

**DecarbEurope – OPEL ESPAÑA
(PSA Group)
implemented the ISO 50.001
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OPEL ESPAÑA: Implementation of Energy Management System ISO 50.001 in 2012



- Where?
 - Company: OPEL ESPAÑA S.L.U
 - Site: Figueruelas Plant
 - Location: Figueruelas, Zaragoza
 - Country: Spain
- What?
 - In 2012, OPEL ESPAÑA, supported by Creara Energy Experts, implemented the energy management system ISO 50.001¹, which had a positive impact on the productivity and management of OPEL ESPAÑA's facilities
- Benefits?
 - Annual decrease of 4-6% in energy consumption since 2012
 - 21% decrease in CO₂ emissions since 2012
 - Related energy cost savings

What makes this site special?

OPEL ESPAÑA's Zaragoza production center is a large industrial facility dedicated to the manufacturing of vehicles and vehicle parts, as well as to maintenance and logistics activities. Almost 5.000 employees work in the plant.

The site is OPEL's largest vehicle manufacturing plant in the world, with an annual output of over 382.400 cars (2017). The plant has an energy demand of over 510 GWh a year (2017), most of which comes from the use of natural gas for cogeneration (40,95%) and for the use of boilers, furnaces and

¹ ISO Norm 50.001 establishes requirements for an Energy Management System to make continuous and systematic improvements in the energy performance of organizations.

direct combustion in painting booths (24,05%). The remaining energy consumption comes from grid-electricity (35%).

Energy management is one of OPEL ESPAÑA's main priorities, reflected by the fact that they were one of the first companies in Spain to implement ISO Norm 50.001

As part of its environmental and energy policy, OPEL ESPAÑA implemented the ISO Norm 50.001 in 2012. This has contributed to improve the company's competitiveness and reduce its environmental impact. The main motivations for Opel to implement this norm were the following:

- Optimize and integrate ISO 50.001 in the existing EMAS II and ISO 14.001 management systems
 - Energy management processes were already in place through ISO 14.001. However, the implementation of ISO 50.001 enabled OPEL España to reinforce its focus on energy management and its homogenization as the norm has been designed specifically for that purpose
- Improve the methodology to establish Key Performance Indicators
- Establish more aggressive consumption saving objectives
- Intensify the level of monitoring and implementation of corrective plans
- Increase awareness of good behavioural practices in environmental and energy conservation

As a result of the process, kick-started through the adoption of the norm, an energy efficiency program that included the following measures was defined:

- Installation of high-level air compressors with high variable capacity
- Change from pneumatic to electric pumps
- Installation of a more efficient lighting system
- Aggressive plan to decrease consumption in non-productive periods
- Heat recovery in furnaces and repair booths and in co-generation processes
- Monthly energy audits
- Creation of energy committees through which OPEL ESPAÑA trains and encourages its employees to maintain and improve energy efficiency in the plant
 - The committees were formed with the aim of involving employees in the development of the plant's energy policy

The total budget for these measures exceeded EUR 4 million, 75% of which was spent in the first 4 years following the implementation of the norm. The estimated payback period for the energy efficiency program as a whole is around 3 years.

"The implementation of the norm has allowed us to consolidate and improve our previous energy management system, speeding up the identification and implementation of energy saving measures. As a result, we have produced immediate monetary savings and fulfilled the demanding goals of our environmental protection policy"- Ramiro Martínez, Water and Energy Manager

Since the implementation of ISO Norm 50.001 in 2012, CO₂ emissions have been reduced by 21% and energy consumption has decreased between 4-6% annually

Thanks to the implementation of ISO 50.001 in 2012, OPEL ESPAÑA has achieved important savings and benefits in its Figueruelas Plant, evidencing the positive effects of the implementation of energy efficiency measures:

- CO2 emissions have been reduced by 21%, or 20.000 ton/year
- Annual savings of 4-6% in energy consumption
- Annual natural gas savings of up to 15% during manufacturing periods, and nearly 20% in periods without production (compared to previous non-productive periods)
- Improved and more precise consumption information
- Greater awareness and environmental responsibility by employees through their involvement in the above-mentioned committees

All these savings have translated to significant monetary savings for the plant.

The success attained by a globally renowned brand such as Opel ESPAÑA in its implementation of an energy management system compliant with ISO 50.001 is a clear example of the complementarity between monetary incentives and environmental consciousness and commitment.