Pratibha Syntex Ltd. Facilities Use the Higg Index to Reduce Energy Use and Greenhouse Gas Emissions
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MRINAL BOSE
SUSTAINABILITY MANAGER
Applying varied strategies leads to energy and greenhouse gas emissions reductions

A commitment to environmental sustainability is integral to business at Pratibha Syntex Ltd., an apparel manufacturer based in Pithampur, India. “Our mission at Pratibha is to become a global leader in sustainable products and practices,” said Mrinal Bose, sustainability manager at Pratibha Syntex Ltd. “We believe that in order to become a sustainable textile manufacturing company we have to take care of all aspects pertaining to sustainability.” This mission is supported by the Sustainable Apparel Coalition’s Higg Facility Environmental Module (Higg FEM).

Pratibha Syntex has used Higg FEM for more than four years to measure the environmental impact of its value chain operations. By implementing the Higg Index, Pratibha Syntex found it had enough data to baseline energy consumption in 2016 and set reduction targets.

The company calculated a normalized reduction target, setting a goal to reduce the quantity of energy it consumed and the related greenhouse gas emitted per garment it produced. Higg FEM guidelines encourage setting normalized targets as this can demonstrate progress thanks to energy reduction, rather than as a result of business changes, such as a decrease in units produced.

“[Through our energy and greenhouse gas emissions projects] our Higg Index score will increase, attracting new buyers. We will be ready for future changes and be ahead of competitors.”
Reducing Energy and Greenhouse Gas Emissions

By 2020, Pratibha Syntex plans to reduce energy consumption by 20 percent per garment produced, over the baseline year of 2016. The company also plans to reduce scope 1 and 2 greenhouse gas emissions by 30 percent per garment produced, over the same baseline year.

Pratibha Syntex continues to use the Higg Index to monitor progress toward its ambitious targets and is already showing results. In 2017, the company’s Higg FEM self-assessment indicated a decrease in energy consumption of eight percent per garment produced, compared to 2016.

Because Pratibha Syntex is targeting reductions of both energy consumption and greenhouse gas emissions, the company must improve energy efficiency and also reduce carbon intensity. To reach its goals, Pratibha Syntex is implementing several diverse projects aimed at big and small reductions and from scope 1 and 2 emissions sources. It is targeting multiple energy sources as well as individual operational systems. In one facility, the company transitioned from a diesel boiler to using biomass briquettes. Pratibha Syntex expects to reduce use of diesel this year by 180,000 liters.

To tackle scope 2 emissions, Pratibha Syntex uses multiple approaches. The company is implementing onsite renewable energy, as well as energy efficiency and monitoring projects. Solar photovoltaic (PV) power will play a big role in reducing scope 2 emissions from electricity. The main plant currently receives nearly 30 percent of its electricity from the grid.

Smaller impact projects also contribute to the reduction goal. Pratibha Syntex has installed two harmonic frequency monitors and plans to install more shortly. While the manufacturer expects only about two percent energy reduction as a result of the monitors, such projects may have more than one direct benefit. Harmonic frequencies caused by equipment drawing electrical power in short bursts can cause overheating and lead to fire hazards. By monitoring potential harmonic issues, Pratibha Syntex facilities can correct problems and improve energy efficiency.
Using the Higg Index to Track Progress

The Higg FEM assessment initially covers basic management practices followed by increasingly advanced impact reduction practices. Using the energy section in the Higg FEM, Pratibha Syntex tracks and monitors energy consumption from various sources all in one system and sees an automatic calculation of its overall energy consumption across all of its facilities. The Higg Index facilitates straightforward reduction comparisons based on reported energy quantities and illuminates the company’s annual progress.

Pratibha Syntex has already seen a reduction in energy use since 2017 and is planning more projects to meet its 2020 goals. Following the successful reduction of diesel, Pratibha Syntex will also replace a coal boiler later this year. The company will introduce additional harmonics panels and also plans to upgrade its compressed air system to a single, more energy-efficient high-tension compressor to replace its fourteen existing units.

At its main plant, Pratibha Syntex plans to install additional solar energy capacity to bring the solar contribution to 40 percent of electricity consumption. Another facility which currently relies on 100 percent grid electricity will be upgraded with solar panels to generate 25 percent of its electricity. Because the grid mix is carbon-intensive, transitioning to renewable energy will make a significant impact in reducing the company’s scope 2 emissions.

“[Setting energy and GHG reduction targets] will not only make Pratibha a more responsible business, but also make us more profitable in the long run. This will ensure our business as a whole is more sustainable and competitive.”
**Business Value**

Bose acknowledges that implementing reduction projects can be expensive and that the initial investment is challenging. However, there is an upside. “Savings from energy reductions will become visible over time and projects can pay back in due course,” he said. In addition to contributing to financial savings, Pratibha Syntex finds that energy and greenhouse gas emissions projects create business value by preparing the company for future changes and helping it get ahead of competitors on sustainability efforts. Bose also says these projects will lead to improved Higg Index scores, attracting new supply chain business partners.

**Looking Ahead: Sustainable Development Goals**

With sustainability in mind, Pratibha Syntex has also sought ways to align its operations with the United Nations’ 2030 Sustainable Development Goals (SDGs). Bose says that the company’s use of Higg FEM to report environmental performance and its implementation of improvement efforts demonstrate Pratibha Syntex’s alignment with the SDGs. For Pratibha Syntex, using the Higg FEM to baseline energy consumption and set reduction targets supports SDG 13: Climate Action.

**Collaboration**

Bose says that pursuing energy and greenhouse gas saving programs will benefit any organization seeking to do business in a more sustainable, responsible, and profitable way. He encourages other companies to consider setting energy reduction targets and establishing sustainability projects. “When organizations achieve results, they can be shared,” he said. “This allows others to implement successful projects, too.”
Greenhouse Gas Scopes

**SCOPE 01 EMISSIONS**
Direct emissions from owned or controlled sources. Examples include the emissions produced by gasoline-powered vehicles owned by the company or from coal used in onsite boilers.

**SCOPE 02 EMISSIONS**
Indirect emissions from the generation of purchased energy. A common example is purchased electricity delivered through a grid.

**SCOPE 03 EMISSIONS**
Include all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. Sources of scope 3 emissions are diverse.

For an apparel factory, an upstream example are the emissions from the agricultural operations that provided the fiber to the mill.

A downstream example for the factory, are the emissions resulting from the energy used by the customer to wash and dry the garment.