

AEIC Generation – Executive Committee (Rev 1)

Executive Committee Purpose:

The Executive Committee (EC) of the AEIC Power Generation Committee will work to advance the Committee's purpose.

AEIC Power Generation Committee Purpose:

The Power Generation Committee promotes technological, safety and operating performance advances in the power generation field by providing a forum for dialogue between manufacturers and users to exchange industry needs, lessons learned, industry best practices and technology developments. The Committee addresses or causes industry resources to be applied to areas of concern.

Executive Committee Responsibilities:

1. Foster a forum that drives continuous improvement across the power generation industry.
2. Provide continuity among Sponsoring Vendors and the AEIC Power Generation Membership from year to year to maintain and advance constructive working relationships.
3. Sounding board to Chairman, Vice Chairman, Secretary, Issues and Equipment Subcommittee Chairpersons to ensure a meaningful exchange of information for utility and host vendor members.
4. Monitor member attendance, survey responses, vendor engagement and member – only meeting content to uphold membership requirements.

Executive Committee Members (as of September 2015):

Al Rudeck, Chairperson	Minnesota Power
Mark McCullough, Vice Chairperson	American Electric Power
Josh Skelton, Secretary	Minnesota Power
Jim Pratt, Issues Subcommittee Chair	Salt River Project
Mike Arechebala, Equipment Subcommittee Chair	NextEra Energy
Jim Lochar, At Large	NRG Energy
Mike Finissi, At Large	NiSource
Bill Fontenot, AEIC Board (2 year/rotate)	CLECO

Duration: All EC positions are at the discretion of the EC. Typically, the Chairperson, Vice Chairperson, Secretary and AEIC Board Members serve two year terms.

AEIC Generation – Issues Committee

Issues Committee Purpose:

The Issues Committee focus is on the non-physical aspects of generation. This includes but is not limited to items such as human resources, training, safety programs/policy, generation communications, community interaction, emergency preparedness and environmental policy on the federal, state, and local levels, (air-water-waste). It may also include cost effectiveness, productivity, quality processes and quality control, contract theory, fuel specifications, fuel transportation, project management, data/work management processes, plant support services, permitting, collaborative R&D and EPRI related projects.

Each member is responsible to ensure that it complies with any legal obligations or corporate policies that may impact their ability to share certain types of information.

Issues Committee Responsibilities:

1. Brainstorm critical issues affecting the generation sector
2. Seek input from members to supplement / verify key issues
3. Maintain a current issues list
4. Assist with development of the tri-annual meeting agendas
5. Contribute to / solicit presentations by members for the tri-annual meetings

Issues Committee Members (as of August 2015):

Jim Pratt – Chair	Salt River Project
Dave Becker	Dairyland Power Cooperative
Jim Heilbron	Southern Company
Charlie Lasky	First Energy Corporation
Jim Messersmith	Oglethorpe Power Corporation
Steve Mills	Xcel Energy
Damon Morgan	PowerSouth Energy Cooperative

AEIC Generation – Equipment Committee Charter

Equipment Committee Purpose

The Equipment Committee focus is on the physical aspects of generation.

This includes but is not limited to items such as employee safety, environmental and other compliance obligations, economic and reliable operations, and all other aspects of power generation equipment including plant transformers and their maintenance. This focus will include all types of fossil generation fuels and renewable sources such as wind, solar and energy storage.

It will include equipment maintenance strategies, overhaul execution experiences, operations on different fuels and repowering, as well as emerging technology and its impact on equipment issues.

Each AEIC member is responsible to ensure that they comply with any legal obligations or corporate policies that may impact their ability to share certain types of information. Each Equipment Committee member is responsible for facilitating the confidential treatment of materials.

Equipment Committee Responsibilities:

1. Brainstorm equipment issues affecting the generation sector
2. Seek input from members to supplement / verify equipment issues
3. Maintain a current equipment related issues list
4. Assist with development of the tri-annual meeting agendas
5. Contribute to / solicit presentations by members for the tri-annual meetings

Equipment Committee Members (as of July 2015):

Mike Arechabala – Chair	NextEra Energy
Daniel Thompson	Dynegy
Bill Smagula	Eversource Energy
Randy Stroupe	Jacksonville Electric Authority
Richard Federwisch	Luminant
Bill Fontenot	CLECO
Kathy Curtis	Dominion

AEIC Generation – Membership Requirements (Rev 1)

Membership Requirements:

- Attend at least three consecutive AEIC Power Generation Committee meetings.
- Consistently complete and submit company/vendor survey responses.
- Actively engaged in discussions with vendors and members.
- Make one or more presentations to the membership regarding a lesson learned, vendor experience or equivalent.
- Consensus vote for membership by the Executive Committee
- Membership position is recognized as “earned/held” by the member, not necessarily their company.

AEIC Distributed Energy Resources Subcommittee Charter

CHARTER:

Name: AEIC Distributed Energy Resources Subcommittee

Date: 4-27-2015

SCOPE:

Purpose/Goal: *(What is the purpose of the Committee? What are we trying to achieve?)*

Establish a subcommittee focused on both the technical and operational challenges, best practices and solutions implemented that are related to the integration of Distributed Energy Resources of all sizes ranging from small residential, modest sized community solar gardens to large utility scale solar arrays into the electrical grid both behind and in front of the meter.. This subcommittee is not to focus on policy issues associated with Distributed Energy Resources.

Operating Assumptions: *(What are the “givens” or operating assumptions for the Committee?)*

- The AEIC Distributed Energy Resources Subcommittee will :
 - Meet semi-annually (or as a minimum annually) rotating the host among participating utilities.
 - Provide an open forum with the goal of identifying the technical and operational challenges, best practice sharing and learning, and solution implemented as they related to the integration of Distributed Energy Resources into the electrical grid.
 - Be established as a subcommittee of the AEIC Power Delivery Group
 - Joint periodic reporting and integral involvement of the AEIC Power Generation and AEIC Power Apparatus Committees.
 - Membership limited to electric utilities.

- The AEIC Distributed Energy Resources Sub-Committee will have a Chair and a Vice Chair.
- The AEIC Distributed Energy Resources Sub Committee will elect a Vice Chair annually who will replace the Chair the following year.
- The AEIC Distributed Energy Resources Sub-Committee will engage, periodically and provide constructive industry-wide feedback to distributed energy equipment providers (including but not limited to solar panel manufacturers, inverter manufacturers and other specialty suppliers and others as identified by the AEIC Distributed Energy Resources Sub-Committee.
- The AEIC Power Delivery Committee will assume the role of advisory board.

Objectives: *(What value should this Committee produce? What will success look like?)*

- Identify a common definition of category and class of Distributed Energy Resource to facilitate investigations and discussions.
- Identity the operational impacts, best operational practices, and operational solutions associated with each category and class of Distributed Energy Resource to maximize system value for the owner.

- Identify the technical impacts, best practices, maximum performance and technical solutions associated with each category and class of Distributed Energy Resources.
- Stay abreast of new emerging Distributed Energy Resources and incorporate into a category and class as required. i.e., Solar, Battery Storage, Wind, Micro Turbines.
- Engage primary and leading vendors of Distributed Energy Resource equipment and specialized services, meet with them periodically and provide feedback to vendors as to how they can improve to best serve utilities and our customers, similar to the format used by the AEIC Power Generation Committee.
- Report after each meeting of the AEIC Distributed Energy Resource Sub-Committee

Deliverables: *(What specific end product or service will we produce and/or offer, by what date and at what cost?)*

- Understand and document specifications for equipment and services.
 - Panels, tracking systems
 - Inverters
 - Switches, breakers, ancillary equipment
 - Construction / Installation
 - Maintenance
- Understand and document technical Impacts.
 - Modeling – Distribution load flows and fault scenarios
 - Modeling – Transmission load flows & Generation dispatch
 - Protection schemes, fuse coordination
 - Monitoring & Control schemes
 - Interconnection engineering and design
 - Sensors
 - Telecommunications
 - Physical security
 - New engineering standards
- Understand and document operational Impacts.
 - Process changes – switching, troubleshooting, monitoring, clearances, etc.
 - Inverter monitoring, control and performance
 - Maintenance
 - Training & skills needed
- Understand and Document how to Maximize Value of Performance Efficiencies of DER systems.
 - Energy conversion efficiencies of each various technology
 - Degradation of energy efficiency over time of installation
 - Best practices to reduce, minimize or restore energy conversion efficiency
 - Identify and document best practices in technology applications, designs and improvements over time to derive maximum value of DER for owners
- Drive innovation and best in class vendor performance by meeting with primary DER vendors periodically.
 - Understand various DER systems and performance history over time
 - Engage with vendors to drive system wide and specific component level performance and opportunities for improvement.

AEIC Distributed Energy Resource Sub-Committee “Not To Dos:”

The committee will NOT engage on specific policies such as advocating for net metering, solar or other DER mandate levels, etc. This is work done by EEI and other advocacy groups, committees.

Stakeholder Analysis: *(Who are our stakeholders? What do they expect? What are their needs/requirements?)*

- AEIC Power Delivery, Power Generation and Power Apparatus Committees
 - They expect a subcommittee focused on identifying both the technical, performance and operational challenges, best practice and solutions implemented sharing as they relate to the integration of Distributed Energy Resources into the electric grid and engage with suppliers and vendors to deliver best in class sourcing, manufacturing and service to DER systems..
- Utility Senior Management
 - Outcomes of this subcommittee should:
 - Identify and educate about the performance and value creation potential with DER.
 - Identify and educate about operational challenges and opportunities associated with DER.
 - Identify and educate about the technical challenges and opportunities associated with DER.
 - Lead to improved integration performance and quality of DER systems into the electrical grid by comparing and adapting current methods and practices to those identified as "best practices".
 - Accelerate continuous improvement for owners and vendor suppliers of DER systems..
 - Minimize "re-inventing the wheel".
 - Share best practices in zero injury safety techniques that supports employees, suppliers and the public to install, troubleshoot, operate and live and work in and around DER systems without injury.

Success Measures: *(How will success be measured? What measures will be used and by whom and when?)*

Risk Analysis:

Potential Problems	Preventative Actions
▪	▪
	▪

Roles & Responsibilities:

ROLES & RESPONSIBILITIES: Chair

- Coordinate timing of Distributed Energy Resources sub-committee meetings assuring a viable agenda and host utility.
- Promote the Distributed Energy Resources sub-committee, keeping core utility participants energized and encouraging other utilities to participate.
- Coordinate updates to AEIC power delivery group at their spring/fall meetings accordingly.
- Collaborate with AEIC Power Generation and Power Apparatus Committee Chairs on content and overall DER Sub-Committee governance and strategic direction.
- Report at least semi annually on status of the DER Sub-Committee to Power Generation and Power Apparatus as well as Power Delivery AEIC Committees. Such reports will include at a minimum meeting minutes, vendor presentations, specifications, summaries, roster of attendees, action plans or priorities.
- Notifications of Sub-committee meetings will be shared with Power Generation and Power Apparatus Secretaries in advance of meetings.

ROLES & RESPONSIBILITIES: Vice-Chair

- Assist Chair with coordination of meetings and agenda topics.
- Promote the Distributed Energy Resources sub-committee, keeping core utility participants energized and encouraging other utilities to participate.
- Initiate the annual election for Vice-Chair.
- Assume Chair duties the following year.

ROLES & RESPONSIBILITIES: Utility Participants

- Attend and actively participate in committee meetings.
- Suggest agenda items and participate in round table discussions.
- Present updates and best practices at your utility to the group.
- Support other members by responding quickly to request for information or assistance.
- Volunteer to host committee meetings.

ROLES & RESPONSIBILITIES: AEIC Power Delivery Committee – Advisory Board

- Include Distributed Energy Resources sub-committee overview presentations on committee agendas.
- Review evolving goals & objectives providing longer-term direction.
- Provide vision, ensuring broad-based and sustainable value to AEIC utilities.
- Recommend participants for the Distributed Energy Resources sub-committee.

Communication:

COMMUNICATION	DELIVERY METHOD	TO WHOM
AEIC Power Deliver Group	Update at spring/fall meeting round table (or stand-alone presentation at meeting as required)	AEIC Power Delivery Group
	Written summaries delivered via email or webpage – TBD by DER Subcommittee	AEIC Power Generation Committee AEIC Power Apparatus Committee
	Meeting agendas, premeeting surveys of DER Subcommittee members, and post meeting follow up of Vendor feedback to vendors.	DER Vendors

PARKING LOT ITEMS: