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# Holtec International

**Holtec International** is a supplier of equipment and systems for the energy industry.<sup>[1][2]</sup> Founded in Mount Laurel, New Jersey in 1986, Holtec International is a privately-held technology company with domestic operation centers in New Jersey, Florida, Ohio and Pennsylvania and worldwide in Brazil, India Japan, Mexico, Poland, South Africa, Spain, U.K. and Ukraine.<sup>[3]</sup> It specializes in the design and manufacture of parts for nuclear reactors. The company sells equipment to manage spent nuclear fuel from nuclear reactors.<sup>[4][5]</sup>

Holtec is the world leader in storage and transport casks used for spent nuclear fuel. It also specializes in Heat Transfer Equipment Equipment and Services, Decommissioning of Nuclear Power Facilities, Design and Engineering, Civil Construction, and other innovative technologies, including its SMR-300 and Green Boiler technologies.<sup>[6]</sup>

One other innovative project designed for the US nuclear power industry to safely store its used fuel is Holtec's HI-STORE Consolidated Interim Storage Facility (CISF).<sup>[7]</sup>

In July 2014, the New Jersey Economic Development Authority awarded Holtec International a \$260 million tax incentive to expand operations at the Port of Camden.<sup>[8]</sup> Those breaks have come under scrutiny.<sup>[9][10][11]</sup>

## SMR-160

The Holtec **SMR-160**, originally named the Holtec Inherently Safe Modular Underground Reactor, is a single loop natural circulation 160 MWe pressurized water reactor with a passive core cooling system without pumps or valves. It uses standard size PWR enriched uranium fuel.<sup>[12][13]</sup>

In February 2018, GE Hitachi Nuclear Energy agreed to collaborate on the commercialization of the design.<sup>[14]</sup> In 2020 an agreement was made to use Framatome commercially available 17x17 GAIA fuel assembly in the SMR-160.<sup>[15]</sup>

As of 2020, the SMR-160 is in the first phase of a Canadian Nuclear Safety Commission pre-licensing review.<sup>[15]</sup>

### Holtec International



HOLTEC  
INTERNATIONAL

<b>Industry</b>	<u>Energy</u>
<b>Founded</b>	1986 in <u>Mount Laurel, New Jersey, U.S.</u>
<b>Founder</b>	Dr. Kris Singh
<b>Headquarters</b>	<u>Jupiter, Florida, U.S.</u>
<b>Website</b>	<u>holtecinternational.com</u> ( <u>http://holtecinternational.com</u> )

In 2022, the company asked for a "USD 7.4 billion federal loan to enable it to increase capacity for SMR production at its existing manufacturing facilities, to construct and operate four SMR-160s in the USA and to build a new Holtec Heavy Industries (HHI) complex for higher capacity manufacturing of components and modules for SMR-160s."<sup>[16]</sup>

## SMR-300

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In December 2023, Holtec announced that it intended to build the first two **SMR-300** small modular reactor at Palisades Nuclear Generating Station in Michigan by mid-2030. The SMR-300 adds forced coolant flow to the gravity-driven flow of the SMR-160.<sup>[17]</sup>

In December 2023, the British government awarded £30 million to Holtec to develop its SMR presence in the UK, where it is one of 6 competitors for an SMR contract.<sup>[18]</sup> At the same time, the SMR-300 (previously sometimes called the SMR-160+) entered the UK Generic Design Assessment process.<sup>[19][20]</sup>

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13. "Small Nuclear Power Reactors: Holtec SMR-160" (<https://web.archive.org/web/20130104145504/https://www.world-nuclear.org/info/inf33.html>). world-nuclear.org. November 2012. Archived from the original (<http://www.world-nuclear.org/info/inf33.html>) on 2013-01-04. "Holtec International set up a subsidiary - SMR LLC - to commercialize a 140 MWe (446 MWt) factory-built reactor concept called Holtec Inherently Safe Modular Underground Reactor (HI-SMUR). The particular design being promoted is a 160 MWe version of this, SMR-160, with two external horizontal steam generators, using fuel similar to that in larger PWRs, including MOX. The 32 full-length fuel assemblies are in a fuel cartridge, which is loaded and unloaded as a single unit from the 31-metre high pressure vessel. Holtec claims a one-week refueling outage every 42 months. It has full passive cooling in operation and after shutdown and a negative temperature coefficient so that it shuts down at high temperatures. The heat sink can be to atmosphere, using dry cooling. The whole reactor system will be installed below ground level, with used fuel storage. A 24-month construction period is envisaged for each \$800 million unit (\$5000/kW). Operational life claimed is 80 years. Holtec expected to submit an application for design certification to NRC by the end of 2012 and hopes to have the first unit operating in 2018. The detailed design phase is from August 2012. The Shaw Group is providing engineering support for the design, and Areva is involved in the development work. The Construction Permit Application and Preliminary Safety Analysis Report are due in June 2014. In March 2012 the US DOE signed an agreement with Holtec regarding constructing a demonstration SMR-160 unit at its Savannah River site in South Carolina. NuHub, a South Carolina economic development project, is supporting Holtec's bid for DOE funding for the SMR-160, as are Exelon, Entergy, PSEG, First Energy (though see above re mPower), and SCE&G which would operate the demonstration plant."
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## External links

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