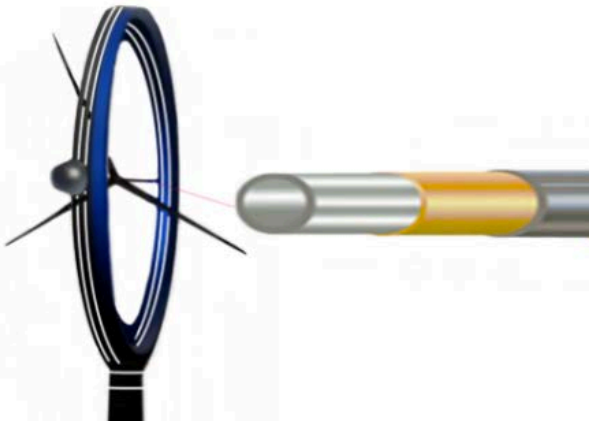
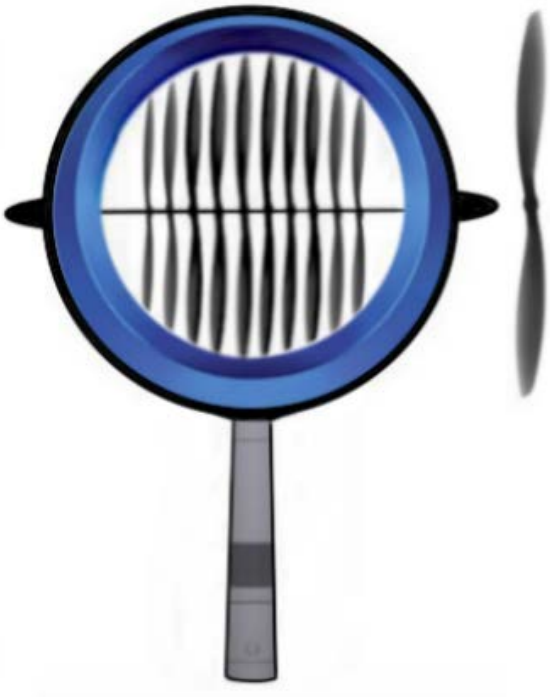
Helios One: II.

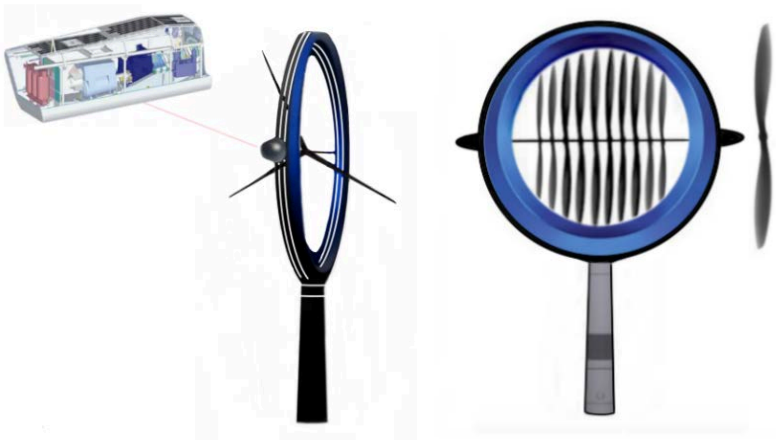
Prepared By: Quantum Corp.

Last weeks unveiling of the Helios One shook the marketplace quietly upsetting the one hundred billion dollar wind power market. Insider trading and the manic fit of value based hyper protectionism reached new highs. While competitively concerning for others, it is an asset to have leadership that has the ability to out innovate its peers no matter what the circumstance. Since last weeks first sketch of Helios One the design has evolved. The 30MW Helios One turbine model will have a multi-variable electrical system and drivetrain architecture. Helios One will deploy Variable 5 Active Yaw Control with the new Fluid Intuitive Satellite Autorotation (FISA) system. This new system will optimize Helios One's power generation. This technology is comparable to General Electrics Condition Monitoring System (CMS). Obviously what separates Helios One from General Electrics 3MW platform, and other competitors is its 30MW power generation. Helios One will use a five layer shaft with two sprites bound to each layer along the shaft. Here sprite is not your favorite soft drink, but a word that describes the three blade, and Quantum free standing rotor configuration in a shorter notation. Helios One will have two 15MW turbines operating ten sprites on five shafts. The proprietary multi-variable shaft design will allow Helios One to optimize energy production depending upon varying weather conditions to meet demand. Below is a image of what the shaft will roughly look like, but elongated across the diameter of the Helios One. The tapered Quantum shaft is aerodynamically engineered to maximize energy production reducing drag across Helios One. This optimizes the ten sprite five shaft configuration creating the torque necessary to drive each 15MW generator. The proprietary multi-variable shaft technology is the next link in the evolution of wind power. The problem was that current wind turbines do not conserve the natural landscape, and do not deliver enough power to justify the projects longevity. Here, we



break away from the traditional inception of wind power building upon Dyson's design, and through its reapplication we deliver a solution that is ten times more powerful that conserves the natural landscape. Helios One creates power by two modes of wind capture. 1. Side Capture, and 2. Center Capture. Side Capture is how wind is traditionally converted into energy through the turbine. Wind blows exerting force onto the blades, which turn the shaft, that powers the generator. However, when wind speeds become too strong traditionally power generation must stop to protect the integrity of the turbine. During periods of high wind velocity FISA on Helios One deploys Center Capture instead of shutting down, and locking the turbine. Helios One's Quantum blade pitch configuration adjusted by its FISA system optimizes this type of capture turning Helios One directly into the wind adjusting blade pitch. Center Capture is a completely new proprietary form wind power unique to Helios One. This reduces energy production downtime during extreme weather conditions providing steady load to the grid. No matter what the weather condition Helios One will deliver consistent performance optimizing power generation, and it also comes in white. The two 15MW generators sleekly fit into the two aerodynamic Quantum terminals. The five layer shaft turbine technology is proprietary, and will require a bit of gear ratio adjustment, but this modification isn't anticipated to be a great challenge. Also, to maximize Side Capture Helios One will also be outfitted with the latest Quantum





air flow technology that allows the wind to freely pass by the Quantum terminal with minimal drag maximizing the force exerted onto the blades. Wind power depends upon three main variables. The amount of air (volume), the speed of the air (velocity), and the mass of the air (density). When factoring these three variables along with kinetic energy, mass flow, and power coefficient Helios One stretches the Betz limit. Helios One is an exciting prospect for on and off shore wind farms. Wind turbine technology has developed and matured over the years and this technology now forms an increasingly important part of the electricity industry. Renewable energy is vital in our fight against climate change and technologies such as wind energy can help in building a sustainable electricity generation system for the future. When considering what the next step should be in the evolution of wind power clearly Helios One does some unique things that make it worthy of that type of consideration. Regardless, the Company is proud to have taken the next step in advancing the conversation around wind power, and is humble of such recognition. However, much work has yet to be done in bringing this project to fruition, and many details need to be worked through. The Company looks forward to future climate change events, and will work with event organizers to make sure Helios One inspires the young minds of tomorrow to take the next step in wind power generation. The Company encourages further transparent dialogue around Helios One allowing the wind power sector to find equilibrium through financial markets, and equilibrium within the natural beauty of mother nature.