

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



## Professional Development Webinar

### Power Shift: How Distributed Energy Is Reshaping the Grid

#### Summary

The electric grid is undergoing a significant transformation driven by increased adoption of Distributed Energy Resources (DERs), including rooftop solar, battery storage, electric vehicles, demand response, and microgrids. This session explores how DERs are redefining the physical and operational characteristics of the distribution grid. We will examine the technical challenges emerging from the growing integration of DERs, including voltage regulation, protection coordination, hosting capacity constraints, and limited grid visibility. In parallel, we will explore the enabling technologies and strategies that support reliable DER integration, such as advanced inverters, distribution automation, and Distributed Energy Resource Management Systems. As traditional boundaries between end users and generators shift, and distribution networks take on more dynamic roles in a decarbonized and resilient energy future, we will explore the transformative impact of distributed energy resources and outline the path toward a smarter, more flexible electric grid.

#### Speaker

Preety Mathema is a Distribution Planning Director at 1898 & Co., part of Burns & McDonnell, where she leads efforts in Grid Modernization and Distribution Planning. She specializes in grid modernization and smart grid strategies that support the development of efficient, reliable, and resilient distribution systems. She has extensive experience in both traditional and advanced distribution planning, including distribution system modeling, load forecasting, load flow analysis, short circuit studies, and protection coordination, along with reliability planning, asset renewal, volt/VAR optimization, Distribution Automation (DA), and DER impact studies.

#### Links & Information

Thursday, August 14, 2025  
12 pm CDT | 1 pm EDT

Duration: 1 hour

[Register Here](#)



**Preety Mathema**

**Director –  
Distribution Planning**  
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Burns & McDonnell*