

Lorenzo Kristov, Ph. D.

Electric System Policy, Structure, Market Design

Lorenzo Kristov is an independent consultant working on electric power system reform to integrate high levels of renewable generation and distribution-connected energy resources (DER). 21st-century environmental policy goals combined with rapidly evolving energy technologies and business models require a whole-system perspective that encompasses regulatory frameworks, market structures, grid operations and infrastructure planning. With 18 years of experience as a Principal in market design and infrastructure policy at the California Independent System Operator (CAISO), Lorenzo's areas of expertise include: wholesale power market design; DER participation in wholesale markets; coordination of transmission and distribution operations, markets and planning; distribution system operator (DSO) models; distribution-level markets; local energy resilience and microgrids; and whole-system grid architecture.

While at CAISO from 1999 through 2017 Lorenzo led cross-functional teams and stakeholder initiatives to enhance CAISO's market and planning functions and to better integrate markets with grid operations. He was a lead designer of the CAISO locational marginal pricing (LMP) market system implemented in 2009. He later led teams to redesign transmission planning and generator interconnection processes to accommodate rapid growth of renewable energy projects. In 2013 he began working to integrate DERs into the CAISO market and to develop procedures for transmission-distribution (TSO-DSO) interface coordination. He has written widely cited papers, consulted with international clients and participated in national and international forums on power system evolution, DSO models and grid architecture.

Prior to joining the CAISO Lorenzo was Energy Economist at the California Energy Commission (1995-9) and Fulbright Scholar in Indonesia (1993-4). He has a BS in Mathematics from Manhattan College, MS in Statistics from North Carolina State University, and PhD in Economics from University of California Davis.

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