

# LED lamps to provide global savings of \$100 billion over 5 years

Wellingborough, UK – 19 June 2012 – The widespread adoption of retrofit LED lamps will create global energy savings worth \$100 billion over the next five years, according to a recent report from IMS Research.

Although the use of LED lamps for general lighting is not currently widespread, IMS Research's report [Opportunities for Power Components in LED Lighting](#) [1] revealed that a rapid uptake of retrofit LED lamps will result in a potential market of more than 4 billion units by 2016. Whilst adoption is currently driven largely by legislation, it is forecast to accelerate as consumers become more aware of the long term savings that are attainable when compared with competing lighting technologies.

Report Co-Author and Senior Market Analyst Ryan Sanderson commented, "The environmental impact that global adoption of LED lighting will have is colossal. Lighting accounts for approximately 19 percent of the world's energy use at present. IMS Research predicts that in 2016 around 15 percent of all lighting will be accounted for by LED, which would reduce global energy consumption of lighting by around 20 percent."

Retrofit LED lamps use a fraction of the power of incandescent lamps to provide a similar luminance. The report from IMS Research forecasts that in 2012 alone, the use of retrofit LED lamps in place of incandescent lamps will result in energy savings of more than 30 gigawatt hours. By 2016, with widespread adoption of retrofit LED lamps, these savings are forecast to reach more than 300 GWe. It is calculated that the five-year cumulative total will be more than 800 GWe, worth more than \$100 billion.

Report Co-Author and Market Analyst Jonathon Eykyn commented, "To generate the 800 GWe of energy in 2016 years you would need to run more than 50 nuclear power stations at full capacity. At a time when the world is struggling to balance the use of more sustainable power sources with the need to provide access to low cost power sources to support economic growth, LED lighting could be a large part of the solution."

The benefits of using LED lamps to the general consumer are reductions in average household energy bills. Currently, it costs the average household \$20 to buy and power an incandescent lamp for four hours a day for a year. To buy and power an LED lamp for the same time period would cost \$16, a saving of 20 percent. However, compact fluorescent lamps (CFLs) compete much better on efficiency with LED lamps and are becoming a popular lower-cost alternative to incandescent lighting. Despite a CFL lamp currently costing on average just \$6 to buy and power

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Published on Electronic Component News (<http://www.ecnmag.com>)

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for a year, making it the most economical choice today, LED lamps use, on average, half of the power of a CFL lamp. Therefore, the advantages of LED lamps become apparent in the longer term, helped by dislike of CFLs due to their poor light quality.

An LED lamp has an average life expectancy of 30,000 hours which is 30 times longer than an incandescent lamp and 3.75 times longer than a CFL lamp. If the savings were calculated over the lifetime of the lamp, LED lamps become the cheapest solution. For example, a typical house with 15 lamps would save more than \$5,100 over 20 years by switching from incandescent to retrofit LED lamps. A house with CFLs installed would save nearly \$500 over 20 years by moving to retrofit LED lamps. These savings will increase as the cost of LED lamps continues to fall significantly, especially over the next five years.

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### **Links:**

[1] [http://imsresearch.com/research-area/Power\\_and\\_Energy/Power\\_Management\\_and\\_Conversion](http://imsresearch.com/research-area/Power_and_Energy/Power_Management_and_Conversion)