### NASA Goddard Space Flight Center, Wallops Flight Facility, VA

**Case Study**

<table>
<thead>
<tr>
<th>Technology Type</th>
<th>Energy Conservation Measures</th>
<th>Energy Savings Performance Contract</th>
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<tbody>
<tr>
<td>Facility Size</td>
<td>900,000 SQ FT</td>
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<tr>
<td>Capitol Project Investment</td>
<td>$26.8 MILLION</td>
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<td>Reduced Energy Consumption</td>
<td>35 PERCENT</td>
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<td>Annual Energy Savings:</td>
<td>$1,600,000</td>
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SUMMARY
Ameresco was awarded an Energy Savings Performance Contract (ESPC) task order to design and implement multiple energy conservation measures (ECMs) for NASA at the Wallops Flight Facility on Wallops Island, Virginia.

SERVICES PROVIDED
ECMs implemented at the flight facility include improvement of lighting systems, boiler decentralization, and upgrades to the building automated system (BAS)/direct digital control (DDC) system. Other improvements include the installation of an air-cooled chiller and geothermal heat pumps.

- Installed 500 tons of geothermal heat pumps
- Refitted 340 lighting fixtures with efficient maintenance free technology
- 300-ton and 75-ton air-cooled chillers installed

“...The energy savings performance contract with Ameresco brought major improvements to Wallops Flight Facility... This effort will single-handedly satisfy Wallops' federal energy reduction requirements...”

Phillip Smith
Energy Manager, Wallops Flight Facility

CUSTOMER BENEFITS
In collaboration with NASA, Ameresco implemented the energy savings project around critical mission requirements (shuttle and rocket launches), providing temporary heating and cooling to minimize disruptions to critical facilities during construction. The project produced comprehensive site-wide energy efficiency upgrades.

- New equipment specialized for corrosive environment
- Reduced energy consumption by 35%
- Saves the Equivalent of 9,738 tons of CO2 per year
- Renewable energy resource provided by geothermal pumps
- Reduced equipment maintenance requirements