

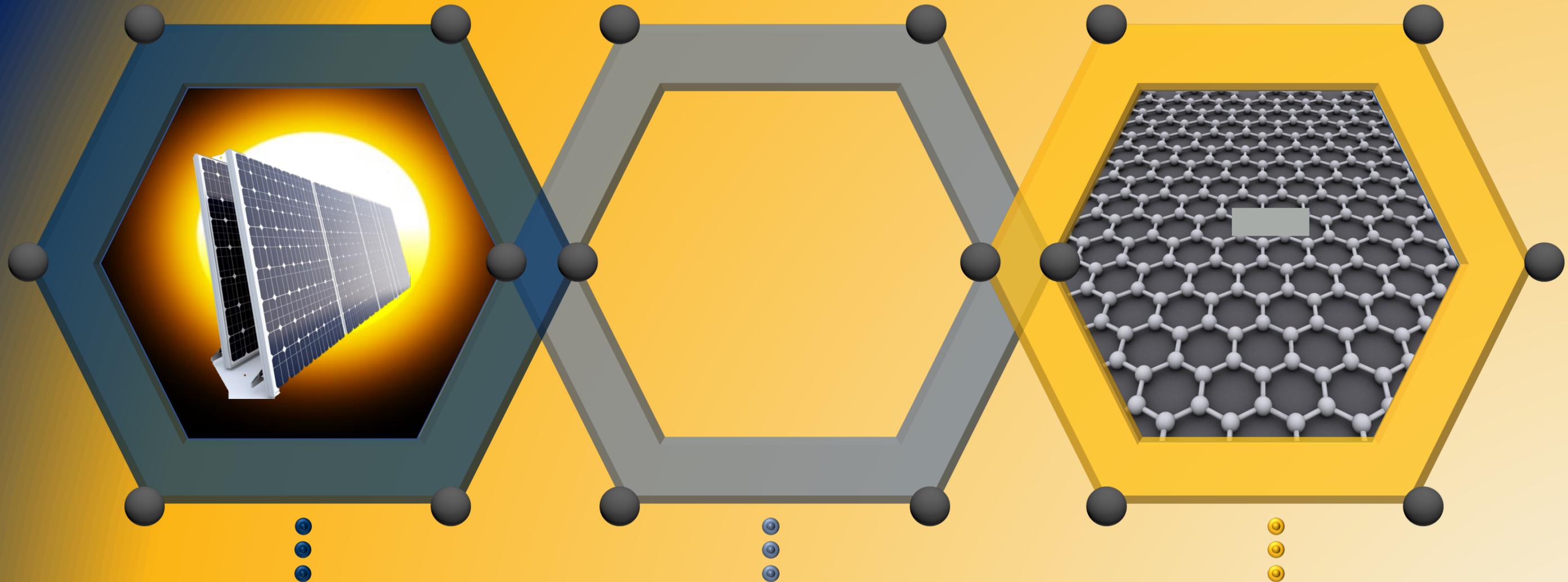
Together we provide the solution that favors your bottom line and increases productivity...

# THE ADVANTAGE

The opportunity with Solutions is that our battery will charge faster, provide more efficient battery management, and has the ability to convert soon-to-be retired assets into productive resources

	Li-Ion	Lead Acid (Current Solution)	Flow		
Warranty	Up to 10 Years with Limited Capacity Warranty	3 years		10 years with no EOL degradation (Extendable with limited throughput caps)	Maximum Value
Energy Density	100-296 Wh/kg	500-100 Wh/kg	35-70 Wh/kg	250+Wh/kg	Among the highest
Chemistry	Electrochemical	Electrochemical	Electrochemical	Electrostatic	No degradation
DC round-trip Efficiency	80-93%	70%	65-75%	99%	Low Opex
Depth of Discharge	70-80%	50-60%	100%	100%	Full Capacity
Exposure to Extreme Temps	<50°C	<27°C	<50°C	<60°C	Virtually any location
Charge Current Min-Max Voltage	Severely Limited 3.7v to 4 v	Severely Limited 12.23v to 12.89v	Severely Limited N/A	1C-2C (up to 15C) 43.2v to 60.8v	Fast charging
Discharge Current Duration	2-4 hrs	10-20 hrs	2-10 hrs	1C-2C	Long Duration
No. of Cycles	6000 (max)	3000 (max)	25000-50000 cycles	25000-50000 cycles (4 cycles a day)	Long Product Life
Applications	Short duration	Short duration	Medium to long duration	Short, medium, and long duration	Wide applicability

# ADVANCED EMISSIONS REDUCTION SYSTEMS (ERS)



## Power Generation

- Solar Array
- Diesel Gensets
- Wind
- Grid Tied

## Advanced Energy Storage

- Stores Electrostatically
- Non-Chemical
- Charges/Discharges Fast
- 15,000+ Life Cycles
- 99%+ round Trip Efficiency
- Intrinsically Safe

## Energy Delivery

- Back Up Power-UPS
- Demand Management
- Off Grid
- EV Charging
- Hybrid Delivery

# BENEFITS OF AN EMISSIONS REDUCTION SYSTEM (ERS)



Longest Life Cycle in the Industry



No capacity degradation due to cycling – delivers consistent equipment availability throughout the day



Fast charge functionality enables continuous equipment availability during shifts – delivering higher productivity and capex savings



Significantly less nominal capacity installed per truck compared to chemical batteries



Vibration and shock proof



Environmentally friendly – no disposal impact. Fully recyclable



High round-trip efficiency



Fast charge functionality eliminates the need to carry extra battery stock



-10°C to 55°C operating temperature range eliminates the need for temperature compensation



Expanded EV Fleet Utilization



No risk of thermal runaway



Energy Cost Reductions



Genset Fuel Cost Reductions

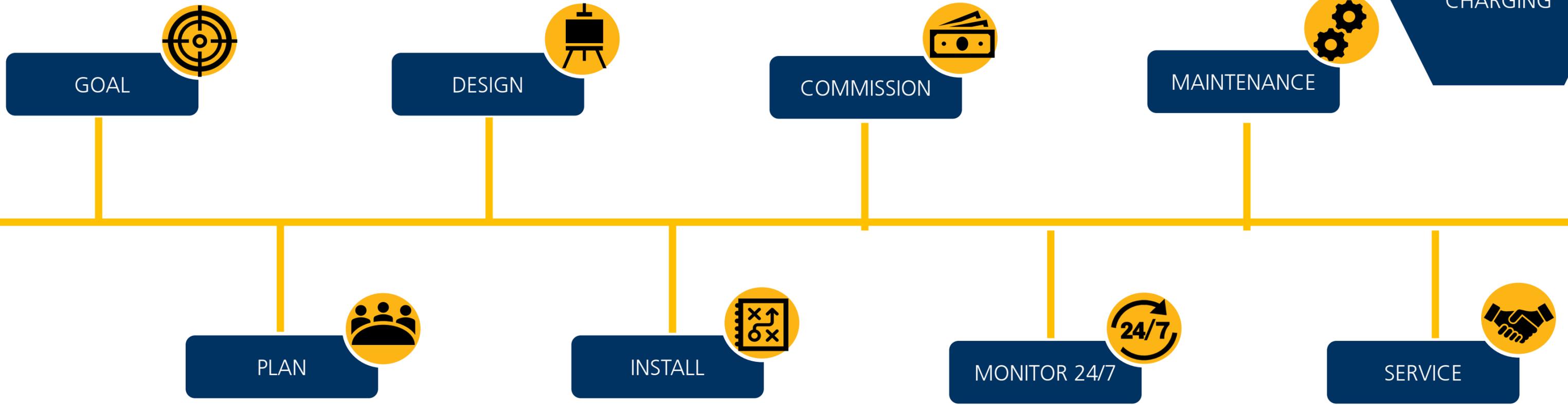
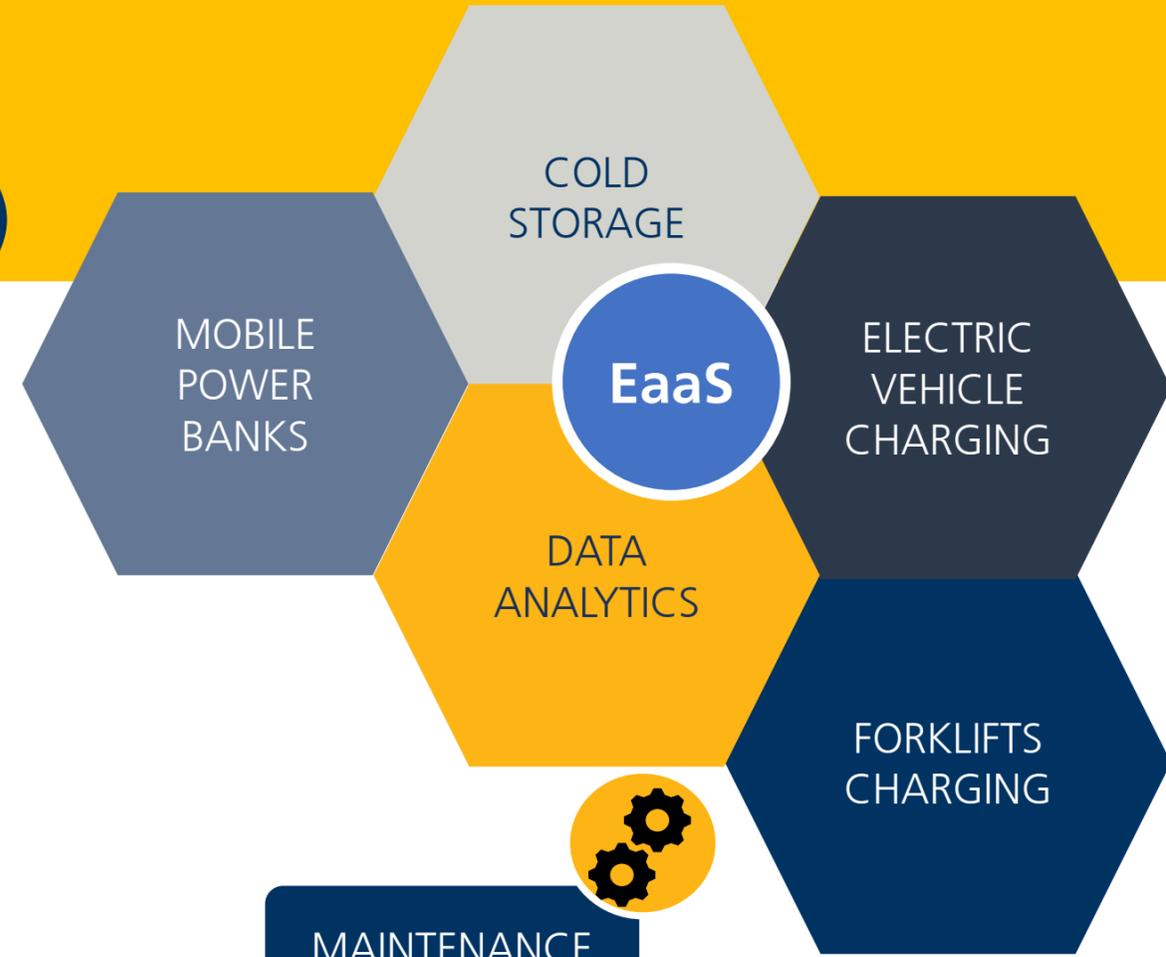


Emission Reductions



Grid Independence

# EMISSIONS REDUCTION SYSTEM (ERS) IMPLEMENTATION PATHWAY



Advancements in technology and manufacturing processes have led to cost reductions in components and equipment used in ERS, making our solution more accessible to a broader range of businesses.

# COLD CHAIN VERTICAL

CAN REDUCE YOUR  
ELECTRICITY COSTS  
BY  
**20%-50%**  
ANNUALLY

Installing solar to generate power that is stored and then deployed/discharged to sufficiently supply enough energy to power your facilities between 2 pm through 7 pm (peak times).

**PROBLEM**  
**SOLUTION**

Most commercial clients are charged at a rate representing almost 50% of their electricity cost which is directly associated with the power they consumed from the utility company (grid) during peak times. By using our supercapacitor battery to run your facility during peak hours you are now reducing your total cost of operations on a 24-hours basis.

## technology

Utilizing the best technology, including Tier 1 solar panels and Hybrid Solid-State energy storage Supercapacitor Modules that store electricity electrostatically: not chemically.

**20%**  
SAVINGS

POWER PURCHASE  
OPTION

**50%**  
SAVINGS

CASH PURCHASE  
OPTION



# / FLEET APPLICATIONS

## BESS – Battery Energy Storage System

Relocation Emergency Sites  
Commercial and Industrial Sites  
Renewable Energy Microgrids

## Emission Reduction Service

Light Towers  
Construction Sites  
Highway Repair

## EV Charging Service

Campuses  
Warehousing and Distribution  
Commercial and Industrial Sites

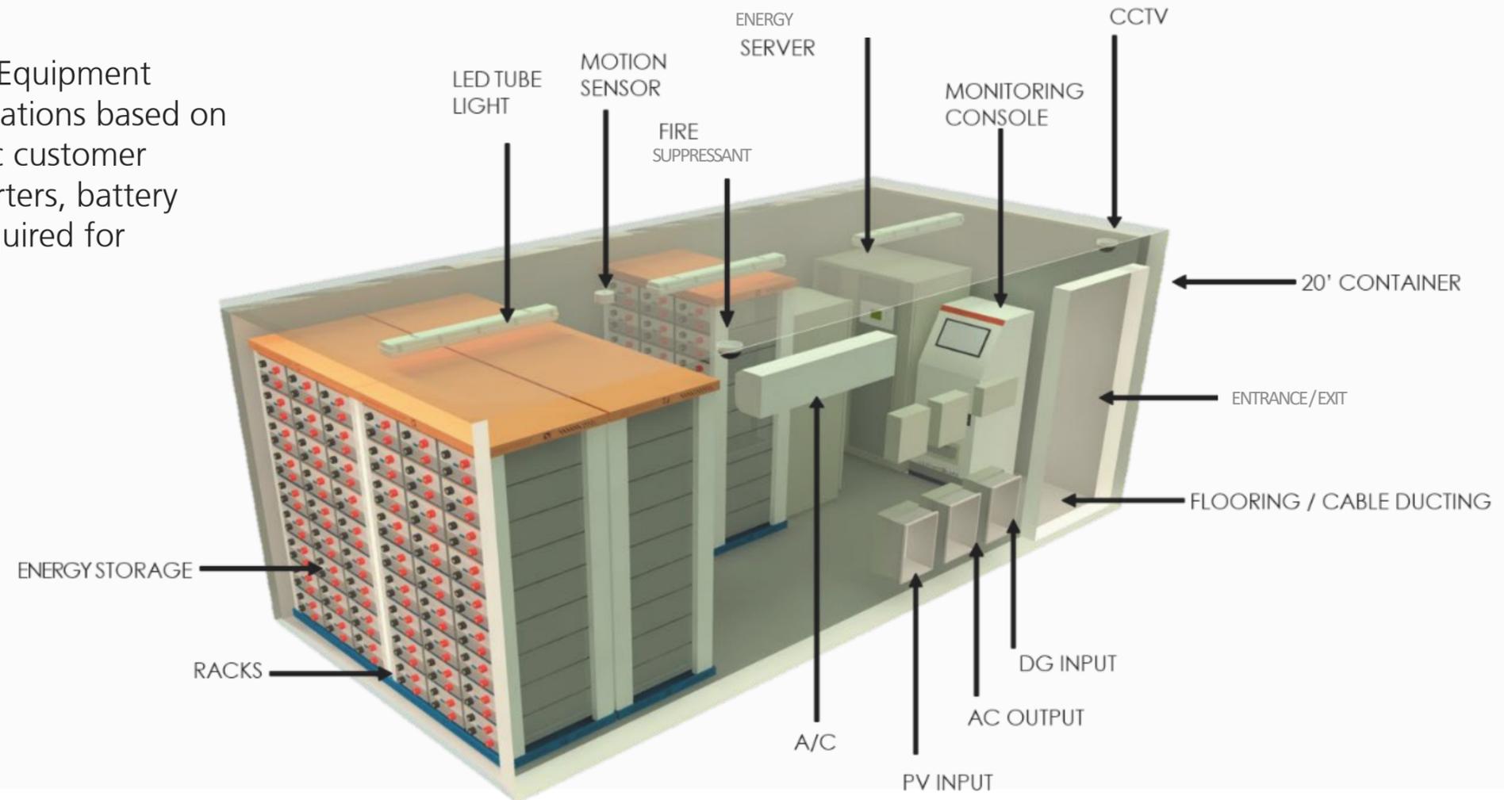


# Containerized Solutions

BESS solutions are available for deployment as Engineered Equipment Packages (EEPs). They come in a variety of standard configurations based on power and energy ratings but can also be tailored to specific customer requirements. Each BESS package includes all batteries, inverters, battery management systems, and energy management systems required for standalone operation.

## Packages available:

- 10' container – 240 kWh
- 20' container – 1 MWh
- 40' container – 4MWh



# Forklift Solutions

Alignment partner with for the conversion and maintenance to our supercapacitor battery vs lithium-ion battery.

The high electrical conductivity of graphene batteries allows for faster energy transfer, resulting in **improved performance**

- Enhanced acceleration
- Improved lifting capacity
- Overall operational efficiency

Graphene batteries can be charged at a **much faster rate** compared to conventional lithium-ion batteries.

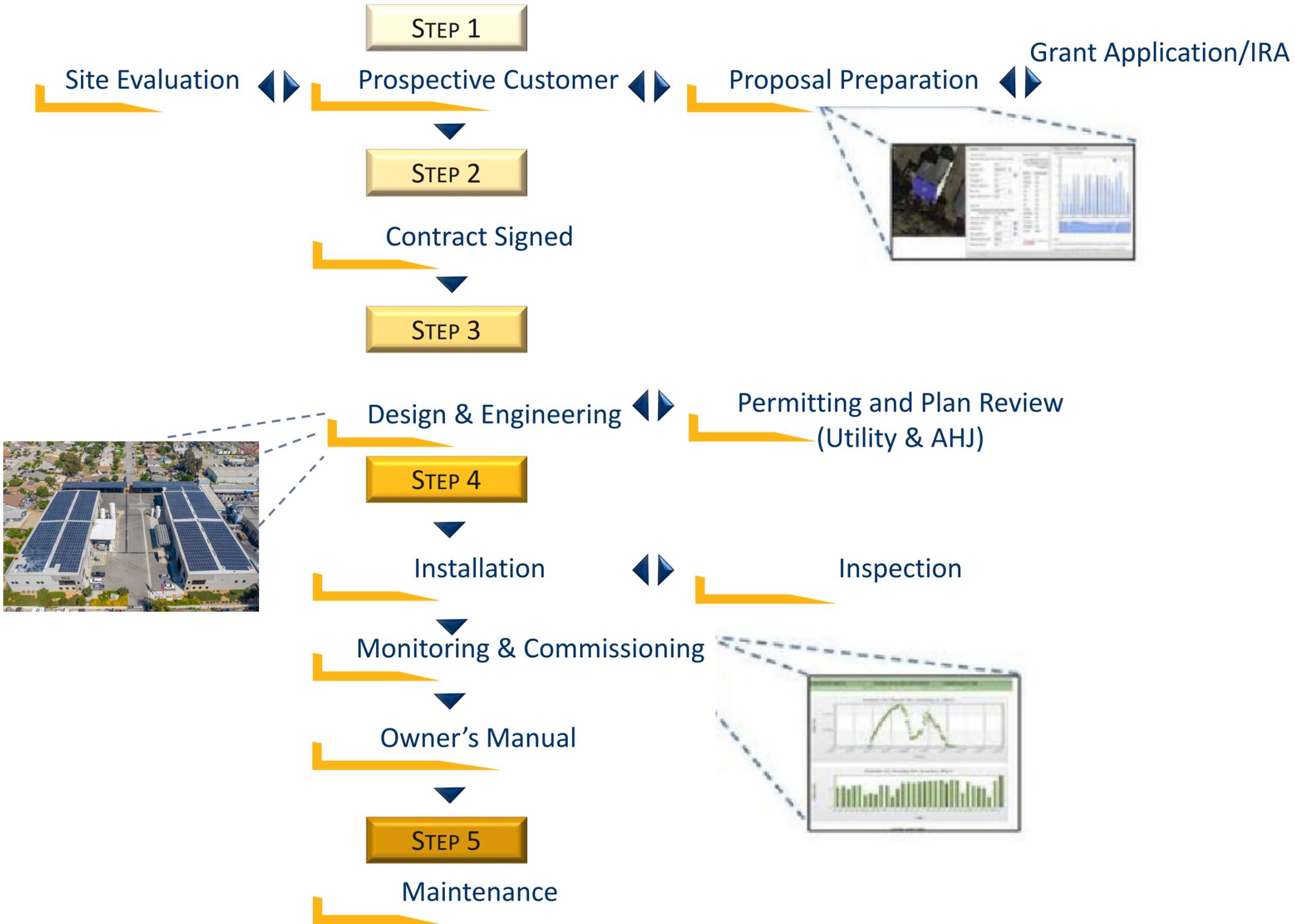
- Reduces downtime of forklifts during charging
- Improves productivity and efficiency in material handling operations

These batteries have **significantly higher energy density** than traditional solutions. They store more energy in a smaller, lighter package.

- Allows for longer operating times for forklifts before the need to recharge



# POINTS OF INTERACTION WITH /



STEP 1	Forecast # units, install date
STEP 2	Contract # units, date
STEP 3	Design Review Prior to Submission for Permitting
STEP 4	Monitoring Setup
STEP 5	Maintenance

# Why **This Works**

- **Inflation Reduction Act (IRA)**
  - Enacts historic deficit reduction to fight inflation
  - Lowers energy costs, increases cleaner production, and reduces carbon emissions by roughly 40 percent by 2030
  - Allows Medicare to negotiate drug prices and caps out-of-pocket costs to \$2,000 • Lowers ACA health care premiums for millions of Americans
  - Make biggest corporations and ultra-wealthy pay their fair share
  - There are no new taxes on families making \$400,000 or less and no new taxes on small businesses – we are closing tax loopholes and enforcing the tax code.
  - 30%-50% investment tax credit based on application
- **Leveraging the / Alignment**
  - Providing a conversion methodology for forklifts
  - Assisting in creating an electrification plan as companies address electric assets into their fleet portfolios
- **An Intake of Your Existing Business Processes**
  - Entire plan of how we can assist your company
  - Turnkey solution on your service, maintenance, installations, conversions, and electrification plans through one company
- **Types of Companies We Work Well With**
  - Cold Storage
  - Forklifts and Warehousing Environments
  - Companies with EV Charging Strategies
  - Metro and Rural clients
  - Mobile Fleet companies
  - Rock Crushing Facilities
  - Oil and Gas Applications