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

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ELEA – New Mexico
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Who is the EDDY-LEA Alliance?

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

- Alliance is an LLC With 8 Board Members

- Equal Investment & Ownership

- 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
Why the ELEA Site?

- ELEA purchased 1,000 acres of land approximately halfway between Carlsbad and Hobbs, N.M. for potential use
- Land studied extensively during Global Nuclear Energy Partnership (GNEP) process
- Remote location
- Geologic stability
- Dry area
Why the ELEA Site?

- Infrastructure present, including rail
- Preexisting robust scientific and nuclear operations workforce
- Excellent location for future repository nearby
- 35 miles from nearest population
- STRONG CONSENT FROM AREA
SE New Mexico’s Nuclear Corridor

a generation ahead by design
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

Headquarters
Jupiter, FL

Corporate Technology Center
Marlton, NJ

Orrvilon, OH

Turtle Creek, PA
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
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 750 Holtec canisters have been successfully loaded
  - This number grows by 70-90 canisters per year
Holtec’s Worldwide Dry Storage and Transport Experience

101 nuclear plants worldwide rely on Holtec’s dry storage technology for their storage and transport needs; 59 domestic, 42 international
Holtec’s Interim Storage Experience

- Holtec gained valuable experience by supporting the licensing of PFS
- Holtec’s above ground storage system was approved for use
- Over 4,000 systems were expected to be used
- Demonstrated integrity even considering aircraft impact (F-16)
Holtec is under contract with Ukraine’s national utility to establish (turnkey) a Central Storage Facility for Ukraine’s Reactors.

- Expected Completion date: 2017
- Savings to Ukraine’s treasury: over $1 billion in six years of operation
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
The HI-STORM UMAX Can Store All of the Nations Used Fuel

- Enhanced security due to the low profile providing a clear, unobstructed view of the entire facility from any location
- Requires less vertical space than above ground storage systems
  - An array of 60 by 60 HI-STORM UMAX storage systems can safely store 75,000 metric tons of spent nuclear fuel
  - The size of a consolidated storage site will be a mere 32 acres (an area of four football fields length on a side)
- The system is physically sized to store all of the used nuclear fuel produced in the United States and all canisters currently licensed in dry storage

The above ground height of the HI-STORM UMAX is below waste height making the facility visibly inconspicuous
Holtec Proposed Technical Solution

- Utilizes the radiation shielding properties of the subgrade during storage for superior protection to workers and public from radiation dose

- Decreases the dangers presented by earthquakes and other extreme environmental phenomena such as hurricanes, tornado borne missiles, earthquakes, tsunamis

- Virtually eliminates the potential damage from fires, explosions, incident projectiles, or a World Trade Center or Pentagon type of attack on the stored canister

SAFE – SECURE - ECONOMICAL
MPC – Multi Purpose Canister Containing Fuel Assemblies
Holtec’s HI-STORM UMAX is the most Advanced Dry Storage System and is Being Built for US Utilities

- HI-STORM UMAX has already been constructed at Ameren Missouri's Callaway Nuclear Plant

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

- HI-STORM UMAX was selected because it is robust, can withstand the enhanced earthquake conditions, low sight line, and was flexible in layout design
Holtec is the Only Company to Design and License Below Grade Storage Systems for Spent Nuclear Fuel

Humboldt Bay Below Grade Storage for HI-STAR Transport Casks
• Holtec supports the BRC’s recommendations
  – We support the consent based approach for siting, recognizing that Congress must act to provide incentives for potential host communities
  – We will pursue Congressional action to adjust the NWPA to allow for an interim storage facility
  – A new waste management organization with access to the NWF is essential
  – We believe ELEA Site in NM is Ideal for a Safe, Secure, and Economical National Solution
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