

Chicago Botanic Gardens



Program Area:

Energy Program

County:

Cook

Grantee:

Chicago Botanic Gardens

Grant Date:

October 2007, November 2008, November 2013, November 2014, April 2015

Grant Amount:

767,051

Location:

Glencoe, IL 60022

The Chicago Botanic Garden is committed to sustainability with new building construction as well as its extensive native landscapes and natural areas. The Foundation has supported this dedication through Design and Commissioning grants as well Solar PV grants. The Daniel F. and Ada L. Rice Plant Conservation Science Center, supported by the Foundation,

was the first LEED Gold building at the Garden. The 38,000 sf building opened in September 2009 and cost \$27 million to build. One of the most unique features is a very large, 16,000 sf green roof that is open to the public. The perimeter overhang of the building was created with Foundation-supported solar photovoltaic (PV) panels producing a DC rating of 57.0 kW. The roof has educational signage discussing the PV panels as well as the native and ornamental vegetation planted on the roof to keep the building cool and retain water. Combining practical benefits with aesthetic appeal, the Science Center's two green roof gardens also provide an opportunity for research and education, serving as a living laboratory.

Next to the Plant Science Center is the in-progress Kris Jarantoski Campus, which includes new greenhouses, a headhouse, and nursery space. The nursery's construction, including two workstation pavilions, was the first aspect of the campus to be completed, including an 88 kW PV system on the roof. The PV system on the nursery is expected to produce 114,596 kWh per year and save \$11,964 in annual utility costs.

The newest addition to the Chicago Botanic Garden's LEED building portfolio is the Learning Center, which is a part of the Regenstein Learning Campus and achieved LEED Platinum. The Center supports the Garden's role as a learning institution that serves students of all ages, backgrounds, and abilities. The building includes a new nature preschool to expose children to the wonders of nature at a young age. The building achieved 90% daylighting through the use of sunscoops, developed with guidance from the Rocky Mountain Institute. The 21 kW roof-mounted PV system is expected to produce 16% of the building's energy usage. The high efficiency features reduced energy costs by 48.3% over a conventional classroom building. The windows contain a unique integrated frit from Ornilux that is barely visible to humans but prevents birds from accidentally crashing into the glass. The building has reduced potable water for outdoor usage by 50% through a rainwater catchment and storage system and has reduced indoor water usage by 30-40% through efficiency upgrades.