Types of Energy Storage Systems:

California's Energy Commission requested UC-Berkeley, UCLA, and UC-San Diego to examine the types of energy storage. Their report addressed:

Electrochemical:

Lead-Acid Batteries
Nickel-Based Batteries
Litium Ion Batteries
Flow Batteries
Sodium-Beta Alumina Batteries
Metal Air Batteries
Electric Double Layer Capacitors
Pseudocapacitors
Hybrid Capacitors

Mechanical Energy Storage:

Pumped Hydro Compressed Air Energy Storage Flywheels

Thermal Energy Storage:

Solar Thermal
Thermal Storage for Heating, Ventilation, and Air Conditioning

Hydrogen