



Nuclear Power

The Challenges of Building New Nuclear

The following is a summary of a panel discussion during the KPMG Global Power & Utilities Conference 2012, held on 28-29 November in Vienna, Austria.

With the tragedy at Fukushima still looming, the nuclear industry is being faced with new issues and challenges surrounding nuclear new build and decommissioning.

In his opening remarks, Laszlo Varro, Head of Gas, Coal and Power Markets Division, International Energy Agency (IEA), stated that there are still many countries around the globe that favored nuclear, as it is economically

competitive versus other energy sources. *"The only showstopper is raising the initial capital investment,"* adding that up to now state investments had made up the lion's share of nuclear construction, with private investors shying away due to a track record of nuclear new builds persistently going online over budget and behind schedule.

However, even coming from a company that is internationally successful in nuclear, Nikolay Solomon, First Deputy General Director, CFO, State Atomic Energy Corporation Rosatom, was all too familiar with some of the obstacles like delays, cost optimization, and reprocessing of spent nuclear fuel about which he reported: *"The new generation of power reactors is focused on fast neutrons and it should solve the*

problem of increasing spent nuclear due to the closing of the cycle for the fuel."

Fukushima, he said, was also an obstacle, adding increased CAPEX costs in the form of additional safety measures (stress tests), and reducing public acceptance of nuclear, which he said was the most crucial pre-requisite for nuclear new build.

Moreover, new nuclear build is a 100-year engagement, according to Jorn-Erik Mantz, Head of Nuclear New Build, RWE. *"Before the first kilowatt hour is even produced, you have a 10-12 year engagement already, therefore you need an extremely stable framework and full-scale public support - it doesn't help if only the government supports you, as even very stable governments may change over this period."*

Deregulated markets with global, volatile input as much as output price levels, make long-term investments like nuclear a very challenging undertaking.”

Recalling the Czech Republic’s construction of the Temelin Nuclear Power station, co-moderator Peter Mitka, Director, KPMG in the Czech Republic, referred to the UK scheme to develop nuclear through a power purchase agreement (in an alleged “liberalized market”), asking: *“I wonder whether the Czech government will be challenged if it decides to go the same way as the UK government. It’s a big question whether the UK model will be picked up by other countries in the EU on how to develop nuclear.”*

Speakers also addressed the mothballing of nuclear in Germany and Italy, countries whose populations, they said were a big contrast emotionally.

Umberto Minopoli, Commercial Director, Ansaldo Nucleare, explained why Italy had turned against nuclear. He said his country was a paradox, because it paid the highest electricity tariff in Europe and was dependent entirely on natural gas; 14% of the energy mix came from nuclear power from France. He said that there could be a place for nuclear in Italy (or even coal), but the country had held referendums on its use following the Chernobyl and Fukushima accidents. *“Emotion prevailed over reason.*

We have no public debate for big energy investments. It’s very difficult for nuclear supporters to deal with the

misinformation,” he explained, saying that Italy still showed how much it and other countries in Europe needed other contributors to their power mix like nuclear.

“Nuclear could make an important contribution,” he added.

On the topic of decommissioning, the panelists were in consensus that, as now mandated in the UK, decommissioning plans should be in place, and that the funding for these should already be secured, at the start of any nuclear new build project. Nikolay Solomon also noted that it is vital to have a clear agreement with the government on how nuclear waste and radioactive material is handled. *“Most of the problems arise from the fact that the government resists, that the public resists, to even talk about spent fuel or radioactive waste, but if you go for nuclear power, you should understand the outcomes.”* In addition, he noted that more investments are required into the development of decommissioning technologies, advocating an industry-wide cooperation to *“save time, establish standards, and improve decommissioning results”*.

Summing up the session on nuclear, David Simpson, Partner, KPMG in the UK, said:

“It is simply a larger scale, low carbon generating process than any of the other low carbon plants on the market. I, certainly for one, am absolutely convinced that in a low carbon world, nuclear is a key component.”

The KPMG Global Power & Utilities

The KPMG Global Power & Utilities Conference is KPMG’s annual thought leadership conference platform bringing together decision makers from key stakeholders in the global power and utilities sector for a focused dialogue on the strategic, financial, environmental and risk related issues that are shaping the sector.



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