Holtec & ELEA, LLC’s Vision for a Consolidated Interim Storage Facility

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Why Consolidated Interim Storage?

- Some Storage Is In The Most Densely Populated Areas of U.S.
- D&D Plant Sites Want to Turn Them Back To Green Fields
- Transportation of SNF & HLW is Proven Safe—Thousands of Tons
- Radioactivity Decreases Rapidly with Time. Gamma & Heat Decay
- Breach of Contracts - DOE Required To Take SNF In 1998
  - Settlement Fund Will Pay Out $20 Billion by 2020 From Treasury
  - After 2020 Will Pay $500 Million Per Year Until CIS or Repository
- Dispels Arguments There Are No Solutions For SNF
Holtec International Company Overview

- Established in USA since 1986
- Annual Revenues: Over $500 Million USD
- Backlog: 6.0 Billion USD
- Over 1000 employees
- No history of long-term debt
- Self financed company growth – D&B (5A2)
- Power Generation Technologies
- 61 Patents plus 29 Pending
- 1,000,000 Square Feet of Manufacturing-USA
A Global Leader in Power Generation Technologies

- Heat Transfer Equipment
- Spent Fuel and Non-Fuel Waste Dry Storage and Transport Casks
- In-pool Spent Fuel Storage Racks
- Dry Spent Fuel Loading Equipment
- Vertical Air Cooled Condensers
- Technical and Consulting Services
101 nuclear plants worldwide rely on Holtec’s dry storage technology for their storage and transport needs; 59 domestic, 42 international
Holtec’s Dry Storage & Transport Expertise

- Holtec offers a complete line of equipment for dry fuel storage and transportation

- 101 plants worldwide (59 in the U.S.) are under contract for use of Holtec’s dry storage systems

- Over 770 Holtec canisters have been successfully loaded
  - This number grows by 70-90 canisters per year

- Holtec’s experience includes PFS & Ukraine’s Central Storage
Who is the EDDY-LEA Alliance?

- Alliance of the Cities of Carlsbad & Hobbs and the Counties of Eddy & Lea

- Formed Under the Local Economic Development Act (LEDA) for Economic Development Purposes in 2006 & to Respond to Global Nuclear Energy Partnership (GNEP) Proposal from DOE

- ELEA purchased 1,000 acres of land approximately halfway between Carlsbad and Hobbs, N.M. for potential use
Why the ELEA Site?

- Land studied extensively during Global Nuclear Energy Partnership (GNEP) process
- Remote location
- Geologic stability
- Dry area
- Infrastructure present, including rail
- Preexisting robust scientific and nuclear operations workforce
- STRONG CONSENT FROM AREA
SE New Mexico’s Nuclear Corridor
Holtec’s Proposed Technical Solution

- HI-STORM UMAX (Holtec International STORage Module Universal MAXimum security)

- Complete physical protection by storing the fuel below grade in reinforced vertical silos
HI-STORM UMAX = Safe & Secure

- **Safety**: Utilizes the sub grade during storage for superior radiation protection to workers and public and to the stored contents from dangers presented by earthquakes and other extreme environmental phenomena such as hurricanes, tornado borne missiles, earthquakes, tsunamis.

- **Security**: The above ground height of the HI-STORM UMAX is below waist height making the facility visibly inconspicuous & provides a clear, unobstructed view of the entire facility from any location.
HI-STORM UMAX has already been constructed at Ameren Missouri's Callaway Nuclear Plant.

In December 2014, Southern California Edison selected the HI-STORM UMAX for storing the used nuclear fuel from the Decommissioned San Onofre NPP.

HI-STORM UMAX was selected because it is robust, can withstand the enhanced earthquake conditions, low sight line, and was flexible in layout design.
Phase 1 includes design, licensing, construction and operation of the storage facility as a pilot site to store:

- the entire complement of Holtec canisters currently deployed at Independent Spent Fuel Storage Installations (ISFSI) around the country,
- a prospective client, Wolf Creek, which can avail itself of the ELEA CIS facility without having to establish an onsite ISFSI, and
- all canisters from shutdown plants and near term shutdown plants (Connecticut Yankee, Humboldt Bay, Kewaunee, La Crosse, Maine Yankee, Millstone Unit 1, Oyster Creek, Rancho Seco, SONGS, Trojan, Yankee Rowe, and Zion).

Phase 1 includes design, licensing, construction and operation of the storage facility as a pilot site to store:

Phase 2 includes further expansion of cask contents in HI-STORM UMAX to include all other canisters deployed at presently operating ISFSIs in the U.S.
Approach to Licensing

- Submit an amendment to the HI-STORM UMAX docket # 72-1040 that will expand the allowable contents
- Submit a site-specific license application for the CIS on the ELEA site
- The ELEA site specific licensing application will invoke the HI-STORM UMAX FSAR by reference
Preliminary Licensing & Construction Schedule

- Pre-Application Meeting with NRC..............Dec 1, 2015
- Application Submittal to NRC.....................Jun 1, 2016
- Safety Evaluation Report................................Oct 30, 2018
- License Issued.............................................Jan 30, 2019
- Construction Phase I Begins.......................Apr 1, 2019
- Operations Begin.........................................Apr 1, 2020
Conclusions

- CIS is a viable short-term solution for SNF
- The ELEA NM Site can be made available in **Five years**
- There are no technical impediments
- Holtec UMAX System is Certified by the NRC
- Benefits to NM are measured in Revenues and Jobs