



# Next Generation Network (NGN) and Women in Energy (WiE)



## Professional Development Webinar

### Enhancing Grid Reliability and Resilience through Advanced Technologies

#### Summary

Maintaining the reliable and resilient operation of the bulk power system is a fundamental aspect of grid operation. It focuses on ensuring the system can withstand sudden disturbances or unanticipated failures of system elements, such that instability, uncontrolled separation, or cascading failures will not occur. In the event that such failures do occur, the system must be able to recover quickly. As the electric grid undergoes major changes, the challenge and need of planning for and maintaining a secure and resilient system have become increasingly important.

The webinar will discuss innovative industry practices in planning and operations to better predict, analyze, prevent, and mitigate cascading outages. It will focus on practical applications for assessing the effects of cascading failures and identifying strategies to enhance the resilience of power grids against such events. It will explore the role of advanced technologies—from synchronized measurements to AI—in improving the understanding of cascading phenomena.

#### Speaker

Marianna Vaiman is co-founder and CEO of V&R Energy. She has over 30 years of experience in the development and deployment of innovative technologies for the electric utility industry. Her areas of expertise include stability, resilience, optimization, and control in power systems with high penetration of inverter-based resources; analysis of cascading outages; use of synchrophasor measurements for enhanced situational awareness and control; and use of machine learning. She has B.Sc. and M.Sc. in Electrical Engineering.

Marianna is a part of CIGRE US National Committee (USNC) Leadership Team and serves as a VP of Marketing. Marianna is an IEEE Fellow. She is a member of Power & Energy Magazine Editorial Board, a member of IEEE PES Long Range Planning subcommittee, and a member of IEEE PES Industry Technical Support Leadership Committee, where she co-leads the Task Force “Reliability and Resilience for New Grid Needs.” She’s active in NERC, WECC, and NASPI communities.

#### Links & Information

Wednesday, March 19, 2025  
12 pm CDT | 1 pm EDT

Duration: 1 hour

[Register Here](#)



**Marianna Vaiman**

**Co-Founder & CEO**  
V&R Energy