

# Industrial Energy Efficiency Project

## Islamic Republic of Iran

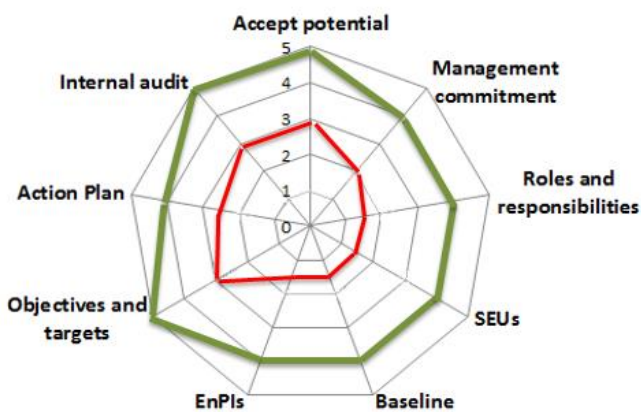
Sufian Cement Company (SCC) has joined hands with the United Nations Industrial Development Organization (UNIDO) and Iranian Fuel Conservation Company (IFCO) to implement a structured approach to energy management in their operations, under the Global Environment Facility (GEF) funded project, "Industrial Energy Efficiency in Key Sectors".

Through this cooperation, the SCC has already achieved significant savings through the implementation of an Energy Management System (EnMS) in alignment with ISO 50001:2011.

### A Case Study of Sufian Cement Company

#### EnMS background in SCC

Through one shut view, the following spider diagram explains the comparison between two scenario of before and after of the energy management practices at SCC. The red line is related to before scenario and the green line represents the condition after energy management practice.



#### UNIDO program and development of the methodology within SCC

UNIDO's developed methodology within SCC consists of the below steps:

- Management commitment
- Planning
- Implementing
- Checking



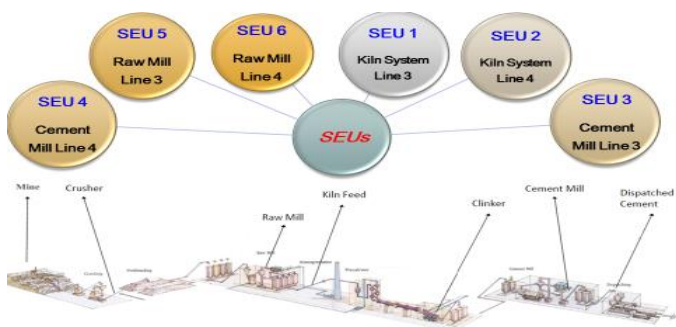
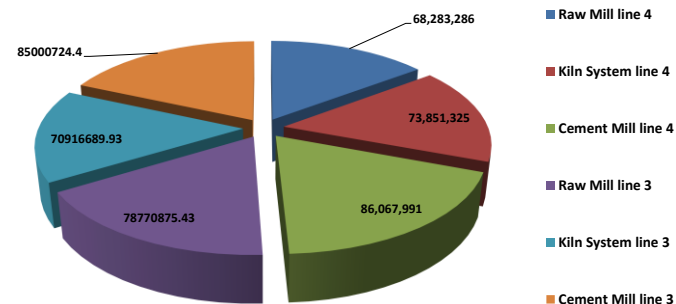
Soufian cement company (SCC) is founded in 1966. The production capacity is near by 7000 tons/day. The company has issued the management certificates according to ISO 9001, ISO 14001 and OHSAS 18001 with Integrated Management System (IMS).

SCC had also planned to implement EnMS according to ISO 50001:2011 in cooperation with UNIDO and has been already certified based on ISO 50001.



## Identification of significant energy users (SEUs)

The SEUs have been selected initially based on more than 80 percent of all energy users, which are illustrated in the below pie chart.



## Main achievements

During implementation of EnMS within SCC, some activities that have added particular benefits to the company are as following:

- Increasing the level of understanding about EnMS in energy management team of SCC, as mathematical discussions:
  - Non-Linear regressions,
  - Multi drivers' basis (cement, clinker and raw materials),
  - Better understanding about multi energy carriers;
- Better participation of SCC staff in implementation of improvement projects;
- More communications between SCC staff and energy manager.

## Planned energy saving objectives and targets

The overview of energy saving objectives and targets can be divided as follows:

### Planned objectives:

- Reducing energy carriers' consumption about  $25 \times 10^3$  MWh in 2015.
- Detail energy audits and consumption analysis in 2015 in comparison with the monitored EnPI in the last period.
- Effective training and cultural improvement of employee, during the year 2015.
- Modification of the processes, technologies and equipment related to the SEUs in order to reduce the energy carriers consumption during the next three years (2015~2017).

### Planned targets:

- Reduce thermal and electrical specific energy consumption by 1% and 1.5% respectively, within the next year compared with previous two years baseline.
- Reduce energy carriers' consumption about  $13.93 \times 10^3$  MWh in 2014 in the whole factory (all SEUs).
- Conducting related trainings for 100 persons that significantly affect energy use and consumption in 2015.

### For more information

#### UNIDO Project Management Unit in Iran:

E-mail: [m.shakouri@unido.org](mailto:m.shakouri@unido.org)

[n.shehari@unido.org](mailto:n.shehari@unido.org)

Phone: +98 21 22 79 37 00

#### UNIDO Headquarters:

E-mail: [r.ghoneim@unido.org](mailto:r.ghoneim@unido.org)

Phone: +43 1 260 26 3456