

Study on the Viability of Increasing Renewable Energy-Based Power Generation through Energy Democratization

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Long term policies of Sri Lanka indicate a goal to increase renewable energy based power generation, in line with global mandates of reducing greenhouse gas emissions and curbing climate change. In this context, the Energy Democracy concept is gaining popularity for increasing public participation and decentralisation of the energy systems which promotes the increase of renewable energy plants. This is followed in Sri Lanka too with rooftop solar schemes and tenders for small-scale wind and solar power plants. However, recent research on the similar Energiewende concept in Germany shows that there has been a significant cost overrun in the program, and the efficacy of the conversion from nuclear and coal power to renewables based power has been questioned. In Sri Lanka, the increasing disparity between the selling price and the cost at sale point of electricity has led to financial losses. Energy democracy promotes shared ownership, decentralization, and energy sovereignty. It is also promoted as an outcome to increase renewable energy. This outline was used to develop the conceptual framework of the study. The objective was to study countries that followed the principles of energy democracy with lessons that could be drawn for Sri Lanka to see a viable increase of renewable energy. This is a case study of the Sri Lankan power sector with secondary literature from countries transitioning to renewable energy. Based on the research, it is evident that the increase of renewable energy requires large scale systemic changes and introduction of newer technologies such as energy storage and smart grid systems with demand management, which are currently not available in Sri Lanka. As a fossil fuel non-producer, Sri Lanka requires holistic development initiatives to strike a balance between rationalising the imports of cheaper fuel sources and managing the cost of electricity by increasing renewable energy sources.

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