Questions on Taiwan Energy Transition: for the harmonization of economy, energy and environment

by. Dr. Tze-Chin PAN

Thank you so much, Dr. Pan, for your well-organized and comprehensive presentation. Owing to your excellent presentation, I can understand whole picture and specific issues of energy in Taiwan.

I would like to raise some questions on your presentation, hoping that those questions should be useful to facilitate discussion.

Question 1

Slide 10:

- Why is the electricity tariff so cheap in Taiwan?
  - In generating power, scale of economy should work. Therefore, Taiwan power system, which seems to only have limited demand scale, should be higher cost than that having large demand with wide network.
- Which power source is contributing to lower cost?
  - Are the nuclear and coal-fired plants large-scaled?

Question 2

Slide 23:

- Why is the coal-fired power in Taiwan so criticized as air pollution?
- In Japan, with regards to conventional air pollution problems, such as PM, SO2 and NOx, we already have countermeasures, matured technologies to solve. No such countermeasures have not been installed in Taiwan coal-fired power?
- I believe, Taiwan EPA is right, not to approve the bans on the use of coal by Taichung City and Yunlin County. It seems not clever to prohibit the use of coal, which might have advantages in cost and stability. The regulation to mandate the installment of environmental technologies should be better, and the set and enforcement of emission standard should be more better to allow power plants choose the most efficient (low cost, high performance) option to reduce the pollution.

Question 3

Slide 26:

- How much increase of electricity tariff is expected by ambitious program of renewable deployment?
  - Firstly, how much is generation cost of renewable energy at present?
  - What scheme is being introduced to deploy renewable energy in Taiwan? FIT?
  - Which makers' PV panels and wind turbines are introduced in Taiwan now?

Question 4

Slide 31-34:

- How about adopting the economic incentives scheme in promoting energy conservation?
  - It seems not efficient that mandated target of 1% electricity savings for all large energy users. Some users may have difficulties even for 1% savings and some users have potential for more than 1%. Based on this thought, cap on energy consumption and trading scheme will be better.
  - Electricity tariff should play very important role in promoting energy conservation. Therefore, change of pricing, such as fuel tax, and rise of electricity tariff should be considered.

Question 5

- Is the road to nuclear free country towards 2025 safe?
  - Low reserve margin in electricity system caused such large power outage last August.
- How Is the possibility to cause sharp rise of electricity tariff by deleting electricity from nuclear power?
  - How is treated for compensation in stopping construction of the 4th nuclear power plant, which is almost completed as 98%?

Question 6

- Is there any possibility for the energy cooperation between Taiwan and Mainland China?
  - Connected with energy system of Mainland China, Taiwan seems to have many benefits from expanding network effect, like scale of economy by expanding each power plants, peak load adjustment and so on.

- Both of us are having many earthquake…any potential for cooperation between Taiwan and Japan?
  - Decommissioning of nuclear reactor project?