Flexibility: It's More Than an Engineering Challenge [In My View]

Flexibility is key for a power system under strain. When the city metro breaks down, you require other means of transportation. Before a big conference, you might need staff to work outside regular office hours. And when the production of electricity is dependent on how the wind blows or the sun shines, something or someone has to adapt. One of the best ways to increase your flexibility is to use the entire portfolio of available resources. The metro is down? Walk; take the bus, the train, your bike, or your car. Short on staff for next week’s conference? Ask HR, communication, planning, or someone else if you can use some of their people; you’ll pay it back later. Are we getting too much electricity from wind? Use it for heating or get people to turn on appliances or change to electric cars. Flexibility is largely about systems, so it’s no surprise that, in recent years, there’s been increasing interest in applying systems thinking to energy research. As a policy adviser, I’ve been involved first hand in the transition toward a renewable-based energy system with its large share of intermittent energy sources, such as wind and solar.

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