Recent Reviews of the Renewable Energy Act (RENA) for Solar and Wind Energy in light of a liberalized power market and a reinvention of the regions

Recent changes of the RENA have increased the maximum output restriction without compensation for mega solar projects from 30 days p.a. (roughly 8.2% of 365 days) to 360 hours in the future, and for most electric power companies owning the grid (Grid Owners) beyond such level. The average amount of annual sunlight in Japan recalculated to noon-hours on a sunny day (peak hours) is equivalent to 1,200 peak hours. In case the 360 hours rule would allow for cutting 360 peak hours, it would result in an increase of compensation free-restriction from 8.2% to 30%. Beyond that, Grid Owners claiming potential instability of their grid have been allowed by decree of METI to impose output restrictions exceeding the 30 day`s rule and the new 360 hours rule. Furthermore, acceptance of such power restrictions has been made a condition of the connection agreement, without which also no power purchase agreement with third parties is possible. Consequently, even in case a new power producer was ready to purchase the energy that the Grid Owner claims to be unable to purchase, it cannot do so, unless the Grid Owner permits such purchase of energy by its competitor. (The same applies mutatis mutandis to Windpower).

The above measures have been introduced by METI as emergency break to the difficulties caused to almost all Grid Owners by the double challenge of (i) prefectural governments shutting down 54 of 54 nuclear power plants following Fukushima and of (ii) a boom of solar power applications of over 60 GWp caused by the RENA and its originally high Feed in Tariffs. The magnitude of challenge may become clear by a comparison to Germany: The leading nuclear exit country and top-runner of energy reform is still operating 9 of 33 nuclear power plants in the 4th year of a carefully evaluated exit plan over 10 years, while the build-up of 76 GWp renewable energy (thereof photovoltaic and wind 38 GWp each) has been taking place over almost 10 years. As the before mentioned development in Japan was going to overtake the German energy reform on the emergency lane, the emergency measures of METI must be considered inevitable.

However, in case METI would leave the implementation of such emergency break to the Grid Owners, this would allow them to prevent competition from solar and wind power by making them economically impossible (facing the risk of loss of 30% and more of annual sales). This obviously cannot be METI`s intention and would contradict national policy of liberalization of energy markets and fair competition, investment protection obligations under Free Trade Agreements, as well as international commitments to reduce CO2. The new rules oblige the Grid Owner to give detailed explanation of the output restrictions and their necessity in each case, however does not sanction any abuse. An effective protection of competition and liberalization would have to burden the Grid Owner with strict proof of technical necessity above 8% output restriction, and to provide for compensation otherwise.

Moreover, the solar energy boom had promised to the regions of Japan an investment of over 15 trillion JPY (calculated conservatively with 250 million JPY per 1/MWp for over 60 GWp), with a substantial portion of foreign direct investment. Roughly 40% of the investment for the applied 60 GWp, or over 6 trillion JPY (46 billion Euro) were going to flow into the local and most of the rest into national economy. Cutting solar energy down to less than 1/3rd will result in loss of 4 trillion JPY (31 billion Euro) investment for the regions and weaken Japan`s solar industry just at the time when China is vying for global leadership in renewable energy. Instead of cutting drastically renewable energy, an improved control e.g. by granting preferred connection of projects with a high contribution to the local economy, as for example cases of Agri-Solar solutions enabled by innovative guidelines of the Ministry of Fishery, Forestry and Agriculture, could help Prime Minister Abe to achieve his goals of revival of the regions and of doubling foreign direct investment from 18 to 35 trillion JPY.