



# Zero-Carbons The Options

We do not oppose green energy, contrary to popular belief, but would argue instead that each and every energy type must be looked at and assessed on an individual basis before so blindly forging ahead with production. Had this had been done from the beginning we believe the utter chaos we have today would never have occurred. **The industry could so easily have built prototypes of each system, gone through all the pitfalls with degrees of honesty and integrity, and from there they could have truly sorted out the world climatic and pollution problems. Instead of the decades of deceptions and cover-ups which were happening from day one.** Solutions which could've been widely embraced instead of shunned as they are now. The green-lobbyists however were so keen to get their agendas out there by any means they could that this simply never happened.

Given below, and long overdue in my view, is a more or less complete list of the various zero-carbon energy sources. **Those with genuine ecologically safe credentials have been marked with a green asterisk, with increasing numbers of them depending on the safety and viability of each type, and those considered unacceptably dangerous have been marked with reds.** We have taken on board what many have said and have written what I believe to be a reasonable account.

**\*\*\* WIND POWER:** ADVANTAGES; there aren't many it has to be said. Off-shore excludes fishing vessels thus improving habitat for local sealife but this is far outweighed by the all too obvious problems they cause. **DISADVANTAGES; deaths of birds, bats and endangered insects, and the ruination of landscapes.** Infra sound noise is also a serious and well documented problem with off-shore installations possibly implicated with Cetacean beachings.

Overall it has become all too apparent, at least to the few, what an absolutely hideous concept it has become, most however are still so blissfully unaware as to the true and detrimental effects wind is having on the ecology. Governments, various organisations and the media are all involving themselves in a veil of silence and there seems to be no correlation, other than some passing thoughts, that wind-farms are any threat at all. But the real fact is there is a fatal attraction of all things flying from the tiniest of insects to largest of birds.

Trouble arises when a bird or a bat flies into the vicinity of an installation, which it will do some time in its life, there are now so many of them everywhere. They become transfixed to the point of being mesmerised by the blades going around and around and around. They then fly towards these blades, seeing them as objects of play, completely unaware of the dangers ahead. The insect swarms are a further draw for hirundines and bats, which are known to move great distances between one site to the next looking for a good meal, raptors are also drawn in further by the corpses littering the sites. It must be remembered too that this is the first time in the entire history of the planet species have had to negotiate anything like this. They simply didn't evolve, strange as it may seem, with wind-farms all over the place.

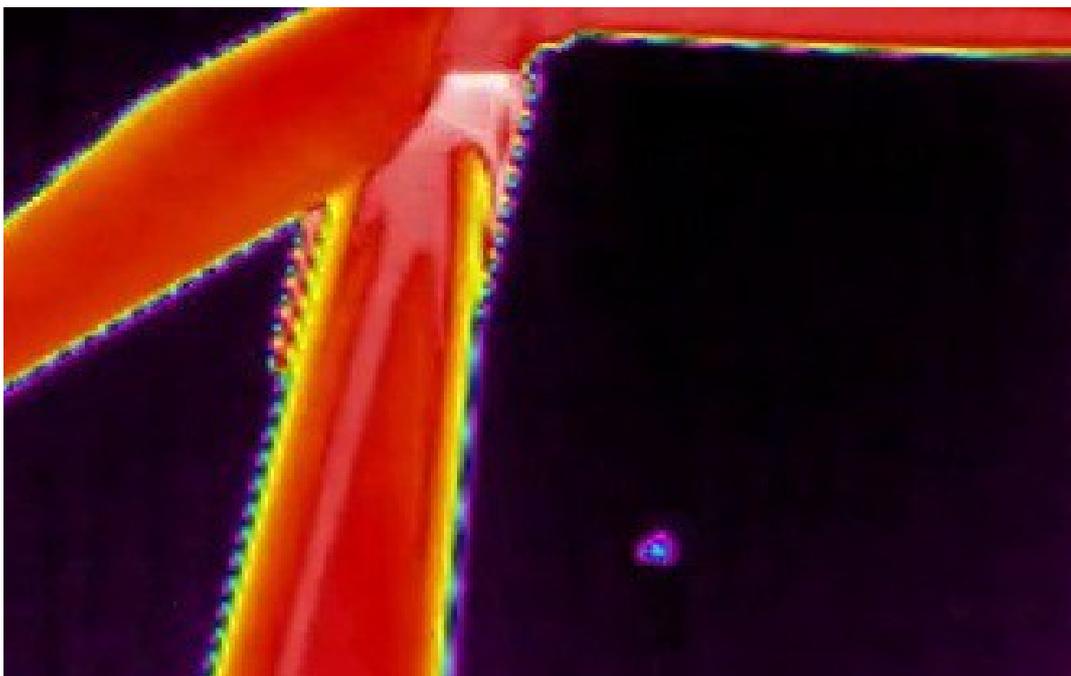
At the moment they are relatively thinly spaced on the ground, but it doesn't take too much imagination to realise what the consequences might be as more and more are built, and there are plans for a great many more in some people's agendas. It seems to many that if they'd wanted to create something that would endanger birds more they couldn't have designed anything better. Three clonking great murderous prongs traveling at over 100mph at the tips with more than adequate room for birds and bats to fly between them.

You would think the green-lobbyists like FoE., Greenpeace, WWF. and the RSPB. on realising these faults would at least be interested in modifying the designs a tad but in my experience the only things they seemed to care about when contacting them was the expense and inconvenience it would cause.

**These are the precise moments after a vulture and a bat were fatally struck by turbine-blades, the links if you need to see the action are given below them. A more mindless way of producing zero-carbon energy is difficult to imagine.**



<http://www.youtube.com/watch?v=8NAAzBArYdw>



<http://www.epaw.org/multimedia.php?lang=es&article=b6>

## IF YOU DON'T LIKE THIS - CAMPAIGN FOR MORE OF THESE.

[https://static.wixstatic.com/ugd/74da12\\_9c84f0be69eb434196a39bf47bbd43f2.pdf?dn=Carnegie+Wave+Energy.pdf](https://static.wixstatic.com/ugd/74da12_9c84f0be69eb434196a39bf47bbd43f2.pdf?dn=Carnegie+Wave+Energy.pdf)

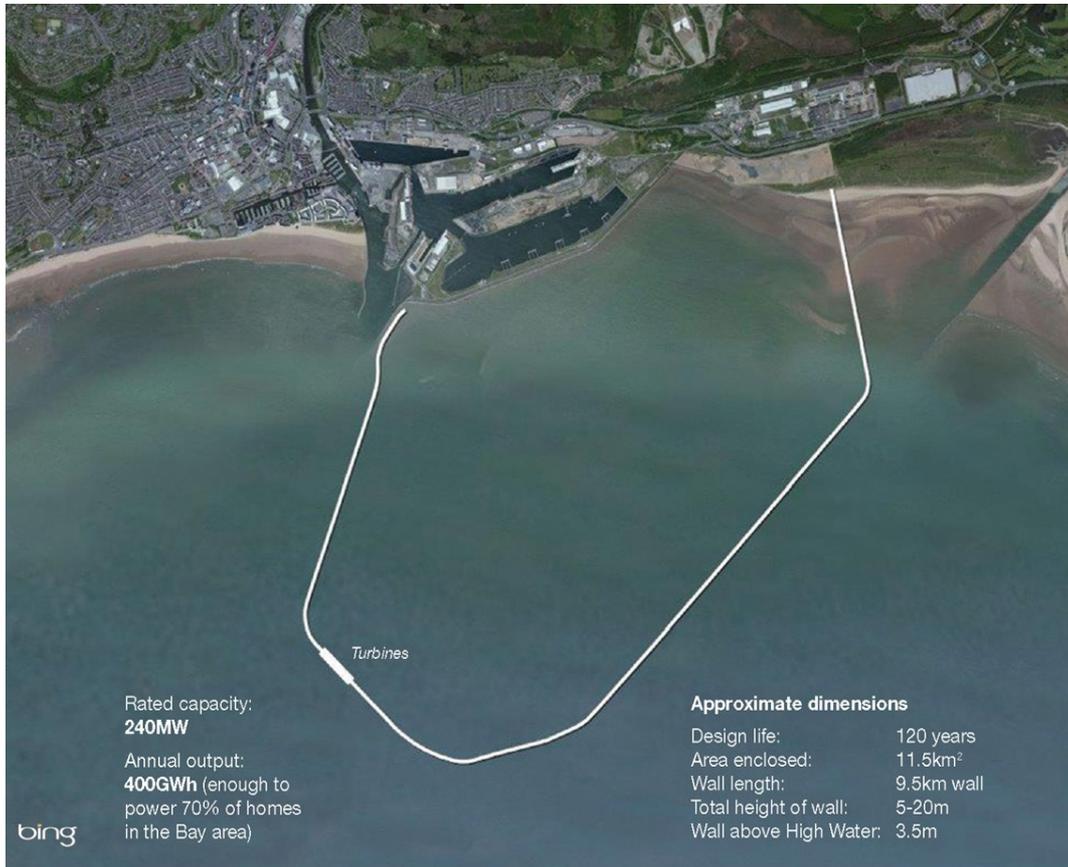
### TIDAL POWER:

There are two basic types we need to talk about here. Openly positioned turbines that produce electricity just the same with the ebb and flow of each tide, and lagoons that fill up and empty approximately twice a day producing electricity as they do.

There are obvious technical differences between tide and wind too. First, the velocity of tidal flows on any given estuary is absolutely predictable, which means there's none of the old uncertainty there is with wind, with gales blowing one day and calm the next. Second, wind machines commonly catch fire but sitting in their own coolant that could never happen. And third, water is around 800 times more viscous than air which means much shorter blades, just 6metre instead of 40-50metre, are required with a correspondingly slower blade-tip speeds. But we also believe machines could so easily be geared down to a blade-speed of just 16rpm instead of the regular 47rpm up to which is what they are at present and that this would indeed reduce many of the dangers.

**\*\*\* TIDAL POWER OPEN: ADVANTAGES;** if things were ever perfected I'm sure they could become valuable sources of green-energy. **DISADVANTAGES; the big problem we have with these open systems is the still unresolved issue of blade-speed, which is anything up to 47rpm, chopping up fish thus drawing in other species that also get chopped.** A much preferred rotation would be to have them all geared right down and reduced to just 16rpm, which with 6meter long blades, would be far more acceptable speed. **With small fish being chopped up, this then drawing in larger fish which also get chopped, sharks, seals and porpoises etc. all following in, allowing for a blood-bath to ensue. Smells in the sea take on a whole new meaning, drawing in sea-life from miles around, and we can only envisage the problems that would emerge if things were allowed to go unchecked.** And this is why we have given this a very cautious one green asterisk for an otherwise good way of producing energy until such time as things might ever be resolved. We would also suggest plant-based lubricants be used in the case of leaks.

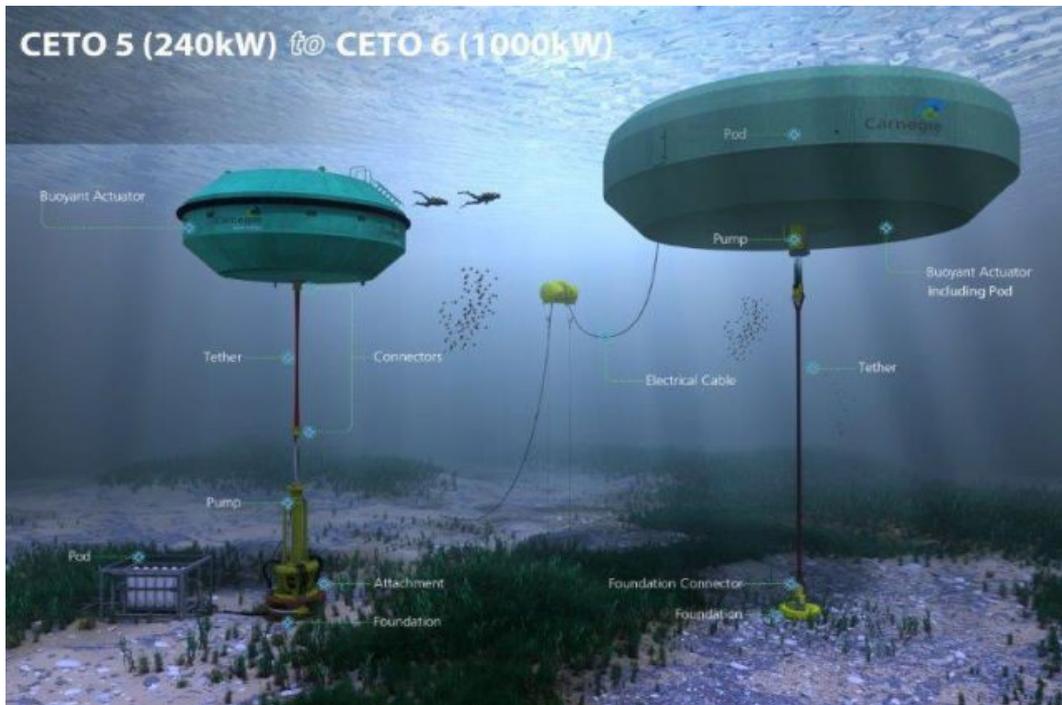
**\*\*\* TIDAL LAGOONS: ADVANTAGES;** debatable. **DISADVANTAGES;** these lagoons use huge amounts of local natural resources in their construction. The problem with all that rock they use has to come from somewhere and it could be argued that it would be better used for local housing. The blocking of Eel, Salmon and Trout migration routes could also be an issue although the designs I have looked at, at least in the UK., don't do this. The blades-speeds which can be anything up to 47rpm is obviously less detrimental than those operating in open systems but it's a thought still nonetheless worthy of consideration. And again would suggest plant-based lubricants be used in case of leaks.



**WAVE POWER:** There are various designs, many are open with potentially dangerous external mechanical parts moving about, but the model below is the one we prefer.

**\*\*\* WAVE POWER: ADVANTAGES;** what we really like about this particular design is that there are no dangerous external moving parts anywhere and unlike nearly every other system they have practically no impact on the landscapes either. And as an added bonus they keep fishing vessels out and therefore create habitat for sealife. Objects that move up and down with the waves below the water surface, making them less visible, far less prone to storm-damage and with no dangerous external turbine blades anywhere in the design this has to be one that's well worth a promotion. So long as important seascapes such as coral-reefs and whale migration routes are avoided **we have found this to be one of the best options for producing green-energy.** So much so they have our complete backing and are giving the company behind the project free advertising. **DISADVANTAGES;** within these drums there is a mechanism that creates an obvious potential for noise being generated which we don't believe to be insurmountable. We have also suggested that they might like to use plant-based lubricants in case of leaks.

When writing this paper we made it our duty to point out the advantages and disadvantages of each and every zero-carbon energy source. **It was never for us to slate the ones we didn't like, such as wind and concentrated solar, and then to gloss over any problems of the ones we did happen to favour.** To do this would put us into the self same sad league as all the other cover-uppers. In saying this we are simply pointing out a **potential for concern** and it would be very much amiss for us not to do this.



Within these drums and looking at the picture below we can see what the problem might be but just how bad it is we really don't know. In order to find out I guess someone would need to dive out to one of these things in a moderately choppy sea and listen for themselves. The green industries certainly can't be trusted to give straight answers, and if the wind's anything to go by, neither too can the conservationists.



All of this said however **this is still the most favourable energy-source we have found anywhere** and therefore intend to continue supporting it. **What we have is a mental drum with a wave driven rotating mechanism inside it and we don't believe it to be an insurmountable problem.** We would imagine it to be nowhere near as impactful as the noise generated by shipping but would still argue that if it can be reduced then it most certainly should be.

**If a latter design could be ribbed and padded out to lessen the drum-like quality and the base where it's bolted onto the drum were cushioned then this whole issue of noise could we believe be very much reduced.** And this assumes there's even a problem in the first place.

[https://static.wixstatic.com/ugd/74da12\\_9c84f0be69eb434196a39bf47bbd43f2.pdf?dn=Carnegie+Wave+Energy.pdf](https://static.wixstatic.com/ugd/74da12_9c84f0be69eb434196a39bf47bbd43f2.pdf?dn=Carnegie+Wave+Energy.pdf)

In addition to this by using them **in conjunction with Battery Storage systems**, an example is given in the link below, they would have even greater potential for producing much of the world's green-energy whilst causing a minimum amount of damage to the natural environment. Technologies are making ever increasing headways all the time and by combining these two, together with ironing out any problems along the way, we believe **they could be one of the most promising ways of powering our cities.**

[https://static.wixstatic.com/ugd/74da12\\_77127b44fc2c4e94bf93fd7c61185.pdf?dn=Renewables+and+Battery+Storage.pdf](https://static.wixstatic.com/ugd/74da12_77127b44fc2c4e94bf93fd7c61185.pdf?dn=Renewables+and+Battery+Storage.pdf)

**\*\*\* THE TAPPING OF SALT WATER AS A GREEN ENERGY SOURCE:**

**ADVANTAGES;** we really do not have a clue. **DISADVANTAGES;** and again we don't know. Stagecraft, Norway's national energy producer, is behind this idea. After 10 years of research and \$20 million USD invested, they'll be looking to an experimental plant to show that this technology is commercially viable. Not exactly being on great terms with Statkraft, owing to what we've said concerning their involvement with wind, they've never got back to us to discuss our enquiries further. As good an energy source as this might prove to be, I'd have serious doubts they'd come clean with any problems, they've certainly not done so in the past.

**\*\*\* HYDRO POWER-PLANTS:** **ADVANTAGES;** there may be some but things would need to be far better managed and policed than they are at present. **DISADVANTAGES;** you just need to view any of the footage below.

<http://www.youtube.com/watch?v=7cKFdsS7IVw>

**\*\*\* HYDRO DAMS:** **ADVANTAGES;** none. **DISADVANTAGES;** generally bad news. The Aswan Dam in Egypt swallowing up ancient ruins, thousands of hectares of rainforest now submerged in Amazonia, disruption to fish migration, lowering of downriver water-levels downstream, the list goes on.

**\*\*\* WATER MILLS:** **ADVANTAGES;** as long as they're sited away from sensitive areas, there's probably no problem. **DISADVANTAGES;** perhaps more research would be needed.

**SOLAR ENERGY:** There are two basic types here. Solar panels which heats up water and converts that heat into energy and the more ambitious design below that which uses mirror-lenses that heats water within a central column and then converts that in the same way.

**\*\*\* SOLAR PANELS: ADVANTAGES;** could without any doubt at all prevent much of the deforestation which is happening in the tropics where they currently use firewood for cooking etc. One of the most useful applications would be for each household around the Equatorial regions where every household could have their own personal solar panel installed.

**DISADVANTAGES;** they're are not exactly a great addition to the roofs of our village and townscapes. Large scale plants are having extremely detrimental effects on the pristine desert habitats where many of the facilities are being built.

**\*\*\* CONCENTRATED SOLAR POWER:** Systems that uses mirror-lenses which concentrates high density sunlight onto a central column generating temperatures of up to 1000°C for the purpose of heating water. **ADVANTAGES;** none. **DISADVANTAGES;** **the terrible consequence with these is that they incinerate birds and have been known to temporarily blind pilots.** Tall structures will always act as a magnet for birds seeing them as objects to fly around or to perch on. The light too may be attracting them.



A Concentrated Solar Power Plant with an array of mirror-lenses that heats water on a central column.

**IF YOU DON'T LIKE THIS - CAMPAIGN FOR MORE OF THESE.**

[https://static.wixstatic.com/ugd/74da12\\_9c84f0be69eb434196a39bf47bbd43f2.pdf?dn=Carnegie+Wave+Energy.pdf](https://static.wixstatic.com/ugd/74da12_9c84f0be69eb434196a39bf47bbd43f2.pdf?dn=Carnegie+Wave+Energy.pdf)



The Central Column where water is heated up to 1000°C .



Resulting in birds being badly singed as they fly through the rays.

**\*\*\* NUCLEAR POWER: ADVANTAGES;** debatable.

The industry does not have an overly great track-record when it comes to safety and all of this as far as I can see was down to poor decision making. From the routine discharging of plutonium at the Sellafield plant back in the 80s to the plain neglectfulness of Chernobyl. And then there's the veritable cluster of plants that were built all along the Fukushima coast, on an earthquake belt and right in the pathway of any tsunami that was very likely to hit at some time or another. **DISADVANTAGES;** the one big issue for me, apart from all of this history, is one of storage. Where the hell do you keep the ever increasing expanse of waste for up to thousands of years later?

**\*\*\* GEOTHERMAL ENERGY: ADVANTAGES;** an extremely ecologically safe energy source but obviously only appropriate where the geology allows it. **DISADVANTAGES;** none.

**\*\*\* BIOFUEL:** The way things are done at the moment, clearing forests to grow soya for example, it is a pure myth that there are any benefits at all. **ADVANTAGES;** I did have this idea of growing Oil Palm in Central Western Africa where this palm grows on its native home-soil. The object was to create some natural habitat, using native trees far removed from the manicured and regimented rows of monocultures so commonly associated with the standard plantations of S.E. Asia (see Plant Forests and Make a Fortune). **DISADVANTAGES;** currently an extremely wasteful land-hungry way of producing power with transportation being an added problem.

**\*\*\* FUEL EFFICIENCY:** **ADVANTAGES;** has everything going for it. Just by turning off of unneeded office and street lights, using low-energy appliances and fittings etc., excluding mercury filled light bulbs of course, ie. just not wasting it. **DISADVANTAGES;** none.

**\*\*\* CARBON STORAGE:** **ADVANTAGES;** this too has everything going for it. By massively increasing the forest acreage from which we have at present we could literally store huge amounts of carbon. Something incidentally that could so easily be achieved, see Plant Forests and Make a Fortune in the link below. **DISADVANTAGES;** none.

[https://static.wixstatic.com/ugd/74da12\\_9974d0c1e3c84d4bbcdac45fb732ea87.pdf?dn=TRF+1-31.pdf](https://static.wixstatic.com/ugd/74da12_9974d0c1e3c84d4bbcdac45fb732ea87.pdf?dn=TRF+1-31.pdf)

### **Key:**

**\*\*\*** Absolute horror shows.

**\*\*\*** Currently dangerous but where we believe modifications could be made.

**\*\*\*** Safe and very acceptable ways of being zero-carbon.

**In this link, by contrast, the Global Federation For Sustainable Development quite clearly do not care about the consequences of anything they are pushing forward. And this is the kind of stuff most governments embrace without a second thought.**

[http://cep.lse.ac.uk/pubs/download/special/Global\\_Apollo\\_Programme\\_Report.pdf](http://cep.lse.ac.uk/pubs/download/special/Global_Apollo_Programme_Report.pdf)

We will continue to update this paper as and when more information comes to light. Please do let us know what you think, many of the best ideas came from members writing in. If anyone has anything to at all to add then please drop me a line. We need positive ideas and no knit-picking over trivialities.

In the meantime we are up against the might of this Global Federation For Sustainable Development, the various energy industries as well as all of those conservationists like WWF., RSPB., FoE. and Greenpeace etc. Those who are all calling for more and more and yet more wind-farms or concentrated solar even with all the murderous consequences and increasing threats they will inevitably bring.

Green-energy in its truest regards is what is needed. There's enough opposition against these murderous technologies and so **let's do everything we can to steer things into the right direction, let us save the planet and get the best possible deal we can for our wildlife.**

**Details of other campaigns please visit:** <http://cates1980.wix.com/cateswebsite#!projects/c10d6>

**GREEN ENERGY, IF THE INDUSTRY WERE TO PUT THE GOOD OF THE PLANET  
AHEAD OF PERSONAL AMBITION, THINGS COULD BE MUCH IMPROVED**