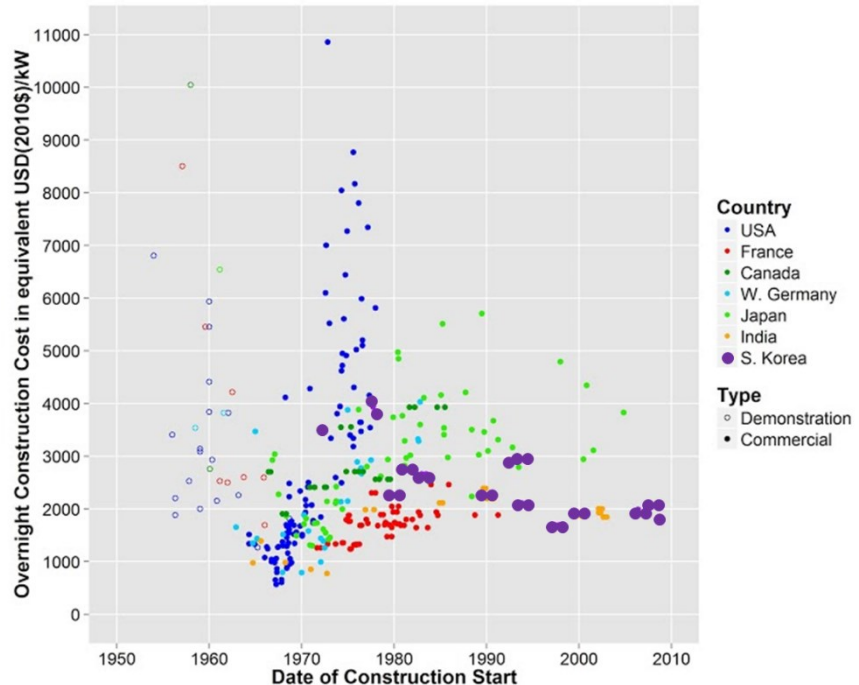


47 New Nuclear Power Authority Model

Like the familiar Port Authority, a New Nuclear Power Authority (NNPA) would be an organization, owned by multiple States, to manage risk associated with Gen IV new nuclear power plants. First of a kind risk and cost is minimized by a single program office, centralizing learning, experienced management, rational interaction with the public and regulators, standard designs, and by exploiting economies of scale through bulk quantity procurement.

The [adjacent chart](#) shows the benefits of effective centralized management. Korea Hydro & Nuclear Power (the large purple dots) designs, builds, owns, and operates all S. Korean nuclear power plants. In addition to lower cost, this structure minimizes some of the management dysfunctions that contributed to Fukushima, Chernobyl and Three Mile Island. China costs are 1/3 lower.

America's landscape is different. The Federal government encourages entrepreneurs to develop new nuclear reactor concepts like Gen IV SMRs. What America is lacking is an effective mechanism to overcome first-of-a-kind costs and commercialize new nuclear in an adverse economic environment without a national political mandate.



Relative System Cost	
CC natural gas	1.0
S Korea nuclear	1.6
Old nuclear	2.4
100% wind+PV	6.4

The adjacent table compares Net Zero PJM systems (assuming utility scale battery) with natural gas. The fundamental barrier is that any clean electric power system is more costly than natural gas. Eventually electricity markets will be reformed to better reflect cost, real natural gas prices will rise and new nuclear becomes a competitive option for a Net Zero PJM.

Coastal States, motivated by sea level rise, are expressing a renewed interest in new nuclear. A NNPA is a way to accomplish this deliberately and efficiently, in collaboration with other like-minded States. The Authority would:

- Competitively procure Gen IV new nuclear plants, both commercially proven designs as well as first-of-a-kind demonstration prototypes.
- Build them on retired coal plant sites in member states. Evaluate siting standards and minimal transmission system architectures enabled by high availability SMRs.
- Operate the plants, selling electricity (initially at a loss) into the PJM market.
- As the technologies mature and become cost competitive, scale up for rapid deployment.

