



Underground Energy Containment for Nuclear Power and Hydrogen Storage

Leveraging the drilling industry to deploy clean energy infrastructure

WHO WE ARE

NuWells is developing large-bore well technology to deploy underground nuclear power systems and hydrogen storage infrastructure safely.

By leveraging proven drilling techniques, NuWells enables scalable, secure, and cost-effective energy containment solutions to accelerate the global transition to reliable, net-zero power.

THE TECHNOLOGY

Well Design

- Diameter: 4–20 ft
- Depth: 1,000–4,000 ft
- Hydrogen Storage: ~20 tonnes/well
- Nuclear output: 10–200 MW/well

Demonstration Well

- Diameter: 6–10 ft
- Depth: 1,500–2,600 ft
- Hydrogen Storage: 10 tonnes/well
- Nuclear Output: 10–20 MW/well

80x Smaller Footprint

14% Lower Containment Structure Costs

40% Lower Construction Costs

THE OPPORTUNITY

The energy transition faces major infrastructure barriers: nuclear projects require large footprints and long timelines, SMRs face high containment costs, and hydrogen infrastructure lacks safe, scalable storage, slowing clean energy deployment worldwide.

THE NUWELLS SOLUTION

NuWells uses large-diameter wellbores (4–20 ft) as underground containment systems for energy infrastructure, including small modular reactors, hydrogen storage, compressed air or thermal storage, and industrial energy systems. The result is a modular, scalable clean-energy platform.

KEY ADVANTAGES

Lower Cost

Standardized well designs enable repeatable drilling and construction. Multi-well pads share infrastructure, reducing project costs and uncertainty.

Safety

Underground placement provides geologic shielding and passive heat dissipation. This results in reduced exposure to surface hazards and external threats.

Small Footprint

A NuWells reactor facility can have up to 80× smaller surface footprint than traditional SMR facilities.

Faster Deployment

Construction timelines could be reduced from ~10 years for conventional nuclear to <3 years with further optimization potential.



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PARTNERSHIP OPPORTUNITIES

NuWells is seeking strategic partners across industry, technology, and infrastructure development to support demonstration well projects, hydrogen storage pilots, SMR integration and site development, and engineering and supply chain collaboration.