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ONTARIO POWER GENERATION SEES GROWTH IN DEEP SPACE

Enters venture to provide power for deep space exploration

Toronto – People in Ontario may soon be able to look to the stars and take pride knowing the province played a key role in future space exploration. Ontario Power Generation (OPG) and its venture arm, Canadian Nuclear Partners, are participating in a project to produce isotopes in support of deep space exploration. Under the agreement, OPG would help create isotopes at the Darlington nuclear station east of Toronto that will help power space probes.

“This is a very exciting project,” said Jeff Lyash, OPG President and CEO. “No pursuit pushes the boundaries of our scientific and technical limits like space travel. We are proud to have Ontario play a part, however small, in this most noble of human endeavours.”

Lyash noted that OPG employs a similar isotope process in its Pickering units to create Cobalt 60 for use in the sterilization of surgical and medical supplies.

“This project is just another example of the broad economic and societal benefits of nuclear power. It provides clean, low cost power, it helps in the medical world and if successful can be a part of the next generation of space travel,” he added.

Background Facts

- All deep space exploration projects are powered by plutonium 238 (Pu 238). These include the Voyager 1 and 2 (both launched in 1977 and now in interstellar space); the Curiosity Rover currently on Mars; and the Mars 2020 Rover.
- Plutonium 238 is an isotope of plutonium. However, Pu 238 cannot sustain a nuclear reaction and therefore cannot be used as a fuel in a nuclear reactor or in a nuclear weapon. Production at the Darlington station will help boost a dwindling global supply of the material.
- Plutonium 238 emits steady heat due to its natural radioactive decay. The heat generated decreases slowly in a highly predictable manner and can be harnessed into electric energy onboard a space ship. In addition, the heat keeps scientific instruments warm enough to function in space.
- OPG is seeking approvals to have isotope production begin by 2020.

For further information, please contact:

Ontario Power Generation

Media Relations

416-592-4008 or 1-877-592-4008

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