

## Holtec Successfully Completes Canadian Nuclear Safety Commission Phase 1 Vendor Design Review

Holtec International's SMR, LLC has successfully completed Phase 1 of the Canadian Nuclear Safety Commission (CNSC) "Pre-Licensing Review of a Vendor's Reactor Design" for its small modular reactor design, the SMR-160. A Vendor Design Review (VDR) is an assessment service CNSC provides to nuclear power plant designers. The benefits of this direct engagement are early feedback on the SMR-160 design as it addresses CNSC regulatory requirements and early identification and resolution of potential regulatory or technical issues on the design process. The CNSC staff concluded that "overall, SMR, LLC understands and has correctly interpreted the high-level intent of CNSC's regulatory requirements for the design of nuclear power plants in Canada pertaining to the scope of the Phase 1 VDR."

"This milestone reinforces our expectation that the SMR-160 will meet Canada's regulatory requirements while also providing valuable feedback that will allow us to further improve the design throughout the ongoing regulatory process," said Dr. Kris Singh, President and Chief Executive Officer of Holtec International.

SMR, LLC started Phase 1 of the VDR in mid-2018, addressing the associated 19 focus areas and submitting hundreds of documents over the course of 18

months to support the review. Successfully concluding Phase 1 demonstrates the significant progression of the design and associated engineering processes. As expected, the CNSC identified some areas that require follow-up in Phase 2 of the VDR as the review moves further into the details of the design.

Based on feedback received from the Phase 1 VDR, SMR, LLC plans to pursue a Phase 2 VDR in the near future, to continue this process for its *walk-away* safe reactor in order to gain assurance of a path to licensing certainty in Canada.



Holtec SMR-160, 160 MW Electric Nuclear Power Plant

The SMR-160 is a light-water based pressurized small modular reactor, which generates 160 MWe (525 MWth) and relies on gravity as the workhorse to operate the reactor and the completely passive safety systems. The SMR-160 is a *universal* reactor because it can be operated in any terrain, be it parched lands with little water such as the Arabian peninsula and America's southwest, or coastal lands saturated with corrosive salt air, or the frigid expanse of the north Asia steppes. Having eliminated the risk of any significant radioactivity release under any credible accident scenario and by virtue of its small footprint, an SMR-160 power plant can be readily sited within densely populated metropolitan and industrial locations. SMR-160's universality is also reflected by its flexible operational characteristics, being readily adaptable to applications other than generating electricity such as using a fraction of its output steam for an industrial plant. Simplicity and ease of operation make it unnecessary for a country to deploy a platoon of nuclear engineers to run it. Much of the engineered equipment needed for SMR-160 will be manufactured at Holtec's Advanced Manufacturing Division in Camden, NJ, enabling a significant level of cost certainty. Satellite manufacturing plants in other SMR-160 host countries are also planned.