The U.S. Green Building Council has awarded DuPont Apollo's Shenzhen site with the Leadership in Energy and Environmental Design (LEED) Gold Certification for Existing Building, Operations, and Maintenance. DuPont Apollo is the first thin-film photovoltaic component manufacturing site to obtain this certification.

**Green Features and Sustainable Technologies**

**Energy Efficiency**

LED lamps and T8 daylight lamps are used, saving about 160,000 kilowatt hours (kWh) annually (compared to business as usual). Wet master humidifiers replaced electrical heating humidifiers to conserve over half a million kWh per year. In addition, all electrical appliances pass Energy Star and Electronic Product Environmental Assessment Tool (EPEAT) standards.

**Solar Roofing**

13,000 amorphous silicon thin film photovoltaic modules, produced onsite, cover 23,000 square meters of the facility’s rooftops. The installation generates 1.5 million kWh per year and saves nearly 1,480 tons of CO₂ emissions annually. The installation has a 1.33 megawatt peak (MWp) capacity.

**Advanced Humidifier**

The Heating, Ventilation, and Air Conditioning (HVAC) system utilizes an advanced humidifier system and the Facility Management Control System (FMCS) to operate green technologies and decrease overall energy use. It implements space heating/cooling methodologies, reduces water-related energy consumption, improves air quality through greater ventila-


### Local Sustainability

The facility aims to protect the local habitat by prioritizing environmentally friendly operations. To boost water efficiency, a greywater system is employed to recycle and irrigate wastewater. An Integrated Pest Management program is designed to ensure human safety while preserving the environment. A Landscape Management Program guides the facility's interaction with the surrounding ecosystem, such as protecting nearby land, reducing water and power consumption, and preventing air/water contamination.

### Other Environmental Measures

DuPont also arranges dormitories and free transportation for commuting employees as well as a recycling program to increase the site's sustainability. In addition, industrial chillers use R-123 refrigerants which, according to Lifecycle Direct Global Warming Potential (LCGWP) and Lifecycle Ozone Depletion Potential (LCODP) calculations, significantly contribute to reducing chlorofluorocarbons emissions and ozone depletion.

### Measurable Results

| Overall Solid Waste Reduction (from a business as usual baseline) | 50% |
|Ongoing Consumables | 50% |
|Durable Goods | 75% |
|Facility Alterations | 70% |
|Batteries | 80% |

#### Sustainable Procurement Practices

At least 60% of annual consumable materials and 80% of durable materials meet one of the following standards:

- Pre-consumer materials ≥ 20% and/or post-consumer materials ≥ 10%
- Rapidly renewable materials ≥ 50%
- Local materials extracted and processed within 500 miles ≥ 50%
- Forest Stewardship Council certified paper products ≥ 50%

The facility acquires raw materials from regional sources, and incorporates EnergyStar waste management.