



# PIERIDAE ESG REPORT

2021



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# Leading the Way with ESG

**A sustainable business model, grounded in an Environmental, Social and Governance framework needs to be authentic; built on trust and transparency.**

With Pieridae's inaugural ESG Report, we begin a journey to demonstrate that we are committed to achieving an authentic ESG outcome through caring deeply about what we stand for as a company, and by responding to our stakeholders' needs and concerns. By delivering on this responsibility and with careful consideration of the impacts our decisions have, Pieridae will engrain a robust ESG focus into our business strategy now and for years to come.

At a leadership level, we have adopted a new governance and reporting structure that puts ESG at the heart of business planning. Pieridae's Board, through a new Governance and ESG Committee, will have oversight of all ESG strategies and programs through the Executive Leadership Team. The goal of the leadership team

is the recruitment of a new executive with specific ESG skills and experience, along with an individual whose sole role would be to deliver ESG strategy and reporting, internally and externally.

Pieridae conducted an inaugural ESG materiality assessment which will be used as a strategic filter to take a long, hard look at rethinking priorities and establishing new processes and measurement tools.

ESG has always been at the heart of our founder's ethics, so it is with pride that Pieridae takes these initial but necessary steps to formally build the appropriate governance framework that will allow us to take part in the current energy transition, and be a leader in creating the social and business values that are necessary to participate in a better energy future.



Waterton Gas Complex



Jumping Pound Gas Complex



Caroline Gas Complex

# Who is Pieridae?

## Largest Foothills Producer in North America.

Pieridae is a Canadian integrated midstream company. We are currently developing the multi-billion-dollar Goldboro liquefied natural gas (LNG) Project which would be supplied with conventional natural gas from our developed resource base in Western Canada. Our company is committed to being a leader in the responsible energy transition to a lower-carbon world.

As the largest Foothills gas producer in North America, our upstream assets are diverse, have deep roots in many local communities, and make up some of the biggest conventional gas reservoirs on the continent.

*Pieridae is focused on building a secure energy future for Canada and the world.*





Goldboro LNG

LNG Bunkering

## BY THE NUMBERS 2020

### PRODUCTION OUTPUT

**42,000 BOE/D:**

(barrels of oil equivalent per day)

201 mmcf/d of natural gas  
(33,500 boe/d)

5,500 barrels per day (bbl/d) of  
natural gas liquids

3,000 bbl/d of condensate

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**302 FULL-TIME  
EMPLOYEES**

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**ENTERPRISE VALUE  
OF \$250 MILLION**

## 2021 FORECAST

**3 GAS PLANTS  
AND APPROXIMATELY  
25 MAJOR FACILITIES**

~ 3,800 km pipelines

~\$4 billion midstream  
replacement value

~ Footprint of one million net acres  
of leased mineral rights

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**TOTAL PRODUCTION  
40,000-45,000 BOE/D**



# Living Our Values: Past, Present and Future



From the CEO  
Alfred Sorensen

A commitment to ESG has been a big part of Pieridae Energy throughout our history. It wasn't always called ESG, of course, but we have consistently built respectful relationships with Indigenous Peoples, communities, and other stakeholders. Historically, on the environment and HSE side, we have consistently worked to meet and exceed the prevailing regulatory and governance standards of the day. It's been that way from the beginning of this company, shaped by a strong framework of responsible governance.

Now, we have a new way to codify and express today's higher standards. We see a commitment to ESG as a continuation of our journey as a company. This inaugural report is the next step.

## Reuse, Repurpose, Revitalize

Most recently, Pieridae has taken on extra responsibility through our acquisition of midstream and upstream assets in the Foothills of Alberta from Shell Canada Energy. By adopting these existing assets and maximizing their lifetime value, we are working to grow our business while simultaneously minimizing our environmental footprint. Elsewhere, we plan to use new technologies to reduce greenhouse gas emissions (GHGs), such as exploring sequestering carbon underground, part of our contribution to the transition to a low-carbon future. Read more about these efforts in our Environmental section.

**Our Motto: Reuse,  
Repurpose, Revitalize**

“ A key component of reconciliation in Canada is the ability to have meaningful involvement in projects happening within our territories. We desire responsible development and environmental stewardship that reflect a Mi’kmaq voice and our agreement with Pieridae is an example of how companies can respect our Mi’kmaq Rights and Title, and also provide an opportunity for Mi’kmaq participation in development on our lands.”

Chief PJ Prosper, Regional Chief Nova Scotia and Newfoundland  
Chief Tma Francis, Paqtkek

## Reconciliation and Inclusion in Action

Across Alberta and British Columbia, as well as our LNG development project in Nova Scotia, we have been conscious of our duty to further the process of reconciliation. We have signed landmark agreements with the Mi’kmaq Nation in Nova Scotia, and are advancing our relationships with First Nations in Western Canada that we hope will bring economic benefits to communities from initiatives such as carbon sequestration and local power generation. We are also piloting an Indigenous youth recruitment program, led by our new Indigenous Affairs Manager, to help Pieridae map areas of cultural and environmental significance close to our worksites. Every year, we participate across the company in the Red Dress Awareness Campaign to show solidarity with the families of murdered and missing Indigenous women and girls. Internally, we are focused on making our business more reflective of Canada – more multicultural, more gender-balanced and more inclusive. This report goes into more detail in the Social section.

## ESG is a Leadership Responsibility

In the area of governance, Pieridae is making decisive moves towards challenging the stereotypes of the oil and gas industry. In 2020, we appointed Kiren

Singh to the board. This is the beginning of a process of increasing diversity, which will take time. We must always be cognizant that anyone who sits on a public company board must be qualified first and foremost; we are not checking boxes for public relations benefit. Board members have specific responsibilities to further our ESG goals within the context of running a sustainable and profitable company. Further insights into our strategy for long-term change at the Board level are set out in the Governance section.

## Moving Forward Together

This is our inaugural ESG report, delivered during the global COVID-19 pandemic and in the midst of a modest recovery in energy prices from historic lows. In this context, we are a business in transition, starting out on a path to even higher standards of data gathering and reporting. We are committed to the journey ahead as a company by following the five pillars of a ‘One Pieridae’ culture: communication, connection, leadership, shared value and a focus on results.

We are confident that our employees, leadership and community stakeholders will continue to work together to reduce emissions, improve local economic and social conditions, and foster equity and inclusivity, without losing sight of our mission to share the benefits of ethical, low-carbon Canadian energy with the rest of the world.

# ESG Highlights

## The Journey So Far ...

### Pieridae's Business Vision

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To provide the energy to fuel people's lives while supporting the environment and the transition to a lower-carbon economy.

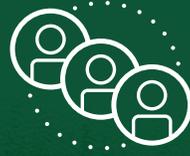
### Pieridae's ESG Vision

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Pieridae will be responsible stewards of the environment, foster mutually beneficial relationships with Indigenous Peoples of Canada and our stakeholders, and be leaders in demonstrating good governance to establish trust, act with purpose, and support Pieridae's business vision.



Communications



Connection



Environment



Governance



Leadership



People



Results Focused



Safety



Shared Values



## The objectives of the ESG assessment were to:

- 1 Communicate a clearer vision of Pieridae's ESG strategy including its most material ESG issues;
- 2 Articulate specific roles, responsibilities and accountabilities for ESG strategy;
- 3 Strengthen the link between ESG strategy at the corporate level and ESG initiatives at the operational level;
- 4 Prepare a strategy for ESG reporting.

# ESG Materiality Assessment

According to the TSX, "material" is defined as "any information relating to the business and affairs of a company that results in or would reasonably be expected to result in a significant change in the market price or value of any of the company's listed securities."

Pieridae conducted a thorough ESG baseline assessment in order to produce an initial ESG materiality study.

The objectives of the assessment were to:

1. Communicate a clearer vision of Pieridae's ESG strategy including its most material ESG issues;
2. Articulate specific roles, responsibilities and accountabilities for ESG strategy;
3. Strengthen the link between ESG strategy at the corporate level and ESG initiatives at the operational level;
4. Prepare a strategy for ESG reporting.

In 2020 we engaged an experienced strategic advisor to support this process, who analyzed Pieridae's existing ESG-related documentation; studied the ESG materials and strategies of seven peer companies in the oil and gas sector; and interviewed 10 internal and external stakeholders.

The report set out strengths and successes, alongside gaps and opportunities. Highlights of the report are set out here, edited for length and clarity.

## STRENGTHS AND SUCCESSES

Pieridae demonstrates some disconnected but longstanding ESG practices with a strong focus on environmental performance and social initiatives. The company also demonstrates a strong commitment to maintaining and improving its high standard of environmental performance (e.g., carbon emissions, water management, spill management).

Pieridae is recognized by its neighbouring communities as a champion of stakeholder community engagement. The company has developed an Indigenous Peoples Commitment Statement and a Stakeholder Engagement Strategy to guide engagement efforts.

## FORMALIZING OUR ESG JOURNEY

A growing consciousness of ESG has led the company to set goals and expectations for employees that link with the values and practicalities of ESG. As a first step

in formalizing an ESG strategy, Pieridae established a dedicated ESG Steering Committee in 2020 at the management level that has been involved in assessing the company’s risk profile.

Reporting directly to senior management and the Board, the committee progressed through some of the initial strategic fundamentals over a number of months, developing a mandate and ESG vision, then progressing through formal strategy development and the foundational work needed to formulate commitments and goals.

Working with a reputable and well-experienced external advisory firm, the ESG Committee concluded a rapid current state and benchmarking exercise, followed by a materiality assessment. This was a robust process, involving an internal leaders workshop, a healthy back-and-forth on what needs the most attention in the near term, culminating in Board validation and direction in moving forward.

The ESG Materiality Assessment produced Pieridae’s top ESG risks and opportunities to be prioritized:



“What needs the most attention in the next 12 months?”



# Environmental

TMP 1 2

## Climate and Air Emissions

We are committed to looking for ways to lower our emissions and reduce our environmental footprint as we develop Pieridae’s resources responsibly, and participate in the journey toward a sustainable energy future.

We are also committed to achieving net-zero emissions by 2050, with plans to use carbon sequestration and other technologies, as part of the global transition to a low-carbon energy economy.

Any responsible company that develops, produces and processes energy must look for ways to reduce emissions and the harmful environmental impact of operations. Canada and the rest of the world are headed towards low-carbon goals, and companies such as Pieridae need to be responsive to both government policy and legislative changes as well as changing public perspectives and values.

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Committed to achieving  
net-zero emissions by

**2050**

**“ We’re talking about putting in more modern generation opportunities at our own sites so that we’re not pulling from the grid. Within five years, we could see a lot of change in relation to our whole environmental footprint, not just GHG emissions.**

**Carolyn Normand, VP Engineering**

## Our Responsibility

The company’s corporate goal of safeguarding our environment and surrounding communities supports Pieridae’s Health, safety and Environment Policy as we have a responsibility toward people and the environment. It’s a business imperative, and our investors and stakeholders expect it.

Pieridae’s asset acquisitions since 2014 brought with it a strong commitment to sustainability regulatory compliance monitoring and reporting. All assets in Alberta and British Columbia operate with emissions caps, carbon pricing and stringent environmental standards to ensure that resources are developed in an environmentally prudent manner.

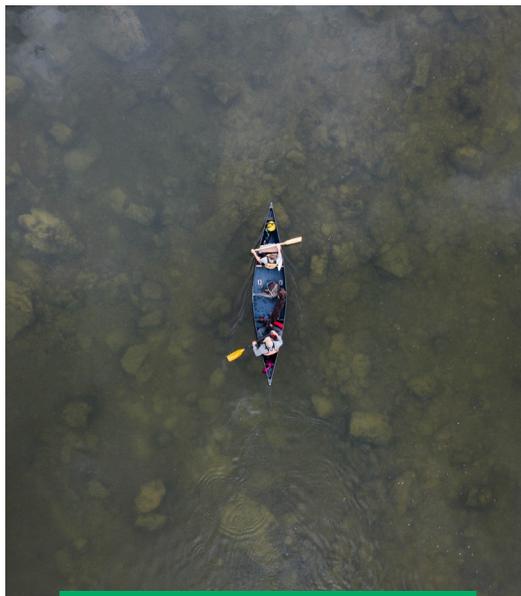
Compliance is essential to everything we do; compliance to government laws, health and safety standards, as well as environmental and emergency response requirements. Pieridae has effective

management systems that include compliance management. Our monitoring and reporting processes ensure we uphold our corporate reputation and a high level of professionalism.

## Solutions for Current Operations

As operators of three large-scale gas processing facilities, Pieridae is analyzing solutions to manage emissions from these complexes. We are also looking to control emissions from our other assets, including the company’s ~3,800 kilometres of pipelines, and generation from purchased electricity.

The company is also evaluating electricity generation at each of our three gas complexes using waste heat sources or other methods of improving energy efficiency to reduce our carbon footprint.



# SCOPE 1 AND SCOPE 2 EMISSIONS

In the first year following the Southern Alberta Foothills Assets acquisition, we streamlined our asset portfolio and improved our energy management. Going forward, we plan to establish a verified baseline for Scope 1 and Scope 2 emissions from all our Canadian assets.

## Scope 1

are direct emissions from owned and controlled sources, primarily generated when we process natural gas which includes flaring, venting, combustion, and fugitive emissions.

## Scope 2

covers indirect emissions from the generation of purchased electricity, and the steam, heating and cooling energy we consume.

Pieridae is focused on evaluating our carbon-related risks and opportunities to set future goals and inform the company's business planning.

In our Foothills and legacy assets, we maintain a focus on energy management and greenhouse gas reduction through monitoring of key process parameters, operational optimization and planned projects.



### A NOTE ABOUT SCOPE 3 EMISSIONS

We will also look at Scope 3 emissions which are all indirect emissions occurring along Pieridae's value chain including both upstream and downstream. These emissions are beyond Pieridae's direct control but opportunities may exist to work with other companies and analyze ways to reduce them.

#### Successful emissions reduction examples include:

Optimization of engine-driven compression to reduce fuel gas usage;

Monthly monitoring of key systems to optimize energy and reduce fuel gas usage;

Replacement of pneumatic high-bleed instruments with low-bleed models;

Replacement of fuel gas-driven pneumatic chemical pumps with solar-powered chemical pump systems;

Optimization of line heaters;

Annual fugitive emissions surveys and routine inspections are conducted to identify repair opportunities;

Annual monitoring of compressor seals to identify the need for replacement;

Assessing projects to reduce fuel gas usage.

## Air Quality

Pieridae's large facilities have Environmental Approvals to Operate issued by the Alberta government under the Environmental Protection and Enhancement Act (EPEA). These environmental approvals to operate include ambient air monitoring requirements to ensure air quality meets regulated air guidelines and objectives for the surrounding communities and environment.

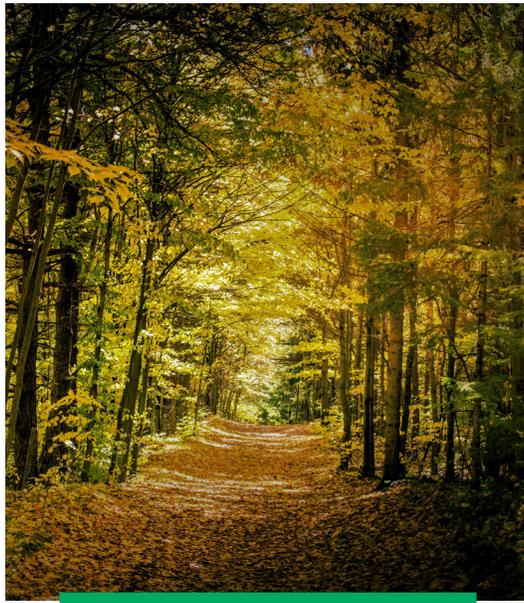
Regulations for atmospheric emissions are becoming increasingly stringent. More than that, clean air is fundamental to healthy communities, to people and to the surrounding natural habitat. We are committed to improving the air quality in and around our facilities and assets.

At each of our large facilities we have Environmental Coordinators who manage compliance with EPEA approvals, and participate with industry synergy groups. We are funding and participating board members with the Calgary Regional Airshed Zone and Parkland Airshed Management Zone. We collaborate on management strategies within these zones to address air quality concerns and to develop strategies to further improve air quality.

*The environmental coordinators at each site work closely with local industry associations to monitor air quality.*

**In 2020, Pieridae's Caroline Complex Superintendent Mark Weiss served as the Chairman of the Sindre Petroleum Operators Group (SPOG) board. His commitment is another example of how we meet our ESG commitments at the local level.**





## TMP 1

### Direct Emissions by Activity

Pieridae continues to address methane emissions using a focused approach. This approach supports the requirements set out by the government of Alberta to reduce methane emissions from the provincial upstream oil and gas sector by 45 percent by 2025 from 2014 levels.

To meet these targets Pieridae has a methane reduction compliance plan that is focused on equipment retrofits, new equipment installation, site vent gas limits, and our fugitive emission management program.

In 2020, Pieridae completed LDAR and Fugitive Emissions surveys on our asset base. This led to repairs of 997 leaks and eliminated approximately 2800 tonnes of annual CO<sub>2</sub> equivalent emissions.

**“ We are striving to test the latest available technologies in detection and provide science-based solutions for methane emissions. We will use science-based technology to not only reduce emissions but the cost of reducing our environmental footprint.”**

**SPOG Executive Director Tracey McCrimmon**

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**Eliminated 2800 tonnes of annual CO<sub>2</sub> equivalent emissions**

### TMP 3

## Our Energy Management Plan

In late 2019, Pieridae acquired Shell's Foothills assets. In 2020, an initiative was kicked off to create a consolidated Energy Management Plan (EMP) for these and all of the company's assets.

We are focused on the evaluation of carbon-related risks and opportunities to set future goals and enable informed business planning. A multi-year program is underway to develop and advance the EMP, which includes the continuation of frontline, incentivized programs for emission reduction, and repurposing and optimizing reservoirs and equipment to reduce our carbon footprint.

### TMP 2

## Leadership in Lowering Emissions

We are developing a Made in Alberta solution that will enable Pieridae to play a key role in helping to lower overall provincial greenhouse gas emissions and support the global push to find ways to transition to a lower-carbon economy.

The Caroline Carbon Capture Power Complex, to be built at our Caroline Gas Plant Facility, will be a combination of a large-scale Carbon Capture and Sequestration ("CCS") Project and a 'blue' power facility. Blue power is conventionally produced power where all the emissions are captured and stored.

Pieridae will work with several partners to ensure the vision becomes a reality, and we expect one of those partners to be an Alberta First Nations development group.

The CCS Project involves storing up to three million tonnes of carbon in a depleted underground gas reservoir. Pieridae plans to capture carbon from three different sources: CO<sub>2</sub> generated as a natural by-product of the gas plant processing, CO<sub>2</sub> generated from the power facility and nearby third-party CO<sub>2</sub>.

When fully operational, the project's initial phase will capture and store up to one million tonnes of CO<sub>2</sub> annually. This is the equivalent of taking 220,000 cars off the road each year. Our analysis shows there is capacity to store 100 years of carbon in our Caroline reservoir.

Additional investment will move the project from one to three million tonnes a year for a duration of 33 years of continuous storage at this level.

Three million tonnes would be the equivalent of taking more than 650,000 cars off the road annually<sup>1</sup>.

The power facility at Caroline will be designed to produce up to 900 megawatts. This facility would repurpose existing infrastructure and utilize combined-cycle gas turbines to produce the power. CO<sub>2</sub> emissions captured and sequestered annually would equal 400,000 tonnes.

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<sup>1</sup> Based on EPA guidelines that indicate the average vehicle emits ~4.6 tonnes/year of CO<sub>2</sub>.

**“ This leading initiative is a tangible way of supporting the transition to a lower-carbon economy.”**

**Pieridae SVP Marketing & Business Development Thom Dawson**

## Net-Zero Pathways

- 1 Source natural gas that demonstrates a commitment to a net-zero future.
- 2 Reduce emissions at the LNG terminal.
- 3 Purchase offsets for emissions above the net-zero benchmark.

*“An independent third party has helped us define achievable pathways to deliver our commitment of net emissions for our Goldboro LNG Project.”*

TMP 2 5

## Committed to Net-Zero Emissions for our Goldboro LNG Project

Canada is a signatory to The Paris Agreement, which sets worldwide targets to accelerate the transition away from carbon-intensive energy in an effort to reduce greenhouse gas emissions.

While we are dedicated to continually look for ways to reduce emissions at our core assets in Alberta, the company can also play a role in lowering its overall carbon footprint as a global-scale producer and supplier of cleaner, liquefied natural gas through our planned Goldboro LNG Facility in Nova Scotia.

Rather than have a commitment to net-zero as a talking point, Pieridae took things one step further in 2020 by working with an independent third party to do an assessment of what a path to achieve this goal for the LNG Facility would look like. Using a comprehensive energy economy modeling framework, this analysis identified emissions intensity benchmarks within which Goldboro LNG can comply with a net-zero emission future and highlighted three net-zero pathways:

1. **Source natural gas that is produced with an emissions intensity in line with net-zero emissions.**
2. **Reduce emissions at the LNG terminal.**
3. **Purchase offsets for emissions above the net-zero benchmark.**

These pathways involve solutions such as carbon capture and storage, ‘green’ transportation, electrification, ‘clean’ natural gas, ‘clean’ power generation, direct air capture, bioenergy with carbon capture and storage, land use, land-use change, forestry, and fugitive emissions reduction. Pathways solution offsets are available to us, and government policies and leadership give assurances to the market that there is a level playing field.

Once we determine the relevant and achievable pathways to net zero, we will develop a strategy to achieve this goal and report on progress as appropriate.

More than

98%

of all producing Foothills wells, regardless of which company drilled them, did not use multi-stage fracking.

“Conventional wells have a much smaller environmental footprint and substantially lower completion costs.”

TMP 2

## Leveraging Conventional Natural Gas Extraction

Train 1 of the Goldboro LNG facility is drawn from conventional reserves in the Alberta Foothills which would be expected to have a lower environmental impact than shale gas using multi-stage fracking.

According to lifecycle analysis conducted by Natural Resources Canada, conventional gas has slightly lower emissions than shale gas. In addition, there are environmental concerns with fracking, such as the excessive use of fresh water, and difficulties in the management of waste water.

Pieridae is primarily a conventional gas producer. In other words, we do not use fracking technology. More than 98 per cent of all producing wells in the Foothills, regardless of which company drilled them, did not use fracking. This means the company does not use an excessive amount of water during the initial phase of the drilling process. In addition to not needing tens of thousands of barrels of fresh water for each well, conventional wells provide more gas over the

long term and have a smaller, physical environmental footprint as well as substantially lower completion costs.

TMP 1 2

## Displacement of Greenhouse Gas Emissions

100% of the production from Train 1 of the Goldboro LNG facility has been sold to Uniper, a German energy company, under a 20-year contract. Germany passed legislation in July 2020 to shut down all coal-fired power plants by 2038. LNG from the Goldboro LNG facility in Nova Scotia will support Germany's energy transition by providing a lower-emission alternative while coal is phased out.

“Pieridae's LNG will support Germany's energy transition by providing a lower-emission alternative while coal is phased out.”

TMP 1

## Water Management

Water is a precious resource we are committed to using responsibly.

Fresh water is used in our operations and asset development. Like any scarce resource, fresh water should be optimized for our needs and the needs of others. We strive for reductions beyond regulatory requirements as we work to minimize our water use.

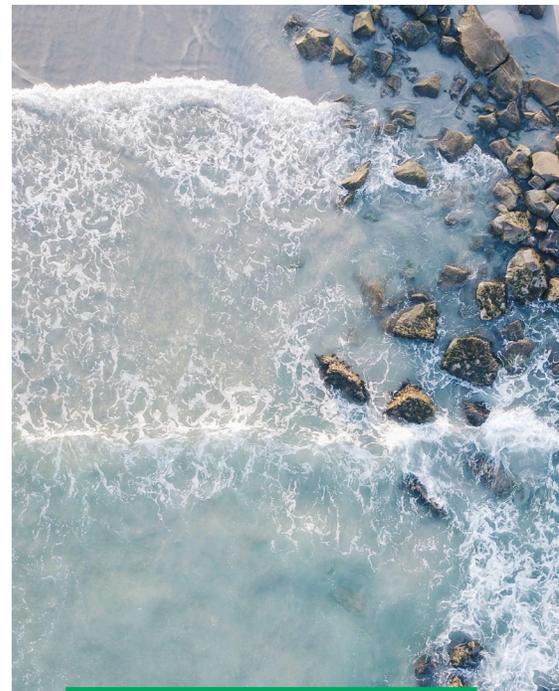
Our water policies align with federal and provincial regulations governing the removal of water from surface and subsurface sources, water disposal, and the quality and volume of water returned to the environment.

Pieridae meets all water management legislation for operations at our gas processing and sulphur forming facilities. Our Health, Safety and Environment (HSE) management system is designed to follow relevant legislation and how we meet water use

requirements for water use, water returned, monitoring and reporting. Our facilities are licenced under the Water Act and the Environmental Protection and Enhancement Act. Our licences permit us to withdraw and return water at specified volume thresholds, with analytical testing.

Pieridae continuously seeks new ways to lower our water usage, increase our return, and recycle as much water as economically feasible. Most of the water the company uses is for cooling which is then returned to the environment as steam and, ultimately, makes its way back to earth as clean water. Ultimately, our overriding goal is to protect people's health and the quality of the natural environment by conserving water resources and preventing adverse impacts.

**“ We strive for reductions beyond regulatory requirements as we work to minimize our water use.”**



TMP 1 5

## Land Management Strategy

Pieridae will continuously strive to strike a balance between land development, reclamation and biodiversity requirements to ensure we minimize the negative impacts and optimize the positive. We will support initiatives that improve our understanding of biodiversity in the areas where we operate – all with the goal of minimizing our environmental footprint.

### ACCELERATING RESTORATION

When Pieridae decides to retire assets, we strive to accelerate restoration of the land back to its original state. Our restoration work in 2020-2021 included the abandonment of seven wells in British Columbia, three wells in Saskatchewan, and plans for the abandonment of two wells in Alberta. Site assessments, monitoring, and reclamation/remediation activities are scaling up, with plans in place for projects that cover over 80 sites.

Pieridae manages site closure activities, including remedial work, to meet the requirements and timelines of both the Alberta Energy Regulator Area-Based Closure program, the BC Oil & Gas Commission Dormancy and Shutdown Regulation and other commitments.

The company is progressing the reclamation of all licensed sites at various stages of closure. The reclamation activities include Phase I & II site investigations, site remediation, ongoing environmental monitoring, detailed site assessments and reclamation certificate applications. A 2021 site closure budget is in place and restoration activities are underway.

## 2020-2021 RECLAMATION WORK



**BC**

**7 retired wells**



**ALBERTA**

**2 retired wells**



**SASKATCHEWAN**

**3 retired wells**

## FUTURE RESTORATION & RECLAMATION PLANS



**BC**

**11 sites**



**ALBERTA**

**More than 80 sites**

“*When we make decisions to retire assets, the company strives to accelerate the restoration of the land back to its original state.*”



Colin Anton,  
Indigenous Relations Manager.

# Social

## Social Responsibility is Integral to ‘One Pieridae’

TMP **5**

### The People Of Pieridae

We are committed to building a ‘One Pieridae’ culture, leading through our shared values and connecting with employees to communicate our shared strategy and ensure they are valued, engaged and energized.

Creating this type of environment can be challenging for any company, let alone for Pieridae, where we have experienced a 1,200% growth rate in the number of employees working at the company since 2019.

With such a diverse mix of cultures and people coming together quickly from different companies, we are committed to defining our identity, our values, and our culture.

As a result, Pieridae completed its first Employee Engagement Survey in 2020, achieving a very positive 80% participation rate. The company has promised to make this an annual event, where Pieridae will implement corrective actions based on survey results.

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Pieridae completed its first Employee Engagement Survey in 2020, achieving an

**80%**

participation rate.

We generally saw strong results that employees know they are an important part of Pieridae, what is expected of them and that there is trust for teammates to do great work!

We also saw that leaders must put more effort and focus on discussing progress with their people, encouraging development, and recognizing accomplishments. We must help our staff learn and grow, value their input and provide everyone with clear opportunities for progress and development.

Through the company's corporate priorities, Pieridae has committed to strengthening organizational infrastructure by continuing to build a sustainable 'One

Pieridae' culture. **One of Pieridae's 2021 Corporate goals is to implement a leadership development framework.** This initiative is partly due to feedback from the Engagement Survey.

Human Resources will focus on increasing diversity and fostering inclusion through staff training and regular engagement activities, including making mental health resources and support easily available. Front line leadership will be engaged in Leadership Development programs as part of the One Pieridae initiative. **Additional 2021 Corporate goals include increasing retention of newly hired employees and rolling-out an updated compensation framework.**

## TMP 5

### Indigenous Rights - Taking A Longer View

Pieridae Energy is committed to growing and honouring relationships with the Indigenous Peoples of Canada based on the principles of trust, mutual respect, fairness, openness, transparency and reconciliation.

Colin Anton was appointed as Indigenous Relations Manager early in 2021. He and his team have begun to develop Pieridae's relationship with local communities. Growing up, Colin experienced diverse environments, from major cities across Canada to a farm community just outside the town of Lac La Biche. Through this diverse upbringing, Colin was raised by a single parent, in the Cree culture, both on and off reserves, in Treaty 6, 7 and 8 territories.

Colin has always had a passion for bridging gaps: the gap between Indigenous communities and the corporate energy world, the gap between education to employment and employment equity, and the gap between cultural awareness and privileged perception. Over the last few years, Canada has begun a reconciliation process to understand the true history of Indigenous Peoples.

*“ No one person can know everything there is to know about Indigenous people in one location, let alone across Canada. I believe my role will bring an opportunity to advance engagement and have dialogue with leaders in communities where we're going to do business.”*

**Colin Anton – Indigenous Relations Manager**

For Pieridae, it's extremely important to build awareness of reconciliation, given that major developments, including the Goldboro LNG project and most of the company's gas assets in Alberta, are on or near traditional Indigenous territory.

Colin's team has begun a process to make sure everyone at Pieridae, from field workers to the board, has awareness of Indigenous Rights. This means presenting both a historical and a cultural understanding and working hard to dispel myths and misconceptions. Pieridae will use the guidelines provided by the Truth & Reconciliation Commission of Canada's 94 Calls to Action to guide its collaborative journey to working with Indigenous Peoples and

their communities. We have drafted a Statement of Commitment to Indigenous Peoples to establish guidelines for the company going forward.

Part of Pieridae’s vision is to ensure the inclusion, engagement and involvement of Indigenous People not only in the construction phases of the new plant in Nova Scotia but also in the ongoing operations and management. Several initiatives are already underway.

## A Strategy to Involve Indigenous Businesses

Pieridae is in the beginning stages of structuring its procurement framework to appropriately involve Indigenous businesses. The company has set a goal to “jointly create an internal strategy on Indigenous contracting opportunities”. This important work will begin in the summer of 2021.

The company has also started including submission requirements and questions in its Request for Proposals, asking firms to comment on their Indigenous content, with a specific query that states: “Does your company have an Indigenous Peoples hiring policy?”

*The company has set a goal to jointly create an internal strategy on Indigenous contracting opportunities.*

## Community Futures Treaty Seven Symposium

The company partnered with the Symposium to give three Indigenous students work opportunities. The students saw that Pieridae was interested in a genuine conversation that was open and transparent – Pieridae is paying attention to local people’s concerns.

They will work with Pieridae in summer 2021, in support of engineering, finance, regulatory and consultation work. We will also be seeking their input in order to help develop policy, processes and strategies that will help Pieridae grow its Indigenous engagement protocols. As outlined in our commitment statement, we seek to learn and we grow knowledge by listening; no one is better qualified to help us do that than people who are from the community. Pieridae sees itself as being on a learning journey, listening carefully to what local communities have to say and the lessons only they can teach.



## Moose Hide Campaign Day

Internally, the process of cultural engagement and education has begun in earnest with an overview given to Pieridae employees of the Moose Hide Campaign. The Campaign is a grassroots movement of Indigenous and non-Indigenous men and boys who are standing up against violence towards women and children. A virtual lunch and learn was held in February 2021 where 30% of the company attended to discuss the Campaign, giving insights into the history of Indigenous Peoples and traditional territories to raise company-wide awareness of these and other complex issues.



REDress Project

The REDress Project began as a way of drawing attention to the serious issue of Missing and Murdered Indigenous Women & Girls.

## TMP 5

### Building True Reconciliation: Benefits Agreement with Mi'kmaq

In February 2019, Pieridae Energy signed an agreement to foster economic cooperation with local Indigenous Peoples through the Kwilmu'kw Mawklusuaqn Negotiation Office (KMKNO), a registered society representing the 13 Mi'kmaq communities in Nova Scotia.

In the fall of 2020, the fruits of that agreement were made tangible in a \$720 million partnership between the Mi'kmaq and Black Diamond to build a workforce lodge. The Lukowinuo'kuom Lodge will house the 3,500 workers who will build the LNG Facility during the five-year construction phase.

Over time, Pieridae will work with KMKNO to develop a training plan tailored to Mi'kmaq communities. The training and work opportunities available through the Project will help Mi'kmaq youth and community members develop new, transferable professional and life skills.

Once operational, the Project requires a highly skilled workforce of trades, engineers and professionals. In addition to direct employment opportunities at the facility, Mi'kmaq communities will have priority for contracting opportunities related to the Project. Contracting opportunities as a result of the Project may include: marine transportation, road transportation, pipeline operation and maintenance, security services, catering, industrial laundry services, janitorial services, and snow removal services.

*“ We are excited about what this Project means to the Mi'kmaq communities of Nova Scotia and the benefits it will bring to all of Atlantic Canada. A key component of reconciliation in Canada is the ability to have meaningful involvement in projects happening within our territories.”*

**Chief PJ Prosper and Chief Terence Paul**

We are taking our commitment to reconciliation and strengthening our relationship with the Mi'kmaq a step further, in partnership with Black Diamond Group.

Ongoing discussions have led to a plan to recognize the missing and murdered Indigenous women and girls at the Lukowinuo'kuom Lodge through a REDress installation. The REDress Project began as an art installation by Jamie Black, who hung red dresses in public spaces to draw attention to the issue of missing and murdered Indigenous women and girls across Canada.

We will continue working with local Indigenous communities to ensure the installation is culturally appropriate and respectful, including engaging with a Lodge Advisory Committee of Nova Scotia female Mi'kmaq Chiefs who will review the safety of women at the Lodge, and Mi'kmaq communities to support the safety of Indigenous women and all women in the workforce Lodge and the building of the Goldboro LNG Facility.



Highway 316 re-alignment



Highway 316 Information Session 2



Pieridae takes pride in supporting local initiatives such as education through high school STEM scholarships, safety through emergency services, and culture through rodeos.

TMP 1 5

## Community Involvement & Investment

We are committed to being a good neighbour through constructive community and stakeholder engagement and support in the communities where we live and operate.

Our focus of building trust and respect with Indigenous Peoples goes hand-in-hand with how we endeavour to work with the stakeholders Pieridae interacts with on a daily basis.

The fact we have advanced our Goldboro LNG Project to lengths usually reserved for much larger energy companies speaks to the commitment our employees and leadership have for proper Indigenous, community, and stakeholder engagement.

Since the project's inception, our company has built strong, local ties in the rural Nova Scotia community where we will build the LNG facility. Whether it be conversations over a coffee or the more formal setting of the Community Liaison Committee, a cross-section of local residents and Pieridae meeting twice a year to offer project updates and listen to concerns with the focus of finding solutions. With COVID, we had to adjust but did not stop our engagement; instead, we reverted to virtual open houses that managed physical distancing and still enabled the community to sit down and interact with us.

Back in Alberta, the acquisition of three gas plants and other natural gas assets from Shell in the fall of 2019 introduced a new layer of engagement for the company, which was made much easier through the employees who joined Pieridae as part of the deal. Many live in the communities that surround our new family of assets, working at our facilities that produce the energy many rely on every day.

Pieridae remains committed to being a good neighbour, working with communities where we live and operate, with a strong focus on maintaining the trust and respect that has been built up over the years. Giving back demonstrates you are committed to being part of a community. We have a clear policy of financial support that outlines how individual groups can access funding for things that truly make a difference. Pieridae takes pride in supporting local initiatives such as education through high school Science, Technology, Engineering and Math (STEM) scholarships, safety through emergency services and culture through rodeos.

Being forthright and upfront with landowners and stakeholders who may be impacted by our operations is an absolute: we will not compromise. Pieridae and its team will continue to participate in ongoing stakeholder engagement by working with individual landowners as well as through respected groups such as the Waterton Advisory Group, SPOG and West Central Stakeholders.

## Health & Safety

In 2021 and beyond, Pieridae is committed to meeting our HSE Policy and Path to Zero goals; advancement of our safety culture; progressing safety competence; and upholding our reputation.

### ADVANCING SAFETY CULTURE

Pieridae has a Choose Safety philosophy which means safety is a choice every day. This way of thinking leads us to create and sustain a culture that drives our commitment of no harm to people and protection for the environment. Through an engaged workforce where people feel respected, valued and cared for, we will improve our performance, increase our engagement, and reduce injuries.

Pieridae understands that good safety is good business, and that risks and hazards can lead to incidents. We put ‘barriers’ in place to prevent potential risk and hazards from causing undesirable outcomes. These include policies, management systems, standards, procedures, equipment, and maintenance.

### Operations Management System

Through the acquisition of the Southern Alberta Foothills Assets, Pieridae acquired a mature Operations Management System (OMS) and embedded in that system is the Health, Safety, Environment Management System. This latter system serves as a basis for local procedures, competence requirements, learning material and contract requirements, and it supports those accountable and responsible for implementation. We have integrated these processes into our corporate HSE goals across the company. Our goals are tied to compensation, which holds people accountable for their HSE behaviours and performance, and ensures we create the right environment to achieve these goals.

### Risk Management

Risk management is a key leading indicator for Pieridae and foundational to achieving our goals. Using proactive processes such as our hazard identification process (HAZID) and risk assessment matrix (RAM), we are actively managing risk. We are proud of our results: no lost time incidents (LTI), and a healthy employee and contractor total reportable incident frequency (TRIF) of 0.34 in 2020.

### PROGRESSING SAFETY COMPETENCE

#### Operations Competency

Our industry is complex and high risk. The competence of our people is vital in helping to control that risk. It is critical to protect our people and assets, and to prevent impacts to the environment and local communities.

To ensure the competence of our staff, especially those in safety critical front-line positions, we are building a learning management system tied to Pieridae’s OMS. We track and monitor competence through our Workhub compliance management tool. Our goal is to have a 100% competency to OMS by 2021.

Another way we manage risk is to have HSE and Inspection/Integrity leaders located on site at our large facilities. Working alongside operational leaders, these individuals participate in daily team meetings, management reviews, audits, and incident investigations. This allows them to effectively manage risk and advance our Choose Safety culture, which ultimately helps Pieridae achieve our goal of zero incidents.



**“Choose Safety”**  
**– because safety**  
**is a choice**  
**every day.**

## UPHOLDING OUR REPUTATION

### Leadership and Commitment

Pieridae strives to uphold our reputation by being a leader in HSE compliance, and by reporting issues and near misses, and we encourage our people to do the same. We want to lead by example and demonstrate compliance with relevant HSE requirements and set the same expectation for others. Through setting expectations and priorities, and assigning resources, Pieridae is providing transparency of performance, giving clear direction, and ensuring organizational focus on risk management.

### Performance Monitoring and Reporting

Through our Operations Management System and our Assurance and HAZID Behaviour Based Safety Programs, we encourage frontline workers to tell us what hazards and risks look like in their area of responsibility and trust them to take corrective action. We actively encourage staff and contractors to report all incidents, near misses and acts of non-compliance. While all incidents require reporting, investigation and follow-up, greater attention is paid to incidents, including near misses, with higher potential to either occur or happen again. We conduct accurate risk assessment of credible scenarios that could have resulted from the event.

### Asset Integrity and Process Safety Management

Our approach to asset integrity and process safety management (AIPSM) is to effectively manage the integrity of operating systems and processes that handle hazardous substances. Data is recorded every day and fed into a monthly report.

The company's goal is to prevent any unplanned releases which could result in a major incident. We use the AIPSM monthly reports to assess risk in real time and then prioritize any corrective action based on the right business decisions. Pieridae uses an industry standard approach to process safety performance indicators which ties back to our corporate goals.

### Emergency Response Planning

As Pieridae strives to meet our obligations to safeguard personnel, communities and the environment, we will always remain focused on Emergency Preparedness and Response (ERP). Our ERP plans for all operations are in place and updated regularly.

Each plan outlines what we will do in case of a gas release, fire, explosion, hazardous material spill, transportation accident or other potential emergency, in conjunction with local emergency services.

We will also maintain a high level of emergency preparedness through implementation of simulated response training. This commitment was demonstrated in 2020 through 31 Emergency Response Training drills and exercises.

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**Pieridae completed 31  
Emergency Response Training drills  
& exercises in 2020.**

TOPIC	INDICATOR	2020
Workforce Health and Safety	Fatalities	0
	TRIF	0.34



# Governance

We are committed to building a diverse culture and workplace through a strong and sustainable governance framework. This is a commitment that must follow regulatory standards, with the goal of strengthening the Board's and management's accountability, ultimately creating superior performance and building trust.

It has been said that having honesty and integrity in the workplace is one of the most important qualities of great leadership in business. Businessperson John Huntsman started a \$12 billion enterprise from scratch. In his book *Winners Never Cheat*, he points to integrity being the foundation of success in business and in life.

Governance at Pieridae is based on that foundation of integrity. There are no moral shortcuts. We are committed to much more than meeting legal requirements and obligations. At Pieridae, we will continue to improve Pieridae's overall governance by updating and enhancing our corporate policies. An example of this is our clean Institutional Shareholder Services ("ISS") Report issued in 2020.

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**Governance at Pieridae is based on that foundation of integrity. There are no moral shortcuts.**

Our Board is steadfast in ensuring governance within the company is continuously tested. A step in the right direction was approving the Company’s strategic and financial plan, its policies, ESG objectives and risk management initiatives.

Under the umbrella of Board oversight and guidance, Peridae’s senior leadership team defines the goals and measurement to build a stronger company within the overarching framework of strategic goals that are influenced by an ESG mindset. Leaders then develop and sign annual performance agreements whose foundation is born of these goals. A drive to achieve them flows from an individual’s values, with the added incentive that these signed goals are tied to compensation, making everyone accountable for the company’s success.

Success is ultimately linked to the value of integrity: doing the right thing because it is the right thing to do, as Mr. Huntsman says. Good governance can flow from this core belief.

**“ I am excited to join Pieridae's Board and contribute to the success of this progressive Canadian company. Pieridae's commitment to ESG including: reduction in green house gas emissions; advancement of indigenous relations and employment; and, increasing women on its Board and executive team all contribute to increasing stakeholder value at this important time for the company, our province and country.”**

Chair of the Governance & ESG Committee Kiren Singh



Board Oversight of ESG Risks and Opportunities



**Executive Leadership Team**  
CEO, CFO, COO, Director of HR, ESG Role

**ESG Committee**

**Senior Leadership Team**

## Board Committees:

Investors are continuing to expect more and more transparency from Boards in how they oversee particular topics. ESG oversight is no exception. Because ESG strategy should align with business strategy and focus on material risks and business drivers, the full board will want to understand the ESG messaging and how those risks are being mitigated.

Ultimately, ESG issues will be relevant to all committees.

### **AUDIT COMMITTEE**

Assists Pieridae's directors in preparing and disclosing the company's consolidated financial statements, the satisfactory performance of the independent audit function and assessing and mitigating risk.

### **NOMINATION AND COMPENSATION COMMITTEE**

Assists Pieridae's directors with oversight of the effective governance of the company, the management of its human resources, the compensation of its directors and officers and the evaluation of their performance.

### **RESERVE AND HEALTH, SAFETY & ENVIRONMENT COMMITTEE**

Assists Pieridae's directors with proper and timely regulatory compliance, compliance under National Instrument 51-101 - Standards of Disclosure for Oil & Gas Activities, protects employees and the environment's health and safety, ensures Pieridae carries out appropriate environmental and social practices or mandates in the areas where it operates, and reviews and approves management policy.

## Governance & ESG Committee

Assists Pieridae's directors in ensuring the adequacy and effectiveness of the Board's governance practices; review the composition of the Board members ensuring that an appropriate number of directors serve on the Board as well as identifying the competencies, skills and diversity that the Board, as a whole, should possess; review and provide guidance as to the content of the Corporation's ESG framework and to consider and to recommend policies that conform with the framework; help set the Corporation's general strategy with respect to ESG matters.

## Pieridae ESG Committee's Mandate

Pieridae has established an ESG Committee, with representation from across the company, to establish and progress the mandate below.

This mandate supports the company's ESG strategy to ensure Pieridae remains focused on its material ESG risks and opportunities.

The ESG Committee will work with Pieridae's leadership and teams throughout the organization to achieve the following:

- 1 Minimize the harmful impacts to the world around us.
- 2 Build prosperous communities through inclusion and respect.
- 3 Identify opportunities for increasing efficiencies and streamlining operations.
- 4 Minimize regulatory and legal risk.
- 5 Satisfy stakeholder needs to maximize long-term stakeholder value.
- 6 Enhance investment opportunities through optimal ESG performance.
- 7 Increase employee productivity through integrating ESG into a 'One Pieridae' culture.
- 8 Ensure ESG performance is linked to executive compensation.
- 9 Assist Board in carrying out governance and oversight responsibilities for ESG.

## DIVERSITY AND INCLUSION STUDY

Women at Pieridae

26%

Women in Senior Leadership Roles

18%

Visible Minorities

12%

Persons with Disabilities

6%

LGBTQ2

7%

Indigenous Peoples

4%



### TMP 4

## Diversity Knows no Barriers

Pieridae is committed to diversity, equity and inclusion and its aspirations and approach to increasing diversity and inclusion within the organization.

The company's goal is to ensure 20% of vice-presidents and board members are diverse. The starting point is to gather information. Pieridae has done this through a benchmarking Diversity and Inclusion Study, which will become an annual exercise.

Results of this formative study show that Pieridae has challenges in terms of diversity, defined as the 'range of human differences present within an organization', and inclusion, defined as 'people feeling that they belong and that they are psychologically safe'.

- Women currently make up 26% of the workforce, which is typical of the historically male-dominated oil and gas industry in Alberta. The Calgary head office is more gender diverse than the workers in the field.
- There is female representation on the board and at the vice-president level, in engineering and drilling. Female representation at the leadership level sits at 18%.
- Visible minorities are represented in 12% of the total workforce.
- Persons with disabilities make up 6% of the workforce, LGBTQ2 are 7% and Indigenous Peoples are 4%.

**The company's leadership remains committed to improvement.** Consequently, Pieridae is developing and implementing robust diversity and inclusion policies for the whole organization, including a new



employee handbook and orientation process. In fact, a new policy was approved by the Board in mid-2021.

This new policy states, among other things, that we value the benefits that diversity can bring to Pieridae’s Board, senior leadership team and employee group. These benefits include the promotion of differing perspectives and the broadening of ideas while improving oversight, decision-making and governance.

As part of its new policy, the company aspires to increase the diversity on its Board, and within the organization generally, and will be taking appropriate action to achieve that objective.

Diversity on the Board and the senior leadership team demonstrates the company’s dedication to diversity at all levels within the organization and its commitment to foster an inclusive corporate culture that is based on merit and is free of bias, whether conscious or unconscious.

Pieridae took tangible action in 2020 by adding Kiren Singh to the Board in the summer of 2020. Ms. Singh is a financial executive and corporate director who served as Chief Financial Officer, Vice President Risk Management and Treasurer during her 30-year career in the energy sector. She brings a wealth of financial experience to our Board which will help immeasurably as we move to finalize financing for our Goldboro LNG Project and the upstream development.

**“ Ms. Singh brings a wealth of financial experience to our Board which will help immeasurably as we move to finalize financing for our Goldboro LNG Project and the upstream development,”**

**Pieridae CEO Alfred Sorensen**

When it comes to equity, we recognize this needs to be linked with a culture of inclusion. While Pieridae has taken initial steps, more discussion needs to occur, including exploring ways to analyze and then elevate anti-racism and equity.

***The company aspires to increase the diversity on its Board and within the organization, generally and will be taking appropriate action to achieve that objective.***



## Managing Risk

A company can have the most advanced and well-thought-out business strategy in place, but if that strategy is not supported by robust risk management, issues may occur that could have a profound and material impact on both the corporation and its stakeholders.

ESG and risk management can intersect in a number of areas. For example, dealing with a negative environmental issue is positive from the ‘E’ standpoint, but the solution could be detrimental in social areas such as job creation, overall economic impact and community prosperity, including Indigenous Peoples and a path to reconciliation. So, the difficult balances when making decisions and setting targets should be assessed across the ESG continuum.

Pieridae has a wide variety of policies designed to both manage risk, govern sustainability and ensure proper governance:

- Code of Ethical Conduct Policy;
- Disclosure, Trading and Anti-Corruption Policies;
- Health, Safety and Environment Policy;
- Diversity & Inclusion Policy;
- Prevention of Harassment Policies; and
- Whistleblower Policy.

The company is taking further actions to reduce risk, some of which include:

- Yearly Mandatory CyberSecurity training” of all Pieridae users employees or contract);
- Pieridae has implemented Multi-Factor Authentication (MFA) in 2021 to increase security and safeguard unauthorized access to the system via a second form or authorization.



## Code of Ethical Conduct

Pieridae's objective is to maintain the highest standards of ethical business behaviour. Ethical conduct by employees means being honest and fair when they interact with colleagues as well as customers, suppliers, lenders, investors and other stakeholders of the Company and the public. Pieridae's reputation for business integrity is a critical asset that can only be strengthened through the efforts of its employees and the fact that employees avoid activities or have interests that could taint their reputation or the company's.

## Whistleblower Policy

The Company is committed to the highest standards of ethics, morality and law in its commercial activities. The purpose of this policy is to encourage employees to report, anonymously or not, suspected breaches of the law or ethical conduct.

# Conclusion:

## The ESG Path Forward

We now have a formal beginning to Pieridae's ESG journey and we are proud of the progress we have made. Even so, defining where we start highlights that much more work needs to be done.

The company has established a strong foundation with a committee to oversee ESG Board governance, a senior management framework to bring ESG strategy and reporting to the next level, and a current state assessment and subsequent strategic roadmap. Furthermore, the company has identified material issues that need focus both in the near and long-term, all enveloped in an ESG vision statement that will help guide us on the path forward.

A focus for 2021 will be the recruitment of an experienced executive to shepherd the ESG process. This individual's responsibilities will include the alignment of Pieridae's key performance metrics and internal reporting structures with the appropriate reporting standards such as the Sustainability Accounting Standards Board (SASB), the Global Reporting Index (GRI) and the Task Force on Climate-Related Financial Disclosures (TCFD). The ESG focal point will also assist the leadership team to incorporate ESG into the company's strategy and business plan, develop a framework to build ESG education and

culture internally, and define ESG commitments, goals and metrics tied to SMART objectives and KPIs.

ESG value, performance and achievements will only come if the concept becomes integrated into all employee's day-to-day work, and something each one can see the importance and value of, just as we have focused on safety for the last 30-40 years in the energy industry.

In this inaugural report, we have highlighted the material ESG topics that Pieridae has selected to focus on in 2021 and made a number of commitments that we will focus on delivering against in the next year.

So what do we hope to achieve at Pieridae in a world where your ESG value proposition and actions can define a company's long-term success?

Our desired end-state would be to provide the energy people rely on each and every day as the world transitions to a lower-carbon economy while continuing to demonstrate a meaningful commitment to environmental sustainability. We will build trust and respect inside and outside the organization through mutually beneficial relationships and the Pieridae ESG culture will be an example to the sector.

***We are committed for the long term.  
That commitment will not waver.***



We will align our strategy, goals, KPIs and measurable objectives to the appropriate reporting standards such as:

- Sustainability Accounting Standards Board (SASB)
- Global Reporting Index (GRI)
- Task Force on Climate-Related Financial Disclosures (TCFD)

# Performance Tables

(metrics are enterprise-wide unless otherwise stated)  
 (dollars shown in thousands CAD)

ENVIRONMENT	INDICATOR	Metric - 2020
<b>Greenhouse Gas (GHG) Emissions</b>	Scope 1, Direct GHG emissions (stationary, mobile, fugitive, process) (tonnes CO <sub>2</sub> e) <sup>1</sup>	1,187,278
	Scope 2, Indirect GHG emissions (generation from purchased electricity)(tonnes CO <sub>2</sub> e) <sup>2</sup>	402,120
<b>Direct Emissions by Activity</b>	Flared (tonnes CO <sub>2</sub> e)	11,186
	Fugitives (tonnes CO <sub>2</sub> e)	43,962
	Vented (tonnes CO <sub>2</sub> e)	54,375
<b>Air Emissions</b>	SO <sub>2</sub> emissions (tonnes)	11,050
	NO <sub>x</sub> emissions (tonnes)	4,003
	CO emissions (tonnes)	1,183
	VOC emissions (tonnes)	688
	PM <sub>2.5</sub> emissions (tonnes)	156

TOPIC	INDICATOR	2020
<b>Water</b>	Water withdrawal(m <sup>3</sup> ) <sup>3</sup>	1,157,658
	Water returned (m <sup>3</sup> ) <sup>3</sup>	283,489
<b>Land</b>	Reclamation certificates (count)	4
	Abandonment, reclamation and remediation (AR&R) spend	\$2,173

SOCIAL	INDICATOR	2020
<b>Employee Engagement</b>	2020 Engagement survey participation rate <sup>4</sup>	80%
<b>Workforce Health and Safety</b>	Fatalities	0
	Employee and Contractor TRIF <sup>5</sup>	0.34
	Emergency response exercises	31

GOVERNANCE	INDICATOR	2020
<b>Diversity, Equity &amp; Inclusion</b>	Percent of permanent employees that are women <sup>6</sup>	26%
	Women in senior leadership roles <sup>7,8,9</sup>	18%
	Women in supervisory and management roles <sup>10</sup>	27%
	2021 Diversity & Inclusion survey score <sup>11</sup>	65% baseline
	Survey respondents whom self identified as a Persons with Disabilities <sup>12</sup>	6%
	Survey respondents whom self identified as a Visible Minority <sup>12,13</sup>	12%
	Survey respondents whom self identified as LGBTQ2 <sup>12,14,15</sup>	7%
	Survey respondents whom self identified as Indigenous Peoples <sup>12,16</sup>	4%
<b>Board Composition</b>	Board size <sup>17</sup>	8
	Independent Directors <sup>17</sup>	7
	Female Directors <sup>17</sup>	1
	Insider ownership <sup>18</sup>	11%
	Board meeting attendance <sup>17</sup>	96%
	Compliance with minimum shareholding requirements <sup>17,19</sup>	100%
<b>Economic Performance</b>	Production <sup>18</sup>	
	Natural gas (mmcf/d)	201
	Condensate (bbl/d)	3,020
	Other NGLs (bbl/d)	5,473
	Total production (boe/d) <sup>16</sup>	42,000
	Proved - Developed Producing (PDP) Reserves <sup>18,20,21</sup>	\$505,243 127,710 MBoe
	Total revenue <sup>22</sup>	\$257,165
	Petroleum & natural gas sales <sup>22</sup>	\$238,079
	Royalties <sup>22</sup>	\$9,609
	Capital expenditures <sup>23</sup>	\$17,243
Development expense (Goldboro LNG) <sup>23</sup>	\$18,742	

## ENDNOTES:

1. Total Regulated Emissions (TRE) from TIER compliance reporting
2. Scope 2 CO<sub>2</sub>e = 0.790tCO<sub>2</sub>e/MWh x power imported
3. Monitoring of water based on the requirements of the Alberta Water Act.  
The Engagement Survey was conducted in April 2020 by a Third Party. All permanent employees were invited to participate. The score represents the level of engagement based on a series of questions presented.
4. The Engagement Survey was conducted in April 2020 by a Third Party. All permanent employees were invited to participate. The score represents the level of engagement based on a series of questions presented.
5. TRIF = (number of recordable incidents \* 200,000 hours)/total hours worked, as per the Canadian Association of Petroleum Producers (CAPP).
6. Based on Human Resource Information System (HRIS) identification of gender.
7. Senior Leadership defined as permanent employees at VP, SVP, and Executive Suite levels.
8. Based on HRIS identification of gender.
9. Based on HRIS identification of role title.
10. Supervisory and Management roles identified by HRIS where role titles contain Director, Manager and any other role with direct report responsibilities that is not included in the Senior Leadership.
11. The Diversity & Inclusion survey was conducted in February 2021 by a Third Party. All permanent employees were invited to participate. The data output and figures reported pertain only to: i) the individuals that chose to respond to the survey, and ii) the individuals that chose to self-report in each question, therefore the data is not representative of the entire permanent employee population. The results are included in the 2020 inaugural report to identify a baseline. The overall survey score represents level of engagement based on the series of questions posed.
12. Source: 2021 Diversity & Inclusion survey.
13. Visible Minority is defined as a member of a visible ethnic group, other than Caucasian or Aboriginal.
14. LGBTQ2 is the common acronym used by the Government of Canada, and in full written form represents Lesbian, Gay, Bi-sexual, Transgender, Queer and Two-Spirit.
15. LGBTQ2 definition as applied in the survey was adapted from the Alberta Human Rights Commission (ABHRC) and MyHealth.Alberta.ca.
16. Indigenous Peoples as recognized in the Canadian Constitution include First Nations, Inuit and Métis.
17. Source 2020 Management Information Circular located on SEDAR.
18. Source 2020 Annual information Form (AIF) located on SEDAR.
19. The Share Ownership Policy requires each non executive director (other than any such director who is nominated to the Board pursuant to a contractual obligation of the Corporation) and each senior employee of the Corporation, no later than the date that is three years after the latter of (a) October 24, 2017 and (b) the day that the individual first became a director or a senior employee of the Corporation (the "Application Date"), to directly or indirectly acquire, and to hold throughout the period commencing on the Application Date and continuing while they remain a director or senior employee of the Corporation, Common Shares which in aggregate have a market value that: (i) is at least three times the annual retainer fee that is paid or payable to such director or three times the annual base salary that is paid or payable to the Chief Executive Officer, as the case may be, and (ii) is at least two times the annual base salary that is paid or payable to each other senior employee of the Corporation.
20. Developed Producing reserves are those reserves that are expected to be recovered from completion intervals open at the time of the estimate. These reserves may be currently producing or, if shut-in, they must have previously been on production, and the date of resumption of production must be known with reasonable certainty.
21. Estimated pre-tax net present value of discounted cash flows from reserves using a 10% discount rate.  
Source 2020 Annual Reserves Report located on SEDAR.
22. Source 2020 Audited Financial Statements located on SEDAR.
23. Source 2020 Management Discussion & Analysis (MD&A) located on SEDAR.

# Forward-Looking Statements

Certain statements contained herein may constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws (collectively "forward-looking statements"). Words such as "may", "will", "should", "could", "anticipate", "believe", "expect", "intend", "plan", "potential", "continue", "shall", "estimate", "expect", "propose", "might", "project", "predict", "forecast" and similar expressions may be used to identify these forward-looking statements.

Forward-looking statements involve significant risk and uncertainties. A number of factors could cause actual results to differ materially from the results discussed in the forward-looking statements including, but not limited to, risks associated with oil and gas exploration, development, exploitation, production, marketing and transportation, loss of markets, volatility of commodity prices, currency fluctuations, imprecision of resources estimates, environmental risks, competition from other producers, incorrect assessment of the value of acquisitions, failure to realize the anticipated benefits or synergies from acquisitions, delays resulting from or inability to obtain required regulatory approvals and ability to access sufficient capital from internal and external sources and the risk factors outlined under "Risk Factors" and elsewhere herein. The recovery and resources estimate of Pieridae's reserves provided herein are estimates only and there is no guarantee that the estimated resources will be recovered. As a consequence, actual results may differ materially from those anticipated in the forward-looking statements.

Forward-looking statements are based on a number of factors and assumptions which have been used to develop such forward-looking statements, but which may prove to be incorrect. Although Pieridae believes that the expectations reflected in such forward-looking statements are reasonable, undue reliance should not

be placed on forward-looking statements because Pieridae can give no assurance that such expectations will prove to be correct. In addition to other factors and assumptions which may be identified in this document, assumptions have been made regarding, among other things: the impact of increasing competition; the general stability of the economic and political environment in which Pieridae operates; the timely receipt of any required regulatory approvals; the ability of Pieridae to obtain qualified staff, equipment and services in a timely and cost efficient manner; the ability of the operator of the projects which Pieridae has an interest in, to operate the field in a safe, efficient and effective manner; the ability of Pieridae to obtain financing on acceptable terms; the ability to replace and expand oil and natural gas resources through acquisition, development and exploration; the timing and costs of pipeline, storage and facility construction and expansion and the ability of Pieridae to secure adequate product transportation; future commodity prices; currency, exchange and interest rates; the regulatory framework regarding royalties, taxes and environmental matters in the jurisdictions in which Pieridae operates; timing and amount of capital expenditures, future sources of funding, production levels, weather conditions, success of exploration and development activities, access to gathering, processing and pipeline systems, advancing technologies, and the ability of Pieridae to successfully market its oil and natural gas products.

Readers are cautioned that the foregoing list of factors is not exhaustive. Additional information on these and other factors that could affect Pieridae's operations and financial results are included in reports on file with Canadian securities regulatory authorities and may be accessed through the SEDAR website ([www.sedar.com](http://www.sedar.com)), and at Pieridae's website ([www.pieridaeenergy.com](http://www.pieridaeenergy.com)). Although the forward-

looking statements contained herein are based upon what management believes to be reasonable assumptions, management cannot assure that actual results will be consistent with these forward-looking statements. Investors should not place undue reliance on forward-looking statements. These forward-looking statements are made as of the date hereof and Pieridae assumes no obligation to update or review them to reflect new events or circumstances except as required by Applicable Securities Laws.

Forward-looking statements contained herein concerning the oil and gas industry and Pieridae's general expectations concerning this industry are based on estimates prepared by management using data from publicly available industry sources as well as from reserve reports, market research and industry analysis and on assumptions based on data and knowledge of this industry which Pieridae believes to be reasonable. However, this data is inherently imprecise, although generally indicative of relative market positions, market shares and performance characteristics. While Pieridae is not aware of any misstatements regarding any industry data presented herein, the industry involves risks and uncertainties and is subject to change based on various factors.

Barrels of oil equivalent (“boes”) may be misleading, particularly if used in isolation. A boe conversion ratio of 6 Mcf: 1 Bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.





If you would like to learn more about Pieridae's ESG journey and our strategic path forward, please visit us on-line at <https://pieridaeenergy.com/our-responsibility>

If you have any ESG-related questions, please send them to [info@pieridaeenergy.com](mailto:info@pieridaeenergy.com)



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