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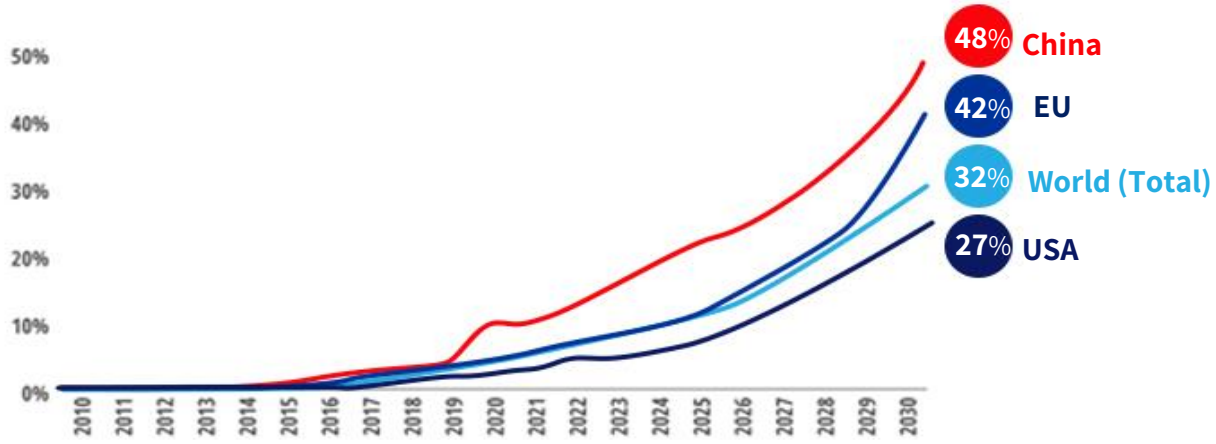
Boosting eMobility Anywhere

Enabling Fast EV charging
with sustainable and cost-effective energy storage solution

EV Skyrocketing Market

EV sales forecast by geography



Source: Deloitte analysis, EV-Volumes.com, 2019

By 2030:
Over 140 Million EVs

Regulation is expected to **accelerate the EV revolution**

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EV Mass Adoption Factors

Price
Same as ICE cars

Range
200 miles and above

Charging Time
15 minutes and below

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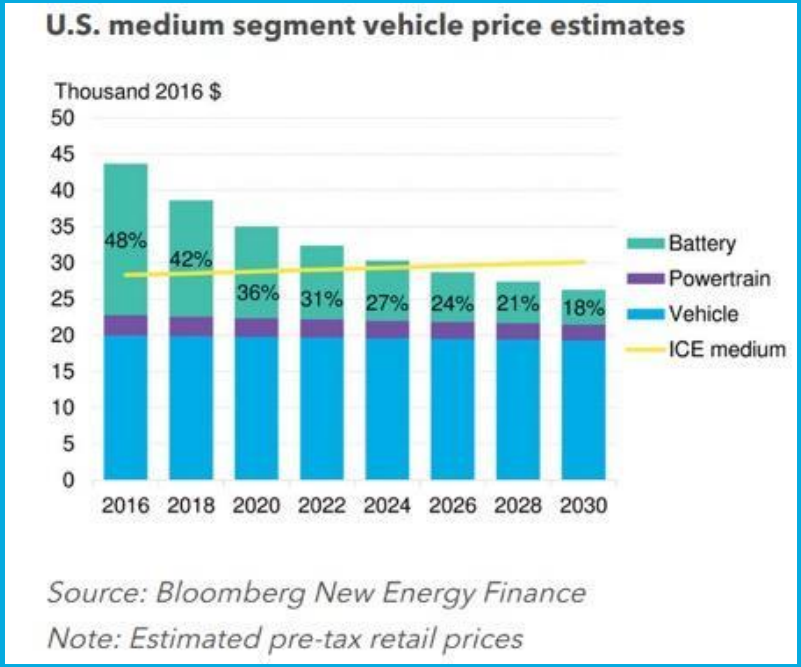
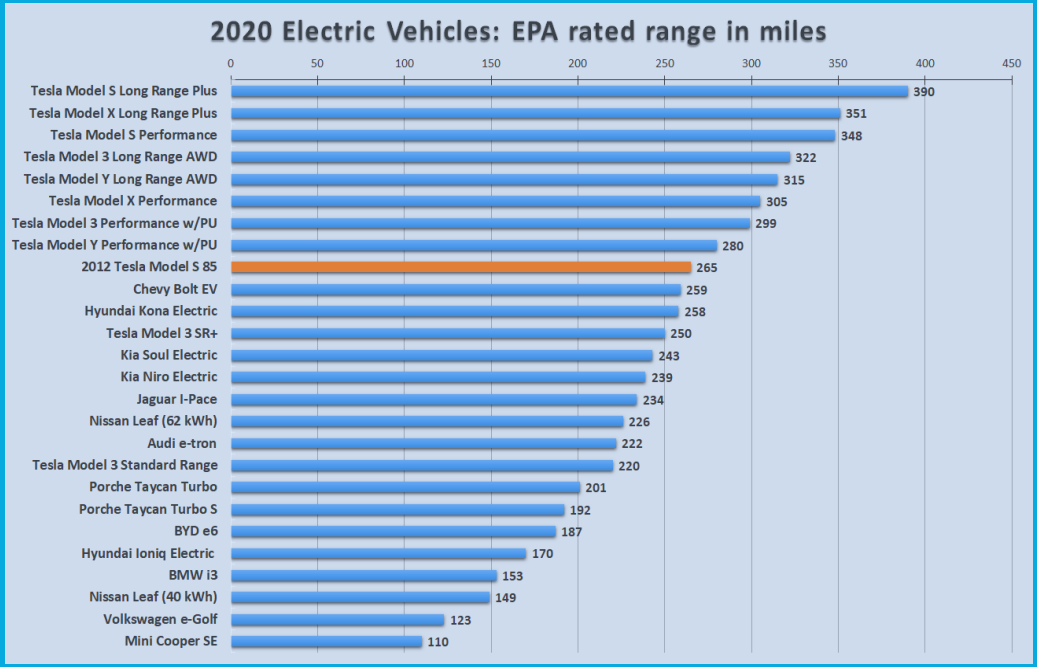
2024: Tipping Point

EV price as ICE



Battery Range Increasing



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Fast Charging: Key Factor

Range

Charging Time

Range Anxiety!

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Fast Charging in Numbers

Typical Charge : 50 kWh

Distance: 220 miles (350 km)

Time	Power
2 hr	25 kW
1 hr	50 kW
20 min	150 kW
15 min	200 kW
10 min	300 kW
5 min	600 kW

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You won’t find a Fast Charger here

Rural Areas with weak Infrastructure

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Sometimes, Even Here

City Centers and Densely Populated Areas

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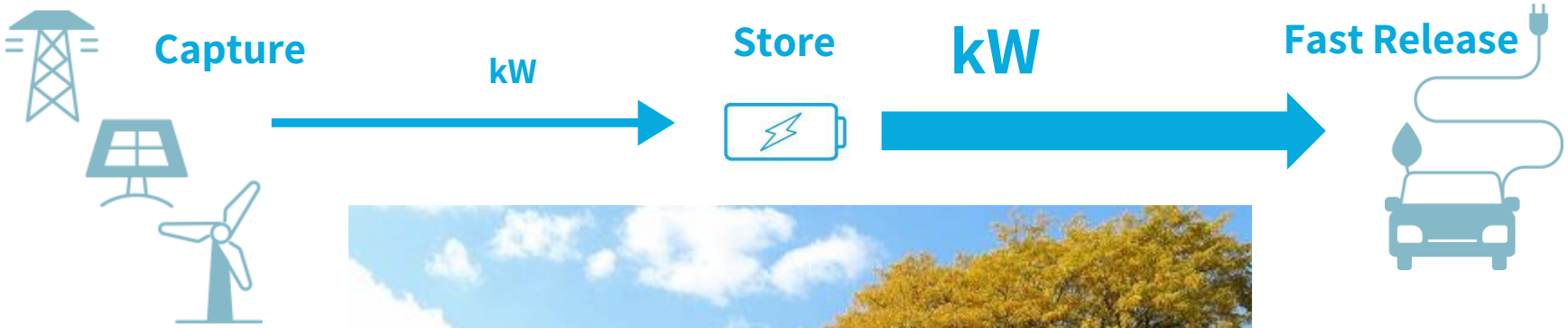
The Solution: Stationary Energy Storage



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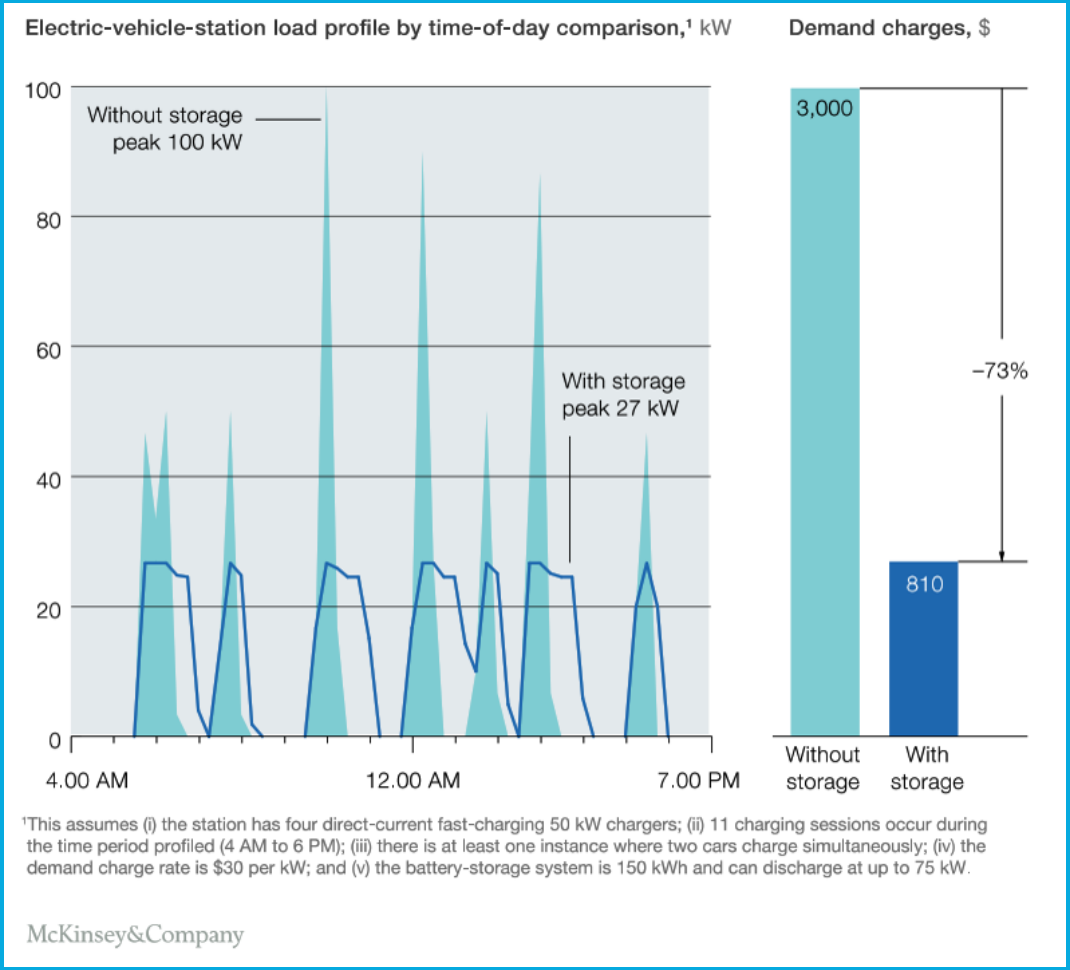
EV Charging Using ESS

No ESS: 100kW from grid
With ESS: 27kW from grid

- **No upgrade is needed**
- **No demand charges**



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Kinetic Energy Storage Technology

Modular and flexible installation

Sustainable – Non chemical, Non flammable

Cost effective– low cost per cycle

>200,000 charge/discharge cycles

High Power

Innovative & unique concept, patented

Superior Environmental Edge Addressing the SDGs

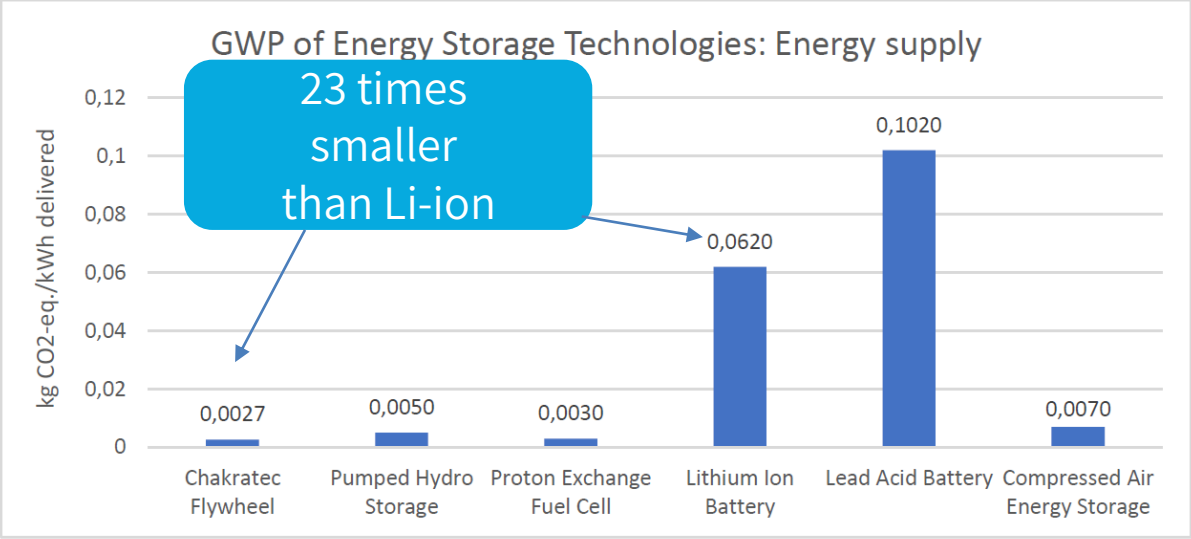

Figure 5: GWP of manufacturing and EoL of Chakratec Flywheel (this study) compared to different energy storage technologies (Oliveira et al. 2015). The FU is 1 kWh delivered energy over the life cycle.

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**** SDG : UN Sustainable Development Goals***

Proven Technology

Cooperation with leading Customers and Partners

Leipzig

Prague

Rome

Vienna

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Premier Inn

Sustainable, Modular & Flexible Installation

The KPB50 system installed in a basement parking lot at Premier Inn hotel in Leipzig, Germany.

Premier Inn

Premier Inn Press Release – December 2020

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Strategic Cooperations

In the North-America Market

blink

Combined Product R&D Cooperation

(Funded by the Bird Energy Foundation)

Based on KPB100

(UL-Certified configuration)

+24,000
EV Chargers deployment

+190,000
Registered users

ARKO
A Family of Community Brands

Strategic MOU to cooperate in Pilot program followed with distribution in North-America

#7
Largest US Convenience Store Operator

2,926
Total sites in the US
(1334 self-operated)

Diverse & Expanding
Geographic Footprint

33
States of Operation

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Products

2 X KPB 100kW: One parking slot

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We are proud to be WINNERS of

- eMove 2017 award energy storage category
- NREL 2018 award for outstanding venture
- EVIEs 2020 award
- Start UP Nation Central SustainIL 2021 finalists

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Thanks !

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