

SMART GRID INTEROPERABILITY PANEL VEHICLE TO GRID

Eric Simmon, NIST
Vishant Shah, SGIP Administrator Team
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TOPICS

- Background
- Activities
- Standards Efforts
- Questions



NIST ROLE

Energy Independence and Security Act (2007)

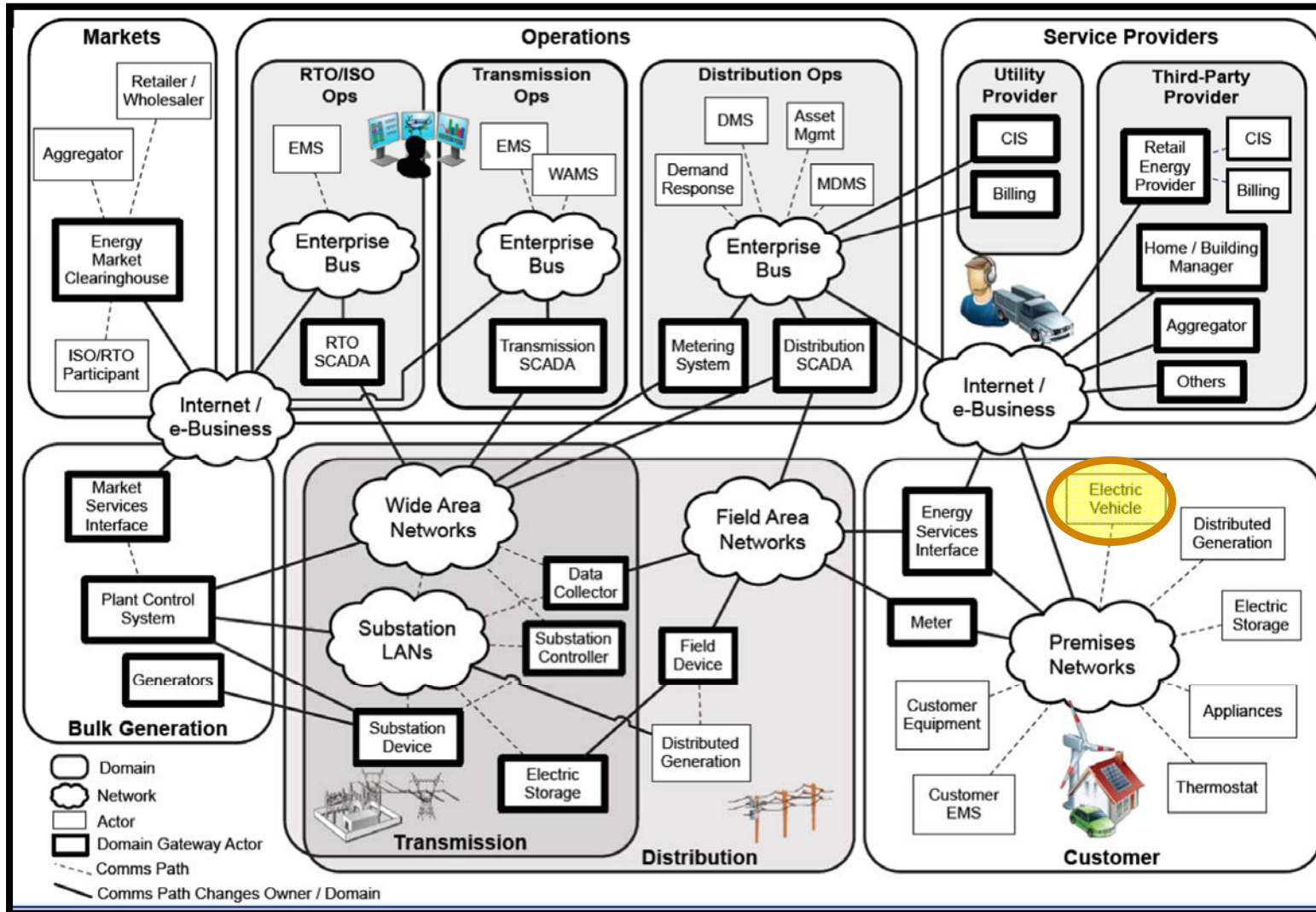
In cooperation with the DoE, NEMA, IEEE, GWAC, and other stakeholders, **NIST** has “primary responsibility to **coordinate development of a framework** that includes protocols and model standards for information management **to achieve interoperability of smart grid devices and systems...**”



American National Standards Institute



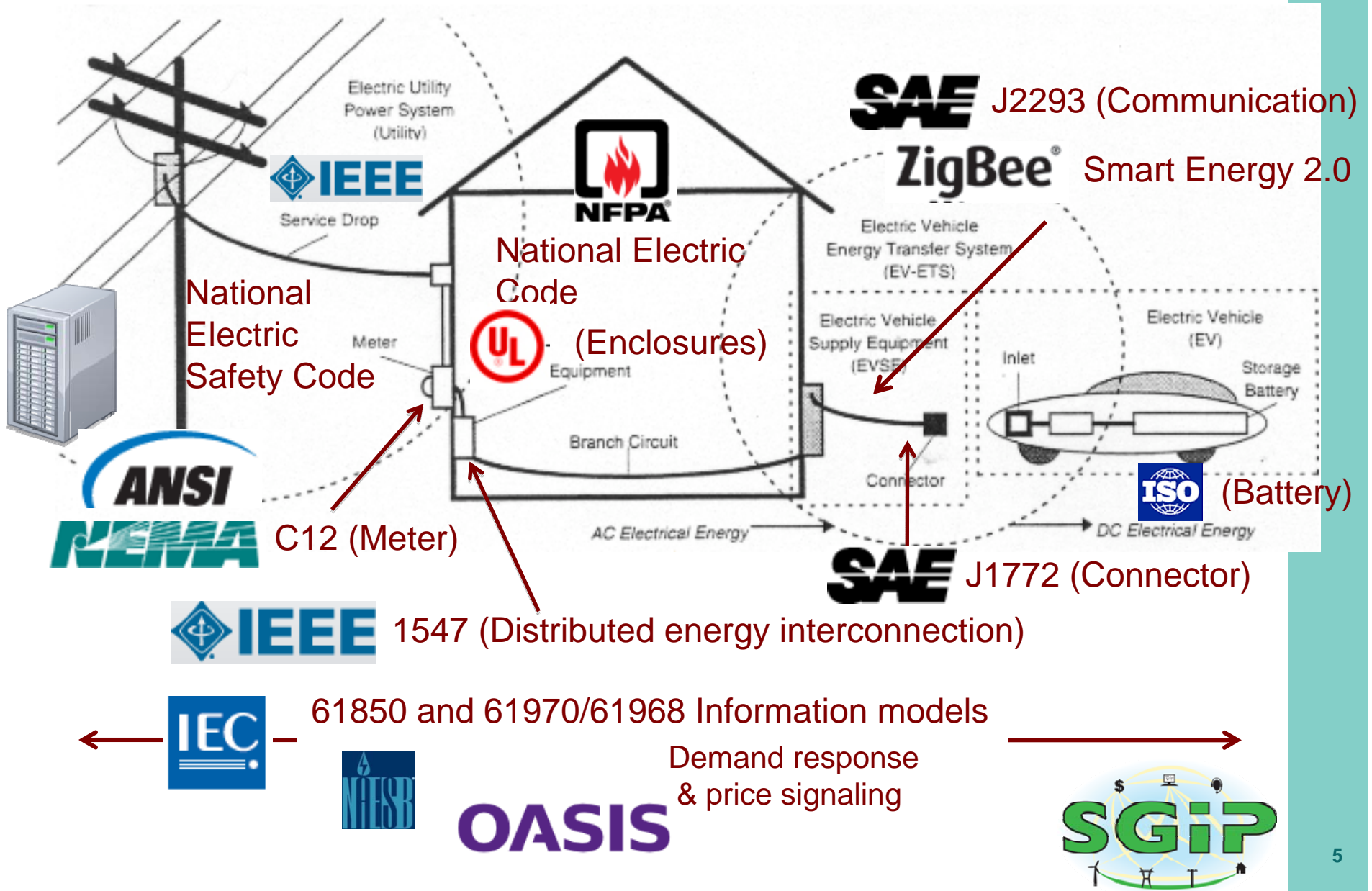
SMART GRID CONCEPTUAL REFERENCE MODEL



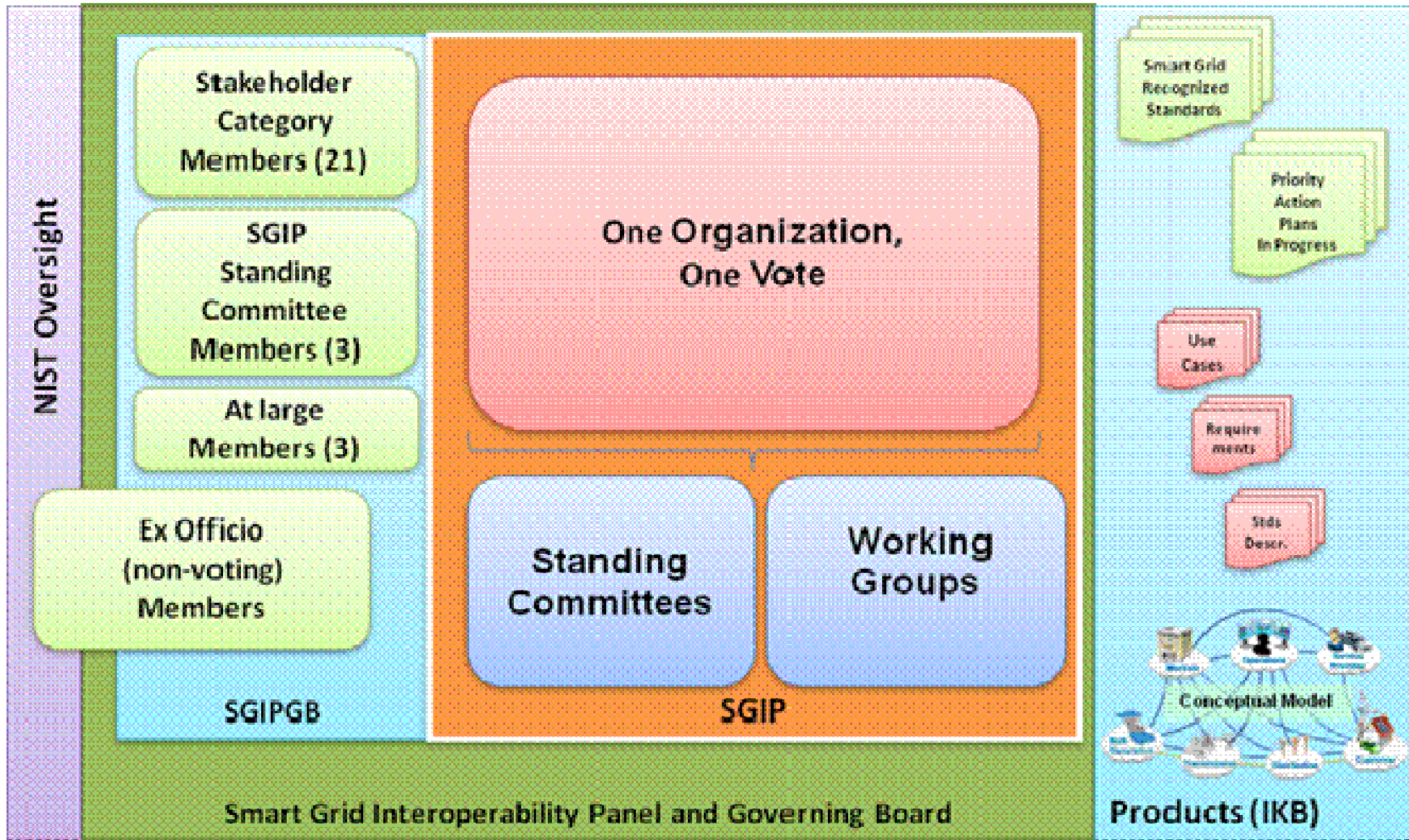
Source: NIST Interoperability Framework 1.0



V2G EXAMPLE STANDARDS



SMART GRID INTEROPERABILITY PANEL



Formed – November 16th, 2009



SGIP MEMBERSHIP

AS OF

03.15.11

•Total # of Member Organizations: 664

- # of Participating Member Organizations: 555
- # of Observing Member Organizations: 109
- # of Organizations who joined in Q1 2011: 19

•Total # of Individual Members*: 1,708

of Organizations by Country

- USA: 592
- Europe: 21
- Asia: 16
- Oceania: 4
- North America (non-US): 29
- South America: 1
- Africa: 1

of Participating Member Organizations by Declared Stakeholder Category



* Omits non-active Signatory Authorities.

MAJOR SGIP ACTIVITIES

- Standing Committees
 - Architecture
 - Testing and Certification
- Permanent Committee
 - Cyber Security Working Group
- **Domain Expert Working Groups (Vehicle To Grid)**
Analysis of cross-functional area applications requiring coordination between one or more Technologies beyond the original scope of the Technology itself.
- **Priority Action Plans (Common Object Models, V2G Implementation)**
Coordination between any and all groups which must complement each other on the resolution of a gap or overlap in Smart Grid Technologies.



V2G UPDATE

Activities and Accomplishments

- Subgroups (roadmap, advanced use cases, roaming, regulatory issues, EV as source, cyber security, privacy) operational
- March 1 Brainstorm Workshop collocated with EPRI IWC meeting, San Diego
- Reviewing new PAP proposals
- New DR Subgroup

Upcoming Key Milestones and Activities

- April: Advanced Use Cases
- June: Roadmap
- New PAP proposals under consideration
 - Fast Charge (J1772)
 - Advanced Applications

Deliverables

- Roadmap
- Advanced use cases

Issues, Concerns, and Help Needed

- Completing PAP11 2847
- Completing new PAP proposals
- Creating new DR Subgroup



PAP11 STANDARDS EFFORTS

- Confirmed completed by Governing Board
 - SAE J1772™ Electric Vehicle Conductive Charge Coupler
 - SAE J2836/1 Use Cases for Communication between PEV and Grid
- Nearly complete for Governing Board consideration
 - SAE J2847/1 Communication between Plug-in Vehicles and the Utility Grid



QUESTIONS

<http://sgipweb.org/>

Eric Simmon, NIST, eric.simmon@nist.gov

Vishant Shah, SGIP Administrator, vishant@enernex.com

