

Don't rule out wind completely



Routine unloading of cement products close to the grain silo at Laboratory Wharf in the Grand Harbour. Why has this issue died down when contamination of the food chain is still a prospect?

The grapevine has it that government has completely discounted wind power, especially of the offshore type, and is instead favouring solar power. The Malta Environment and Planning Authority is drafting a policy on solar farms which is expected to be eventually entrenched in the National Renewable Energy Action Plan (NREAP).

The proposed offshore wind facility at Sikka I-Bajda was shot down by environmentalists and by Alternattiva Demokratika as early as 2009, mainly because it would interfere with avifauna and the Ghadira nature reserve. Others pointed to its visual impact and the delicate geology of the seabed on site.

The virtues of an 'energy mix' are extolled by all and sundry in this day and age. For instance, citing from the website of EDF Energy, one of the largest suppliers of electricity in the UK: "No single energy source holds the solution to the energy gap the UK is potentially facing. Each individual energy source has advantages and disadvantages. In a diverse energy mix – encompassing renewables, nuclear power and fossil fuel plants fitted with carbon capture and storage technology – the advantages of one energy source can help make up for the disadvantages of another."

Wind, along with solar power and energy from biomass (waste), should form an integral part of such an energy mix, especially considering the fact that technological advances have come of age in recent years. For instance, the 2.3 MW Hywind system in water 220 metres deep off the western coast of Norway is the first full-scale floating wind turbine in the world, being tested for over two years and delivering electricity to the grid since September 2009.

Last autumn, following a number of recorded high-profile avian casualties concerning wind turbines, Scottish Natural Heritage (SNH) created an e-mail hotline to record 'blade on bird' strikes. Nine months on it seems no reports have been lodged with the SNH since then, which obviously does not mean that no birds were killed as a result of wind turbines since most bird strikes happen out of sight.

US figures suggest that close to a million birds are killed every year flying into windows and a further 250 million from contact with power lines and with pesticides. Wind turbines rank further down, with around 250,000 birds taken down annually. The Royal Society for the Protection of Birds in the UK only objects to six per cent of the current wind farms on stream.

The upshot is that wind farms do have an impact on birds but it can be mitigated, and substantial planning gain for bird habitat restoration projects can be accessed to through such projects, such as what happened at Whitelee outside Glasgow.

Does wind power actually save on carbon when one factors in the carbon that goes in building and installing the turbines, especially when one considers that concrete and steel, both found in wind turbines, are two of the most energy-intensive and carbon-heavy materials, and that they need ships and trucks to ferry them around?

Some people have done the maths already. For instance, the UK Committee on Climate Change estimates that, when one adds up everything from design to disposal, wind turbines emit six to nine grams of carbon dioxide for every kilowatt generated per hour. Although this figure does not factor in the energy needed to build the grid to reach the wind turbines or to operate generators when the wind does not blow, it is still much lower than the 50grams/kWh ramped up by solar power or by the staggering 370g/kWh of a gas power station.

Lidl's love for ODZ

Lidl seems to have learned nothing from the tumultuous development of its supermarket in Safi in an Outside Development Zone (ODZ) a few years ago, when the entire Mepa board resigned en masse after it had decided to give the development the green light. Rather than dissociating itself from any further ODZ development to try cultivate its green credentials, Lidl has pressed for the approval of a playing area, including a wooden 3.8-metre-high playhouse, in an ODZ area adjacent to its supermarket in Xewkija.

Wind energy: 6-9 grams

Solar power: 50 grams

Gas power station: 370 grams

– *Emissions of carbon dioxide per kilowatt generated per hour*

The irony is that the developers of the Lidl supermarket in Xewkija had sited 30 per cent of their development on ODZ land, but later scaled it down and incorporated it entirely in existing development boundaries in order to placate environmentalists and to get approved. Once the dust had settled, a fresh application for a parcel of ODZ land to house a playing area was submitted and it has now been approved, illustrating how the resolve of applicants and developers pays off at the end.

The Mepa case officer of the latest application stuck to his guns and when recommended refusal of the playing area, underscoring the fact that it would take up ODZ land. But Mepa quashed the objection on the grounds that this was a reversible development and that the site would remain open with no formal construction.

Is there no stopping rock buns?

Last June in this column I had written about the problem of the proximity between the cement and grain silos at Laboratory Wharf, Corradino, which raised the spectre of contamination of the food chain by toxic components that are found in cement, concerns which were first flagged by Flimkien għal Ambjent Aħjar in 2013 after the cement silo was built without even the filing of a development application.

The cement silo operators applied for an environmental permit in October 2013 which Mepa duly issued in March 2014, when the authority's board was allegedly informed that the risks were minimal, contrary to the findings of two risk assessment commissioned separately by the grain and cement silo operators.

Six months down the line, the unloading of cement continues, literally a stone's throw away from stored grain, most probably because Mepa is wary of getting embroiled in a lengthy and expensive legal tussle with the cement silo operators who are emboldened with the permit they have in hand. The possible contamination of the food chain is so serious that the issue should remain in the headlines and not be allowed to fizzle away.

Ocean literacy

Two weeks ago I took part in the 2nd European Marine Science Educators Association (EMSEA) conference in Gothenburg, Sweden.

EMSEA serves as a nexus between scientists and educators in formulating innovative and motivating ways to teach students about the sea, in a global movement known as ocean literacy, which started in the US in 1976 with the foundation of the National Marine Educators Association (NMEA).

In the US, for example, students are paired with research scientists in summer to follow their work; scientists are invited to deliver talks on particular fish species they are working on, followed by a dinner with the same fish cooked by local chefs, in what are very popular events.

There are many ways in which students can be inspired to think about marine science concepts and be inspired about the sea, and one doesn't need to break the bank to do so. At EMSEA a number of demonstrations vividly showed how this can be done. For details about the conference visit the website below.

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