Energy Savings Breakdown

Percent Savings By ECM

- Airport (01) Lighting - Interior and Exterior
- Airport (02) HVAC - Air System Upgrades - Chilled Water
- Airport (03) HVAC - Chilled Water Upgrades
- Airport (04) HVAC - A/C Air-cooled Equipment
- Airport (05) Transformer replacement
- Airport (06) Solar Photo Voltic
- Airport (10) HNL - Ewa Chiller Plant Upgrade
LED Lighting Savings and Beautification

Decorative Tint/Glazing at Passenger Gates
Central Concourse
LED Lighting

Creating more consistent, comfortable, well-lit areas
Economic and Environmental Impact

- **406** jobs created by the project in the local community
- **$670 Million** in economic development
- **$518 Million** in electricity and water savings over the life of the project
- **37,576** metric tons of CO2 saved annually

- Equivalent to emissions offset by **1,153,530** trees planted in an urban area and allowed to grow for ten years
- Project will reduce emissions equivalent to **8,239** passenger vehicles over its lifespan
- Equivalent to the electricity used by **7,478** homes for one year
- Equivalent to **91,635** barrels of oil per year
Energy Conservation Measures

Lighting:
75,000 Fixtures
$ 56.2 Million Cost
$ 161.3 Million Guaranteed Savings

A/C Air Systems
Equipment Replacement, Variable Frequency Drives, Controls
$ 35.1 Million Cost
$ 155.9 Million Guaranteed Savings

Transformers:
Replace 372 (3kVA to 500 kVA)
$ 8.4 Million Cost
$ 15.3 Million Guaranteed Savings

Solar Photo Voltaic Systems
$ 25.2 Million Cost
$ 29.4 Million Guaranteed Savings

Chilled Water Upgrades
Chillers and Valve Replacement, Optimization, Controls
$ 7.2 Million Cost
$ 63.6 Million Guaranteed Savings

Honolulu International Airport - EWA
Chiller Plant Replacement & Distribution Piping Upgrade
$ 17.7 Million Cost
$ 29.6 Million Guaranteed Savings

Operations and Maintenance $ 62.9 Million

Total Contract Guarantee: $ 518 Million
# Energy Conservation Measures Matrix

<table>
<thead>
<tr>
<th>ECM Description</th>
<th>Oahu</th>
<th>Maui</th>
<th>Kauai</th>
<th>Molokai</th>
<th>Big Island</th>
<th>Lanai</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lighting - Interior and Exterior</td>
<td>X</td>
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<td>2. HVAC - Air System Upgrades - Chilled Water</td>
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<td>3. HVAC - Chilled Water Upgrades</td>
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<td>4. HVAC - A/C Air-cooled Equipment</td>
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<td>5. Transformer replacement</td>
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<td>7. Equipment Replacement</td>
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<tr>
<td>8. HNL - Ewa Chiller Plant Upgrade</td>
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<tr>
<td>9. HNL - Ewa CHW Piping Upgrades</td>
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</tbody>
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- Oahu: Honolulu International Airport
- Maui: Maui International Airport
- Kauai: Lihue Airport
- Molokai: Molokai Island
- Big Island: HNL - Honolulu International Airport
- Lanai: HNL - Lihue Airport

*Note: X indicates implementation.*
Construction Schedule
"Two Years in the Making"

<table>
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<tr>
<th>2014</th>
<th>2015</th>
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<tr>
<td>OCTOBER</td>
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</tr>
<tr>
<td>NOVEMBER</td>
<td>NOVEMBER</td>
</tr>
</tbody>
</table>

- Notice in Process
  - DEC 2013 - JUN 2014
- Engineering and Development for CDMs
  - JAN 2014 - SEP 2014
- Contractor Mobilization
  - JAN 2014 - NOV 2014
- Clearance
  - DEC 2014 - FEB 2015
- KR-SW
  - FEB 2015 - JUL 2015
- KR-FT
  - JUL 2015 - DEC 2015
- MCW
  - DEC 2015 - JUN 2016
- Std
  - JUN 2016 - DEC 2016
- Punch List and Construction Acceptance
  - DEC 2016 - DEC 2017

NOTICE TO PROCEED: 1-6/14
MOBILIZATION: 3 Months
CONSTRUCTION: 24 Months
PROJECT ACCEPTANCE: 7/6/2016