NESCAFÉ.
makes high-continuity

IMPACT

with an EcoCare membership

By optimizing the uptime of its factory, Nescafé ensures one million jars of coffee roll off production lines every day.

Nestlé Nescafé — Toluca, Mexico

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Life Is On | Schneider Electric

Coffee is an integral part of daily lives

Nestlé, the largest food and beverage company in the world, pioneered the concept of soluble coffee — tiny, dark crystals that instantly transform a cup of hot water into a convenient, affordable, day-starting staple for people around the globe.

Sixty percent of Nestlé's soluble coffee production comes from a single factory. At the Nestlé Nescafé® plant in Toluca, Mexico, one million jars of coffee roll off the production lines every day. One of the most popular products made here is Nescafé Clásico™ — "the coffee that all of Mexico drinks," says Luis Gilberto López Páez, Electrical Specialist at the plant. "The factory works 365 days a year," he continues. "Therefore, an unplanned downtime impacts the reliability of the processes," which can affect what makes it to grocery shelves. With a plant as large as Nestlé Nescafé's, ensuring reliability of all the electrical systems is a particularly involved task.

In 2013, Nestlé invested approximately $125 million to expand this plant, increasing production by 40% and making it the largest soluble coffee facility in the world. At this scale, even modest gains to energy efficiency and service improvements translate to sizable cost savings. Improving the reliability of the facility's electrical equipment would deliver the productivity, efficiency, and maintenance benefits Nestlé sought.

In 2017, engineers from Nestlé Nescafé and Schneider Electric began a pilot project to evaluate the plant's digital transformation. This decision to enlist Schneider's expertise was a natural one, as EcoStruxure solutions are already in place at the food and beverage conglomerate's production facilities in France and Switzerland.

Goal

Eliminate unplanned downtime and gain a clearer view of operational efficiency.

Story

When eight instances of unplanned downtime in one year caused production to falter, the world's largest food and beverage company turned to Schneider Electric.

Solutions

Nestlé Nescafé modernized its production equipment by connecting products like RM6 medium-voltage panels, Square D low-voltage switchboards and transformers, combined with EcoCare services membership including 24/7 remote monitoring and emergency support. Schneider's experts remotely monitor assets continuously to detect potential failure before its occurs and avoid unplanned downtime.

Results

- Improved service continuity and asset health
- Reliable, 24/7 remote monitoring of all five electrical substations
- Five major incidents avoided in four years resulting in savings estimated at $2 million

From pilot to plant

During this pilot phase, 24/7 assets monitoring was implemented in certain sections of the factory to demonstrate the difference between connected and non-connected assets. Three transformers were fitted with PowerLogic Tag Series TH110 wireless temperature sensors, allowing them to collect data which is uploaded into our EcoStruxure IoT platform and further analyzed by our remote experts team, thanks to advanced analytics and AI. What took the project from a trial to full implementation was a single disruption in April 2020: a short circuit inside an unmonitored section of the main substation resulted in a 14-hour shutdown, costing Nestlé approximately $588,000. Because this section wasn't connected, engineers weren't alerted that equipment was at risk. This was the catalyst in Nestlé's decision to utilize a digital-enabled service plan throughout its Nescafé plant.

Implementing EcoCare services membership gave Nestlé real-time visibility into its electrical equipment, allowing engineers to remotely monitor assets. Prior to this solution, maintenance was reactive. Today, through EcoCare membership, Nestlé has moved to a proactive, condition-based maintenance approach with 24/7 remote asset monitoring and maintenance recommendations. This helps teams to optimize on-site maintenance activities and anticipate potential failure.

Service continuity is central to Nestlé's production goal, but other variables influence the factory's profitability, like maintenance and the total cost of ownership. To reduce maintenance costs, engineers need to identify the stressed areas in the electrical infrastructure to concentrate service efforts, thereby minimizing the amount of time technicians spend performing preventive maintenance across all assets. "EcoCare membership allows us to identify hot spots and attack them before they become a problem," says Páez.

"Coffee is a fundamental part of Mexican culture. We make a lot of it, and the work of Mexican producers is reflected in every cup every morning."

— Luis Gilberto López Páez, Electrical Specialist, Nestlé Nescafé

Nestlé Nescafé at a glance:

- Largest producer of soluble coffee in the world
- Produces 1 million jars of coffee every day
- Unplanned shutdowns can cost $52,000 an hour

By relying on data analytics to dictate service intervals, the electrical teams at Nestlé Nescafé spend less time reacting to issues and the plant's equipment performs as expected — helping Nestlé achieve its annual target of generating $238 million in factory production. Páez elaborates, "In addition to avoiding unplanned downtime, we were able to go from annual to biannual maintenance, which is reflected in the productivity of the plant."

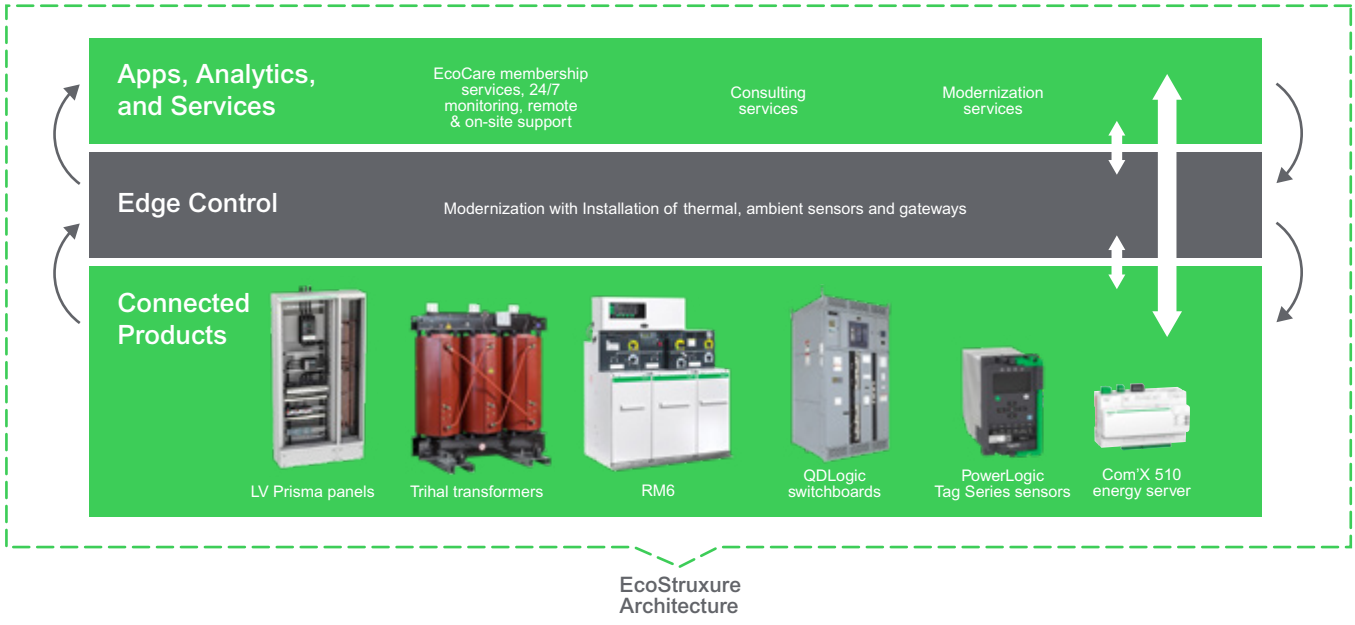
Between 2020 and 2024, the experts of Schneider's Connected Services Hub sent a dozen alerts to Nestlé about potential or imminent equipment issues. Because of these alerts, engineers were able to react and avoid five major incidents, representing an estimated saving of $2 million.

"EcoCare allows me to visualize my electrical equipment from the comfort of my home. I can open it from my computer, I can open it from my cell phone. It has a very practical tool." Páez concludes, "Nestlé and Schneider Electric have been partners for many years. Schneider knows my needs, and I believe their products have a great place in our industry."

1 million

jars of soluble coffee are produced at Nestlé Nescafé every day.

EcoStruxure™ Innovation At Every Level **Power**



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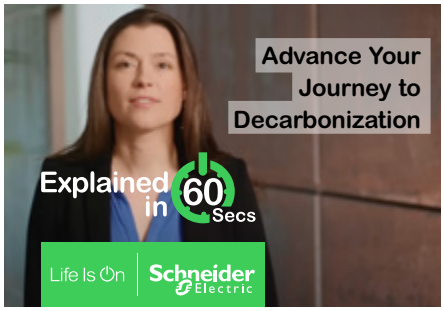

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Schneider Electric

France, 35 rue Joseph Monier, 92500 Rueil Malmaison
Phone: + 33 (0)1 41 29 70 00

se.com

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