



## SMR-300 Structural Modularity (Open Session)

*Sept 23, 2024*

**Holtec's SMR-300 Technology**

**Safe, Secure, Reliable, Flexible, Economical**

**Clean Energy to Support the World's Energy Needs**



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# Agenda

- Purpose & Outcome
- Motivation for Structural Modularity
- Holtec's Design: Concrete Filled Steel Structure (CFSS)
- Application to SMR-300: Containment Enclosure Structure (CES)
- Phases of Constructing CES
- Future Work and Timelines
- Questions for NRC Staff

# Purpose & Outcome

## ■ Purpose

- ✓ Preview plans for modularity of SMR-300's Nuclear Island structures
- ✓ Present high-level design philosophy
- ✓ Walk-through preliminary modular design of CES
- ✓ Present timelines for future work and NRC engagement

## ■ Outcome

- ✓ Identify any existing or forthcoming guidance applicable to SMR-300 modular structures
- ✓ Understand potential NRC review risks for SMR-300's modular designs

# Structural Modularity: Motivation

- Reduce on-site work and labor
- Accelerate critical path construction activities
- Improve shop fabrication efficiency
  - ✓ Utilize fewer and standardized parts
  - ✓ Adopt standard and repeatable design
  - ✓ Incorporate semi-automatic or automatic welding techniques
- Design for easier on-site assembly
  - ✓ Features to accommodate tolerances
  - ✓ Simple connection designs
  - ✓ On-site semi-automatic/automatic welding methods
  - ✓ Address Michigan weather limitations

# Transition to Proprietary Session

