UTC Water Reduction Goals

May 11, 2016
Sean West
UNITED TECHNOLOGIES

Agenda

UTC at a glance
2015 Sustainability Goals
2020 Sustainability Goals
Absolute Water Reduction
Water Management Best Practice Implementation

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UNITED TECHNOLOGIES

2015 REVENUE $56.2B

United Technologies
Climate | Controls | Security

Heating, ventilating, cooling & refrigeration systems

Security & fire protection services

Otis
A United Technologies Company

Elevators, escalators, moving walkways, people movers & horizontal transportation systems

UTC Aerospace Systems

Industrial & aerospace systems

Pratt & Whitney
A United Technologies Company

Aircraft engines, gas turbines & space propulsion systems

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SUSTAINABILITY AT UTC

Driving sustainable performance

Our strategy is straightforward and effective:

Innovate to meet growing demand for sustainable products

Implement sustainable solutions in our operations

Encourage suppliers, customers and employees to achieve sustainable outcomes
UNITED TECHNOLOGIES

Manufacturing Sites Worldwide

Key manufacturing sites

Other manufacturing sites

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ENVIRONMENTAL PROGRESS

Achieved 2015 goals

Greenhouse Gas Emissions
(million tons)

Water Consumption
(billion gallons)

Air Emissions
(million pounds)

Industrial Process Waste
(million pounds)

13% better than goal

12% better than goal

12% better than goal

Goodrich data included as of 2013

This document does not contain any export controlled technical data.
UTC 2020 SUSTAINABILITY GOALS

2020 SUSTAINABILITY GOALS
MOVING THE WORLD FORWARD

- Reduce greenhouse gas emissions: 15%
- Reduce water consumption: 25%
- Implement global water best practices: 100%
- Reduce hazardous waste generation: 90%
- Recycle total waste: 100%
- Eliminate use of chlorinated & brominated solvents: 90%
- Reduce ergonomic risk: 50%
- Further reduce exposure to hazardous substances: 3x

Since 1997, United Technologies has tripled the size of our business while reducing our greenhouse gas emissions by 34% and water consumption by 57%.

ENGINEERING GOALS
Implement Design for Sustainability during the development cycle of new products. Implement Life-Cycle Analysis during the development cycle of new products.

SUPPLY CHAIN GOALS
Incentivizing key suppliers to implement 11 specific sustainability measures.

ENVIRONMENT, HEALTH & SAFETY COMPLIANCE GOALS

- 0% Enforcement actions, non-compliance
- 100% Inspections without enforcement actions
- 100% Annual permit & program evaluations
- 100% Passing compliance assurance scores

Join the conversation #NaturalLeader

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2020 WATER REDUCTION GOAL

Absolute water reduction goal

Annual Target: annual increment 5% absolute reduction from baseline

Reporting Sites: Manufacturing, and non-manufacturing with annual energy/water spend > $100,000

Baseline: 2015 water use amount

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2020 WATER BEST PRACTICE GOAL

Implementation of Best Practices

**Annual Target:** Starting Q4-2016, 20% of business unit WMBP projects must be complete; Additional 20% each year 2017-2020

**Reporting Sites:** All subject to 2020 water use goal

**Baseline:** 2015 site water scarcity level, total water use

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WATER MANAGEMENT BEST PRACTICE

Implementation matrix

<table>
<thead>
<tr>
<th></th>
<th>Large Sites &gt; 1 Million Gal/year</th>
<th>Small Sites &lt; 1 Million Gal/year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressed Regions</td>
<td>71 sites (20%)</td>
<td>76 sites (22%)</td>
</tr>
<tr>
<td>Scarce Regions</td>
<td>563.9 million gallons (29%)</td>
<td>28.45 million gallons (1.5%)</td>
</tr>
<tr>
<td>Extreme Scarce Regions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abundant Regions</td>
<td>71 sites (20%)</td>
<td>79 sites (23%)</td>
</tr>
<tr>
<td>Sufficient Regions</td>
<td>1,339 million gallons (68%)</td>
<td>27.5 million gallons (1.5%)</td>
</tr>
</tbody>
</table>

Yellow: All ten best practices required
Blue: Must have current water balance and leak management PLUS five additional best practices
Green: Must have current water balance and leak management

UTC MINIMUM BEST PRACTICES
- Current water balance
- Leak management

UTC ADDITIONAL BEST PRACTICES
- Eliminate once-through cooling
- Cooling tower management
- Flow meters
- Low flow fixtures and flow resistors
- Rinse tank overflow
- Xeriscaping
- Recycle Process wastewater
- Rain water harvesting

Goal Attainment: Credit given when BMP implemented across > 50% opportunities at site

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WATER SCARCITY ANALYSIS

Water use by scarcity level – Water tool output

(million gallons)

<table>
<thead>
<tr>
<th>Extreme Scarcity</th>
<th>Scarcity</th>
<th>Stressed</th>
<th>Sufficient</th>
<th>Abundant</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;500 (m3/person/year)</td>
<td>500-1000 (m3/person/year)</td>
<td>1001-1700 (m3/person/year)</td>
<td>1701-4000 (m3/person/year)</td>
<td>&gt;4000 (m3/person/year)</td>
</tr>
</tbody>
</table>

No technical data subject to the EAR or the ITAR
UTC EH&S DATA COLLECTION

Documenting WMBP Implementation Status

<table>
<thead>
<tr>
<th>Water Best Practice Status</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Implementation Status</strong></td>
<td></td>
</tr>
<tr>
<td>Cooling Tower Management</td>
<td>Not Started</td>
</tr>
<tr>
<td>Current Water Balance (Mandatory)</td>
<td>Complete</td>
</tr>
<tr>
<td>Elimination of Once-Through Cooling</td>
<td>Greater Than 50% Complete</td>
</tr>
<tr>
<td>Flow Meters</td>
<td>Not Started</td>
</tr>
<tr>
<td>Leak Management (Mandatory)</td>
<td>Not Started</td>
</tr>
<tr>
<td>Low Flow Fixtures and Flow Resistors</td>
<td>Complete</td>
</tr>
<tr>
<td>Rain Water Harvesting</td>
<td>Reviewed, Exemption Granted</td>
</tr>
<tr>
<td>Recycle Process Wastewater</td>
<td>Reviewed, Not Applicable</td>
</tr>
<tr>
<td>Rinse Tank Overflow</td>
<td>Reviewed, Not Applicable</td>
</tr>
<tr>
<td>Xeriscaping</td>
<td>Not Started</td>
</tr>
</tbody>
</table>

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UTC WATER GUIDANCE DOCUMENT

List of ten water management best practices

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At UTC we measure our sustainability performance for current operations through key performance indicators. To learn more about our progress in protecting the environment and the health and safety of our employees and communities where we work, visit our 2020 Sustainability Goals page.

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WATER CONSUMPTION WORLDWIDE

(gallons x 10^6)  (sales, $ billions)


0 10 20 30 40 50 60 70

0 1,000 2,000 3,000 4,000 5,000 6,000

0 1,000 2,000 3,000 4,000 5,000 6,000

(gallons x 10^6)  (sales, $ billions)
Q&A

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