

EnerTiles

<u>Team Member Name</u>	<u>Year</u>	<u>Major</u>
Member 1: Daniela Quero Urtusástegui	Third year	Marketing
Member 2: Diana Peña Torres	Third year	Marketing
Member 3: Andrea Bekman Umansky	Third year	Marketing
Member 4: Natalia Espinosa Torreblanca	Third year	Marketing

Advisor(s): Héctor Daniel Smith Tovar

Topic Title: Turning Everyday Movement into ESG-Driven Energy Infrastructure

Audience: Walmart Mexico and Central America – Sustainability, Operations, and Finance Leadership Team

Sustainable Development Goal

SDG #(7) : “Ensure access to affordable, reliable, sustainable and modern energy for all.”

SDG #(13) : “Take urgent action to combat climate change and its impacts.”

Executive Summary

Large retailers face an ethical dilemma as Mexico's corporate energy landscape is changing. While electricity use has a quantifiable impact on the climate, many sustainability investments are hidden from stakeholders, which reduces accountability and raises the possibility of perceived greenwashing. Every kWh used in Mexico's national grid is linked to about 0.438 kg of CO₂e, directly relating daily activities to emissions. At the same time, businesses are being forced to strike a balance between environmental responsibility, visibility, and financial return due to high-demand electricity rates that continue to drive up operational expenses. The gap between declared sustainability goals and observable, verifiable impact at the store level exists for Walmart Mexico and Central America, despite their public ESG pledges and continuous high foot traffic operations.

By transforming regular human activity into clean power in high-traffic locations like store entrances, hallways, and checkout zones, EnerTiles closes this ethical gap. In order to make sustainability transparent and quantifiable for consumers, workers, and decision-makers, the system supports low-consumption apps and incorporates real-time dashboards that convert foot activity into steps, kWh generated, CO₂ avoided, and predicted cost savings. Walmart can lower Scope 2 emissions while enhancing ESG reporting credibility, brand trust, and stakeholder engagement through pilot installations and scalable expansion, reframing sustainability from a passive infrastructure investment into a visible, quantifiable, and operationally relevant advantage.