BUSINESS AND TECHNOLOGY STRATEGIES (BTS)

SUBJECT MATTER EXPERTS

*Jim Spiers, Russell Tucker, Craig Miller, Paul McCurley, Venkat Banunarayanan, Paul Breakman and Keith Dennis can address questions on all topic areas.*

**Analytics, Resiliency & Reliability**

**David Pinney**
- 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

**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**
- Rural Cooperative-Cybersecurity Capabilities Program (RC3)
- Self assessments and risk assessments
- Research and development projects

**Moin Shaikh**
- Frameworks and best practices
- Cybersecurity for Industrial Control Systems
- Technical and policy issues
- Military cybersecurity standards

**Doug Lambert**
- Research and development projects

**Tony Thomas**
- Cybersecurity for Industrial Control Systems
- Cybersecurity and MultiSpeak Standard

**Patti Metro**
- Cybersecurity and Reliability Standards

**Cynthia Hsu, Moin Shaikh, Adaora Ifebigh, Lauren Khair**
- Cybersecurity training and outreach

**Meredith Miller**
- Data Scientist

**Distributed Energy Resources**

**Brian Sloboda, Michael Leitman, Jan Ahlen, Keith Dennis, Maria Kanevsky**
- 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

**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)
- Fast and flexible generation options
- Utility scale energy storage
- Natural gas-fired combined cycle gas turbines
- Utility scale wind and solar energy

**Mergers and Consolidations**

**Kim Christiansen, Henry Cano**
- Merger strategic business case analysis
- Municipal acquisition strategic business case analysis
- Merger/Consolidation planning
- Governance and operations transition support service
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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

**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

**Executive Search**
Leigh Taylor, Ginny Beauchemin, Delaine Orendorff
- Executive and Senior Staff Searches
- Leadership Competency Model
- Interviewing
- Goal Setting and Appraisals
- New CEO Transitions
- Executive Coaching
- Orientation and Onboarding Analysis
- Leadership and Talent Assessments
- Resume/Interview Coaching

**Leadership and Organizational Development**
Leigh Taylor, Ginny Beauchemin, Delaine Orendorff
- Succession Planning
- Performance Management

**Governance**
Kim Christiansen, Ginny Beauchemin
- Governance Assessment
- Enterprise Risk Management
- Policy and Bylaw Review
- Director Compensation Benchmarking

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

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

**Resource Adequacy & Markets**
Madelyn Roche
- Co-op Distribution Data
- G&T Co-op Data
- G&T Equity and Capex Survey

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

**Leadership and Organizational Development**
Katherine Loving
- Geographic Information Systems (GIS)
- Spatial Data Analysis

**Human Capital**
Joseph Goodenbery
- Economic Modeling
- Policy Impacts
- Levelized Cost of Energy

**Leadership and Organizational Development**
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

**Leadership and Organizational Development**
Bud Branham, Jasmyne Montague, Henry Cano
- RESAP
- Committee to Zero Contacts
- Transformational cultural change
- Culture assessment
• Safety improvement planning
• Targeted safety improvement initiatives

**Market Research**
Mike Sassman, Ginny Beauchemin, Beth Wray

- Market Segmentation
- Consumer and Employee Surveys
- Business to Business Surveys
- Actionable Data Analytics
BUSINESS AND TECHNOLOGY STRATEGIES (BTS)

SUBJECT MATTER EXPERTS

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**Transmission & Distribution**
Venkat Banunarayanan, Fathalla Eldali
- 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
- 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, Fathalla Eldali
- IEEE 1547 – DER Interconnection
- National Electrical Safety Code (NESC)
- System Planning
- Rural Utilities Services (RUS) and NRECA Transmission & Distribution Engineering Committee (TDEC)

James Carter, Will Cox
- 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

**Technology, Data Strategy and Utility Analytics**
Henry Cano, Stan McHann, Tony Thomas
- Technology Planning
- Technology Business Case Evaluation
- Technology Deployment Support Services
- Data Strategy Plan
- Applied Utility Analytics
- Operations Analysis
- Operating Metrics and Benchmarks
## BUSINESS AND TECHNOLOGY STRATEGIES (BTS)

### WORK GROUPS

<table>
<thead>
<tr>
<th>BTS Work Group</th>
<th>Work Groups</th>
<th>Mobile Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytics, Resiliency &amp; Reliability (A/R/R)</td>
<td>David Pinney - Lead</td>
<td>607-339-3506</td>
<td><a href="mailto:david.pinney@nreca.coop">david.pinney@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Venkat Banunarayan</td>
<td>703-907-6129</td>
<td><a href="mailto:venkat.banunarayan@nreca.coop">venkat.banunarayan@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Paul Breakman</td>
<td>703-907-5844</td>
<td><a href="mailto:paul.breakman@nreca.coop">paul.breakman@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Robert Harris</td>
<td>571-205-3189</td>
<td><a href="mailto:robert.harris@nreca.coop">robert.harris@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Adaora Ifebigh</td>
<td>703-907-5849</td>
<td><a href="mailto:adaora.ifebigh@nreca.coop">adaora.ifebigh@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Lauren Khair</td>
<td>703-907-6845</td>
<td><a href="mailto:lauren.khair@nreca.coop">lauren.khair@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Tony Thomas</td>
<td>703-850-4718</td>
<td><a href="mailto:tony.thomas@nreca.coop">tony.thomas@nreca.coop</a></td>
</tr>
<tr>
<td>Cybersecurity (CS)</td>
<td>Cynthia Hsu - Lead</td>
<td>703-907-6663</td>
<td><a href="mailto:cynthia.hsu@nreca.coop">cynthia.hsu@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Adaora Ifebigh</td>
<td>703-907-5849</td>
<td><a href="mailto:adaora.ifebigh@nreca.coop">adaora.ifebigh@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Lauren Khair</td>
<td>703-907-6845</td>
<td><a href="mailto:lauren.khair@nreca.coop">lauren.khair@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Stan McNann</td>
<td>571-289-5615</td>
<td><a href="mailto:stanley.mcnann@nreca.coop">stanley.mcnann@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Patti Metro</td>
<td>703-907-5817</td>
<td><a href="mailto:patti.metro@nreca.coop">patti.metro@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Craig Miller</td>
<td>703-626-9683</td>
<td><a href="mailto:craig.miller@nreca.coop">craig.miller@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Moin Shaikh</td>
<td>703-907-5899</td>
<td><a href="mailto:moin.shaikh@nreca.coop">moin.shaikh@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Tony Thomas</td>
<td>703-850-4718</td>
<td><a href="mailto:tony.thomas@nreca.coop">tony.thomas@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Russell Tucker</td>
<td>703-907-5823</td>
<td><a href="mailto:russell.tucker@nreca.coop">russell.tucker@nreca.coop</a></td>
</tr>
<tr>
<td>Distributed Energy Resources (DER)</td>
<td>Brian Sloboda – Lead</td>
<td>703-946-2812</td>
<td><a href="mailto:brian.sloboda@nreca.coop">brian.sloboda@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Maria Kanovsky</td>
<td>703-907-6243</td>
<td><a href="mailto:maria.kanovsky@nreca.coop">maria.kanovsky@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Jan Ahlen</td>
<td>703-907-5859</td>
<td><a href="mailto:jan.ahlen@nreca.coop">jan.ahlen@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Venkat Banunarayan</td>
<td>703-907-6129</td>
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<td></td>
<td>Paul Breakman</td>
<td>703-907-5844</td>
<td><a href="mailto:paul.breakman@nreca.coop">paul.breakman@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Katherine Loving</td>
<td>703-907-5833</td>
<td><a href="mailto:katherine.loving@nreca.coop">katherine.loving@nreca.coop</a></td>
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<td>Jan Ahlen</td>
<td>703-907-5859</td>
<td><a href="mailto:jan.ahlen@nreca.coop">jan.ahlen@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Joseph Goodenbery</td>
<td>703-907-5893</td>
<td><a href="mailto:joseph.goodenbery@nreca.coop">joseph.goodenbery@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Paul McCurley</td>
<td>703-907-5867</td>
<td><a href="mailto:paul.mccurley@nreca.coop">paul.mccurley@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Michael Leitman</td>
<td>703-907-5864</td>
<td><a href="mailto:michael.leitman@nreca.coop">michael.leitman@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Madelyn Roche</td>
<td>703-907-6147</td>
<td><a href="mailto:madelyn.roche@nreca.coop">madelyn.roche@nreca.coop</a></td>
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<td></td>
<td>Patti Metro</td>
<td>571-334-8890</td>
<td><a href="mailto:patti.metro@nreca.coop">patti.metro@nreca.coop</a></td>
</tr>
<tr>
<td>Transmission &amp; Distribution (T&amp;D)</td>
<td>Patti Metro - Lead</td>
<td>571-205-7112</td>
<td><a href="mailto:patti.metro@nreca.coop">patti.metro@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Bud Brannham</td>
<td>561-670-3502</td>
<td><a href="mailto:bud.brannham@nreca.coop">bud.brannham@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Henry Cano</td>
<td>602-621-3905</td>
<td><a href="mailto:henry.cano@nreca.coop">henry.cano@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Fathalla Eidali</td>
<td>703-907-6549</td>
<td><a href="mailto:Fathalla.Eidali@nreca.coop">Fathalla.Eidali@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Robert Harris</td>
<td>703-561-3905</td>
<td><a href="mailto:Robert.harris@nreca.coop">Robert.harris@nreca.coop</a></td>
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<td>703-907-5867</td>
<td><a href="mailto:paul.mccurley@nreca.coop">paul.mccurley@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Stan McNan</td>
<td>703-302-0479</td>
<td><a href="mailto:stan.mcnan@nreca.coop">stan.mcnan@nreca.coop</a></td>
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</tr>
<tr>
<td>Resource Adequacy &amp; Markets (RA/M)</td>
<td>Michael Leitman – Lead</td>
<td>703-907-5864</td>
<td><a href="mailto:michael.leitman@nreca.coop">michael.leitman@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Allison Hamilton – Second</td>
<td>703-907-5824</td>
<td><a href="mailto:allison.hamilton@nreca.coop">allison.hamilton@nreca.coop</a></td>
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<td>Keith Dennis</td>
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<td><a href="mailto:keith.dennis@nreca.coop">keith.dennis@nreca.coop</a></td>
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<td>Dan Walsh</td>
<td>571-205-7112</td>
<td><a href="mailto:daniel.walsh@nreca.coop">daniel.walsh@nreca.coop</a></td>
</tr>
<tr>
<td>Consulting Services</td>
<td>Ginny Beauchemin</td>
<td>703-907-5744</td>
<td><a href="mailto:ginny.beauchemin@nreca.coop">ginny.beauchemin@nreca.coop</a></td>
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<td>Henry Cano</td>
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<td><a href="mailto:henry.cano@nreca.coop">henry.cano@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Kim Christiansen</td>
<td>571-424-4068</td>
<td><a href="mailto:kim.christiansen@nreca.coop">kim.christiansen@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Jasmyne Montague</td>
<td>703-907-6440</td>
<td><a href="mailto:jasmyne.montague@nreca.coop">jasmyne.montague@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Delaine Orendorff</td>
<td>571-289-9023</td>
<td><a href="mailto:delaine.oren@nreca.coop">delaine.oren@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Mike Sassman</td>
<td>712-477-2617</td>
<td><a href="mailto:mike.sassman@nreca.coop">mike.sassman@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Leigh Taylor</td>
<td>571-326-9547</td>
<td><a href="mailto:leigh.taylor@nreca.coop">leigh.taylor@nreca.coop</a></td>
</tr>
<tr>
<td></td>
<td>Beth Wray</td>
<td>703-907-5668</td>
<td><a href="mailto:beth.wray@nreca.coop">beth.wray@nreca.coop</a></td>
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