# MPSC TECHNICAL CONFERENCE DAY 2

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MPSC TECHNICAL CONFERENCE ON EMERGENCY PREPAREDNESS, DISTRIBUTION RELIABILITY, AND STORM RESPONSE







## MPSC Technical Conference on Emergency Preparedness, Distribution Reliability, and Storm Response

Friday, November 5, 2021 9:00 a.m. – 1:00 p.m. <u>Event Page</u> <u>View the Conference</u>

### SESSION ONE

- 9:00 am Welcome Opening Remarks *Dan Scripps,* MPSC Chair
- 9:05 am Current Gaps: Do We Meet the Existing Standards? *Charyl Kirkland,* MPSC Staff
- 9:20 am Better Planning Electric Power Systems for a Changing Climate Dr. Michael Craig, University of Michigan
- 9:50 am Questions from the MPSC Commissioners
- 9:55 am Break

### **SESSION TWO**

- 10:00 am Performance-Based Regulation for Reliability and Resilience *Elaine Prause*, Regulatory Assistance Project
- 10:25 am How the MPSC Can Effectively Address Reliability and Storm Response *Douglas Jester,* 5 Lakes Energy
- 10:50 am Questions from the MPSC Commissioners
- 10:55 am Break

### SESSION THREE

- 11:00 am Existing Tools in the Toolbox *Nick Evans,* MPSC Staff
- 11:10 am Wisconsin Reliability and Resilience Perspective *Martin Day,* PSC-WI
- 11:30 am Panel Discussion: New Technologies and Grid Modernization for Reliability Moderator
  - Dr. Joy Wang, MPSC Staff
  - <u>Panelists</u>
    - Amy Heart, Sunrun
  - Paul DeMartini, Newport Consulting Group Jeremy Twitchell, Pacific Northwest National Lab Kiera Zitelman, NARUC
- 12:50 pm Questions from the MPSC Commissioners
- 12:55 pm Closing Comments and Conclusions Dan Scripps, MPSC Chair Tremaine Phillips, MPSC Commissioner Katherine Peretick, MPSC Commissioner



# Session 1 Identify the Gaps

9:00 a.m. – 10:00 a.m.

Opening Remarks Dan Scripps, MPSC Chair **Guest Speakers** <u>Charyl Kirkland, MPSC Staff</u> <u>Dr. Michael Craig, University of Michigan</u>

# **SESSION 1** Identify the Gaps

## 9:00 AM

Welcome - Opening Remarks



<u>ScrippsD1emichigan.gov</u>

## **DAN SCRIPPS**

#### MPSC Chair / Michigan Public Service Commission

Dan Scripps was appointed by Governor Gretchen Whitmer to the Michigan Public Service Commission on February 21, 2019 and was designated as Chair in July 2020. His term ends July 2, 2023. Mr. Scripps has been an active participant in a number of state energy advisory groups, including the Upper Peninsula Energy Task Force, the Michigan Dam Safety Task Force, and the Michigan Council on Climate Solutions.

Chair Scripps is a member of the Board of Directors of the National Association of Regulatory Utility Commissioners (NARUC) and serves on the Task Force on Emergency Preparedness, Recovery, and Resiliency. He is active with its Committees on Critical Infrastructure, Gas, and International Relations, and the Washington Action Program. In addition, he serves on the executive committee of the Organization of MISO States, is chair of MISO's Regional Expansion Criteria and Benefits (RECB) Working Group, and serves on MISO's Advisory Committee, Steering Committee, and Planning Advisory Committee. He is also a past president and the current secretary of the Mid-America Regulatory Conference (MARC).

## 9:05 AM

## Current Gaps: Do We Meet the Existing Standards?



<u>kirklandcemichigan.gov</u>

## **CHARYL KIRKLAND**

#### Analyst, Energy Operations Division / Michigan Public Service Commission

Charyl Kirkland is an analyst at the Michigan Public Service Commission in the Energy Operations Division. She has worked at the Commission since 2009 and has become an expert in electric reliability and electric emergency management. Recently, Charyl led the streetlighting technical conference series and served as the workgroup lead for the Service Quality and Reliability ruleset revisions that were revised as part of the MiPowerGrid Initiative in 2019. Another role at the Commission includes serving as a member of the Emergency Management team. She has a degree from the University of Michigan in political science and earned her MBA from Northwood University.



# **SESSION 1** Identify the Gaps

## 9:20 AM

<u>mtcraig@umich.edu</u>

# Better Planning Electric Power Systems for a Changing Climate

## **DR. MICHAEL CRAIG**

#### Assistant Professor of Energy Systems / University of Michigan

Michael is an Assistant Professor of Energy Systems at the University of Michigan's School for Environment and Sustainability. He researches how to reduce global and local environmental impacts of energy systems while making those systems robust to future climate impacts. For this research, he uses largescale computational models of long-term planning, short-term operations, and system reliability.

He also studies potential deployment and operations of new technologies within large-scale systems. Michael was previously a Research Engineer at the National Renewable Energy Laboratory. He received his PhD in Engineering and Public Policy at Carnegie Mellon University.

## 9:50 AM Questions from the MPSC Commissioners

9:55 AM

Break



# Session 2 Exploring Regulatory Solutions

10:00 a.m. – 11:00 a.m.

## **Guest Speakers**

Elaine Prause, Regulatory Assistance Project Douglas Jester, 5 Lakes Energy

# **SESSION 2** Exploring Regulatory Solutions

## 10:00 AM



# Performance-Based Regulation for Reliability and Resilience

## **ELAINE PRAUSE**

#### Senior Associate / Regulatory Assistance Project

Elaine Prause provides research and analysis to inform regulatory approaches to distributed energy resources and long-term utility planning.

<u>eprause@raponline.org</u>

Before joining RAP in 2021, Ms. Prause held a variety of energy analysis, planning and policy roles. Most recently, she was a senior planning manager at PacifiCorp, where she led demand response program strategy and long-term planning needs for distributed resources. Prior to that role, she served as a deputy director, senior advisor and analyst with the Public Utilities Commission of Oregon, where she worked with commissioners and staff focused on longterm planning and distributed energy resource issues. She earned a bachelor's degree in mechanical engineering from Lehigh University and a master's degree in environmental management from Portland State University.

### 10:25 AM



djester@5lakesenergy.com

## How the MPSC Can Effectively Address Reliability and Storm Response

## **DOUGLAS JESTER**

#### Managing Partner / 5 Lakes Energy

Douglas Jester is Managing Partner at 5 Lakes Energy, where he specializes in economic analysis and modeling for energy policy, and in expert witness testimony before utility regulatory commissions.

Douglas attended New Mexico State University, Virginia Tech, the University of British Columbia, and Michigan State University. His major fields of study included mathematics, biology, statistics, industrial engineering, animal resource ecology, and economics. He has been employed by the Michigan Department of Natural Resources, MCI/Verizon, Automated License Systems, Michigan Department of Energy, Labor, and Economic Growth, and 5 Lakes Energy. He also served as Mayor of the City of East Lansing.

## 10:50 PM

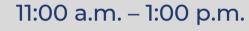
## Questions from the MPSC Commissioners

10:55 AM

Break



# Session 3 Exploring Technological Solutions



Guest Speakers Nick Evans, MPSC Staff Martin Day, PSC-WI

# **Closing Comments**

Dan Scripps, MPSC Chair Tremaine Phillips, MPSC

<u>Commissioner</u> Katherine Peretick, MPSC

Commissioner

## **Panelists**

<u>Moderator: Dr. Joy Wang,</u> <u>MPSC Staff</u>

<u>Amy Heart, Sunrun</u>

Paul De Martini, Newport Consulting Group

<u>Jeremy Twitchell, Pacific Northwest</u> <u>National Lab</u> Kiera Zitelman, NARUC

Page 8 | MPSC Technical Conference | November 5, 2021

## 11:00 AM

Existing Tools in the Toolbox



EvansNemichigan.gov

## **NICK EVANS**

Manager, Electric Operations Section / Michigan Public Service Commission Nicholas has worked for the Michigan Public Service Commission for over ten years in a variety of sections. He was an engineer in the Energy Efficiency Section, the Smart Grid Section, the Generation and Certificate of Need Section, and the Electric Operations Section. In April 2020, he became manager of the Electric Operations Section. Prior to joining the Commission Staff, he worked as an engineer in the Michigan Energy Office. Nicholas has a Bachelor of Science in Electrical Engineering from Kettering University and a Master of Public Administration degree from Western Michigan University.

## 11:10 AM



<u>Martin.Day@wisconsin.gov</u>

## Wisconsin Reliability and Resilience Perspective

## **MARTIN DAY**

Administrator, Division of Energy Regulation and Analysis / PSC of Wisconsin Martin Day has over 25 years of experience in the utility industry and currently is the Administrator for the Division of Energy Regulation and Analysis at the Public Service Commission of Wisconsin. In this role since fall 2017, he is the primary advisor to the Commission on gas and electric utility matters. Martin's responsibility includes managing the Commission staff who perform the audit, engineering, finance, rates and environmental work related to gas and electric utility projects in Wisconsin.

Martin graduated from the University of Wisconsin – Madison with Bachelor of Science degree in Political Science.



## 11:30 AM



WangJ3emichigan.gov

Panel Discussion: New Technologies and Grid Modernization for Reliability

## **MODERATOR - DR. JOY WANG**

Engineer, Electric Operations Section / Michigan Public Service Commission Joy Wang is an engineer in the Electric Operations section of the MPSC. She is the staff lead for the MI Power Grid New Technologies and Business Models workgroup. Prior to joining the MPSC, Joy worked at the Michigan Energy Office, where she developed, implemented, and managed grant projects on diverse energy topics and was a lead author of the study optimizing EV charging stations along Michigan highway corridors. Prior to that, she also worked as a sustainability engineer and helped complete the City of Atlanta's first greenhouse gas inventory. Joy has a doctoral degree from the Georgia Institute of Technology in Public Policy, focusing on energy and environmental policy. She has a master's and bachelor's degree in Biosystems Engineering from Michigan State University.



amy.heart@sunrun.com

## AMY HEART

#### Senior Director of Public Policy / Sunrun

Amy Heart is the Senior Director of Public Policy with Sunrun. Sunrun is the largest dedicated residential solar+storage company in the United States. Amy leads Sunrun's policy team in central, west and southeast regions and leads on national initiatives such as equity and access issues.

Prior to joining Sunrun in 2014, Amy worked with the City of Milwaukee's Office of Sustainability as well as the Midwest Renewable Energy Association. Amy Heart is a graduate of Marquette University Law School and University of Wisconsin-Stevens Point.



## (Cont.) Panel Discussion: New Technologies and Grid Modernization for Reliability



paulenewportcg.com

## **PAUL DE MARTINI**

#### Managing Partner / Newport Consulting

Paul De Martini is a leading expert on the business, policy, and technology dimensions of a more distributed and resilient power system.

Paul has supported the development of grid resilience plans across the US, and microgrid tariffs and programs in California and Hawaii. He also authored the seminal US DOE reports on Integrated Resilient Distribution Planning and the Modern Distribution Grid (DSPx).

Prior to Newport, Paul was VP, Advanced Technology at Southern California Edison. He began his career at PG&E in various operational and engineering management roles.



jeremy.twitchell@pnnl.gov

## JEREMY TWITCHELL

#### Senior Energy Analyst / Pacific Northwest National Laboratory

Jeremy Twitchell is a senior energy analyst at the Pacific Northwest National Laboratory, where he leads PNNL's work on the Equitable Regulatory Environment thrust area of the Department of Energy – Office of Electricity's Energy Storage Program. His research focuses on identifying the regulatory barriers that impede the deployment of energy storage technologies and best practices for reducing or eliminating those barriers, as well as providing technical assistance to states on energy storage-related topics. He also supports other efforts at the lab in areas related to grid planning, utility regulation, rate design, and energy system equity. Prior to joining PNNL, Jeremy spent five years at the Washington Utilities and Transportation Commission.



kzitelman@naruc.org

## **KIERA ZITELMAN**

#### Center for Partnerships & Innovation / NARUC

Kiera Zitelman, Technical Manager at NARUC's Center for Partnerships and Innovation, manages cooperative agreements with the U.S. Department of Energy on coal and carbon capture; nuclear energy; natural gas; and microgrids. She develops technical assistance for State public utility commissions across these topical areas, coordinating webinars, briefing papers, trainings, workshops, and other resources. Prior to joining NARUC, Kiera was an analyst with ICF, providing regulatory support, research, and economic analysis to federal rulemaking efforts. Kiera has a Master's degree in Public Policy from Georgetown University and a Bachelor's degree from the University of Maryland.



12:50 PM

## Questions from the MPSC Commissioners

## 12:55 PM

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## DAN SCRIPPS

#### MPSC Chair / Michigan Public Service Commission

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<u>PhillipsT8@michigan.gov</u>

## **TREMAINE PHILLIPS**

#### Commissioner/ Michigan Public Service Commission

Tremaine L. Phillips was appointed to the Michigan Public Service Commission on September 9, 2019. In addition to his work on the Commission and on NARUC Committees on Consumers and the Public Interest, Telecommunications, and Critical Infrastructure, Tremaine serves on the Michigan Poverty Task Force, the Michigan Council on Future Mobility, and the Connecting Michigan Task Force.

Previously, he worked at the Cincinnati 2030 District, Strategic Initiatives for EmpowerSaves, the Prima Civitas Foundation, the State of Michigan's Department of Energy, Labor, & Economic Growth, and the Michigan Environmental Council. He was also an intern with the White House Council on Environmental Quality, working on climate and clean energy policies.



## 12:55 PM

(Cont.) Next Steps and Closing Remarks



## **KATHERINE PERETICK**

MPSC Commissioner / Michigan Public Service Commission Katherine L Peretick was appointed to the Michigan Public Service Commission by Governor Gretchen Whitmer on January 4, 2021, and reappointed on July 3, 2021. Her term ends July 2, 2027.

PeretickKemichigan.gov

Ms. Peretick is a member of the National Association of Regulatory Utility Commissioners (NARUC) and serves on NARUC's Committee on Electricity, and Subcommittee on Nuclear Issues-Waste Disposal.

Prior to her appointment, Commissioner Peretick worked in the public and private sectors with a focus on energy storage and technology development. She served as Director of Engineering at NRStor Inc., an international energy storage project developer, where she was recognized by the Energy News Network as a national leader and innovator in the energy transition on the "40 under 40" award list. Her past experience also includes leading project engineering for long-duration energy storage technology company General Compression.

# **Thank You** for attending today's Technical Conference.



