



TECHNOLOGY DEVELOPMENT, EVALUATION, AND TESTING

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The Starting Line

Address two DOE assigned challenges:

- 1. LDES technologies must achieve 7-15% improvement in roundtrip efficiency to compete with Li-ion storage and hydrogen.**
- 2. Presently, there is no publicly available evaluation of LDES technologies against primary competitive factors.**

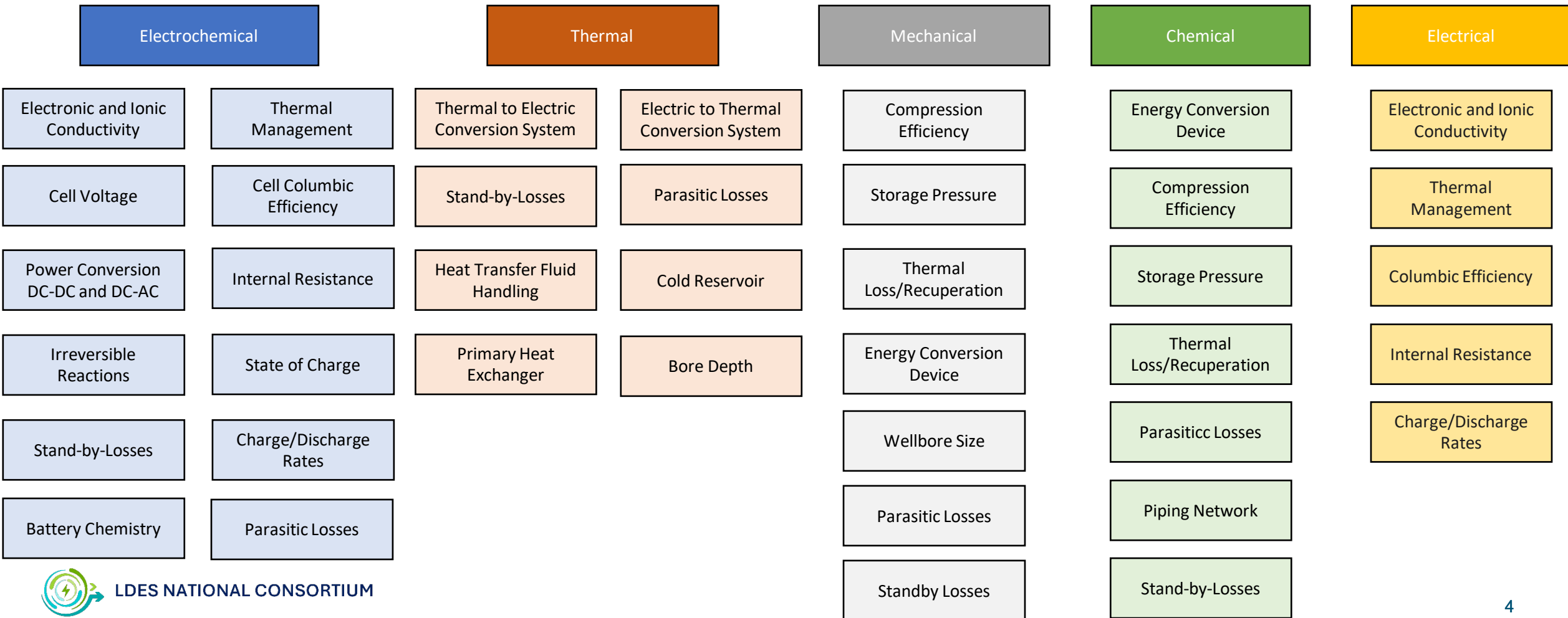
LDES Technologies

Identify technologies that need to be considered when addressing challenges:

Category
Electrochemical
Thermal
Mechanical
Chemical
Electrical

RTE Impact Factors

Identify factors impacting RTE for different technologies:



Competitive Factor Matrix

Create matrix of competitive factors by which technologies can be compared:



What's Next?

- Identify and address other challenges related to technology development
- Further explore impacts that impact RTE
- Identify competitive factor values for a variety of technologies
- Continuously improve and update frameworks
 - E.G. Update competitive factor groupings to better align with DOE OTT Acceptance Readiness Level Framework
 - Add technologies, competitive factors, and RTE elements

