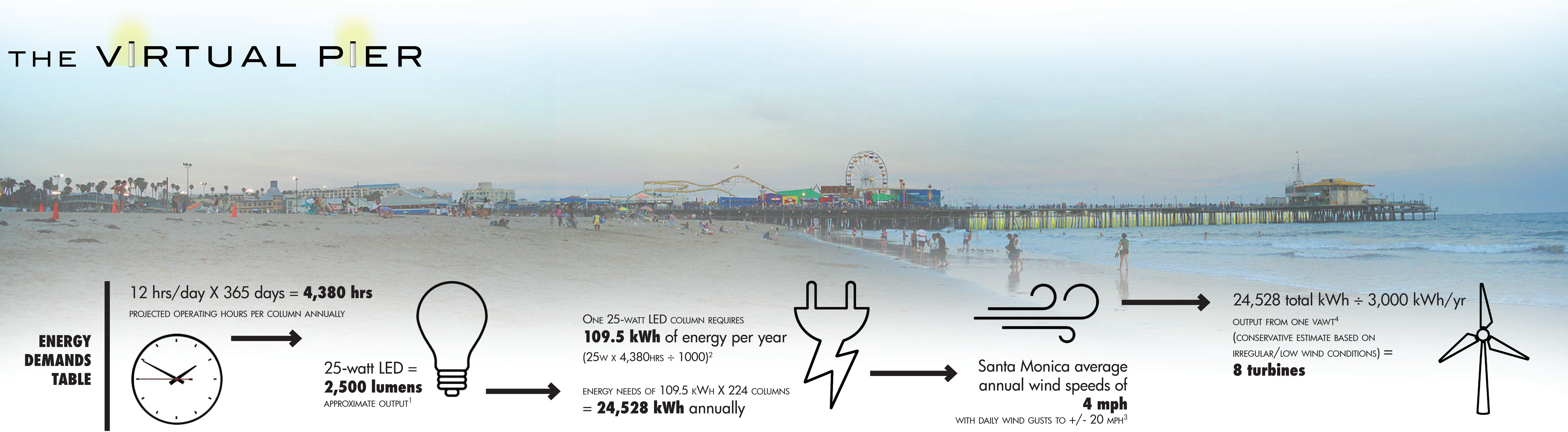
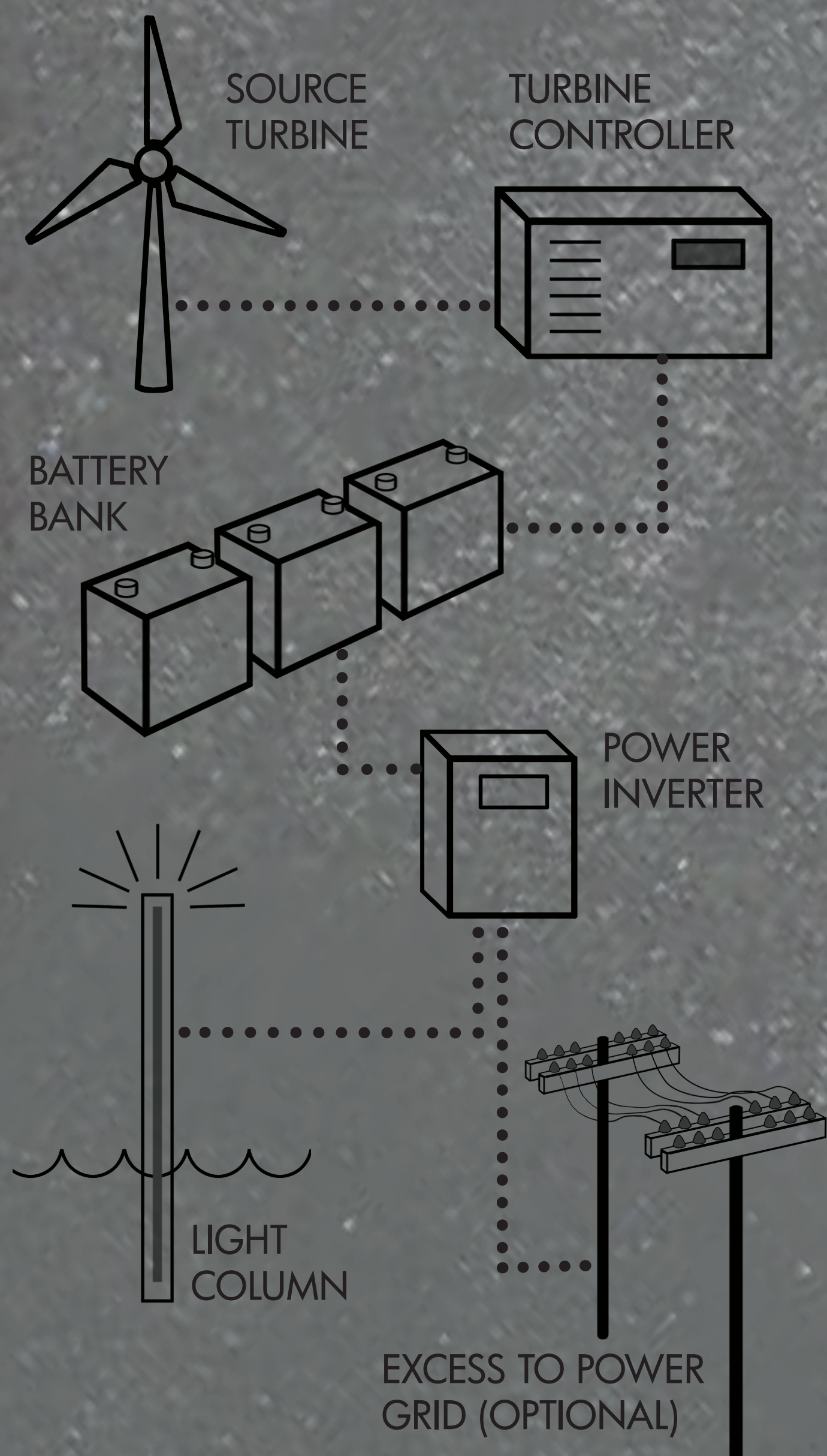


THE VIRTUAL PIER



ENERGY SEQUENCE



HOW IT WORKS: VAWT IS MORE EFFECTIVE THAN HORIZONTAL AXIS TECHNOLOGY IN IRREGULAR OR LOW-WIND CONDITIONS DUE TO ITS DARRIEUS TECHNOLOGY, WHICH FUNCTIONS REGARDLESS OF WIND DIRECTION. BECAUSE VAWTS OPERATE AT LOWER SPEEDS—AND SUBSEQUENTLY PRODUCE LESS ENERGY—THEY ARE RELATIVELY QUIET AND CONSIDERED SAFE FOR BIRDS AND BATS.⁵

ENERGY PRODUCED BY THE TURBINES IS REGULATED BY A CONTROLLER, THEN DIRECTED TO A BATTERY STORAGE BANK. FROM THERE, VOLTAGE TRANSFERS THROUGH AN INVERTER, WHICH IN TURN REDIRECTS AC POWER BACK TO THE LED LIGHT ARRAY. EXCESS ENERGY IS EITHER DUMPED OR TRANSFERRED TO THE POWER GRID. (THE VIRTUAL PIER IS DESIGNED TO BE SELF-SUSTAINING, WITH LITTLE EXCESS ENERGY PRODUCTION.) A WELL-VENTILATED CLOSET OR SECURE UTILITY ENCLOSURE IS REQUIRED TO HOUSE THE INVERTER, BATTERY STATION AND DMX CONTROL PANEL.



THE COMPOSITION: THE COLUMN LAYOUT ALIGNS WITH THE PLEASURE PIER PILES AND EXTENDS THE FULL LENGTH OF THE MUNICIPAL PIER. AT 20 FEET ON CENTER, THERE ARE 224 TRANSLUCENT, INTERNALLY LIT ACRYLIC COLUMNS. EIGHT VAWTS POWER THE DISPLAY, DEMONSTRATING THE POTENTIAL OF CLEAN ENERGY.

¹ www.njcleanenergy.com/residential/programs/energy-efficient-products/lighting

² www.energysavings.com/energy-consumption

³ www.wunderground.com/history/airport

⁴ www.windspireenergy.com/series-iv-windspire/windspire-1.8kw-wind-turbine

⁵ [www.geni.org/globalenergy/research/wind-turbine-technologies/Wind Turbine Technologies.pdf](http://www.geni.org/globalenergy/research/wind-turbine-technologies/Wind%20Turbine%20Technologies.pdf)