



ATMOSPHERIC SCIENCE

- Resource, Site Characterization, and Forecasting
- Oceanographic and Meteorological Processes
- Global Weather, Mesoscale and Plant-level Effects
- Maps and Visualizations

- Caroline Draxl



TECHNOLOGY INNOVATION

- Next-Gen Wind Turbines
- Floating Offshore Wind Systems
- Plant Level Control
- Drivetrain Technology, Operations, and Maintenance

- Paul Veers



MODELING AND VALIDATION

- High-Fidelity Modeling & Validation
- Engineering Modeling & Validation
- Systems Engineering & Optimization

- Mike Sprague



GRID INTEGRATION

- Optimal Grid Planning and Operation
- Wind Plant Controls and Grid Stability Research
- Integrated Energy Systems
- Cybersecurity and Resilience
- Hybrid Power Systems

- Dave Corbus



ECONOMIC ANALYSIS & DATA ANALYTICS

- Technoeconomic Analysis
- Digitalization, Artificial Intelligence, and Machine Learning
- Wind Energy and the Future Power Grid
- Land-Use and Spatial Analysis
- Jobs and Economic Development Impacts (JEDI) Models

- Eric Lantz



FLATIRONS CAMPUS LABORATORIES AND RESEARCH FACILITIES

- Advanced Research on Integrated Energy Systems (ARIES)
- [Structural Research Facilities](#)
- [Field and Technology Research Validation Sites](#)
- [Dynamometer Research Facilities](#)
- Composites Manufacturing Education and Technology (COMET)
- Controllable Grid Interface

- Dave Simms



ADVANCED MANUFACTURING & MATERIALS

- Materials Research and Applications
- Manufacturing Processes at Scale
- Manufacturing Optimization, Onsite and Modular Manufacturing
- Recycling and Reuse

- Derek Berry



ENVIRONMENTAL SCIENCE

- Environmental Processes and Impact Assessment
- Species-Specific Scientific Investigations
- Cost-Effective Mitigation

- Cris Hein



WORKFORCE DEVELOPMENT

- Workforce Analysis
- Workforce Pathway Development
- Workforce and Educational Program Development

- Tony Smith



STAKEHOLDER ENGAGEMENT AND SOCIAL SCIENCE

- Information, Tools and Resources
- Outreach and Engagement for Community Impact Issues
- Social Science Research of Wind Energy Acceptance

- Mary Hallisey