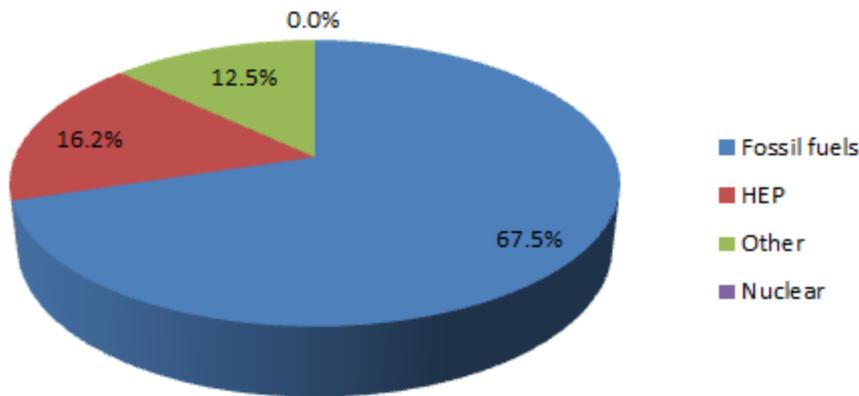


Morocco: Energy

In 2015 67.5% of electricity was produced from imported fossil fuels (Figure 1), a resource Morocco has little access to within their own borders. In a push to increase energy security, it is hoped that the country will meet 42% of its energy requirements by 2020 through renewable and alternative energy sources. King Mohammed VI and the government envisage that the rise in renewable energy production through solar and wind in particular will enable them to invest the 'saved' cost of importing fossil fuels on improving infrastructure and education instead. In addition, the energy security of the nation will improve dramatically, thus making it a more attractive location for continued foreign investment.

Figure 1: Electricity production (2015)



With the spotlight on Morocco for the 2016 COP22, there was significant focus from the government on the increased use of renewable energy. Since few large rivers run through Morocco to make it economically viable to harness large-scale HEP, solar power is considered the most efficient way forward in generating vast quantities of renewable energy to all, no matter where in the country they live. In terms of energy potential, there are approx. 3,000 hours of annual sunshine equating to 5.3kWh/m²/day. In 2009, a mega-scale solar project (The Moroccan Solar Plan) was launched for the development of five large-scale solar farms at a cost of US\$9 billion. These solar farms will be at Laayoune (Sahara), Boujdour (Western Sahara), Tafaya (south of Agadir), Ain Beni Mathar (central) and Ouarzazate. It is planned that by 2020, 2,000 mW solar power will be generated. Morocco is the only African country to currently have a power cable link to Europe, and so is crucial in the Mediterranean Solar Plan and Desertec Initiative (plan can be seen in Figure 2).

Figure 2: Desertec Initiative (Plan)



<http://www.solargcc.com/morocco-solar/>

Wind power now plays an important role in helping Morocco meet its ambitious Paris Accord (2015) targets, with the first wind farm opening in 2000 in Tetouan, just 45km south-east of Tangier. A Mediterranean and Atlantic coastline stretching 3,500km with an average wind speed over 9m/s at 40m altitude, the prime location gives the country great potential to exploit this energy opportunity with nine completed wind farms by 2013, and another five commissioned.

Suggested reading

- <https://www.ecomena.org/renewable-energy-in-morocco/>
- <https://www.renewableenergyworld.com/articles/2018/02/new-horizons-for-renewable-energies-in-morocco-and-africa.html>