ENERGY TRANSITION AND REGULATORY ACTIONS

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Overview

Environmental concerns have led the world to reconsider the energy sector. Shifting to renewable energy sources has become a necessity giving the new international treaties, regional regulations and local policies. However, in terms of regulating, the current regulatory strategies covering the transition from traditional energy to renewable energy shows great limitations. Indeed, 2030 vision's initiatives of Saudi Arabia could be seen as a step towards an efferent energy regulation strategy. However, regulating this transition comes with various challenges, such as, the lack of integrated legislation, having few research facilities concerning energy regulation or a solid energy regulation theory. On the other hand, renewables has higher initial costs, smaller revenue stream, and inefficiency, in that sense, here comes another challenges relating to encouraging investments in renewable giving to the risks involved in To that end, this paper Firstly discussed the rationale behind regulation the sector, main theories in Energy Law. Secondly, it come across the vision of Saudi Arabia and its initiatives regarding the transition, and finally, analysing the gaps in energy regulation.

Methods

The paper employs a doctrinal approach to analyse regulations regarding energy sector.

Results

The paper has found that Regulation strategies concerning energy have to be evolving side by side to the international, national and local economic, environmental, financial, and social perspectives. Moreover, renewable energy impose various risks and challenges that need to be tackled. Finally, energy regulation regarding the transition shows great limitations in tackling the challenges.

Conclusions

While moving towards cleaner energy sector numerous and obvious regulatory challenges has to be considered. Current market structures, lack of understanding of the principles of new technologies based on renewable energy sources, difficult access to finance and its high cost, inadequate and the lack of a unified regulatory framework.

References

Al-Maamary, Hilal MS, H. A. Kazem, and M. T. Chaichan. "Changing the energy profile of the GCC States: A review." *International Journal of Applied Engineering Research (IJAER)* 11, no. 3 (2016): 1980-1988.

- Arent, Douglas J., Alison Wise, and Rachel Gelman. "The status and prospects of renewable energy for combating global warming." *Energy Economics* 33, no. 4 (2011): 584-593.
- Bridge, Gavin, Stefan Bouzarovski, Michael Bradshaw, and Nick Eyre. "Geographies of energy transition: Space, place and the low-carbon economy." *Energy policy* 53 (2013): 331-340.
- Byrnes, Liam, Colin Brown, John Foster, and Liam D. Wagner. "Australian renewable energy policy: Barriers and challenges." *Renewable Energy* 60 (2013): 711-721.

Edenhofer, Ottmar, Ramón Pichs-Madruga, Youba Sokona, Kristin Seyboth, Susanne Kadner, Timm Zwickel, Patrick Eickemeier et al., eds. *Renewable energy sources and climate change mitigation: Special report of the intergovernmental panel on climate change*. Cambridge University Press, 2011.

The Intergovernmental Panel on Climate Change:AR6 Synthesis Report: Climate Change 2022 https://www.ipcc.ch/ report/sixth-assessment-report-cycle/.

Jinfang Tian,a Longguang Yu,a Rui Xue,b Shan Zhuang,d and Yuli Shan: Global low-carbon energy transition in the post-COVID-19 era.

Vision 2030 of KINGDOM OF SAUDI ARABIA https://www.vision2030.gov.sa/thekingdom/explore/energy/

Mhairi Garcia, Ziad Saad, Mohamad Alrifai: Renewable Energy Laws and Regulations Saudi Arabia 2023