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A Contract Between Science and Society

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Growing energy demand, global climate disruption and the prospect of a carbon-constrained world have opened the door for discussion of a potential nuclear renaissance. The fact that deployment of nuclear energy has not been fully embraced points to a number of challenges. These range from concerns about safety, security and proliferation of nuclear materials to questions of feasibility and economics. Others cite the continuing quest for an acceptable approach to the management of long-lived wastes and uncertainty about risks to human health and the environment. Arguably public acceptance of nuclear energy will require policy makers to examine many social and ethical concerns, both real and perceived. Yet research suggests that public trust in governments and institutions is eroding while society's expectations to be involved in decision-making have become more intense and sophisticated. The recent Canadian experience of selecting an approach for the long-term management of used nuclear fuel illustrates the complexity of obtaining a "social licence" to proceed. A key objective was to gather and document the terms and conditions that would make such a project acceptable to society and to reflect a fundamental understanding and respect for these factors in the project's actual design and implementation. The underlying philosophy was that the analysis of scientific and technical evidence, while essential, could not be the sole determining factor. Ultimately it is society that will determine which risks it is prepared to accept. The mission of developing collaboratively with Canadians a management approach that would be socially acceptable, technically sound, environmentally responsible and economically feasible required the development of an integrated, systemic analytical framework and an interactive and transparent process of dialogue and deliberation. This investment in seeking diversity of perspectives resulted in the emergence of common ground among citizens and specialists. It defined the terms of a socio-scientific contract: safety, fairness and flexibility and taught us the importance of continuing to earn trust and confidence.