Could your building be more energy efficient?
Operating buildings in an energy efficient way is becoming increasingly important. Quite often, poorly performing equipment remains undiscovered for long periods of time, resulting in businesses spending too much on energy. Today, tenants expect more from their buildings. User experience, comfort and a heightened awareness of sustainable energy practices are putting more pressure on building owners. Simultaneously, building owners face pressure to lower operating costs. Adopting a more modern approach to building operations can deliver significant savings. In fact, energy efficiency measures can result in energy savings of 30 percent for HVAC.

CloudFIMs from Siemens offers a smarter approach
To overcome these problems, building owners and operators are seeking new data driven approaches that more proactively identify issues and address them based on their potential impact. CloudFIMs, use performance data and trends from the building automation system to identify Facility Improvement Measures (FIMs) which can be implemented remotely for immediate savings. By identifying and correcting schedule and programming issues, buildings maintain an energy efficient and continuously optimized environment.

CloudFIMs: Putting good data to great use
A smarter approach to energy efficiency and equipment reliability

Could your building be more energy efficient?
Operating buildings in an energy efficient way is becoming increasingly important. Quite often, poorly performing equipment remains undiscovered for long periods of time, resulting in businesses spending too much on energy. Today, tenants expect more from their buildings. User experience, comfort and a heightened awareness of sustainable energy practices are putting more pressure on building owners. Simultaneously, building owners face pressure to lower operating costs. Adopting a more modern approach to building operations can deliver significant savings. In fact, energy efficiency measures can result in energy savings of 30 percent for HVAC.

CloudFIMs from Siemens offers a smarter approach
To overcome these problems, building owners and operators are seeking new data driven approaches that more proactively identify issues and address them based on their potential impact. CloudFIMs, use performance data and trends from the building automation system to identify Facility Improvement Measures (FIMs) which can be implemented remotely for immediate savings. By identifying and correcting schedule and programming issues, buildings maintain an energy efficient and continuously optimized environment.

Highlights
Leverage cloud-based analytics from Siemens to proactively identify Facility Improvement Measures (FIMs) and implement them remotely to maintain an efficient and continuously optimized environment.

Key benefits
• Reduce OPEX spending by proactively identifying energy and operational efficiency improvement measures
• Improve equipment reliability and reduce risks associated with costly downtime.
• Reduce total cost of building ownership
• Prioritize possible improvement measures based on business impact
• Take actions remotely and ensure issue resolution is quantified

Equipment options available
• Air Handling Units (AHUs)
• Boiler plant
• Chiller plant (KPI monitoring)
Controlling the cost of ownership and enabling savings

Over the 40-year lifecycle of a building, the cost to operate the building and for the energy it consumes accounts for 50 percent of the building’s total cost (Figure 1). Research shows that building owners and operators who take a more proactive and comprehensive approach to building maintenance, which includes CloudFIMs from Siemens, can reduce a building’s overall cost of ownership by roughly 18 percent (Figure 2).

![Fig. 1: Typical lifecycle costs of operating a building](image1)

![Fig. 2: Typical lifecycle costs with proactive approach](image2)

Sources: Association of Energy Engineers, Lawrence Berkeley Labs

Using the latest in building analytics from Siemens Navigator, CloudFIMs focus on the most common facility issues and enables remotely implemented actions that proactively and decisively achieve your desired results. Navigator also delivers the CloudFIMs dashboards which give customers visibility into building performance by deploying a robust set of analytics to track and report operational issues, and track savings that result from remote corrections.

How CloudFIMs deliver energy savings impact

CloudFIMs have been carefully crafted to show quick, high-impact energy savings results, and includes repairs that can be identified and diagnosed remotely. CloudFIMs can detect and proactively improve a wide range of facility improvement measures (FIMs):

<table>
<thead>
<tr>
<th>CloudFIM</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHU – Heat recovery shows a low efficiency or isn’t working</td>
<td>Heat recovery can reduce up to 70 percent of the heating or cooling energy for an air handling unit depending on the indoor and outdoor conditions</td>
</tr>
<tr>
<td>AHU – Simultaneous heating and cooling prevention</td>
<td>Prevents reheating and recooling air simultaneously, which can save up to 20 percent of a facility’s energy</td>
</tr>
<tr>
<td>AHU – Overventilation prevention</td>
<td>Prevents heating or cooling outside air for no reason and protect customers from draft. This can save up to 15 percent of an AHU’s energy costs including electricity, heating and cooling energy</td>
</tr>
<tr>
<td>Boiler – Low efficiency prevention</td>
<td>Reducing the boiler temperature or the return temperature can increase the energy efficiency of the heat generation by up to 10 percent</td>
</tr>
<tr>
<td>Boiler – Identification of a bad hydraulic behaviour</td>
<td>A good hydraulic balance in the heating loop increases boiler efficiency by up to eight percent and improves comfort</td>
</tr>
<tr>
<td>Chiller – Increasing the chilled water setpoint</td>
<td>Increasing the setpoint temperature of a chiller can enable more free cooling (reduce the operation time of a chiller) and increase the chiller performance of three percent/°C.</td>
</tr>
<tr>
<td>Chiller – Reducing the cooling water setpoint</td>
<td>Reducing the cooling water setpoint increases the performance of a chiller to one percent/reduced °C</td>
</tr>
<tr>
<td>Chiller – Low efficiency prevention</td>
<td>Monitoring and maintaining the inlet and outlet temperatures in the right range, increase the efficiency and the life cycle of a chiller.</td>
</tr>
</tbody>
</table>

Published by
Siemens Switzerland Ltd
Smart Infrastructure
Global Headquarters
Theilerstrasse 1a
6300 Zug
Switzerland
Tel +41 58 724 24 24

For the U.S. published by
Siemens Industry Inc.
100 Technology Drive
Alpharetta, GA 30005
United States

Subject to changes and errors. The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products. The requested performance features are binding only when they are expressly agreed upon in the concluded contract.

© Siemens 2019