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The offshore wind energy nano-industry

ABSTRACT. Wind speeds offshore are higher than onshore, hence the development of offshore wind energy is superficially attractive. But it comes at a price. All the seabed foundations, subsea cabling and offshore substations add significant cost but no value. And the small and fragmented nature of the offshore wind “industry” mitigates against it ever achieving the “rhythm and flow” productivity any industry needs—and which the onshore wind energy industry has—to be cost-effective. Far from developing the largest wind turbine they can, as the wind turbine companies are being urged to do for offshore use, the wind energy industry itself is developing larger and aerodynamically more advanced rotors for its existing “workhorse” turbine designs to utilize lower wind speed sites on land economically, thus extending the reach of the already costeffective established heartland of the wind industry.

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