



# *Holtec Highlights*

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## Holtec Reprising 2018

At Holtec, 2018 will be remembered as the year when the Company's four-year quest to launch its decommissioning program reached a successful milestone. Three nuclear power plants, including Exelon's Oyster Creek Generating Station, and Entergy's Pilgrim Nuclear Power Station and Palisades Nuclear Generating Station, as well as the site of the decommissioned Big Rock Point Nuclear Power Plant near Charlevoix, Michigan, where only the Independent Spent Fuel Storage Installation (ISFSI) remains, are under purchase/sale agreements to transfer their licenses, spent fuel and Nuclear Decommissioning Trusts to Holtec for accelerated decommissioning subject to U.S. NRC's concurrence. As of this writing, the U.S. NRC has accepted the License Transfer Applications for these agreements. In another strategic development, Holtec and SNC-Lavalin (Canada) established a joint venture company named Comprehensive Decommissioning International, LLC (CDI) to carry out decommissioning projects around the world. Holtec's subsidiary, Holtec Decommissioning International (HDI), will hold the Plants' licenses and manage the Company's nuclear assets. CDI and HDI are off to a running start, both dedicated to the safe, rapid, and economic decommissioning of shut down nuclear power plants.

Holtec's effort to establish the HI-STORE CISF (consolidated interim storage facility) in New Mexico remains on track for licensing in 2020 with the NRC acceptance of the license application early in 2018. Numerous meetings across New Mexico were held by Holtec throughout the year to inform the citizens and solicit their opinions. Local public sentiment remains in favor of the Project in the nuclear savvy region of New Mexico. In accordance with the NRC licensing process, an Atomic Safety Licensing Board (ASLB) was established to preside over the HI-STORE CISF licensing process. While we endeavor to create a national monitored retrievable storage location for aggregating used nuclear fuel at reactor sites across the U.S. into one (HI-STORE CISF) to maximize safety and security, its deployment will ultimately depend on the DOE and the U.S. Congress.

Another ambitious Company program, designing and licensing a transformative 160 MW(e) light water reactor, SMR-160, made major strides in 2018 supported by our partners Mitsubishi Electric Corporation and SNC-Lavalin Nuclear. The Canadian Nuclear Safety Commission (CNSC) began review of the SMR-160's safety attributes and candidate designs in 2018. Significant progress has been made, with the first phase of review expected to conclude in late 2019. The results of the engagement are expected to serve as a springboard for future licensing activities globally. The first anticipated leveraging of this regulatory review is expected to be in Ukraine. Early in 2018, the Company announced that Holtec International and NAEK Energoatom, Ukraine's national nuclear operator (one of the world's largest nuclear operators), had signed a Memorandum-of-Understanding that envisages Ukraine to deploy SMR-160's at the Rivne Nuclear Power Plant.

We would like to thank U.S. DOE Secretary Rick Perry for touring Holtec's Advanced Manufacturing Facility and Corporate Engineering Office at the Krishna P. Singh Technology Campus in October and for offering his very enthusiastic remarks to the Holtec staff regarding development of our small modular reactor, the SMR-160, and the preparations we have made in advanced manufacturing to deploy U.S. small modular reactor (SMR) technology worldwide. The Secretary's visit was complimented by the award to Holtec's SMR, LLC subsidiary under the DOE Funding Opportunity Announcement for Advanced Nuclear Technology Development. Through this DOE FOA award SMR, LLC will receive cost-shared financial





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assistance beginning in 2019 for the development of an “Integral and Separate Effects Test Program” for validation of passive safety system performance of the SMR-160. This marks the first government funding for development of the SMR-160. The results of this program will benefit and accelerate the licensing of other SMRs in development for deployment in the U.S. and abroad. Led by Holtec’s subsidiary named Holtec Government Services, a second DOE award was received under this FOA program for Advancing and Commercializing Hybrid Laser Arc Welding (HLAW) for Nuclear Vessel Fabrication, which will further advance manufacturing capabilities and the competitive position of U.S. manufactured SMRs. Another significant government related accomplishment in 2018 was the U.S. Small Business Administration’s approval of a Mentor-Protégé Joint Venture with Gilmartin Engineering through the All Small Mentor-Protégé Program. Through this Small Business Administration program, Oak Ridge Technologies, LLC, a Joint Venture of Holtec and Gilmartin, will be able pursue small business set-aside government contracts with all the resources and capabilities that the Mentor-Protégé can offer.

In Holtec’s core business of dry storage and transport of used nuclear fuel, several new benchmarks were set: a record-breaking 179 dry storage systems at 20 plants were loaded in 2018, every loaded system beating its targeted dose allotment. The number of U.S. nuclear units served by Holtec’s technology surged to 65, with 8 new units switching their allegiance to the HI-STORM technology in 2018. Holtec’s worldwide total of nuclear units served by the Company’s dry storage and transport systems now stands at 116 in 13 countries. The Company’s used fuel program, however, faces strong headwinds as the tariffs on steel and aluminum raise our production cost relative to our rivals who are not affected by the tariffs. Ship loads of regulator-approved storage, and transport equipment and ancillaries for VVER fuel (Russian origin reactors) were delivered to Ukraine’s Rivne Nuclear Power Plant for the Country’s soon-to-be commissioned *Central Spent Fuel Storage Facility* in the Chernobyl Exclusion Zone.

UAE’s Barakah, Exelon’s Nine Mile Point, Duke Energy’s Harris and KHNP’s Shin-Hanul in South Korea were principal Customers of Holtec’s wet storage technology and consulting services in 2018. Bookings and deliveries of Holtec’s staple capital equipment such as air-cooled and water-cooled condensers, feedwater heaters and nuclear plant heat exchangers continued apace in 2018.

To strengthen its corporate governance in proportion to its growing breadth of operations, the Company named two new members to its Executive Committee; they are Ms. Pamela Cowan and Dr. Richard Springman (both pictured below).

Holtec’s 21-year veteran, Ms. Joy Russell was promoted to Senior Vice President of Business Development and Communications (see photo below). The momentous work of creating a robust digital eco-system to power the Company’s growth accelerated in 2018 with its prime mover, Mr. Alok Ranjan, (pictured below) was fittingly honored as “Holtec Fellow-2018” (the honor bestowed on one outstanding Holtec associate at each year-end).





*Ms. Pamela Cowan, Senior Vice President and  
Chief Operations Officer of Holtec Decommissioning International*



*Dr. Richard Springman, Vice President of International Projects*





*Ms. Joy Russell, Senior Vice President of  
Business Development and Communications*



*Mr. Alok Ranjan, Holtec Fellow-2018 Award Recipient*



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Holtec Asia, based in Pune, India, continued to grow in human resources and industry esteem adding over 30 engineers to its staff and providing air-cooled condensers to numerous Clients from its manufacturing plant in Dahej (Gujarat, India). Holtec Ukraine, based in Kiev, continues to develop as a major technology center for the Company with expertise in nuclear sciences and thermal-hydraulics. Holtec's joint venture in South Africa, Holtec Africa, continues to grow with new orders in the fossil power sector and site services for the nuclear industry, including a team of fuel handlers. Sizlon Limited, our U.K. subsidiary, continues to serve EDF Energy with distinction. Holtec has also established a new operations center this past year in South America, Holtec do Brasil, to serve Eletronuclear with expectations to expand into the broader power markets in 2019.

From all Holtec International associates around the globe, we wish you, our valued stakeholders, a safe, healthy and prosperous 2019.