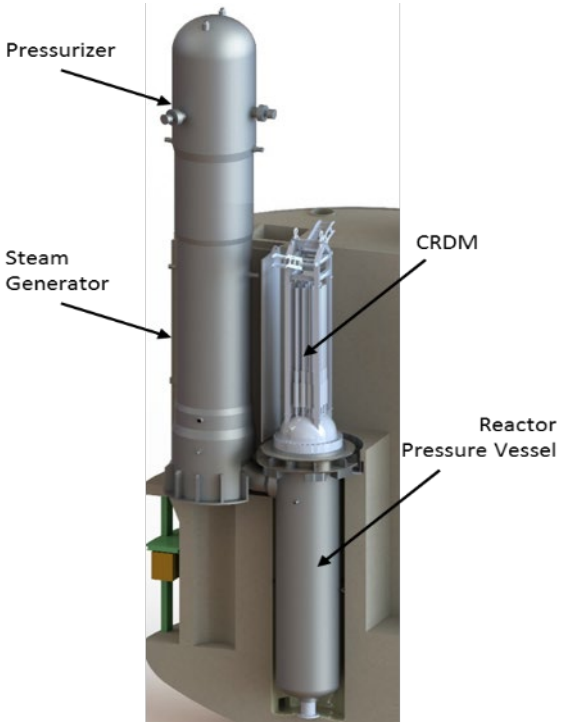
Holtec's SMR-160 Nuclear Reactor Slated to Repurpose Coal-Burning Power Plants into Clean Energy Generators

King Coal, which undergirded the Industrial Revolution and quenched the world's rising thirst for energy for the past three centuries, still provides over half of the globe's energy needs. But rising concerns about coal's environmental impact is causing energy producers to consider the premature shutdown and decommissioning of thousands of coal-burning plants which portends a serious disruption to the global energy supply infrastructure that renewables alone cannot solve.

The technical breakthrough that we announce today seeks to minimize the impact of this looming wholesale loss of existing coal plants by preserving most of their physical assets and replacing their boilers with Holtec's SMR-160 nuclear steam supply system. The concept underpinning this approach is the use of multi-stage compressors which are capable of uprating SMR-160's relatively low enthalpy steam (700 psi @ 595 Deg F) to the elevated pressure and superheat needed to run the turbogenerator of a fossil power plant. The needed enthalpy boost can be modified to support continued operation of any plant's turbogenerator, and in most cases would not require any external energy input. A provisional patent application has been filed for this innovation which opens the pathway to repurpose any coal-fired plant by replacing its coal-fired boiler with clean steam from the SMR-160 plant. Thousands of coal-burning plants around the world presently consigned to premature decommissioning can instead be re-purposed as productive clean energy generating assets. Significantly, this approach preserves the jobs associated with the operation and maintenance of the existing plant's turbogenerator and downstream systems, while creating new, high-paying jobs associated with the SMR-160 nuclear power plant.



SMR-160 Nuclear Steam Supply System

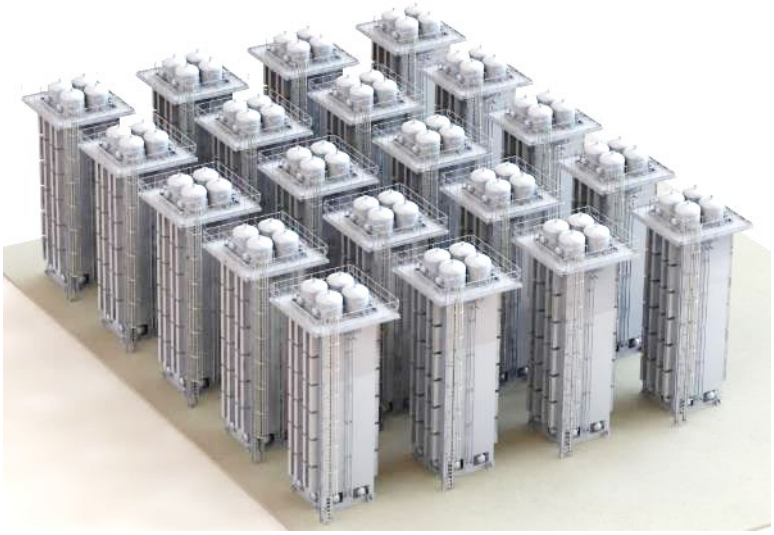
The ability for SMR-160 to deliver steam at *any desired pressure* also opens new vistas to use clean energy, such as for high-pressure steam as feed stock for industrial applications or providing low pressure steam for district heating to cities and municipalities wishing to eliminate their current use of methane and CO2-producing fossil fuels, whether to meet clean energy goals or to protect against a forced scarcity of fossil fuels due to geo-political tensions.

In a recent meeting with the Indian Ambassador, the Honorable Amarjit S. Sandhu, Holtec CEO Dr. Kris Singh characterized the ability to replace coal with nuclear power available from Holtec's SMR-160 as a "game changer for India and the global environment stressed by massive emissions from coal-fired plants by reconfiguring them

to switch from fossil fuel to uranium as the source of energy. Most of the existing coal plants' assets will be preserved and re-deployed to produce clean energy from Holtec's SMR-160 nuclear reactors," he said.

In a parallel synergistic development, Holtec is developing a highly efficient solar collector technology that can be co-located with the SMR-160 reactors to coax additional power from the sun using the land no longer needed for coal and ash handling facilities at the coal-fired plants. Holtec expects the balance between the demand and supply of energy to be achieved 24/7 by deploying Holtec's innovative high heat capacity Green Boiler. Holtec's Green Boiler is a heavily insulated thermal energy storage device with integral steam generators capable of producing superheated high-pressure steam for a diverse range of applications including hydrogen production. The result will be a highly efficient, pollution free energy eco-system that can become the panacea for our planet choking on emissions from fossil fuels.

An array of Holtec's Green Boilers is illustrated below.



20 Unit Green Boiler Array With Over 2 GWH(t) Capacity (Piping Not Shown)