



## American Geophysical Union Building

*Location:* Washington, D.C.

*Specifier:* Hickok Cole

*Application:* Integrated Lighting for Office & Conference Rooms

The American Geophysical Union (AGU) is a not-for-profit scientific society committed to the betterment of Earth and space science. Its headquarters underwent a complete transformation, becoming Washington D.C.'s first Net Zero energy commercial renovation. JLC-Tech is proud and honored to have its lighting products be an important part of this project.

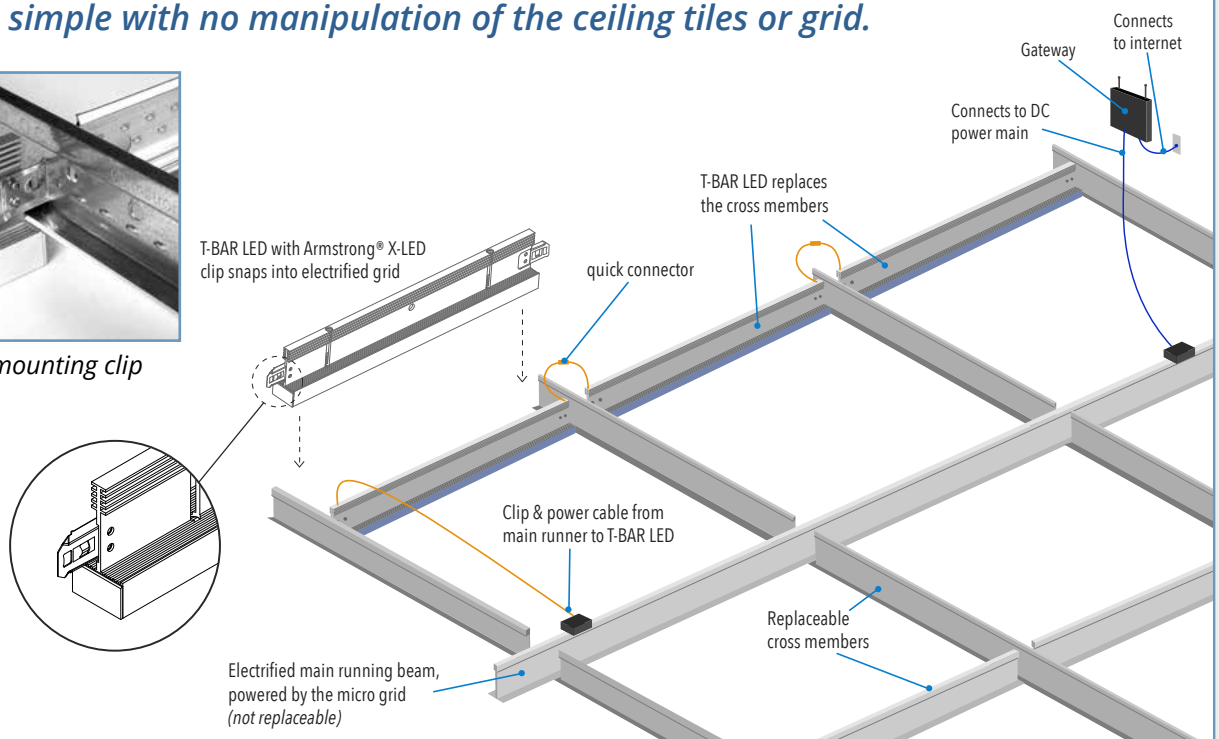
AGU's Net Zero capability stems from the solar photovoltaic (PV) array on top of the building. It includes 720 sun power solar panels making up a 250-kilowatt system. To limit the energy loss that normally occurs during DC to AC to DC power conversions that happen when powering electronics such as computers, appliances and LED lighting, (it is estimated that 5–20% of energy is lost when AC power is converted to DC power), AGU uses a DC to DC energy distribution micro grid. This PV array produces the electricity needed for the building to run autonomously. Within the building, the DC to DC energy distributed from the micro grid illuminates JLC-Tech's T-BAR LED lighting.

LED lighting has gained popularity due to its efficiency compared to AC-powered incandescent lighting. The T-BAR LED couples this feature with ease of installation! The T-BAR LED snaps right into the suspended ceiling grid, replacing the cross tees, saving on energy use, minimizing construction waste and reducing installation labor costs.

*Installation is simple with no manipulation of the ceiling tiles or grid.*



Armstrong® X-LED mounting clip with T-BAR LED®





*Minimize building materials and waste, save energy and reduce installation costs with JLC-Tech's lighting products.*

Because the lights occupy only the grid, the ceiling panels remain uninterrupted creating a uniform ceiling design and optimizing sound absorption and light reflectance. Due to the simplicity of the T-BAR LED and it being a low-voltage DC-powered light, it can be repositioned in the suspended ceiling during office renovations or for a new look.

The T-BAR LED and other lighting products by JLC-Tech work harmoniously with USBGC's new LEED pilot credit to achieve Net Zero goals. This pilot credit expands on the Optimize Energy Performance credit and encourages the use of creating integrated DC-powered systems. AGU is a perfect example of this integrated system, maximizing the benefits of a renewable energy DC-powered grid with easy to install, LEED supporting, efficient LED lighting.

*"The Hickok Cole design team was looking for an elegant, energy efficient lighting solution for the open office and conferencing spaces of the AGU headquarters renovation. One of the primary goals the client had for the project was to achieve Net Zero Energy certification - with this in mind Hickok Cole together with Interface, the project's electrical engineer, opted for a DC powered lighting solution.*

*In the JLC-Tech T-BAR lighting fixture the design team found a crisp, visually appealing fixture whose minimal profile allowed them to maintain a clean and relatively uninterrupted ceiling plane further enhancing the bright, contemporary aesthetic of the space."*

*– Guilherme Almeida, Hickok Cole – Lead Designer for AGU renovation project*

**Net Zero** – total amount of energy used yearly by a building is equal to or less than the amount of energy created on-site through the use of innovative technologies and renewable power generation.

Hickok Cole Architects. "Net Zero Hero".

Retrieved from: <https://hickokcole.com/project/american-geophysical-union/>

Hickok Cole Architects. "Rediscovering AGU".

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American Geophysical Union. "Learn About the Building".

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