THERMAL STORAGE FOR NUCLEAR ENERGY

www.arpa-e.energy.gov
1. How do we quantify the need/value in integrating thermal storage with nuclear?
2. What are the biggest barriers to integrating thermal storage with nuclear energy?
3. What system(s)/materials are best suited for this application?

What will be cost of storage for diurnal, weekly and seasonal charging and discharging?
4. What is the total capacity potential for deployment of thermal storage with nuclear?
5. What advances in heat exchanger or power conversion technology would enable economic utilization of nuclear heat?
6. What are the implications of an attached thermal energy storage system on the safety licensing of the reactor?

For instance, could the thermal energy storage be a source of emergency power?

What incidents with the thermal energy storage system might propagate into the reactor operation?
7. What will a very high impact research and development program look like for nuclear energy storage system assuming a funding of < $5M per project?

What will be the composition of an ideal research team?