HELIOSTHANA

A Mediterranean country based on sustainable energy

Executive Summary

This guide takes us to the island state Heliosthana, somewhere in the Mediterranean Sea, in the year 2020. It describes a decade-long harmonious transition towards a sustainable energy system that respects people and the planet, while sustaining balanced economic and social development. Heliosthana now combines low energy intensity (20% less than in 2010) with a promising share of renewable energy (20% of primary energy supply). Part of the renewable electricity is exported to neighbouring countries. Education, R&D and healthcare have benefited from the money saved due to reduced investments in fossil fuels.

This is in stark contrast with the situation prior to 2010 when there was a highly inefficient energy use and a significant dependency on expensive and polluting imported fossil fuels. Growing urbanisation paired with a rapid economic development, amongst other factors, fuelled a rapid increase in energy demand, which seemed out of control. High costs, uncertainty and multiple crises (fossil fuel price volatility and shortages) impacted on both people and companies.

Heliosthana has become a role model for its neighbouring countries in the Mediterranean. Through ambitious but realistic measures described in six steps (a seventh steps presents a final overview), the island is looking towards a fossil-free future and is an ideal partner for the Mediterranean Solar Plan (MSP). These steps are immediately applicable in most of the Mediterranean countries.

Heliosthana's key messages are:

- Strong national energy policy reforms are needed to support energy conservation and renewables. Fossil fuel and electricity subsidies in particular form an entry barrier for these technologies.
- There are many economically interesting options to manage and reduce energy consumption, as well as to produce renewable energy in the region. But these options will only be become reality provided a regulatory framework and tailored financial mechanisms are in place in the relevant countries.
- The MSP is a tool to catalyse national sustainable energy plans. MSP projects should be fully integrated into host countries' national strategies that combine larger and smaller projects.
- The PSM should play the role of regional coordinator and develop innovative support tools. It can help develop national solar plans, develop national capacity (through equipment production, maintenance, investment), spur cooperation with local and regional universities, facilitate and reduce the cost of environmental and social research, bundle smaller projects to make them interesting for large investors.

Heliosthana's six steps are:

1. A strategic country-wide vision, in consultation with all major stakeholders. Its implementation requires a structured institutional framework, a clear separation of government roles between policy making, implementation, action plans (through agencies) and energy sector activities. Solid statistics and indicators enable better decision making.
2. 3 energy policy pillars: an effective energy supply security system, guaranteed access to energy (e.g. through a social tariff), and phase-out of fossil fuel and electricity subsidies.
3. Structural measures for an efficient energy use: consumer behaviour analysis, efficient regulation (e.g. standards and labels), accompanying measures and incentives, and adapted financial packages.
4. Assessment of renewable energy needs and potential, together with a regulatory framework, a feed-in tariff and innovative finance mechanisms.
5. A model partnership with the MSP: diverse MSP projects and electricity trading in the region are fully integrated in the national energy strategy.
6. Long term urban plans with denser and more efficient cities and buildings, connected with a reliable public transport scheme, and closer distances between working, living and leisure centres. The new vehicles combine low energy consumption and new energy sources, such as renewable electricity.

*Earth image: Bigger Picture, 2010