



Hamilton Institute

Decision Analysis of Merchant Transmission Investment

Professor Chen-Ching Liu
UCD

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Abstract:

Transmission line investment has been lacking in the U.S. for decades. Some transmission line projects are motivated by economic incentives. To encourage investors to build these lines, the projects will have to demonstrate favorable returns on investment. In this seminar, the speaker will introduce the concept of options theory to analyze merchant transmission investment through an approved rate. Since the electric usages and the associated revenue is stochastic in nature, applying the options theory allows an investor to determine the most opportunistic time to start a transmission project and obtain the maximum revenue returns or let the option expire when the economic incentive is not sufficient. In today's environment, this decision approach is more appropriate since it provides transmission investors a better projection of its return on investment and an exit strategy for an investment decision.

Bio:

Professor Chen-Ching Liu received his Ph.D. from the University of California, Berkeley, USA. He is currently a Professor of Power Systems and Deputy Principal, College of Engineering, Mathematical and Physical Sciences, at UCD. Professor Liu served as Palmer Chair Professor of Electrical and Computer Engineering at Iowa State University. During 1983-2005, he was a Professor of Electrical Engineering at the University of Washington, where he also served as an Associate Dean of Engineering from 2000-2005. Chen-Ching received the IEEE Power and Energy Society Outstanding Power Engineering Educator Award in 2004. He served as Chair of the Technical Committee on Power System Analysis, Computing and Economics (PSACE), IEEE Power and Energy Society. Professor Liu is a Fellow of the IEEE.

Venue: Seminar Room, Hamilton Institute, Rye Hall,
NUI Maynooth

Time: 2.00 - 3.00pm (followed by tea/coffee)

Travel directions are available at www.hamilton.ie