

12 PRINCIPLES FOR GREEN ENERGY STORAGE IN GRID APPLICATIONS

SYSTEM INTEGRATION FOR GRID APPLICATIONS

1. Charge clean and displace dirty.
2. Energy storage should have lower impact than displaced infrastructure.
3. Match application to storage capabilities.
4. Avoid oversizing energy storage applications.

OPERATION AND MAINTENANCE

5. Maintain to limit degradation.
6. Design and operate energy storage for optimal service life.
7. Design and operate energy storage with maximum round-trip efficiency.

DESIGN OF ENERGY STORAGE SYSTEMS

8. Minimize consumptive use of non-renewable materials.
9. Minimize use of critical materials.
10. Substitute non-toxic and non-hazardous materials.
11. Minimize the environmental impact per unit of energy service for material production and processing.
12. Design for end-of-life.