"Through their redesign, McCalmont was able to upgrade the system for more capacity with less panels."
-Ryan L., VP of Business Development
Sustainable Power Group- sPower

University of Utah Natural History Museum

CONSTRUCTION KNOW-HOW

Business Needs

In a state with consistently inexpensive coal-based utility rates, the University of Utah was looking to honor the natural beauty of the region by offsetting its carbon footprint while meeting its high energy demands and costs. The university wanted to demonstrate its commitment to supporting the future of sustainable energy by adding solar to Utah's iconic Natural History Museum, a museum that features Utah's unique archeological and paleontological history. The LEED certified structure was constructed with a copper skin façade that blends into the natural beauty of Utah's mountainous surroundings, and the institution wanted its solar PV system to complement the aesthetics of this stunning structure. The institution sought a design that would provide pronounced public visibility of their efforts to introduce solar energy to the student body and surrounding community.

Solution

Since the university required an all-encompassing project complete with design, engineering, financing, installment/construction, and maintenance, the university needed a team that could handle collaboration challenges and complex construction. The multi-tiered roof of the National History Museum of Utah presented shading and electrical challenges that McCalmont Engineering met by creating a system with multiple azimuths and a bipolar inverter system. Our team members used their extensive construction experience to design and engineer a system that reduced the wiring and streamlined installation.

Not only did our design have to match the aesthetics of the building, it also had to accommodate existing living landscaping on the roof. In order to sustain the aesthetic splendor of the museum, McCalmont Engineering's solar designers created several artistic renderings that captured the beauty of solar alongside the museum's architecture.

Project Specifications

Location:	Salt Lake City, UT
Size:	593 kW
Completed:	December 2011
Type:	Roof Mount
Scope:	Full engineering & design
Inverter:	Advanced Energy Solaron
Modules:	Sharp
Racking:	Unirac

Benefits

At McCalmont Engineering, our team of solar designers has extensive knowledge of architectural design and complex construction. Our solar designers delivered a system design that enhanced the museum's stunning architecture and Utah's organic beauty. Our key team members are NABCEP Certified PV Installation Professionals who know what it takes to build a cost efficient system while keeping in mind potential installation challenges. This construction and installation experience translates to systems built with more delivered power. McCalmont Engineering seamlessly integrated solar technology into the architecture of the Natural History Museum of Utah by finding a balance between the institution's desired green energy production and unique aesthetics.