Small wind turbines – more for residential use

* Size – average height of 80 ft (24 metres) ranges from 30 – 140 ft depending how windy the place is so height matters. Blades size are 3 -5 metres so 6 – 10 metre in diameter
* Power – can generate up to 400 – 20k watt of power
* Survival speed or maximum speed – 40 m/s or 90 mph
* Cost – Depending on how much power is required for the wind turbine to generate but for a 2.5kW system - £10-20k and for a 6kW system - £21-30k

Average wind turbines - onshore

* Size – average height of 246 ft (74 metres) ranges to 410 ft (125 metres). Blade length of 50-100 metres so 100-200 metres in diameter
* Power – can generate up to 2.5 – 3 MW of power
* Survival speed – 60 - 72 m/s or 134 – 161 mph

Industrial wind turbines

* Size – average height of 328 ft (100 metres) ranges to 450 ft (137 metres). Blade length of 70 – 130 metres so diameter of 140 – 260 metres
* Power – can generate 3+ MW of power
* Survival speed - ???

Most wind turbines have an automatic shutdown speed if wind speed gets too high, the blades begin to feather, or point into the wind to reduce their surface area – so it could survive the area’s storm

From case study, the area can generate a constant wind speed of 19 – 21 mph each day (on land).

There’s already 2 windfarms near Talara which is 15-20 km away from Lobitos – not sure if this bit of information helps or can somewhat relate.

Small wind turbines will be the one we will have to look at if we choose wind energy as the other two wind turbines are mad expensive. The onshore and industrial wind turbines are included for comparisons purposes.