CLAIMS

[Claim 1] A wind power generating apparatus comprising:

a rotatable track rotatably mounted in an at least substantially horizontal plane;

a supporting track supporting the rotatable track;

at least one power generator associated with the rotatable track such that power from the power generator(s) is generated by rotation of the rotatable track;

a plurality of elongate aerofoil modules rotatably supported on the rotatable track, each of the aerofoil modules extending at least substantially laterally from the rotatable track, an angular position of each of the aerofoil modules about an elongate axis of the aerofoil module being independently controllable to thereby maximise a motive force applied to the aerofoil modules;

each said aerofoil module comprising a plurality of telescopic sections to allow for an extension and retraction in height of the aerofoil module; and at least one extendible side portion located on a side of the aerofoil module to allow an extension and retraction in width of the aerofoil module;

wherein the extension and retraction of the height and width of the aerofoil module is controllable depending on factors including wind speed and the speed of rotation of the rotatable track.

[Claim 2] The wind power generating apparatus according to claim 1, wherein each aerofoil module further comprises a sensor for detecting wind speed and direction, and a control mechanism for adjusting the angular position of the aerofoil module and the extension and retraction of the height and width of the aerofoil module, the sensor being adapted to send a wind speed and direction signals to the control mechanism.

[Claim 3] The wind power generating apparatus according to claim 2, wherein the sensor is located at an upper end of the aerofoil module, and the control mechanism is located around a shaft supporting the aerofoil module on the rotatable track.

[Claim 4] The wind power generating apparatus according to claim 1, wherein the

extendible side portions are located on both sides of the aerofoil module.

[Claim 5] The wind power generating apparatus according to any one of the preceding claims, wherein the generator comprises at least one linear generator located on the supporting track and adjacent an edge of the rotatable track, and at least one magnet supported on the rotatable track.

[Claim 6] The wind power generating apparatus according to claim 5, wherein the rotatable track is supported on the supporting track by a plurality of roller bearings.

[Claim 7] The wind power generating apparatus according to claim 6, wherein the supporting track comprises an inner peripheral lip upon which is supported the at least one linear generator, and an outer peripheral lip, with the plurality of roller bearings being provided between the rotatable track and the outer peripheral lip.

[Claim 8] A wind power generating apparatus according to any one of claims 1 to 4, wherein the generator comprises a rotary generator.

[Claim 9] A wind power generating apparatus according to any one of the preceding claims, wherein the supporting track is installable on a floating or fixed platform.