Thanks for the very insightful comments from Perry and Doug, who have long been on the front line of developing independent transmission projects. I want to draw on some of my own experiences with some of the same projects to think through the risk tolerance for certain aspects of transmission development and how they can be mitigated, if at all, so that projects can be paid for.

Existing transmission is an attractive investment. ATC and ITC used spun-off utility transmission assets already in the ground, with no moving parts and a predictable regulated return – almost an annuity. A second opportunity, as Doug mentioned, is to take advantage of market inefficiencies, which when corrected, suck the value from the project. But these projects can be financed. I worked on the Cross-Sound Cable for its original sponsor, Trans-Energie. Its capacity was completely sold on a long-term basis to LIPA. Then, after it was developed, it was resold, since it was now an annuity-like asset with a predictable revenue stream. Babcock and Brown developed a similar project with the Cross-Bay Cable and Hudson and Neptune are developing similar projects in the East Coast. Phil Harris’ Tres Amigas superstition in New Mexico, a merchant interconnection, hopes to start construction next year.

A third type of project, which I worked on with Perry, was Path 15. This was a project that PG&E had studied for years, always declining to build it. Trans-Elect led a consortium (and contributed the lion’s share of funds) that included Western Area Power Administration and PG&E to build the upgrade. Western contributed not money, but its ability as a federal agency
to bypass many of the permitting obstacles its partners would otherwise have faced. This partnership model became part of federal law in the Energy Policy Act of 2005. Many utilities are capital constrained, particularly with declining load due to the recession, and projects similar to Path 15 (which was not greenfield, but an upgrade to an existing line) that may otherwise be built by utilities could be built by independents.

Finally, there are the dedicated lines for long distance transfer of renewable power to California from Wyoming, where a new project seems to be announced weekly, and the Atlantic Wind Connection, a long distance underwater cable project (in which we represented Marubeni).

Doug discussed whether the IPP model would work for transmission. I think a model worth looking at is the gas pipeline model, where the shippers commit to long term capacity contracts during an open season. TransCanada’s Chinook and Zephyr lines have received FERC approval for this model, although neither is yet in service, and TransCanada recently sold Zephyr out of concerns about the California renewables market. I agree with Doug that generator-sponsored lines have promise, especially in avoiding the chicken-and-egg problem of timing.

Another question raised by Doug’s presentation is who wants to be in what part of this business. There is a role for companies whose risk level is just ownership, just operating, just construction, or development. The first three are fairly straightforward, with ATC and ITC examples of the first. Obviously, ECP believes there is a role for construction. Doug mentioned the $15m/mile cost for Sunrise Powerlink, an investor-owned utility project, but the deservedly maligned FERC Order 1000 (more about which later) noted that the independent Cross-Bay Cable also cost more than expected. Also, I wonder whether the $15 million was just for construction or an all-in number for a line subject to delays due to regulatory approvals and court
challenges that were even worse than usually expected for a large and controversial infrastructure project transversing a myriad of sensitive habitats.

But it is in development where the greatest challenges are. A major transmission line can take 5-8 years to build, most of which is in permitting. Actual construction time is relatively short, since construction on linear projects can begin simultaneously at many points. Even for entities with the appetite for this sort of risk, the timing is difficult. It may be longer than the exit strategy for certain types of investments, including private equity funds, and it is likely longer than the development period for renewable projects. The true advantage of the incumbent IOUs is that they will still be in business at the end of the project and they are guaranteed recovery for all of their prudently incurred development costs (including development costs for projects prudently abandoned), an advantage that most of the independents do not share.

A word about Order 1000 and cost allocation. From the folks that brought you both a seven factor and a five factor test for determining what is distribution come six principles for cost allocation, none of which are binding, few of which are clear, and each of which spawn several subprinciples. For example, principle number 1 is “costs allocated in a way that is roughly commensurate with benefits.” What does that mean? The order quotes a court decision which uses similar phrase and adds, give or take $100M. Letting a thousand flowers bloom is likely to lead to a lot of weeds. Doug can price rules but he can’t price mush.

How can transmission projects be financed in view of these challenges? Regulatory certainty is key, in siting more than in pricing or cost allocation. I already alluded to the regulatory model for gas pipelines, but pipelines have federal eminent domain authority which transmission lines do not. The attempt to provide backstop authority in EPAct 2005 was doomed
to failure even before the federal district court eviscerated much of it. The obvious answer is federal siting authority and eminent domain. It may not be politically palatable, but as Prof. Wolak stated in a different context last year, the practical should not prevent us from recommending the optimum. Another approach would be the CREZ process in Texas, which has brought into the market utilities, utility affiliates, municipals, and true independents as competitors to develop transmission. Texas has the advantage of having a single agency make CREZ decisions, whereas in California there are numerous agencies at the state and local level affecting transmission. When Doug notes that the CREZ model is better than the large generator interconnection model in California, I would note so were the model airplanes I used to glue together as a kid.

The right of first refusal needs to go -- it permits utility incumbents to review development work by independents and then decide to built the projects themselves. To return to the IPP analogy, many of these problems were also true in the first several decades of independent power and massive legislative and regulatory intervention was required to ensure a role for competitive suppliers. The same arguments about reliability – which are the analog to the early attempts in the telecommunications industry to prevent connections of answering machines or non-Bell Company phones because they would fry the network – were aired (and resolved) in the early days of independent power. But even with a level playing field, it is by no means certain that people will figure out how to pay for transmission, much less to build it.