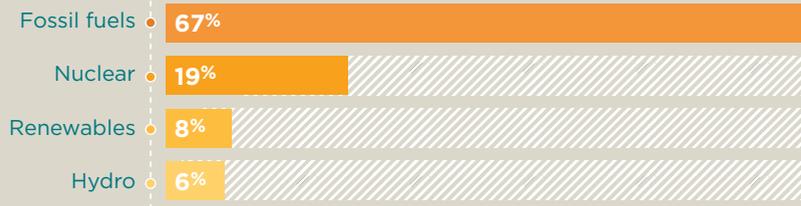


# BENEFITS OF PROPOSED NUCLEAR RESEARCH IN IDAHO

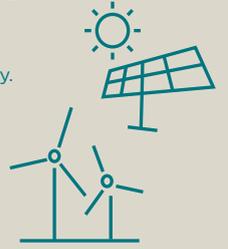
## NUCLEAR = NO CARBON EMISSIONS

### U.S. ELECTRICITY SOURCES



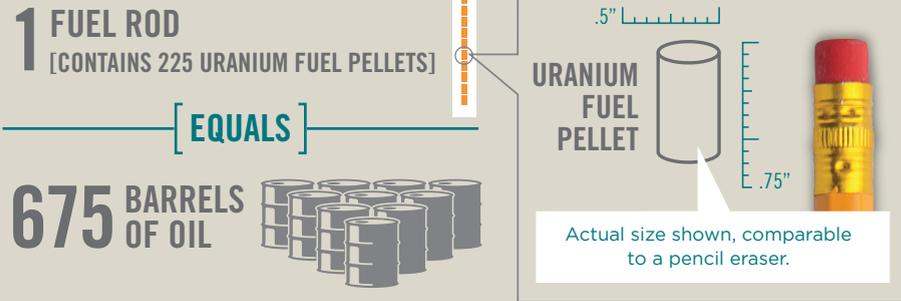
### ENERGY CHALLENGES

- Fossil fuels account for approximately **69%** of all greenhouse gas emissions.
- It's not always windy and it's not always sunny. We can't rely only on renewable energy for stable, clean electricity.



### ENERGY WITH MUCH LESS WASTE

1 FUEL ROD produces the same amount of energy as 675 BARRELS of oil



**CARBON-FREE NUCLEAR** is a critical piece of the nation's energy portfolio.



### RESEARCHING SPENT FUEL

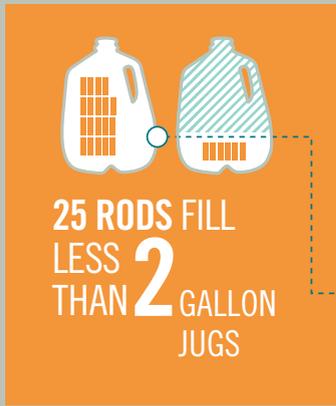
Used fuel from a nuclear reactor to produce electricity.



### HOW DO WE INCREASE THE LIFE AND SAFETY OF THIS FUEL?



## PROPOSAL



### PROJECT ONE

**25** RODS / **100** lbs.

2 SHIPMENTS  
50 FUEL RODS  
200 LBS. SPENT FUEL

### PROJECT TWO

**25** RODS / **100** lbs.



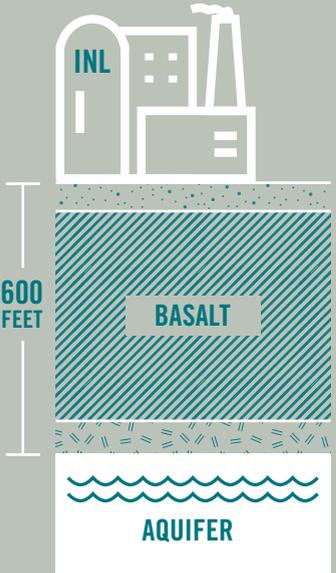
**RESEARCH PURPOSE:**  
Improved long-term storage



**RESEARCH PURPOSE:**  
Safe recycling of fuel

### MITIGATING RISK:

- All research of spent fuel takes place in airtight, shielded research cells with special handling equipment.
- Once research is complete, spent fuel is stored inside sealed metal canisters engineered to withstand extreme weather events and natural disasters.
- INL's location is one of the safest seismic sites in Idaho with no faults running through the property and low soil permeability.



Experts agree that there is no viable path for spent fuel to reach the aquifer.

## PROPOSAL'S BENEFITS TO IDAHO



**\$100 MILLION**  
RESEARCH FUNDING

**60** NEW JOBS

**OPPORTUNITY:**  
Idaho retains leadership in nuclear research efforts.

INL BENEFITS IDAHO

**5<sup>TH</sup>** LARGEST PRIVATE EMPLOYER IN IDAHO

RESPONSIBLE FOR **24,000** DIRECT/INDIRECT JOBS & **\$2 BILLION** IN WAGES

## WHY INL / IDAHO



Named top nuclear research laboratory by Department of Energy.



Numerous R&D 100 Awards.



Home to globally-recognized nuclear minds.



Leaders in environmental stewardship and safe working conditions.