# Tsunami Power & Electric Co. LLC. Slope Rider Ocean Wave Device

# Tsunami Slope Rider Ocean Wave Device US Patent 9157413 https://youtu.be/J0sLLK5K\_eY

- The up and down motion of the outside buoys can pump water similar to a bicycle pump
- Able to operate while being towed

### Tsunami Power Tether System Patent US10,309,367 CN106460775

- power plants don't tilt like buoys that are anchored directly to ocean floor
- • buoys support the weight of tether line reduces vertical inertia & drag on devices
- Tether line provides horizontal force to resist surfing down waves
- Tether line is kept under tension increasing life preventing yanking tether from zero to full force
- No twisting of Utility lines

System at high tide System at low tide

- 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

## Porcupine Generator Patent Publication US 2019008581741

- Alternates layers of magnets and coils 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 traditional circular motors Allows Tighter tolerances, Reduces costs,

#### Utility Line Patent US 10,060,559

• Deployment -Floats on surface, sinks for operation, floats for removal or relocation

