

THE DILUTION AND DIFFUSION OF UTILITIES' RIGHTS TO THE POWER GRID AND OPPORTUNITIES FOR CALIFORNIA DISTRIBUTED GENERATION INTEGRATION

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ABSTRACT

This paper poses the problem of distributed generation integration in the context of evolving property rights to the U.S. power grid. Technological trends between the early 1900s and mid-1960s justified the concept of natural monopoly in the production, transmission, and distribution of electricity. Since 1978, however, a number of federal laws, state laws, and regulations have diluted utilities' monopolies, inviting new players and organizations to take a stake in electricity production and transmission. By contrast, the lower-voltage distribution grid has remained within the exclusive service territories of local distribution utilities, which are oftentimes resistant to the capture of broader benefits of distributed generation (DG). Advances in DG technologies, communication technologies, and reliability concerns provide the impetus for a re-evaluation of the exclusive service territory concept. At the same time, recent court rulings and regulatory requirements have progressed in favour of the dilution and diffusion of utilities' rights over the distribution grid. These movements provide opportunities to move beyond creating interconnection standards and toward more proactive and systematic approaches to DG integration. This paper outlines three emerging property rights scenarios that represent a shift away from the concept of natural monopoly.