My project seeks to create an energy generating land art that is an aesthetic alternative to the typical fields of solar panels and wind mills. By channeling existing wind conditions through wind tunnels, my project will harvest micro-wind conditions to generate energy.

Turbines, located in the tunnel wall-section, are attached to generators and batteries that create and store energy. These wind turbines are designed to generate energy when wind is present—the minimal speed needed to generate electricity is the same wind speed needed for a flag to wave in the wind.

At maximum capacity, one turbine can generate 10kw per day. At 200 turbines per tunnel, that is 2000kw per day, 730,000kw per year, multiplied by the total number of wind tunnels onsite.

The site plan is a radial field condition. Once inside each individual tunnel, visitors can register the differences in wind direction and magnitude. These differences are registered in different energy outputs from different wind tunnels and therefore, the radial field site plan becomes an energy wind rose.

The field of wind tunnels provides an opportune setting from which to be inspired, with the stunning beauty of the reclaimed landscape and the dramatic backdrop of the Manhattan skyline. Furthermore, the spaces between the tunnels create intimate conditions on the more immense Freshkills site.

Precedents include tunnels that harvest wind from passing subway trains in Asia. The form of the Freshkills tunnel is carefully considered and engineered from biomorphic prototypes to maximize beauty and wind harvest on the land. The elevation of the tunnel varies in height as the section changes in width to funnel the wind into the wall section at faster speeds and pressures.

In addition, the tunnels are an inhabitable space that lead from the bottom of the hill, to the top of the hill, where a center is created—a center that is surrounded by wind tunnels, capturing wind from all directions. Once inside the tunnel, visitors are in a sky room.