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SOUTH ASIA SUBREGIONAL WORKSHOP

INCLUSIVE CLEAN ENERGY TRANSITIONS IN BANGLADESH, MALDIVES AND SRI LANKA

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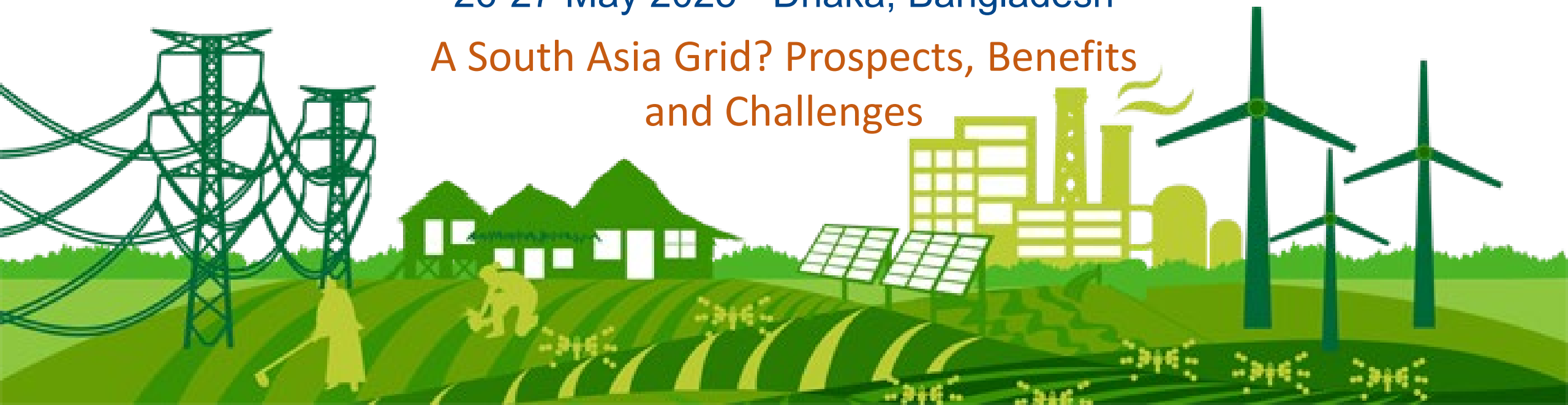
A South Asia Grid? Prospects, Benefits and Challenges



Benefits of Grid Interconnection

- A pathway to energy transition.
- Optimal utilization of the generation resources in the Region.
- Optimal integration of intermittent renewable energy sources to the grid.
- Optimal utilization of ROW of transmission lines.
- Faster and more economical energy access.
- Would lead to reduced carbon emissions.
- One step towards the One Sun One World One Grid Vision.

Challenges

- Requires substantial investment – suspicion of relations between grid interconnected countries going sour
- Allocation of responsibilities – Ministry of Foreign Affairs, Ministry of Power.
- Who initiates the interconnection decision?
- Allocation of investment costs of the grid interconnection? Proportional to benefits accrued?
- Bargaining of benefits for cost allocation between the two proposed interconnection countries.

Solutions

- Third neutral party proposes.
- Allocation of responsibilities – Ministry of Foreign Affairs, Ministry of Power, both in accordance with their respective roles.
- Requires substantial investment – To evaluate chances of relations between grid interconnected countries going sour.
- Education of the respective countries. For a fact, cost of transmission is much less than the cost of generation. Benefits of grid interconnections may realize the cost of investment of grid interconnections within a few years of grid interconnection.
- Allocation of investment costs of the grid interconnection proportional to benefits accrued. This should also consider the economic benefits accrued.

Method

- Neutral third party should be well-meaning, for example, multilateral funding Agencies, Think Tanks, NGOs, Voluntary International Groups like Climate Parliament, etc. It may take multiple engagements to convince the respective countries.
- Engagement of Third Party with all levels of the Government, the Ministry level, the Regulator level, the Utilities level, the Parliamentary level, the community/consumer level. The engagement may be required frequently.
- Education of the respective countries would be required by professionals in the power sector at the technical level, to clear any doubts.
- Investments required and the phasing of investments need to be explained to the decision makers, so also the cost-benefit analysis, as well as economic benefits for the country.

Outcomes

- Has been a **Win-win situation** for all interconnected countries.
- Power trade in South Asia **doubled** from 9 Billion units in 2014-15 to 18 Billion units in 2020-21.
- Power trading, which was only happening through long term, medium term and short-term bilateral contracts, is now also happening in the **power exchange**, resulting in further optimization of power resources in the interconnected countries in the Region.
- **Trilateral contracts**, i.e. power trading between countries without common borders, has also started with power passing through an intervening country, leading to yet further optimization.
- Interconnections result in **sharing of knowledge and experiences** between the interconnected countries leading them to implement successful ideas of other countries.

Possibility of a strong South Asia Grid

- More and more countries in South Asia and beyond are coming into the fold.
- **Sri Lanka** has also decided to interconnect with India, and from thereon trade power not only with India, but also with other connected South Asian countries.
- **Myanmar**, hitherto connected through a weak interconnection with India, has agreed to get connected through a stronger link, and also decided to connect with **Thailand** in the South.
- This would effectively connect South Asia to South-East Asia, as Thailand is already connected **to Laos, Malaysia** and **Singapore** as well as other countries.
- Not only is a South Asia grid feasible, we now have a bigger grid of South Asia Grid and the South-East Asia, resulting in one more step towards the One Sun One World One Grid Vision.

Benefits to the under-served community according to BusinessLine

Increased Electricity Access:

- India's power exports have significantly contributed to expanding electricity access in Bangladesh, particularly in rural and remote areas where access was previously limited.

Reduced Reliance on Diesel Generators:

- The availability of reliable power from India has allowed many households and businesses to switch from expensive and polluting diesel generators.

Improved Living Standards:

- Increased electricity access has led to improvements in various aspects of life, including lighting, heating, and cooling, as well as access to essential appliances like refrigerators and televisions.

Economic Opportunities:

- Reliable power supply has enabled rural and small-scale businesses to grow and create jobs, contributing to the overall economic development of underserved areas.

Thank You