When the Grid was "The Grid": A Short History of Building Our Electric Power Networks

~ by ~

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OVERVIEW

When North Americans talk about *the grid*, they are usually referring to the backbone of the power system – a collection of power plants and transmission lines that ensure delivery of electricity across the continent at the flick of a switch. But the idea of a single grid is misleading. There are four major interconnected systems in North America and a few small ones, all of which are alternating current networks, internally synchronized and linked to each other through direct current ties. Yet, for eight rocky years, there was a single system reaching east to west and north to south (excluding Texas and Quebec) that was known as "the grid." This talk will revisit the story of this "longtime [*dream*] of engineers" and help elucidate why our power system is no longer *the grid*.

BIO

Julie A. Cohn, Ph.D., is a research historian in the Center for Public History at the University of Houston and nonresident scholar at the Center for Energy Studies at Rice University's Baker Institute for Public Policy. Her work focuses on energy infrastructures, environmental history, technological change, and the relationships between government, business, and the public. Cohn's book, "The Grid, Biography of an American Technology" (MIT Press, 2017), examines the history of electrification in North America, and especially the story of how and why power companies chose to interconnect. Cohn has authored and co-authored articles in the *IEEE Power & Energy Society Magazine, Journal of Global History*, *Proceedings of the IEEE*, *Information and Culture*, and *IEEE Annals of the History of Computing*. In addition, she has contributed chapters to several edited volumes on topics related to electrification and the environment, including *American Energy Cinema*, released in 2023.

Current projects include investigation of electrification in Texas over the past century; collection of oral histories from engineers who worked on key control and optimization algorithms for the grid in the late 20th and early 21st centuries, development of historical context for technology challenges of the current energy transition, and the examination of the evolution of reliability standards for electric power systems.

Cohn holds a Ph.D. in American history from the University of Houston and both B.A. and M.A. degrees in anthropology from Stanford University.