NXP SEMICONDUCTORS

Smart Energy Solutions

November 2020







Typical Requirements for IoT Devices





Power and Meter Solutions for the future Smart Grid

Value Proposition

Solution portfolio

A complete system solutions for fastest time to market and scalability for a full range of subapplication (meters, eV battery charger, eGTW...)

Innovation power

In-house high performance processing, enabling AI, security and eco-system capabilities

Safety & reliability

Historical presence of NXP on Metering Market Leading with security and functional safety



IoE (Internet of Energy)

Drivers

- 1. The introduction of Smart Meters in households and buildings has opened the door to a new area in Energy Management.
 - In the next few years we will see an **acceleration of** efficient usage of the data set coming from the Grid.
- 2. Today the technology allows not only to monitor the power consumption in house-holds and buildings in real time, but also to anticipate future demands.
- 3. On top of the advantages in cost optimization and pollution reduction, the consumer will get access to a **great variety of services** offered by the Utility.

Goals

- 1. Reduce the waste cost to keep electric central in stand-by ready for answering a still unpredictable demand of energy and drive real SMART GRID deployment
- 2. Enable virtuous behavior from user with demandresponse dedicate offer/strategy
- 3. Drastic increase in the level of comfort in the houses, reduce the total cost of energy and increase the level of security through a real time control of the house-hold

NXP support Utility companies in their journey to Internet of Energy

NXP products working in the energy supply chain



NXP solutions for IoE

- NXP offers a complete system solution path to address the IoE chain
 - From **edge nodes** (meters, smart plugs, renewable energy inverters, Energy Gateways, EV charge stations) to the cloud (private and/or public)

Machine learning algorithms will

- Securely manage data gathered through energy gateways and concentrators
- Act efficiently in order to increase household comfort
- Maximize energy efficiency
- -Reduce the total grid cost management

NXP Presence in Smart Energy IHD Flow Meters **Energy Gateway** Concentrator **Electricity Meter** (In Home Display) 23 Large MS in UK and Large Market Share Large MS in Spain, Large MS in UK Large Market Share • • • in all EMEA tender Italy in all EMEA tender UK, Eastern Europe

NXP and Microsoft Initiative for EV Charge Station connecting to Azure





