

Increasing the condensate recovery by 37% for a garment manufacturer using EverSense for Plant-wide Performance

 Tamil Nadu, India

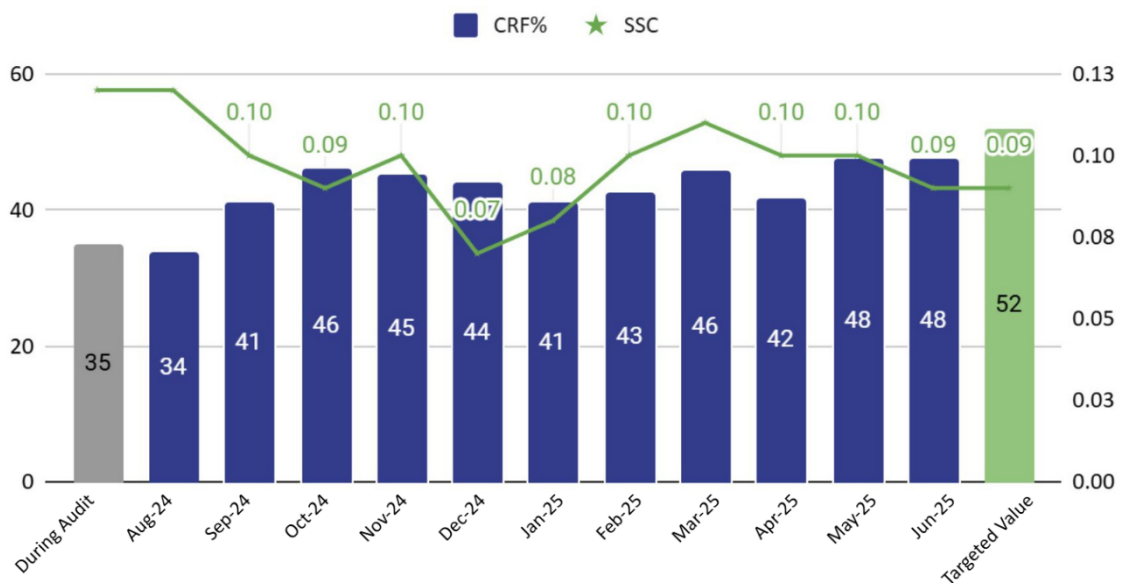
 Textile

Problem

A prominent garment manufacturer and exporter in Tamil Nadu, India was struggling for over two years to achieve their net-zero goals. With steam-intensive processes such as iron baths and tumble dryers, they found it challenging to identify and sustain energy-saving opportunities. Their Condensate Recovery Factor (CRF) remained below 35% against a benchmark of 52%. Despite ongoing efforts, the manufacturer was unable to uncover clear avenues to meet the stringent sustainability targets mandated by global buyers, making compliance with these requirements both urgent and essential.

Solution

EverSense for Plant-wide Performance, a Forbes Marshall Digital solution enabled the manufacturer to address these challenges with a shared objective of improving efficiency, enhancing CRF, and supporting their journey towards net-zero in August 2024. By digitally monitoring key parameters such as Specific Steam Consumption (SSC), Condensate Recovery Factor (CRF), and total steam consumption through the EverSense dashboard, the plant gained real-time and daily visibility into performance. This enabled faster identification of pumps with reduced condensate recovery and trend analysis of SSC rises, allowing for timely root cause identification and corrective action to restore efficiency and prevent excess steam consumption. Complementing 24x7 digital monitoring with on-site checks ensured accuracy, smooth operations, and sustained improvements. Additionally, system upgrades, like a 2+2 pump configuration, routing condensate back to the feedwater tank, re-insulating steam lines, and installing G-traps, further improved efficiency and sustainability.



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**Reducing specific steam consumption and improving condensate recovery factor using
EverSense for Plant-wide Performance, a Forbes Marshall Digital solution**

Benefits delivered

Parameters	Baseline value	Current value	Benchmark value
Steam Consumption (per day)	6,471 Kg (14K Pounds)	5,065 Kg (11K Pounds)	4,810 Kg (10K Pounds)
Production	56,356 pieces	49,102 pieces	56,356 pieces
Specific Steam Consumption (per pieces)	0.12 Kg (0.3 Pounds)	0.1 Kg (0.2 Pounds)	0.09 Kg (0.2 Pounds)
Condensate Recovery Factor	35%	48%	47-52%
Feedwater Temperature	91°C (195.8°F)	91°C (195.8°F)	90-95°C (194-203°F)

