



ENERGY AT OCP

Energy is the cornerstone to everything that allows us to work, it is the power derived from the utilization of physical or chemical resources, especially to provide light and heat or to work machines.

At OCP, energy takes several forms: it can be electric (such as powering various equipment, engines, conveyors, etc.) or thermal (fossil fuels for trucks and mining equipment, for drying phosphate, etc.).

Thanks to the exothermic processes for producing sulfuric acid, the OCP group also produces a large amount of steam, which drives a turbine to produce electrical energy.

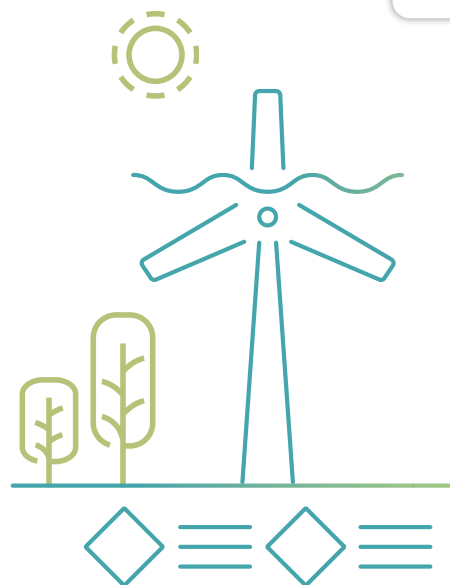
IT IS A PRIORITY TO INVEST IN CLEAN AND RENEWABLE ENERGIES AS A RESPONSE TO CLIMATE CHANGE

OCP strongly believes in the recommendations outlined by the scientific community to combat global warming; the OCP group has initiated very ambitious targets in the fight against climate change. Since 2018, the group has prioritized a circular economy program that has reinforced its desire to combat the issues of climate change (see Climate Change Policy).

Through PPA (Power Purchase Agreement), the OCP group obtains electricity from wind sources. The OCP Mining sites have been the first to take advantage of this innovation, with those at Gantour and Phosboucraa already registering 100% renewable electricity.

The OCP chemical transformation sites have also recorded largely carbon-free electrical balances: Jorf Lasfar even displays a surplus of clean electricity which is sold to the network. Finally, in 2019, 75% of the electrical balance of the Safi site comes from the cogeneration of electricity.

In total, the share of clean or renewable electricity in OCP's 2019 balance sheet was 87%. OCP has aims to reach 100% by 2030.



VISION & OBJECTIVES OCP

The OCP energy vision is focused on clean and renewable energies, coupled with the adoption of energy efficiency practices (design, energy management, certifications and audits...), towards R&D in new green technologies, plus new processes and new ways to integrate these innovations into the group's supply chain.

OCP's energy goals are:

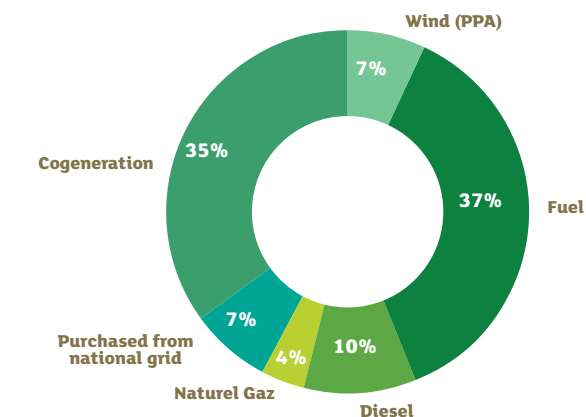
- 100% clean or renewable electricity
- Be efficient in energy management
- Adoption of "Best Available Technologies" design taking into account the energy factor
- Promotion of scientific research for the development of new green solutions (Green Ammonia, rehabilitation of mining land on a solar farm, solar drying, sustainable mobility, etc.)



Energy at OCP in figures:

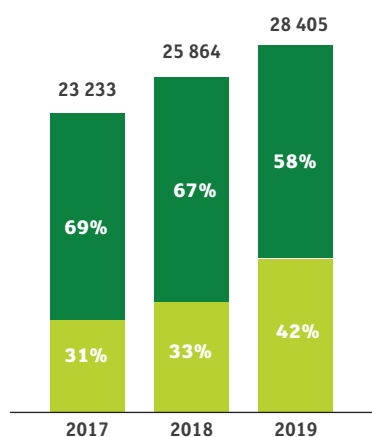
1) All Energy Mix:

Figure 1: OCP Group's all Energy Mix in 2019 and breakdown of the different energy sources



1 terajoule = 277.78 MWh

Figure 2: All energy Mix consumption distributed between carbonised energy and clean energy



■ Total energy (Fuel, Electricity, Gas,...) consumption within the organization from non-renewable sources (TJ)

■ Total energy consumption within the organization from clean sources (TJ)

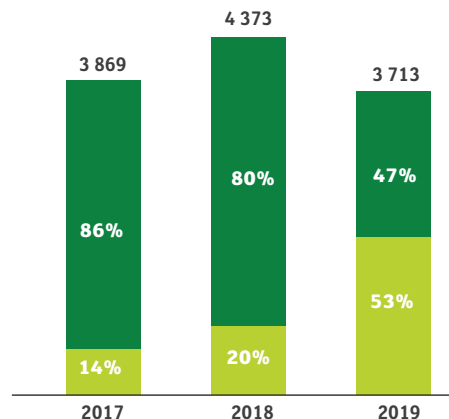
From 2017 to 2019, the part of the clean energy (cogeneration and Wind PPA) in the total energy consumed increased from 31% to 42 %.

2) Electrical Energy:

In 2019, 87% of the electricity consumed at OCP is either cogenerated or renewable.

The energy requirement at OCP is almost 4 TWh, the equivalent electric consumption of 4 million Moroccans

Figure3: Breakdown of the electricity purchased

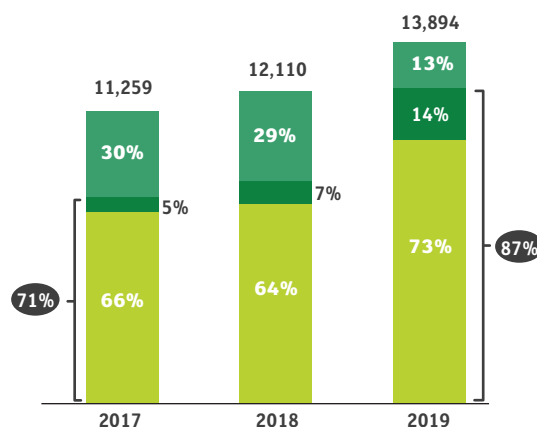


■ Purchased electricity from national grid (TJ)

■ Wind energy from PPA

Also, in the same period, the part of the renewable energy has significantly increased from 14% to 53 % of the whole electrical energy purchased.

Figure 4: Breakdown of the electrical consumption including self-generation electricity



■ Net electricity from national grid (TJ)

■ Wind energy

■ Self-generated (clean electricity) TJ)

If we consider only electricity consumption from 2017 to 2019, the ratio of clean energy per the total electricity consumed increased from 71% to 87%.

