Global Platform for

Sustainable Natural Rubber

Public Disclosure Report **2022**

This report represents GM's Global Platform for Sustainable Natural Rubber (GPSNR) public disclosure for reporting year 2021. GM is a member of GPSNR and, as a member company, is required to report progress in implementing the company's Sustainable Natural Rubber Policy through annual reporting requirements. This disclosure reflects the public-facing reporting questions, which have been excerpted from a larger GPSNR disclosure report.

As noted throughout this report, selected information was generated by the member's Level B suppliers (Processors and Traders of Raw Material) and has been aggregated by the member. The member does not own and has not independently verified supplier responses. The responses do not reflect a complete overview of the member's entire supply base.

Question 1

D5.2.1

Does the member track its energy use? What is the energy use (gross and intensity) of the last reporting period?

Response:

- 45,190,276 GJ (our own operations, 2021)

For additional details, please see:
2021 Sustainability Report, page 11

Question 2

D5.2.2

What targets does the member have for the reduction of energy use within their direct operations?

Response:

- Target reduction: Reduce operational energy intensity by 35%
- Baseline year: 2010
- Target year: 2035

For additional details, please see:
2021 Sustainability Report, page 11

Question 3

D5.2.3

What measures are in place to optimize or reduce energy use within the member's direct operations?

Response:

Focusing on energy efficiency is an important pillar in GM's strategy for reducing greenhouse gas (GHG) emissions. Globally, our plants continue to work on improving energy efficiency and reducing GHG emissions through the use of an energy management system (EnMS). In addition to our Science Based Targets initiative (SBTi) goal for GHG emissions, we extended our energy intensity goal for operations to a 35% reduction by 2035, compared to a 2010 baseline.

Some of the programs and strategies we deploy to conserve energy in our operations are outlined below.

U.S. Department of Energy (DOE) 50001 Ready Program

In 2021, 27 U.S. GM manufacturing facilities, or 93% of our U.S. manufacturing footprint, implemented the U.S. DOE 50001 Ready program—more than any other participating company. We also extended the program to two nonmanufacturing sites in the United States, two plants in Canada and one in Mexico. We plan to extend this program to all manufacturing facilities globally to continuously monitor and improve our EnMS.

Better Buildings Low-Carbon Pilot

We are participating in the DOE Better Buildings program to demonstrate pathways to achieving low- or zero-carbon operations in our buildings and manufacturing plants.

ENERGY STAR's Building Portfolio Manager (BPM)

GM uses data analytics to track energy consumption globally. One tool, BPM, allows us to benchmark performance and make continuous improvements.

ENERGY STAR Challenge for Industry

The Challenge is to reduce energy intensity by 10% within a five-year period. This continuous improvement program has recognized 69 GM plants multiple times over the past 10 years for a total of 130 recognitions. In 2021, five GM plants met the Challenge with an average reduction of 15% over three years: Qingdao Assembly, Baojun Assembly and Dongyue Engine, all in China; Silao Assembly in Mexico; and Flint Assembly in the United States.

ENERGY STAR certifications provide a benchmark for energy efficiency, identifying buildings and auto assembly plants within the top 25th percentile of operating efficiency.

Energy OnStar

This tool (unrelated to GM's OnStar service) is a continuous commissioning system that monitors the performance of our heating, ventilation and air conditioning (HVAC) equipment in real time. Approximately one-third of our operational energy use comes from HVAC, and the system allows us to quickly identify when a unit is malfunctioning and find opportunities for improvement. Energy OnStar also helped us manage plant shutdowns during the semiconductor shortage in 2021.

ENERGY STAR Treasure Hunts

In 2021, we conducted 17 on-site and virtual energy treasure hunts, covering 61 million square feet of space. The energy treasure hunt process involved a comprehensive collaboration of energy SMEs who reviewed performance and processes against pre-established toolbox best practices. Facilities were then assessed to identify improvement opportunities for sites to implement. Through this process, we engaged nearly 100 team members to uncover quick ways to save energy and found 175 opportunities that could potentially save the company $5 million. We also extended this approach to our suppliers during the year, rolling out virtual energy treasure hunts.

Question 4

D5.3.2

What measures are in place to reduce waste?

Response:

GM's Zero Waste program was designed to be as comprehensive as possible, incorporating all solid waste, containerized liquids and hazardous waste in its scope. With this program, we are helping to drive innovation in the recycling industry, supporting all elements of the circular economy.

As part of our Zero Waste ambition, we aim to divert 90% of GM's operational waste generation from landfills and incineration, with or without energy recovery, by 2025, with 86.4% achieved in 2021.

*For additional details, please see: **2021 Sustainability Report**, page 37*

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Supplier A:

Supplier A established a Global Sustainable Procurement Policy, containing minimum requirements that suppliers must meet to do business with the company and preferred practices that are intended to enhance its supply chain. The policy states that suppliers are required to improve resource efficiency and minimize waste in the development, production and delivery of products and services through reducing, reusing and recycling activities.

Supplier A takes measures to reduce waste in its operations and supply chain. One of the key actions in its Milestone 2030 is the continuous improvement of environmental performance on waste (1% improvement year by year) through the plan-do-check-act (PDCA) cycle.

The Group promotes waste reduction with regional ownership, with each region having a specific target. For example, in the Europe, Russia, Middle East, India and Africa region, the target was to improve waste generation per production volume to 58 kg/metric ton by 2021. The target was achieved at 57.4 kg/metric ton.

Supplier B:

Supplier B hopes to reduce the amount of waste produced per metric ton of total output by 50% compared to 2019 by 2050 (indicator: kilogram of waste per metric ton of semifinished and finished product). To support progress toward this ambitious goal, an intermediate milestone of a 25% decrease versus 2019 by 2030 has been set.

The Group's waste management policies are based on the following principles:

- Reducing waste at source, e.g., by encouraging reuse or through technological upgrades.
- Promoting recycling across the Group, in particular by building synergies with acquisitions.
- Focusing waste-treatment processes on recovering and recycling materials rather than recovering energy through burning.
- Banning landfilling, unless it can be shown that there is no technically and environmentally viable treatment option for the waste in question. However, this is only to be used as a stop-gap while waiting for a zero-waste-to-landfill solution.

In all, 96.4% of all waste was recovered or reused as materials or fuel in 2021.

Improving the lifespan and circularity of products are significant levers to reducing waste in the life cycle of Supplier B's products. In 2019, the Group unveiled Uptis, a combined airless, puncture-proof tire and wheel assembly developed in partnership with GM. Uptis eliminates any risk of flats or blowouts, improving the safety of motorists and the productivity of business fleet operations. This feature also reduces the use of raw materials in production, which in turn reduces waste. The Group is also increasing the sustainable (renewable or recycled) material content of its tires, with a target of 40% by 2030. The average sustainable material rate in 2021 was 29%.

Supplier C:

73.7% of Supplier C's suppliers have reported efforts to reduce waste within their direct operations. These include:

- Wastewater from production processes is recycled
- Sludge from an effluent pond is reused as fertilizer by growers in the local community
- Rubber crumbs in the rubber traps are salvaged and reused in production
- Machine lubricant is recycled

Supplier D:

- Recommended taping after midnight
- Post-Harvest Management upside down to prevent contamination
- Fresh latex is filtered on-site to prevent contamination

Supplier E:

- Reducing waste generation and increasing recycling
- Tightening the monitoring of NOx emissions from boilers at the Daejeon Plant
- Increasing the use of recycled water from air pollutant prevention facilities
- Innovating the management of environmental facilities
- Sustained environmental investment to prevent environmental pollution

Question 5

D5.4.1

Does the member monitor carbon emission intensity? If yes, what are the calculated figures and what method is used for calculations?

Response:

GM monitors its Scope 1, 2 and 3 GHG emissions.

Metric	2021
Scope 1 GHG emissions (metric tons CO2e)	1,252,906
Scope 2 GHG emissions (metric tons CO2e)	
Location-based	2,881,767
Market-based	2,150,694
Scope 3 Category 11 GHG emissions (metric tons CO2e)	233,167,875

For additional details, please see
2022 CDP Climate Change Report

Question 6

D5.4.2

Does the member have targets to reduce carbon emissions? If yes, please state targets.

Response:

Our goal is to become carbon neutral in global products and operations by 2040. We have also committed to SBTi-approved targets that include reducing absolute Scope 1 and 2 GHG emissions by 72% by 2035 from a 2018 baseline and Scope 3 GHG emissions from use of sold products of light-duty vehicles by 51% per vehicle kilometer by 2035 from a 2018 baseline.

Question 7

D5.4.3

What measures are in place to minimize carbon emissions?

Response:

GM has a variety of measures and strategies in place to minimize carbon emissions and support our goal of becoming carbon neutral in our global products and operations by 2040.

For our Scope 1 and 2 emissions, we plan to source 100% renewable electricity at sites in the United States by 2025, and globally by 2035. We are also targeting a reduction in operational energy intensity of 35% by 2035 against a 2010 baseline. Our SBTi-approved target for Scopes 1 and 2 is to reduce our absolute emissions by 72% by 2035 (compared to a 2018 baseline), which meets the minimum ambitions for a 1.5°C pathway. We are currently on track to meet the target by 2035 with 25% of our global electricity powered by renewable energy in 2021.

To manage our Scope 3 emissions from our upstream supply chain, we have invited our Tier I suppliers to sign the GM ESG Partnership Pledge. Signing the pledge demonstrates their commitment to the principles of sustainability and human rights. We monitor our suppliers' environmental and social progress through CDP and EcoVadis, and leverage the GM Partner Sustainability Framework for suppliers to set goals.

Finally, to reduce Scope 3 emissions from the use of our sold products, we are taking bold action to reach 1 million planned units of EV capacity in each of North America and China by 2025. We plan to achieve sales of 40–50% of annual U.S. volumes of EVs by 2030, and eliminate tailpipe emissions from new light-duty U.S. vehicles by 2035.

Question 8

D5.4.4

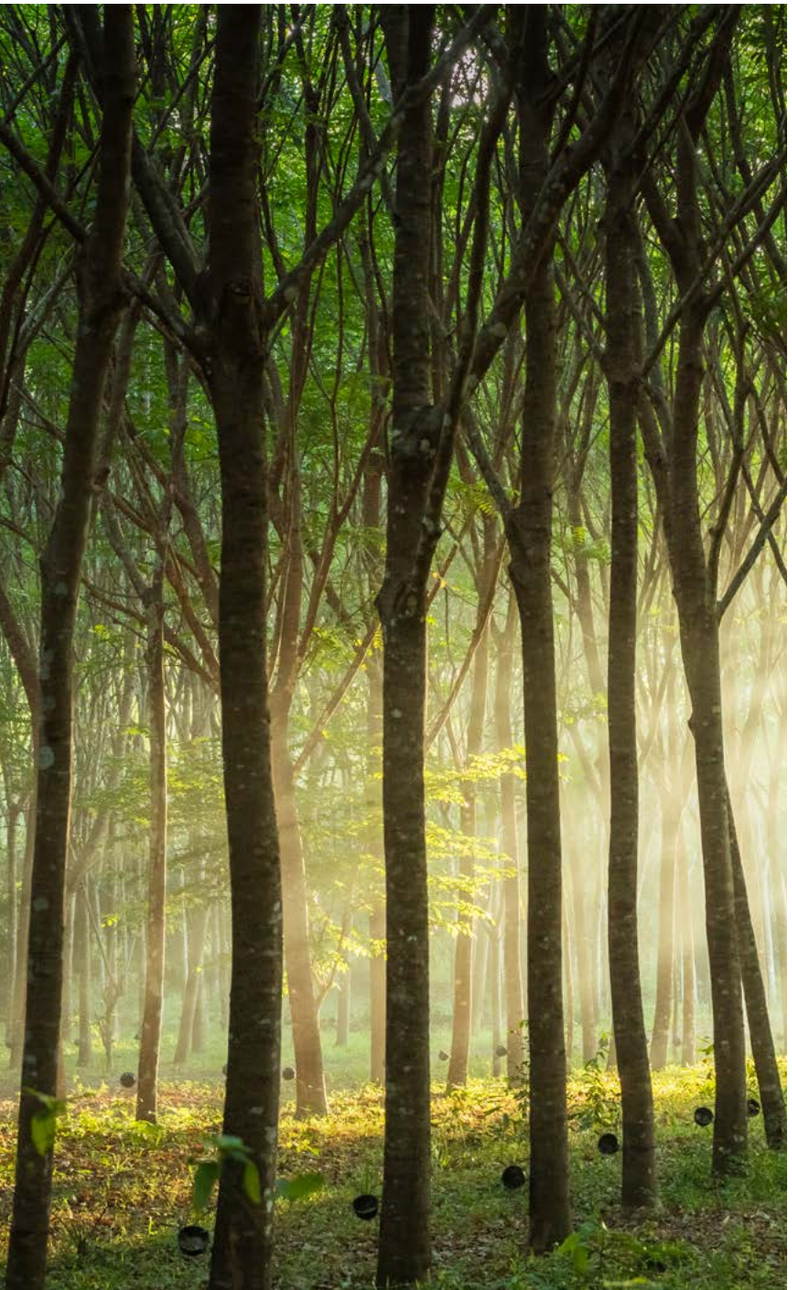
What is the member's energy mix?

Response:

- Total energy use (of all sources): 45,190,276 GJ across our own operations

Energy Consumption by Source

Metric	GJ	%
Electricity consumption (including cooling)	21,489,324	47.6
Fuel consumption from nonrenewable sources (including heating)	21,048,701	46.6
Fuel consumption from renewable sources (including heating)	1,713,704	3.8
Steam consumption	938,548	2.1



Question 9

D7.3.3

Excluding supplier contracts, does the member have other mechanisms to communicate the preference for GPSNR-conforming product to suppliers?

What proportion of total input volume is sourced from GPSNR members?

Response:

GM and all GM tire suppliers are GPSNR members. We promote the GPSNR's guiding principles to our suppliers. GM's baseline requirements for suppliers include industry-specific participation (e.g., GPSNR).

For additional details, please see: 2021 Sustainability Report, page 88

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Supplier A:

Supplier A has a written Natural Rubber Supply Chain Policy.

Supplier B:

A supplier sustainability ranking has been developed. This is reviewed annually and directly informs purchasing decisions. The ranking takes into account sustainability performance, including the adoption of policies, sustainability assessment scores, the deployment of risk mapping, and the implementation of risk mitigation and sustainability actions. These rankings are aligned with Supplier B's Sustainable Natural Rubber Policy and therefore GPSNR requirements.

Supplier C:

N/A

Supplier D:

Priority guidance is given to natural rubber suppliers, including manufacturers and agents that comply with the Natural Rubber Procurement Policy of Supplier D. Suppliers are able to achieve this if they reach a certain percentage. Supplier D requires all natural rubber manufacturers to comply with specifications.

Supplier D says that 60% of its total input volume is sourced from GPSNR or EcoVadis members.

Supplier E:

N/A

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