BP - Global Energy Use: Statistical Review
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Key personnel
Prof. Mark Shaffer, Lecturer in the School of Management and Languages (Economics) at Heriot-Watt University

Client/project sponsor
The project is an ongoing consultancy with BP since 2008.

Business need
As part of BP’s Energy Outlook 2030, there is an ongoing need for a Statistical Review of global energy use.

Solution
The Economics department at Heriot-Watt have a very strong focus on Energy Economics, and were well placed to do the global statistical analysis, doing sub-analyses for US, China, India and Russia.

Results/impact
The energy required to produce a unit of GDP is falling in most countries around the world. As countries industrialise, energy-intensive businesses make up a bigger share of the economy. Peaks generally correlate to the high point of heavy industry, before lighter industry and higher value-added businesses (such as services) begin to replace old-fashioned smokestack manufacturers. This often coincides with gains in energy efficiency, too.

According to BP’s “Energy Outlook 2030”, globalisation will lead to a similar level of “energy intensity” across the globe by 2030, despite wild divergence in the past, as energy is traded freely and consumption trends and technologies spread.

The work helps BP and other large oil & gas and power companies to forecast cost of energy provision and balance grid supply and demand.

Results of the work have been published widely, most notably in The Economist.

Heriot-Watt have latterly been approached to do similar pieces of consultancy in oil and gas and renewables markets.

Further information
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