastructure. About ¾ of the employees work directly in lines, forestry and stations at various locations across Ontario to maintain a safe and reliable electricity system
- Work force is truly "provincial" and "mobile". You see evidence of this during major storms, such as we've had this year, where Hydro One has ability to move crews from across Ontario to assist with restoration in hard hit areas. See attached picture of Hydro One bucket trucks at Hydro One's Sudbury Operations Centre after July 2006 storm.

**FOCA:** Please provide some details about the age/condition of the infrastructure, preventive maintenance guidelines and objectives and performance

- Electricity system infrastructure across Ontario is ageing. We have preventive maintenance programs for both the transmission and distribution systems (lines and stations). A thorough inspection of the assets is done at least every 6 years in rural areas and every 3 years in urban areas. Our inspection programs comply with the requirements of the Distribution System Code as set out by the Ontario Energy Board.
- Hydro One in 2006 will spend approx. **\$222 million on distribution line maintenance, including \$92 million on vegetation management** to keep trees limbs and brush clear of power lines.
- Hydro One will also spend approx. **\$162 million on capital programs** to maintain and replace components of the distribution system. **This includes an estimated \$54 million to replace equipment damaged during this year's severe storms.** The cost of repairs due to storms is about twice what it was in 2005 and more than three times what it was in 2004.
- Trees are one of the major contributors to power outages -- **generally about 30% of power outages can be attributed to trees coming down on power lines** due to severe wind or wet and heavy snow. In 2006, the number of tree related outages has risen as a result of three severe wind storms and tornadoes which occurred in July, August and September. **Spending on**

vegetation management has increased significantly over the past several years. It was \$75 million in 2003 and will increase to \$104 million in 2007.

- Recognizing the need to increase maintenance on line assets and to determine the condition of those assets, Hydro One has significantly increased inspection, diagnostics and corrective work from about \$17M in 2003 to \$28M planned for 2008. The increase is primarily attributed to a data collection initiative to geographically define the line assets, correct defects and an increase in equipment maintenance. These increased expenditures will help extend the life of our aging facilities.
- Average age of wood poles is about 30 years. **Wood pole replacements are increasing from about 3,000 poles during 2004 to 7,000 poles planned for 2007** with a corresponding increase in expenditures. We expect the trend in replacements to increase over the next few years based on inspections completed to date.
- Expenditures to replace end of life equipment and replace complete line sections have also increased from about \$8.7 during 2003 to \$23.0 projected for 2007.

**FOCA:** What is your capacity to respond to unforeseen and devastating impacts to the electricity distribution system

- Hydro One has an emergency response plan and highly experienced staff that have worked on large restoration efforts after major events such as the 1998 Ice Storm. Our employees are recognized for their skill and experience and have been invited several times to help other utilities restore power after major storms. Florida Power & Light has called on Hydro One's assistance three times in the past few years to help out after hurricanes left millions of Florida residents without power.
- During prolonged outages and emergencies, Hydro One works closely with municipalities, local emergency responders, local distribution companies, neighbouring utilities (where necessary), and the media to plan and communicate progress on restoration to the power system after a major event. We have also provided dedicated and priority telephone numbers to emergency responders and elected officials so they can always reach us to obtain current information and estimated restoration times.

**FOCA:** What else can you tell us about the impacts for rural customers of an extensive and aging transmission system especially as it relates to severe weather or other events

- Hydro One generally tries to restore the greatest number of customers as quickly as possible, and this means bringing the trunk lines and stations back to service first, and then working to repair the rural lines that supply customers in rural or more remote / hard to access areas. Customers who have cottages on islands which require boat access or who are in isolated locations will know that they are generally the last to have service restored after a major storm. These customers should take necessary precautions to have supplies on hand such as battery operated radio, candles, food and bottled water, etc. Customers for whom electricity is essential should consider having an electricity generator.
- see notes on 2006 storm damage above.