GREENPEACE **BRIEFING**

NUCLEAR PHASEOUT IN ONTARIO – MAY 2005

THE ISSUE

All of Ontario's nuclear reactors have prematurely aged and must be shut down or undergo risky, and multi-billion dollar rehabilitation between 2008 and 2018. In April 2005, the Ontario government released a study calling for coal stations to be replaced by rebuilt nuclear power plants and natural gas. The study grossly underestimates the financial cost of nuclear power and ignores its serious environmental and safety problems.

Given nuclear power's poor performance history, Ontario should phase out its 20 of nuclear reactors at the end of their operational lives and replace them with green energy alternatives. The tens of billions of dollars needed to rebuild Ontario's nuclear plants will prevent serious investment in renewable and energy efficiency technologies.

BACKGROUND

- In 2003, Ontario Power Generation admitted that its nuclear reactors would need to be refurbished or closed after only 25 years instead of their original 40-year design life. This latest failure of Candu technology to perform as advertised means that Ontario will lose approximately 40% of its production capacity within the next 15 years.
- There are five nuclear stations in Ontario at three sites with 20 reactors – Pickering (A & B), Bruce (A & B) and Darlington. The 8 'A' reactors at Pickering and Bruce are the oldest reactors in the province. The 4 reactors at Darlington began in 1992, a full $11.5 billion over budget.
- Refurbishment is no guarantee of good performance or long-term operation. The 4 Pickering 'A' reactors had to be retubed following a serious accident in 1983. After less than 10 years of operation, they were shut down for refurbishment again in 1997 because of performance and safety problems.
- The latest attempt to rebuild Pickering A a second time is four years late and has undergone a five-fold cost over-run, increasing from the estimate of $780 million to $ 4 billion.
- The McGuinty government has been holding secret negotiations with Bruce Power regarding the possible restart of the Bruce A Units 1 & 2 (1,500 MW), which were shut down in 1995-1997. Bruce CEO Duncan Hawthorne has stated the cost of restarting these units would be 'North of $2 billion.'
- The 4 Units at Pickering B will need to be closed or rebuilt between 2008 – 2011. The 4 units at Bruce B will need to be rebuilt between 2009 and 2012. The 4 units at Darlington will need to be closed or rebuilt between 2015 and 2018.
- Greenpeace has estimated the cost of nuclear rebuild will range from $14 to 19 billion.
- Minister Duncan has also stated publicly that he plans to maintain Ontario's coal stations (instead of decommissioning them) in case Ontario's nuclear reactors fail to perform. Ontario's nuclear fleet has a history of disastrous performance and reliability.
- Ontario has shown only minimal commitment to green energy alternatives. Germany, however, has formally declared that it will close its reactors at the end of their operational lives and is shifting its investment to green energy.
- Canada has yet to find a viable and socially acceptable means of managing high-level radioactive waste for a millions years. There are currently 30,000 tonnes of high level waste at reactors sites in Ontario. Ontario's stockpile of high-level waste will double if its reactors are not permanently closed over the next 15 years.