Unicel Part of TeamMTL’s Green Residential Design Entry for 2018 Solar Decathlon China

Company contributes to fabrication and design of solar-powered roof

MONTREAL, CANADA – October 24, 2017 – Unicel Architectural, the leading manufacturer of vision and daylight control solutions, announced today its participation as part of TeamMTL for the 2018 Solar Decathlon China (SDC) competition in the city of Dezhou, Shandong province. SDC 2018 focuses on green residential design concepts and was formed with the U.S. Department of Energy, the National Energy Administration of the People’s Republic of China, and the China Overseas Development Association.

Sponsored by Hydro-Québec, the TeamMTL entry is a joint project led by students from both McGill and Concordia Universities. The house designed by TeamMTL for the 2018 competition employs both Building Integrated Photovoltaic (BIPV) and Building Integrated Photovoltaic with Thermal recovery (BIPV/T) roofs based on the students’ prototype design. BIPV is a smart energy production system that uses solar photovoltaic panels as part of roofs, windows, facades and shading devices. Unicel adapted its existing curtainwall and skylight technology to incorporate the BIPV and BIPV/T smart energy systems into the house roof. Roof panels were supplied by Canadian Solar.

“As long-time green building advocates, we are thrilled to be a part of TeamMTL’s state-of-the-art solar-powered house project,” said Samuel Doyon-Bissonnette, Director of Engineering at Unicel. “A traditional photovoltaic panel converts about 20 percent of the sun’s power to electricity - the rest being lost primarily through heat. With a BIPV/T system, you can reclaim some of that heat with an air channel behind the PV to heat the house, thereby recuperating up to 70 percent of the sun’s energy. Leveraging Unicel’s advanced curtainwall and skylight technology, the TeamMTL house features a BIPV/T front roof and a BIPV back roof that deliver high levels of thermal performance.”

The TeamMTL entry, called Deep Performance Dwelling (DPD), combines Montreal row-house design with traditional Chinese courtyard architecture influences. The SDC competition requires each team to design and build a two-story, Net Zero Energy capable, solar-powered house of 120 to 200 m² (1290 to 2150 ft²) size, equipped with all standard household appliances and capable of charging an electric vehicle. Each entry will be evaluated for cost feasibility, power efficiency, environment adaptability, power generation capacity and architectural quality.
TeamMTL will be competing against 21 other teams from 11 countries and 43 universities in designing and building the next generation of housing. The house was recently opened to the public and will later be disassembled and rebuilt in China.


About Unicel Architectural
For over 50 years, Unicel Architectural has built a reputation for the most advanced aluminum and glass solutions. These solutions encompass louvered glazing, skylights and more, to enhance major global construction initiatives with utmost quality and reliability. With its proprietary technology, Unicel’s award-winning Vision Control® delivers unprecedented comfort and control of vision, light, temperature and sound with a patented combination of louvers between glass that are hermetically sealed and cordless. Unicel’s solutions are guaranteed for longevity, optimized for energy efficiency, and customizable to any design, environmental or cultural requirements. Unicel combines its market leading know-how with great design to ensure optimal aesthetics and sustainable performance. For more information, visit: www.unicelarchitectural.com