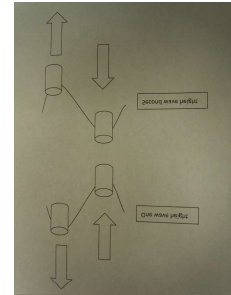


Tsunami Power & Electric Co. LLC. Slope Rider Ocean Wave Device
Submission Summary Slide

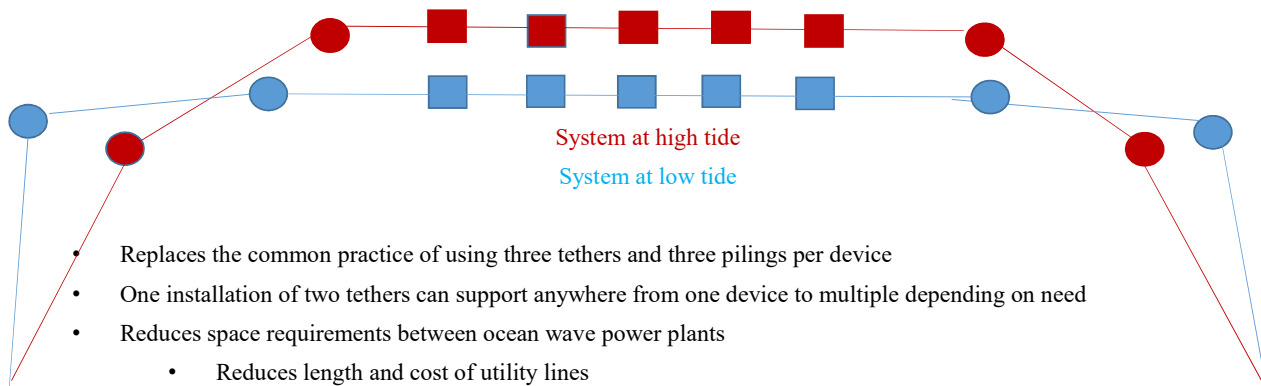
Tsunami Slope Rider Ocean Wave Device US Patent 9157413

- The up and down motion of the outside buoys can pump water similar to how a bicycle pump works.
- The buoys will move approximately two times the design wave height in relation to each other position as shown in the drawing to the right.
 The outside buoy will move up and down for movement of approximately one design wave height if waves are higher than the designed wave height. The buoy supporting the frame will move the frame an additional design wave height for approximately twice the movement.
- Able to operate while being towed



Tsunami Power Tether System Patent US10,309,367 CN106460775

- ■ power plants don't tilt (waves tend to tilt buoys that are anchored directly to the ocean floor)
- ● buoys support the weight of tether line – reduces vertical inertia & drag on power systems
- Tether line provides horizontal force to resist surfing down waves
- Tether line is kept under tension increasing life – prevents severe change in force (yanking tether from zero to full force)
- No twisting of Utility lines



- Replaces the common practice of using three tethers and three pilings per device
- One installation of two tethers can support anywhere from one device to multiple depending on need
- Reduces space requirements between ocean wave power plants
 - Reduces length and cost of utility lines

Porcupine Generator Patent Publication US 2019008581741

- Alternates layers of magnets (1793) and coils (1698b) in Fig. 19A
 - Magnetic force additive similar to series of batteries
 - Eliminates large open area of most generators (reduces size)
 - More compact generators at lower costs
 - High torque motors can be built
 - Great for large wind turbines, hydroelectric generators, and electric motors for vehicles
- Magnets drive current from both sides of coils
 - Better performance with less mass of rare earth magnets Greater power with same amount of magnets and in some applications Design may allow replacement of rare earth magnets with cheaper magnets
- Interfaces are flat versus circular in traditional motors
 - Allows Tighter tolerances, Reduces assembly costs, Less labor

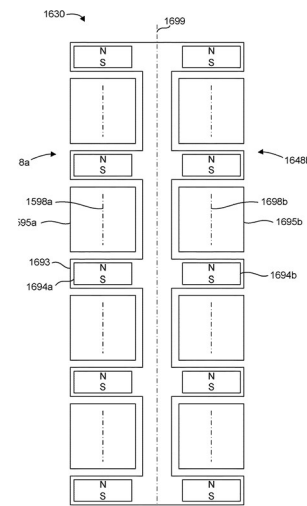


FIG. 19A

Utility Line Patent US 10,060,559

- Deployment
 - Floats on ocean surface, fill with water, sinks for operation, fill with air, float for removal or relocation