



SOLUTION AT A GLANCE: COMMUNITY COLLEGE OF ALLEGHENY COUNTY RFQ FOR NET-ZERO ENERGY WORKFORCE TRAINING CENTER

SECTOR

Education

BARRIER

Acquiring expertise outside of my organization

TOOL TYPE

Template

BUILDING TYPE

College or university, Career or vocational training

BUILDING SIZE

50,000-100,000 square feet

TECHNOLOGY

Zero energy/ZE ready

OVERVIEW

Community College of Allegheny County issued a request for qualifications (RFQ) for their new 90,000-square-foot Workforce Development and Training Center, which will feature smart classrooms, laboratories, and multi-use spaces. The RFQ includes specifications for constructing the center as a Net Zero Energy (NZE) facility.

CCAC was acutely aware of the challenges in meeting the net zero benchmark. More than 400 firms have signed onto the American Institute of Architects' (AIA) 2030 Commitment, targeting 70%+ EUI savings, but a 2016 AIA survey of participating firms revealed the portfolios of only six firms reached at least 70% average savings. The reason many firms fell short? A lack of energy modeling.

To ensure project EUI targets would be met, CCAC was very direct in their RFQ language that the project must adhere to the Net Zero Energy Building Certification from the International Living

Future Institute (ILFI). NZE goals were labeled “mission critical” project requirements, ahead of other “highly desirable” and “if possible” requirements. Additionally, energy modeling is specifically cited in the scope of work, with a detailed breakdown of when the modeling should be completed (ahead of conceptual design), how it should be integrated in the design process (early and often), and requiring quarterly calibrated models during measurement and verification.

Forte Building Sciences helped in the drafting and evaluation of the RFQ, and they will continue to work with the design firms on adherence to zero net energy principles and building commissioning. CCAC received 21 responses to the RFQ, all but one of which adhered to net zero energy goals. The firm finally chosen, Desmone Architects of Pittsburgh, PA, had a strong energy engineering and modeling subcontractor, BuroHappold Engineering.