

Its nuclear power program and nuclear R&D expertise also allow Canada political, diplomatic and technological options not available to countries without such expertise.

Looking further into the future, to 2020 and beyond, to avoid additional GHG emissions Canada must also build new reactors to replace obsolete coal-fired power plants and to meet increases in electricity demand.

While new renewable energy sources have the potential to contribute up to 10% of Canada's future electrical energy supply, only nuclear energy can make the necessary contribution to large-scale energy production while supporting Canada's commitment to GHG reduction.

Environmental pollution is a world-wide problem. Large populous developing countries, such as China, which are heavily dependent on coal, will continue to be among the world's major atmospheric polluters. It is in Canada's and the world's economic and environmental interest to encourage these countries to include nuclear power in their energy mix, as a contribution to sustainable development. Under the Kyoto Protocol mechanisms, Canada may obtain greenhouse gas credits for CANDU exports, to be shared with the customer country. Such arrangements would help Canada meet its Kyoto commitments while gaining economic benefits.

Present practices for nuclear fuel waste management and storage in Canada are safe and economical and these practices could be continued indefinitely. Furthermore, the concept for long-term deep geological disposal of nuclear fuel waste, developed by AECL, has been judged to be safe. Thus, concerns about the safety of nuclear fuel waste management and disposal should not impose constraints on the future growth of nuclear power in Canada.

SAFETY AND REGULATION

Nuclear R&D capability is a requirement for the licensing and safe operation of nuclear power plants. The Atomic Energy Control Board (AECB), the independent federal regulator, requires that licensees have the capacity to perform the R&D essential to safe operation of nuclear power plants in Canada. The facilities of AECL serve as a shared resource for the utilities through which questions from the regulator can be addressed, and the AECB also contracts some research at these facilities. However, the AECB has recently expressed concern about reductions in funding for safety-related research by Canada's nuclear utilities.