Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

GFL Environmental Inc., (together with its consolidated subsidiaries, in this Questionnaire referred to collectively as “GFL”, “we”, “our” or “us”), headquartered in Ontario, Canada, provides comprehensive, non-hazardous solid waste management, soil remediation, and liquid waste management services throughout Canada and in more than half of the states in the U.S. Since our inception in 2007, GFL has grown to be the fourth largest environmental services provider in North America through a combination of organic growth and strategic acquisitions.

We provide accessible, cost-effective, sustainable solutions to manage waste streams that are generated by households, as well as by commercial, industrial, and institutional businesses across our operations that include, as of December 31, 2022, 250+ collection operations, 170+ transfer stations, 90+ landfills, 35+ material recovery facilities, 10+ soil remediation facilities, 20+ organics facilities and 130+ liquid waste facilities. As of December 31, 2022, we employed more than 19,500 employees and had more than 7,700 routed solid waste collection vehicles to service our customers. For the year ended 2022, the services we provided to our customers resulted in over 13 million tonnes of GHG emissions avoided and carbon sequestered (as CO2e) in our landfills and we recovered approximately 1.8 million tonnes of recyclable materials.

We issued our first Sustainability Report in 2019. In our 2021 Sustainability Report, we disclosed, for the first time, our Sustainability Action Plan that includes our full set of sustainability-related goals, targets and commitments that support our ambition to be recognized as a circular economy and climate leader in our industry.

As a provider of environmental solutions, we are uniquely positioned to help our customers and the communities we serve reduce their own carbon footprint with the waste diversion and reuse services and products we provide like recycling, material recovery, composting, and landfill gas capture and use. Our products and services directly support the transition from a ‘take-make-waste’ extractive economy to a more circular one. Not only do
these services allow GFL to be a meaningful participant in the circular economy by providing recyclable raw materials that reduce our customers’ need for virgin materials, they also help our customers reduce their GHG emissions.

We are committed to our climate leadership goals that focus on investing in the technologies and practices that reduce our own GHG emissions primarily from our landfills and our fleet. We have identified and are implementing an ambitious, achievable and transparent pathway to reduce our own GHG emissions. We aspire to set targets that would be accepted as science-based targets from organizations such as the Science Based Targets initiative (SBTi). Given our significant growth and that we are in the early stages of implementing our landfill gas capture and beneficial use initiatives that will reduce our GHG emissions at our landfills, we have set a short-term goal to reduce our combined scope 1 and scope 2 GHG emissions by 15% by 2030 from a 2021 base year.

We are also in the process of implementing our 3-year plan to prepare a standalone report in accordance with the Task Force on Climate Related Financial Disclosures (TCFD) by 2024.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start date</td>
<td>January 1, 2022</td>
</tr>
<tr>
<td>End date</td>
<td>December 31, 2022</td>
</tr>
</tbody>
</table>

Indicate if you are providing emissions data for past reporting years

Yes

Select the number of past reporting years you will be providing Scope 1 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 2 emissions data for
3 years

Select the number of past reporting years you will be providing Scope 3 emissions data for
2 years

C0.3

(C0.3) Select the countries/areas in which you operate.
- Canada
- United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.
- CAD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.
- Operational control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

<table>
<thead>
<tr>
<th>Indicate whether you are able to provide a unique identifier for your organization</th>
<th>Provide your unique identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, a Ticker symbol</td>
<td>GFL</td>
</tr>
</tbody>
</table>
C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

<table>
<thead>
<tr>
<th>Position of individual or committee</th>
<th>Responsibilities for climate-related issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board-level committee</td>
<td>Our Board of Directors oversees GFL’s overall strategic direction and monitors material risks and opportunities, including climate-related issues through our Nomination, Governance and Compensation (NGC) and Audit Committees. The NGC’s responsibilities include providing guidance to management in defining our sustainability-related goals and commitments and monitoring implementation of our Sustainability Action Plan that was disclosed in our 2021 Sustainability Report and ensuring that our goals, targets and commitments are periodically reviewed and revised in response to changing internal and external factors including the impact of evolving technologies and processes to monitor and capture landfill gas and to increase the efficiency and use of alternate fuels in our fleet. The full Charter for the NGC Committee is available at <a href="https://s24.q4cdn.com/409248530/files/governance_documents/2022/Nomination-Governance-and-Compensation-Committee-Charter.pdf">https://s24.q4cdn.com/409248530/files/governance_documents/2022/Nomination-Governance-and-Compensation-Committee-Charter.pdf</a>. Commencing with the fiscal year ended December 31, 2019, the NGC Committee tied 20% of the award for short-term incentive compensation for our 5 most senior executive officers to the achievement of specific annual non-financial metrics that, commencing with fiscal 2022, included achieving certain goals, targets and commitments set out in our Sustainability Action Plan within the time frames set out in the Plan.</td>
</tr>
</tbody>
</table>
The Audit Committee’s responsibilities include guiding management in identifying and managing key business risks and opportunities that could potentially have significant financial or social impacts on our business; and reviewing the company’s management of the identified risks and opportunities including the resiliency of our physical assets and business operations to the impacts of climate change. The full charter of the Audit Committee is available at https://s24.q4cdn.com/409248530/files/governance_documents/2022/Audit-Committee-Charter.pdf. Aligned with recommendations within the TCFD, the assessment of climate related risks and opportunities is incorporated into GFL’s enterprises risk management process, the implementation of which is overseen by the Audit Committee.

(C1.1b) Provide further details on the board’s oversight of climate-related issues.

<table>
<thead>
<tr>
<th>Frequency with which climate-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which climate-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other, please specify</td>
<td>Reviewing and guiding annual budgets</td>
<td>The Board of Directors meets on a quarterly basis with additional meetings called periodically as required to address specific issues as they arise. On a quarterly basis, the Board reviews our strategy, budgets and business plans for our business services which include our materials recovery and recycling services and renewable energy projects at our landfills. In terms of the Board’s oversight of climate-related issues, major capital expenditures, including for acquisitions and investments in infrastructure that will help us achieve our Sustainability Action Plan goals, may have impacts on our GHG footprint as well as the services we offer in certain markets. Examples of such investments include: CNG vehicles including those that are fuelled by RNG from our own landfill gas, the development of renewable natural gas facilities at our landfills, investments in new technologies at our material recovery facilities to increase our recovery rates and the development of new material recovery facilities or organics processing facilities.</td>
</tr>
<tr>
<td>Scheduled - two times per year</td>
<td>Overseeing major capital expenditures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overseeing acquisitions, mergers, and divestitures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overseeing and guiding employee incentives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overseeing the setting of corporate targets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monitoring progress towards corporate targets</td>
<td></td>
</tr>
</tbody>
</table>

In 2022, in our 2021 Sustainability Report, we released our first set of sustainability goals, targets and commitments which we call our Sustainability Action Plan. These include reducing GHG emissions from our own operations, increasing the volume of recyclables we manage and capturing more landfill gas for beneficial use (among other climate-related and non-climate...
Overseeing and guiding public policy engagement
Reviewing and guiding the risk management process
Other, please specify
Reviewing and guiding business plans [annually]

related commitments). GFL’s NGC Committee of the Board is responsible for providing guidance to management and GFL’s Sustainability Initiatives Committee (SUSIC) in monitoring the implementation of our Sustainability Action Plan and our progress towards achieving the goals, targets and commitments we have made in the time frames in which they are to be achieved. With our Sustainability Action Plan in place, the SUSIC will report on our progress to the NGC Committee semi-annually. As part of its annual review of the short-term compensation to be awarded to our 5 most senior executive officers, the NGC Committee will also assess the performance of those officers against the achievement of certain goals, targets and commitments that form part of our Sustainability Action Plan.

The Audit Committee provides oversight of GFL’s financial risk management, including financial risks related to climate change. The Audit Committee also provides oversight of GFL’s enterprise risk management process to ensure the identification and management of the key business risks and opportunities that could potentially have significant financial or social impacts on our business, including those that are climate related. GFL’s Risk Management Steering Committee, which oversees the implementation and management of our enterprise risk management process, reports to the Audit Committee.

C1.1d
(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

<table>
<thead>
<tr>
<th>Board member(s) have competence on climate-related issues</th>
<th>Criteria used to assess competence of board member(s) on climate-related issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>GFL’s Board of Directors currently consists of 10 members. The Board maintains a matrix of skills that it uses to assess the skills of its members and identify any potential gaps to be filled. Based on that matrix, a majority of our current Board members have experience and skills related to climate change and risk management. Our matrix and the distribution of skills across our Board members is publicly disclosed and available in our 2023 Management Information Circular at:</td>
</tr>
</tbody>
</table>
C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

<table>
<thead>
<tr>
<th>Position or committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability committee</td>
</tr>
</tbody>
</table>

**Climate-related responsibilities of this position**
- Developing a climate transition plan
- Integrating climate-related issues into the strategy
- Setting climate-related corporate targets

**Coverage of responsibilities**

**Reporting line**
- Other, please specify
  - NGC Committee of GFL’s Board of Directors

**Frequency of reporting to the board on climate-related issues via this reporting line**
- Half-yearly

**Please explain**
GFL’s Sustainability Initiatives Committee (SUSIC) is responsible for the implementation of our Sustainability Action Plan and its associated goals, targets and commitments. The committee meets quarterly and has responsibility for defining our sustainability-related key performance indicators to ensure accountability for achieving the goals and targets set out in our Sustainability Action Plan. Our CEO Chairs the SUSIC. All of our most senior executive officers, including our CFO, COO, Chief Legal Officer, Chief Human Resources Officer, EVP Strategic Initiatives,
Area Vice-President Environmental Services and other corporate VPs, including the Vice-President, Environmental Responsibility and Sustainability are members of the SUSIC. The SUSIC is responsible for ensuring that strategies to address evolving climate-related risks and opportunities are integrated into GFL’s overall business strategy and that a climate transition plan is developed. The SUSIC reports to the NGC semi-annually.

**Position or committee**
Chief Executive Officer (CEO)

**Climate-related responsibilities of this position**
- Managing annual budgets for climate mitigation activities
- Managing climate-related acquisitions, mergers, and divestitures
- Providing climate-related employee incentives
- Developing a climate transition plan
- Integrating climate-related issues into the strategy
- Setting climate-related corporate targets

**Coverage of responsibilities**

**Reporting line**
Reports to the board directly

**Frequency of reporting to the board on climate-related issues via this reporting line**
Annually

**Please explain**
Separate from his role as Chair of the SUSIC, GFL’s CEO oversees the development and implementation of our business strategy including, the development of landfill gas to renewable energy projects at our landfills. We expect these landfill gas projects to generate significant returns on our investment, help us to achieve our greenhouse gas reduction targets and help our customers realize their own sustainability goals by
providing a renewable fuel source to displace their use of virgin fuels. Our significant investment in renewable energy projects is reflected in the goal we set to double our beneficial use of biogas by 2030 and reduce our scope 1 from our landfills.

Position or committee
Chief Financial Officer (CFO)

Climate-related responsibilities of this position
Conducting climate-related scenario analysis
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Annually

Please explain
The CFO is the Chair of GFL’s Risk Management Steering Committee which oversees the implementation of our enterprise risk management process, including the assessment and management of climate-related risks and opportunities. To date, GFL has conducted a screening-level climate change risk assessment. This is the first step to a more formal physical risk analysis and detailed assessment of transition risks and opportunities to be conducted in 2023-2024. This more detailed work will inform GFL’s overall transition plan. The Risk Management Steering Committee also includes the COO, Chief Legal Officer, EVP Strategic Initiatives, Area Vice-President Environmental Services and other corporate VPs, including the Vice-President, Internal Audit and Compliance and the Vice-President, Environmental Responsibility and Sustainability. The Committee reports to the CEO and the Audit Committee of the Board on an annual basis.
Position or committee
Chief Operating Officer (COO)

Climate-related responsibilities of this position
- Managing annual budgets for climate mitigation activities
- Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
- Assessing climate-related risks and opportunities
- Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line
CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
The COO is responsible for managing annual budgets including for climate-related actions and major capital and/or operational expenditures related to low-carbon products or services other than our renewable landfill gas to energy projects that are the responsibility of our CEO.

The COO is also responsible for certain climate-related risk and opportunity management processes that are integrated into various company-wide business functions, systems, and processes including those related to our headline climate targets (the installation and operation of fugitive landfill gas management and collection systems to reduce our scope 1 emissions, annual solid waste fleet replacements with CNG or other alternative fuel vehicles, the use of RNG in our CNG fleet, the use of renewable electricity at our facilities to reduce our scope 2 emissions and investments in our material recycling and composting businesses that help our customers achieve their sustainability goals by reducing their GHG emissions).

The capital and operating expenditures for GFL’s next generation or incubator sustainability value initiatives (SVIs) which are identified through our Environmental Innovation Program as well as other R&D initiatives for our solid waste division are also overseen by the COO. The focus
areas for these SVIs are: fugitive emissions and energy resource management, customer sustainability pilots, advanced wastewater management, advanced material recovery and zero emissions vehicles.

The COO provides an operations report to the Board quarterly.

**C1.3**

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

<table>
<thead>
<tr>
<th>Provide incentives for the management of climate-related issues</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Commencing with the fiscal year ended December 31, 2019, GFL’s NGC Committee tied 20% of the award of short term incentive compensation for our 5 most senior executive officers to the achievement of specific annual non-financial metrics that, commencing with fiscal 2022, included achieving certain of the goals, targets and commitments (including those that are climate-related) set out in our Sustainability Action Plan within the time frames set out in the Plan.</td>
</tr>
</tbody>
</table>

**C1.3a**

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

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**Entitled to incentive**

Chief Executive Officer (CEO)

**Type of incentive**

Monetary reward
Incentive(s)
Bonus - % of salary

Performance indicator(s)
Other (please specify)
Establishment of climate-related goals, targets and commitments set out in our Sustainability Action Plan. Development and disclosure of annual sustainability reports and supplemental reports

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Our CEO is entitled to receive non-financial incentives on an annual basis based on company performance for the reporting year. 20% of non-financial incentives have been tied to achieving performance targets related to health and safety and the achievement of certain of our ESG goals.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Each year, the NGC Committee sets the performance targets for the coming year including non-financial metrics. In fiscal 2022, ESG-related metrics included establishing our ESG goals, targets and commitments through our Sustainability Action Plan, including those that are climate-related, were weighted at 20%. In fiscal 2022, GFL achieved all non-financial goals, including issuing our 2021 Sustainability Report and Sustainability Action Plan which sets our goals, targets and commitments.

Entitled to incentive
Chief Financial Officer (CFO)

Type of incentive
Monetary reward
Bonus - % of salary

**Performance indicator(s)**
Other (please specify)
- Establishment of climate-related goals, targets and commitments. Development and disclosure of annual sustainability reports and supplemental reports.

**Incentive plan(s) this incentive is linked to**
- Short-Term Incentive Plan

**Further details of incentive(s)**
Our CFO is entitled to receive non-financial incentives on an annual basis based on company performance for the reporting year. 20% of non-financial incentives have been tied to achieving performance targets related to health and safety and ESG goals.

**Explain how this incentive contributes to the implementation of your organization’s climate commitments and/or climate transition plan**
Each year, the NGC Committee sets the performance targets for the coming year including non-financial metrics. In fiscal 2022, ESG-related metrics included establishing our ESG goals, targets and commitments through our Sustainability Action Plan, including those that are climate-related, were weighted at 20%. In fiscal 2022, GFL achieved all non-financial goals, including issuing our 2021 Sustainability Report and Sustainability Action Plan which sets our goals, targets and commitments.

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**Entitled to incentive**
Chief Operating Officer (COO)

**Type of incentive**
Monetary reward

**Incentive(s)**
- Bonus - % of salary
Performance indicator(s)
Other (please specify)
  Establishment of climate-related goals, targets and commitments. Development and disclosure of annual sustainability reports and supplemental reports.

Incentive plan(s) this incentive is linked to
Short-Term Incentive Plan

Further details of incentive(s)
Our COO is entitled to receive non-financial incentives on an annual basis based on company performance for the reporting year. 20% of non-financial incentives have been tied to achieving performance targets related to health and safety and ESG goals.

Explain how this incentive contributes to the implementation of your organization’s climate commitments and/or climate transition plan
Each year, the NGC Committee sets the performance targets for the coming year including non-financial metrics. In fiscal 2022, ESG-related metrics included establishing our ESG goals, targets and commitments through our Sustainability Action Plan, including those that are climate-related, were weighted at 20%. In fiscal 2022, GFL achieved all non-financial goals, including issuing our 2021 Sustainability Report and Sustainability Action Plan which sets our goals, targets and commitments.

Entitled to incentive
Other C-Suite Officer

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Other (please specify)
Establishment of climate-related goals, targets and commitments. Development and disclosure of annual sustainability reports and supplemental reports.

**Incentive plan(s) this incentive is linked to**
- Short-Term Incentive Plan

**Further details of incentive(s)**
Our Executive Vice President, Strategic Initiatives and Chief Legal Officer are entitled to receive non-financial incentives on an annual basis based on company performance for the reporting year. 20% of non-financial incentives have been tied to achieving performance targets related to health and safety and ESG goals.

**Explain how this incentive contributes to the implementation of your organization’s climate commitments and/or climate transition plan**
Each year, the NGC Committee sets the performance targets for the coming year including non-financial metrics. In fiscal 2022, ESG-related metrics included establishing our ESG goals, targets and commitments through our Sustainability Action Plan, including those that are climate-related, were weighted at 20%. In fiscal 2022, GFL achieved all non-financial goals, including issuing our 2021 Sustainability Report and Sustainability Action Plan which sets our goals, targets and commitments.

**Entitled to incentive**
- Management group

**Type of incentive**
- Monetary reward

**Incentive(s)**
- Bonus - % of salary

**Performance indicator(s)**
- Other (please specify)
  - Variable depending on business area.
Incentive plan(s) this incentive is linked to
   Short-Term Incentive Plan

Further details of incentive(s)
   GFL Management are entitled to an annual bonus based on a percentage of salary for achieving performance objectives related to business performance, site performance and individual goals, including those which are climate related.

Explain how this incentive contributes to the implementation of your organization’s climate commitments and/or climate transition plan
   Many of these performance goals are achieved through growth in sales or operational efficiencies which also result in reductions of greenhouse gas emissions either for our customers (e.g., additional recycling services) or for GFLs operations (e.g. route efficiencies).

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
   Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

<table>
<thead>
<tr>
<th>Time Horizon</th>
<th>From (years)</th>
<th>To (years)</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>0</td>
<td>3</td>
<td>Short-term time horizon is aligned with broader operational, financial, and strategic planning timeframes.</td>
</tr>
<tr>
<td>Medium-term</td>
<td>3</td>
<td>10</td>
<td>Medium-term time horizon is aligned with capital decisions related to fleet.</td>
</tr>
</tbody>
</table>
C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

GFL’s definition of substantive financial impacts is consistent with our financial reporting obligations under applicable securities regulations. For the purposes of completing our screening level risk analysis of climate related risks, the direct financial impacts considered include revenue reduction or increased operating costs. Strategic impacts and indirect financial impacts considered include: 1) reputational impacts affecting stakeholder relationships, 2) operational impacts affecting business processes, systems, health and safety, or resulting in unplanned downtime, 3) people impacts related to employee engagement, productivity and displacement, 4) strategic impacts related to impact on transaction outcomes and customer satisfaction and 5) legal impacts related to damages or regulatory consequences such as fines or suspension or curtailment of operations. Depending upon the severity of the impact, any of these impacts alone or in combination could have a substantive financial or strategic impact on our business. As we conduct our detailed risk analysis for our standalone TCFD report, to be completed in 2024, our definitions for strategic impacts to our business may be refined or adjusted.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
- Direct operations
- Upstream
- Downstream

Risk management process
- A specific climate-related risk management process

Frequency of assessment

<table>
<thead>
<tr>
<th>Long-term</th>
<th>10</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Long-term time horizon is aligned with larger infrastructure capital decision including useful life of facilities including landfills.</td>
<td></td>
</tr>
</tbody>
</table>
Annually

**Time horizon(s) covered**
- Short-term
- Medium-term
- Long-term

**Description of process**
GFL identifies, assesses, and responds to climate-related risks and opportunities through both specific climate-related risk management processes as well as certain risk management processes that are integrated into various company-wide business functions, systems, and processes. The summary below describes our specific climate-related risk management processes.

Through a two-year engagement and under the direction of GFL’s Sustainability Committee (SUSIC), GFL’s sustainability team conducted a systematic review of those functional areas of the business listed below, to identify the risks and opportunities for that functional area. This review included a focus on operational emissions and resulted in the GHG reduction targets that GFL adopted as part of our Sustainability Action Plan, to mitigate our climate related risks in the short term, as well as the targets we set to continue to grow the services we provide that help our customers avoid GHG emissions.

The functional areas considered in the assessments described above were:
- Fleet & Procurement
- Recycling (material recovery facilities)
- Post Collections Support (landfills and transfer stations)
- Environmental Services (liquid waste and soil remediation services)
- Environmental Responsibility & Sustainability
- Environment, Health & Safety and Compliance
- Human Resources
- Corporate Development
- Legal
- Insurance
- Operations
GFL also engaged a third-party consulting firm to conduct a screening level risk/opportunity assessment that focused on physical and transition risks of GFL’s assets and business operations in the short, medium, and long-term. The screening level risk assessment identified priority areas for more detailed assessment and confirmed that the climate-related targets that the SUSIC had set as part of the Sustainability Action Plan were appropriate.

**Value chain stage(s) covered**
- Direct operations
- Upstream
- Downstream

**Risk management process**
- Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**
- More than once a year

**Time horizon(s) covered**
- Short-term
- Medium-term

**Description of process**
GFL identifies, assesses, and responds to climate-related risks and opportunities through both specific climate-related risk management processes as described above as well as certain risk management processes that are integrated into various company-wide business functions, systems, and processes. The time horizons for these risk and opportunity assessments are typically within the short (0 to 3 years) and medium term (3 to 10 years).

Addressing climate-related risks and opportunities are an inherent part of the following business functions, systems and processes:
- Capital planning for landfills, fleet and other facilities
- Environmental management system
- Safe for Life Program (Health & Safety Management System)
- Quarterly operating business reviews
- Annual budget reviews
- Environmental Innovation Program (which identifies our Sustainability Value Initiatives (SVIs))
- Supply chain management
- Business impact analysis

For example, risks and opportunities related to severe weather events are included in capital planning, our environmental management system, our Safe for Life program, as well as our business impact analysis, budget reviews and quarterly operating reviews. Unique to the waste industry, because we offer environmentally responsible collection, recycling and disposal of waste materials, severe weather events present both a potential risk to our physical assets and our employees which we can mitigate through appropriate planning, but also an opportunity for us to help our communities recover as GFL is often contracted to collect, recycle and dispose of storm debris.

GFL’s day to day business operations are managed at the local or asset level. As part of their focus on strategic and business planning, our local managers continuously assess the strengths, risks and opportunities impacting their local business, including potential acquisition opportunities, competitive pressures, organic growth plans such a recycling or compost diversion opportunities, market dynamics and pricing, and the potential impact of existing and proposed legislation and regulatory changes such as the introduction of Extended Producer Responsibility (EPR) regimes that encourage greater materials recycling. The local assessment of these risks and opportunities is reviewed annually at the corporate level through our annual budgeting process. Our executive and senior management teams that are responsible for both our corporate as well as our field level assets also meet regularly and at minimum in our quarterly operating reviews, to review and discuss our business strategy and identify trends impacting the business as a whole and in various regions of our business, as well as best practices to address those risks and opportunities, including risks to be address or opportunities to be pursued by us.

Our sustainability team plays a central role in these discussions both at the local and corporate level by working to identify and highlight to our local and senior managers the opportunities available to GFL to progress our climate goals. The sustainability team also brings forward in these discussions a greater awareness of the short- and medium-term climate related risks.
(C2.2a) Which risk types are considered in your organization’s climate-related risk assessments?

<table>
<thead>
<tr>
<th>Relevance &amp; inclusion</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current regulation</strong></td>
<td>Current regulations may impose restrictions on our operations or how we manage our assets including obtaining and complying with permits and licenses for certain aspects of our operations, such as our collections, recycling and disposal facilities and fleet. Examples of current regulations that we included in our screening-level climate risk assessment are landfill air emission requirements, the impacts of carbon pricing and the renewable fuel standard that impacts the market for renewable natural gas. As an example of the impact of current regulation on our operations, GFL created GFL Renewables in 2021, to focus on developing renewable natural gas (RNG), electricity and other renewable energy projects, such as wind and solar, at our landfills. These projects will increase our capture and beneficial use of landfill gas and produce RNG or electricity for commercial and industrial direct-use applications, including RNG as fuel in GFL’s own fleet of compressed natural gas (CNG) vehicles, and for sale into transportation or other voluntary markets. Capturing more landfill gas will also help us reduce our own GHG emissions making us less vulnerable to changing landfill air emission regulations. The renewable natural gas produced will help displace virgin fuels used in transportation vehicles, including our own fleet, and in other industrial uses, mitigating our risks from certain carbon-related fuel regulations. To maintain our focus on these risk mitigation strategies and achieve the benefits of our overall Sustainability Action Plan we established goals to decrease scope 1 and 2 emissions by 15%, to increase beneficial use of biogas from landfills by 2 times, to have 50% of annual solid waste fleet replacements be CNG or alternative fuel vehicles, and to have RNG power at least 85% of our CNG solid waste fleet in the United States, all by 2030.</td>
</tr>
<tr>
<td><strong>Emerging regulation</strong></td>
<td>Emerging regulations may create new operating requirements or impact our strategic plans in some of our markets. Our risk analysis considers the risks of climate-related regulations that may influence our business, such as Extended Producer Responsibility (EPR) legislation that may influence market conditions in certain markets in which we operate by shifting the responsibility for collection and processing of recyclables from municipalities to the producers of the recyclable materials. GFL believes that EPR legislation creates outsized opportunities for GFL to leverage its existing expertise in recyclables.</td>
</tr>
</tbody>
</table>
collection and processing to participate in new and innovative business models within our industry. For example, GFL is currently the only waste industry participant in North America with experience operating under an EPR regime as the sole contractor to Recycle B.C., the producer-led EPR system currently operating in British Columbia, Canada. Aligned with our focus on growth in this area, within GFL’s Sustainability Action Plan, we established a goal to increase recyclables recovered at GFL MRFs by 40% by 2030.

See also our description of GFL Renewables above which will help address emerging regulations that could impact GHG emissions from our landfill operations.

<table>
<thead>
<tr>
<th>Technology</th>
<th>Relevant, always included</th>
</tr>
</thead>
</table>
| New waste management and materials handling technologies are continuously evolving and these may impact the demand for our services and our ability to deliver them which, in turn, impacts our ability to address our climate-related impacts and support a low carbon transition. For example, within the waste management industry, new technology may emerge that increases recovery rates of our resource recovery facilities (organics composting, or material recovery facilities (MRFs)) or that decreases our fleet emissions. Inability to develop, adopt or implement technology at the right time and scale may create competitive disadvantages in a market that is increasingly demanding services to be low carbon and circular. Our dependence on technology in our operations could also, if any of our key technology fails or is unavailable, negatively impact our business. Similarly, we are increasingly reliant on information management systems to support our business decisions, improve efficiency and services to our customers and manage our workforce. Failure or interruption of these systems could also disrupt and negatively impact our business.

In response to these potential risks, among other strategies, we developed our award-winning Environmental Innovation Program (EIP). Our EIP takes employee-identified technologies and evaluates their potential impact on our business and plans their integration to help us achieve our circular economy and climate leadership goals. Unique to our program is its focus on supporting and exploring the innovative ideas of GFL’s employees whose local market-based knowledge and experience are essential to address our customers’ growing demand for sustainable solutions aligned with the circular economy.

Outside of the waste management industry, packaging is evolving to use less material to minimize waste along product value chains. Emerging technology is focused on solutions to meet the demand for biodegradable packaging as well as customized packaging techniques aimed at limiting the amount of material required. Research is exploring solutions that
could in some cases prolong product shelf-life and decrease the rate at which material is disposed. These innovative packaging solutions could lead to reduced landfill as well as recyclable waste volume at our operations and provide opportunities to work directly with their customers in the design and selection of materials for their packaging to optimize material recovery at our facilities.

<table>
<thead>
<tr>
<th>Legal</th>
<th>Relevant, always included</th>
</tr>
</thead>
</table>
| Regulatory agencies, environmental advocacy groups, investors, lenders and society in general have been increasingly focused on sustainability matters. We believe that this may result in expanded mandatory reporting, diligence and disclosure on topics such as climate change and other environmental and social risk issues. If we do not comply with these requirements, our reputation could be materially and adversely affected or we may be subject to legal claims or regulatory actions, any of which may have a material adverse effect on us.

To manage this risk, GFL has established governance mechanisms to provide oversight over our regulatory obligations, including subject matter experts within our Environmental Management Systems, and internal working groups which actively monitor the development of environmental and climate reporting regulations. In addition, we have established an internal, cross-functional Climate Change Disclosure Working Group consisting of our Chief Legal Officer, EVP Strategic Initiatives, VP Financial Reporting, VP Internal Audit and Compliance, VP Environmental Sustainability and Responsibility, and VP Environmental Risk Management. The working group meets regularly to share insights gained through monitoring external progress on securities-related requirements for climate-related financial disclosures to ensure that the criteria we use to determine the substantive financial or strategic impacts of climate related risks and opportunities on our business aligns with emerging securities-related criteria.

GFL is also an active stakeholder through the National Waste and Recycling Association, where it works together with other member companies that have the potential to be impacted by new climate legislation to provide the perspective of our industry to regulators.

<table>
<thead>
<tr>
<th>Market</th>
<th>Relevant, always included</th>
</tr>
</thead>
</table>
| Market risk is always considered as our industry is vulnerable to significant transformations due to climate change and the transition to a low carbon economy. A transition to a low-carbon economy may have a significant impact over supply/demand mechanisms of many commodities, favouring a circular economy model and boosting the demand for recycled materials. Many of the states or provinces in which we operate may also implement requirements to reduce the volume of waste materials that are accepted at landfills such as organics bans to encourage composting of food and yard waste and recyclables bans to encourage diversion of otherwise recyclable materials such as wood waste.

Legal Relevant, always included

Market Relevant, always included
GFL’s recyclables and organics collection and processing networks and existing relationships position us well to be awarded contracts to build and operate the infrastructure needed to facilitate greater recycling, composting and circularity. As an example, over the last two years, GFL has invested in dedicated recycling facilities that efficiently recycle wood-based waste materials such as pallets, crates, and lumber cut-offs into a range of products, including wood flour-filler, garden mulch, animal bedding, and other products. Our wood recycling business creates value from wood waste, drives landfill diversion and eliminates the environmental impact of processing lumber.

<table>
<thead>
<tr>
<th>Reputation</th>
<th>Relevant, always included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate change reputational risk is always included in our analysis due to the risk of changing customer or community perceptions of an organization's contribution to or detraction from the transition to a low carbon economy. For GFL, we believe that being recognized as positively contributing to the achievement of our customers' sustainability goals, as well as being a leader in reducing our own carbon footprint, will position us well with our customers. Increasing environmental concerns and demand for more stringent emission mitigation regulation could negatively affect the reputation of organizations like GFL operating within the waste management industry. Given our focus on providing environmental solutions that mitigate the impacts of climate change and improve material circularity (landfill gas to renewable energy projects, expanding our recycling and composting operations) we believe that GFL is well positioned to strengthen our customer's perception of our brand because of our positive contribution to the active management of environmental issues and providing solutions that address climate change concerns.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acute physical</th>
<th>Relevant, always included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute physical climate risks may pose a hazard to our operations and capital investments, as well as environmental, health and safety risks to our employees and the customers and communities in which we operate. Our screening assessment, conducted by a third-party engineering firm, used predictive climate models to assess the potential impacts of acute hazards like hurricanes, extreme precipitation, ice days, heavy snowfall, drought, extreme heat, and wildfires on our assets, customers and employees. We have identified facilities in our operations that are exposed to these hazards in the short, medium and the long term. We are further assessing the resilience of our facilities to extreme weather events as part of our formal physical risk analysis and detailed assessment of transition risks and opportunities we plan to complete in 2023 and 2024. While acute weather events may have negative impacts on our communities, we believe that our services are core to assisting our customers and communities in post-event recovery. For example, in our environmental services division, we offer emergency response services and site remediation capabilities that can be mobilized quickly to clean up potential</td>
<td></td>
</tr>
</tbody>
</table>
chemical spills or toxic releases resulting from extreme weather events thereby limiting their impacts on soil and groundwater and helping communities to return to normal faster. In addition, as described in Section C2.2, our solid waste operations provide post event collection, recycling, and disposal of storm debris.

### Chronic physical

| Relevant, always included | Chronic physical hazards pose risks to the ongoing effectiveness of our operating procedures. Our screening assessment, conducted by a third-party engineering firm, used predictive climate models to assess the potential of chronic stressors to impact our operations such as heat stress, chronic rainfall, sea level rise, and water stress. Our operations are currently most exposed to heat stress, given that most of our operations occur outdoors or in areas with limited climate control options. We have developed a heat stress policy to provide procedures to employees and managers for mitigating the risks of heat and cold stress during periods of extreme temperatures. The policy requires increasing frequency and duration of hydration breaks as temperatures increase. We intend to continue to further study how chronic hazards may impact the performance of our facilities and the health and safety of our employees and adopt appropriate policies and procedures to mitigate the impacts of newly identified hazards or as our understanding of the impacts on our operations increases. |

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**C2.3**

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

**Yes**

**C2.3a**

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Risk 1</th>
</tr>
</thead>
</table>

**Where in the value chain does the risk driver occur?**

Direct operations
Risk type & Primary climate-related risk driver
Emerging regulation
Carbon pricing mechanisms

Primary potential financial impact
Increased indirect (operating) costs

Company-specific description
Various levels of government in the U.S. and Canada have implemented, or are considering implementing, a price on carbon through mechanisms including carbon taxes on fuel, low-carbon fuel standards and cap-and-trade systems. Currently, fuel used by GFL in our fleet and non-fleet vehicles is subject to a carbon tax in jurisdictions across Canada where we operate.

We operate a large fleet of vehicles in North America with fossil fuel consumption accounting for over $400 million CAD in annual operating expenses in 2022. We rely on diesel fuel to run the majority of our solid and liquid waste collection vehicles and other equipment used in our operations. The price and supply of diesel fuel can fluctuate significantly based on international, political, and economic circumstances, as well as other factors outside of our control, such as carbon pricing mechanisms. Because of the volume of fuel, we purchase each year, a significant increase in the price of fuel could increase our operating costs and reduce our operating margins. To manage a portion of this risk, we periodically enter into fuel hedging agreements, and fixed price fuel purchase contracts. We have established a goal of 50% of annual solid waste fleet replacements to be with CNG or alternative fuel vehicles. As part of our Sustainability Action Plan, we have also established a goal of having RNG power at least 85% of our CNG solid waste fleet in the United States by 2030. Using lower carbon fuels will help mitigate the compliance cost in jurisdictions applying a carbon tax on fuels used in the transportation sector.

Our solid waste surcharge pricing strategy is implemented across the business and aims to recover costs associated with fuel and other environmental compliance costs. The surcharge strategy aligns fuel and environmental rates to policy, such as carbon tax systems. We use a custom-built pricing tool to embed local operating costs, including carbon taxes, to manage our fuel costs in areas with existing or anticipated carbon tax systems.

Time horizon
Medium-term

Likelihood
More likely than not

**Magnitude of impact**
Medium

**Are you able to provide a potential financial impact figure?**
No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

**Cost of response to risk**

**Description of response and explanation of cost calculation**

**Comment**

---

**Identifier**
Risk 2
Where in the value chain does the risk driver occur?

**Direct operations**

**Risk type & Primary climate-related risk driver**

- Acute physical
  - Cyclone, hurricane, typhoon

**Primary potential financial impact**

- Increased direct costs

**Company-specific description**

Our solid waste and environmental services operations can be adversely affected by inclement or severe weather, which could cause delays in our ability to collect, process and dispose of waste materials, reduce the volume of waste delivered to our disposal sites, delay construction activities at our facilities or cause us to incur incremental labour, maintenance and equipment costs and penalties, some or all of which we may not be able to recover from our customers. Some of these impacts have already been experienced by our operations.

Our facilities located in the Southeastern and Southern U.S. are particularly susceptible to hurricanes and tropical storms and we have seen an increase in frequency and severity of weather-related incidents in the past several years. In addition, other events like winter storms or climate extremes resulting from climate change may also force us to temporarily suspend some of our operations and as a result affect our operating results in the affected regions or markets. When these events occur, our services are also key to assisting our customers and communities in post-event recovery, cleanup and preventing additional environmental damage and contamination.

Risks and opportunities related to severe weather events are included in our capital planning, Environmental Management Systems and our Safe for Life program, as well as our business impact analysis, budget reviews and quarterly operating reviews.

GFL also reviews physical risks as part of annual capital planning, where risks to assets are identified, prioritized, and budgets allocated to address both risk and opportunities. Quarterly operating reviews report on effectiveness of the risk mitigating efforts, including near-misses, losses, and lessons learned from severe weather events. Severe weather is monitored, and regional business leaders convene to plan for an upcoming event, including putting clean-up equipment and back-up generators on stand-by for quick mobilization.
Our environmental and health and safety management systems require the development of and training on emergency response plans including hurricane response plans for specific facilities in at risk regions.

**Time horizon**
- Short-term

**Likelihood**
- Very likely

**Magnitude of impact**
- Medium-high

**Are you able to provide a potential financial impact figure?**
- No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

**Cost of response to risk**

**Description of response and explanation of cost calculation**
Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Downstream

Risk type & Primary climate-related risk driver
Market
Uncertainty in market signals

Primary potential financial impact
Decreased revenues due to reduced demand for products and services

Company-specific description
Our business is vulnerable to regulations impacting the waste industry that seek to accelerate the transition to a low carbon economy or reduce waste consumption. For example, Extended Producer Responsibility (EPR) legislation that shifts partial or total responsibility from individual residents or municipalities to producers to fund the post-use life cycle of their products could impact on volumes of recyclables that we collect or process at our material recovery facilities. Producers may also be required to take over the management of local recycling programs by taking back their products from end users or managing collection operations and recycling processing infrastructure. This may adversely impact the recyclable streams we currently manage, including contract terms and pricing. While there are no federal laws establishing EPR in the United States or Canada some provincial, state, and local governments have taken steps to implement EPR legislation. We anticipate that EPR may gain further traction as an option to incentivize producers to produce more recyclable materials or reduce the volume of waste associated with their packaging or products.

In anticipation of the introduction of EPR legislation and other regulatory initiatives that may impact the waste streams that GFL collects and processes, we have increasingly focused our strategy in markets that favour greater diversion and providing solutions that align with changing
regulatory regimes including EPR.

On the impact of EPR, GFL believes that while EPR legislation may create risks, it also creates outsized opportunities for GFL to leverage its existing expertise in recyclables collection and processing to participate in new and innovative business models within our industry. For example, GFL is currently the only waste industry participant in North America with experience operating under an EPR regime as the sole contractor to Recycle B.C., the producer led EPR system currently operating in British Columbia, Canada. One of our goals set out in our Sustainability Action Plan is to increase our recyclables recovered by 40% by 2030 through increasing the volume of recyclables received at our facilities by making investments in sophisticated sorting technologies and expanding our sorting capacity to meet increasing customer demand at existing and to-be-constructed facilities. This goal aligns us well for business resilience related to these market-based transition risks.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Cost of response to risk

Description of response and explanation of cost calculation

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

<table>
<thead>
<tr>
<th>Identifier</th>
<th>Opp1</th>
</tr>
</thead>
</table>

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets
Primary climate-related opportunity driver
Other, please specify
   Development and/or expansion of low emission goods and services

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
In the transition to a low carbon economy, there will be increasing demand for fuels which have a lower overall carbon footprint. Further, companies and governments will be looking for service providers in the waste management industry that have lower carbon operations and services.

In 2022, over 4 million MMBtu of landfill gas was recovered from our landfills for beneficial use. Landfill gas recovered was used to produce electricity to supply local electricity markets or for our own use or converted to pipeline renewable natural gas (RNG) for use as an alternative fuel. In 2021 we formed GFL Renewables to be our platform for accelerating the development of landfill gas to energy (RNG and electricity) and other renewable energy projects such as wind and solar at some of our landfills. In our Sustainability Action Plan, we established our goal to double the beneficial use of biogas from our landfills which will be achieved through the development of new landfill gas to energy projects at our landfills. We currently have over 20 renewable energy projects at various stages in our pipeline. We expect these projects to generate significant returns on our investment, with the first 4 projects expected to come on-line in late 2023 or early 2024. These projects will increase our capture and beneficial use of landfill gas and produce RNG or electricity. The RNG will be used as a direct-use fuel, including as fuel in GFL’s own fleet of compressed natural gas (CNG) vehicles, and for sale into the transportation or other voluntary markets. Capturing more landfill gas will also help us reduce our own GHG emissions. The renewable natural gas produced will help displace virgin fuels used in transportation vehicles, including our own fleet, and in other industrial uses, mitigating our risks from certain carbon-related regulations.

In addition to our goal to increase our beneficial use of landfill gas, we have established goals to have at least 50% of our annual replacement of diesel solid waste vehicles be CNG or alternative fuel vehicles, and at least 85% of our CNG fleet in the United States be powered by RNG fuel, including RNG produced from our landfills by 2030.

Time horizon
Medium-term
Likelihood
   Likely

Magnitude of impact
   Medium-high

Are you able to provide a potential financial impact figure?
   No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Comment

---

Identifier
Opp2

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Markets

Primary climate-related opportunity driver
Other, please specify
Development and/or expansion of low emission goods and services

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
Reducing both waste generation and the use of virgin raw materials are important actions to transition to a circular and low carbon economy. The circular economy is emerging as a model of production and consumption involving, reusing, repairing, refurbishing, or recycling goods by introducing collection and re-processing systems throughout the value chain. As an environmental solutions provider, our network of collection vehicles, transfer stations, sorting and processing facilities enables us to play a key role in the circular economy by providing cost-effective, efficient and environmentally responsible collection and sorting of materials post-collection for re-use processing. The circular nature of our activities eliminates energy and emissions required to manufacture products from raw materials.

The pathway to meeting our goal of increasing recyclables recovered at our facilities by 40% by 2030 is through increasing the volume of recyclables received at our facilities, continuing to make investments in sophisticated sorting technologies and expanding our sorting capacity to meet increasing customer demand at existing and to-be-constructed facilities. In May 2020, we assumed the responsibility of managing and processing over 200,000 tonnes per year of packaging and paper material for RecycleBC, currently the only full Extended Producer Responsibility (EPR) program in North America. In 2022, we completed the construction of a state-of-the-art MRF in Pontiac, Michigan which will have the capacity to process over 110,000 tonnes of recyclables per year. The new facility is modelled after our Winnipeg, Manitoba MRF, that was recognized in 2020 by the National Waste and Recycling Association (NWRA) as Recycling Facility of the Year. We were proud to receive this same award in 2022 for our Multi-Material Recovery Campus (GFL’s Arrow Road MRF in Toronto, Ontario, Canada).
<table>
<thead>
<tr>
<th>Time horizon</th>
<th>Medium-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood</td>
<td>Very likely</td>
</tr>
<tr>
<td>Magnitude of impact</td>
<td>Medium-high</td>
</tr>
</tbody>
</table>

**Are you able to provide a potential financial impact figure?**
No, we do not have this figure

**Potential financial impact figure (currency)**

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact figure**

**Cost to realize opportunity**

**Strategy to realize opportunity and explanation of cost calculation**

**Comment**
Identifier
   Opp3

Where in the value chain does the opportunity occur?
   Downstream

Opportunity type
   Resilience

Primary climate-related opportunity driver
   Other, please specify
      Development of climate adaptation, resilience, and insurance risk solutions

Primary potential financial impact
   Increased revenues resulting from increased demand for products and services

Company-specific description
   We play a key role in providing safe and reliable environmental solutions to our communities. This is especially true during challenging times, such as after extreme or inclement weather events. These events can produce large volumes of debris, waste, and can also cause water contamination (e.g., from sewage overflows) and flooding. For the community to recover, waste, excess and contaminated water must be safely removed and disposed of in an environmentally responsible manner. In these situations, the services that GFL provides are indispensable, resulting in an increased demand for our services and increased revenue.

   Within our environmental services business, we provide emergency response services, available 24 hours a day, 365 days a year. Our emergency response services provide timely technical responses to incidents involving road, rail or air transport spills or releases, including the containment and proper transportation of waste materials that could contaminate groundwater, rivers, or streams.

   We intend to continue to enhance our emergency response capabilities for the benefit of the customers and communities we serve in response to the growing impact of climate change resulting in extreme weather events.
Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-low

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Comment
C3. Business Strategy

C3.1

(C3.1) Does your organization’s strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years.

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

As detailed in our 2021 Sustainability Report, we have committed to a three-year roadmap to our first standalone TCFD Report. To achieve this, we will establish a climate transition plan over the next two years. The key milestones in our roadmap include: conducting formal physical risk analysis and detailed assessment of transition risk and opportunities; identifying, prioritizing and assessing materiality of climate-related risks and opportunities in the short, medium and long-term; developing and documenting formal processes to assess impact of climate-related risks and opportunities on our business, strategy and financial planning; and developing or updating our risk management plans and policies to mitigate exposure to identified material climate risks and integrating these plans and policies into our Enterprise Risk Management process.

Our 2021 Sustainability Report also included our Sustainability Action Plan, including our ambition to be recognized as a circular economy and climate leader in our industry. As such, the first set of goals that we have established focus on reducing our own GHG emissions while prioritizing the important role we play in the transition to a circular and low-carbon economy through the services and products we provide. We have set ambitious short-term goals that align with our business strategy and represent the highest and best use of our capital resulting in sustainable growth for our business as well as meaningful reductions to our customers’ and our own GHG emissions.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?
Use of climate-related scenario analysis to inform strategy

| Row 1 | Yes, qualitative, but we plan to add quantitative in the next two years |

C3.2a

(C3.2a) Provide details of your organization’s use of climate-related scenario analysis.

<table>
<thead>
<tr>
<th>Climate-related scenario</th>
<th>Scenario analysis coverage</th>
<th>Temperature alignment of scenario</th>
<th>Parameters, assumptions, analytical choices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical climate scenarios RCP 8.5</td>
<td>Facility</td>
<td></td>
<td>In 2022, we completed a screening-level climate scenario analysis to identify our top climate-related risks and opportunities. Analytical choices: Our physical climate scenario analysis used the RCP8.5 warming scenario to screen for high physical impacts. This scenario results in 3.2 – 5.4°C of average global temperature rise by 2100, relative to pre-industrial times. Parameters: Within the screening-level climate scenario analysis the potential impacts of a set of discrete climate hazards were evaluated. The hazards assessed included: heat stress, ice days, extreme and extended precipitation, drought and water stress, river and sea-level flooding, tropical storms, wildfires, and snowstorms. These hazards were assessed at all our operating facilities including hauling facilities, transfer stations, landfills, material recovery facilities (MRFs), organics processing and offices, liquid waste storage and processing facilities. Assumptions: Hazard exposure was measured as average impacts for the short and medium term (2022-2030), as well as the long term (2030-2050). Exposure was qualitatively scored based on the degree of change in these variables relative to a historical baseline. Vulnerability of each of these facilities to the selected hazards was assessed qualitatively on a 5-point scale</td>
</tr>
</tbody>
</table>
Transition scenarios
Customized publicly available transition scenario

<table>
<thead>
<tr>
<th>Focal questions</th>
<th>We considered the following focal questions in conducting our scenario analysis:</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can we use the scenario process:</td>
<td></td>
</tr>
<tr>
<td>1) To integrate climate risks within our broader risk management processes?</td>
<td></td>
</tr>
<tr>
<td>2) To subsequently identify high risk assets, business lines, and regions?</td>
<td></td>
</tr>
<tr>
<td>3) To more systematically understand and further identify potential physical and transition climate-related opportunities?</td>
<td></td>
</tr>
<tr>
<td>4) To inform our climate-related reporting.</td>
<td></td>
</tr>
</tbody>
</table>

Results of the climate-related scenario analysis with respect to the focal questions
Our screening-level scenario analysis has allowed us to directly address the questions we sought to answer. Specifically:

1) We aligned the scenario analysis approach with our risk management processes, specifically the assignment of exposure and vulnerability thresholds, allowing us to tune the results to align with our enterprise risk management process.
2) We identified assets for further assessment based on exposure to physical hazards.
3) The process allowed us to better articulate the risks and opportunities we face under a low carbon transition. Further, we have a stronger understanding of the next steps we need to take to better capture opportunities.
4) We have included scenario analysis in our CDP response and plan to report further results as part of future TCFD-related reporting.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

<table>
<thead>
<tr>
<th>Have climate-related risks and opportunities influenced your strategy in this area?</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products and services</td>
<td>Yes</td>
</tr>
<tr>
<td>As per Section 2, our business is vulnerable to regulations impacting the waste industry generally that seek to accelerate the transition to a low carbon economy or reduce waste consumption. For example, Extended Producer Responsibility (EPR) legislation. In anticipation of the introduction of EPR, we have increasingly focused our strategy in markets that favour greater diversion and on providing solutions that align with changing regulatory regimes. We believe that EPR also creates outsized opportunities to leverage our existing expertise in recyclables collection and processing to participate in new and innovative business models within our industry and was one factor in our decision to set a goal to increase our recyclables recovered at our facilities by 40% by 2030. Also, in the transition to a low carbon economy, there will be increasing demand for fuels which have a lower overall carbon footprint. Further, Companies and governments will be looking for service providers in the waste management industry that have lower carbon operations and services. In 2021 we formed GFL Renewables to be our platform for accelerating the development of landfill gas to energy (RNG and electricity) other renewable energy projects such as wind and solar at some of our landfills. In our Sustainability Action Plan, we established our goal to double the beneficial use of biogas from our landfills which will be achieved.</td>
<td></td>
</tr>
</tbody>
</table>
through the development of new landfill gas to energy projects at our landfills. We currently have over 20 renewable energy projects at various stages in our pipeline. We expect these projects to generate significant returns on our investment, with the first 4 projects expected to come on-line in late 2023 or early 2024. These projects will increase our capture and beneficial use of landfill gas and produce RNG or electricity. The RNG will be used as a direct-use fuel, including as fuel in GFL’s own fleet of compressed natural gas (CNG) vehicles, and for sale into the transportation or other voluntary markets. Capturing more landfill gas will also help us reduce our own GHG emissions. The renewable natural gas produced will help displace virgin fuels used in transportation vehicles, including our own fleet, and in other industrial uses, mitigating our risks from certain carbon-related regulations.

<table>
<thead>
<tr>
<th>Supply chain and/or value chain</th>
<th>Evaluation in progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>We deal with hundreds of suppliers that we rely on for our business. We place an emphasis on sourcing products and services from local suppliers close to our sites which helps to maintain efficient operations and supports the local economy. As such, information collected as part of our assessment of physical risks from severe weather events for our operations may also be relevant to our supply chain. Through our Supplier Code of Conduct, we require that all of our suppliers are committed to ensuring environmental compliance, reducing consumption of scarce resources, and managing waste streams in an environmentally responsible manner. As part of our Sustainability Action Plan, we have committed to completing sustainability supply chain management audits for 100 of our critical tier 1 suppliers by 2025 to ensure our continued alignment which may include further assessment of our suppliers against climate-related matters.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Investment in R&amp;D</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate related risks and opportunities have influenced our investment in R&amp;D. As previously described in section C2, in the transition to a low carbon economy, we expect that there will be increasing demand for fuels which have a lower overall carbon footprint. Further, companies and governments will be looking for service providers in the waste management industry that have lower carbon operations and services. In 2021 we formed GFL Renewables to be our platform for accelerating the development of landfill gas to energy (renewable RNG and electricity) and other renewable energy projects such as wind and solar at some of our landfills. In our Sustainability Action Plan, we established our goal to double the beneficial use of biogas from our landfills which will be achieved through the development of new RNG projects at our landfills. We currently have over 20 renewable energy projects at various stages in our pipeline. We expect these projects to generate significant returns on our investment, with</td>
<td></td>
</tr>
</tbody>
</table>
the first 4 projects expected to come on-line in late 2023 or early 2024. These projects will increase our capture and beneficial use of landfill gas and produce RNG or electricity. The RNG will be used as a direct-use fuel, including as fuel in GFL’s own fleet of compressed natural gas (CNG) vehicles, and for sale into the transportation or other voluntary markets. Capturing more landfill gas will also help us reduce our own GHG emissions. The renewable natural gas produced will help displace virgin fuels used in transportation vehicles, including our own fleet, and in other industrial uses, mitigating our risks from certain carbon-related regulations.

Our award-winning Environmental Innovation Program (EIP) also supports our investment in R&D to address climate-related risks and opportunities. As previously described in section C2, our EIP takes employee-identified technologies and systems and evaluates their potential impact on our business and plans their integration to help us achieve our circular economy and climate leadership goals. Unique to our program is its focus on supporting and exploring the innovative ideas of GFL’s employees whose local market-based knowledge and experience are essential to address our customers’ growing demand for sustainable solutions aligned with the circular economy.

<table>
<thead>
<tr>
<th>Operations</th>
<th>Yes</th>
</tr>
</thead>
</table>
| As disclosed in section C2.3a Risk 2, our solid waste and environmental services operations can be adversely affected by inclement or severe weather, which could cause delays in our ability to collect, process and dispose of waste materials, reduce the volume of waste delivered to our disposal sites, delay construction activities at our facilities or cause us to incur incremental labour, maintenance and equipment costs and penalties, some or all of which we may not be able to recover from our customers. Risk and opportunities related to severe weather events are included in capital planning, our Environmental Management System, our Safe for Life program, as well as our business impact analysis, budget reviews and quarterly operating reviews.

Additionally, as disclosed in section 2.4a Opp1 we have and are planning to install additional landfill gas to energy (RNG and electricity) facilities at our landfills. We currently have over 20 renewable energy projects at various stages in our pipeline. We expect these projects to generate significant returns on our investment, with the first 4 projects expected to come on-line in late 2023 or early 2024. The renewable natural gas produced will help displace virgin fuels used in transportation vehicles, including
our own fleet, and in other industrial uses, mitigating our risks from certain carbon-related regulations (as disclosed in section 2.3a Risk 1) and supporting our sustainability goals to double our beneficial use of biogas and reduce our GHG emissions by 15% by 2030.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

<table>
<thead>
<tr>
<th>Financial planning elements that have been influenced</th>
<th>Description of influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>As we have described previously in this section and in section 2.4a, in 2022, over 4 million MMBtu of landfill gas was recovered from our landfills for beneficial use. Landfill gas recovered was used to produce electricity to supply local electricity markets or for our own use or converted to pipeline renewable natural gas (RNG) for use as an alternative fuel. In 2021 we formed GFL Renewables to be our platform for accelerating the development of landfill gas to energy (RNG and electricity) and other renewable energy projects such as wind and solar at some of our landfills. In our Sustainability Action Plan, released in late 2022, we established our goal to double the beneficial use of biogas from our landfills which will be achieved through the development of new landfill gas to energy projects at our landfills. We currently have over 20 renewable energy projects at various stages in our pipeline. We expect these projects to generate significant returns on our investment, with the first 4 projects expected to come on-line in late 2023 or early 2024. These projects will increase our capture and beneficial use of landfill gas and produce RNG or electricity. The RNG will be used as a direct-use fuel, including as fuel in GFL’s own fleet of compressed natural gas (CNG) vehicles, and for sale into the transportation or other voluntary markets. Capturing more landfill gas will also help us reduce our own GHG emissions. The renewable natural gas produced will help displace virgin fuels used in transportation vehicles, including our own fleet, and in other industrial uses, mitigating our risks from certain carbon-related regulations.</td>
</tr>
<tr>
<td>Direct costs</td>
<td></td>
</tr>
<tr>
<td>Indirect costs</td>
<td></td>
</tr>
<tr>
<td>Capital expenditures</td>
<td></td>
</tr>
<tr>
<td>Capital allocation</td>
<td></td>
</tr>
<tr>
<td>Acquisitions and divestments</td>
<td></td>
</tr>
<tr>
<td>Access to capital</td>
<td></td>
</tr>
<tr>
<td>Assets</td>
<td></td>
</tr>
<tr>
<td>Liabilities</td>
<td></td>
</tr>
</tbody>
</table>

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization’s climate transition?
C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Is this a science-based target?</th>
<th>Target ambition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abs 1</td>
<td>No, and we do not anticipate setting one in the next two years</td>
<td></td>
</tr>
</tbody>
</table>

Year target was set
2022

Target coverage
Company-wide
**Scope(s)**
Scope 1
Scope 2

**Scope 2 accounting method**
Market-based

**Scope 3 category(ies)**

**Base year**
2021

**Base year Scope 1 emissions covered by target (metric tons CO2e)**
3,942,460

**Base year Scope 2 emissions covered by target (metric tons CO2e)**
33,703

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)**

**Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)**
Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
3,976,163

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2030

Targeted reduction from base year (%)
15

**Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]**
3,379,738.55

**Scope 1 emissions in reporting year covered by target (metric tons CO2e)**
4,142,262

**Scope 2 emissions in reporting year covered by target (metric tons CO2e)**
30,802

**Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)**

**Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)**
Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
4,173,064

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
-33.0135694471

Target status in reporting year
New

Please explain target coverage and identify any exclusions
Our target covers all scope 1 and market-based scope 2 emissions sources including fugitive methane emissions from landfills, our fleet, and all energy purchases.

The largest portion of our scope 1 emissions are from our landfills. GHG emissions generated by landfills are a function of waste that has been received in prior years. As waste degrades over an extended period it continues to generate increased levels of methane for many years after its placement.

Emissions from the combustion of fuel by our fleet is the second largest contributor to our scope 1 GHG emissions.

Scope 2 emissions include indirect emissions from electricity use across our operations.

Plan for achieving target, and progress made to the end of the reporting year
As anticipated in the emissions reduction pathway disclosed in our 2021 Sustainability Report, our adjusted 2022 scope 1 and 2 emissions remained relatively flat as compared to our base year emissions. We plan to adjust our 2021 (base year) reported emissions in the 2023 reporting year and this recalculation will include the impact of acquisitions (net of divestitures), boundary changes within our inventory, and changes to our calculation methodologies that we made in 2022. Our scope 1 and 2 emissions show a year over year increase of 5% but this includes the impact of acquisitions (net of divestitures) made in 2021 and 2022 which our analysis confirms is the primary driver of the majority
With our operations shifting their view of landfill gas as a renewable energy resource, the future of landfill gas management is focused on continuing to ensure environmental protection while achieving higher gas capture efficiencies to reduce fugitive landfill gas emissions. This shift is a key part of our plan to achieve our goal to reduce scope 1 and 2 GHG emissions by 15% by 2030.

To facilitate this, in 2022 through our newly formed Landfill Gas Working Group we are improving our tracking of emissions from our landfills and participating in industry working groups to develop the next generation of tools to measure landfill gas emissions. We are also making investments in enhanced gas capture systems at some of our landfills where we are developing renewable energy facilities.

To reduce our fleet emissions, another key action we are taking is our target to have 50% of our annual solid waste fleet replacements be with CNG or alternative fuel vehicles. Through 2021 and 2022 the average replacement of our solid waste collection feet with CNG vehicles was 48%. In addition to increasing the percentage of CNG or alternative fuel vehicles in our solid waste collection fleet by 2030, our goal is to have at least 85% of our US CNG fleet powered by RNG including RNG produced from our landfills. To reduce our scope 2 emissions, we have committed to 100% use of renewable electricity in operations under our control by 2030. We plan to achieve this goal by using landfill gas for heat and power, installing other forms of renewable energy and purchasing electricity from market-based instruments. As a first step, in 2022 we implemented a utility bill management system to improve the quality of our data on our electricity usage which had previously been estimated.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

- Target(s) to increase low-carbon energy consumption or production
- Target(s) to reduce methane emissions

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.
Target reference number
Low 1

Year target was set
2021

Target coverage
Company-wide

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2021

Consumption or production of selected energy carrier in base year (MWh)
168,147

% share of low-carbon or renewable energy in base year
0

Target year
2030

% share of low-carbon or renewable energy in target year
% share of low-carbon or renewable energy in reporting year
0

% of target achieved relative to base year [auto-calculated]
0

Target status in reporting year
New

Is this target part of an emissions target?
Yes, this target is part of our pathway to achieving our absolute target of a 15% reduction in scope 1 and 2 emissions by 2030.

Is this target part of an overarching initiative?
No, it's not part of an overarching initiative

Please explain target coverage and identify any exclusions
Our Sustainability Action Plan includes a commitment to 100% use of renewable electricity in operations under our control by 2030.

Plan for achieving target, and progress made to the end of the reporting year
As part of our Sustainability Action Plan we have made a commitment to 100% use of renewable electricity in operations under our control by 2030. We intend to achieve this target by using landfill gas to heat and power some of our facilities, partnering with renewable energy companies to install other forms of renewable energy (such as solar) at sites such as closed landfills, and purchasing electricity from market-based instruments. In 2022 we improved our data quality for tracking our electricity use through the implementation of a utility bill information management system which we believe is the first step towards achieving our scope 2 reductions and 100% use of renewable electricity goal.

List the actions which contributed most to achieving this target
**C4.2b**

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Oth 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year target was set</td>
<td>2022</td>
</tr>
<tr>
<td>Target coverage</td>
<td>Business activity</td>
</tr>
<tr>
<td>Target type: absolute or intensity</td>
<td>Absolute</td>
</tr>
<tr>
<td>Target type: category &amp; Metric (target numerator if reporting an intensity target)</td>
<td>Renewable fuel production</td>
</tr>
<tr>
<td></td>
<td>Other, please specify</td>
</tr>
<tr>
<td></td>
<td>million BTU</td>
</tr>
<tr>
<td>Target denominator (intensity targets only)</td>
<td>Base year</td>
</tr>
<tr>
<td></td>
<td>2021</td>
</tr>
<tr>
<td>Figure or percentage in base year</td>
<td>5,267,051</td>
</tr>
<tr>
<td>Target year</td>
<td></td>
</tr>
</tbody>
</table>
Figure or percentage in target year  
10,534,102

Figure or percentage in reporting year  
4,011,694

% of target achieved relative to base year [auto-calculated]  
-23.8341531153

Target status in reporting year  
New

Is this target part of an emissions target?  
Included in our Sustainability Action Plan is our goal to increase by 2x the beneficial use of biogas from our landfills by 2030. By capturing more gas for beneficial use, and achieving higher gas capture efficiencies, we will reduce fugitive landfill gas emissions. These are key actions required to achieve our goal of reducing our total scope 1 and 2 GHG emissions by 15% by 2030.

Is this target part of an overarching initiative?  
Reduce short-lived climate pollutants

Please explain target coverage and identify any exclusions  
The target includes all the landfills within our portfolio that are within our operational control.

Plan for achieving target, and progress made to the end of the reporting year  
In 2021, we formed GFL Renewables, our platform to develop landfill gas to renewable energy projects at our landfills, as well as solar and wind opportunities. We currently have more than 20 renewable energy projects at various stages of development in our pipeline.

As these projects are developed we expect to achieve our target by 2030.

To help accelerate our pathway to achieving our 15% reduction in scope 1 and 2 emissions goal, in 2022 we formed an internal Landfill Gas
Working Group which includes a cross-section of employees from our sustainability, landfill management, RNG development, health and safety, and environmental compliance teams that work together to implement best landfill gas capture, management and measuring practices.

Within the reporting year, mergers/acquisitions and divestiture activity resulted in a net reduction in the amount of beneficial gas that we use at our landfills by approximately 4%.

In addition, in preparation for the transition to renewable energy projects at our sites currently in development, three of our larger landfill sites that beneficially used landfill gas in our base year came offline temporarily resulting in a 25% reduction in our overall quantity of landfill gas that was beneficially used (and the appearance of negative progress towards our goal). These projects are anticipated to come on-line in 2023.

In our landfill gas beneficial use projects that are already on-line, from our base year (2021) to 2022 we achieved a net increase in beneficial use of 5% primarily driven by one landfill which had a full year of operation after having come on-line in late 2021.

List the actions which contributed most to achieving this target

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

<table>
<thead>
<tr>
<th>Number of initiatives</th>
<th>Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under investigation</td>
<td></td>
</tr>
<tr>
<td>To be implemented*</td>
<td></td>
</tr>
</tbody>
</table>
C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

<table>
<thead>
<tr>
<th>Initiative category &amp; Initiative type</th>
<th>Waste reduction and material circularity</th>
<th>Product/component/material reuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated annual CO2e savings (metric tonnes CO2e)</td>
<td>9,102,875</td>
<td></td>
</tr>
<tr>
<td>Scope(s) or Scope 3 category(ies) where emissions savings occur</td>
<td>Scope 3: Other (upstream)</td>
<td>Scope 3: Other (downstream)</td>
</tr>
<tr>
<td>Voluntary/Mandatory</td>
<td>Voluntary</td>
<td></td>
</tr>
<tr>
<td>Annual monetary savings (unit currency – as specified in C0.4)</td>
<td>346,300,000</td>
<td></td>
</tr>
<tr>
<td>Investment required (unit currency – as specified in C0.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payback period</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
No payback

**Estimated lifetime of the initiative**
Ongoing

**Comment**
Emissions savings are the estimated avoided emissions associated with the annual collection and processing of materials at GFL and third-party facilities that are diverted from landfill disposal including recycling of materials (paper, aluminium and glass) organics composting, biosolids processing and liquids recycling (primarily used motor oil and antifreeze).

Annual monetary savings is represented as revenue generated from material recovery (processing and commodity sales) as reported in GFL’s 2022 Annual Report. Revenue from our organics processing and liquid waste operations are not reported separately and are therefore excluded from this figure.

We track the stages of development of future emissions reduction initiatives internally to ensure we are on a path to achieving our Sustainability Action Plan targets and goals that we have set. The stages of development are similar but not the same as those used by the CDP and so we have not reported them in Section 4.3a.

**Initiative category & Initiative type**
- Fugitive emissions reductions
- Landfill methane capture

**Estimated annual CO2e savings (metric tonnes CO2e)**
6,490,708

**Scope(s) or Scope 3 category(ies) where emissions savings occur**
- Scope 1

**Voluntary/Mandatory**
- Mandatory
Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period
- No payback

Estimated lifetime of the initiative
- Ongoing

Comment
In 2022, GFL mitigated nearly 6.5 million tCO2e through our landfill methane collection and destruction systems. Methane is collected through landfill gas (LFG) capture and control systems and sent to flares or converted to renewable energy. This includes both mandatory and voluntary LFG collection systems.

Our continued investment in LFG collection for production of low-carbon energy will support ongoing efforts to reduce fugitive methane emission from landfills.

We track the stages of development of future emissions reduction initiatives internally to ensure we are on a path to achieving the Sustainability Action Plan targets and goals that we have set. The stages of development are similar but not the same as those used by the CDP and so we have not reported them in Section 4.3a.

Initiative category & Initiative type
- Low-carbon energy generation
  - Biogas

Estimated annual CO2e savings (metric tonnes CO2e)
- 201,303
**Scope(s) or Scope 3 category(ies) where emissions savings occur**
- Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
- Scope 3: Other (upstream)
- Scope 3: Other (downstream)

**Voluntary/Mandatory**
- Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**
- 1-3 years

**Estimated lifetime of the initiative**
- Ongoing

**Comment**

Biomethane in landfill gas is collected at our landfill sites and beneficially used for low-carbon energy generation including LFG to renewable natural gas, electricity and heat. The beneficial utilization of biomethane displaces fossil-fuels including fossil-fuel derived electricity and natural gas.

We track the stages of development of future emissions reduction initiatives internally to ensure we are on a path to achieving the Sustainability Action Plan targets and goals that we have set. The stages of development are similar but not the same as those used by the CDP and so we have not reported them in Section 4.3a.

**Initiative category & Initiative type**
Transportation
Company fleet vehicle replacement

**Estimated annual CO2e savings (metric tonnes CO2e)**
60,886

**Scope(s) or Scope 3 category(ies) where emissions savings occur**
Scope 1

**Voluntary/Mandatory**
Voluntary

**Annual monetary savings (unit currency – as specified in C0.4)**

**Investment required (unit currency – as specified in C0.4)**

**Payback period**
1-3 years

**Estimated lifetime of the initiative**
Ongoing

**Comment**
By switching from diesel to CNG fuelled solid waste collection vehicles, GFL is able to reduce emissions associated with diesel combustion by using CNG and RNG in our fleet. Biodiesel is also used in our existing fleet as a low-carbon alternative and GFL deployed our first electric (BEV) truck in 2022.

We track the stages of development of future emissions reduction initiatives internally to ensure we are on a path to achieving the Sustainability Action Plan targets and goals that we have set. The stages of development are similar but not the same as those used by the CDP and so we have not reported them in Section 4.3a.
C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

<table>
<thead>
<tr>
<th>Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with regulatory requirements/standards</td>
<td>At many of our landfill sites landfill gas collection and control are a regulatory requirement. However, at those sites where we are developing renewable energy projects, we are installing enhanced gas capture systems that can perform above regulatory requirements and beneficially using the landfill gas for electricity or renewable natural gas production.</td>
</tr>
<tr>
<td>Dedicated budget for other emissions reduction activities</td>
<td>GFL created GFL Renewables in 2021, to focus our development of renewable energy projects at some of our landfills. We currently have over 20 renewable energy projects at various stages in our pipeline. We expect these projects to generate significant returns on our investment, with the first 4 projects expected to come on-line in late 2023 or early 2024. These projects will increase our capture and beneficial use of landfill gas and produce RNG or electricity. RNG will be used as a direct-use fuel, including as fuel in GFL’s own fleet of compressed natural gas (CNG) vehicles, and for sale into the transportation or other voluntary markets. Capturing more landfill gas will also help us reduce our own GHG emissions. The RNG produced will help displace virgin fuels used in transportation vehicles, including our own fleet, and in other industrial uses, mitigating our risks from certain carbon-related regulations. We expect to identify further opportunities to use carbon pricing incentives to drive capital projects to achieve other emissions reductions and are currently evaluating emission reduction credit opportunities at for which we qualify for the services we provide.</td>
</tr>
<tr>
<td>Employee engagement</td>
<td>GFL’s annual Greenlight Workshop (GLW) is part of our broader Environmental Innovation Program and is hosted annually. The workshop fosters healthy competition among teams of employees, encouraging them to find near-term sustainable solutions to an identified process or operation that can be rolled out across our lines of business or in different markets. This employee engagement activity is intended to reinforce our entrepreneurial and innovative culture and directly involves our employees in the identification and development of new and innovative solutions that are aligned with our overall sustainability goals, targets, and commitments, including those that are climate related.</td>
</tr>
<tr>
<td>Financial optimization calculations</td>
<td>GFL continues to invest in the conversion of our solid waste collection fleet to CNG and the automation of our residential solid waste collection fleet. In addition to these capital investments in our fleet, continued optimization of GFL’s collection routes lead to cost savings on fuel expenditures and reductions in GHG emissions.</td>
</tr>
</tbody>
</table>
Fleet conversion is one example of our Sustainable Value Initiatives, identified and adopted as part of our Environmental Innovation Program, that will drive progress toward our achieving the sustainability goals, targets, and commitments within our Sustainability Action Plan disclosed in our 2021 Sustainability Report.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

<table>
<thead>
<tr>
<th>Level of aggregation</th>
<th>Product or service</th>
</tr>
</thead>
</table>

**Taxonomy used to classify product(s) or service(s) as low-carbon**

The IEA Energy Technology Perspectives Clean Energy Technology Guide

**Type of product(s) or service(s)**

- Biofuels
- Other, please specify
  - Biogas to Electricity and Renewable Natural Gas

**Description of product(s) or service(s)**

GFL produces electricity and renewable natural gas (RNG) from landfill gas. Organic material decomposes anaerobically when placed in a landfill, producing methane gas. By investing in landfill gas collection systems to extract the gas from the landfill, emissions that would have otherwise been released to the atmosphere are avoided.
RNG produced from the landfill gas is then used as a direct substitute for fossil-derived natural gas applications, avoiding the direct use and upstream emissions associated with the extraction, processing, distribution, and combustion of natural gas.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
Yes

Methodology used to calculate avoided emissions
The Avoided Emissions Framework (AEF)

Life cycle stage(s) covered for the low-carbon product(s) or service(s)
Cradle-to-grave

Functional unit used
Equivalent energy value (MWh) of natural gas and electricity

Reference product/service or baseline scenario used
Fossil-fuel natural gas (brown gas) and delivery of grid-mix electricity (emissions intensity varies depending on location)

Life cycle stage(s) covered for the reference product/service or baseline scenario
Cradle-to-grave

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
6.9

Explain your calculation of avoided emissions, including any assumptions
In 2022 an estimated 201,000 tCO2e were avoided associated with the displacement of fossil-fuel derived natural gas and electricity. The ratio of 6.9 tCO2e/MWh represents the avoided emissions per MWh of energy avoided.

A life-cycle approach was followed covering all the life-cycle stages: fuel extraction, processing, electricity generation, transmission, and distribution, and end-use. The combustion of both RNG and fossil-derived natural gas result in equivalent carbon dioxide emissions, however
the carbon dioxide associated with RNG derived from landfill gas is a biogenic source of carbon. Avoided emissions are reported for a one-year period. Primary enabling effects of RNG are assumed to be the immediate reduction of business-as-usual emissions associated with lifecycle natural gas emissions.

Note that there are no emissions associated with the final end-use of electricity and the transmission and distribution of electricity pertains to line losses which were assumed to be equivalent across all scenarios. Avoided emissions are reported for a one-year period. Primary enabling effects of electricity from landfill gas are assumed to be the immediate reduction of business-as-usual emissions associated with lifecycle grid-electricity emissions. Secondary enabling effects were not included in the calculation of avoided emissions.

**Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year**

<table>
<thead>
<tr>
<th>Level of aggregation</th>
<th>Group of products or services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxonomy used to classify product(s) or service(s) as low-carbon</td>
<td>Climate Bonds Taxonomy</td>
</tr>
<tr>
<td>Type of product(s) or service(s)</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>Other, please specify</td>
</tr>
<tr>
<td></td>
<td>Materials recovery and recycling</td>
</tr>
<tr>
<td>Description of product(s) or service(s)</td>
<td>Includes the recovery of recyclable materials and recycling of those materials. Material recovery facilities (MRFs) sort recyclables into separate streams of glass, metal, plastic, paper, cardboard etc. These recovered materials are then sold to end-users to be used in the production of products and packaging instead of virgin materials. GFL also recovers and recycles liquid waste including anti-freeze and motor oil. The recycled liquid waste products have a lower carbon footprint than their virgin material equivalents.</td>
</tr>
</tbody>
</table>

**Have you estimated the avoided emissions of this low-carbon product(s) or service(s)**
Methodology used to calculate avoided emissions
Other, please specify
US EPA Waste Reduction Model (WARM)

Life cycle stage(s) covered for the low-carbon product(s) or service(s)
Cradle-to-grave

Functional unit used
Mass of material (tonnes)

Reference product/service or baseline scenario used
Production of materials from virgin sources from raw material extraction and processing to market

Life cycle stage(s) covered for the reference product/service or baseline scenario
Cradle-to-grave

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
6.1

Explain your calculation of avoided emissions, including any assumptions
In 2022, we collected, transferred, processed, and recovered approximately 1.8 million tonnes of recyclable materials. The ratio of 6.1 tCO2e/tonne represents avoided emissions per tonne of material recycled.

A life-cycle approach was followed covering the extraction and processing of virgin materials, and transportation to market. End-use emissions are excluded and considered to be equivalent across comparable scenarios. Avoided emissions are reported for a one-year period. Primary enabling effects of recycled materials are assumed to be the immediate reduction of emissions associated with extraction and processing of virgin materials. Secondary enabling effects were not included in the calculation of avoided emissions.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year
Level of aggregation
  Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon
  Climate Bonds Taxonomy

Type of product(s) or service(s)
  Other
  Other, please specify
    Organic materials composting

Description of product(s) or service(s)
  Processing organic materials in aerobic composting facilities. Materials composted include food waste and leaf & yard waste. Compost is sold as a product for agricultural, municipal, or other consumer applications. Composting facilities avoid methane emissions that would have otherwise been generated by the anaerobic decomposition of organic material in a landfill site. Compost products from organic waste also replace fertilizers and other compost products produced from non-waste materials.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)
  Yes

Methodology used to calculate avoided emissions
  Other, please specify
    US EPA Waste Reduction Model (WARM)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)
  Cradle-to-grave

Functional unit used
  Mass of fertilizer (tonnes)
Reference product/service or baseline scenario used
Production of fertilizer from fossil-fuel derived sources and decomposition of organic waste in a landfill site.

Life cycle stage(s) covered for the reference product/service or baseline scenario
Cradle-to-grave

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario
1.2

Explain your calculation of avoided emissions, including any assumptions
In 2022 an estimated 0.9 million tCO2e were avoided associated with organics composting services and the production of AA compost and fertilizers. The ratio of 1.2 tCO2e/tonne represents avoided emissions per tonne of material collected, processed, and sold.

A life-cycle approach was followed covering the production, transportation, and end-use of compost. The transportation and end-use emissions of compost are considered to be equivalent across comparable scenarios. Avoided emissions are reported for a one-year period. Primary enabling effects of composted materials are assumed to be the immediate reduction of emissions associated with production of compost products from non-waste sources. Secondary enabling effects were not included in the calculation of avoided emissions.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
Yes
**C5.2**

**(C5.2) Provide your base year and base year emissions.**

**Scope 1**

<table>
<thead>
<tr>
<th>Base year start</th>
<th>January 1, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year end</td>
<td>December 31, 2021</td>
</tr>
<tr>
<td>Base year emissions (metric tons CO2e)</td>
<td>3,942,460</td>
</tr>
</tbody>
</table>

**Comment**

GFL’s base year is 2021 as this is the earliest relevant point in time for which we have data that includes initiation of substantive structural changes resulting from significant acquisitions completed in 2020 that added more than 40 landfills to our footprint and is consistent with the GHG Protocol guidance for base year selection.

GFL’s 2021 base year is reported as our actual emissions and does not account for further structural changes that occurred in 2021 or 2022. We plan to adjust our 2021 (base year) reported emissions in the 2023 reporting year and this recalculation will include the impact of acquisitions (net of divestitures), boundary changes within our inventory, and changes to our calculation methodologies.

GFL’s base year emissions have been calculated based on The GHG Protocol, ISO 14064, and associated guidance. The asserted Scope 1 emissions have been independently verified by a third-party auditor.

**Scope 2 (location-based)**

| Base year start | January 1, 2021 |
Base year end  
December 31, 2021

Base year emissions (metric tons CO2e)  
33,703

Comment  
GFL’s 2021 base year is reported as our actual emissions, not accounting for structural changes that occurred in 2021 and 2022.

GFL’s base year emissions have been calculated based on The GHG Protocol, ISO 14064, and associated guidance. The asserted scope 2 (location-based) emissions have been independently verified by a third-party auditor.

Scope 2 (market-based)

Base year start  
January 1, 2021

Base year end  
December 31, 2021

Base year emissions (metric tons CO2e)

Comment  
Not relevant. GFL did not purchase any market-based instruments in 2021.

Scope 3 category 1: Purchased goods and services

Base year start  
January 1, 2021

Base year end  
December 31, 2021
**Base year emissions (metric tons CO2e)**

337,570

**Comment**

GFL's base year emissions have been calculated based on The GHG Protocol and associated guidance.

### Scope 3 category 2: Capital goods

<table>
<thead>
<tr>
<th><strong>Base year start</strong></th>
<th>January 1, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base year end</strong></td>
<td>December 31, 2021</td>
</tr>
<tr>
<td><strong>Base year emissions (metric tons CO2e)</strong></td>
<td>116,119</td>
</tr>
</tbody>
</table>

**Comment**

GFL's base year emissions have been calculated based on The GHG Protocol and associated guidance.

### Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

<table>
<thead>
<tr>
<th><strong>Base year start</strong></th>
<th>January 1, 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base year end</strong></td>
<td>December 31, 2021</td>
</tr>
<tr>
<td><strong>Base year emissions (metric tons CO2e)</strong></td>
<td>103,674</td>
</tr>
</tbody>
</table>

**Comment**

GFL's base year emissions have been calculated based on The GHG Protocol and associated guidance.
**Scope 3 category 4: Upstream transportation and distribution**

**Base year start**
January 1, 2021

**Base year end**
December 31, 2021

**Base year emissions (metric tons CO2e)**
274,749

**Comment**
GFL's base year emissions have been calculated based on The GHG Protocol and associated guidance.

**Scope 3 category 5: Waste generated in operations**

**Base year start**
January 1, 2021

**Base year end**
December 31, 2021

**Base year emissions (metric tons CO2e)**
682

**Comment**
GFL's base year emissions have been calculated based on The GHG Protocol.

**Scope 3 category 6: Business travel**

**Base year start**
January 1, 2021
Base year end  
December 31, 2021

Base year emissions (metric tons CO2e)  
1,100

Comment  
GFL's base year emissions have been calculated based on The GHG Protocol and associated guidance.

Scope 3 category 7: Employee commuting

Base year start  
January 1, 2021

Base year end  
December 31, 2021

Base year emissions (metric tons CO2e)  
69,155

Comment  
GFL's base year emissions have been calculated based on The GHG Protocol and associated guidance.

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)
Comment

**Scope 3 category 9: Downstream transportation and distribution**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 10: Processing of sold products**

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

**Scope 3 category 11: Use of sold products**
<table>
<thead>
<tr>
<th>Scope 3 category 12: End of life treatment of sold products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year start</td>
</tr>
<tr>
<td>Base year end</td>
</tr>
<tr>
<td>Base year emissions (metric tons CO2e)</td>
</tr>
<tr>
<td>Comment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope 3 category 13: Downstream leased assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year start</td>
</tr>
<tr>
<td>Base year end</td>
</tr>
<tr>
<td>Scope 3 category 14: Franchises</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Base year start</td>
</tr>
<tr>
<td>Base year end</td>
</tr>
<tr>
<td>Base year emissions (metric tons CO2e)</td>
</tr>
<tr>
<td>Comment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scope 3 category 15: Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year start</td>
</tr>
<tr>
<td>Base year end</td>
</tr>
<tr>
<td>Base year emissions (metric tons CO2e)</td>
</tr>
<tr>
<td>Comment</td>
</tr>
</tbody>
</table>
Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard
US EPA Center for Corporate Climate Leadership: Direct Fugitive Emissions from Refrigeration, Air Conditioning, Fire Suppression, and Industrial Gases
US EPA Mandatory Greenhouse Gas Reporting Rule
US EPA Emissions & Generation Resource Integrated Database (eGRID)
Other, please specify
Entreprises pour l'Environnement. Protocol for the quantification of greenhouse gas emissions from waste management activities (Built on GHG Protocol), version 5.0, October 2013

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

**Reporting year**

Gross global Scope 1 emissions (metric tons CO2e)

4,142,262

**Start date**

January 1, 2022

**End date**

December 31, 2022

**Comment**
Quantified and reported in accordance with The GHG Protocol Corporate Accounting and Reporting Standard and associated GHG Protocol guidance documents, ISO 14064-1:2018 Specification with guidance at the organizational level for quantification and reporting of GHG emissions and removals, and the IPCC AR-4 Global Warming Potentials (100-yr).

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)
3,942,460

Start date
January 1, 2021

End date
December 31, 2021

Comment
Quantified and reported in accordance with The GHG Protocol Corporate Accounting and Reporting Standard and associated GHG Protocol guidance documents, ISO 14064-1:2018 Specification with guidance at the organizational level for quantification and reporting of GHG emissions and removals, and the IPCC AR-4 Global Warming Potentials (100-yr).

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
2,447,756

Start date
January 1, 2020

End date
December 31, 2020

Comment
Quantified and reported in accordance with The GHG Protocol Corporate Accounting and Reporting Standard and associated GHG Protocol guidance documents, ISO 14064-1:2018 Specification with guidance at the organizational level for quantification and reporting of GHG emissions and removals, and the IPCC AR-4 Global Warming Potentials (100-yr).

Past year 3

**Gross global Scope 1 emissions (metric tons CO2e)**

1,843,699

**Start date**

January 1, 2019

**End date**

December 31, 2019

**Comment**

Quantified and reported in accordance with The GHG Protocol Corporate Accounting and Reporting Standard and associated GHG Protocol guidance documents, ISO 14064-1:2018 Specification with guidance at the organizational level for quantification and reporting of GHG emissions and removals, and the IPCC AR-4 Global Warming Potentials (100-yr).

**C6.2**

(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure
Comment

2019 and 2020 Scope 2 emissions associated with electricity use were quantified based on spend data.

2021 and 2022 Scope 2 emissions calculations used electricity usage data from utility bills (kWh) to quantify electricity consumption emissions for larger facilities and intensity-based energy consumption factors for the remaining facilities. In 2022, we improved our data quality for tracking our electricity use through the implementation of a utility bill information management system which we believe is the first step towards achieving our scope 2 reductions and 100% use of renewable electricity goal.

All calculations rely on grid electricity emission factors from the National Inventory Report for Canada on a provincial level, and the eGRID emission factors from the US EPA based on the representative eGRID subregion.

### C6.3

**What were your organization’s gross global Scope 2 emissions in metric tons CO2e?**

<table>
<thead>
<tr>
<th>Reporting year</th>
<th>Scope 2, location-based</th>
<th>Start date</th>
<th>End date</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30,802</td>
<td>January 1, 2022</td>
<td>December 31, 2022</td>
<td>No market-based instruments (such as energy attribute certificates) were purchased by GFL in 2022. All electricity is consumed in the US and Canada.</td>
</tr>
</tbody>
</table>

Past year 1

---

Comment

No market-based instruments (such as energy attribute certificates) were purchased by GFL in 2022. All electricity is consumed in the US and Canada.
Scope 2, location-based
33,703

Start date
January 1, 2021

End date
December 31, 2021

Comment
No market-based instruments (such as energy attribute certificates) were purchased by GFL in 2021. All electricity is consumed in the US and Canada.

Past year 2

Scope 2, location-based
27,478

Start date
January 1, 2020

End date
December 31, 2020

Comment
No market-based instruments (such as energy attribute certificates) were purchased by GFL in 2020. All electricity is consumed in the US and Canada.

Past year 3

Scope 2, location-based
21,656
Start date
January 1, 2019

End date
December 31, 2019

Comment
No market-based instruments (such as energy attribute certificates) were purchased by GFL in 2019. All electricity is consumed in the US and Canada.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

<table>
<thead>
<tr>
<th>Evaluation status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant, calculated</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emissions in reporting year (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>251,791</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emissions calculation methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spend-based method</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentage of emissions calculated using data obtained from suppliers or value chain partners</th>
</tr>
</thead>
</table>
Please explain
This category is relevant to GFL’s annual purchased goods and services including categories such as landfill cover, chemicals, office supplies, software, and professional services such as audit or IT consulting. Emissions were estimated based on the 2022 spend amount and through the United States Environmental Protection Agency’s (US EPA) ‘Environmentally-extended input output’ (EEIO) database, using the GHG Emission Factors for US Industries and Commodities.

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
145,107

Emissions calculation methodology
Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This category is relevant to GFL’s annual capital expenses such as building, plant, equipment and vehicles and machinery. Examples of categories included are as follows: Truck / Chassis / Body, Plant Equipment, Plant Maintenance, Equipment rental, Metals, Steel Containers, Steel Container Parts, Other Material, Tankers, Compactors, Drilling Equipment Tankers and Tanks.

Emissions were estimated based on spend amount through the EEIO method, using the US EPA’s GHG Emission Factors for US Industries and Commodities.

Fuel-and-energy-related activities (not included in Scope 1 or 2)
Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
112,210

Emissions calculation methodology
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
95

Please explain
This category is relevant to GFL’s annual purchases of fuel and electricity used in GFL’s facilities and equipment. Fuel and energy consumption data are based on fuel and energy purchases.

Upstream Emissions from Purchased Electricity - Upstream electricity production emissions in Canada were calculated based on the generation mix for each province as published in Canada’s National Inventory Report, 1990-2021 (NIR). Upstream emission factors for each fuel source used for electricity generation were derived from GHGenius, version 5.01g. Emission factors for electricity consumed in the United States were sourced from the Argonne Labs 2021 model, Version 1, October 2021 and are based on the resource generation mix published in the Emissions & Generation Resource Integrated Database (eGRID) database for the 2021 calendar year.

Electricity Transmission & Distribution (T&D) Losses - Calculated based on electricity data published in the NIR for Canada. In the US, T&D losses were calculated based on grid loss factors as a percentage of total electricity consumed as published in the eGRID database.

Upstream Emissions from Purchased Fuels - Emissions for upstream production of fuels were calculated based on the quantities of fuel consumed, consistent with our Scope 1 emissions calculations. Emission factors for fuels consumed in Canada were based on the Government of Alberta’s Carbon Offset Emission Factors Handbook, Version 2.0, October 2019. Emission factors for fuels consumed in the US were based on the Argonne Labs GREET1_2019 model, Version 1, October 2019.

Upstream transportation and distribution

Upstream transportation and distribution
**Evaluation status**  
Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**  
310,456

**Emissions calculation methodology**  
Spend-based method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**  
0

**Please explain**  
This category is relevant to GFL’s use of transportation contractors for activities such as bulk solid haulage.

Emissions were estimated based on spend amount through the ‘Environmentally-extended input output’ (EEIO) method, using the EPA’s GHG Emission Factors for US Industries and Commodities. All 2022 spend for transport (including bulk solid haulage, freight, tankers, other transport) was categorized as upstream transportation & distribution activities.

---

**Waste generated in operations**

**Evaluation status**  
Relevant, calculated

**Emissions in reporting year (metric tons CO2e)**  
1,242

**Emissions calculation methodology**  
Hybrid method

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**
Please explain
This category is relevant to waste generated in GFL’s facilities, such as offices and maintenance facilities. Emissions from leachate generated from GFL owned landfills and disposed of at wastewater treatment plants, and waste generated by office employees was calculated for 2022.

Emissions associated with wastewater treatment were quantified based on volume of waste trucked or piped to wastewater treatment plants using emission factors from the Ecoinvent Database, v.3.8. Emissions associated with waste from office employees was based on the average-data method for waste generated in operations and the US EPA GHG Emission Factors for corporate inventories.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
3,184

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
This category is relevant to air and ground transport associated with business travel by GFL employees.

The spend-based method was used with emission factors from the Ecoinvent Database, v.3.8. to calculate emissions from accommodations, taxi, limo, train travel, and fuel used in rental cars. For rental cars, fuel volume was estimated based on sped and emissions were calculated using the EPA GHG Emissions Factors Hub.

The distance-based method was used to estimate emissions from flights and employee miles driven in personal vehicles that were not between
the employee’s permanent residence and normal place of work. Emissions using this method accounted for the largest contribution to business travel emissions. The US EPA GHG Emission Factors Hub was used for relevant emission factors.

**Employee commuting**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Relevant, calculated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions in reporting year (metric tons CO2e)</td>
<td>34,358</td>
</tr>
<tr>
<td>Emissions calculation methodology</td>
<td>Average data method</td>
</tr>
<tr>
<td>Percentage of emissions calculated using data obtained from suppliers or value chain partners</td>
<td>0</td>
</tr>
</tbody>
</table>

**Please explain**
This category is relevant to the over 19,000 employees across GFL in 2022. Distances travelled by Canadian employees was estimated using Statistics Canada data and for US employees was estimated using US Census Bureau data.

**Upstream leased assets**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th>Not relevant, explanation provided</th>
</tr>
</thead>
</table>

**Please explain**
Emissions associated with the operation of leased assets are already included in GFL’s Scope 1 and 2 inventory.

**Downstream transportation and distribution**

<table>
<thead>
<tr>
<th>Evaluation status</th>
<th></th>
</tr>
</thead>
</table>
Not relevant, explanation provided

Please explain
Emissions associated with the transportation and distribution services purchased by GFL in vehicles and facilities not owned or controlled by GFL are included in category 4 - upstream transportation and distribution.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Please explain
The primary sold product that GFL produces that requires processing is landfill gas and the associated emissions are biogenic CO2.

Where GFL recovers recyclable materials and markets the materials (such as cardboard) to a customer for use as an intermediate product, our operations are considered a service. The recovered recyclables are not intermediate products produced by GFL.

Use of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
12,010

Emissions calculation methodology
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
GFL collects used oil for re-refining. Oil that is not re-refined is sold as fuel into the burner fuel market. Emissions from the combustion of this sold fuel is accounted for as use of sold products.

GFL also produces electricity, heat, and renewable natural gas from landfill gas at some of our landfill sites. Emissions associated with the use of these are biogenic CO2 emissions. Compost products from GFL’s organic processing operations are a stable organic product with negligible emissions associated with the use phase. Other products include turf grass, motor oil, and anti-freeze which were evaluated to have negligible emissions as these products are not combusted and the recovery and recycling of used motor oil is included in GFL’s Scope 1 emissions. Avoided emissions from the use of sold products (such as the displacement of fossil-fuel derived energy and fertilizers) are not included or deducted from the Scope 3 inventory.

**End of life treatment of sold products**

**Evaluation status**

Not relevant, explanation provided

**Please explain**

This category includes emissions from the waste disposal and treatment of products sold by GFL at the end of life. GFL’s energy and organics products do not have an end-of-life disposal requirement. Refined motor oil or anti-freeze, once used in our operations, is collected and recycled with associated emissions included within our Scope 1 and 2 boundary.

**Downstream leased assets**

**Evaluation status**

Not relevant, explanation provided

**Please explain**

GFL owned assets that are leased to other entities were evaluated to be immaterial. The only identified assets were a small number (less than 5) of houses owned by GFL adjacent to some of our landfill operations and leased to third parties.

**Franchises**

**Evaluation status**
Not relevant, explanation provided

Please explain
  GFL does not currently operate any franchises.

Investments

Evaluation status
  Not relevant, explanation provided

Please explain
  GFL uses an operational control approach. There were no equity investments that are under GFL’s control that were not included in our Scope 1 and 2 emissions inventory.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.
### Past year 1

- **Start date**
  - January 1, 2021

- **End date**
  - December 31, 2021

#### Scope 3: Purchased goods and services (metric tons CO2e)
- 337,570

#### Scope 3: Capital goods (metric tons CO2e)
- 116,119

#### Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
- 103,674

#### Scope 3: Upstream transportation and distribution (metric tons CO2e)
- 274,749

#### Scope 3: Waste generated in operations (metric tons CO2e)
- 682

#### Scope 3: Business travel (metric tons CO2e)
- 1,100

#### Scope 3: Employee commuting (metric tons CO2e)
- 69,155

#### Scope 3: Upstream leased assets (metric tons CO2e)

#### Scope 3: Downstream transportation and distribution (metric tons CO2e)
Scope 3: Processing of sold products (metric tons CO2e)

Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

Past year 2

Start date
January 1, 2020
End date
   December 31, 2020

Scope 3: Purchased goods and services (metric tons CO2e)
   224,554

Scope 3: Capital goods (metric tons CO2e)
   75,202

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
   84,800

Scope 3: Upstream transportation and distribution (metric tons CO2e)
   220,718

Scope 3: Waste generated in operations (metric tons CO2e)
   368

Scope 3: Business travel (metric tons CO2e)
   1,250

Scope 3: Employee commuting (metric tons CO2e)
   55,111

Scope 3: Upstream leased assets (metric tons CO2e)

Scope 3: Downstream transportation and distribution (metric tons CO2e)

Scope 3: Processing of sold products (metric tons CO2e)
Scope 3: Use of sold products (metric tons CO2e)

Scope 3: End of life treatment of sold products (metric tons CO2e)

Scope 3: Downstream leased assets (metric tons CO2e)

Scope 3: Franchises (metric tons CO2e)

Scope 3: Investments (metric tons CO2e)

Scope 3: Other (upstream) (metric tons CO2e)

Scope 3: Other (downstream) (metric tons CO2e)

Comment

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.
C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

<table>
<thead>
<tr>
<th>Intensity figure</th>
<th>0.00062</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric numerator</td>
<td>4,173,064</td>
</tr>
<tr>
<td>Metric denominator</td>
<td>unit total revenue</td>
</tr>
<tr>
<td>Metric denominator: Unit total</td>
<td>6,761,300,000</td>
</tr>
<tr>
<td>Scope 2 figure used</td>
<td>Location-based</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>14</td>
</tr>
</tbody>
</table>
Direction of change
Decreased

Reason(s) for change
Acquisitions
Change in output
Change in revenue

Please explain
Revenue in CAD.

As anticipated and aligned with the emissions reduction pathway that we disclosed in our 2021 Sustainability Report, our adjusted 2022 scope 1 and 2 emissions have remained relatively flat as compared to our base year emissions. We plan to adjust our 2021 (base year) reported emissions in the 2023 reporting year and this recalculation will include the impact of acquisitions (net of divestitures), boundary changes within our inventory, and changes to our calculation methodologies that we made in 2022.

In absolute terms, our 2022 reported total scope 1 and 2 emissions show a year over year increase of 5% but this includes the impact of acquisitions (net of divestitures) made in 2021 and 2022 which our analysis confirms is the primary driver of the majority of this increase. Revenue, over the same year over year period, increased by 22% resulting in an overall improvement in our emission intensity of 14%.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes
C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

<table>
<thead>
<tr>
<th>Greenhouse gas</th>
<th>Scope 1 emissions (metric tons of CO2e)</th>
<th>GWP Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO2</td>
<td>716,259</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>CH4</td>
<td>3,394,405</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>N2O</td>
<td>20,840</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
<tr>
<td>HFCs</td>
<td>10,757</td>
<td>IPCC Fourth Assessment Report (AR4 - 100 year)</td>
</tr>
</tbody>
</table>

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

<table>
<thead>
<tr>
<th>Country/area/region</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
<td>3,472,267</td>
</tr>
<tr>
<td>Canada</td>
<td>669,996</td>
</tr>
</tbody>
</table>

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By activity

C7.3c

(C7.3c) Break down your total gross global Scope 1 emissions by business activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 1 emissions (metric tons CO2e)</th>
</tr>
</thead>
</table>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

<table>
<thead>
<tr>
<th>Country/area/region</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
<td>23,614</td>
<td>23,614</td>
</tr>
<tr>
<td>Canada</td>
<td>7,188</td>
<td>7,188</td>
</tr>
</tbody>
</table>

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By activity

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Scope 2, location-based (metric tons CO2e)</th>
<th>Scope 2, market-based (metric tons CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location-Based Electricity Purchases</td>
<td>30,802</td>
<td>30,802</td>
</tr>
</tbody>
</table>

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?
(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

<table>
<thead>
<tr>
<th>Change in renewable energy consumption</th>
<th>Change in emissions (metric tons CO2e)</th>
<th>Direction of change in emissions</th>
<th>Emissions value (percentage)</th>
<th>Please explain calculation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in renewable energy consumption</td>
<td>1</td>
<td>Decreased</td>
<td>0</td>
<td>In all reporting years, GFL did not purchase any market-based instruments such as renewable energy certificates. The grid-electricity purchased by GFL and used in our operations contains a mix of renewable and non-renewable electricity. The renewable portion of the grid electricity mix is accounted for in our electricity emission factors for location-based scope 2 emissions. The change in renewable energy consumption represents renewable energy used by our mobile fleet, such as renewable natural gas (RNG) in our solid waste collections vehicles.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other emissions reduction activities</th>
<th>0</th>
<th>No change</th>
<th>0</th>
<th></th>
</tr>
</thead>
</table>

| Divestment                          | 162,529                               | Decreased                       | 4.1                        | Divestments of landfill sites included in the 2021 and 2022 GHG inventory as well as fleet assets are included in this calculation. The divestment of these assets resulted in a decrease in emissions from fugitive landfill emissions associated with |
either no longer owning the asset for a full reporting year (2021 divestments) or the portion of the reporting year that we no longer owned the assets (2022 divestments). This is equivalent to 4.1% of our combined 2021 scope 1 and 2 emissions.

<table>
<thead>
<tr>
<th>Category</th>
<th>Change in Emissions (tCO2e)</th>
<th>Change</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquisitions</td>
<td>401,548</td>
<td>Increased</td>
<td>10.1</td>
</tr>
<tr>
<td>Mergers</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in output</td>
<td>49,194</td>
<td>Decreased</td>
<td>1.2</td>
</tr>
<tr>
<td>Change in methodology</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Change in boundary</td>
<td>7,076</td>
<td>Increased</td>
<td>0.2</td>
</tr>
</tbody>
</table>

In 2021, GFL acquired 12 landfill sites with the majority of the acquisitions occurring in the fourth quarter of 2021. As such, 2022 was the first year these landfills contributed to our GHG emissions inventory for the entire reporting year. In 2022, we acquired 6 landfill sites in addition to numerous fleet assets. The combined impact of these acquisitions on our 2022 emissions compared to 2021 was an increase of 401,548 tCO2e / 2021 Total scope 1 and 2 = 10.1% increase. We plan to recalculate our base year adjustments due to structural, boundary or calculation methodology changes within our portfolio in our 2023 reporting year which will be disclosed in 2024.

The change in output represents our preliminary analysis and shows that the recalculation adjustments to our base year scope 1 and 2 emissions, unrelated to structural or boundary changes within our portfolio, are relatively flat. This is aligned with our emissions reduction pathway as disclosed in our 2021 Sustainability Report. We plan to adjust our 2021 (base year) reported emissions in the 2023 reporting year and this recalculation will include the impact of acquisitions (net of divestitures), boundary changes within our inventory, and changes to our calculation methodologies.

GFL annually reviews facilities and assets included within the GHG Inventory operational boundary. In 2022, septage pit fugitive emissions (calculated to be less than 10 tCO2e) were considered to be insignificant and therefore excluded. Refrigerants from building cooling systems were added into our project boundary...
accounting for a net increase of 7,076 tCO2e or 0.2% of 2021 Total scope 1 and 2.

<table>
<thead>
<tr>
<th>Change in physical operating conditions</th>
<th>0</th>
<th>No change</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unidentified</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>No change</td>
<td>0</td>
</tr>
</tbody>
</table>

### C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

### C8. Energy

#### C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

#### C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

<table>
<thead>
<tr>
<th>Indicate whether your organization undertook this energy-related activity in the reporting year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstocks)</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
</tr>
<tr>
<td>Consumption of purchased or acquired heat</td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Consumption of purchased or acquired steam</td>
</tr>
<tr>
<td>Consumption of purchased or acquired cooling</td>
</tr>
<tr>
<td>Generation of electricity, heat, steam, or cooling</td>
</tr>
</tbody>
</table>

**C8.2a**

(C8.2a) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

<table>
<thead>
<tr>
<th>Consumption of fuel (excluding feedstock)</th>
<th>Heating value (HHV)</th>
<th>MWh from renewable sources</th>
<th>MWh from non-renewable sources</th>
<th>Total (renewable and non-renewable) MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel (excluding feedstock)</td>
<td>HHV (higher heating value)</td>
<td>201,548</td>
<td>2,960,919</td>
<td>3,162,468</td>
</tr>
<tr>
<td>Consumption of purchased or acquired electricity</td>
<td>0</td>
<td>120,895</td>
<td></td>
<td>120,895</td>
</tr>
<tr>
<td>Consumption of self-generated non-fuel renewable energy</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>201,548</td>
<td>3,081,815</td>
<td>3,283,363</td>
<td></td>
</tr>
</tbody>
</table>

**C8.2b**

(C8.2b) Select the applications of your organization’s consumption of fuel.

<table>
<thead>
<tr>
<th>Consumption of fuel for the generation of electricity</th>
<th>Indicate whether your organization undertakes this fuel application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumption of fuel for the generation of heat</td>
<td>Yes</td>
</tr>
<tr>
<td>Consumption of fuel for the generation of steam</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Consumption of fuel for the generation of cooling | No
---|---
Consumption of fuel for co-generation or tri-generation | No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

**Sustainable biomass**

<table>
<thead>
<tr>
<th>Heating value</th>
</tr>
</thead>
</table>

**Total fuel MWh consumed by the organization**

**MWh fuel consumed for self-generation of electricity**

**MWh fuel consumed for self-generation of heat**

**MWh fuel consumed for self-generation of steam**

**Comment**

No biomass consumed for energy use.

**Other biomass**

<table>
<thead>
<tr>
<th>Heating value</th>
</tr>
</thead>
</table>
Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

Comment
No biomass consumed for energy use.

Other renewable fuels (e.g. renewable hydrogen)

Heating value
HHV

Total fuel MWh consumed by the organization
201,548

MWh fuel consumed for self-generation of electricity
98,993

MWh fuel consumed for self-generation of heat
1,875

MWh fuel consumed for self-generation of steam

Comment
Compressed Natural Gas (CNG) and biodiesel is used in our fleet vehicles. At many of GFL’s CNG fuelling stations, renewable natural gas is used in place of CNG in our fleet. RNG varies in heat content as the composition of gas delivered may vary. We also utilize landfill gas (LFG) for heat (e.g. burning in on-site boilers) and generation of electricity in our operations.

**Coal**

<table>
<thead>
<tr>
<th>Heating value</th>
<th>Total fuel MWh consumed by the organization</th>
<th>MWh fuel consumed for self-generation of electricity</th>
<th>MWh fuel consumed for self-generation of heat</th>
<th>MWh fuel consumed for self-generation of steam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Comment**

No coal consumed for energy use.

**Oil**

<table>
<thead>
<tr>
<th>Heating value</th>
<th>Total fuel MWh consumed by the organization</th>
<th>MWh fuel consumed for self-generation of electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unable to confirm heating value</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4,734
MWh fuel consumed for self-generation of heat
4,734

MWh fuel consumed for self-generation of steam

Comment
Waste oil is used for building heat in boilers at some facilities.

Gas

Heating value
HHV

Total fuel MWh consumed by the organization
413,755

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat
124,122

MWh fuel consumed for self-generation of steam
9,000

Comment
Natural Gas (fossil fuel) is used for building heat and steam in our offices and facilities. Compressed natural gas (CNG) is used in our fleet vehicles. Natural gas varies in heat content as the composition of gas delivered may vary.

Other non-renewable fuels (e.g. non-renewable hydrogen)
Heating value

HHV

Total fuel MWh consumed by the organization

2,542,430

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

Comment

Propane, gasoline, and diesel used primarily in our fleet vehicles (e.g. diesel in our solid waste collection trucks or propane in forklifts in our Material Recovery Facilities (MRFs))

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

3,162,468

MWh fuel consumed for self-generation of electricity

98,993

MWh fuel consumed for self-generation of heat

130,731
MWh fuel consumed for self-generation of steam
9,000
Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

<table>
<thead>
<tr>
<th></th>
<th>Total Gross generation (MWh)</th>
<th>Generation that is consumed by the organization (MWh)</th>
<th>Gross generation from renewable sources (MWh)</th>
<th>Generation from renewable sources that is consumed by the organization (MWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>28,735</td>
<td></td>
<td>28,735</td>
<td></td>
</tr>
<tr>
<td>Heat</td>
<td>544</td>
<td></td>
<td>544</td>
<td>544</td>
</tr>
<tr>
<td>Steam</td>
<td>7,470</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

<table>
<thead>
<tr>
<th>Country/area</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
</tr>
</tbody>
</table>

Consumption of purchased electricity (MWh)
51,197

Consumption of self-generated electricity (MWh)
Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
63,165

Total non-fuel energy consumption (MWh) [Auto-calculated]
114,362

Country/area
Canada

Consumption of purchased electricity (MWh)
69,699

Consumption of self-generated electricity (MWh)
0

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
69,957

Total non-fuel energy consumption (MWh) [Auto-calculated]
139,656
C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

<table>
<thead>
<tr>
<th>Description</th>
<th>Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric value</td>
<td>1,687</td>
</tr>
<tr>
<td>Metric numerator</td>
<td>Tonnes of waste generated by GFL employees</td>
</tr>
<tr>
<td>Metric denominator (intensity metric only)</td>
<td>Per year</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>124</td>
</tr>
<tr>
<td>Direction of change</td>
<td>Increased</td>
</tr>
</tbody>
</table>

Please explain
Total waste is the total waste generated from our employees and includes amounts from sources such as waste from lunchrooms, print rooms, offices, etc. At this time, the company-wide figure is extrapolated from the results of waste audits conducted at our corporate headquarters in Vaughan, Ontario and published estimated solid waste generation rates from the Washington State Department of Ecology.
Our increase in waste tonnage from 2021 to 2022 is likely due in part to a lower than typical 2021 value from limited employee presence in the workplace during the COVID-19 pandemic.

In the coming years, GFL will continue to expand our audit program of employee-generated waste across our offices and facilities and use the information to support more representative waste generation figures and to promote our waste reduction initiatives at our offices and facilities.

<table>
<thead>
<tr>
<th>Description</th>
<th>Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric value</td>
<td>1,238</td>
</tr>
<tr>
<td>Metric numerator</td>
<td>Landfilled tonnes of waste generated by employees</td>
</tr>
<tr>
<td>Metric denominator (intensity metric only)</td>
<td>Per Year</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>16</td>
</tr>
<tr>
<td>Direction of change</td>
<td>Increased</td>
</tr>
</tbody>
</table>

Please explain
The total waste landfilled makes up 73% by weight of the total waste generated by employees. The total amount of waste generated by our employees includes sources such as waste from lunchrooms, print rooms, offices, etc. At this time, the company-wide figure is extrapolated from the results of waste audits conducted at our corporate headquarters in Vaughan, Ontario and published estimated solid waste generation rates from the Washington State Department of Ecology.
Our increase in waste tonnage from 2021 to 2022 is likely due in part to a lower than typical 2021 value from limited employee presence in the workplace during the COVID-19 pandemic.

In the coming years, GFL will continue to expand our audit program of employee-generated waste across our offices and facilities and use the information to support more representative waste generation figures and to promote our waste reduction initiatives at our offices and facilities.

<table>
<thead>
<tr>
<th>Description</th>
<th>Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric value</td>
<td>421</td>
</tr>
<tr>
<td>Metric numerator</td>
<td>Diverted tonnes of waste generated by employees</td>
</tr>
<tr>
<td>Metric denominator (intensity metric only)</td>
<td>Per year</td>
</tr>
<tr>
<td>% change from previous year</td>
<td>25.5</td>
</tr>
<tr>
<td>Direction of change</td>
<td>Decreased</td>
</tr>
<tr>
<td>Please explain</td>
<td>The total waste recycled makes up 27% by weight of the total waste generated by employees. The total amount of waste generated by our employees includes sources such as waste from lunchrooms, print rooms, offices, etc. At this time, the company-wide figure is extrapolated from the results of waste audits conducted at our corporate headquarters in Vaughan, Ontario and published estimated solid waste generation rates from the Washington State Department of Ecology.</td>
</tr>
</tbody>
</table>
Our increase in waste tonnage from 2021 to 2022 is likely due in part to a lower than typical 2021 value from limited employee presence in the workplace during the COVID-19 pandemic.

In the coming years, GFL will continue to expand our audit program of employee-generated waste across our offices and facilities and use the information to support more representative waste generation figures and to promote our waste reduction initiatives at our offices and facilities.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

<table>
<thead>
<tr>
<th>Scope</th>
<th>Verification/assurance status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 2 (location-based or market-based)</td>
<td>Third-party verification or assurance process in place</td>
</tr>
<tr>
<td>Scope 3</td>
<td>No third-party verification or assurance</td>
</tr>
</tbody>
</table>

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete
**Type of verification or assurance**
Limited assurance

**Attach the statement**

🔗 2022-Assurance-Statement.pdf

**Page/section reference**
Emissions data verified and assurance opinion provided on page 2

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100

---

**Verification or assurance cycle in place**
Triennial process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
Limited assurance

**Attach the statement**

🔗 2021-Assurance-Statement.pdf

**Page/section reference**
Emissions data verified and assurance opinion provided on page 2

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100

---

**Verification or assurance cycle in place**
Triennial process

**Status in the current reporting year**
Complete

**Type of verification or assurance**
Limited assurance

**Attach the statement**

2020-Assurance-Statement.pdf

**Page/ section reference**
Emissions data verified and assurance opinion provided on page 2

**Relevant standard**
ISO14064-3

**Proportion of reported emissions verified (%)**
100
Verification or assurance cycle in place
  Triennial process

Status in the current reporting year
  Complete

Type of verification or assurance
  Limited assurance

Attach the statement

2019-Assurance-Statement.pdf

Page/ section reference
  Emissions data verified and assurance opinion provided on page 2

Relevant standard
  ISO14064-3

Proportion of reported emissions verified (%)
  100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
  Scope 2 location-based
Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement

2022-Assurance-Statement.pdf

Page/ section reference
Emissions data verified and assurance opinion provided on page 2

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Biennial process

Status in the current reporting year
Complete
Type of verification or assurance
Limited assurance

Attach the statement

2021-Assurance-Statement.pdf

Page/ section reference
Emissions data verified and assurance opinion provided on page 2

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

Scope 2 approach
Scope 2 location-based

Verification or assurance cycle in place
Biennial process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we are waiting for more mature verification standards and/or processes

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

- BC carbon tax
- Canada federal fuel charge
- Newfoundland and Labrador carbon tax
## C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

**BC carbon tax**

<table>
<thead>
<tr>
<th>Period start date</th>
<th>January 1, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period end date</td>
<td>December 31, 2022</td>
</tr>
<tr>
<td>% of total Scope 1 emissions covered by tax</td>
<td>0</td>
</tr>
<tr>
<td>Total cost of tax paid</td>
<td>943,962</td>
</tr>
</tbody>
</table>

**Comment**

The British Columbia (BC) carbon tax is applied to heavy fuel oil and light fuel oil solid in BC in 2022. The total cost of tax paid is on fuel oil sold by GFL and does not include fuels purchased for use in operations. Fossil fuels purchased by GFL, such as diesel, gasoline and natural gas are also taxed under the BC carbon tax, however the tax is paid by the fuel supplier.

**Canada federal fuel charge**

<table>
<thead>
<tr>
<th>Period start date</th>
<th>January 1, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period end date</td>
<td>December 31, 2022</td>
</tr>
<tr>
<td>% of total Scope 1 emissions covered by tax</td>
<td>0</td>
</tr>
</tbody>
</table>
Total cost of tax paid
1,065,855

Comment
Light and heavy fuel oil sold in Alberta, Saskatchewan and Manitoba are taxed under the Canada federal fuel charge. The total cost of tax paid is on fuel oil sold by GFL and does not include fuels purchased for use in operations. Fossil fuels purchased by GFL such as diesel, gasoline and natural gas are also taxed under the Canada Federal Fuel Charge, however the tax is paid by the fuel supplier.

Newfoundland and Labrador carbon tax

<table>
<thead>
<tr>
<th>Period start date</th>
<th>January 1, 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period end date</td>
<td>December 31, 2022</td>
</tr>
<tr>
<td>% of total Scope 1 emissions covered by tax</td>
<td>0</td>
</tr>
<tr>
<td>Total cost of tax paid</td>
<td>11,807</td>
</tr>
</tbody>
</table>

Comment
Light and heavy fuel oil sold in Newfoundland are taxed under the Newfoundland and Labrador carbon tax. The total cost of tax paid is on fuel oil sold by GFL and does not include fuels purchased for use in operations. Fossil fuels purchased by GFL, such as diesel, gasoline and natural gas are also taxed under the Newfoundland and Labrador carbon tax, however the tax is paid by the fuel supplier.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?
GFL recycles used motor oil (UMO) back into light and heavy fuel oils for re-use. This process avoids the extraction and processing of virgin sources of fossil fuels, reduces the risk of used oil contaminating the environment through spills, and prevents the burning of waste oil, helping to avoid GHG
emissions. Re-refining oil is an environmentally responsible way to deal with used oil because it can be re-refined over and over. For example, GFL’s North Vancouver facility recycles used oil collected from automobile dealerships, lube centers and repair shops as well as from heavy industry, mining and oilfields. Oil that is not re-refined is sold as fuel into the burner fuel market resulting in GHG emissions from the combustion of fossil fuel.

GFL pays carbon tax on burner heavy and light fuel oil that it sells to customers. GFL’s strategy to comply with carbon tax systems is to continue to invest in the recovery and recycling of UMO to provide low-carbon products as an alternative to virgin fossil-fuel products and support the development of a circular economy that continues to recognize waste products as a resource.

Fuel used by GFL in our fleet and non-fleet vehicles is subject to a carbon tax in several of the Canadian provinces in which we operate. We are committed to increasing our CNG-fuelled collections fleet with a goal of at least 50% of our annual replacement of diesel solid waste vehicles to be with CNG or alternative fuel vehicles. In addition, by 2030, we have committed that at least 85% of our CNG fleet in the United States will be powered by RNG fuel. Some of this RNG will be produced from our own landfills. Use of lower carbon fuels will help to mitigate the compliance cost in systems applying a carbon tax on diesel fuels used in the transportation sector.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our customers/clients
Yes, other partners in the value chain

**C12.1b**

**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

---

**Type of engagement & Details of engagement**

- Education/information sharing
- Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

**% of customers by number**

80

**% of customer-related Scope 3 emissions as reported in C6.5**

0

**Please explain the rationale for selecting this group of customers and scope of engagement**

GFL's services help our customers achieve improved circularity in their supply chains and reduce their own GHG emissions. As highlighted by the IPCC's report 'Climate Change 2022, Mitigation of Climate Change' (IPCC AR6 WG III), the Circular Economy concept is an increasingly important climate change mitigation approach that can help deliver human well-being by minimizing waste of energy and resources. GFL’s services support the shift away from linear ‘make and dispose’ models towards recycling, material recovery, composting, and recognition of waste as a resource via landfill gas capture and utilization. Since our inception we have made significant investments in new technologies and in the innovation of management and operating processes in each of these areas.

GHG emissions are reduced through improved circularity by recycling materials thereby reducing primary material production and transport, avoidance of fossil fuel extraction, processing, transport, and combustion with renewable energy, such as RNG or electricity derived from organic materials, and replacing chemical-based fertilizers derived from fossil fuels with organic fertilizers derived from compost and biosolids.
We routinely engage with our customers to educate them on how our services improve the circular economy and reduce their own GHG emissions by presenting educational materials related to waste diversion and recycling, providing tours of our material recovery facilities (MRFs), discussing commodity sale opportunities, and conducting waste audits at customer facilities to identify opportunities for increased waste diversion.

**Impact of engagement, including measures of success**

Important metrics we use to determine the success/impact of engagement campaigns include: tracking of the volume of materials recycled as well as the GHG emissions we helped our customers avoid through the products and services we provide to our customers. In 2022: we managed nearly 3.5 million tonnes of solid and organic recyclables (10% increase from 2021). We estimate that our services helped our customers avoid or sequester over 13 million tonnes of GHG emissions (10% increase from 2021). In our 2021 Sustainability Report, as part of our Sustainability Action Plan, we are committed to achieving a goal of increasing recyclables recovered at our facilities by 40% by 2030.

**C12.1d**

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

GFL works with partners to collaborate on projects to advance the part of our climate strategy that helps our customers reduce their GHG emissions. A recent example is our partnership with Cobric Chemicals to develop a commercial demonstration of High Temperature Metal Recovery (HTMR) technology that separates zinc and lead from Electric Arc Furnace Dust (EAFD) generated by steel mills. GFL’s partnership with Cobric’s innovative technology will support local recovery of a key by-product as part of an efficient, low carbon, link in the circular economy.

**C12.2**

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization’s purchasing process?

No, and we do not plan to introduce climate-related requirements within the next two years

**C12.3**

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1
External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, and we do not plan to have one in the next two years

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

We have adopted a decentralized operating structure, giving operational oversight to our regional business leaders. We believe this model is advantageous given the regional and fragmented nature of the markets in which we operate and the relationship-based approach to our organic growth and acquisition strategies. Furthermore, we believe that our operating structure provides our employees with a greater sense of ownership, which drives the efficiency and profitability of our business.

To ensure that we have consistent understanding, messaging and actions related to our Sustainability Action Plan commitments all external communication to government bodies, policy makers, and other stakeholders must be reviewed by our corporate leaders. All of our corporate leaders are members of our Sustainability Initiatives Committee (SUSIC).

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Other, please specify

National Waste & Recycling Association (NWRA)

Is your organization’s position on climate change policy consistent with theirs?

Consistent
Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position
The National Waste & Recycling Association (NWRA) is the leading voice of the North American waste and recycling industry on advocacy, education and safety. NWRA plays an active leadership role in advancing policies that benefit the solid waste industry and improve the quality of life for all Americans.

NWRA supports the Environmental Protection Agency’s (EPA) efforts to advance a National Recycling Strategy and urges Congress and federal regulatory agencies to implement policies that reduce contamination in the recycling stream, increase processing efficiency, encourage development of the domestic market for recycled materials and focus on actions with the greatest overall environmental benefits.

GFL actively participates in the committees of the NWRA as well as providing representation on the Board of Trustees and Services Board of Governors. We provide our knowledge and expertise on a number of waste management areas like recycling, resource recovery, landfill gas management and GHG emissions accounting.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
164,472

Describe the aim of your organization’s funding
Corporate membership fees and funding related to various legislative issues which allows GFL to participate in association related activities and provide our experience and position on climate-related issues.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?
No, we have not evaluated
Other, please specify
Waste To Resource Ontario (W2RO) formerly the Ontario Waste Management Association (OWMA)

**Is your organization’s position on climate change policy consistent with theirs?**
Consistent

**Has your organization attempted to influence their position in the reporting year?**
No, we did not attempt to influence their position

**Describe how your organization’s position is consistent with or differs from the trade association’s position, and any actions taken to influence their position**
W2RO is the voice of the waste management sector in Ontario, developing detailed research and providing expert advice focused on creating a cleaner environment and moving toward a more circular economy in Ontario, where GFL has significant operations. W2RO also continues to work with the government to ensure that new climate policies related to the waste management sector are designed in a way to achieve meaningful emissions reductions.

W2RO works with the provincial government to develop programs and policies that will incentivize activities in the waste management sector to reduce GHG emissions, including the development and expansion of landfill-gas-capture systems, renewable natural gas projects and recycling facilities. W2RO has provided comments on a provincial offset protocol for landfill-gas destruction and federally focused methane reduction opportunities in the waste sector and aims to continue to play an active role in the development of additional offset protocols for organics diversion.

GFL’s participation in W2RO provides opportunities to actively participate as a stakeholder in the solid waste industry in Ontario.

**Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)**
49,638

**Describe the aim of your organization’s funding**
Corporate membership fee which allows GFL to participate in association related activities and provide our experience and position on climate-related issues.
Have you evaluated whether your organization’s engagement with this trade association is aligned with the goals of the Paris Agreement?
No, we have not evaluated

Trade association
Other, please specify
Renewable Natural Gas (RNG) Coalition

Is your organization’s position on climate change policy consistent with theirs?
Consistent

Has your organization attempted to influence their position in the reporting year?
No, we did not attempt to influence their position

Describe how your organization’s position is consistent with or differs from the trade association’s position, and any actions taken to influence their position
The RNG Coalition is a non-profit organization dedicated to the sustainable advancement of renewable natural gas (RNG) as a clean, green, alternative and domestic energy resource - and as a key component and partial solution to addressing global climate change.

The RNG Coalition was formed to provide an education platform and advocacy voice for the protection, preservation and promotion of renewable natural gas.

GFL’s membership in this coalition is to support the advocacy and participate in the educational aspects of the organization.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)
46,050

Describe the aim of your organization’s funding
Corporate membership fee which allows GFL to participate in association related activities and provide our experience and position on climate-related issues.
Have you evaluated whether your organization’s engagement with this trade association is aligned with the goals of the Paris Agreement?
   No, we have not evaluated

Trade association
   Other, please specify
      PAC Global

Is your organization’s position on climate change policy consistent with theirs?
   Consistent

Has your organization attempted to influence their position in the reporting year?
   No, we did not attempt to influence their position

Describe how your organization’s position is consistent with or differs from the trade association’s position, and any actions taken to influence their position
   In 1950, PAC Global was formed as a corporation to foster a community where companies from across the packaging value chain could come together to collaborate, innovate, and educate.

   The connection between packaging and climate change is clear to PAC, and they align with the Ellen MacArthur Foundation’s ‘Completing the Picture’ report which says that “putting in place a circular economy is a fundamental step towards achieving climate targets”.

   Alongside the transition to renewable energy and increased energy efficiency PAC identifies that we must transform our requirements for making, using, and disposing of products – including packaging. This points to “upstream” solutions, such as those encouraged by the Ellen MacArthur Foundation. This approach prioritizes elimination/reduction, reuse, and greatly improved recycling and composting, alongside firm commitments to minimize chemicals of concern.

   PAC Global is helping ‘complete the picture’ in several ways. One way is through its ongoing role as an Implementation Partner with the Canada Plastics Pact (CPP) including providing training on the Consumer Goods Forum Golden Design Rules.
Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

4,576

Describe the aim of your organization’s funding

Corporate membership fee which allows GFL to participate in association related activities and provide our experience and position on climate-related issues.

Have you evaluated whether your organization’s engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

Other, please specify

Compost Council of Canada (CCC)

Is your organization’s position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization’s position is consistent with or differs from the trade association’s position, and any actions taken to influence their position

Compost Council of Canada serves as the central resource and network for organics recycling in Canada. The Council’s involvement in standard-setting and regulatory developments, operator training and certification, communication, and networking help to support their charter to advocate and advance organics residuals recycling, soil health, digestate and compost use and assist their members to contribute to the environmental sustainability of the communities in which they operate. Composting of organic waste generally results in diversion of organics from landfill and reduction of landfill methane emissions, and improved soil health results in increased soil carbon sequestration and storage.
GFL's participation with the CCC provides us with opportunities to actively participate as a stakeholder in the solid waste industry to promote composting as a viable food waste diversion strategy.

**Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)**

4,972

**Describe the aim of your organization’s funding**

Corporate membership fee which allows GFL to participate in association related activities and provide our experience and position on climate-related issues.

**Have you evaluated whether your organization’s engagement with this trade association is aligned with the goals of the Paris Agreement?**

No, we have not evaluated

### C12.4

**(C12.4) Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

Publication

- In mainstream reports

**Status**

Complete

**Attach the document**


**Page/Section reference**

136
Content elements
Governance
Risks & opportunities

Comment
Our annual report describes risk factors related to GHG emissions (20, 31), GHG legislation and regulations we are or may be subject to (50-55) and our sustainability governance (75)

Publication
In voluntary sustainability report

Status
Underway – previous year attached

Attach the document

GFL2021SustainabilityReport.pdf

Page/Section reference
Pages 15, 22-33

Content elements
Governance
Strategy
Emissions figures
Emission targets

Comment
Our Sustainability Governance is described in detail on page 15. The Circular Economy and Climate Leadership section of our 2021 Sustainability Report (pages 22-33) outlines the steps we are taking to provide our customers with the waste diversion and reuse services and products like recycling, material recovery, composting, and landfill gas capture and utilization, which directly support the transition from a ‘take-make-waste’ extractive economy to a more circular one and also to reduce our GHG emissions. It also provides information on our emissions reduction pathway and high-level information on our scope 1 and 2 emissions as well as GHG emissions that our products and services help our customers avoid.

We anticipate publishing our 2022 Sustainability Report in late 2023.

Publication
   In voluntary sustainability report

Status
   Underway – previous year attached

Attach the document
   2021-ESG-Data-Summary-GFL.pdf

Page/Section reference
   1-6

Content elements
   Emissions figures
   Other metrics

Comment
   Our 2021 ESG Data Summary Table includes a detailed summary of our GHG emissions (scope 1, 2 and 3) and avoided emissions. It also provides other climate-related information like carbon intensity and energy consumption and production for renewable and non-renewable fuels. A breakdown of our operations and recyclable materials managed and recovered is also included in the table.
We anticipate publishing an updated ESG Summary Table that includes data for 2022 later in 2023.

---

Publication
In voluntary sustainability report

Status
Underway – previous year attached

Attach the document

GFL2021SASBReport.pdf

Page/Section reference
1-2

Content elements
Strategy
Emissions figures
Other metrics

Comment
Includes information on GHG and non-GHG emissions, strategy and fuel consumption required under the SASB reporting framework.

We anticipate publishing an updated SASB Report that includes data for 2022 in late 2023.

---

Publication
In voluntary sustainability report
Status
Underway – previous year attached

Attach the document

2021-GRI-Index.pdf

Page/Section reference
6-9

Content elements
Strategy
Emissions figures
Other metrics

Comment
Provides various environmental and climate related data and information as per the GRI reporting framework.

We anticipate publishing an updated GRI Index that includes information for 2022 in late 2023.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

<table>
<thead>
<tr>
<th>Environmental collaborative framework, initiative and/or commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
</tr>
<tr>
<td>We are not a signatory/member of any collaborative framework, initiative and/or commitment related to environmental issues</td>
</tr>
</tbody>
</table>
## C15. Biodiversity

### C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

| Row 1 | Yes, both board-level oversight and executive management-level responsibility | Through our Corporate Environmental Policy, GFL is committed to the protection of the environment and continual improvement. We have established corporate level targets to reduce our overall environmental footprint, including the reduction of direct GHG emissions from our operations. We will also continue to invest in organizational resources to provide our teams with the information and tools needed to develop the necessary programs to achieve our sustainability goals empowering them to develop innovative solutions and providing capital to implement solutions to reduce our environmental impacts.  

As part of our commitments related to environmental stewardship within our Sustainability Action Plan we have actions that promote and conserve biodiversity. Specifically, we have committed to certify nature conservation or protection projects for at least 10 of our facilities by 2025.  

This goal was developed by GFL’s Sustainability Initiatives Committee (SUSIC) which is comprised of GFL’s executive management along and certain corporate VPs. The Nomination, Governance and Compensation (NGC) Committee of GFL’s Board also provided guidance to management in defining our sustainability-related goals and commitments and is responsible for monitoring our overall implementation of our Sustainability Action Plan, ensuring that we periodically review and revise our goals in response to changing internal and external factors. |
C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

<table>
<thead>
<tr>
<th>Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity</th>
<th>Biodiversity-related public commitments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Yes, we have made public commitments only</td>
</tr>
</tbody>
</table>

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

**Impacts on biodiversity**

Indicate whether your organization undertakes this type of assessment

No and we don’t plan to within the next two years

**Dependencies on biodiversity**

Indicate whether your organization undertakes this type of assessment

No and we don’t plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?
### C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

<table>
<thead>
<tr>
<th>Does your organization use indicators to monitor biodiversity performance?</th>
<th>Indicators used to monitor biodiversity performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>No, we do not use indicators, but plan to within the next two years</td>
</tr>
<tr>
<td></td>
<td>Other, please specify</td>
</tr>
<tr>
<td></td>
<td>As we establish our certified nature conservation or protection projects, we will determine appropriate indicators to monitor and report progress.</td>
</tr>
</tbody>
</table>

### C15.7

(C15.7) Have you published information about your organization’s response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

<table>
<thead>
<tr>
<th>Report type</th>
<th>Content elements</th>
<th>Attach the document and indicate where in the document the relevant biodiversity information is located</th>
</tr>
</thead>
<tbody>
<tr>
<td>In voluntary sustainability report or other voluntary communications</td>
<td>Content of biodiversity-related policies or commitments</td>
<td>Our biodiversity-related commitment is on page 35.</td>
</tr>
</tbody>
</table>

1GFL2021SustainabilityReport.pdf
C16. Signoff

C-Fi

(C-Fi) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

<table>
<thead>
<tr>
<th>Row 1</th>
<th>Job title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1</td>
<td>Executive Vice-President, Strategic Initiatives</td>
<td>Other C-Suite Officer</td>
</tr>
</tbody>
</table>