



SMR-300: The Next Generation Fission Reactor



Holtec Asia is a vertically-integrated company of engineers and manufacturing experts that provides state-of-the-art technologies to the solar, petrochemical, geothermal and fossil power industries. Due to the exponential demand for clean and reliable energy, Holtec's innovative small modular reactor design, SMR-300, is fueling strong interest from countries around the world. Through its parent company, Holtec International, Holtec Asia offers SMR-300 as a clean, carbon-free solution.

Holtec's SMR-300 is an revolutionary light water fission reactor producing approximately 300 MW(e) rated output. It is an intrinsically safe, secure, economical source of 100% carbon-free energy. SMR-300 features a flexible design, which allows the system to be deployed in remote locations, in areas with limited water supplies or limited land, and in unique industrial applications where traditional large reactors are not practical. SMR-300 takes advantage of decades of nuclear industry operating experience and offers a balanced combination of proven technology and innovation.

This next generation plant has major appeal in domestic and international markets. Offering a cost-effective solution for carbon-free energy, SMR-300 ensures attainable power options to existing and emerging global economies demanding increased certainty of public safety, environmental protection and security from intrusion and proliferation of nuclear materials.











Carbon-Free Energy



Applications

Advanced Technology

The principal technical mission of SMR-300 is "safety and security first." Located deep underground, SMR-160+ has a robustly-designed core is protected from cataclysmic environmental phenomena and malevolent human intervention. Designed to provide an unfailingly safe and economical source of clean energy from nuclear fission, SMR-300 incorporates passive features in its operation to ensure utmost safety and reliability. The operational simplicity and modest outlay required to commission and operate SMR-160+ will make it an ideal solution to deliver pollution-free nuclear energy to developing countries, help expand reliable and affordable supplies of energy for developed nations and sustain economic growth worldwide. Due to its robustness, the SMR-300 could also be used by governments to protect their critical infrastructure such as research facilities and military bases.

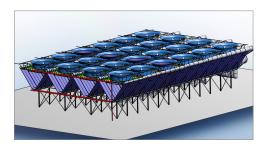
Underground Spent Fuel Storage

Unlike currently operating nuclear reactors, SMR-300 has been designed to store the used fuel produced over the entire operating lifetime of the plant in subterranean cavities (known as Holtec's HI-STORM UMAX system, licensed by the U.S. NRC), occupying a small parcel of land in the plant's backyard. The storage cavities contain the irradiated fuel bundles in welded multi-purpose canisters with over-packs, hardened against threats, such as a crashing aircraft or an incident missile.



Holtec's Air-Cooled Condenser Systems





SMR-300 can utilize its cutting-edge capability to operate using an air-cooling system in lieu of a large quantity of water. With the flexibility to use air-cooled condensers (ACCs), SMR-300 can be deployed in the most arid regions of the world.

Holtec's HI-MAX ACC system provides "MAXimum" reliability. HI-MAX is characterized by a stainless steel obround tube, using strength-bonded aluminum fins to achieve maximum service life and condensate purity. The obround stainless steel tube is integrated into a fully modularized structure for ease of erection.

Holtec has also developed the HI-KOOL ACC, an induced draft system, to complement the HI-MAX. HI-KOOL incorporates the HI-MAX technology using carbon steel tubes with self-supporting reproducible modules that can be erected either on or off-site to reduce fabrication and installation costs.



The SMR-300 design is being engineered by SMR, LLC, a wholly owned subsidiary of Holtec International, at the Krishna P. Singh Technology Campus in Camden, NJ, U.S.A.

