Title: *Transmission Planning: Past, Present, and Future*

Speakers: *Paul Didseyabutra, ColumbiaGrid*

Location: MGH 241

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Time and Date: **4:30 PM, Thursday, November 5, 2015**

**Abstract:**
In recent years, unprecedented changes that occurred to the power industry have resulted in a significant shift in how the system is planned or operated. These changes included the introduction of new initiatives, policies, and technologies that impact almost every aspect of the industry. In the western interconnection, massive amounts of renewable resources such as wind and solar have become prominent sources of electricity for customers throughout the west. Similar changes also occurred on the demand side, which can be seen from significant shift in load shapes and the amount of load observed from the transmission grid. Furthermore, implementations of key market products and policies such as the 15-minute scheduling and series of FERC Orders have also transformed how the market is operated and shaped the rules that allow non-utilities entities to be part of transmission business.

This transformation has significantly impacted how the transmission system is planned and operated. Basically, transmission planners will face more challenges to plan for a reliable and cost-effective future grid. These issues can start from the basics of planning work such as how to conduct planning studies through non-technical issues such as how to comply with applicable rules and interaction in a more open environment. This seminar will discuss the key changes and how these could impact transmission planning activities.

*Paul Didseyabutra* is the Manager of Grid Planning at ColumbiaGrid, a non-profit membership corporation formed in 2006 to improve the operational efficiency, reliability, and planned expansion of the Pacific Northwest transmission grid. Under this role, he leads a team of engineers to fulfill ColumbiaGrid’s single grid planning process, including to administer the Corporation’s grid planning agreements such as the Planning and Expansion Functional Agreement (PEFA), the Order 1000 Functional Agreement, as well as other technical study works. Prior to joining ColumbiaGrid in 2013, he worked at BrightSource Energy on the Ivanpah Solar Power Facility project, and spent more than nine years with the California ISO (CAISO) in Folsom, California. During his tenure at BrightSource and CAISO, Paul’s work included technical studies relating to Transmission Planning, Generation Interconnection, Resource Adequacy involving power flow, stability, Production Cost Simulation, as well as supporting tariff and policy development for the transmission planning process (FERC Order 890) and other related issues. He has been involved with various WECC, NERC, and FERC work groups and technical conferences. Paul has a Ph.D. degree in Electrical Engineering and a Certificate in Business Administration.