



# Energy Transition & Renewable Innovations

## Highlights

- Present energy balance shows 50 % of supply still imported fossil fuel; indigenous hydro, biomass and emerging rooftop solar cover the rest, underscoring vulnerability to price shocks.
- Renewables, efficiency, hydrogen, ammonia and long-duration storage are the main technological pillars discussed for the next decade of transition.
- The sector's structure is evolving from "dictatorship" (central plants) to "socialism" (regional grids) and ultimately to "true empowerment" where users generate and manage their own energy.
- Equity and affordability were repeatedly stressed: every household should be able to harvest its "share of sunshine" through rooftop PV and other low-cost options.
- Measuring what you make and use energy audits, digital meters, supply-chain tracking is essential; industries that do not keep records cannot improve.
- Finance is available but must be easier to access. Banks were urged to create quick, dedicated green-lending windows and maintain a standing portfolio of clean-energy projects.
- Achieving climate goals such as NDC 3.0 demands well-defined targets and inclusive engagement of all stakeholders.
- Localising sustainable innovation is critical for long-term impact, yet remains a complex and under-addressed challenge.

- Rapid advancements in technology are making renewable energy more affordable, efficient, and accessible.
- Local enterprises require consistent domestic policy support and access to financing to scale and remain competitive.
- Rural communities, though often neglected, represent untapped potential in driving an inclusive and resilient energy transition.

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### Recommendations

- Establish a National Clean-Energy Data platform that tracks generation, efficiency and equity metrics, enabling evidence-based policy and investment decisions.
- Create streamlined green-finance products (credit lines, guarantees, tax credits) and dedicate a fixed share of bank portfolios to renewables, storage and efficiency retrofits, especially for small enterprises.
- Prioritise rooftop solar and community-scale renewables as the fastest route to inclusive access and import reduction, coupling installations with targeted subsidies for low-income households.
- Develop a hydrogen-ammonia readiness roadmap covering infrastructure, safety standards and pilot projects so Sri Lanka can tap emerging green-fuel markets early.
- Grow a qualified service ecosystem—energy-service companies, auditors, technicians—through vocational training and certification so that maintenance and performance measurement keep pace with deployment.
- Lock in stable, long-term policy signals (tariffs, net-metering rules, grid-access codes) to give investors confidence and to guide a smooth, equitable transition for all stakeholders.
- Focus on implementing existing policies effectively at ground level.
- Promote rural inclusion through targeted programs and easy-to-access funding.
- Leverage falling renewable costs and tech improvements to accelerate transition.