Investment Policy To Prevent Global Warming

The health of the Earth is essential to not just business, but also species survival.

One of my co-Directors, someone not prone to exaggeration, has made me aware that the surface temperature of the Earth has risen between 0.6°C and 0.9°C between 1906 and 2005, but the rate of temperature increase has doubled in the last 50 years.

A little more worryingly he tells me that another 0.5°C of global warming and there will be a significant impact on a part of the world's population. At a total of 3°C warming 50% of all life on the planet may become extinct and at 6°C we are in the realms of dystopia. Some humans may survive, but it is by no means certain. We are currently heading for a 4°C rise by 2100.

The science is pretty clear that global warming is occurring and that it is not a good thing.

A 4°C rise would see (predictions vary, but this seems to be widely accepted):-

- Sea levels rising by 50 cms and at least 1.5 million people being displaced in Egypt alone.
- Bangladesh losing over 30% of its land area displacing tens of millions.
- New Jersey would see 170 sq km flooded
- Mumbai, Shanghai, Boston, New York, London and Venice would be inundated to name but a few.

At 4° temperature rise sea level changes would be irreversible.

- There is uncertainty as regards the stability of the Antarctic ice sheet. If there were to be an invasion of sea water, rapid melting would result leading to a 5 metre rise in sea levels.

- There would be international decline in agricultural production due to reduced river flows and desertification.
  - Australia will support almost no agriculture
  - Much of the Indian sub-continent will be arid
  - Hotspots for drought will include SW North America, Central America, Mediterranean, South Africa, Australia

- In the Mediterranean countries 70% of summer rains would fail, heatwaves would last on average 65 days longer than presently, wildfires would occur as far north as the Alps.
- In the UK summer temperatures could reach 45° and droughts would be common-place.
- In Europe there would be 80% less snowfall leading to water shortages.
- The water level in the Caspian Sea would drop by 10 metres.

A 4° temperature rise would see a collapse of civilisation, leading to conflicts worldwide.

The climate models become a little less certain at a predicted 4° temperature rise but:-

- The Greenland ice sheet would be melting fast
- Antarctic melt as well, might lead to “Atlantic Circulation” which would temporarily cool western Europe but lead to wild storms.
- The permafrost in Siberia would melt, lakes disappear and there would be a massive release of methane which could result in a 700% increase in carbon release. Even if just 1% of the permafrost disappears in it will be equivalent to doubling our global emissions.

Whether or not you 100% accept the premise that global warming is occurring and it is bad, there is widespread evidence that the media, the scientific community and our workforce, particularly our younger workforce, believe that older people are destroying the habitat of the world. I am absolutely certain that no Executive or Non-Executive Leader of a business of any scale would knowingly engage in any activity which was harming our planet, but for which there was a reasonable prospect of preventing the harm and also getting a Return on Investment. The difficulty is that the larger any organisation becomes, the less certain it is that the people who direct and lead the business, really understand all of the detail of their operation.

It is almost always the case that if you want to understand any part of a business, you need to ask the people who are actually doing the job and if you want to improve anything, those are the same people who will tell you what needs to be improved and in what priority order.

There is, however, a huge disconnect between project team leadership, capital investment for small improvement projects and maintenance budgets.

It may be absolutely clear that there are opportunities for sustainability improvements that give a return of 1 year or less, but that is only clear to those who have the time to think about it and do the maths, but those same people seldom have responsibility for the operation.

Maintenance and operations people are often constrained by a budget and quite rightly so, but sometimes that means there is a disconnect between the need to make a capital investment, which would give a very healthy return, and be good for our planet, but the money is going to come out of the wrong budget.

Most leaders of organisations would agree that if they can get an acceptable Return on Investment and save water and energy and in addition get a boost in productivity, it would be good to save money and eliminate the negative impact on the planet at the same time.

The AES Engineering Ltd. Group operates from fully or majority owned subsidiaries in 44 countries. Our activities are almost always geared towards working on plants with maintenance, sometimes Production and Reliability Engineers, occasionally with Plant Managers and even more occasionally with Boards of Directors.

Most people would understand that if you have a hot process where you are trying to evaporate water out of the process, that it would be pretty silly to inject a lot of cold water into the process at the point at which you are trying to extract it. It is a fact, however, that all over the world there are applications in Pulp and Paper, Corn Wet Milling, the Sugar industry, the Drinks industry and many more where that is exactly what is happening. The case for a great Return on Investment, water and energy savings and a reduction or elimination of negative impact (more heat equals more CO_2) on the planet is very clear. It is just not clear to the people actually operating the process.

In Minerals and Mining full flow flush which for example is required for packed pumps on Tailings duties can inject up to 80 million US Gallons a year into the Tailings dam.

That is probably a bad idea in general, but is definitely worse in an area of water scarcity and even today projects are specifying or accepting packed pumps that require full flow flush for many applications in Minerals and Mining. There is evidence that the pump suppliers would support the use of seals and water management systems, but there is even more evidence that project teams are often not asked to consider the total cost of ownership, never mind the impact on the environment and that they are incentivised for bringing the project in at the lowest possible cost. Unfortunately the losers are plant operators and maintenance people and the impact on our planet.

In Petrochemical there is widespread use of Plan 21, which is the cold injection of large volumes of product into a hot process which then has to be heated up again to the process temperature. There is a pretty obvious waste of energy in addition to emissions as a result, but it is not obvious to the people operating the business and it is not on the top of the agenda of the Leaders, Executives and Non-Executive Directors of the Global Corporation that do not even know that these processes are both unnecessary and damaging to the environment.

I repeat myself, but it is pretty obvious that if you can save water and energy and get a Return on Investment through improvement in productivity and also be a more attractive employer particularly for the next generation, that you should make it a priority.

The Board of AES Engineering Ltd. has therefore unanimously agreed to put a policy in place which reflects what we have already been doing.

A copy of the policy is available. (See link: https://www.aesseal.com/en/resources/industry-guides/policy-prevent-global-warming).

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The Health, Safety and Welfare of all the stakeholders in our Group is the primary concern of the Board of AES Engineering Ltd.

The Group has consistently put sustainability projects first for capital investment and has now decided to debate and publish an investment policy to prevent global warming through technological change and investment decisions.

- Any sustainability project will be given priority over other capital investment with a similar Return on Investment.
- Any sustainability project with a reasonable chance of getting a Return on Investment of 3 years or less, should be brought to the attention of the AES Engineering Ltd. Board
- A written decision on any such project is mandatory within 3 months of project submission.
- All global business heads have local spending authority. Any sustainability project with a higher value should be immediately referred to the Board of AES Engineering Ltd.
- As a Board we undertake to use our personal and corporate presence to influence policy makers to legislate the requirement for such a policy for all businesses with more than 250 co-workers.
- Current or potential supplier input is welcomed, including their use of the global hotline where necessary.

The Board of AES Engineering Ltd. encourages the use of the global "hotline" on 0800-374199 or by email on aessealhotline@expolink.co.uk to assist with the discreet implementation of this policy where necessary.

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Managing Director

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The policy is copyright free and any or all of it can be adopted at will by any organisation.

As a Board we intend to use reasonable endeavours to try and ensure that such a policy is adopted by all Boards of Directors of businesses with more than 250 employees. We acknowledge that in some cases a 10 year Return on Investment might be acceptable for some businesses and in others they may only be able to accept a Return on Investment of 1 year or less.

The intention of the policy is to ensure that there is a direct line of communication between the Leaders of a business, those who operate it and the suppliers to an organisation and it provides a discreet opportunity for the Board of AES Engineering Ltd. to do the right thing, through providing a mechanisation to be notified that there is an opportunity for improvement that would also be good for our planet.

As organisations we will lose our social right to operate if we do not do more for the planet.

The AES Engineering Ltd. Investment policy to “prevent Global Warming” is a business friendly policy intended to encourage all stakeholders in any organisation to bring sustainability projects, that match the stated aim of that organisation’s policy, to the attention of the right people.

Ref:

1) IPCC special report, 2018
2) NASA – Global Climate Change
3) Six degrees – our life on a hotter planet” – Mark Lynas