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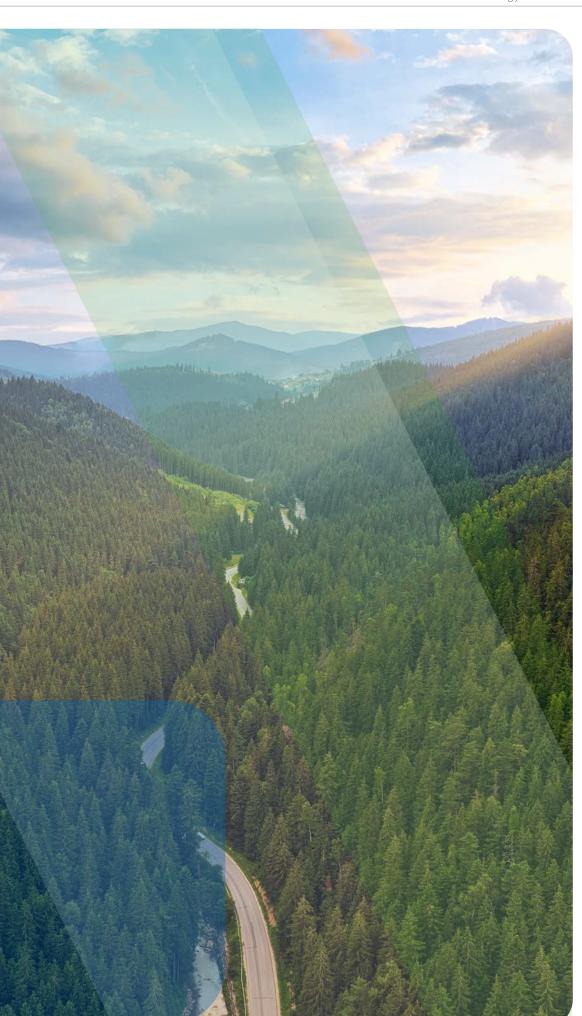
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# HIGHLIGHTS

of ARC's ESG Progress and Achievements

\$360 million

into investable energy transition opportunities

More than

of ARC's employees are female

ARC has donated nearly

\$4 million

to non-profit organizations over the past decade

**\*008** 

「 datapoints

submitted by portfolio companies (2023 reporting year)

Ove

60 of ARC employees

are directly involved in non-profit organizations and academic advisories, including board positions, committees, and associations Nearly

10 year

history of tracking, reporting and reducing greenhouse gas emissions intensity

# **MESSAGE**

## from our CEO

Responsible investing is key to sustainable success

We are excited to share ARC's 2024 Energy Transition Sustainability Report with you, which showcases our Environmental, Social and Governance (ESG) achievements and commitments

ARC has taken a dual-track approach to energy investing, growing clean energy and decarbonization solutions, which we call energy transition, and funding responsibly managed oil and gas production assets.<sup>2</sup> In the last two decades our energy transition portfolio has included renewable power, energy efficiency, biofuels, hydrogen, electrification, and more. Historically, energy transition has been a smaller part of our overall investing; however, building on our track record, I am excited to share that in 2023, we launched our first fund dedicated solely to energy transition investing.

This report focuses exclusively on ARC's energy transition portfolio company ESG initiatives and progress. Please refer to our website for the 2024 Oil and Gas Sustainability Report.

We are proud of our 20-plus-year track record of investing in energy transition and energy-related manufacturing/services.<sup>3</sup> Since the inception of the ARC Funds, we have invested over \$360 million into investable energy transition opportunities. Our energy transition investing continues to take a Canada-



first approach, primarily focusing on investing in Canadianheadquartered companies that develop and deploy innovative decarbonization solutions both domestically and abroad.

ARC has a long-standing commitment to improving on ESG performance in our portfolio companies, including annual reporting requirements and asking companies to have future greenhouse gas (GHG) intensity reduction goals. To ensure we do not lose sight of our broader climate impacts, ARC now tracks the avoided emissions associated with portfolio companies in our dedicated energy transition fund. These avoided emissions measurements (also known as scope 4) quantify the climate benefit of a company's products or services by estimating the emissions avoided by displacing the incumbent, higher carbon energy systems.

Building on our existing GHG reporting and goal setting, ARC established ambitious targets for 2030 GHG emissions intensity reductions (scope 1 and 2) that encompass all portfolio company types, moving us closer towards the Government of Canada's stated goal of net zero by 2050.4

Over the past year, we are pleased to report that we have made two new energy transition investments: StormFisher Hydrogen and Charger Ready Properties. StormFisher is a Canadian-headquartered company developing green hydrogen

<sup>&</sup>lt;sup>2</sup> ARC prioritizes investments in lower emissions Canadian oil and gas. ARC defines this on a portfolio basis, by targeting a portfolio average scope 1 and 2 emissions intensity for oil and gas producing companies that is lower than the Oil and Gas Global Average Carbon Intensity described further in ARC's 2024 Oil and Gas Sustainability Report.

<sup>&</sup>lt;sup>3</sup> ARC's track record in oilfield manufacturing and services is part of our track record since it is directly relevant to our energy transition investment strategy, which is building similar types of businesses now dedicated to clean energy verticals.

<sup>4</sup> ARC's GHG reduction goals are based on scope 1 and 2 emissions and includes all reporting portfolio companies (oil and gas and energy transition combined). Please see the Appendix for more details.

and e-fuel projects in North America. Charger Ready has an innovative model for supporting the build-out of electric vehicle charging infrastructure by providing turn-key solutions for property owners, initially focused on Canada.

While energy transition companies tend to have lower GHG emissions, they are not without ESG risks. Consequently, responsibly deploying capital in clean energy requires a keen focus on material ESG risk factors and a holistic understanding of our investments' broader impacts. ARC's decades-long history of championing ESG has us well positioned to navigate the challenges to come. We hope you enjoy ARC's 2024 Energy Transition Sustainability Report.

Sincerely,

Brian Boulanger | Chief Executive Officer and Director

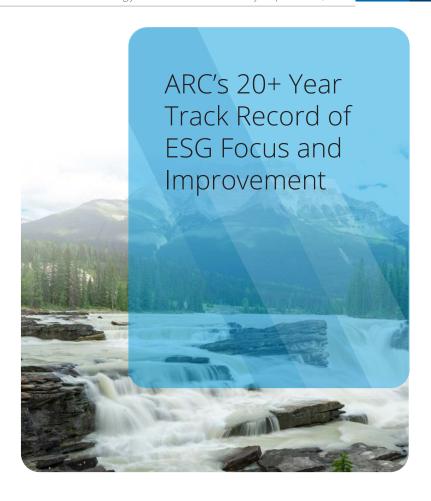
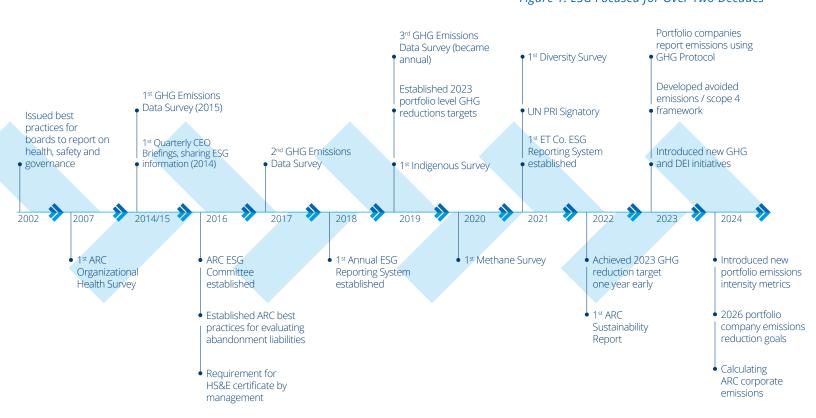


Figure 1: ESG Focused for Over Two Decades



# INTRODUCTION

to ARC



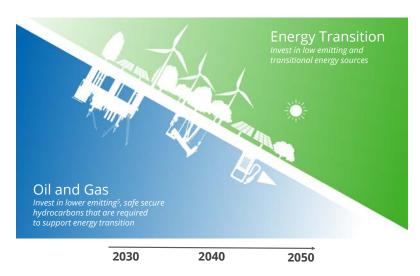
Founded in 1989, ARC Financial Corp. is Canada's largest energy focused private equity manager with over \$6.4 billion raised across 11 ARC Energy Funds.

Since the launch of the first ARC Energy Fund over 25 years ago, ARC has invested in over 180 companies across the energy spectrum, including oil and gas, infrastructure, manufacturing and energy transition.

ARC has a dual-track approach to energy investing, growing clean energy and decarbonization solutions, which we call energy transition, and funding oil and gas production and oilfield service companies.

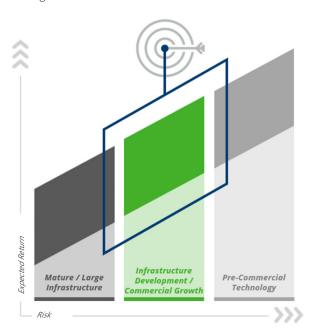
This report focuses on ARC's approach to ESG integration within our energy transition investments. For more information on ARC's oil and gas ESG integration strategy, please see the separate sustainability report on our website, titled ARC's 2024 Oil and Gas Sustainability Report.

#### ARC Financial's evolving energy focus •



## **Energy Transition Investing**

The energy transition represents an enormous growth opportunity. ARC is focusing on business opportunities that are using established technologies and are ready for investment and scalable growth. In Canada there is a well-developed ecosystem of venture investors looking to support early-stage technologies and prove out business concepts. There is a similarly developed group of infrastructure investors looking to deploy capital into fully derisked projects with secure offtake. ARC seeks to fill the gap between these investors, providing the risk capital that forms a necessary bridge to take energy transition businesses and projects from nascency to the scale needed to truly drive forward the energy transition and help to address the climate challenge.



ARC's core focus areas for investing in energy transition include developers, operators, services and manufacturing companies in the areas of electrification, storage and energy efficiency, renewable fuels, decarbonization of the oilfield, and carbon capture, utilization and sequestration.

## ARC's Sustainability Initiatives Manage Risk

ESG risks are business risks. Superior investment returns require active risk management, and the issues posed by neglecting environmental, social and governance matters are inseparable from broader business risks. The transition to a net-zero carbon economy by 2050 presents both opportunity and challenge. ARC's sustainability initiatives are designed to take advantage of this opportunity, while at the same time, responsibly managing and mitigating risks.

ARC asks that the portfolio companies in which we invest understand, measure, and mitigate their ESG risks. ARC's ESG practices are intended to inform and motivate our portfolio companies to act. Among other benefits, we believe ARC's influence at our portfolio companies has resulted in enhanced governance and has encouraged lower scope 1 and 2 emissions intensity.

## **ARC Energy Research Institute**

The ARC Energy Research
Institute (the Institute)
is an integral part of
ARC Financial Corp. The
Institute monitors the
energy landscape and
the most recent trends
in sustainability, policy
and investment to inform
ARC and its portfolio











The Institute and Studio. Energy have collaborated to create the Energy Road Atlas. This unique analysis has enabled ARC to understand the many pathways for converting primary energy into useful mechanical work, and to focus on the investment areas with the greatest opportunity.

Studio. Energy was founded by Peter Tertzakian (who is also a partner at ARC Financial) to provide a venue for thought leaders in energy to discuss complex problems and develop solutions and tools. The Institute works alongside Studio. Energy, and can leverage its insights to inform our investment strategy, as well as our sustainability goals and processes.

In addition to its macro-economic research work, the Institute also meets with ARC portfolio companies to inform them on issues that are impacting their business, including on ESG and policy matters. Information is shared in formal ARC Leaders Briefing sessions, where ARC gathers many companies together, as well as through one-on-one meetings, board presentations, operations meetings and phone calls. The Institute's work also influences the broader energy community. The Institute participates in public forums, hosts a weekly podcast and authors commentaries. Its views on energy issues are sought after by academic institutions, think tanks, government agencies, regulatory bodies, and investors.

The Institute actively participates in industry associations and policy advisory groups, with senior members holding current and past positions within the Canadian Renewable Energy Association, Explorers and Producers Association of Canada, the Canadian Association of Petroleum Producers, and the Alberta Government Royalty Review Advisory Panel, among others. Through these types of organizations/engagements, the Institute can provide guidance and gain insights on issues relevant to the industry, including climate and ESG concerns.

The popular ARC Energy Ideas Podcast is a weekly show hosted by the Institute that covers critical issues for the successful development of lower carbon energy. The show covers developments in the decarbonization of fossil fuels and the development of new, low-emission energy sources. The podcast educates and informs the community on important issues and fosters energy literacy and innovation.

The Institute also supports innovation in the community by participating in initiatives focused on accelerating clean energy development. One example is the Institute's participation in sessions held by Avatar Innovations. Avatar is focused on accelerating the commercialization of early-stage technologies and business models to mobilize energy transition solutions.

The Institute has a long track record of ESG differentiation, including authoring reports on estimating the GHG emissions from the ARC Funds' oil and gas production since 2015. In 2022, the Institute published a guidance document produced by Modern West Advisory for the ARC portfolio companies to calculate and report their emissions using the GHG Protocol method found on our website. The Institute has also developed a framework for analyzing the avoided emissions (also known as scope 4 emissions) for ARC's energy transition investments (see page 20 for more information).

# **ARC's CORE**

# Sustainability Focus Areas and Recent ESG Initiatives



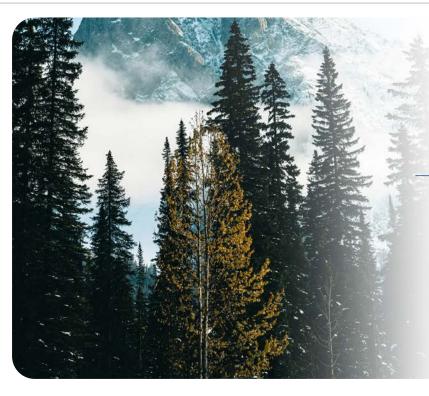
ARC is proud of our progress on our ESG initiatives and goals

ARC's strategy is to promote ESG initiatives within our organization and at our portfolio companies in the following six core focus areas:

- Governance
- Responsible Investing
- Climate Change Action
- Diversity, Equity and Inclusion
- Indigenous Prosperity
- Energy Transition and Reliability

ARC is proud of our progress on our ESG initiatives and goals. To inform our ESG goals, ARC reviewed leading sustainability focused guidelines and frameworks, including the Task Force on Climate-Related Financial Disclosures (TCFD), the Glasgow Financial Alliance for Net Zero (GFANZ), and the Sustainability Accounting Standards Board (SASB).

In 2021, ARC became a signatory to the UN Principles for Responsible Investing (UN PRI). UN PRI membership and reporting further strengthens and improves our ESG practices and transparency, and provides external validation of the work completed to date.



## Governance

- Annual portfolio company ESG data reporting and benchmarking.
   2023 marked our 6th report to date with companies representing over 80 percent of our committed capital participating.
- Conduct annual organization health surveys at ARC and encourage them at our portfolio companies.
- Address ESG risk at the board level.
- Encourage portfolio companies to link ESG performance to executive compensation to enhance accountability.

## Responsible Investing

- Signatory to the UN PRI since 2021. While ARC has been focused on improving ESG performance amongst portfolio companies for some time, our commitment to UN PRI further strengthens and improves our ESG practices and transparency, and provides external validation of the work completed to date.
- Conduct annual surveys of operating portfolio companies to capture material ESG metrics and identify potential risk areas.
- Ask all operating portfolio companies to prepare for the future; examples include considering the impacts of carbon pricing in goforward economics, setting GHG emissions intensity reduction targets, planning for physical risks from a changing climate, and confirming that each company has an emergency response plan.
- Direct companies to consider the ESG characteristics of their supply chains (e.g., labour practices, emissions, etc.).

## Climate Change Action

- ARC's Energy transition portfolio companies have a lower estimated carbon emissions intensity than broad public benchmarks.<sup>6</sup>
- Despite already low emissions, we encourage long-term climate change planning at portfolio companies, including assessing exposure to physical risks from a changing climate, and outlining a conceptual path for portfolio companies to achieve net zero by 2050.
- ARC has a portfolio-wide emissions intensity reduction goal for 2030 (scope 1 and 2) that considers emissions across all portfolio company types (see Appendix for more details).<sup>7</sup>
- In 2023 ARC asked portfolio companies to provide interim 2026 emissions intensity reduction goals. These goals give ARC data to assess whether the portfolio is on track to meet the 2030 target.
- ARC has developed an avoided emissions methodology (also known as scope 4), which aims to measure the climate impact of an energy transition company's services or products. ARC is committed to reporting to its Limited Partners on avoided emissions for companies within the dedicated Energy Transition Fund.

<sup>6</sup> Measured according to Carbon Footprint for ARC Energy Transition companies at year-end relative to several broad market indexes: MSCI World Index, MSCI US Large Cap Index, MSCI Canada Index. Discussed further in "Climate Action" section. ARC figures are internally estimated based on ARC portfolio company provided emissions data, which are calculated in accordance with a third party developed methodology based on the GHG Protocol. Portfolio company data and ARC calculations are unaudited. The emissions figures describe scope 1 and 2 emissions and exclude scope 3 emissions. ARC's full methodology is explained further in the Appendix.

<sup>&</sup>lt;sup>7</sup> Discussed further in Appendix Part I. ARC's 2030 goals are based on all ARC investments across Exploration and Production, Oilfield Service, and Energy Transition

## Diversity, Equity and Inclusion

- Issued a diversity survey of ARC's portfolio companies in 2024 (3<sup>rd</sup> survey to date) and provided the results of the 2<sup>nd</sup> survey to portfolio companies to spread awareness.
- Established clear gender diversity goals for ARC's portfolio company boards.
- Shared best practices for diversity, equity and inclusion (DEI) among portfolio companies by hosting a portfolio company to present to other executives on their DEI initiatives and successes. ARC has also asked the portfolio companies to share their DEI initiatives and successes in the annual ESG survey to share knowledge and best practices.



## **Indigenous Prosperity**

- ARC has financially supported the University of Calgary's Schulich School
  of Engineering Indigenous Pathways Program to assist Indigenous
  students studying STEM subjects.
- ARC recognizes that Indigenous communities in Canada are important rights holders in energy developments.
- ARC values and respects the Indigenous community relationships that have been developed by its porfolio companies and provides Indigenous awareness training to its staff.

# Energy Transition & Reliability

- Since inception, ARC has invested over \$360 million into investable energy transition opportunities.<sup>8</sup> These include investments in solar manufacturing, renewable fuels, renewable power, carbon capture and utilization, decarbonization of the oilfield, and the electrification of transport, among others. ARC has also made investments in oilfield manufacturing and services, which are directly relevant since they provide experience for building similar businesses in the energy transition vertical.
- The ARC Energy Transition Fund is wholly dedicated to investing in energy transition business opportunities that are established and ready for investment and scalable growth. The core focus areas of the fund include developers, operators, services and manufacturing companies in the areas of electrification, storage and energy efficiency, renewable fuels, decarbonization of the oilfield, and carbon capture, utilization and sequestration.

## ARC's ESG Data Reporting Transparency and Benchmarking

ARC's portfolio companies report on their ESG performance using a set of metrics established by ARC's ESG Committee (described further in the "Governance" section). ARC selected the metrics based on a review of the SASB framework that identifies ESG factors that are material for each sector. Areas of focus in ARC's ESG tracking and benchmarking include GHG emissions (scope 1 and 2), fossil fuel consumption, freshwater use, health and safety metrics, regulatory fines and incidents, and waste.

To help provide context on their sustainability performance, ARC's companies are benchmarked against other companies in the ARC portfolio and provided with a "scorecard" each year. The analysis shows their relative ranking on key ESG metrics and highlights potential areas of risk.

ARC's energy transition companies often have different material ESG risks and related metrics, however, many metrics are common among companies and can be normalized on factors like revenue or number of employees. This allows for comparisons across different types of companies to identify outliers and areas of focus. For those metrics that are unique and can't be compared across companies, the data tracking still enables ARC to monitor year-over-year changes and identify both positive and negative trends.

The Board of Directors of each company reviews the ARC ESG scorecards to identify areas of potential risk in each firm and to determine if any mitigation actions need to be taken.

## **ARC ESG Benchmarking Highlights**

- ESG metrics gathered from all operating ET portfolio companies<sup>9</sup>
- Scope 1 and 2 emissions calculated and reported by all operating ET portfolio companies
- More than **80% of portfolio companies**link executive compensation with performance on ESG goals/metrics<sup>10</sup>
- More than **90% of portfolio companies** are incorporating carbon costs into their goforward economics<sup>10</sup>

"It's been very valuable to see the results of the ARC ESG Survey. I've used some of this input as a guide for the development of Silfab's first public ESG report, and also for the overall ESG strategy at Silfab"



**Ted Ferguson** | *Director of Sustainability and Government Relations, Silfab Solar Inc.* 

<sup>&</sup>lt;sup>9</sup> All private companies with assets completed the ARC ESG survey

<sup>&</sup>lt;sup>10</sup> Includes all private portfolio companies with operating assets across all Funds including oil and gas Funds



## ESG in ARC's Due Diligence Practices

Managing ESG risks among existing portfolio companies is necessary to drive sustainable value creation, but it alone is not sufficient. At ARC, ESG integration begins before the initial investment into a company. During the due diligence process, ARC undergoes a rigorous evaluation of ESG factors to better understand and manage the risks and opportunities associated with a given investment. Some of the factors that can be assessed are:

At ARC, ESG integration begins before the initial investment into a company



## **Environmental Impact**

Reviewing the environmental impact of the company's current and planned operations, including assessing the carbon intensity of the projects and the risks and returns under alternative carbon pricing regimes



## **Energy Transition Benefits**

Evaluating potential environmental benefits of investments in the Energy Transition space by understanding how their full lifecycle emissions compare to the most likely alternative in the market (also known as scope 4 or avoided emissions)



## Compliance

Reviewing the company's compliance with laws and regulations



## Diversity, Equity and Inclusion

Evaluating the company's commitment to diversity, equity and inclusion



#### **Governance Structures**

Negotiating shareholder agreements that provide for appropriate governance



## **Reclamation Requirements**

Where applicable, reviewing management's assumptions surrounding asset retirement obligations and factoring that into the economic evaluation, as well as evaluating the potential impact of reclamation policy changes



## **Risk Management**

Assessing management's attitude and history regarding environmental impacts, health, safety, employee welfare, and community and stakeholder relations



## **Policy Risks**

Reviewing the policy risks facing the business, including how reliant a business is on subsidies, and the likelihood of change or removal

# **GOVERNANCE**

# Influencing our companies from the boardroom table to operations



## Our governance policies and practices aim to effectively implement ARC's macro ESG initiatives and drive real change at the portfolio company level.

ARC has a dedicated cross-functional ESG Committee that meets quarterly and reports to the Executive Committee. The ESG Committee was first formed in 2016, and since then, the group has improved ARC's overall investment process and corporate governance practices around sustainability.

Some examples of ARC's investment processes that we believe drive ESG performance:

- Philosophical agreement with management teams on ESG focus and importance before an investment is made.
- Prior to investing, ARC undertakes rigorous due diligence, including reviewing sustainability attributes such as reclamation liabilities, carbon emissions (including avoided emissions), and freshwater use.
- Accounting for carbon pricing / credit pricing in go-forward economics and evaluations.
- Annual tracking and reporting on sustainability metrics.
- Established targets for scope 1 and 2 GHG emission intensity reductions.

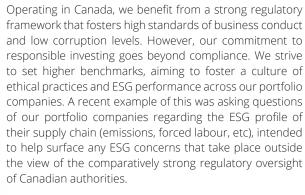
Some examples of ARC's integral governance practices:

- ARC is a lead investor with board representation and control in the majority of our portfolio companies.
- Regular organizational health surveys.
- Regular reviews of portfolio company performance versus plan, including on ESG metrics.

# RESPONSIBLE

## Investing

At ARC, responsible investing is a longstanding feature of our investment strategy. As a proud signatory to the UN PRI, we are committed to integrating ESG factors into our investment decisions. We believe doing so allows us to deliver superior returns for our investors, while also being responsible stewards of the interests of other stakeholders.



Transparency is crucial to our responsible investing approach. We regularly report on our ESG performance and engage with stakeholders to promote accountability and continuous improvement. Our annual sustainability reports provide detailed insights into our efforts and achievements in responsible investing. ARC seeks to make as much information publicly available as is practical. In the interest of transparency, further information is provided directly to the investors in the ARC Energy Funds.

By integrating the UN PRI into our investment process, we believe we are contributing to a more sustainable future while enhancing the long-term value and resilience of our investments. At ARC, responsible investing is not just a commitment; it is a fundamental aspect of how we do business.





## As signatories to the UN PRI, ARC is committed to the following 6 "Principles":



# **CLIMATE**

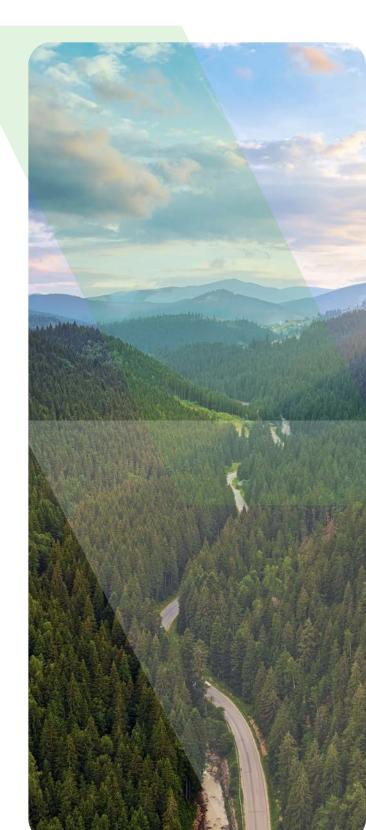
## **Change Action**

ARC was early among energy focused private equity firms to estimate portfolio company emissions, starting to estimate the GHG emissions of oil and gas producing portfolio companies back in 2015. This reporting has evolved over time to include a wider range of ARC portfolio companies, and today all of ARC's private companies with operating assets estimate their GHG emissions.

As emissions measurements have become more reliable over time, it has allowed ARC to become more sophisticated in estimating and understanding portfolio company emissions. In the early years, ARC developed a methodology using publicly available engineering-based models to estimate emissions on behalf of portfolio companies. ARC's influence, along with government mandates and technological improvements, has led to greater data availability and quality over time which later allowed ARC to calculate portfolio company emissions using actual inputs (fuel use, etc) rather than engineering estimates.

Today, all of ARC's operating energy transition companies calculate and report their own scope 1 and 2 GHG emissions. ARC supported them in this effort by developing a methodology document for portfolio companies to report in accordance with GHG Protocol guidance and using a similar set of inputs across the portfolio (available on our website).

ARC believes this process has led to a deeper organizational understanding of emissions within portfolio companies, along with greater insight into the risks and opportunities that emissions present. With two years of portfolio company emissions reporting completed, positive results are already apparent. The data and insight they gain from performing the calculations internally helps portfolio companies to understand their exposure to carbon pricing, minimize risk, and underwrite emission reduction opportunities.



## ARC's Financed Emissions

Measuring emissions is a crucial first step in managing and understanding ESG risks, but reducing emissions intensity where possible is the next step. ARC has a long history of reducing emissions in its oil and gas portfolio, setting portfolio wide exploration and production scope 1 and 2 intensity targets and achieving them ahead of schedule: Discussed in ARC's 2024 Oil and Gas Sustainability Report.

ARC's current energy transition portfolio already has a lower emissions intensity than its oil and gas portfolio, as well as broad public equity benchmarks (see Table below). Although already comparatively low, continuing to manage emissions intensity is still important for properly managing risk. In order to continue driving towards lower emissions the firm asked all portfolio companies to develop emissions scope 1 and 2 intensity targets for 2026. These targets are intended to be ambitious and reflect the context and opportunities for reductions available to each company.

These ET specific goals are important in supporting ARC's progress towards its broader firm wide sustainability goals. This year we are introducing new portfolio wide emissions intensity metrics which capture the financed emissions across all categories of ARC Financial's investing activities, including oil and gas production, oilfield services, and energy transition.

These metrics and the associated 2030 target are discussed further in the Appendix.

#### Table 1: Estimated Carbon Footprint – ARC Energy Transition Portfolio Relative to Broad Market Indices<sup>11</sup>

Benchmark	Carbon Footprint – Scope 1 + 2 (tCO <sub>2</sub> /\$MM Invested)
Global Equities	223
Canadian Equities	384
US Equities	151
ARC Energy Transition Portfolio	6

<sup>11</sup> Carbon Footprint for operating ARC Energy Transition companies on December 31, 2023. ARC figures are internally calculated based on ARC portfolio company provided emissions data, which are calculated in accordance with a third party developed methodology based on the GHG Protocol. Portfolio company data and ARC calculations are unaudited. The emissions figures describe scope 1 and 2 emissions and exclude scope 3 emissions. ARC's full methodology is explained further in the Appendix. Benchmark Carbon Footprint data from MSCI Enterprise Carbon Intensity at time of publishing: Global Equities (MSCI World Index), US Equities (MSCI US Large Cap Index). Sanada (MSCI Canada Index). Benchmark data converted to Canadian Dollars at 0.72 CAD/USD.

#### **Energy Transition Investing: Financed Emissions and the Broader Climate Impact**

While it is true that ARC's energy transition companies generally have the advantage of lower scope 1 and 2 emissions intensities than companies represented by broad indexes, that fact alone does not tell the whole emissions story. For many energy transition companies, their most significant climate impacts will occur outside the boundaries of the company's operations, in the emissions that their products or services help to avoid.

ARC has developed a framework for measuring these avoided or scope 4 emissions (see page 20: Avoided Emissions) by comparing the full lifecycle emissions for a company against its most likely alternative in the market. Using the framework, ARC has identified substantial potential for avoided emissions in the types of companies in which we are investing.



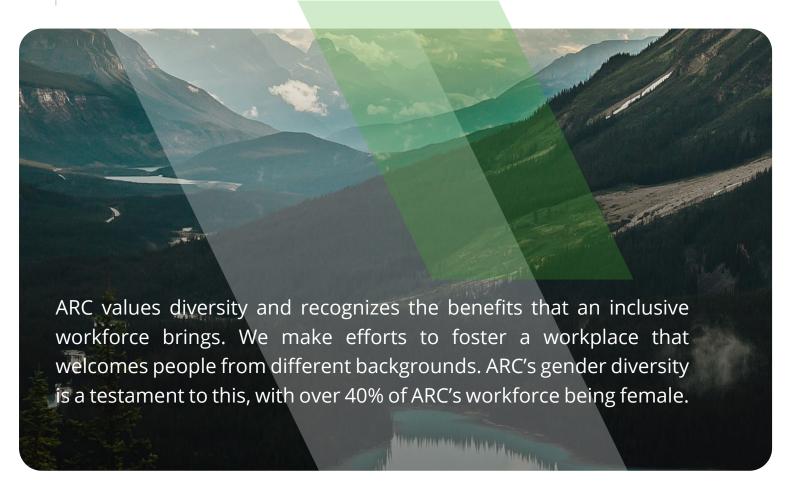
Energy transition investments can have climate impacts far beyond their scope 1, 2 and 3 emissions. When lower carbon products, energy or services are placed into the market, they can enable the displacement of higher carbon options. This substitution of higher-carbon products helps to reduce system-wide emissions relative to the business-as-usual case. To understand these impacts, ARC developed a framework for quantifying the avoided emissions (also called scope 4) associated with energy transition companies. This work leveraged established guidance by the World Resources Institute (GHG Protocol), and was verified by Millani Inc., a third-party independent ESG advisory firm. This work helps ARC to understand the broader climate impact of our energy transition companies' products and services. To learn more about ARC's work on avoided emissions, listen to the ARC Energy Ideas podcast titled: "What are Scope 4 Emissions?"

## ARC Financial's Corporate Emissions

While the financed emissions of the ARC portfolio companies are by far the largest source of emissions in ARC's own corporate inventory, and thus have been our primary focus historically, we also consider it important to manage our direct footprint. That is why we undertook to calculate our own scope 1-3 emissions corporately for the first time for 2023, accounting for emissions sources like office lighting and heating and employee travel. These figures are currently for internal use and they will play a role in guiding our ongoing sustainability efforts and shaping our future strategies to reduce our environmental impact.

# **DIVERSITY**

## Equity and Inclusion



ARC's commitment to diversity extends to our portfolio companies. As of our 2023 survey, approximately 45 percent of employees at ARC portfolio companies identify as either a visible minority or Indigenous.<sup>12</sup>

While women remain underrepresented in the energy industry, ARC has launched an effort to increase female representation on the boards of ARC portfolio companies.

Our commitment to diversity extends beyond gender and ethnicity, encompassing different educational backgrounds, specialties, and ways of thinking. Ensuring that a wide variety of perspectives are considered, since this leads to improved decision-making.

Often in the fields of engineering, finance and business, a lack of diverse candidates is a barrier to having a diverse workforce. To help foster a more diverse workforce, in 2023, ARC committed to establishing an endowment with the University of Alberta to award funding to students who self-identify as members of equity-denied groups in undergraduate degrees in sciences or business.

<sup>&</sup>lt;sup>12</sup> Diversity metrics for both ARC and portfolio companies are based on employees not including contractors.



# Over 40% of ARC's employees are female

Jackie Forrest speaks on ESG at Young Women in Energy (YWE) event



Jackie Forrest leads a discussion with Sam Okasha on diversity, equity and inclusion at a session for leaders of ARC portfolio companies



## **Diversity, Equity and Inclusion Initiatives:**

- Surveying ARC portfolio companies on their employee diversity
- Hosted a DEI session for portfolio companies to share best practices
- Employee involvement with organizations that foster women in the workforce and in the energy and finance industries: Young Women in Energy, Women in Capital Markets, and Making Changes Association
- Goals for female representation on ARC portfolio company boards of directors
- Hosting Indigenous speakers at ARC on Canada's Truth and Reconciliation Day
- Making efforts to find diverse candidates when hiring
- ARC sponsors initiatives designed to increase diversity in secondary education for Indigenous students
- Establishing an endowment with the University of Alberta to fund equity-denied groups in the areas of business and science

## Company Spotlights - DEI

ARC values DEI leadership from its portfolio companies and seeks to share best practices for fostering an inclusive and collaborative work environment. In 2023 Sanjel Energy Services' Sam Okasha was invited to a briefing for ARC portfolio company leaders to discuss their approach to DEI. He discussed Sanjel's philosophy, programs, and some valuable benefits of DEI efforts from success in recruiting to improved safety performance.



# **INDIGENOUS**

## Prosperity

Indigenous communities in Canada are important rights holders in energy developments. ARC and its portfolio companies value and respect the Indigenous community relationships that have been developed.

ARC and its portfolio companies have facilitated partnerships that support Indigenous education and training, employment and other economic benefits in the communities where we operate. While to date ARC's Energy Transition companies have had less interaction with Indigenous communities given their asset location, ARC is poised to leverage the insights and practices that come from our long history of productive Indigenous engagement.

In the meantime, ARC and many of our portfolio companies have undergone education on the history of Indigenousl Peoples in Canada, including the history and legacy of residential schools, Treaties and Indigenous Rights, and Indigenous-Crown Relations. We have also engaged in efforts to support the education of Indigenous students to increase participation in the energy and finance industries.

ARC Financial is a proud supporter of the University of Calgary's Schulich School of Engineering Indigenous Pathways Program. The engineering school supports Indigenous students in their study of STEM (science, technology, engineering, and math) subjects. With the program, Schulich fosters an Indigenous-centered community and helps students with their skill development, well-being, and success in the engineering program. The program helps to advance Canada's goals of reconciliation with Indigenous people by improving the representation of talented Indigenous peoples in the labour pool for energy and STEM related careers.

Learn more at the Schulich School of Engineering
Indigenous Pathways Program Website:
https://schulich.ucalgary.ca/future-students/
undergraduate/admissions/Indigenous-pathways-program





# **ENERGY**

## Transition and Reliability

ARC maintains its belief in following a dual-track approach to energy investing, developing a portfolio of upstream Canadian oil and gas production with lower emissions intensity than the global average, as well as North American energy transition opportunities.<sup>13</sup> We believe this approach will ensure a stable transition, promoting energy availability in the near-term, while helping to accelerate the transition to an era of low-carbon, secure and affordable energy.



## **Energy Transition Investing**

## **Unprecedented Opportunities in Energy Transition**

The world's demand for safe, secure, clean and affordable energy has created a fertile investment opportunity driven by strong policy, technology maturity and consumer demand. Trillions of dollars in capital expenditures are required globally in clean energy over the coming decades to achieve net-zero emissions targets.

#### **Profitable, Established Sectors with Strong Macro Trends**

The significant capital spent between 2005 and 2015 on energy transition investments has matured many clean energy technologies, building a solid foundation, which in turn is now driving profitability across a number of energy transition-contributing sectors.

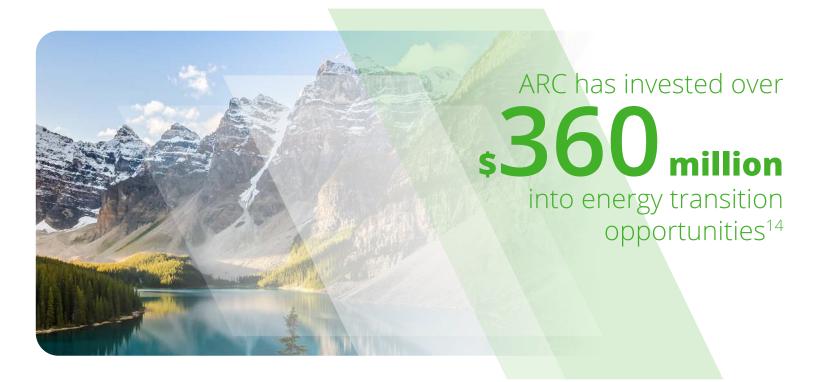
Collaborative efforts by the ARC Energy Research Institute and ARC's investment team have established ARC's core focus areas for investing in companies that are contributing to the energy transition. These include developers, operators, services and manufacturing companies in the areas of electrification, storage and energy efficiency, renewable fuels, decarbonization of the oilfield, and carbon capture, utilization and sequestration.

In the last year ARC has been actively investing in promising businesses which contribute to the energy transition. We are pleased to report that we have made two new investments: StormFisher Hydrogen Ltd. and Charger Ready Ltd. We also raised additional capital to support expansion at an existing energy transition portfolio company, Silfab Solar.

#### **Canada First Focus**

With ARC's long-term track record in energy transition investing in Canada, we are well-positioned to fund Canadian-based energy transition companies. Over 94 percent of our relevant investing has happened in Canada to date. While we are investing some capital in the United States, Canada continues to be the primary focus for ARC's investment strategy.

The following case studies highlight some of the exciting developments in ARC's energy transition portfolio.



<sup>14</sup> Invested capital across ARC Energy Funds 1 – 10, including undrawn optional equity commitments. Does not include ARC raised LP co-investment.

## **ENERGY TRANSITION INVESTING**

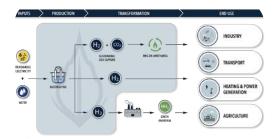
#### Silfab Solar Inc.:



Silfab is a Canadian headquartered company, and an established North American manufacturer of ultrahigh efficiency, premium-quality solar panels. The company is driven to create more clean energy with every solar panel made while also reducing the carbon intensity of its products over time. 15

- Silfab Solar has prioritized increasing its domestic US production with the addition of a new manufacturing facility which will enable greater vertical integration of its solar supply chain. The new facility, which will produce solar cells and PV panels, is located in South Carolina which was chosen partly because of the relatively low carbon intensity of the grid in that region.
- Silfab has significant commitments to reduce its corporate emissions (scope 1 and 2) by 2030 and has further reduction goals for 2040.
- As a signatory to the Solar Industry Forced Labor Prevention Pledge, Silfab is committed to increasing traceability in the solar supply chain to ensure that products sold are free from forced labor. Silfab works towards compliance by applying a Vendor Code of Conduct to all global suppliers and partners.

## StormFisher Hydrogen Ltd.:



StormFisher Hydrogen is a developer of clean fuels for sectors that are traditionally challenging to decarbonize. Their expertise is in developing, owning, and operating projects for green hydrogen ( $H_2$ ), eMethanol, and eMethane, where they aim to use a technology-agnostic approach, ensure maximum market integration, and secure offtake agreements. <sup>15</sup>

- StormFisher Hydrogen is committed to ESG performance, which is highlighted by its projects' planned compliance with the stringent requirements of the Inflation Reduction Act (IRA) and the European Union Renewable Energy Directive (RED). Although no projects are operational today, their projects are intended to meet the lifecycle emissions standards of the IRA, leading to green hydrogen production with emissions below 0.45 kg CO<sub>2</sub> per kg of H<sub>2</sub>, marking a 95+ percent reduction compared to the majority of hydrogen produced today.
- The management team's extensive experience, dating back to 2006, is evident in the USD \$750 million worth of energy infrastructure they've developed. This expertise is now being channeled into developing hydrogen and e-fuels derived from H<sub>2</sub> as a building block.
- One compelling use case for StormFisher Hydrogen's products is in the maritime industry. E-methanol can be used to power container vessels, reducing their carbon footprint relative to the bunker fuel which typically powers large ships.



# **CHARITABLE**

## Involvement

ARC has donated approximately **\$4 million** to non-profit organizations over the past decade



ARC believes in supporting and giving back to the communities in which we operate, both monetarily and through the dedication of resources and support of ARC employees' time to charitable organizations. Over the last decade, ARC has donated approximately \$4 million to local charities and related events.

ARC's charitable giving focuses on organizations where ARC's employees and business relations are personally involved. Currently, over 60 percent of ARC staff are directly involved in charitable, non-profit and academic organizations through various roles, including board positions, committees, associations and university advisory groups.

# Women build All MORNISH OUT

ARC employees helping to build homes at the Women Build 2023 event for Habitat for Humanity

## **ARC** believes

in supporting and giving back to the communities in which we operate



ARC is a long-time supporter of the United Way of Calgary

# **APPENDIX**



This appendix has two parts. The first part describes ARC's GHG emissions intensity reduction goals for all of the ARC Energy Funds. The second part explains the metrics and methodology used to calculate historical emission intensity values and how we measure and track the metrics used for ARC's 2030 reduction goal.

## Part I: ARC Firm Wide Portfolio GHG Emissions Intensity Reduction Goals

As discussed in the "Climate Action" section, ARC has been measuring emissions and encouraging scope 1 and 2 emissions intensity reductions in our oil and gas producing portfolio companies for nearly a decade. Today, all portfolio company types (including oilfield service companies and energy transition companies) are expected to measure and have goals related to their GHG emissions intensity.

Given their higher emissions, ARC first set a reduction target specific to our oil and gas producing companies in 2019, a 25 percent reduction in scope 1 and 2 carbon emissions intensity by 2023 (relative to a 2018 baseline), which we achieved.

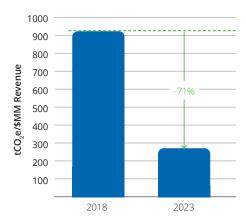
With the achievement of ARC's 2023 emissions intensity reduction goal for oil and gas producing companies, the next stage in the firm's targets is to focus on broad reductions portfolio-wide, including oilfield service companies and energy transition companies. To do this, ARC is introducing two new portfolio-wide carbon intensity metrics that we will use to track our firm wide GHG emission intensity: (1) Carbon Footprint and (2) Weighted Average Carbon Intensity (WACI). Both metrics are recommended by the TCFD. The metrics collectively quantify a portfolio's scope 1 and 2 carbon emissions intensity and assess the financial exposure to carbon risk. They will collectively form the basis of ARC's 2030 intensity reduction goal.

While emissions intensity could fluctuate over time given the changing mix of companies in the ARC Energy Funds, ARC's goal is for the overall scope 1 and 2 emissions intensity of the portfolio to trend down by 40 to 45 percent by 2030 (compared to a 2018 baseline), moving ARC closer towards the Government of Canada's stated goal of net zero by 2050<sup>16</sup>.

#### Figure 2: New ARC Portfolio TCFD Recommended Scope 1 and 2 GHG Metrics







Based on data provided by ARC Portfolio companies for annual emissions and ARC ownership as of year-end. Unaudited. Carbon Footprint: Total carbon emissions for a portfolio normalized by the market value of the portfolio, Weighted Average Carbon Intensity: Portfolio's exposure to carbon-intensive companies, expressed in tonnes CO<sub>2</sub>e/\$MM Revenue. Note: All values presented here are unaudited and internally calculated by ARC. Please see the Part II of this Appendix for more information on the method used to calculate our historical GHG emissions and to set future goals.

ARC's current focus is on reducing our Carbon Footprint, which has not yet achieved our goal of a 40 to 45 percent reduction by 2030 (relative to 2018). While ARC has already achieved more than a 40 to 45 percent reduction (compared to 2018) as measured by WACI, we continue to track and monitor this metric since fluctuation in revenue and carbon intensity can create volatility.



## Part II: The Methodology for ARC Portfolio Company Greenhouse Gas Emissions Estimates

#### A. Background on ARC's Emissions Intensity Calculations

## Portfolio Company GHG Emissions Data Gathering

ARC's portfolio companies provide ESG-related information as part of an annual survey process, including emissions data (scope 1 and 2). In some cases, portfolio companies use consultants to measure and/or report the emissions data they provide to ARC, but in other cases, the information is provided solely by the portfolio companies and is unaudited. For reporting, ARC relies on the accuracy of the data supplied by portfolio companies, and historic numbers are not revised after the year they are provided.

ARC's method for estimating emissions has evolved with three methods used over time:

#### 2015 to 2017

While ARC calculated emissions for portfolio companies before 2018, estimates relied on high-level input data and engineering estimates, which resulted in a relatively large margin of error. As a result, those estimates are not included in the Sustainability Report and the methodology is out of scope of this appendix.

#### 2018 to 2021

Over this period, ARC portfolio companies provided ARC with granular input data to calculate emissions estimates (scope 1 and 2) on their behalf. This data included volumetric estimates of fuel use (natural gas, gasoline, diesel, propane, etc.) within the boundaries of their operating assets. Portfolio companies also provided data on electricity consumption and flared and vented natural gas/methane volumes. These inputs came from several sources within portfolio companies, but primarily from company reporting to regulators (Petrinex, etc.) and internal company estimates derived from operational data, engineering calculations, and/or vendor receipts.

ARC used this data and publicly available emissions factors to calculate emissions (scope 1 and 2) on behalf of portfolio companies. Notable emissions factors include a global warming potential for methane of 25 and electricity grid consumption emissions factors by province from the Canadian National Inventory Report.

#### 2022 to 2023

From 2022 onward, portfolio companies calculated scope 1 and 2 emissions following the GHG Protocol, a well-recognized international standard. To aid companies in this effort, ARC provided a methodology document prepared by Modern West Advisory instructing portfolio companies on how to align their estimates with the GHG Protocol, including how to set organizational boundaries, which sources of emissions to track, and the appropriate emissions factors to use. This document can be found on ARC's website.

Portfolio company emissions are reported annually, counting all emissions from company-operated assets from January  $1^{st}$  to December  $31^{st}$  of the given year, measured in units of tonnes of  $CO_{2}e$ .





ARC reports broad portfolio emissions intensity for all company types (including oil and gas production, oilfield service, and energy transition) under two metrics identified by the TCFD: Carbon Footprint and Weighted Average Carbon Intensity. The metrics are further explained at this website.<sup>17</sup>

## Carbon Footprint

Carbon Footprint represents the total carbon emissions from a portfolio normalized by the market value of the portfolio, expressed in tonnes  $\rm CO_2e/\$MM$  of value (Note, all currency is in Canadian Dollars unless otherwise stated).

The metric is calculated by using total scope 1 and 2 emissions for each portfolio company (calculated as described above) and allocating them to investors based on their share of the firm's capital structure. Under this approach, if an investor's equity share represents 5 percent of a company's total enterprise value, then the investor owns 5 percent of the company's carbon emissions.

Figure 3: Carbon Footprint Formula (Estimated)

 $\frac{\sum_{n}^{i}(\frac{current\ value\ of\ investment}{issuer's\ enterprise\ value}*issuer's\ scope\ 1\ and\ 2\ GHG\ emissions)}{current\ portfolio\ value\ (\$MM)}$ 

In ARC's calculation of the Carbon Footprint, the value of investment, enterprise value, and current portfolio value are determined at the year-end.<sup>18</sup>

## Weighted Average Carbon Intensity (WACI)

WACI is a metric recommended by the TCFD and measures a portfolio's exposure to carbon-intensive companies, expressed in tonnes  ${\rm CO_2e}/{\rm SMM}$  of revenue. WACI provides an overall measure of how carbon-intensive the portfolio is relative to the revenue it generates.

The metric is calculated by using a company's total scope 1 and 2 emissions (calculated as described above) and dividing by its revenue over the same time period. These emissions are then allocated by the current value of an investment relative to the total portfolio value. See Figure 4.

Figure 4: WACI Formula (Estimated)

 $\sum_{n=0}^{\infty} (\frac{current\ value\ of\ investment}{current\ portfolio\ value} * \frac{issuer's\ scope\ 1\ and\ 2\ GHG\ emissions}{issuer's\ revenue\ (\$MM)})$ 

ARC's investment and current portfolio values are determined at year-end, and emissions and revenue are determined for the calendar year.<sup>18</sup>

<sup>17</sup> TCFD: Carbon Footprinting and Exposure Metrics.

<sup>18</sup> Value of investment and portfolio value are based on the estimated fair value of the investments. Fair Value is determined in accordance with Canadian Generally Accepted Accounting Principles following Accounting Standards for Private Enterprises. ARC determines the fair value of each investment using the following principles. Publicly traded investments are valued using the quoted closing bid prices from Thomson Reuters, Bloomberg L.P. and FactSet. If there is no available bid price, the closing trade price is used. Investments the publicly traded are valued by ARC in accordance with fair value policies and procedures which give consideration to a range of factors. These factors may include, but are not limited to, cost, market conditions, recent arm's length market transactions between knowledgeable, willing parties, current fair value and comparable market metrics of other instruments or assets that are substantially the same, historical, current and projected operating and financial performance, and expected cash flows. Due to the inherent uncertainty of valuation, the estimated values may differ significantly from the values that would have been used had a quoted market value for the investments existed.

## ARC's Firm Wide Emissions Intensity Reduction Goal

As described in Part I, ARC Financial has a goal to reduce the portfolio wide scope 1 and 2 emissions intensity by 40 to 45 percent below 2018 levels by 2030, moving ARC closer towards the Government of Canada's stated goal of net zero by 2050<sup>19</sup>. This goal is based on scope 1 and 2 emissions intensity under both the Carbon Footprint and Weighted Average Carbon Intensity (tCO<sub>2</sub>e/\$MM Value and tCO<sub>3</sub>e/\$MM Revenue, respectively) metrics, and is measured relative to the 2018 baseline described below.

## ARC's 2018 Emissions Intensity Baseline

ARC uses its emissions intensity as of 2018 as the baseline by which future goals are measured. The 2018 baseline is calculated using the formulas in Figure 3 and 4, incorporating scope 1 and 2 data from all portfolio companies that reported emissions to ARC for the 2018 calendar year. In 2018, the metric only encompassed oil and gas production companies. These companies represented the vast majority of emissions in the ARC portfolio at that time, and thus ARC believes 2018 is a valid baseline to use.

ARC has since initiated emissions reporting for all company types, including oilfield service and energy transition. All of these company types are now included in ARC's estimates of portfolio-wide Carbon Footprint and Weighted Average Carbon Intensity calculations.

As described in the "Climate Action" section of the report, ARC has worked with existing portfolio companies to develop emissions intensity reduction targets for 2026. These 2026 targets, along with ARC's forecasts for the mix of new capital to be deployed into oil and gas and energy transition portfolio companies, and their respective carbon intensities, are considered in our assessment of whether our 2030 goal is achievable. While there is uncertainty in achieving our 2030 target, and the metrics will fluctuate based on the companies we buy and sell and market cycles that impact revenue and value, we believe, based on our current assumptions and plans, that it is obtainable.

#### C. Environmental Benefits claims made in the ARC Portfolio Company Case Studies

The ARC portfolio company case studies included in this Sustainability Report were written in consultation with each company. Where figures to quantify ESG and environmental benefits are included, the information was provided by portfolio companies. ARC has reviewed portfolio company calculations and retained supporting documentation. ARC relies on the accuracy of the figures as reported by portfolio companies and these values are not audited by a third party.

<sup>&</sup>lt;sup>19</sup> Government of Canada: Net-zero emissions by 2050 https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050.html

<sup>&</sup>lt;sup>20</sup> ARC has evaluated the scope 1 and 2 emissions of existing energy transition portfolio companies, as well the emissions intensity in areas of likely future investment, and believes that the emissions intensity of these investments will generally be lower than the existing portfolio, helping to achieve the 2030 target.

# Restrictions

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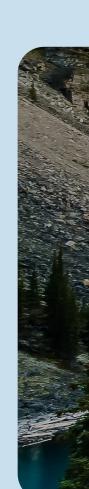
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