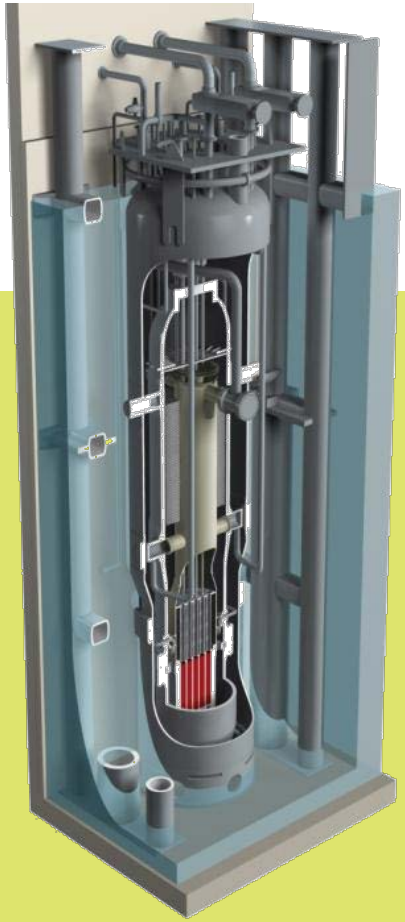


NuScale Program WIN And WIN-WA

Energy NorthWest Member's Forum

Dale Atkinson, Chief Operating Officer

October 23nd, 2014

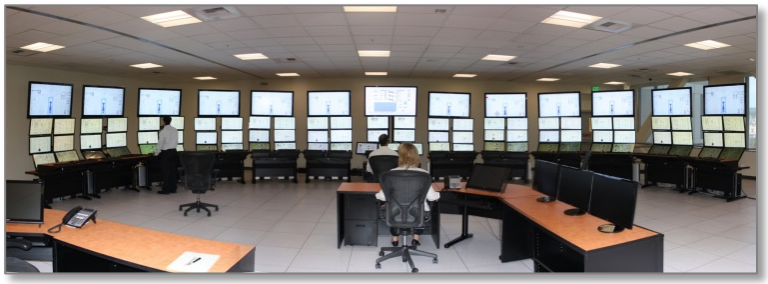
NuScale Power™

NuScale Power History

- NuScale first of current US SMRs to begin design of commercial NPP.
- NuScale technology in development and design since 2000 (DOE) MASLWR program, with INL, lessons from AP600/1000 ¼-scale testing facility built and operational
- Electrically-heated 1/3-scale Integral test facility first operational in 2003
- Began NRC design certification (DC) pre-application project in April 2008
- Acquired by Fluor in October 2011
- US DOE SMR Grant Awardee, 12/12/13
- ~380 FTE's currently on project, ~$240MM spent project life-to-date
- ~35 positions currently open, adding 100+
- 158 patents pending/granted, 17 countries
- Portland, Corvallis, Rockville, Charlotte

NuScale Engineering Offices Corvallis, Oregon

One-third scale Test Facility



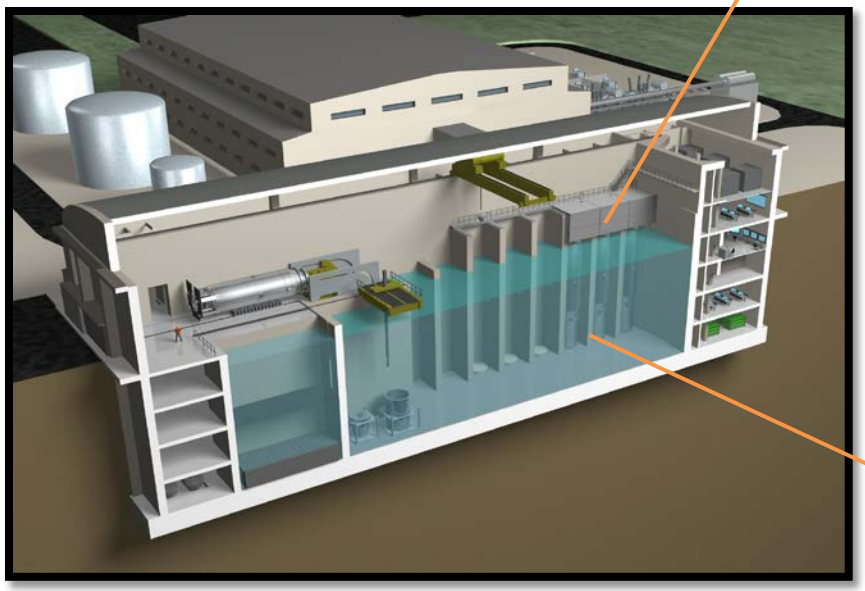
NuScale Control Room Simulator

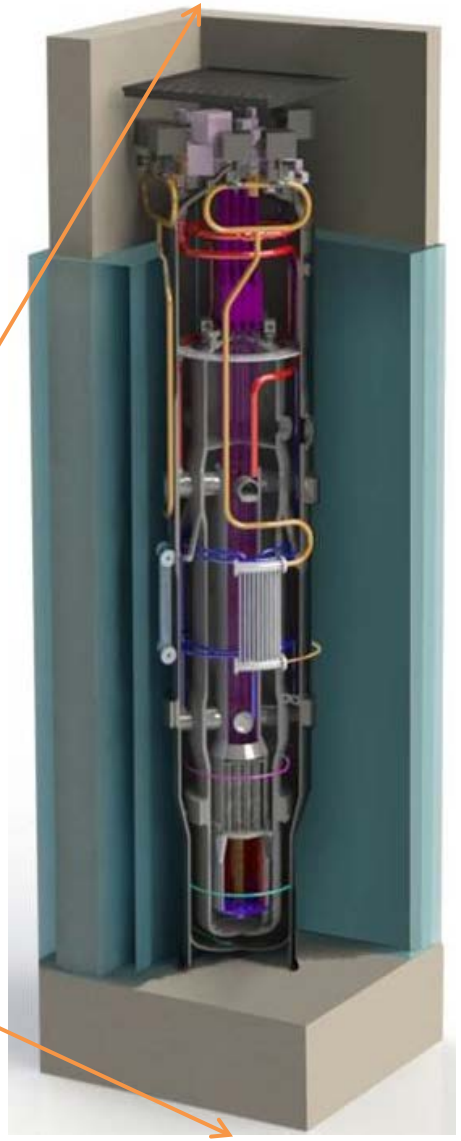
NuScale and DOE Complete FOA

NuScale Power™

What is a NuScale Power Module?

- A NuScale Power Module (NPM) includes the reactor vessel, steam generators, pressurizer and ***containment*** in an integral package that eliminates reactor coolant pumps and large bore piping (no LB-LOCA)
- Each NPM is 50 MWe and factory built for easy transport and installation
- Each NPM has its own skid-mounted steam turbine-generator and condenser
- Each NPM is installed below-grade in a seismically robust, steel-lined, concrete pool
- NPMs can be incrementally added to match load growth - up to 12 NPMs for 600 MWe gross (~570 net) total output



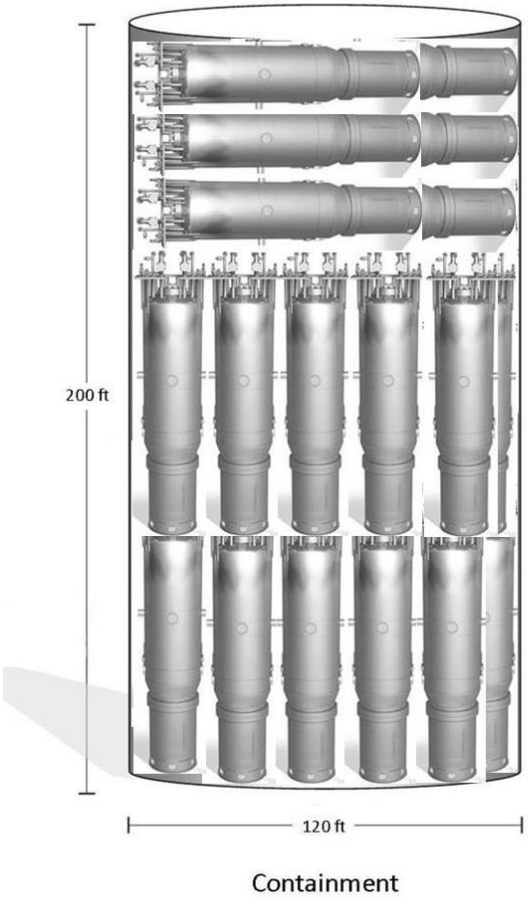


NuScale Power™

Size Comparison

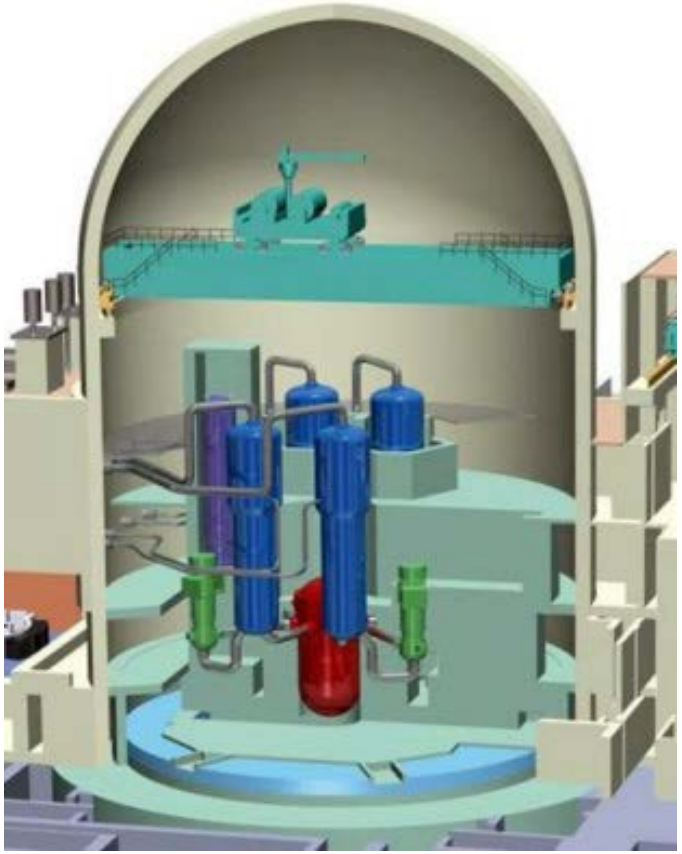
Comparison size envelope of new nuclear plants currently under construction in the United States

126 NuScale Power Modules



NuScale's combined containment vessel and reactor system

Typical Pressurized Water Reactor

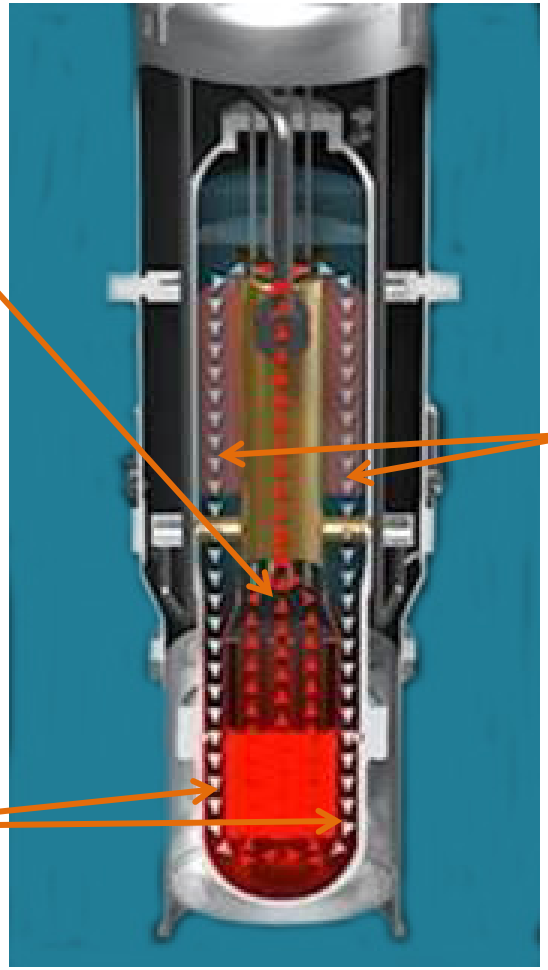


*Source: NRC

NuScale Power™

Coolant Flow Driven By Physics

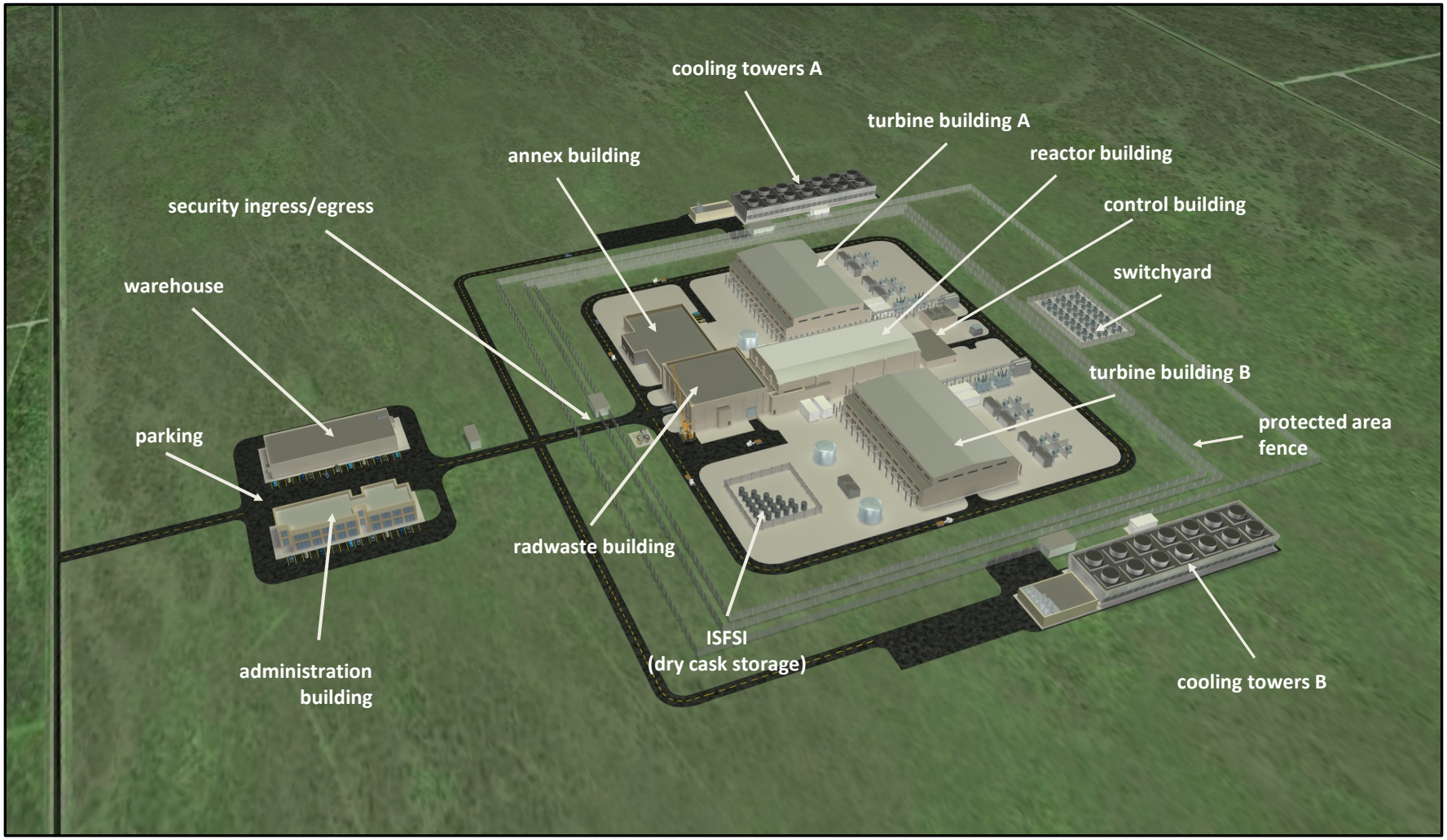
Convection **– energy from the nuclear reaction heats the primary reactor coolant causing it to rise by convection and natural buoyancy through the riser, much like a chimney effect**



Conduction **– heat is transferred through the walls of the tubes in the steam generator, heating the water (secondary coolant) inside them to turn it to steam. Primary water cools.**

Gravity **– colder (denser) primary coolant "falls" to bottom of reactor pressure vessel, cycle continues**

Site Aerial View



NuScale Power™

The Safety Case

NuScale Announces Major Breakthrough in Safety

Wall Street Journal April 16, 2013

- NuScale design has achieved the “Triple Crown” for nuclear plant safety. The plant can safely shut-down and self-cool, indefinitely, with:
  - **No Operator Action**
  - **No AC or DC Power**
  - **No Additional Water**
- Safety valves align in their safest configuration on loss of all plant power.
- Details of the Alternate System Fail-safe concept were presented to the NRC in December 2012.

What About Customers?

- NuAB—NuScale Advisory Board
- 24 member firms representing nearly two-thirds of US installed nuclear capacity
- International membership
- We have a line of sight to our first 12 projects
- COD Timing between now and 2030

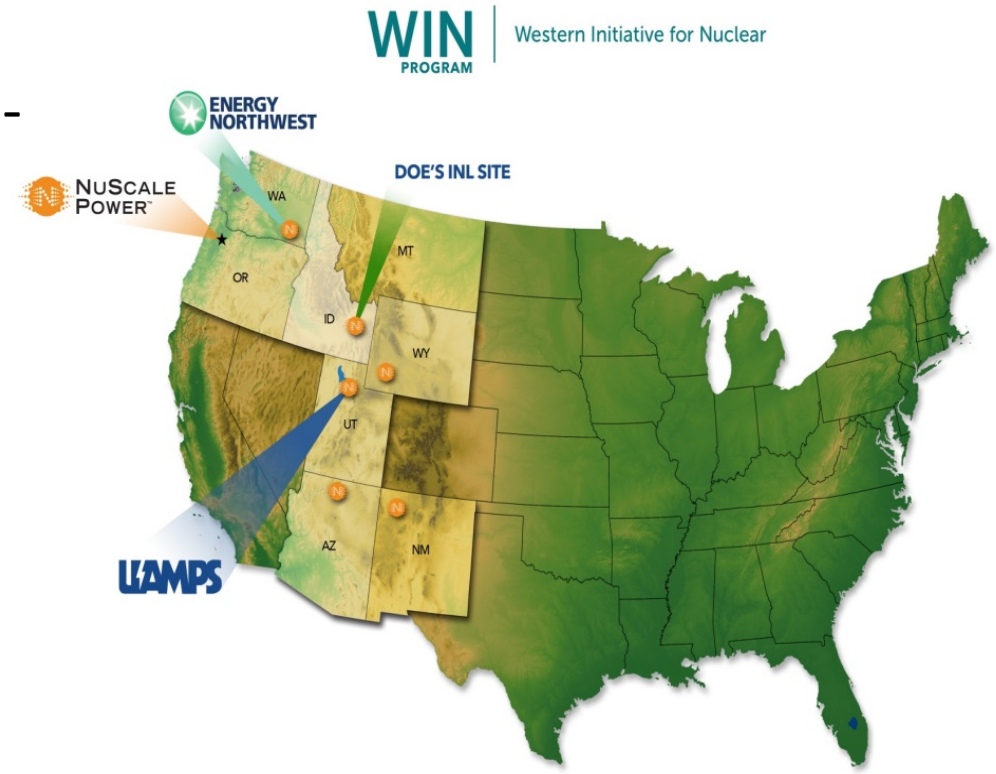
NuScale Advisory Board (NuAB) Members

NuScale Power™

Program WIN (Western Initiative for Nuclear)

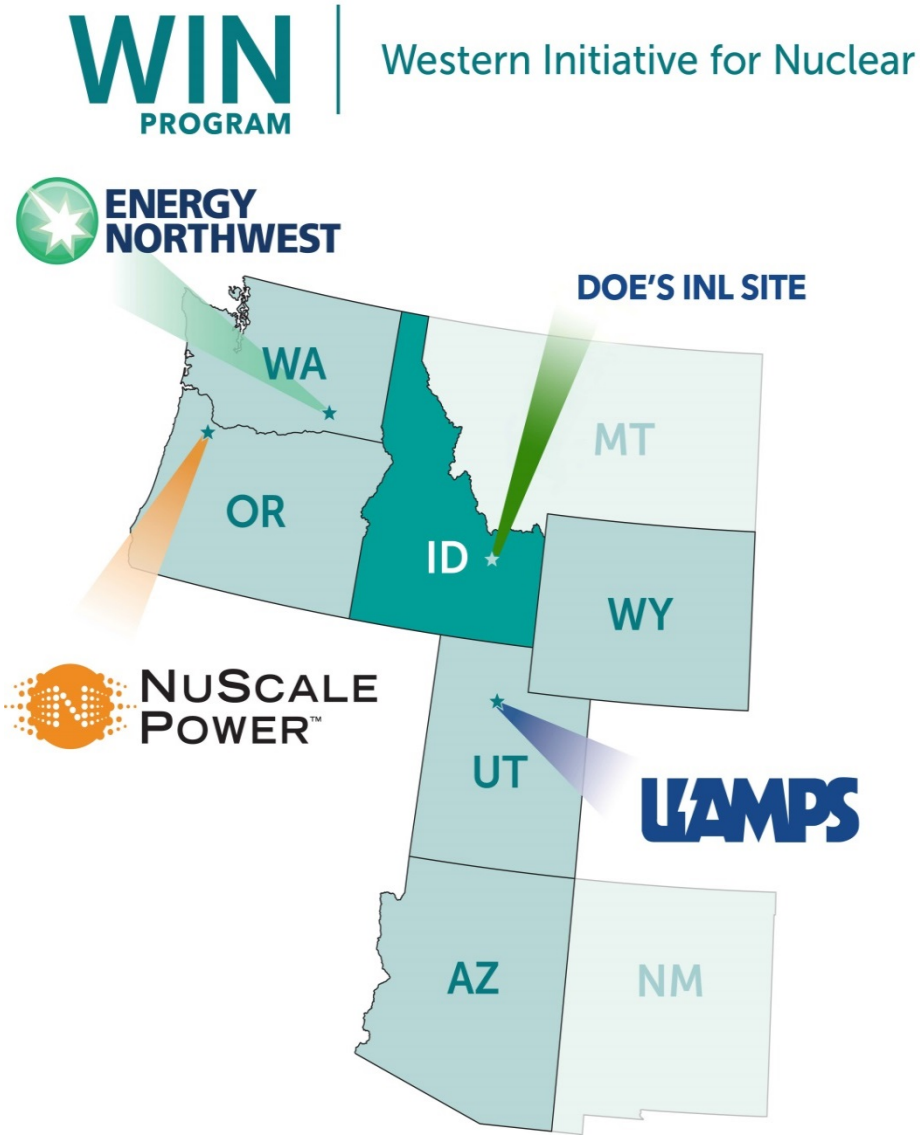
- Western Initiative for Nuclear (WIN) is a multi-western state collaboration to deploy a series of NuScale Power Projects

- Involved Program WIN participants: NuScale, UAMPS, Energy Northwest, ID, UT, OR, WA, WY, AZ, NM?, MT?



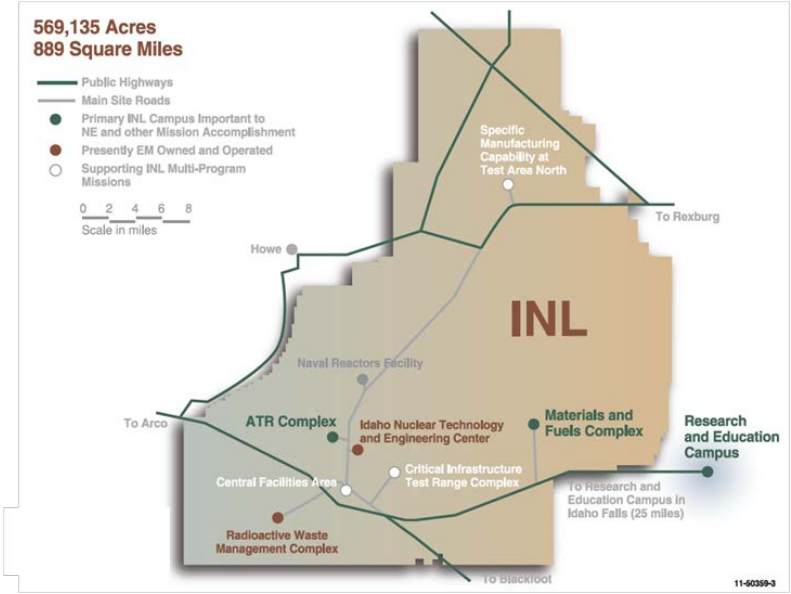
First Deployment: UAMPS CFPP

- Utah Associated Municipal Power Systems (UAMPS) Carbon Free Power Project (CFPP) will be first deployment, sited somewhere in Idaho.
- UAMPS consists of 46 members serving load in 8 western states.



UAMPS CFPP Details

- First commercial project:
  Potential locations may include sites within the Idaho National Laboratory (INL) Site.



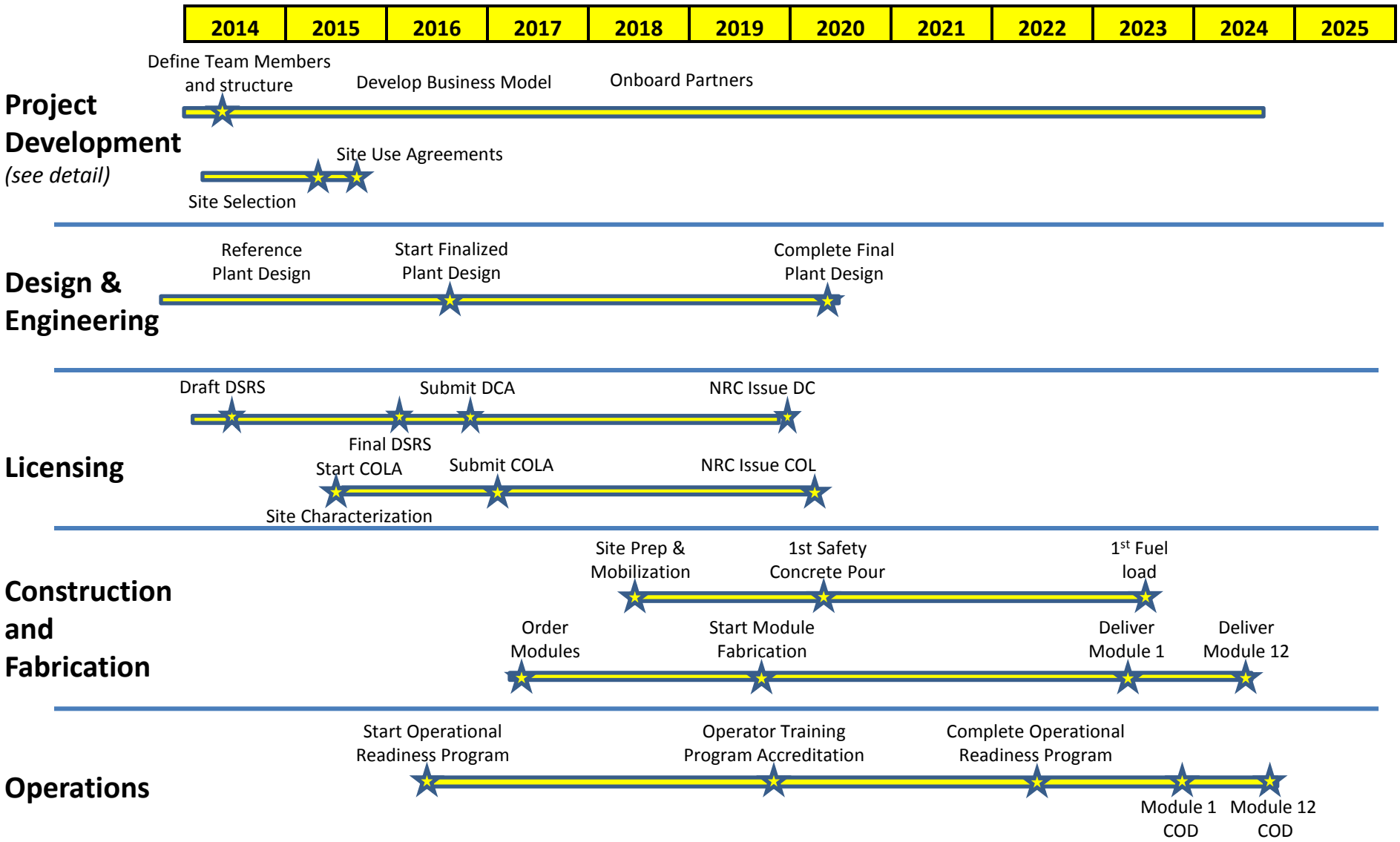
- Project known as UAMPS Carbon-Free Power Project (CFPP)

- Commercial operation in 2023.

- A 12-module plant (~574 MWe)

- Will provide immediate advantages to the Western region:
  - Provide clean, affordable energy and professional jobs
  - Demonstrate the operations and benefits of this SMR technology
  - Act as a catalyst for subsequent Program WIN facilities throughout the Western states

Overall UAMPS CFPP Project Schedule



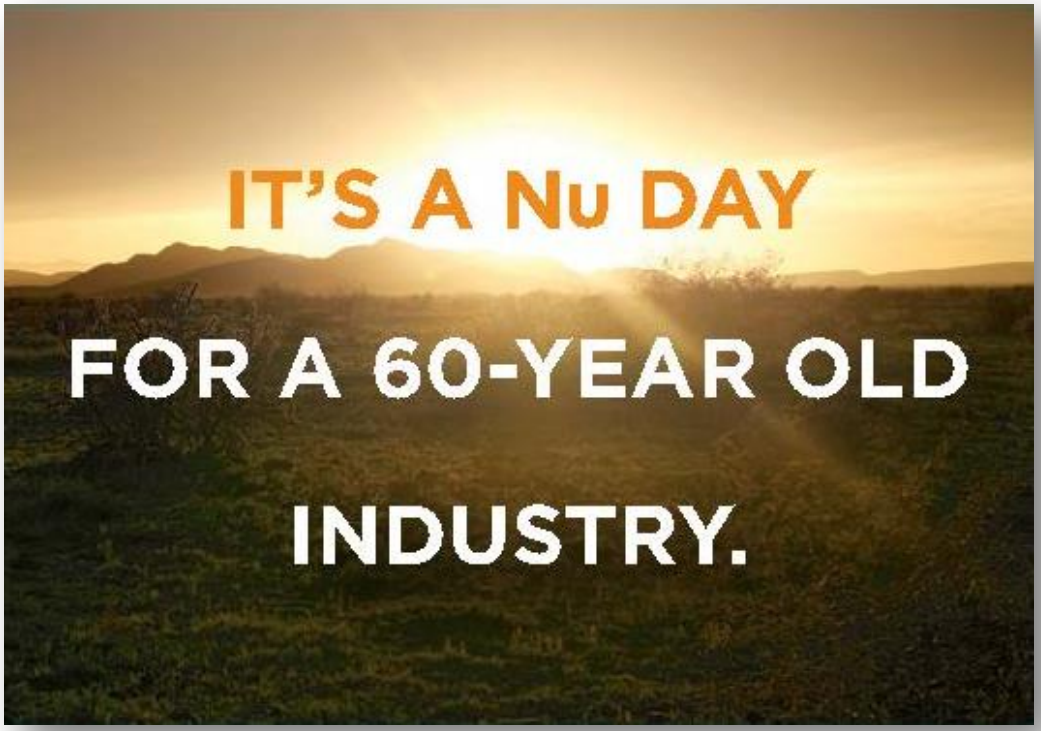
NuScale Power™

COMING SOON TO AN ELECTRIC GRID NEAR YOU!

Dale Atkinson

Chief Operating Officer/Chief Nuclear Officer

datkinson@nuscalepower.com



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