

## PROJECT OVERVIEW

### PROPERTY TYPE:

Church

### INSTALLED MEASURES:

Replace a 40+ year old 60-ton split system chiller with a 45-ton high efficiency chiller. Install VRV system to replace leaking steam radiators and leaking steam piping for the lower level. Install a VRV heat pump to offices and other ancillary spaces to replace existing window units and eliminate one entire steam boiler.



**\$900,000**  
PACE Funding



**20 Years**  
Term



**United Bank**  
John Marshall  
Bank



**\$13,000**  
Annual net benefit



MID-ATLANTIC  
**PACE**  
ALLIANCE  
[pacealliance.org](http://pacealliance.org)

## CASE STUDY:

# ST. PAUL'S LUTHERAN CHURCH

## ENERGY EFFICIENCY FOR A CONGREGATION



### THE CHALLENGE:

St. Paul's English Lutheran Church, the first English-speaking Lutheran Church in Washington DC, was formally established in 1843. Construction on the current church building, located just inside the border with Maryland, began in 1930. After delays due to the Great Depression, the church was finally completed in 1958. In addition to regular services, the church is home to a food pantry and a 5-bed shelter for men experiencing homelessness. The church needed to replace 40+ year old 60 ton split system chiller, window a/c units, and leaking steam radiators.

### THE SOLUTION:

The church worked with the DC PACE program and Greenworks Lending to finance a 45-ton high efficiency chiller, installation of a Variable Refrigerant Volume (VRV) system to replace leaking steam radiators and leaking steam piping for the lower level of the church, and installation a VRV heat pump to offices and other ancillary spaces to replace existing window units and eliminate one entire steam boiler. Lifetime utility bill savings, reduced O&M expenses, and avoided capital costs are estimated to total over \$1.6 million, with annual electric savings of 1246 kWh and natural gas savings of 7,139 therms.



## URBAN INGENUITY

To learn more about DC PACE:

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### ABOUT URBAN INGENUITY

DC PACE is independently administered by Urban Ingenuity, a District of Columbia clean energy financing company working on behalf of the District Government's Department of Energy & Environment. Urban Ingenuity works on behalf of building owners to structure, underwrite, and fund energy and green building upgrades. Urban Ingenuity has successfully funded millions of dollars of property improvements with DC PACE, and is working nationally to bring clean energy investment to underserved communities.