CLAIMS

1. Electricity generation system (100), comprising:
at least one electricity generation device (20, 20´) being removably fixed to a mounting device (10) formed as a floating body or as a fixed infrastructure by means of a retaining device (14, 14´, 15, 15´), wherein the electricity generation device (20, 20´) is bidirectionally symmetric and comprises a hydrokinetic turbine being functionally connected to a generator (24), wherein the generator (24) comprises a helical gearbox, wherein the generator (24) is a permanent magnet synchronous motor, wherein the generator (24) comprises an incremental encoder, wherein a rotation of the generator (24) is monitorable by a signal generated from the incremental encoder, wherein electrical energy is conductable via a power line (15, 15´) being guided from the generator (24) via an outside of the mounting device (10), wherein the electrical energy is conductable from the mounting device (10) to a power station (50), wherein nose and tail cones (20a, 20b, 20a´, 20b´) are coated by at least two layered bio fouling coatings, wherein blades (21a…21n, 21a´…21n´) of the hydrokinetic turbine are sensitive to a bi-directional water flow (A, B), wherein a power line entry point (27, 27´) is arranged at a top of an enclosure (25, 25´), wherein the electricity generation device (20, 20´) comprises a control panel (30), wherein the electricity generation system (100) is functionally connectable to the web (40).

2. Electricity generation system (100) according to claim 1, wherein the mounting device (10) is a bridge.

3. Electricity generation system (100) according to claim 1, wherein the floating body is one of the following: barge, catamaran, mooring platform, mobile platform, water craft.

4. Electricity generation system (100) according to claim 3, wherein the mounting device (10) is mountable to a railing (11) of the floating body.

5. Electricity generation system (100) according to claim 3 or 4, wherein the electricity generation device (20, 20´) is mountable to an opening (12, 12´) in a bottom plate of the floating body (10).

6. Electricity generation system (100) according to one of the preceding claims, wherein a material of the enclosure (25, 25´) of the electricity generation device (20, 20´) is at least one of the following: stainless steel, fiber-glass, fiber reinforced plastics.

7. Electricity generation system (100) according to one of the preceding claims, wherein a material of the blades (21a…21n, 21a´…21n´) comprises at least one of the following: Aluminum Alloy, Carbon Fiber, Glass reinforced plastics, recycled materials.

8. Electricity generation system (100) according to one of the preceding claims, wherein the hydrokinetic turbine is a water turbine.

9. Electricity generation device (20, 20´) being adapted to be removably fixed to a mounting device (10) in a form of a floating body (10) or a fixed infrastructure, wherein the electricity generation device (20, 20´) is bidirectionally symmetric and comprises a hydrokinetic turbine being functionally connected to a generator (24), wherein

the generator (24) comprises a helical gearbox, wherein the generator (24) is a permanent magnet synchronous motor, wherein the generator (24) comprises an incremental encoder, wherein a rotation of the generator (24) is monitorable by a signal generated from the incremental encoder.

10. Electricity generation device (20, 20´) according to claim 9, wherein the hydrokinetic turbine is a water turbine.