



INDEPENDENT ELECTRICITY  
CONSULTANTS

I am writing each of you for two reasons. First, I am in the process of turning my two-day seminar into a book for professionals, researchers and students. The book's first part will be based upon the seminar, although providing more details and descriptions than can be covered orally. The second part will expound upon the seminar's theme of the need to integrate power systems engineering, economics, regulatory and public policy, and business strategies. Regardless of your individual or organization's role in restructured power systems, an integrated analysis is necessary to achieve your desired outcomes and to push the industry to improve its ability to provide efficient and reliable service. I plan to write several chapters on specific topics that illustrate the importance of an integrative approach and how to conduct such an analysis. Please let me know if you have any suggestions, proposed topics, or important examples that you think I should address.

The second reason that I am emailing you is to let you know that the seminar continues to grow and expand. This summer I have already traveled to Senegal and expect to be in Bangladesh, Sri Lanka, and Israel conducting modified versions of the seminar tailored to local and regional needs. The fundamental difference between electricity markets in the U.S. and the countries that I have and will be visiting (except for Israel) is that the latter have an almost insatiable demand for electricity, a near infinite growth rate, so to speak. If and when developing countries transition to electricity markets is second to the question of how to attract the vast sums of capital and expertise to develop the necessary infrastructure. That being said, the physics of power systems (loop flows and congestion), the need for regulatory policy (natural monopoly of delivery, economies of scale, and market power risks), and the appropriate role for competitive incentives are the same worldwide.

My trip to Senegal illustrated these points. Fourteen West African countries are at the nascent stage of developing a power pool to take advantage of the scale economies in reliability and economics. This requires agreeing both at the technical and business level but also on the regulatory and political level among sovereign countries. These countries face huge problems regarding the need for electrification and development, escalating oil and natural gas prices, and colonial overhang. The latter has many implications including countries using either English or French as official languages (complicating negotiations and multi-country operations), different frequencies (50 vs. 60 Hz), and the aftermath of civil wars in two countries. Within this context, however, these countries need to address congestion, reliability criteria such as n-1, coordination of planning and operations, and regional regulation.

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