



Financial Surety

Canadians expect that the money necessary for Canada's plan for the safe long-term management of the country's used nuclear fuel will be available when it is needed. In 2007, the government of Canada selected Adaptive Phased Management (APM) as that plan. Financial surety is a cornerstone of this plan. The NWMO, the organization mandated with implementing APM, must ensure funds are available to pay for the plan. The *Nuclear Fuel Waste Act (NFWA)* (2002) provides the legislative framework for the program funding, and sets statutory roles and responsibilities for the NWMO and the owners of the used nuclear fuel.

Q. Who pays for the Adaptive Phased Management program?

A. The used fuel owners are responsible for all the costs. The *NFWA* requires that the planning, development and implementation of the project are funded by the major owners of used nuclear fuel in Canada. Under this *Act*, Ontario Power Generation, Hydro-Québec, New Brunswick Power and Atomic Energy of Canada Limited are required to establish independently managed trust funds and make annual deposits to ensure that the money to fund the project will be available when needed.

Q. How much money is in the trust funds?

A. As of the end of 2012, the total value of these trust funds is \$2.8 billion. The funds were established in 2002, and annual contributions have been made by the major used fuel owners since.

In addition, other segregated funds and financial guarantees have been established for the long-term management of used fuel, low- and intermediate-level waste, and decommissioning. These separate funds have been established outside the *NFWA* trust to satisfy requirements from host provinces and the Canadian Nuclear Safety Commission.

In aggregate, the total of all funds available for the long-term management of used fuel amounts to upwards of \$7 billion as of the end of 2012. This amount is sufficient to fund the estimated cost of the long-term management of the 2.3 million fuel bundles produced to the end of June 2012.

The NWMO has the responsibility for maintaining a funding formula and establishing the amount of deposits to trust funds required by each company on an annual basis. Audited financial statements of each of the nuclear fuel waste trust funds are posted on the NWMO website.

Owners	Trust Fund Balance as at December 31, 2012 (\$ million)
Ontario Power Generation	2,559
Hydro-Québec	93
NB Power Nuclear	104
Atomic Energy Canada Ltd.	41
Total: 2,797	

Q. How much will the long-term management of used nuclear fuel cost?

A. The APM project has an estimated cost of \$16 billion to \$24 billion. The final cost will depend on such factors as the number of used fuel bundles to be managed, timing of construction and geology of the site.

The NWMO completed a full update of these estimates in 2011. The updated cost estimate covers many decades of APM lifecycle activity for the deep geological repository and related transportation of used fuel. The cost estimate for the APM program, based on a scenario of 4.6 million used CANDU fuel bundles, is \$21.2 billion (based on 2010 \$). When stated in present value terms, which takes into account inflation and fund growth, the cost is \$7.7 billion (also in 2010 \$).

The eventual cost of this project may differ from these estimates, depending on the quantity of used nuclear fuel and other factors. The NWMO must estimate what costs can reasonably be expected to occur over the lifetime of the project, along with a contingency for unexpected events. The NWMO is committed to providing regular assessments on all these factors to ensure that sufficient funds are set aside.

Q. Are the trust funds secure?

A. Yes. The *NFWA* built in explicit provisions to ensure the trust funds are maintained securely and used only for the intended purpose. The NWMO may have access to these funds only for the purpose of implementing the management approach selected by the government once a construction or operating licence has been issued by the Canadian Nuclear Safety Commission under the *Nuclear Safety and Control Act*.



Michael Hung is the Chief Financial Officer at the Nuclear Waste Management Organization. Prior to joining the NWMO, Mr. Hung held various positions in financial planning and reporting, accounting and treasury at Ontario Power Generation and Hydro One. Mr. Hung holds a Bachelor of Applied Science in Industrial Engineering from the University of Toronto and a Master of Business Administration from the Schulich School of Business in Toronto. He is also a Certified Management Accountant (CMA).

"Ask the NWMO" is an advertising feature published regularly in this and other community newspapers to respond to readers' questions about Canada's plan for managing used nuclear fuel over the long term and its implementation. The Nuclear Waste Management Organization welcomes your questions. Please forward your questions to askthenwmo@nwmo.ca.

