BUSINESS AND TECHNOLOGY STRATEGIES (BTS)
SUBJECT MATTER EXPERTS
*Jim Spiers, Russell Tucker, Craig Miller, Paul McCurley, Venkat Banunarayanan, Paul Breakman, Keith Dennis and Joe Hagerman can address questions on all topic areas.

Analytics, Resiliency & Reliability
David Pinney, Alvin Razon
- Dynamic and Static Modeling
- Volt-VAR Optimization, Solar, DR, and Storage Planning Models and Innovative Co-op Deployments
- Cost and Engineering Analysis of Distributed Energy Resources
- Software Development and Database Design

Madelyn Roche
- Co-op Distribution Data
- G&T Co-op Data
- G&T Equity and Capex Survey

Michael Leitman
- Demographic Analysis
- Co-op Economies & Development
- Policy & Regulatory Analysis

Broadband Infrastructure Development
Paul Breakman, Russell Tucker
- Business models and solutions
- Technology plans, roadmaps
- Broadband Due Diligence
- Resources and tools
- Advanced communications infrastructure solutions
- Economic analysis

Cybersecurity
Cynthia Hsu
- Cybersecurity Self Assessments
- Cybersecurity Training

Tony Thomas, Alvin Razon
- Cybersecurity for Industrial Control Systems
- Cybersecurity and MultiSpeak Standard

Patti Metro
- Cybersecurity and Reliability Standards

Distributed Energy Resources
Brian Sloboda, Michael Leitman, Jan Ahlen, Keith Dennis
- Beneficial Electrification
- Measurement and Verification
- Pre-Pay Programs
- Electric Vehicles
- DSM Business Models (direct load, behavioral, time of use rates)
- Utility Connected Home
- Role of DER in meeting Environmental Objectives

Michael Leitman, Jan Ahlen
- Solar PV Technical and Economic Assessment
- Energy Storage Systems, Current State and Future
- Renewable Generation and Integration
- Developing Solar Strategies
- The Consumer-Centric Utility
- Co-op Renewable Resources

Robert Harris, Alvin Razon
- DER Interconnection and Operation Standards

Generation, Environment & Carbon
Dan Walsh
- Asset Management
- Carbon capture & utilization
- Multi-pollutant control technologies for power plants
- Impact of cycling on power plants
- Integrated Test Center— Carbon (ITC-C)
- 111-D and Future of Power Plants
- EPA MATS Mercury Air Toxics Standards
- EPA RHR Regional Haze Rule
- EPA CCR Coal Combustion Residuals
- EPA ELG Water Effluent Limitation Guidelines
- EPA 316(b) Cooling Water Intake Structures
- Fast and flexible generation options
- Utility scale energy storage
- Natural gas-fired combined cycle gas turbines
- Utility scale wind energy
- Utility scale solar energy
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Generation, Environment & Carbon cont.
Lauren Khair, Michael Leitman
- EIA-860: Annual Generator Report Data
- EIA-861: Annual Electric Power Industry Report Data
- EIA-923: Power Plant Operations Report Data
- Co-op Generation Resources

Katherine Loving
- Geographic Information Systems (GIS)
- Spatial Data Analysis

Joseph Goodenbery
- Economic Modeling
- Policy Impacts
- Levelized Cost of Energy

Human Capital
Delaine Orendorff, Ginny Beauchemin, Leigh Taylor, Beth Wray
- Executive Coaching
- Vision/Mission/Values Development
- Strategic Planning/Operational Action Planning
- Culture Alignment
- Organizational Development
- Leadership Development
- Change Management
- Developing High Performing Teams
- Training & Development Programs
- Succession Planning
- Career Paths

Governance
Leigh Taylor, Ginny Beauchemin
- Board Self Appraisals
- Director Compensation Analysis

Resource Adequacy & Markets
Paul McCurley, Patti Metro
- Resource Adequacy
- Power System Planning and Operations
- Electricity Markets
- RTOs/ISOs
- Reliability

Lauren Khair
- Economic Modeling
- Department of Defense Initiatives
- EIA: Short Term Energy Outlook Forecasts
- EIA: Annual Energy Outlook Projections
- Energy Imbalance Market (EIM)

Joseph Goodenbery, Michael Leitman
- Economic Modeling and Forecasting
- Market Fundamentals
- Economic Drivers of Co-op Performance
- Policy & Regulatory Analysis

Sourcing Strategies
Paul Breakman, Lauren Khair
- Sourcing and procurement solutions
- Approaches and methods
- Technology considerations
- Lessons learned, case studies

Safety Performance
Bud Branham, Henry Cano
- Transformational cultural change
- Culture assessment
- Safety improvement planning
- Targeted safety improvement initiatives

Market Research
Mike Sassman, Ginny Beauchemin, Beth Wray
- Consumer and Employee Surveys
- Business to Business Surveys
- Actionable Data Analytics

Leadership and Organizational Development
Leigh Taylor, Ginny Beauchemin, Delaine Orendorff
- Succession Planning
- Performance Management
BUSINESS AND TECHNOLOGY STRATEGIES (BTS)

SUBJECT MATTER EXPERTS

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**Transmission & Distribution**

*Alvin Razon*
- Energy Storage Systems Technology
- Impacts of High-Penetration Solar
- Smart Grid Demonstration Project
- Substation of the Future
- Technology Developments – T&D Systems
- DER Economics and DSO Considerations
- Unmanned Aerial Vehicles
- Conservation Voltage Reduction
- Distribution Optimization

*Tony Thomas, Alvin Razon*
- Product Quality and Reliability Benchmarking
- Utility Automation Systems
- Communication Networks
- MultiSpeak®
- Cyber Security for Industrial Control Systems

*Patti Metro*
- NERC Regulations and Standards
- FERC/NERC Grid Reliability Standards, Compliance and Enforcement
- Rural Utilities Services (RUS) and NRECA Transmission & Distribution Engineering Committee (TDEC)
- Avian Issues
- Geomagnetic Disturbance (GMD) and Electromagnetic Pulse (EMP)

*Robert Harris, Alvin Razon*
- IEEE 1547 – DER Interconnection
- National Electrical Safety Code
- National Electrical Code
- System Planning
- Rural Utilities Services (RUS) and NRECA Transmission & Distribution Engineering Committee (TDEC)

*James Carter, Nick Klein, John Mason*
- Treated Wood Poles and Crossarms
- Wood Preservatives
- Pole and other utility wood product inspections
- RUS wood product specifications
- General wood treatment processes and related business
## Business and Technology Strategies (BTS)

### Work Groups

<table>
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