

System Operations Development and Advancement (EPIC-2 Project)



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EPIC Public Stakeholder Workshop
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Systems Operations Development and Advancement



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Project Technical Lead

Project Objectives



- Demonstrate improved capabilities for system operations in response to ongoing technology and infrastructure changes
- Demonstrate a systematic process for ongoing realignment of operating practices, addressing
 - System integration issues
 - Training programs
 - Worker skill set and workforce readiness
- Support continued modernization of SDG&E's power system

Project Team



- Team Composition
 - SDG&E Technical Lead
 - SDG&E Project Technical Staff
 - Contractor(s)

- Groups Involved within SDG&E
 - Technology and Systems Demonstration (Lead)
 - Electric Distribution Engineering
 - Electric Distribution Operations
 - Information Management
 - Integrated Test Facility (ITF)

Considerations

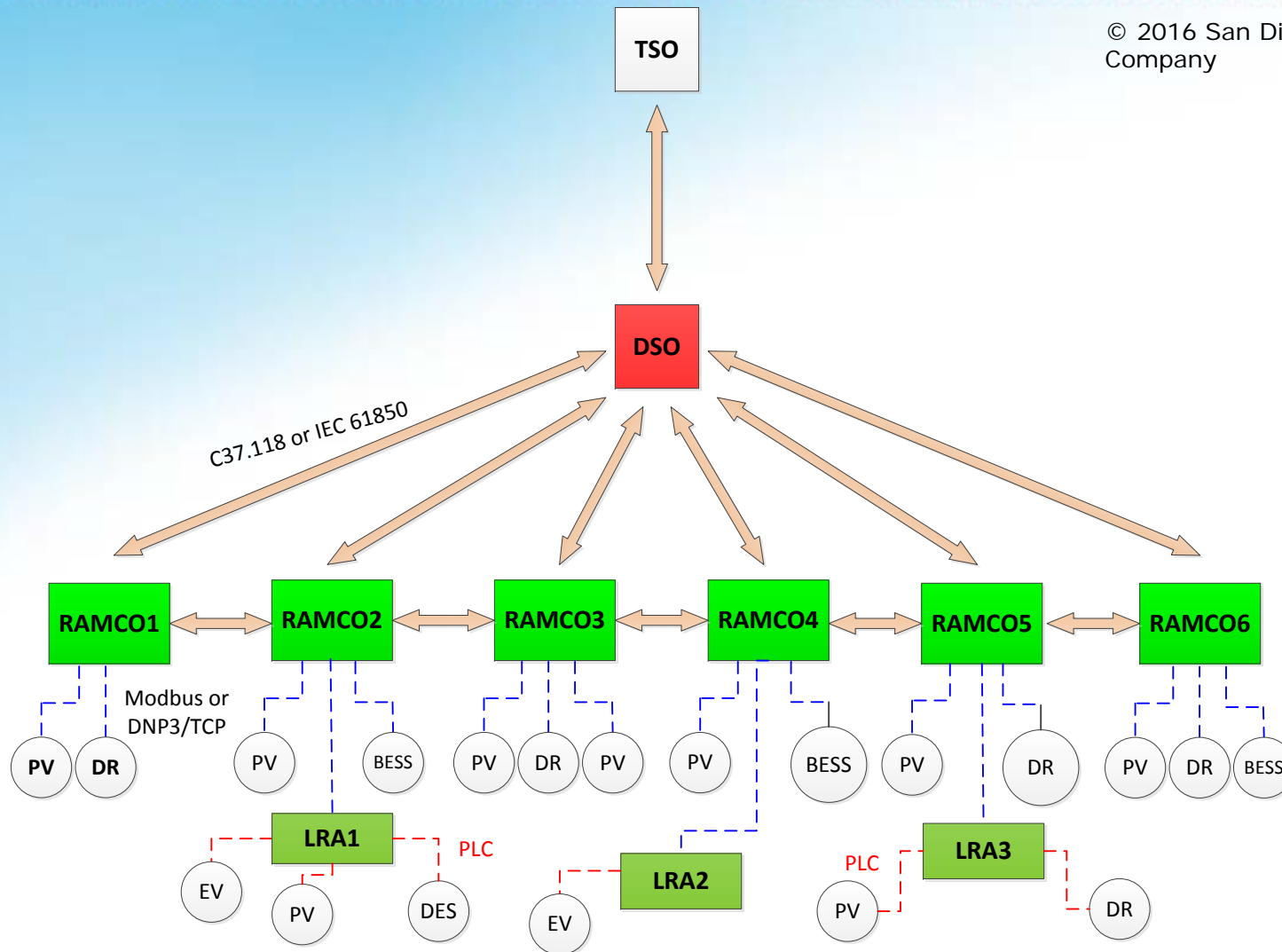
- Software control, resource forecasting and aggregation concept for DERs and loads to meet operational objectives
- Volt/VAr optimization and control
- Synthetic ramping reserves

Schematic of Concept



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Areas to be Addressed

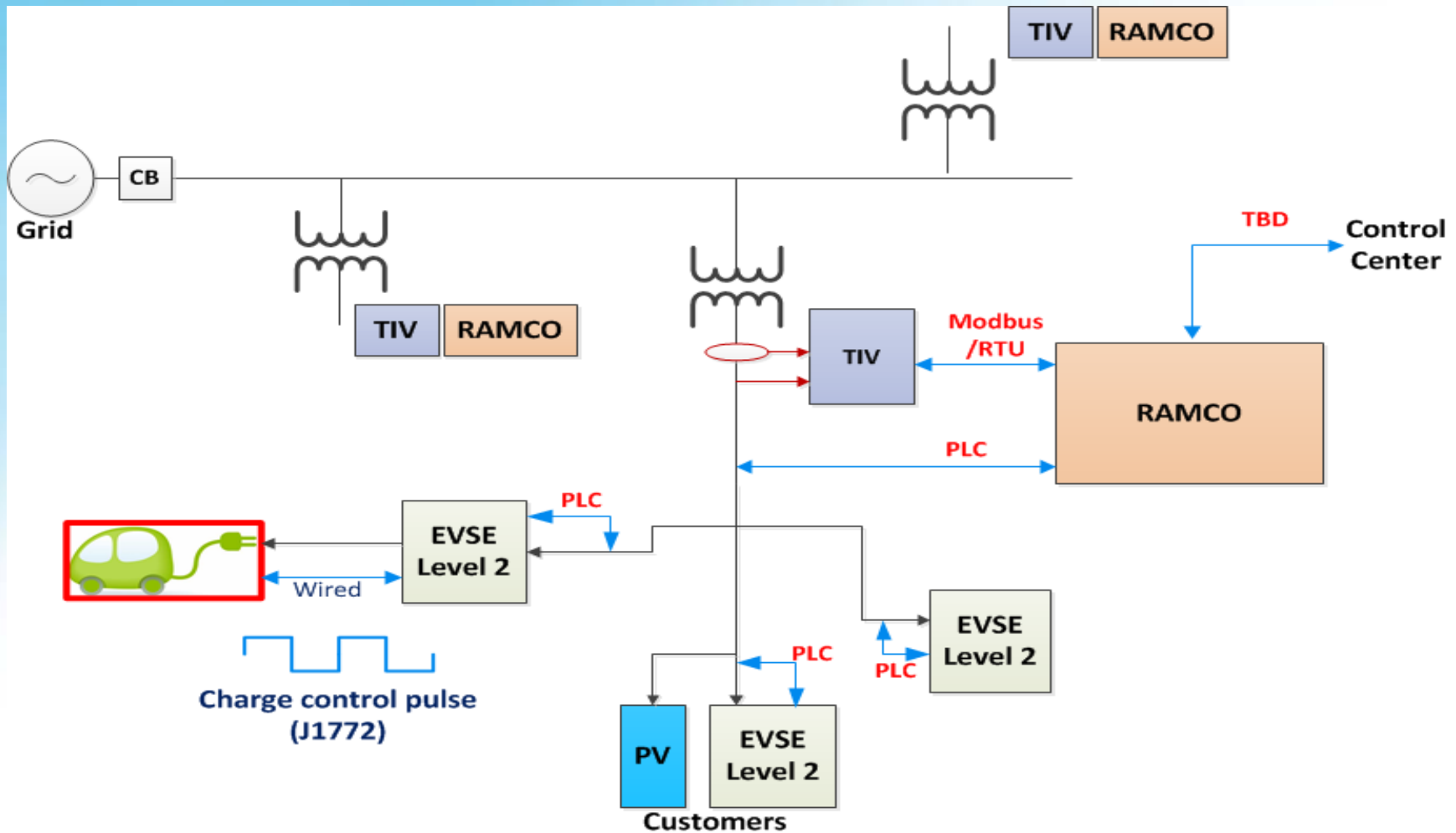


- Aggregated systems
- Distribution transformer level
- Localized condition monitoring
- Distributed Energy Resource focus on:
 - Electric Vehicle Supply Equipment
 - Stationary Energy Storage
 - Photovoltaic Systems

Schematic of Transformer level Aggregation



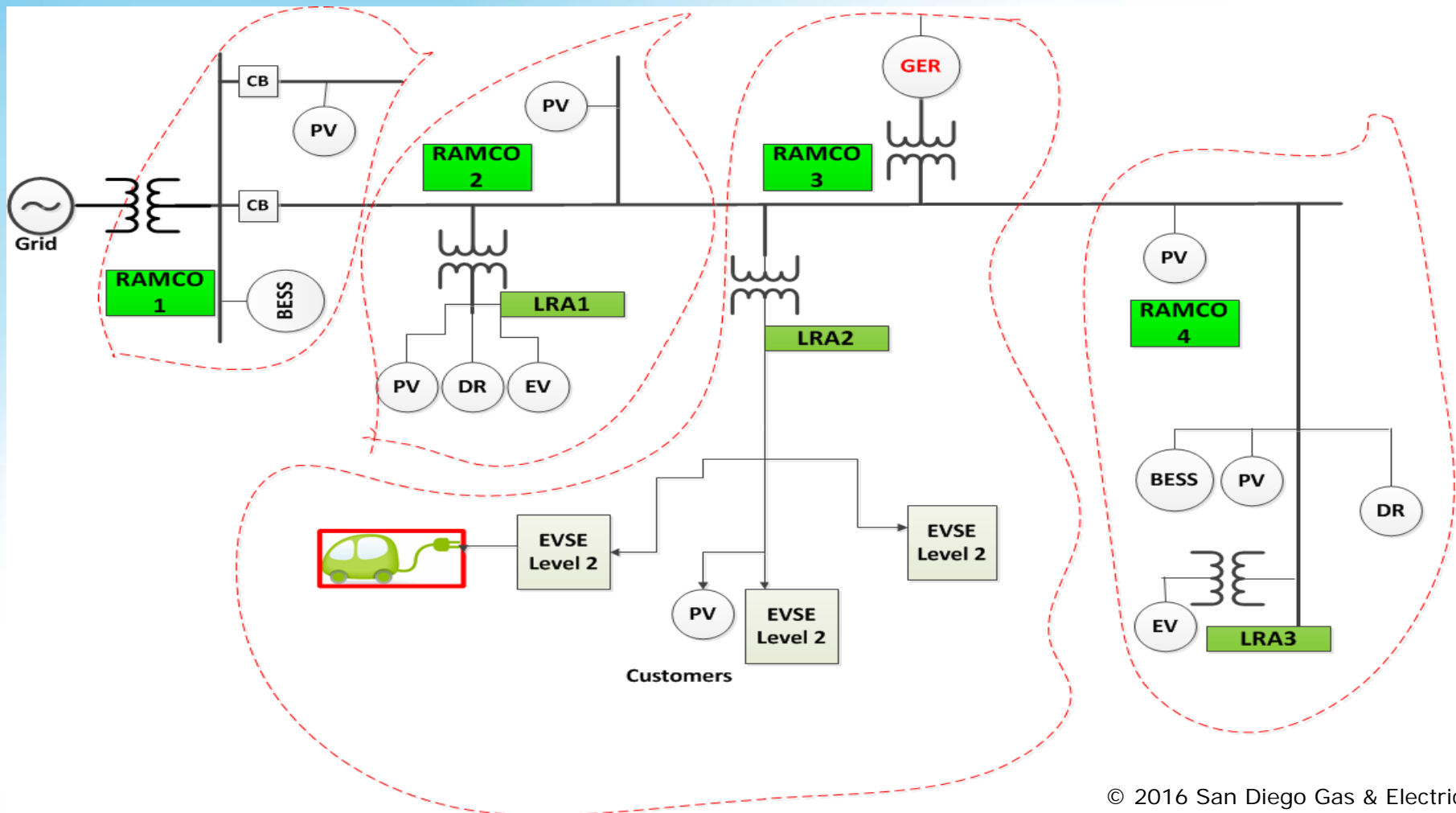
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Schematic of Zones



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Schedule



- **October 2015 - July 2016**

- Stakeholder consultations, writing project plan, start-up of internal work and RFP

- **August 2016 - February 2017**

- Data measurement, RAMCO System integration, testing and data collection, communication system testing

- **September 2016 - May 2017**

- Field testing of the DC System, data collection/analysis of field data, development of technology transfer plan, and preparation of Final Report

Project Status



- **Project plan drafted**
- **Internal SDG&E project team formed and activities launched**
- **Next steps: Competitive procurement of contractor(s) in Summer 2016**



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Q&A