

For power systems, geography doesn't matter, but electrical structure does

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Abstract— In a national grid, where should a new power generating plant be built? In a competitive electricity market, why do wholesale prices for electricity vary between regions? Such innocent questions are often met with rather involved technical and economic answers. How can a more accessible understanding of power grids be articulated, suitable even for a non technical audience? This article discusses one potentially helpful step in this direction: drawing power network diagrams in an electrically meaningful way, rather than using geographic maps that can obscure their inherent structure.

Index Terms— Power grids, Industrial plants, Power system planning, Electricity supply industry, Power generation

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