

Sustainable development through LED Technology

"Addiction is a terrible thing. It consumes and controls us, makes us deny important truths and blinds us to the consequences of our actions. Our society is in the grip of a dangerous greenhouse gas habit"

The complex inter-relationship of energy production, energy consumption & wastage by the human species, bringing about CO<sub>2</sub> production, climate change, which inevitably is the demise of the human nation due to the lack of URGENT action required!!!!

### **ZPOD Technology – Reduce your Energy/CO<sub>2</sub> footprint drastically**

Take action, fight back, change your habit TODAY - wear a ZPOD !!!!



February, 2010 Ulrich Lorenzen ulrich.lorenzen@lumiere.co.za



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Energy is the power to change things... It is the ability to do work.... It is paramount in the development of human society....

### Nurturing energy...is the key to survival

Energy generation is the single most important activity resulting in GHG emissions, in particular because most of it is produced from fossil fuels such as oil, gas and coal, the latter being mainly used to generate electricity.





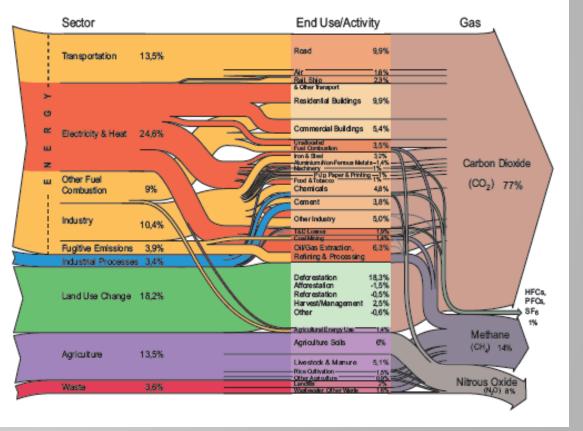
## WHY is: "Nurturing energy...the key to survival?

Energy generation, especially 'Dirty' electricity such as coal-fired stations, has got consequences as it is one of the major contributors to CO<sub>2</sub> emissions & Climate change on our PLANET.

This is also a threat not only to our ecosystem, but ultimately to our food supply, fresh water supply, health and living environment. We may see a rise in frequency and severity of dangerous storms, and a broader geographical distribution of disease-carrying insects

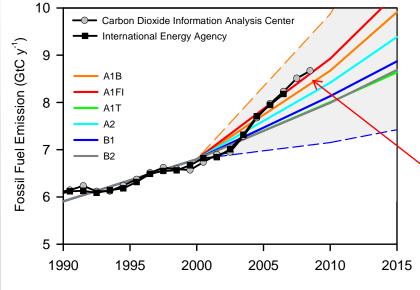
Climate change will affect **YOU and YOU and YOU** in the next 30 years. Especially poorer communities in developing countries such as yours!!!!!

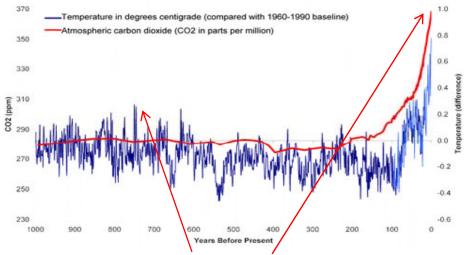
#### World Greenhouse gas emissions by sector





# WHY will you be affected within the next 30 years?





The present  $CO_2$  concentration is the highest during the last 650,000 years and probably during the last 20 million years. The biggest increase in emissions has taken place in developing countries.

Current emissions are tracking above the most intense fossil fuel emission scenario established by the IPCC Special Report on Emissions Scenarios-SRES (2000)

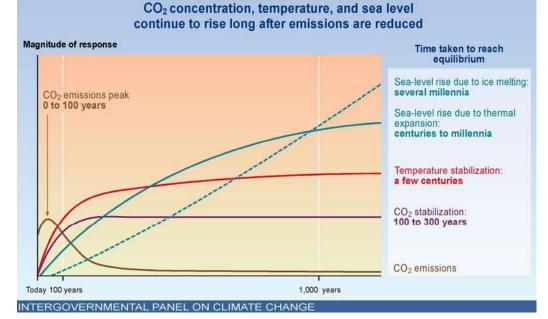
Projections suggest: By 2025, world energy use will probably have increased by 54% from 2001 levels, placing a bigger burden on CO<sub>2</sub> emissions.



## WHY will you be affected within the next 30 years?

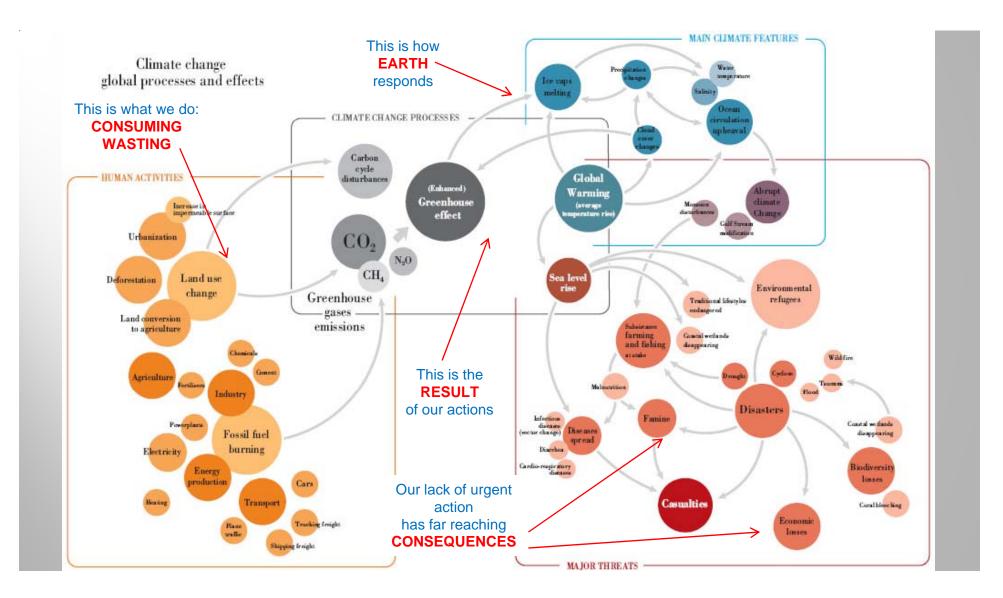
The Earth seems to be locked on a path leading to a very different climate, a new and much less stable era, lasting many centuries, before natural processes eventually establish some sort of equilibrium. Whether human beings will still be a force on the planet, or even survive, is a moot point.

The reality is: The planet does not need us, but we, as a species, need the planet!!!



Planning the construction of new coal-fired power plants by the coal industry and continuing to pollute at high levels, are so at odds with the scale and urgency of the emission cuts demanded by the science, as to be almost laughable. They reflect a child-like belief that climate change can be averted by ignoring the truth and hoping for the best, a form of wishful thinking whose costs will prove incalculable.

We moderns have become accustomed to the idea that we can modify our environment to suit our needs, and have acted accordingly for some three hundred years. We are now discovering that, our intoxicating belief that we can conquer all, has come up against a greater force, the Earth itself. We are discovering that humans cannot regulate the climate, the climate regulates us. The Earth may soon demonstrate that, ultimately, it cannot be tamed and that the human urge to master nature has only roused a slumbering beast.



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### WHERE do we start?

Sustainable development practices can enhance both the ability to adapt to and to alleviate climate change, as well as reduce vulnerability to climate change.

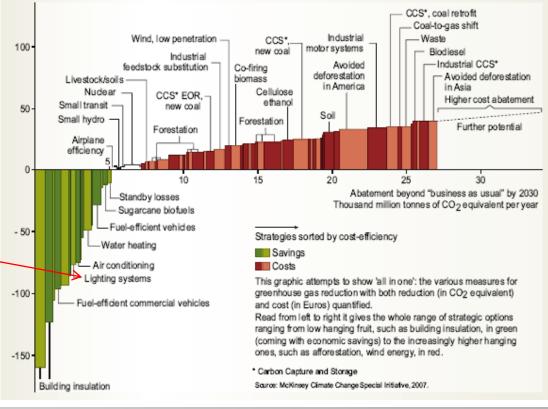
Improving energy efficiency and developing renewable energies can improve energy security and reduce local pollution.

LED Lighting systems alone are a huge contributor to long term savings,.... bringing about 50% of reduced energy use, thus reducing CO<sub>2</sub> output.

Accurate control/detection with ZPOD technology can reduce your current lighting system's energy use by another 50% – 70% whilst increasing comfort.

#### Strategic options for climate change mitigation Global cost curve for greenhouse gas abatement measures

Cost of reducing greenhouse gas emissions by 2030 Euros per tonne of CO<sub>2</sub> equivalent avoided per year



**ZPOD Mesh** 

Network



We can improve energy security by making use of Renewable energy generation. The PLANET needs you to commit NOW!!!...... NOT when it is too late.



Improve energy security & reduce emissions? HOW!!!!!

How much will it cost and what is the payback period?

addiction to carbon as it is the quickest solution. Make use of energy efficient LED lighting and

Reduce emissions by not wasting energy is the

logical answer. Change your behaviour and

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advanced **ZPOD technology** to reduce energy wastage. It is that simple!

is the payback period? "The cost will be borne by all. The poor will be hardest hit by weather-related disasters and by soaring price inflation for staple foods, but even the richest nations face the prospect of economic recession and a world in conflict over diminishing resources."

The environmental, economic and political implications of global warming are profound. Ecosystems – from mountain to ocean, from the Poles to the tropics – are undergoing rapid change. Low-lying cities face inundation, fertile lands are turning to desert, and weather patterns are becoming ever more unpredictable.



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## WHY are we pushing reduction in energy wastage so much?

In the past we have always asked you to start, by making a small change. It is too late for that now. We have to action much bigger and bolder changes, far sooner to make a difference in carbon buildup that is happening each day. Our current efforts of small changes are not working.

We have a good combination of technologies that will bring about a big change such as our renewable energy powering, our energy efficient LED lighting and the ZPOD technology, that help us reduce wastage by accurate control and automation. The fact is that you need vast amounts of renewable energy to offset our bad carbon habit and demand for energy that produces carbon. The vast amount of renewables to be commissioned to keep up with our wastage and consumption will take large amounts of funds.

The quicker, cheaper and faster route in relation to energy production, is to change our behaviour and to reduce our demand. In effect we have to go on a 'crash diet' of low carbon use. This can be achieved far quicker and at reduced cost by employing the ZPOD technology, in combination with efficient LED lighting.

A typical implementation and installation of renewable energy equipment is 8 to 18 months, whereas LED lighting and ZPOD technology is as quick as 6 to 18 weeks.

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## This is the end on climate change and the effects thereof. For further information on the ZPOD technology please contact Lumière Technologies.

Thank you for the time taken to review this information. I hope we have inspired you to become even more active in the role you have to play to avert climate change. Your actions are URGENTLY required as most of us still function under the false pretence that it still is: "Business as usual, which is not the case anymore."

Your actions are not just good for the planet, they actually save you and your clients a huge amount of money or running costs over a long term period.

