

New York Pollinator Friendly Solar Program

Melissa Kemp
Director of Policy, Northeast

Scenic Hudson Conference
March 27, 2018

CYPRESS CREEK
RENEWABLES 

General Principles

General Principles

- We want to be the best land stewards possible and maximize the community benefit of solar and solar + storage facilities, while acknowledging the context of the larger climate emergency
- We support requiring construction best practices and decommissioning standards for solar and solar + storage facilities to ensure minimal site impacts
- Using those, we support the development of solar on farmland and previously disturbed lands.
- We also think there are additional opportunities to provide local community benefits, and one of these is through our Pollinator Program

Pollinator Program

Importance

- Pollinator populations – including bees, butterflies, and birds - are in decline in the United States due to environmental stressors, putting crop yields from flowering plants at risk.
- Pollinators provide an ecological service that is a requirement for more than 85% of the world's flowering plants
- Annually, around \$3 billion is generated in the United States due to native pollinators' services for over 100 crops. A large portion of New York's most high value fruits are completely dependent on pollinators, including apples, squash, pumpkins, tomatoes, strawberries, cherries, pears, etc, and these have a value of over \$400 million/year

Additional Benefits

- Co-locating pollinator friendly vegetation on solar farms can support and expand local pollinator populations by providing food and habitat for them. Those pollinators bring benefits to nearby agricultural activities by supporting crop yields.
- In addition, the presence and management of native plant species from the pollinator habitat, has been shown to:
 - Reduce storm water runoff and erosion by 8-23%, depending on storm severity and amount of rainfall. A diverse mix of plants have stronger hydrologic performance standards than turf-grasses and other monocropping practices
 - Improve soil quality during the solar farm's operation, as soils rest and rebuild while the deep-rooted plants add organic matter and fertile top soil.

Program Basics

- This program is focused on solar on or near farmland, but is also positive on other lands
- The program involves planting at least 20% of the site with a mix of diverse native plants that especially provide food and habitat for pollinators (and this can range up to 100% depending on the site's pre-existing conditions), and the rest of the site is planted with native clover, a low-growing pollinator-friendly plant.
- Seed mixes are chosen based on the nativity of the seeds to that ecoregion, as well as the blooming period. To have the highest pollinator value possible, we would like to have at least 2 species for each blooming period.

Program Basics (Continued)

- The seed mix underneath and between the arrays has a maximum height of 24 inches, whereas outside of the arrays, a rough height of 36 inches is desired.
- Integrated plant management techniques designed by botanists and other ecological scientists are used, site monitoring is conducted, and mowing is not required after year 2.
- These and other factors will be outlined on the site's pollinator friendly scorecard, developed at the Gund Institute for Environment at the University of Vermont, which provides criteria for how pollinator habitats can be evaluated.



Our Commitment to NY and Example Project

- To date we have agreed to use this program for 6 projects so far (18 MWdc), but we expect to make a larger announcement shortly about the use of this approach for our entire pipeline state-wide of 200 MWac in 2018-2019
- One of our first two projects to use the program is the Underhill Project – a 3MWdc/2MWac project in the Town of Poughkeepsie in Dutchess County, which was approved locally in January 2018.
- The Underhill Project's neighbor is The Plan Bee Farm Brewery, that produces 100% NYS ingredient beers and cultivates a wild yeast from our raw honey. Their beehives are central to the flavor and terroir of their natural beers, and the owners are excited about potentially expanding their apiary because of the pollinator friendly solar fields next door.

**Thanks and please feel free
to reach out with any
questions:**

melissa.kemp@ccrenew.com