

TESLA

Northwest Power and Conservation Council

October 11, 2016

# TESLA'S AUTOMOTIVE PRODUCTS



**2008 - Roadster**  
2,600 vehicles produced  
Starting Price: \$128,000



**2012 - Model S | Model X**  
>120K vehicles produced  
Starting Price: \$70,000



**2017 - Model 3**  
Mass market vehicle production  
Starting Price: \$35,000



# TESLA'S ENERGY PRODUCTS



MODEL S / X

70-100 kWh



**POWERWALL**  
TESLA HOME BATTERY

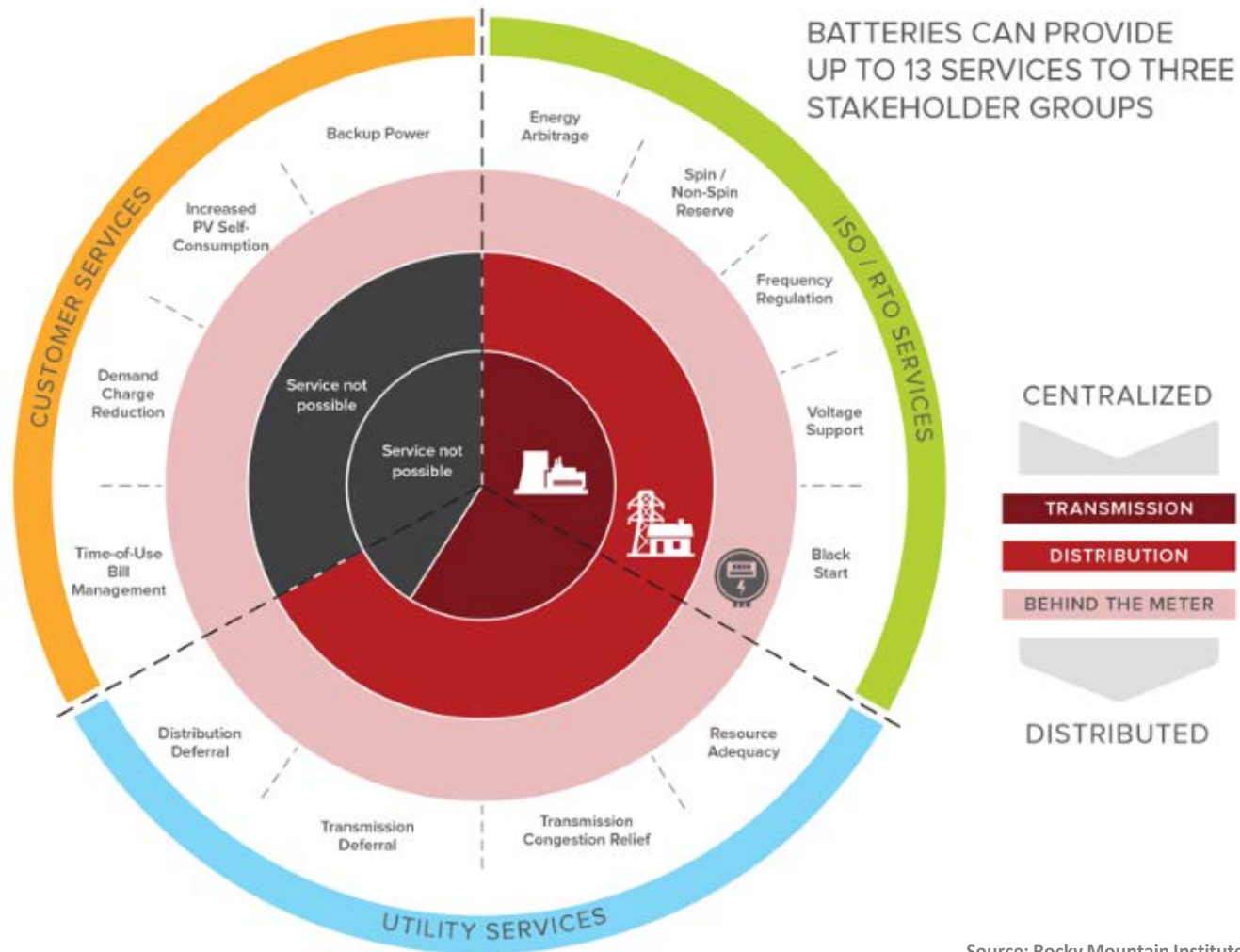
6.4 kWh



**POWERPACK**  
TESLA COMMERCIAL BATTERY

100 kWh+

# STORAGE SERVICES BY GRID LOCATION



# RESIDENTIAL STORAGE



3.3 kW / 6.4 kWh

# COMMERCIAL BUILDING ENERGY STORAGE



2 MW / 4 MWh

# UTILITY SCALE ENERGY STORAGE



13 MW / 52 MWh

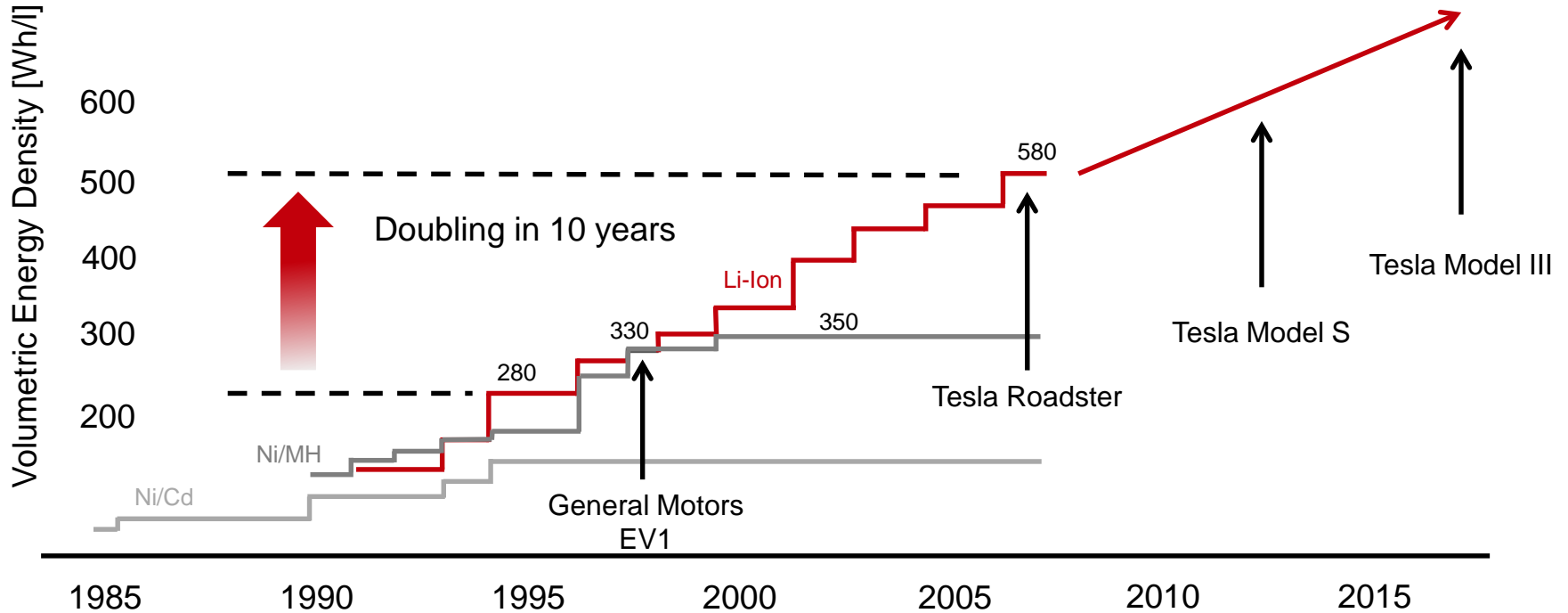
# WHY ENERGY STORAGE NOW?

## Improvements in Technology Have Made Storage Competitive

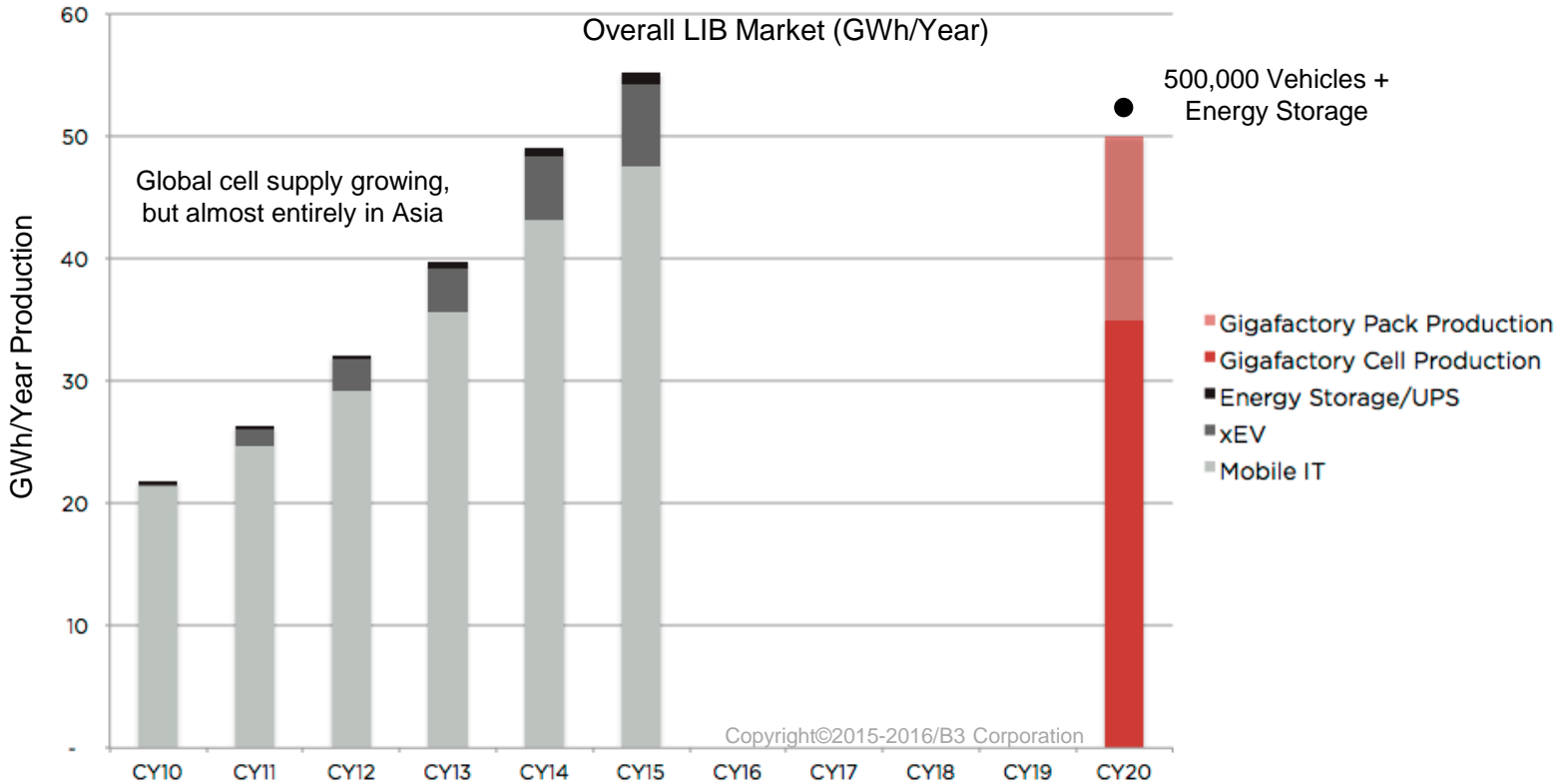
1. Increase in battery cell density (i.e. the amount of energy a battery can hold)
2. Increase in scale and efficiencies due to battery use in vehicles



# BATTERY CELL ENERGY DENSITY TREND



# GLOBAL BATTERY CELL MARKET



# BARRIERS TO STORAGE DEPLOYMENT

Grid processes and tariffs  
must be updated to  
accommodate energy  
storage on the grid

Planning (generation,  
transmission, & distribution)

Valuation

Procurement

Operations

Rate design

Interconnection

# COMPLETE SUSTAINABLE FUTURE

