

Efficient Electrification

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EESI Briefing
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Efficient Electrification

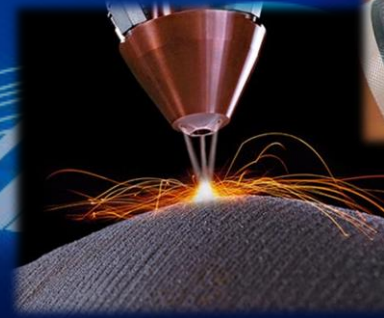
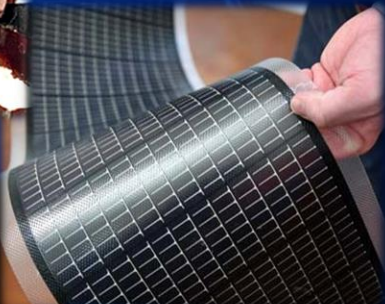
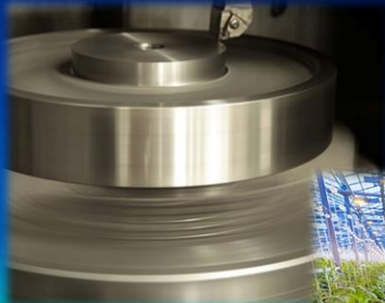
Mobility



Heating and Cooling



New Applications



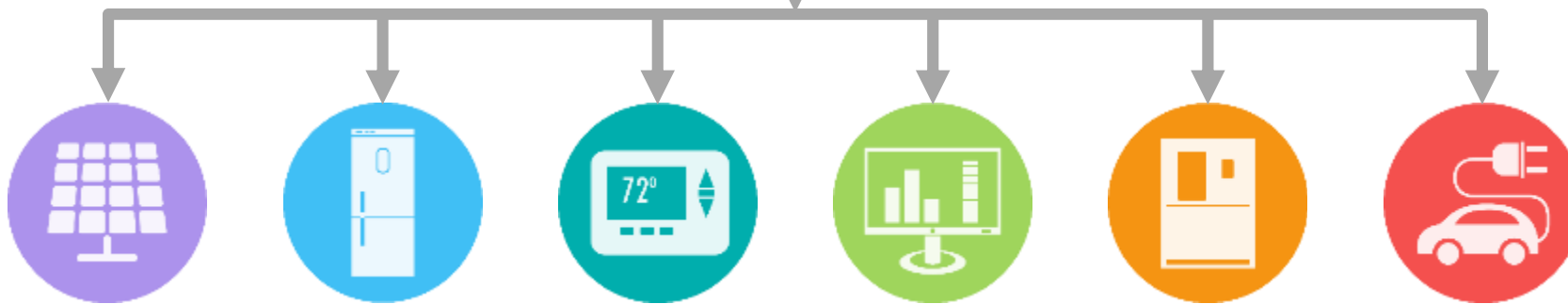
Meeting Future Customer Energy Expectation

Integration can Improve Reliability, Increase Efficiency, Create New Opportunities, and Expand Customer Choice

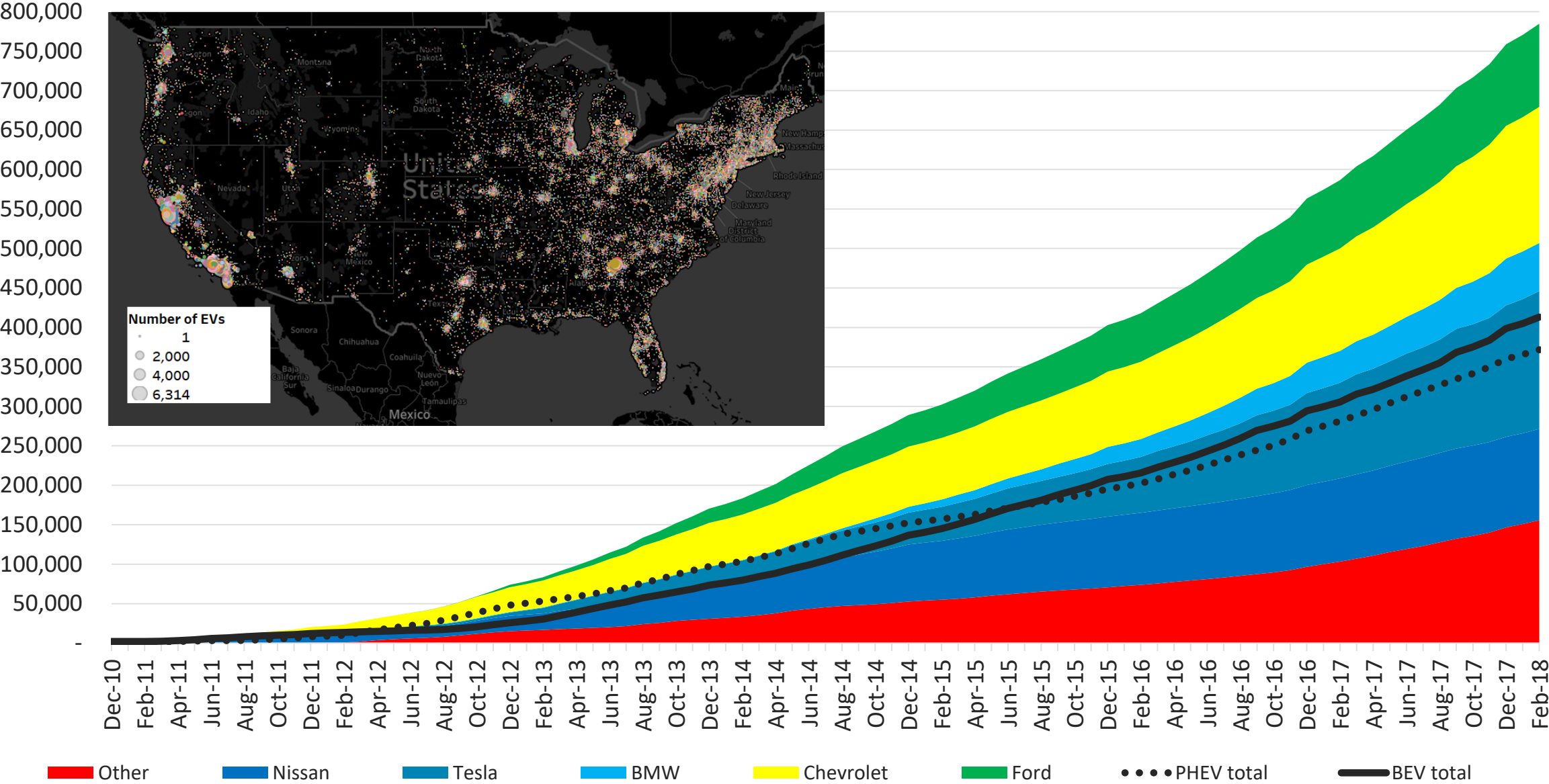
Integrated Energy Network (IEN)



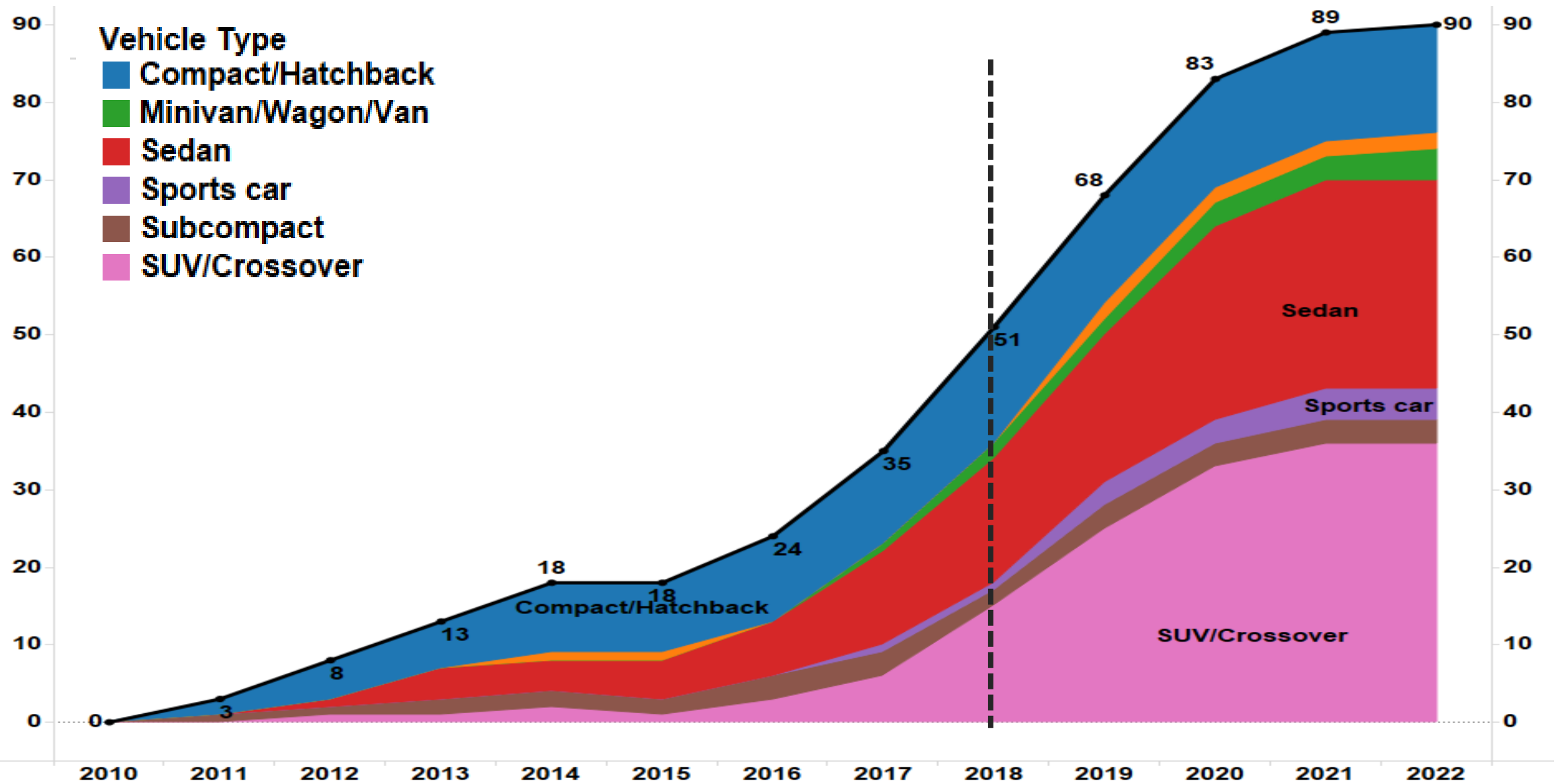
IEN leads to an increasing societal reliance on electrification and resiliency will be key – cyber and physical resiliency against man-made and natural disaster



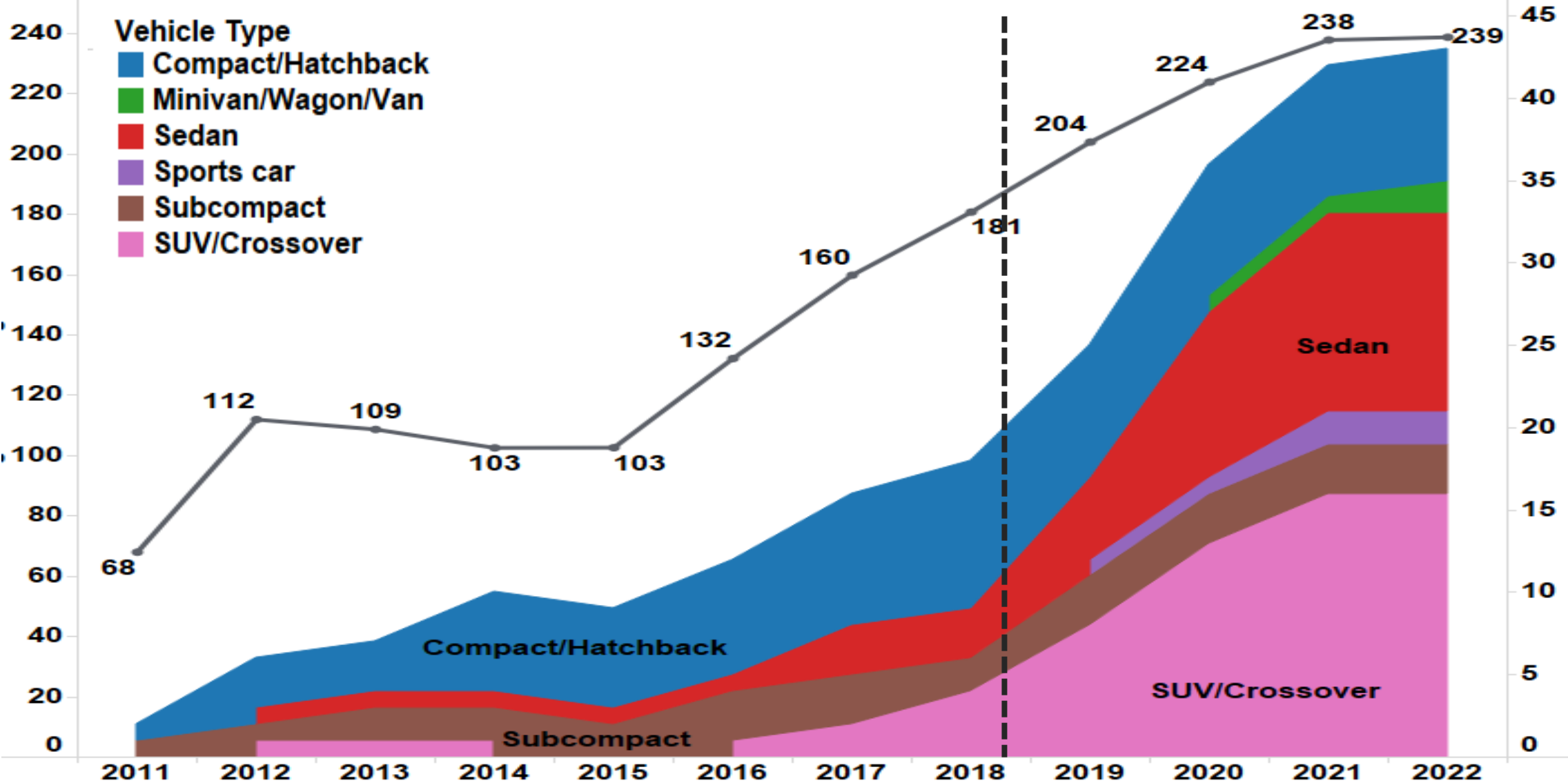
US EV sales exceed 782k through end of February 2018



Customer choice increasing with ~90 EVs by 2022



Range of battery electric vehicles (BEVs) is also increasing



Looking Ahead – Today and Tomorrow

Time

- New transportation models
- 200+ mile mass-market battery electric vehicles
- High power charging
- Autonomous driving



Winter Olympics 2018



Clean Air...
Clear Choice

A large indoor agriculture facility with multiple levels of plant racks. The racks are filled with green plants, and the facility has a high ceiling with industrial lighting and fans. The racks are numbered, with '16' and '15' visible. The overall scene is a well-lit, organized indoor growing environment.

Indoor Agriculture

**Clean Air... Less Water...
Less Land... Less Pesticide...
More Yield... Clear Choice**

Emerging and Enabling Technologies



Sharing Economy



Cryptocurrencies



Augmented Reality



Blockchain Transactions

NEWS

Advances in smart components, grids, data, and automation, plus more. Visit www.epri.com for more news.

April 4, 2018

US National Electrification Assessment

EPRI Study Finds that a Consumer-Driven Increase in Electrification Provides Lower Cost, Less Energy Use, and Fewer Emissions



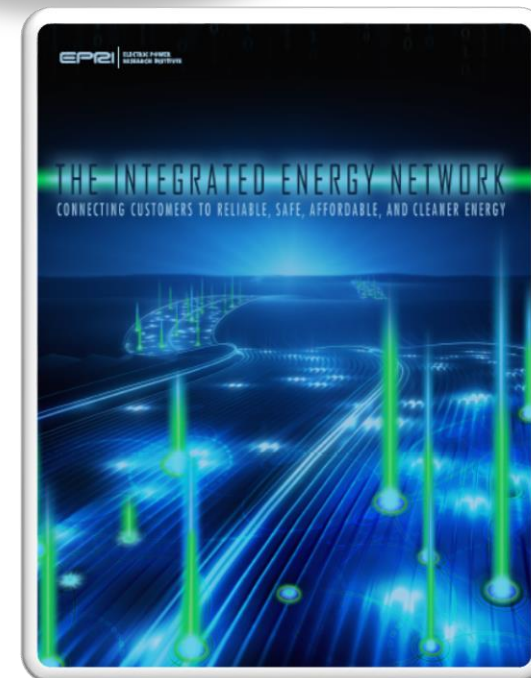
Integrated Energy Network



What is the objective
of EPRI's
assessment?

Customer Choices for End-Use Energy:

- Economy-wide assessment - Residential, commercial, industrial and transport
- Customers have broad technology choices and control
- Customer decisions integrated with detailed electricity supply model



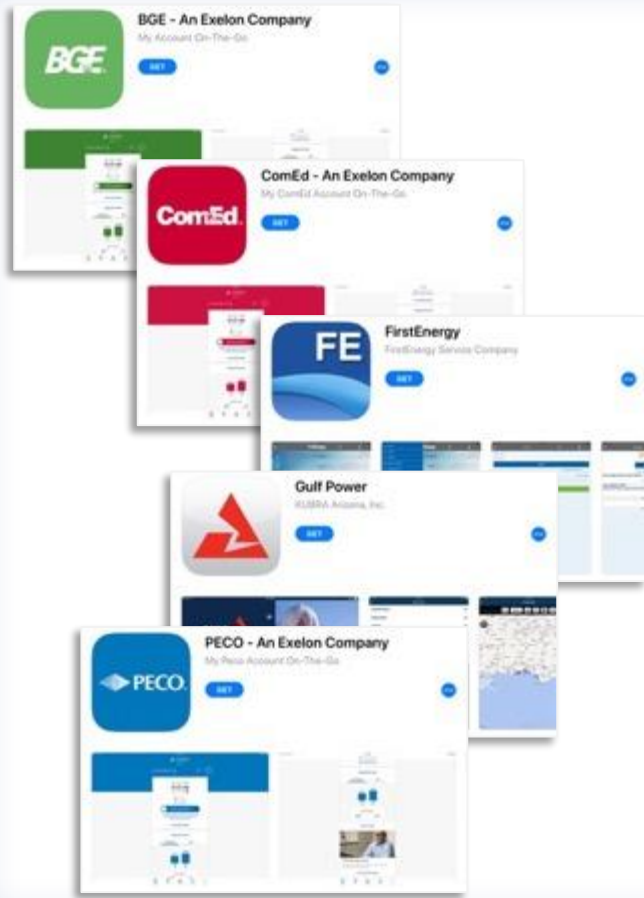
Source: EPRI 3002009917
February 2017

Critical Trends: “Shared” Integrated Grid

Customer Engagement

Connected Devices = Shared Economy

Community Resiliency



Together...Shaping the Future of Electricity