

Integrating energy solutions through smart collaboration: A look into energy and climate plans developed by a global network of engineers

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ABSTRACT

Due to the imminent challenge that climate change represents, organizations worldwide have established strategies to promote actions that reduce the concentration of greenhouse gases and encourage the shift towards the use of renewable energies. The 2009 Copenhagen Accord (from the 15th Conference of Parties, United Nations Framework Convention on Climate Change, COP15 UNFCCC) identified the need for “deep cuts in global emissions...to hold the increase in global temperature below 2 degrees C”. Future Climate - Engineering Solutions is a global engineering network that works together with national engineering associations across the world to develop, implement and share national climate and energy plans. The plans consider best practices to reduce greenhouse gas emissions and to ensure sustainable energy solutions. The approach is not only technological but also about establishing a dynamic collaboration both between the engineering associations and with national governments.

In this paper, energy and climate plans put forward by developed countries such as Denmark and the UK, and developing countries such as India, are compared in terms of energy supply and demand, considering related environmental, social and economic factors. After comparing each climate and energy plan, the successes and shortcomings of these strategies are analysed to evaluate the complexities surrounding the implementation of renewable energies in each country. The results are used to discuss the most effective national strategies to ensure sustainability agendas towards 2050. This has direct relevance to the debate on the new legally binding targets for greenhouse gas reduction that will take place at the 21st Conference of Parties, United Nations Framework Convention on Climate Change COP21, UNFCCC, Paris 2015.

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