Brother's Brother Foundation

Case Study

How Tudi Mechanical Systems modernized a facility using grants, rebates and utility on-bill funding programs, reducing upfront capital and minimizing overall costs to the customer.

OVERVIEW

The Brother's Brother Foundation is a non-profit organization dedicated to humanitarian aid. They faced a critical situation when their aging facility required substantial repairs to continue operation. With limited funds, they sought assistance from Tudi for the necessary renovations.

Our team led a successful modernization effort in which we retrofitted their outdated lighting, reduced their reliance on the electric grid with solar panels, and transformed their HVAC system. All projects were accomplished with no upfront capital and minimal overall investment from the client.

"Tudi did a commendable job in both evaluating and addressing Brother's Brother Foundation's needs. The team members provided a clear project timeline and were invaluable in assisting us with obtaining applicable state grants. We recommend them unreservedly!"

President, Brother's Brother Foundation

TUDI Mechanical Systems

APPROACH

LED LIGHTING

The facility's lighting was comprised of outdated and inefficient fluorescent lights in dire need of replacement. The electric panels posed safety risks of fires and arc flash as they were original to the 40 year old building.

TUDI SOLUTIONS

Leveraged Constellation Energy's Efficiency Made Easy program and the Dusquene Light Utility Rebate to retrofit the entire building's lighting infrastructure at no out-of-pocket cost to the client.

RESULTS

66%
Reduction in annual lighting KWh usage

$7,238
Average annual utility bill savings from lighting

34.9
Metric tons of CO2 saved

SOLAR PANELS & EV CHARGERS

To further reduce costs and reliance on the electrical grid, the customer was eager to install solar panels. Additionally, they needed EV chargers for their company vehicle fleet, as the standard plug-in chargers were slow, taking several hours to charge.

TUDI SOLUTIONS

- Assisted in writing a $178,547 Green Mountain Energy grant proposal, which fully funded the project
- Collaborated with a subcontractor to install solar panels and EV chargers

RESULTS

73.912 MWh
Annual energy generated from solar field

$10,717
Cost avoidance from buying from the grid

6 Hours
Saved on charging per day

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APPROACH

HVAC

The customer faced issues with a 40-year-old steam boiler system operating at 65% efficiency, experiencing frequent leaks. Additionally, the building was cooled with an inefficient, antequated air conditioning system well past its expected useful life.

TUDI SOLUTIONS

- Leveraged Dusquene Light Utility Act 129 Rebate program for cost coverage
- Installed a new Variable Refrigerant System for simultaneous heating and cooling
- Utilyzed existing ducts to lower installation costs when adding an Energy Recovery Ventilator unit
- Upgraded the pharmaceutical storage HVAC system and installed new backup generator

RESULTS

35%
Reduction in annual gas usage

36.1
Metric tons of CO2 saved

KEY PROJECT OUTCOMES

LIGHTING & HVAC ONM
COST REDUCTION
70%

CARBON EMISSION
REDUCTION
46%

COSTS COVERED
BY REBATES & GRANTS
50%

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