

Integrated Energy Network *Bottom-Up Resource Integration Platforms*

Sunil M. Chhaya, PhD MBA

Technical Executive, Electric Transportation

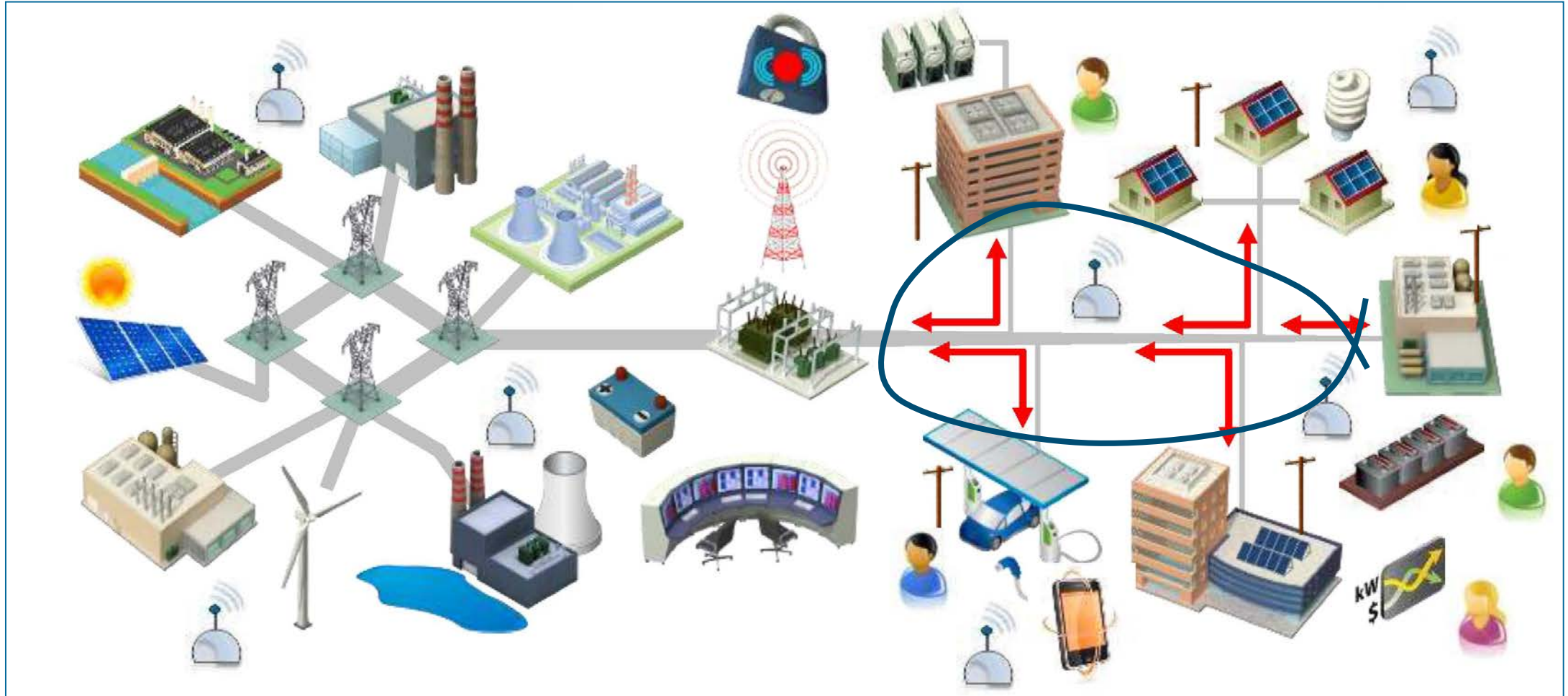
Electric Power Research Institute, Palo Alto CA

IERE General Meeting, Vancouver BC

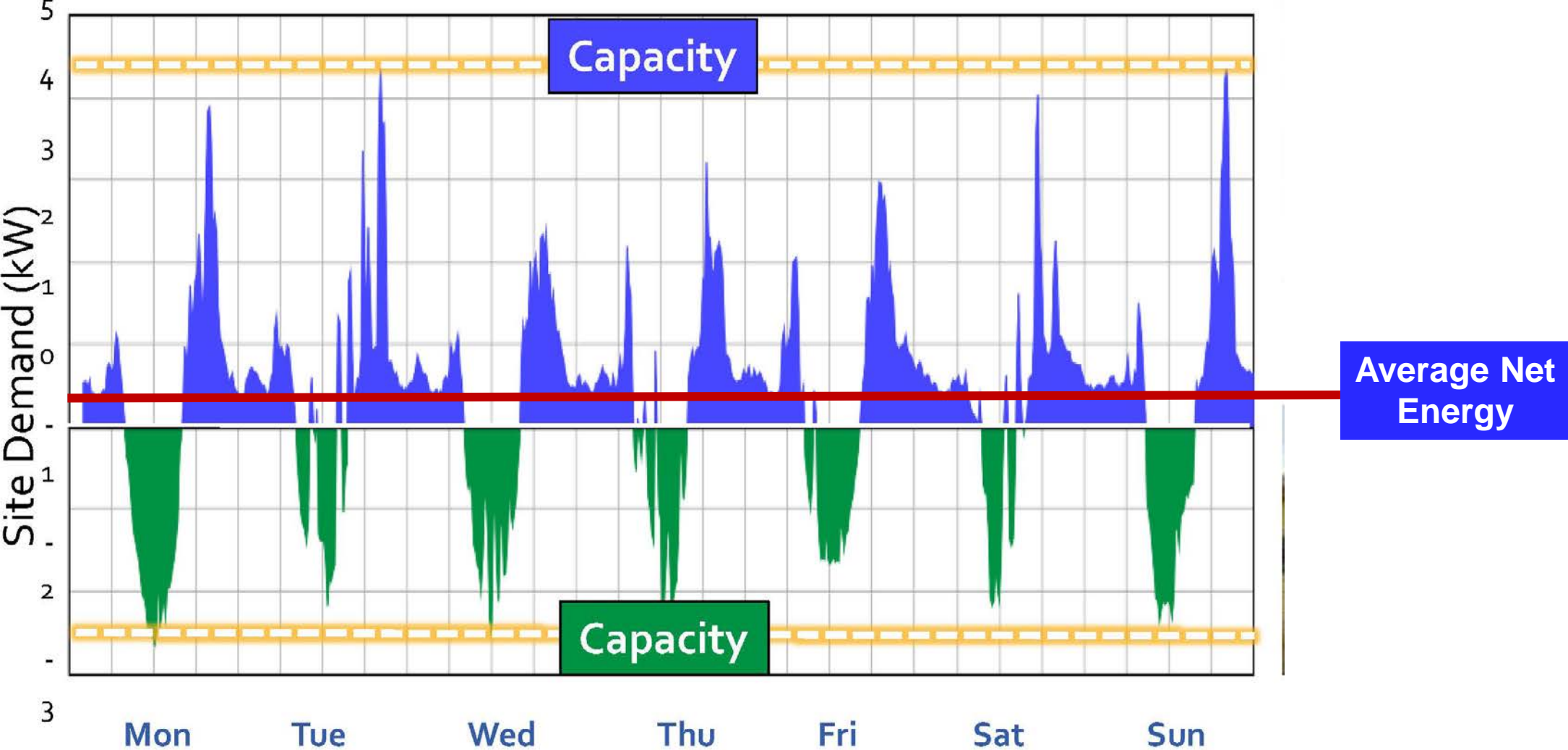
17 May 2017



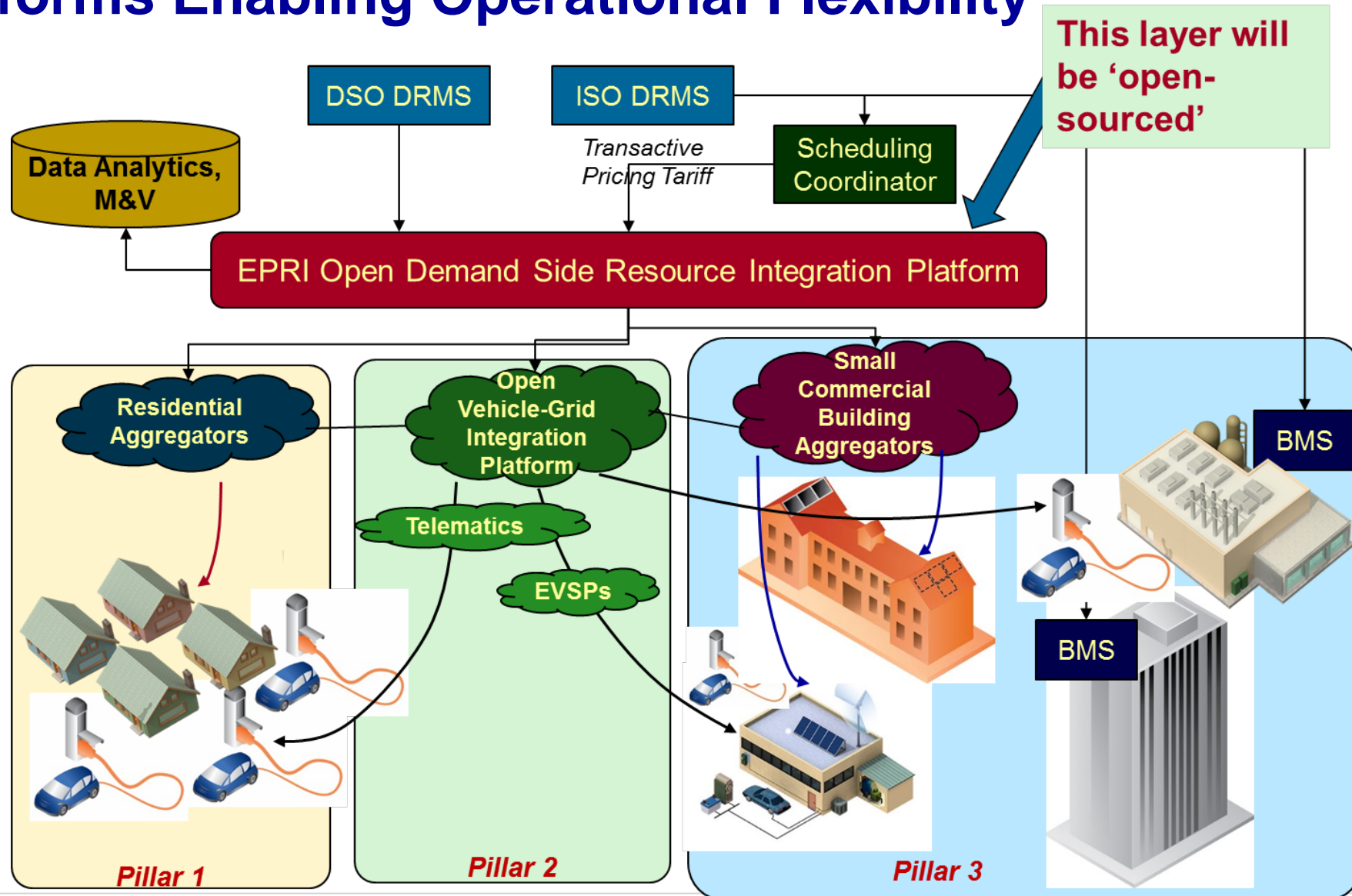
Main Cause is Customer-Procured Smart End Devices and DERs



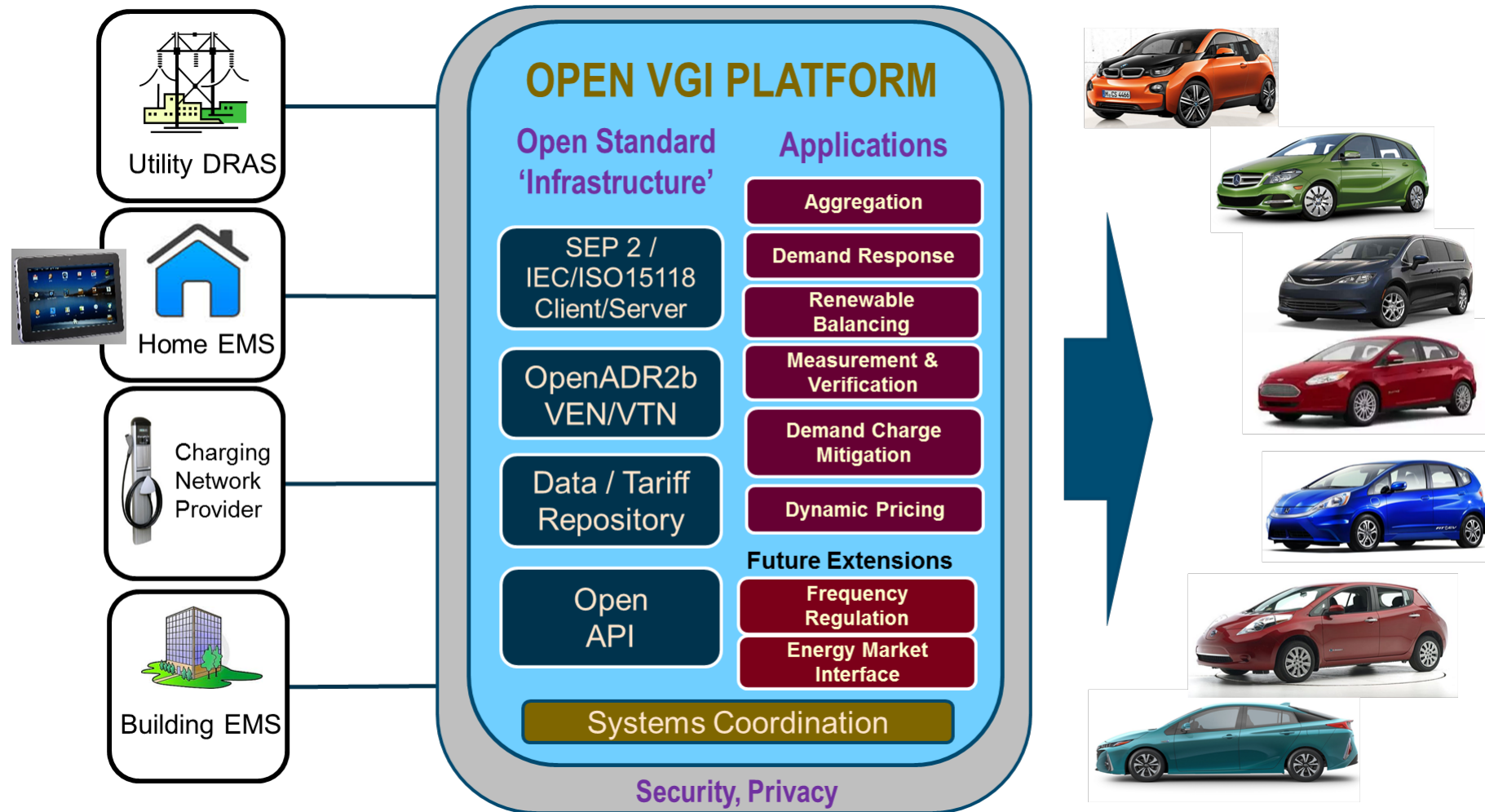
Energy Rich but Capacity Poor Grid Needs Bottom-Up Coordination



Answer is Bottom-Up Coordination of Smart End Loads through Open Platforms Enabling Operational Flexibility



Grid / EV Integration through Open Vehicle-Grid Integration Platform – Balance End Use Diversity vs. Utility Side Uniformity



Thank you

Sunil M. Chhaya, PhD

Technology Executive, Electric Transportation
Electric Power Research Institute (EPRI), Inc.,
3420 Hillview Ave, Palo Alto CA 94304
schhaya@epri.com 650 855 2148