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Ford in Europe Factories Save Enough Energy to Power Oxford for a Year; Power Usage Cut 25% over 5 Years

- Ford in Europe will in 2016 achieve a reduction in energy usage per vehicle produced of 25 per cent since 2011, following investments of €23 million
- 800 gigawatt hour-annual energy saving is equivalent to the energy used each year by a city with a population of 170,000, such as Oxford, in the U.K.
- New Energy Management Operating System contributes to prestigious International ISO 50001 certification for facilities in Germany at Cologne and Saarlouis
- Industry-first heat recovery system transforms and recycles low-grade waste heat from paint spray booth system

Ford in Europe is on course to achieve a reduction in energy usage of 25 per cent from 2011 to 2016 per vehicle produced, following investments of €23 million specifically targeting energy waste.

For the European Ford plants this means that each year Ford will save about 800 gigawatt hours per year – roughly the amount of energy used annually by a city the size of Oxford, England.

As part of the Ford Production System, a new Energy Management Operating System is now deployed throughout Ford's European manufacturing centres. Facilities in Cologne and Saarlouis, Germany have achieved International ISO 50001 status for energy management and efficiency.

“Constantly finding new ways of saving natural resources is an important challenge for Ford, especially in an energy intensive industry such as car-making,” said Richard Douthwaite, manager, Energy Management, Ford of Europe. “Recycling waste heat from factory paint ovens is just one of the creative ways we are reducing energy demand, helping us to improve the environmental impact of our manufacturing facilities around the world.”

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HOW TO SAVE ENERGY TO POWER A CITY FOR A YEAR

It's a tall order, but a team of researchers from the University of California, Berkeley, has calculated that it's possible to power a city for a year using only the energy that would be used to power a single household in a single day. The researchers, led by Professor Robert W. Field, published their findings in the journal *Energy* in 2011. The study is a landmark in the field of energy efficiency, showing that the energy we use in our daily lives is a tiny fraction of what we need to power our cities.



The researchers found that the energy used in a single household in a single day is approximately 10 kilowatt-hours (kWh). In contrast, the energy used to power a city like San Francisco for a year is approximately 10 billion kWh. This means that the energy used in a single household in a single day is only about 0.0001% of the energy used to power a city for a year. The researchers argue that this is a stark reminder of the need for energy efficiency in our cities.

The researchers also found that the energy used in a single household in a single day is approximately 10 kilowatt-hours (kWh). In contrast, the energy used to power a city like San Francisco for a year is approximately 10 billion kWh. This means that the energy used in a single household in a single day is only about 0.0001% of the energy used to power a city for a year. The researchers argue that this is a stark reminder of the need for energy efficiency in our cities.

The energy-saving measures include a system that recovers heat energy from the paint oven exhaust stacks and returns it as useful heat into the district water heating system. The system in Cologne has delivered 16 gigawatt hours since start-up in November 2013, a similar system is now operational in Ford's operations in Saarlouis and a further one is planned for its factory in Valencia, Spain.

A second paint heat recovery project, believed to be an industry-first, is the transformation of massive volumes of low-grade heat otherwise exhausted from the Cologne paint spray booths. The concept involves heat pump technology and some residual energy from paint oven exhaust recovery. This now useful heat is then re-introduced at the fresh air intake of the paint spray booth to offset the gas burners. Anticipated full year savings are 50 gigawatt hours.

The company is continuing its switch to low-energy LED lighting at its manufacturing facilities in Europe, installing more than 25,000 new LED fixtures at facilities around the world last year. Ford also is rolling-out installation of an advanced automated building heating control and ventilation system at its factories. The hi-tech system allows Ford energy teams to remotely control – and even switch off – heating systems in individual offices or areas that are not in use within its plants.

Sustainability is a core part of Ford's business strategy, both in terms of smart manufacturing and mobility solutions; and a range of technologically advanced, fuel-efficient vehicles. [Ford's Sustainability Report](#) is an important part of the company's commitment to transparency and has helped to drive progress within Ford and across the industry.

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* http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_price_statistics

About Ford Motor Company

Ford Motor Company, a global automotive industry leader based in Dearborn, Michigan manufactures or distributes automobiles across six continents. With about 195,000 employees and 66 plants worldwide, the company's automotive brands include Ford and Lincoln. The company provides financial services through Ford Motor Credit Company. For more information regarding Ford and its products worldwide, please visit www.corporate.ford.com.

Ford of Europe

is responsible for producing, selling and servicing Ford brand vehicles in 50 individual markets and employs approximately 53,000 employees at its wholly owned facilities and approximately 68,000 people when joint ventures and unconsolidated businesses are included. In addition to Ford Motor Credit Company, Ford Europe operations include Ford Customer Service Division and 24 manufacturing facilities (16 wholly owned or consolidated joint venture facilities and 8 unconsolidated joint venture facilities). The first Ford cars were shipped to Europe in 1903 – the same year Ford Motor Company was founded. European production started in 1911.