Megawatt
Size Project

Melink Solar Canopy
At The Cincinnati Zoo & Botanical Garden
Cincinnati , Ohio

The Melink Corporation developed, integrated, and currently owns and operates a solar photovoltaic canopy for the Cincinnati Zoo & Botanical Garden to help them reduce operational costs and reduce their reliance on non-clean energy sources. Construction started in December 2010 and the system was commissioned in April 2011.

Located over the main parking lot on Vine Street in Cincinnati, Ohio, the canopy consists of 6,400 solar PV modules which contribute approximately 20% of the Zoo's total power needs. At 1.56 megawatts, it is the largest urban, publicly accessible, educational solar PV system in the nation. The project supports the revitalization plans of the Zoo's Uptown neighborhood, creating scholarships and jobs for the community.

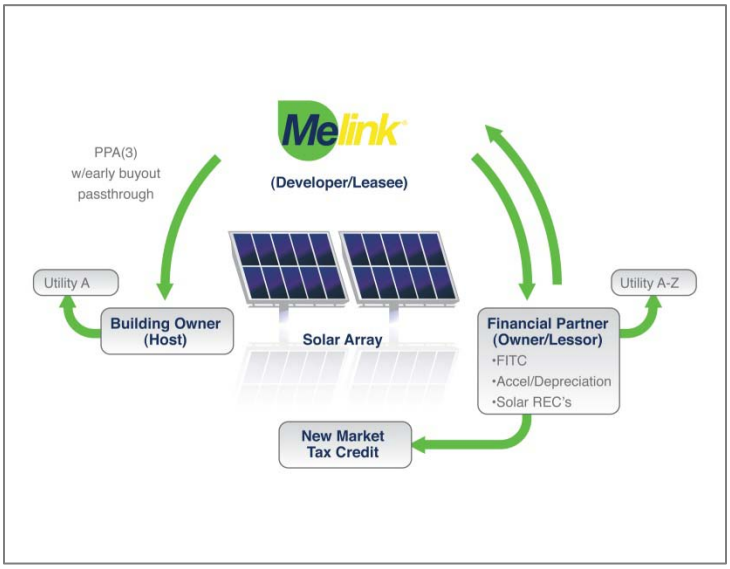
The solar canopy project allows the Zoo to reduce 1,775 tons of CO2 emissions annually by replacing coal fired power with clean solar energy. The canopy also reduces the heat-island effect the open asphalt parking lot area has on the surrounding area. As "The Greenest Zoo in America," this was exceptionally important to the Zoo.

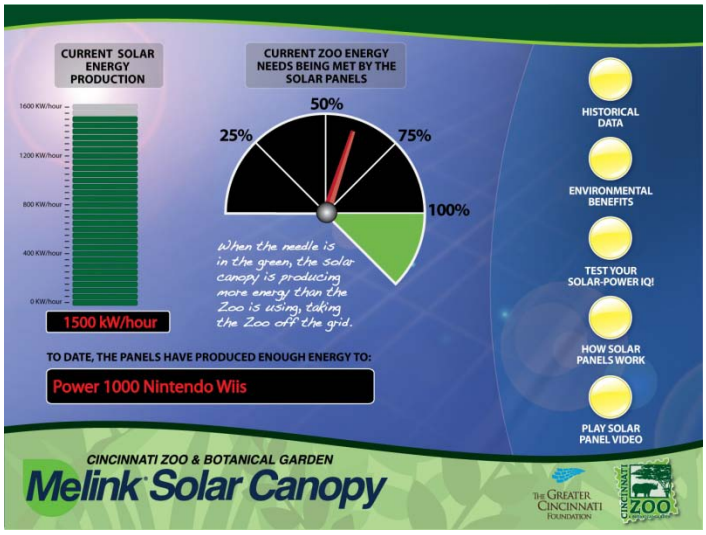
Also taken into consideration was how the overall structure fit with the Uptown neighborhood look and feel. Uptown appeals to residents who are interested in renovated structures but are concerned about their impact on the environment. Older homes are often updated with greener building choices and people walk or bike to work or school. The solar canopy contributes to the modernization of the community, keeping a low profile so not to overwhelm the current structures, and provides a green option for the Zoo's energy needs.

Cincinnati Zoo & Botanical Garden	
System Size	1.56MW
Annual AC Output	1,680,261kWh
Module Technology	Crytalline Silicon
Modules	6,384
Inverters	(2) 500kW, (1)250kW, (1) 100kw

As part of the revitalization effort, Melink granted three scholarships to Uptown Residents in 2011 to attend the Photovoltaic Installer Training Program offered through the Cincinnati State Workforce Development Program. In addition, one scholarship per year will be offered to Uptown residents from 2012 through 2018. Not only will these individuals gain valuable classroom experience on how to install PV systems, but be given an opportunity to work on the solar canopy at the Zoo as well as other solar PV projects in the area.

A Power Purchase Agreement (PPA) between Melink and the Zoo helps the Zoo hedge against future inflation in electric rates and the possibility of rate shocks, with no upfront capital required from the Zoo. In an era of declining public support for non-profits and budgetary constraints, the Zoo will experience $1.3M in savings over the 30 year life of the PV assets. This ensures the Zoo remains a thriving member of the community, continuing to provide more than 1,600 local jobs and 3,000 free and reduced-rate admissions annually to low-income children.





Working with the Zoo education staff, Melink designed an interactive educational kiosk overlooking the solar canopy as well as signage throughout the park that illustrates the technology and the benefits associated with the project. This, along with the solar canopy, serves as inspiration and motivation for the 1.3 million annual visitors to make a change in their daily energy routine.