

# Decommissioning San Onofre

**Nuclear Generating Station** 

# CIS Development Project: Eddy-Lea Energy Alliance LLC

**John Heaton** 

Chairman, Eddy-Lea Energy Alliance LLC

**Pierre Oneid** 

Senior Vice President & Chief Nuclear Officer
Holtec International



# SONGS Community Engagement Panel Safety – Stewardship – Community Engagement May 11, 2017





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

By: John Heaton, Chairman, Eddy-Lea Energy Alliance



#### Who is the EDDY-LEA Alliance?





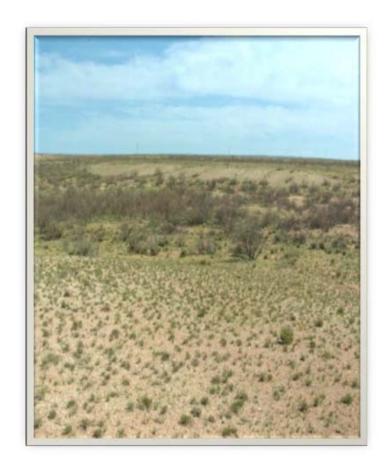
- Alliance of the Cities of Carlsbad & Hobbs, and the Counties of Eddy Lea
- Formed Under the Local Economic Development Act (LEDA) for Economic Development in 2006 & to Respond to Global Nuclear Energy Partnership (GNEP) Proposal from DOE
- ELEA purchased 1,000 acres of land approximately halfway between 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**







### Conclusion







- CIS is a viable short-term solution for SNF
- There are no technical impediments
- Holtec UMAX System is Certified by the NRC

# Questions







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## HI-STORE: A Consolidated Interim Storage Facility for Used Nuclear Fuel and HLW

By: Pierre Oneid, Senior Vice President & Chief Nuclear Officer
Holtec International

#### **How Private Initiative Can Contribute**





- Provide an unprecedented opportunity to DOE to make good on the government's long standing promise to defuel nuclear plant sites
- Supplements long-term repository contemplated by DOE
- Allows removal of used fuel from reactor sites much sooner than awaiting a repository
- Provide a highly cost efficient away-from-reactor storage mode
- Eliminate the stakeholder and political challenges associated with reactor-site used fuel storage by relocation to a site that has strong local and state consent and support



### **Holtec & ELEA Team**





- Holtec International
  - ✓ U.S. Company with U.S. manufacturing
  - ✓ Advanced dry storage technology
  - Experience in licensing fuel storage facilities
- Eddy-Lea Energy Alliance,
   LLC
  - ✓ Long-standing alliance of the Cities of Carlsbad & Hobbs and the Counties of Eddy & Lea
  - ✓ Formed in 2006 under New Mexico's Local Economic Development Act



Holtec Heavy Manufacturing Center, Camden, NJ

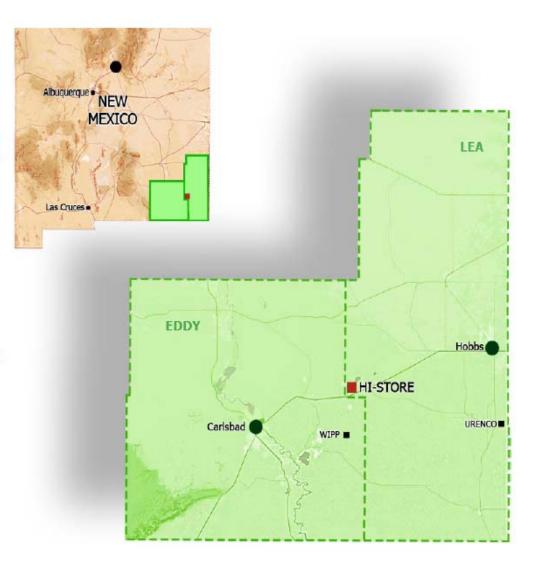
## **HI-STORE Site Location**





- 1,000 acres: Geologically stable, dry, elevated land
- Developed infrastructure: electric, water, roads & rail
- Remote location:

  - Midway between Carlsbad & Hobbs, NM
- Populace: Robust scientific
   & nuclear workforce
- Strong support:
  - ✓ Local communities
  - ✓ State and Local government

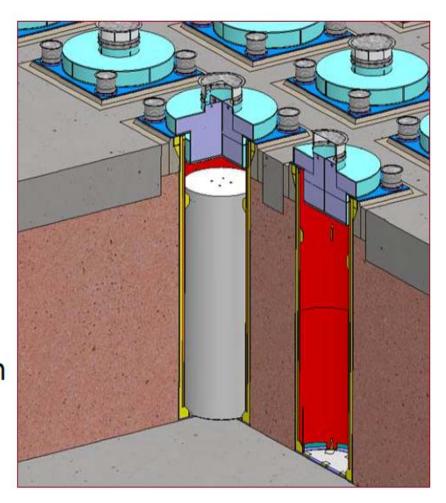


## **HI-STORE Characteristics**





- Holtec's Below grade Dry Storage Technology
- Canister is entirely below grade
- Designed store canisters up to 75 ¾ inches in diameter, and up to 213 inches tall
- Will store any US-origin commercial nuclear fuel currently packaged in dry storage canisters, or stored in the nation's fuel pools
- No repackaging of fuel required



# **HI-STORE Characteristics**





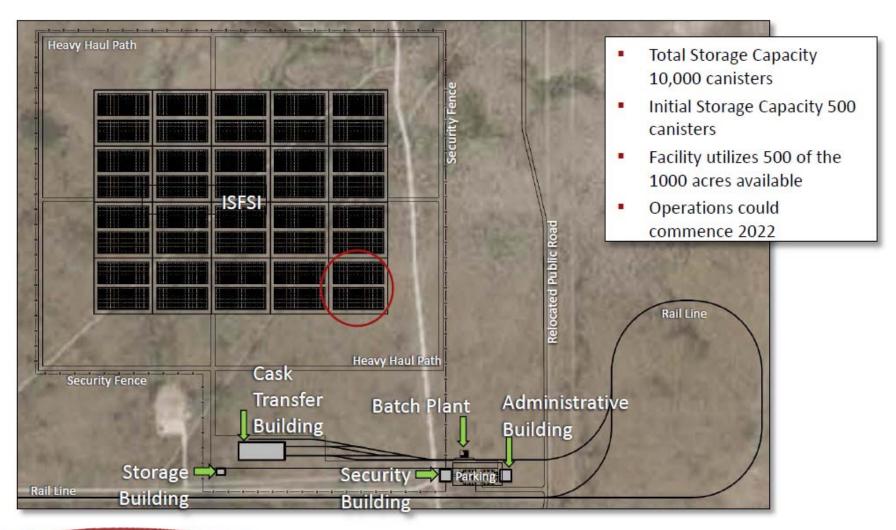
- Operational Advantages
  - ✓ Single System
  - Canister placed into storage or removed in less than one shift
- Maximizes Security
  - ✓ Facility is visually inconspicuous
  - ✓ Profile < 2 ft tall</p>
  - Less visible target from the air
  - Reduced visibility from public land
  - ✓ No area of obstructed view
- Maximizes Safety
  - ✓ Minimize dose to environment & crew
  - Virtually immune to environmental disasters - hurricanes, floods, tornados, earthquakes
  - Designed to withstand crashing aircraft or on-site fire without any radiological consequences



## **HI-STORE Site Layout**







## **Two Part Approach to Licensing**





#### Part 1. HI-STORM UMAX FSAR Amendment

- August 2016 Submitted HI-STORM UMAX License Amendment:
  - ✓ Added NUHOMS 24PT1 canister for vertical storage
  - ✓ Standard HI-TRAC (transfer cask) and HI-STORM UMAX designs are utilized for NUHOMS canisters
- In succession update HI-STORM UMAX certificate to:
  - ✓ Add canisters from specific shutdown / decommissioned plants
  - ✓ Add all canisters licensed to store SNF

## **Two Part Approach to Licensing**





#### Part 2. Site Specific License Application

- Pre-submittal Meeting Dec 6, 2016: Environmental Report focus
- Pre-submittal Meeting February 1, 2017: Outline of the SAR focus
- NRC audit February 22&23, 2017: pre-application audit of Holtec's HI-STORE application
- March 31, 2017: Submitted Site Specific License Application per 10 CFR 72
  - ✓ Initial application 500 canisters
  - ✓ Future amendments for additional canisters up to 10,000
  - ✓ Reference the amended HI-STORM UMAX Certificate and FSAR for technical details