

Title: Sustainable Communities Based on a New Clean Energy Source - Marine & Hydrokinetic Power: Roosevelt Island and Beyond

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Abstract: UN Secretary-General Ban Ki-moon, who in September launched an initiative to achieve universal and sustainable access to this vital resource, called Earth Hour “a symbol of our commitment to sustainable energy for all,” and underscored the need to “fuel our future with clean, efficient and affordable energy.” In March, he stated that “eradicating poverty around the world, while helping build a more sustainable future” begins with the nexus approach. The Secretary-General went on to say: “Food, water and energy security are inextricably linked and must be pursued together.”

Large amounts of energy are required to acquire and process water, and large amounts of water are needed to produce energy. Energy demand will increase by 150% during next 15 years. And, there is a critical need for reliable renewable energy supply, which is not keeping up with demand. If we want to meet our water and energy needs, a new approach is needed.

Verdant Power will deploy an array of 30 turbines in the East River at its Roosevelt Island Tidal Energy (RITE) site - the first permitted hydrokinetic farm in the U.S. Verdant envisions marine & hydrokinetic (MHK) power as the basis of a new local electric system that will not only meet a large fraction of base load electric needs but also allow electric ground transportation and water vessels to be recharged, water to be purified or even desalinated, and hydrogen to be separated as well as power the ideas we have not even thought of yet. We will provide an overview of the Verdant Power RITE site plans and its vision beyond Roosevelt Island. We are interested in identifying synergies not only with the Cornell NYC Tech campus on the island we will soon share as a home but even more importantly to engage the Ithaca campus on the broad array of issues that face MHK development, deployment, integration, management, environmental monitoring, and policy.