

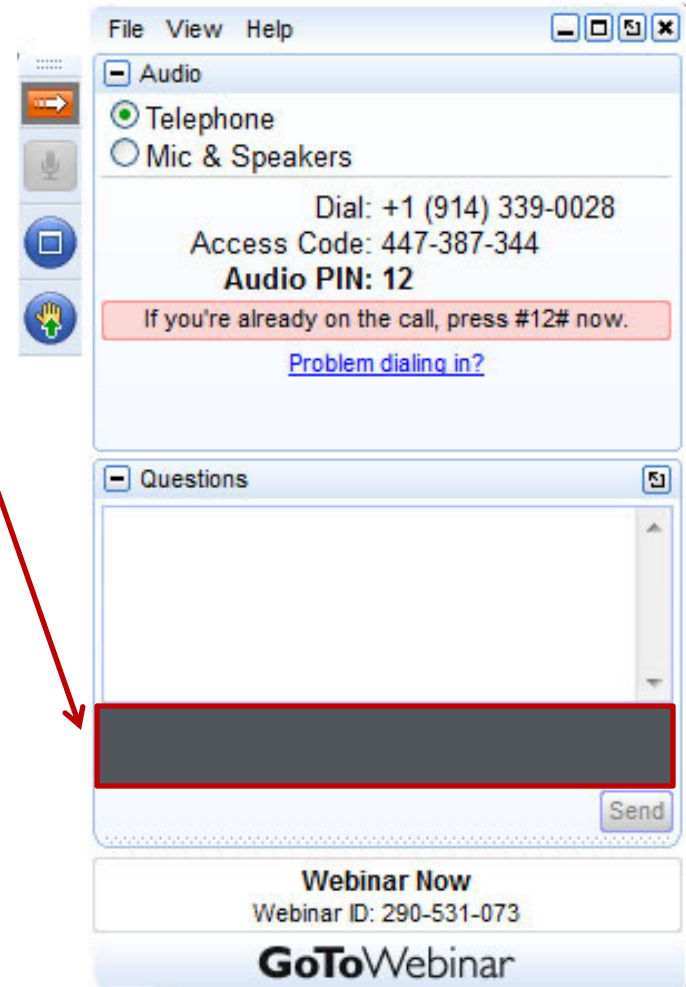


**FY 2022 CINR FOA  
DE-FOA-0002516**

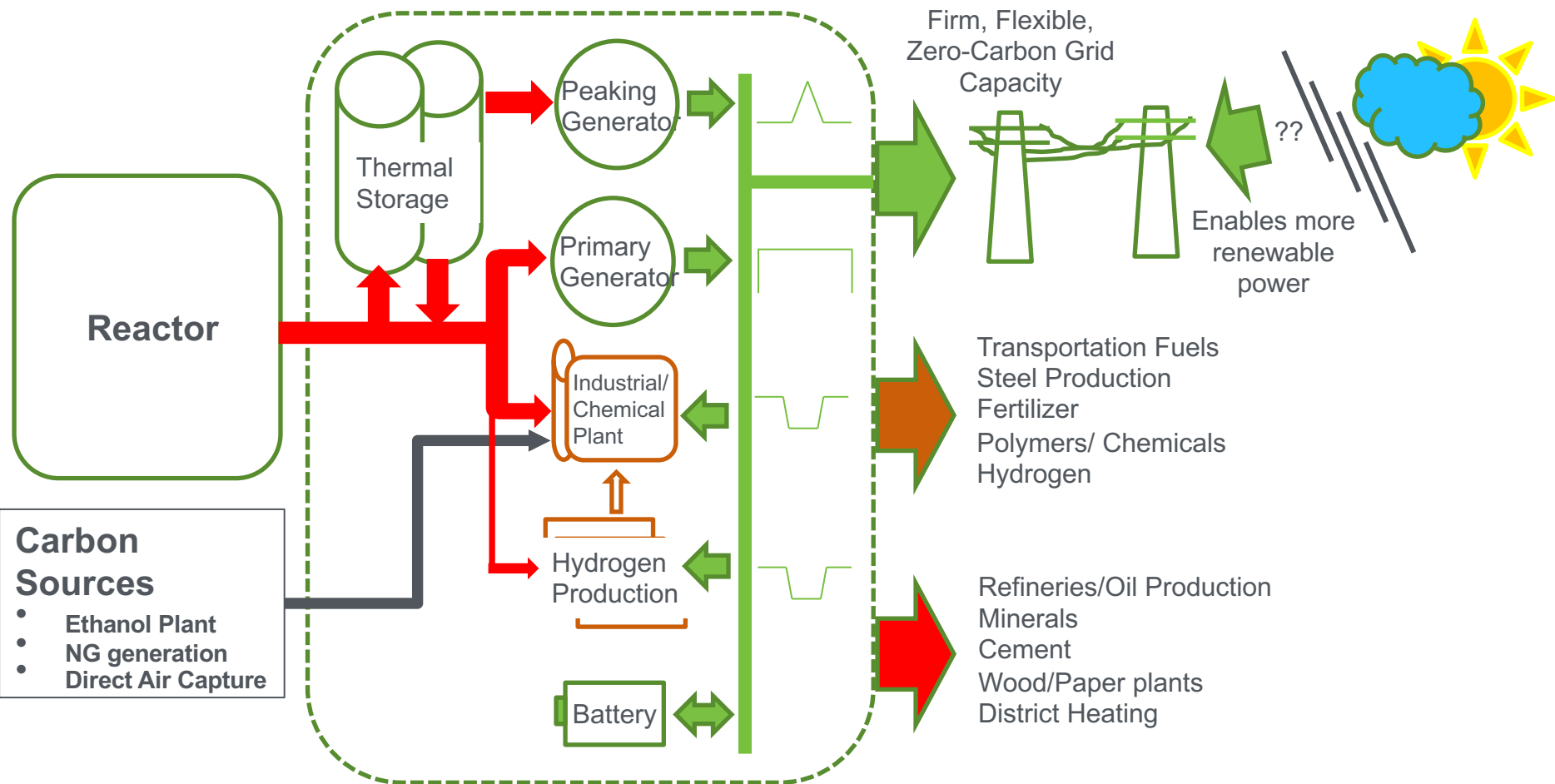
**Jason Marcinkoski & Shannon Braggs-Sitton  
Integrated Energy Systems Topic CT-2  
Informational Webinar  
August 9-12, 2021**

# How to Ask Questions During This Webinar

- ❑ Submit questions using the GoToWebinar software by typing in the Webinar ID field.
- ❑ Questions that do not get answered during the allotted time will be answered and posted on [www.NEUP.gov](http://www.NEUP.gov).
- ❑ Specific questions on individual eligibility or workscope detail should be addressed offline.



# DOE Nuclear Integrated Energy Systems Flexible Plant Operation and Generation Concept



## IES Goals:

- Flexible Electricity Dispatch for grid balance and plant economics
- Alternative Products to expand nuclear-enabled decarbonization and provide additional revenue to plants

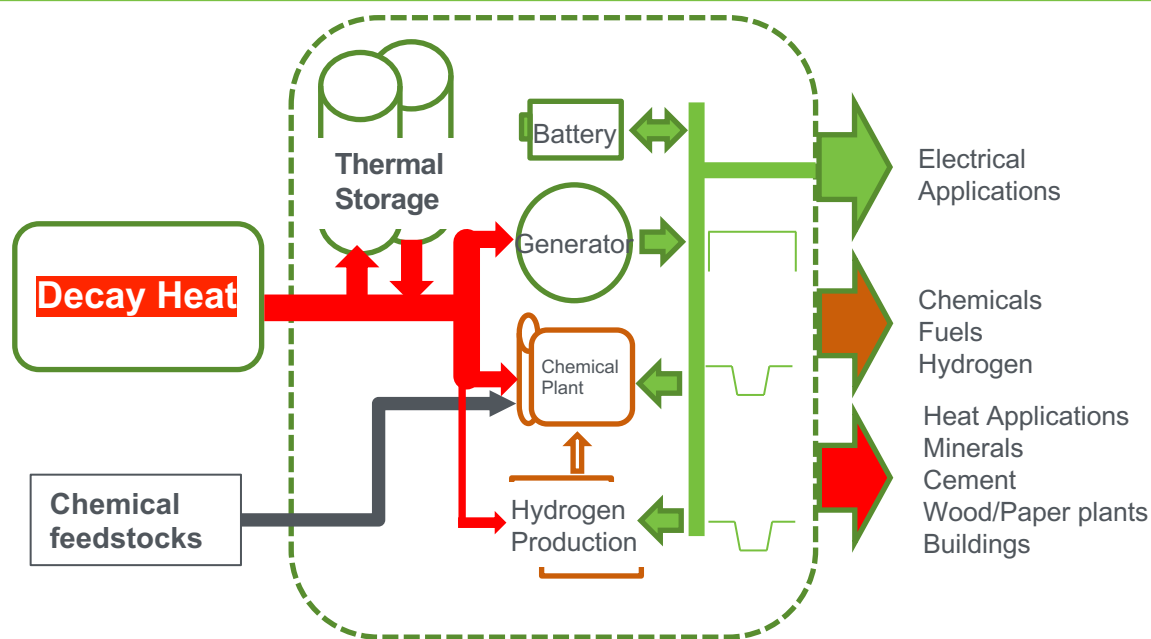
# CINR Workscope: CT-2 Integrated Energy Systems

## Interest Areas- isotopes for end-user energy processes

### 1) Produce tailored isotopes

Provide heating characteristics needed for small-scale or portable systems for specialized applications.

**NOT** looking for isotopes for medical or scientific purposes.



It is not required to include all components in a system

### 2) Energy user Process/System Design

Use of decay heat from used fuel or tailored isotopes

Use of radiation to assist in processes

Appropriate Applications

#### Decay Heat

Smaller scale than reactors

Scale to heat source

Life of heat source

Impact on national-scale

Significant market

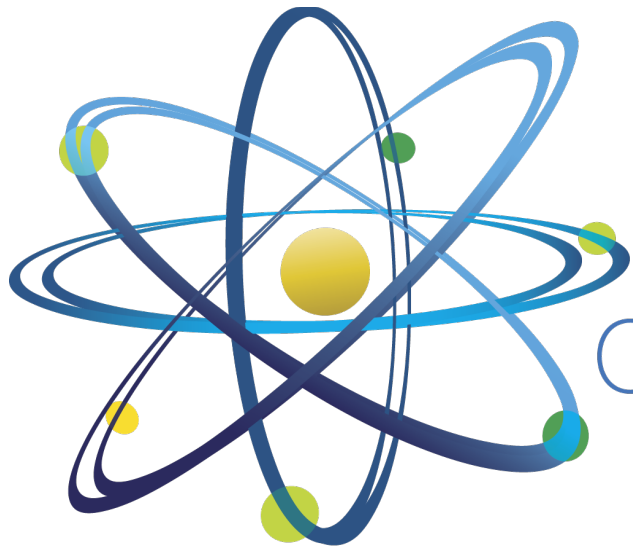
Energy resources

Waste / emissions

Safety / Environmental Aspects

Each area of interest proposed should include plant-process interface design (e.g., advanced heat exchangers, design of intermediate loops, balance of plant operation, control systems, utilization of rejected “waste” heat) for prioritized coupled energy use processes.

# Questions?



Clean. **Reliable. Nuclear.**