

Smart power regulation could save energy in every home, factory, office and school.

What it is

Smart power regulation means that spikes of electricity demand can be managed by automatically turning off certain devices in factories, offices and homes when the grid is under strain. It also means that electricity pricing can be varied from hour to hour depending on demand.

Demand control is important and could work relatively easily. For example it could be that a food company agrees with the electricity supplier that their huge deep freezes can be turned off for up to six hours at a time at peak periods – which is managed by cooling to lower temperatures during off-peak times.

Variable pricing could work based on the following day's weather forecasts. Consumers on variable tariffs would know that if outside temperatures are officially forecast to exceed – say – 40 degrees, that they will be charged 20% more than normal that day for electricity. To compensate, on low demand days they could be given a discount so that overall their bills would be the same if they took no action to vary consumption.

Why it matters

Power companies have huge challenges managing peak demand and the result is wasted energy and extra costs. Take Australia: on the hottest four days a year, energy use can jump by over 50% compared to the average. 10% of the entire generating capacity of the country is used for just four days a year. To recoup such costs, the wholesale price of electricity at peak times soars from average \$50 per megawatt hour to over \$10,000.

Difference it makes

Expect lower energy costs because 5% of inefficient energy capacity can be decommissioned, or 5% of new power stations may no longer have to be built.

Challenges

Intelligent power management would mean installing a special power monitoring device into every home, office, factory, school and government building. Additional controls would need to be installed in every device which is to be remotely turned off at peak times.

Business Opportunities

Expect many new manufacturers of smart metering systems which will pay for themselves because they can be read remotely, either by using wireless internet, or by using mobile phone technology, or by short-range readers outside the property as vans drive around.

Expect new opportunities for consulting services offered to clients in partnership with electricity providers, providing energy audits, discussions about new tariffs, managing peak demand and so on.

Many more [Global Warming Videos by Futurist](#) Dr Patrick Dixon and [Sustainagility](#) book.

Articles and Videos on Global Warming

Here are more resources on this site that you may find helpful.

[True Cost of Global Warming](#)

[How business will help solve global warming with green technology](#)

[CARBON DIET to save the World](#)

[Global Warming - Science Summary](#)

[Future of Oil Prices: Middle East, global economy](#)

[Roof Gardens Impact on Energy Saving](#)

[Biofuels Controversy and Climate Change](#)

[Iceland Volcano Eruption - Geothermal Power Potential](#)

[Energy Use Consulting - Boom Industry](#)

[Smart Power Regulation - Energy Saving](#)

[Green Technology Innovation Awards Chaired by Patrick Dixon](#)

[Product Exchanges and Climate Change](#)

[Wind Turbines and Global Warming](#)

[Solar Cell Roofing and Climate Change](#)

[Low Energy Streetlights and Global Warming](#)

[Polymer Cement - to save 2% global CO2](#)

[Carbon Capture - Climate Change Business](#)

[Future of Oil Industry when will oil run out? Kuwait and region](#)

[Heat Pumps - to prevent global warming](#)

[Cost of global warming - practical answers](#)

[The \\$40 trillion climate change business](#)

[Impact of Global Warming on Human Life](#)

[The Future of the Environment](#)

[Green Technologies innovation will help with climate change](#)

[Sustainability, climate change and crazy biofuels policy](#)

[Sustainability: innovation will help save world. Sustainable business future](#)

[Sustainable business: \\$40 trillion green tech boom will help save world](#)

[How Green IT saves money and energy, improves image and environment - keynote](#)

[Water Wars Risk? Futurist Q&A with Patrick Dixon](#)

[Global Warming: green technology will help world](#)

[Economic Growth Limits? Sustainability. FUTURIST Q&A](#)