

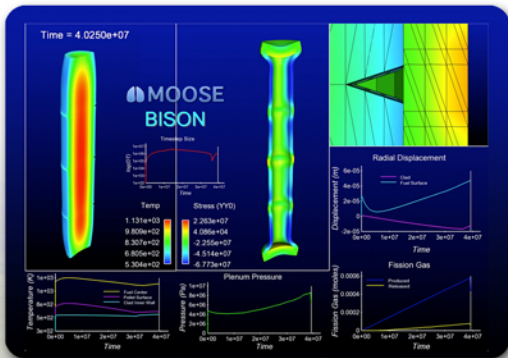
# Idaho National Laboratory

INL is the lead nuclear energy (NE) laboratory for the U.S. Department of Energy. The laboratory has designed and operated 52 test reactors, including EBR-1, the world's first nuclear power plant.

CASL  
Core Partner

## Key contributions

- System safety analysis
- Multiscale fuel performance simulation
- Multiphysics coupling framework (MOOSE)
- Reactor physics
- Multiphase flow
- Validation
- Advanced Test Reactor National User Facility



## Key outcomes

- Test stand for NE programs
- Virtual Environment for Reactor Applications (VERA) tools for advanced NE R&D
- Integration of LWR Sustainability system analysis tools with CASL in-core tools
- Advanced fuel performance code

