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The need for a unified strategy in Energy, Datacenters and Telecommunications

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Power generation from Solar Panels has probably reached apogee. Manufacturing scaling, regulatory/installation licensing efficiency, market entry barrier elimination and investment scalability, all in perfect combination, sets solar energy to dominate power generation for mankind within the next 10-15 years.

Buying and installing solar panels is today the largest single category investment in electricity generation, with $500bn invested this year and more than 1.5GW installed each day. Combined with a healthy capacity doubling every three years track record, solar appears unstoppable, despite its highly periodic and seasonal production profile, which, together with well-established power grid bottlenecks, introduces unprecedented challenges.

In my country (Greece) for example, in the first six months of this year, more than 500 'green' **G**Wh, generated in the 09.00-14.00 peak solar power production hours, had to be discarded, as impossible to consume, to avoid distribution network instabilities.

At the same time, as solar power production is overdelivering, a new type of 'data center consumer' is entering the scene. AI and the potential society transforming benefits of lowering the cost of access to intelligence, is re-booting a nuclear power plant in the US while fuels discussions about GW and 10GW data centers in the immediate future.

Just from a single manufacturer, whose full-2025 GPU manufacturing capacity is already booked out, 4.5-5.0 GW of AI computing hardware is expected to go online next year, and we can safely assume the year after that too, and maybe next, accumulatively adding new power requirements, the size of whole countries, every 12 months.

Energy, and more specifically its solar component Strategy, need to align with Compute strategy around the world. We need international collaborations, political and diplomatic, to promote consensus on the importance of solving these two problems (Solar overproduction and AI compute overconsumption) by having them canceling each-other out.

I think a 'time-zone decentralized strategy for deploying AI compute infrastructure' needs to be part of our agenda.

And to materialize such an initiative, ITU's role is important too, because there is certainly a telecom component in planning Data Center cross-border interconnects and securing submarine and terrestrial cables connecting such critical infrastructures.