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## **Palisades Construction Permit Application: Initial Environmental & Site Characterization**

*April 3, 2024*

**Holtec's SMR-300 Technology**  
**Safe, Secure, Reliable, Flexible, Economical**  
Clean Energy to Support the World's Energy Needs



**Holtec International**  
**Krishna P. Singh Technology Campus**  
**One Holtec Boulevard**  
**Camden, NJ 08104, USA**

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## Agenda

- Team Introductions
- Holtec and CPA Project Overview
- Site Characterization Activities
  - ✓ Critical Dune Protection
  - ✓ Cultural Resources
  - ✓ Ecological Resources
  - ✓ Surface Hydrology
  - ✓ Subsurface Investigations
  - ✓ Meteorology
  - ✓ Site Characterization Schedule
  - ✓ Permit and Agency Consultation Plan

## Holtec International Overview

- Holtec International is a global turnkey supplier of equipment and services for the Nuclear Energy Sector
  - ✔ SMR-300 design and deployment
  - ✔ Palisades Nuclear Plant repower
  - ✔ Nuclear fuel waste management
  - ✔ Decommissioning of shuttered nuclear power plants
- “A generation ahead by design”



**Holtec's Advanced Manufacturing Division (AMD)  
Designed and Constructed for Fabrication of SMR-300**

# CPA Project Overview

- Submit CPA in mid 2026 for a dual-unit SMR-300 plant for approximately 600 MWe new generation to be collocated at the Palisades Nuclear Generating Station
  - ✓ Holtec has engaged the NRC regarding the potential to submit a Limited Work Authorization for some construction activities ahead of CP approval
- Submit an OLA to support facility commissioning and startup by early 2031



# Stakeholder Engagement

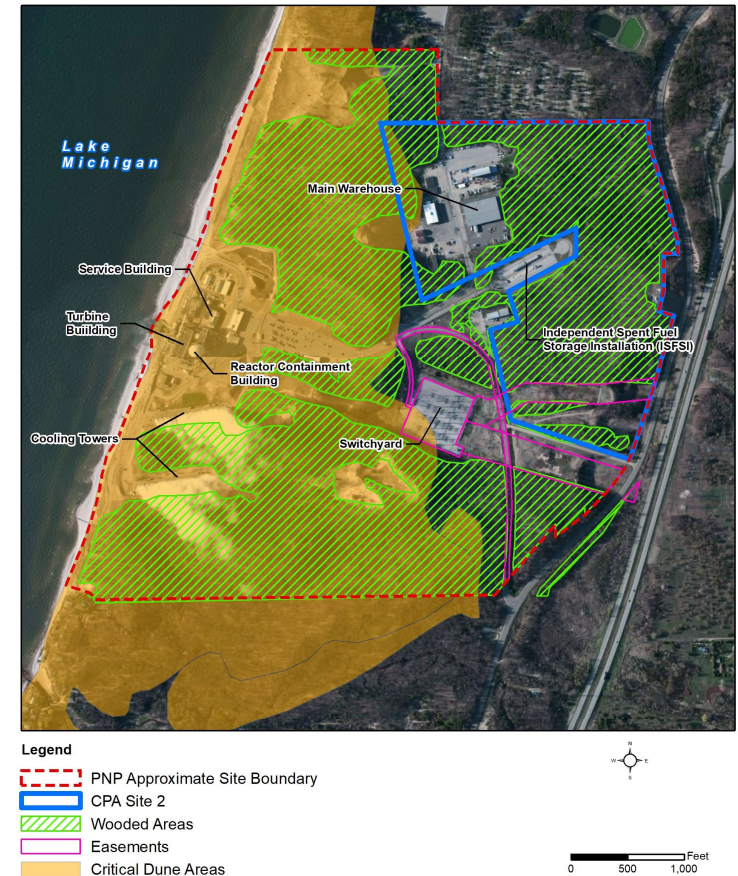
Stakeholder engagement is important for the success of the CPA!

## Outreach

- Use multiple outreach methods to communicate proactively with key stakeholders to ensure meaningful engagement.
- Listen to and welcome diverse perspectives and inputs.
- Understand stakeholder concerns and inputs and address accordingly.
- Early engagement with key regulatory agencies, including but not limited to:
  - Michigan State Historic Preservation Office (MSHPO)
  - Michigan Environment, Great Lakes, and Energy (EGLE)

## CPA Characterization Activities: Critical Dune Protection

- Holtec is partnering with ENERCON and BARR to complete a detailed delineation of critical dunes within the Palisades site.
  - ✓ Early engagement with Michigan EGLE has been initiated to develop updated dune boundaries and protective measures.
- All efforts are being taken to minimize dune impacts to the extent possible.

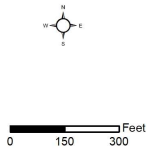


Note: Critical dune areas illustrated on figure are based on historical data.

# CPA Characterization Activities: Cultural Resources



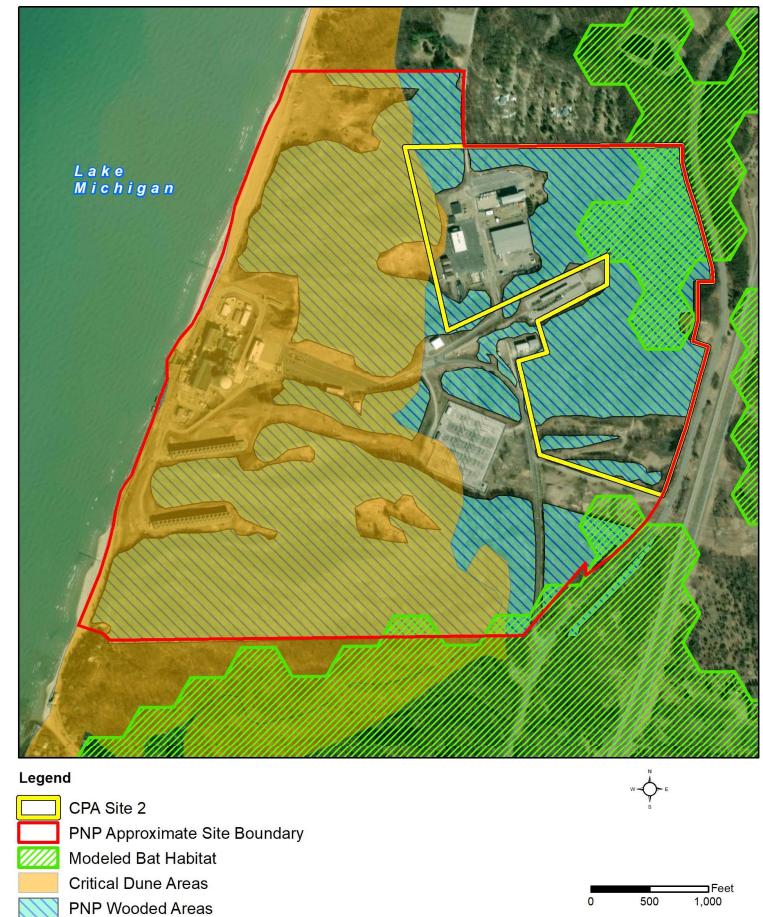
Legend  
⊗ Preplotted Shovel Test Location  
□ PNP Approximate Site Boundary



- Cultural resources are being reviewed.
  - ✓ A survey plan of the Palisades site has been developed and submitted to MSHPO.
  - ✓ Field crews mobilized on March 18, 2024, to begin archaeological survey, including shovel tests according to MSHPO recommended methodology.
  - ✓ The resulting report will be provided to MSHPO for concurrence of findings and incorporated into the CPA ER.

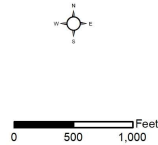
## CPA Characterization Activities: Ecological Resources

- Ecological resources at Palisades are currently being evaluated to identify potential habitat for state and federally-listed species.
  - ✓ 73 state-listed threatened and endangered (T&E) species
  - ✓ 10 federally-listed T&E species
    - Three birds
    - One rattlesnake
    - Two butterflies
    - Three bats
    - One plant
  - ✓ Acoustic bat survey to be conducted Summer 2024.





## CPA Characterization Activities: Surface Hydrology



- Holtec is completing a wetland delineation survey of the Palisades site in accordance with the US Army Corps of Engineers manual.
- Onsite surface water bodies will be mapped.
- Seeps, springs or other onsite surface hydrology will be identified.

## CPA Characterization Activities: Subsurface Investigation

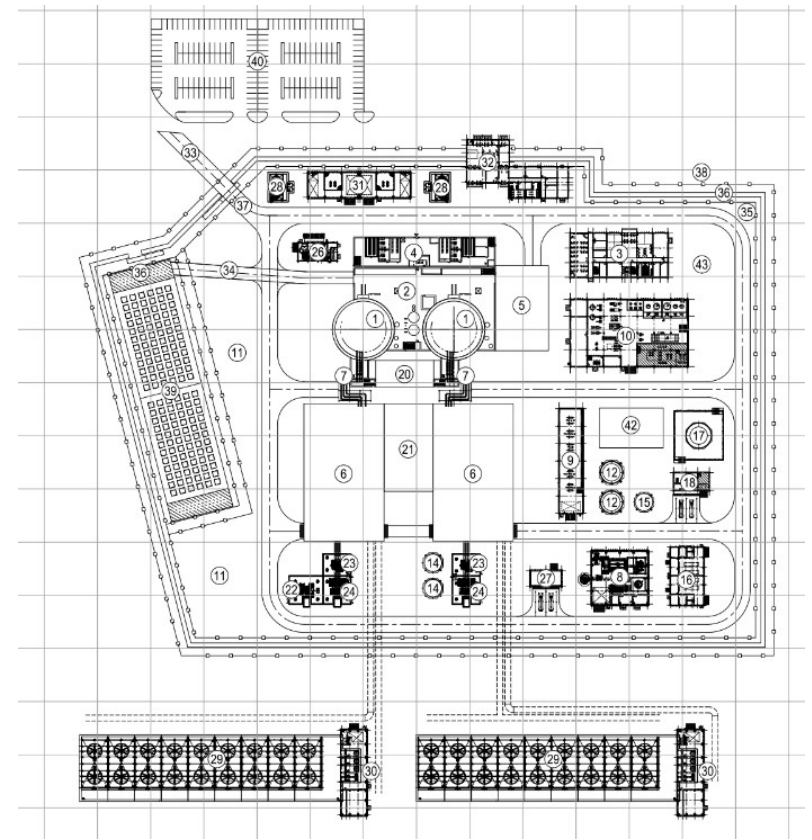


### ■ Geotechnical Characterization

- ✔ Holtec will finalize the SMR-300 plot plan and build location after reviewing initial site characterization data.
- ✔ NRC will be engaged prior to core borings (anticipated Summer 2024).

### ■ Groundwater Monitoring

- ✔ Additional groundwater monitoring wells will be installed to supplement the information from existing site groundwater monitoring wells.



## CPA Characterization Activities: Meteorology



Legend  
PNP Approximate Site Boundary  
CPA Site 2

- Palisades has a meteorological tower that provides data for the existing plant.
- Holtec intends to use data from this meteorological tower for SMR-300.
  - ✓ Validation of data applicability is planned after SMR-300 plot plan and build location are finalized.

## Site Characterization Schedule

- Critical Dune Delineation – April 2024
- Cultural Resources – April 2024
- Ecological Resources – Phased approach, complete Winter 2024
- Surface Hydrology – April 2024
- Subsurface Investigation
  - ✓ Geotechnical Investigation – Summer through Fall 2024
  - ✓ Groundwater Monitoring – Fall 2024 through Fall 2025
- Meteorology – Complete, pending validation

\*Dates represent completion of site work, reports documenting analysis and conclusions will follow.

## CPA Characterization Activities: Permit and Agency Consultation Plan



- Holtec has developed a Permit and Agency Consultation Plan
  - ✔ Identifies the local, state, and federal permits required for the CPA.
  - ✔ Identifies key stakeholders and agencies that will be consulted as part of the CPA development process.
  - ✔ Engagement with key stakeholders and agencies will be conducted early to allow adequate time for input into the CPA development process.
    - Holtec has already started early engagement with Michigan EGLE, MSHPO, Covert Township, and County of Van Buren.

**Adjourn**