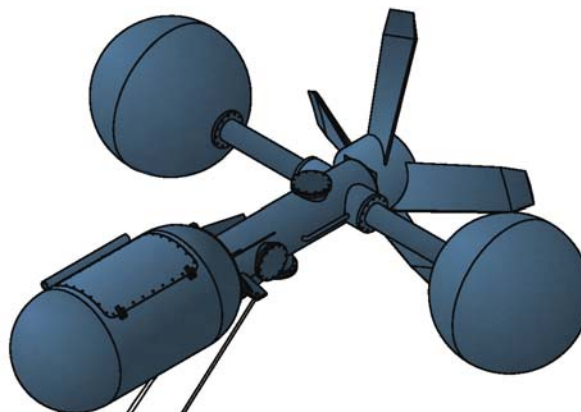


GPEA

GENERAL POWER ENGINEERING ASSOCIATES, INC.

PROPGEN



THE TECHNOLOGY

GPEA's PropGen is a new technology designed to harness clean, renewable, reliable energy from ocean tidal currents. The PropGen Demonstrator, as seen above, is an in-stream tidal generator composed of a single 25kW propeller mounted to a proprietary variable ballast system. This ballast system is a unique part of PropGen's technology that allows the unit to maintain level operation while tracking up and down in the water, or turning to face the reversing tidal flow. Unlike fixed or non-variable ballast in-stream tidal units, PropGen's vertical motion allows it to spend more time at optimal water velocity, which means it spends more time generating per tidal cycle.

These generating units are deployed in rivers or in tidal channels with fully reversing flow. Unless a PropGen unit is up for maintenance it operates unseen. Only a marker buoy is visible to alert fishermen or boaters to PropGen's presence. It operates at a depth such that boat traffic is unaffected, and can continue to operate below ice in winter months. PropGen is also safe for marine life since it generates with a low speed turbine.

CUSTOM DESIGN

PropGen units are designed for maximum efficiency in available water velocities and can be networked to increase output. Current prototype designs are for 200kW units with 1MW units planned. PropGen is available in single and double turbine designs. The number of units that can be installed at a given location is dependent on water velocities available and the physical dimensions of the channel.

ECONOMICAL CHOICE

- **Easy Installation:** PropGen replaces expensive and time consuming tower mounting with a less expensive cable mooring operation or anchor system.
- **Low Maintenance:** PropGen can be controlled from shore and called to the surface for maintenance. At site maintenance reduces downtime and maintenance costs.
- **High Efficiency:** Over fifty years of turbine engineering experience bears maximum efficiency turbines for the application.
- **Dependable Power:** Tidal Energy is a predictable and reliable source of energy.