

The Enabling Environment of Renewable Energy Policies in the United Arab Emirates

Introduction

The United Arab Emirates (UAE) was the 1st country to identify an environmental target among the 6 countries of the Gulf Cooperation Council (GCC), Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE, and has set a 44% renewable energy (RE) capacity target to be reached by 2050 at the federal level (UAE Government, 2018b). Due to the geographical location of the UAE, southeast end of the Arabian Peninsula next to the Arabian Gulf, the highest potential for renewable energy development is in solar power.



This is enough energy to power 40,000 homes and divert 350,000 tonnes of CO2 per year from the atmosphere (UAE Government, 2018a).

The purpose of my study was to identify the main factors influencing renewable energy development, and propose recommendations on 'How to make the enabling environment more effective in the UAE?'

Methodology

What are the main drivers of the energy transition in the UAE?

Energy security in the post-oil age; a diversified economy; maintaining political leadership (Juaidi et al., 2016; Mezher et al., 2012)

How would the UAE benefit from the energy transition?

Investment in Research & Development; Employment Creation; Reduced negative health effects; Impressing the world - Arab culture (IRENA, 2018b; Reiche, 2010)

What are the limiting factors of renewable energy deployment?

1. Fragmented policy environment
2. Low cost of water and electricity (heavily subsidized for Emirate nationals and residents)
3. Lack of regulation for mandatory use of RE
4. The current taxation system needs to be restructured to be able to encourage RE (Al-Amir and Abu-Hijleh, 2013)

Both the driving forces and the barriers to renewable energy enhancement are rooted in the United Arab Emirates' political system, the influence and power of its leadership, and its governance priorities.

Findings

Geographical Conditions

The UAE is characterized by a warm desert climate, ideal for exploiting the potential of solar power (World Atlas, 2018).

Research & Development (R&D)

Masdar City, advertised as a carbon-neutral sustainable city in Abu Dhabi, is considered as a mosaic of a complex policy framework contributing to renewable energy development in the UAE.

International Pressure

- The UAE is the host nation for the first World Expo taking place in the Middle East, Expo 2020 Dubai.
- Abu Dhabi is home to the Headquarters of the International Renewable Energy Agency (IRENA).

The Political System

The United Arab Emirates is a constitutional federation, and the ruling power is concentrated in the hands of the leaders of the emirates, and their families.

The Year of Zayed-2018

"We must not rely on oil alone as the main source of our national income. We have to diversify the sources of our revenue and construct economic projects..." (Late Sheikh Zayed Al Nahyan)

Economic Environment and Policy-making

The extent to which renewable energy policies are effective in the UAE depends on the leadership, and the political will to implement successful top-down strategies.

What can be done about the limitations to renewable energy deployment?

1. The rulers of the emirates should cooperate in formulating energy targets and policies, whilst being careful not to undermine the emirates' sovereignty.
2. There should be a shift in government subsidization towards residential solar panels and renewable investments. If the extent of subsidization on water and electricity bills were reduced, the remaining amount could be given to residents wanting to install solar panels.
3. Incentives to renewable energy investments and country-wide recommendations on energy conservation proposed by Emirates Nature in association with the World Wide Fund for Nature should be used.
4. The Government of the UAE should provide tax incentives to renewable energy installations, such as slightly decreasing the recently introduced 5% Value Added Tax (VAT) (UAE Government, 2018c) on renewable energy projects, solar panels and enabling technology.

How Masdar City is leading the way towards RE development?

- Supports the transition from a resource-based economy to one that is knowledge-based (The Government of Abu Dhabi, 2008): "New technologies are developed, commercialized and exported." (Ibrahim, 2015)
- Influences domestic policy-making: The Masdar Free Zone provides tax incentives for those opening an office in Masdar City, such as exemption from corporate and income taxes (Masdar, 2018).

How to improve the Masdar City project?

1. A sustainable public transportation system connecting Masdar City to the centre of Abu Dhabi
2. An entirely RE powered desalination system in Masdar City

What is the scope for renewable energy policies in the GCC?

The UAE acts as a reference case when identifying the scope for renewable energy policies in the GCC.

Greater cooperation between government agencies and international organisations: The research conducted by international agencies, such as IRENA, should be used and implemented by GCC governments to a greater extent.

Conclusions

The political system, research & development, economic environment and policy-making, geographical conditions and the extent of international pressure, all contribute to a solid policy-framework enabling the energy transition in the UAE. The UAE has come a long way since the oil discovery in the 1960s, and therefore one can be optimistic about the pace of renewable energy investments, and the future of renewable energy in the country.

References

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- Influences foreign policy-making: Masdar becomes a reference case globally on how to integrate best practice in R&D, and spur investment in sustainable cities all over the world.



Masdar City (Matrai, 2018)



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