

SMART GRID TESTING & CERTIFICATION COMMITTEE (SGTCC) – STATUS AND OVERVIEW

May 2011



SGTCC OVERVIEW

- The Smart Grid Testing & Certification Committee (SGTCC) is a standing committee of the Smart Grid Interoperability Panel (SGIP)
- SGTCC has developed a framework to enable industry testing and certification programs for Smart Grid interoperability
- SGTCC members are a diverse, elected group including manufacturers, end users and test labs

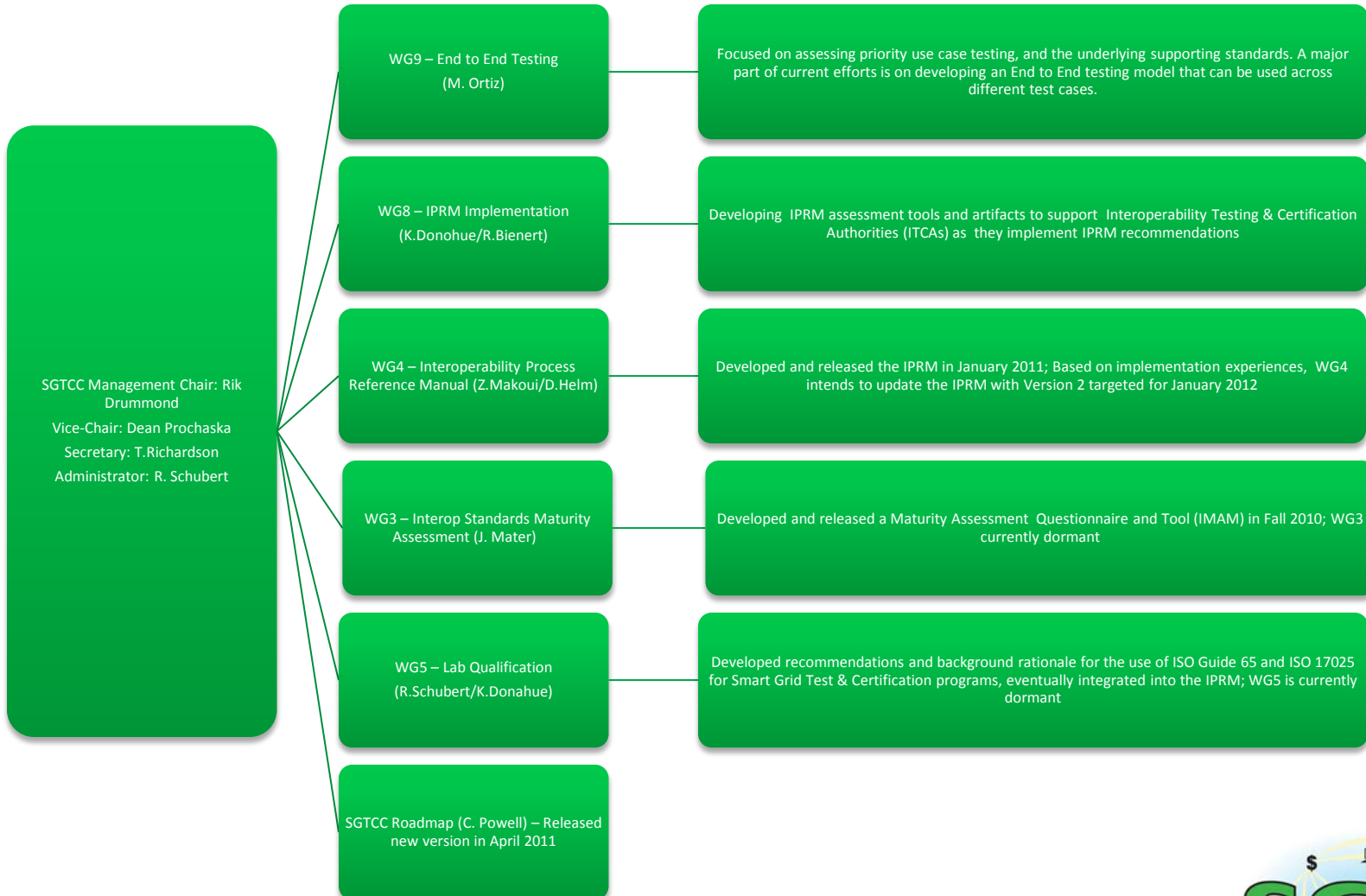


SGTCC STRUCTURE AND MAJOR ACTIVITIES

- Interoperability Process Reference Manual (IPRM)
 - Issued in January 2011
- IPRM Implementation
 - Providing assessment tools for ITCAs
 - Supporting ITCA first adopters to integrate IPRM
- End to End Testing
 - Assessing and identifying priority use case testing needs and the key standards supporting them
- Advocacy for Smart Grid Interop Testing
 - Communications outreach to stakeholders



SGTCC ORGANIZATIONAL STRUCTURE



WHAT IS THE IPRM?

- The Interoperability Process Reference Manual (IPRM) is the primary document defining the framework for Smart Grid testing and certification
- Key IPRM Topics
 - Best Practices for Interoperability Test Construction
 - Criteria for certification body process quality
 - Criteria for test laboratory best practices
 - Best Practices for Cyber Security Test Construction
 - Security supplemental criteria under development



GOALS OF THE IPRM

- Increase the buyer's confidence in the purchase of certified interoperable products for their organizations
- Standardize the testing and certification processes, through an initial set of best practices, across multiple standards ensuring more consistent and quality interoperable products within the Smart Grid at large
- Implement a formal approval process for those organizations following the SGTCC Testing and Certification Framework to assure the purchasing organizations of quality, audited testing programs
- Support end users purchasing Smart Grid products based on standards to reduce costs and shorten product implementation cycle time



IPRM FACTS & FICTION

- Mandatory vs. voluntary
 - Implementation of the IPRM is a voluntary process
 - SGTCC recommends implementation and supports ITCA efforts
 - ITCA – Interoperability Testing and Certification Authority
 - SGTCC does not certify ITCAs
 - Purchasers and other stakeholders may mandate compliance – individual business decisions
- US vs. International
 - SGTCC views the IPRM as globally applicable and elected to use international ISO standards as a basis for many IPRM recommendations



KEY 2011 ACTIVITIES



2011 - IPRM IMPLEMENTATION YEAR

- 2011 is considered a transition year, progressing towards more independent and formal accreditation proposed by 2012
 - Migration from SGTCC volunteer support to ITCAs, to industry 3rd party assessment services
 - SGTCC developing assessment tools and guidance artifacts to accelerate the availability of industry services
 - IPRM recommendations, along with ISO Guide 65 and ISO 17025 international standards serve as the basis for program assessments
- SGTCC is collaborating with industry organizations engaged in accreditation activities, as well as existing and newly emerging ITCAs to progress towards a systematic approach to recognize those ITCAs that successfully implement the IPRM
- SGTCC strongly advocates the concept of “approved programs” , encouraging SGIP members to use the program to intelligently influence their purchasing and deployment decisions



END TO END TESTING NEEDS ASSESSMENT

- Focus Areas:

- Model/Framework for how End-to-End testing can occur
 - System Architecture Identification to Abstract use cases
- Identification of priority use cases and supporting standards to insure basic level of interoperability and complete data sets
- Testing procedures and witness processes to ensure open, fairness and repeatability, and auditability of the testing results.



INTEROP TESTING ADVOCACY

- Communicating the importance of interop testing and certification programs to end users
 - Building confidence in technology selection
 - Reducing cost/time of end user lab and integration tests
- Outreach to SSOs – Advocating and supporting the development of test criteria, cases, methodologies to parallel their standards



SUPPLEMENTAL INFORMATION



DEFINITIONS

- ITCA – Interoperability Testing & Certification Authority
- IPRM – Interoperability Program Reference Manual (The IOP Framework)
- ISO 65 - International Standard for Certification Bodies
- ISO 17025 – International Standard for Test Labs
- SGTCC IOP Best Practices – Lists of best practices not covered in ISO 65 and ISO 17025



SGTCC COMMITTEE MEMBERS

- Rik Drummond (**chair**) – Drummond Group
- Dean Prochaska (**vice-chair**) – NIST
- Tobin Richardson (**secretary**) – Zigbee Alliance
- John Adams – Honeywell
- David Alderman – NIST
- Phillip Beecher – Beecher Communications Consultants
- Rolf Bienert – TUV Rheinland Group
- Peter Cain – Agilent Technologies
- Kent Dickson – Tendril Networks
- Kent Donahue – Underwriters Laboratories
- Larry Durante – National Grid
- Greg Ennis – WiFi Alliance
- Margaret Goodrich - SISCO
- Chris Held – GE Energy
- Donny Helm – Oncor Electric Delivery
- Mladen Kezunovic – Texas A&M
- Lance LaVoy – DTE Energy
- Zahra Makoui (**WG4 lead**) – PG&E ISTS
- James Mater (**WG3 lead**) – Quality Logic
- Gary McNaughton – Cornice Engineering, Inc.
- Ian Mundell – PJM Interconnection
- Bruce Muschlitz – EnerNex
- Emily O’Brien - KEMA
- Mark Ortiz – Consumers Energy
- Clint Powell, Powell Wireless Consulting
- Rudi Schubert (**WG5 lead**) – EnerNex
- John Simmins – EPRI
- Ravi Subramanian – MET Laboratories
- Tim Worthington – GE Appliances
- Tony Youssef – Cisco Systems

