Develop of a new and highly effective modeling and monitoring Energy Management System technique in order to improve Energy Efficiency and move to a low CO2 emission in the energy intensive non-metal

Fact Sheet

Project Information

EE-QUARRY

Grant agreement ID: 249807

Funded under
FP7-ENERGY

Start date
1 September 2010

Overall budget
€ 6 380 937,90

End date
31 August 2014

EU contribution
€ 3 775 282,52

Coordinated by
SOLINTEL M&P SL

Spain

Objective

The EE-QUARRY project emerges from the necessity to control a very demanding energy-intensive industry, which characterizes from its high energy demands and enormous CO2 emissions. The goal is to improve energy efficiency and to reduce CO2 on quarries, through the develop of a new and highly effective modeling and monitoring Energy Management System technique. The use of crushed stone could increase at a quicker rate than any other major material use. Given the market size, ample resources and stable growth potential of this industry, the understanding and dissemination of energy efficiency opportunities is paramount for European energy efficiency goals. Further, since there are literally several thousands facilities
throughout Europe, there is a huge opportunity for replicability of identified energy efficiency measures. This project will first review the stone mining and crushing production processes. It is also important to show that energy use is focused in rock blasting, shot-rock transportation, rock crushing, conveying and screening. As such, standard building energy efficiency measures such as lighting retrofits and support system optimization have small impacts on overall plant energy use. The identification of energy opportunities thus relies heavily on systems optimization. System optimization not only encourages energy efficiency, but typically benefits production as well. Coupled with productivity improvements, the economic incentives for energy efficiency measures in this industry have the magnitude and quick payback that could facilitate industry-wide replication. Once the whole extracting industry process is over, and the quarry plant arrives to the end of its life cycle, many CO2 neutralizing activities will take place. The goal is to generate EE opportunities and CO2 compensation activities due to the environmental impact created in its life time cycle.

Field of science

/socialescience/economicsandbusiness/economics/productioneconomics
/engineeringandtechnology/environmentalengineering/wastemanagement/energyefficiency

Programme(s)

Topic(s)

Call for proposal

FP7-ENERGY-2009-2

Funding Scheme

CP - Collaborative project (generic)

Coordinator

SOLINTEL M&P SL

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Private for-profit entities
(excluding Higher or...
Participants (11)

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Activity type: Research Organisations

Website
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<table>
<thead>
<tr>
<th>Organisation</th>
<th>Address</th>
<th>Activity type</th>
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<tbody>
<tr>
<td>RINA CONSULTING SPA</td>
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<tr>
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<td>Other</td>
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<td>EPC FRANCE SAS</td>
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Last update: 4 June 2014
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