Forward Looking Statement

• About this Presentation
This presentation is date May 11th, 2021 and is strictly intended to provide general information about PyroGenesis Canada Inc. (“PyroGenesis”, the “Company or “our”) and its business. This presentation does not constitute an offer to sell or the solicitation of an offer to buy any securities of PyroGenesis.

• General
The Company’s fiscal year end is December 31. All amounts in this presentation are expressed in Canadian dollars unless otherwise indicated.

Information appearing in this presentation is a select summary of PyroGenesis’ business, operations and results. The latest annual information form of PyroGenesis and its consolidated financial statements and management’s discussion and analysis thereon for the year ended December 31, 2020 are available on SEDAR at www.sedar.com, and on EDGAR at www.sec.gov, under our profile.

• Non-IFRS Financial Measures
EBITDA and Modified EBITDA are not performance measures defined under International Financial Reporting Standards as issued by the International Accounting Standards Board (“IFRS”) and they are not considered an alternative to income or loss from operations, or to comprehensive earnings or loss, in the context of measuring a company’s performance. Management believes that providing certain non-IFRS performance measures, in addition to IFRS measures, provides users of the Company’s financial statements with an enhanced understanding of its results and related trends and increases transparency and clarity. Management believes that EBITDA and Modified EBITDA are important measures of operating performance because it allows management, investors and others to evaluate and compare the Company’s operating results, including its return on capital and operating efficiencies, from period-to-period by removing the impact of the Company’s capital structure (interest expense to service outstanding debt), asset base (depreciation and amortization), tax consequences, and other non-operating items not requiring cash outlays including the adjustment to the fair value of investments and share-based compensation. Accordingly, they should not be considered in isolation. For a full description of these measures and, where applicable, a reconciliation to the most directly comparable measure calculated in accordance with IFRS, please refer to the “Reconciliation of Non-IFRS measures (EBITDA, Adjusted and Modified)” section in our management’s discussion and analysis for the quarter ended December 31, 2020 available on SEDAR at www.sedar.com, and on EDGAR at www.sec.gov, under our profile.

• Forward-Looking Information
This presentation contains forward-looking statements and forward-looking information (collectively, “forward-looking statements”) within the meaning of applicable securities legislation. All statements other than statements of historical fact contained in this presentation are forward-looking statements, including, without limitation, the Company’s statements regarding its products and services; the execution of its growth strategy; relations with suppliers and customers; future financial position; business strategy; potential acquisitions; potential business partnering; litigation; and plans and objectives. In certain cases, forward-looking statements can be identified by the use of words such as “plans”, “expects” or “does not expect”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved” and similar words or the negative thereof. These forward-looking statements are based on PyroGenesis’ management’s current expectations and are subject to a number of risks, uncertainties, and assumptions, including market and economic conditions, business prospects or opportunities, future plans and strategies, projections and anticipated events and trends that affect the Company and its industry. Although management of the Company believes that the expectations reflected in such forward-looking statements are reasonable and are based on reasonable assumptions and estimates, there can be no assurance that these assumptions or estimates are accurate or that any of these expectations will prove accurate.

Although the forward-looking statements contained in this presentation are based upon what management currently believes to be reasonable assumptions, the Company cannot assure investors that actual results, performance or achievements will be consistent with these forward-looking statements and additional risks and uncertainties discussed in the Company’s materials filed with the Canadian and US securities regulatory authorities from time to time, available under the Company’s profile on SEDAR at www.sedar.com and on EDGAR at www.sec.gov, under our profile. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Forward-looking statements are provided as of the date of this presentation, and the Company assumes no obligation to update or revise such forward-looking statements to reflect new events or circumstances except as required under applicable securities laws. The forward-looking statements contained in this presentation are expressly qualified by this cautionary statement.
Plasma: The Fourth State of Matter

1. Solid
2. Liquid
3. Gas
4. Plasma

Plasma Torches can heat gas up to 40,000°F, as hot as the surface of the sun. Thermal plasma uniquely enables the transformation of materials.

PyroGenesis: Transforming Industries with Its Advanced Plasma Technology
A world leader in commercialized advanced plasma technologies

+25 years of plasma leadership
110+ patents
~70 employees
3,800 m² & 2,940 m² facilities
One of the highest concentrations of plasma expertise under one roof in the world

Focused on Large-scale Greenhouse Gas Emissions Reduction
Commercialization Capabilities
Refined with the U.S. Military

As a leader in Plasma Technology, PyroGenesis was engaged by the US Navy to design, build, test and deliver the world’s first plasma destruction system for marine use on U.S. Navy Aircraft Carriers.

- **Multimillion dollar** contract to design, build, test and deliver **2 systems** *(delivered in 2011 and 2016)*
- **Additional 2 systems ordered** *(signed Sept. 4, 2020: $11.5MM)*
- PyroGenesis’ technology is specified into every Gerald R. Ford Class Supercarrier

**Validation of Large-Scale Commercial Capabilities**
Four Massive Markets:  
One Common Core Competency – Plasma Technology

1. Iron Ore Pelletization  
2. Aluminum Dross Recovery  
3. Waste Treatment  
4. Metal Powders for Additive Manufacturing

Commercial Solutions for Large, Market Needs

Vetted and Adopted by Multi-Billion Dollar Industry Leaders
Iron Ore Pelletization:
Replacing Polluting Fossil Fuel Burners with Patented Clean Plasma Torch Solutions

**CHALLENGE:**
- Iron ore pelletization plants are being pressured to reduce greenhouse gas emissions by governments, lenders and customers

**PYROGENESIS SOLUTION:**
- A patented process to replace fossil fuel burners with clean burning plasma torches, thereby reducing GHG emissions, for the iron ore pelletization industry
- Economically superior with greater environmental benefits
- Received the “Solar Impulse Efficient Solution” Label from the Swiss-based Solar Impulse Foundation. The Foundation’s purpose is to identify existing solutions that are clean, profitable, and having a positive impact on quality of life.

**COMPETITIVE ADVANTAGE:**
- Renewable energy reduces GHG emissions
- Easy conversion, no need to shut down entire facility for installation
- Minimal change to workflow

Goal:
- to be the world most significant provider of plasma-based solutions to the worldwide movement to reduce the carbon footprint in manufacturing

Reducing Greenhouse Gas Emissions and Helping Mining and Metallurgical Companies Meet Carbon-Neutrality Goals
Iron Ore Pelletization: Massive Market Desperately Seeking Solutions

**TODAY:**
Initial $1M Swedish contract
(to demonstrate benefits of replacing fossil fuel burners with PyroGenesis’ plasma torches)

Subsequent modeling contracts proved:
- No ancillary detrimental effects at any stage of the process or with the clients’ furnaces
- Significant greenhouse gas emissions reduction
- Significant additional benefits

Signs Initial $1.8M Contract with Client A for 1 plasma torch to replace fossil fuel burners

**IN NEGOTIATION:**
Client A, B and C
- Potential need for > 1,000 torches*
- $3MM/torch (NPV)

*Estimation based on Internal Calculations
*https://www.iea.org/commentaries/clean-and-efficient-heat-for-industry

Transformative Technology, Minimal Disruption
Aluminum Dross Recovery: Applying Innovative Technology to Multimillion Dollar Metallurgy Problem; Reducing GHG emissions

**CHALLENGE:**
- Recover valuable metal from waste stream called Dross
- Traditional methods use salts, which result in hazardous waste (salt cakes)
- Dross contains up to 80% valuable aluminum

**PYROGENESIS SOLUTION:**
- DROSRITE™: a proven, salt-free, on-site, cost-effective, sustainable process for maximizing metal recovery from dross without any hazardous by-products
- Reducing GHG emissions

Simplifying the Retrieval of Valuable Metals from Industrial Waste
Aluminum Dross Recovery
The Advantages of PyroGenesis’ Technology

Traditional Process – Rotary Salt Furnace (RSF)

Dross is cooled
Dross is transported to off site facility
RSF recovers 78% of Aluminum
Hazardous salt cake waste transported to controlled land fill

Costly Transportation
Low Metal Recovery
Hazardous Residue

DORSRITE™

DORSRITE™ Hot dross is immediately processed on site
In-line recovery of 98% of Aluminum
Non-hazardous, clean flux cement additive

Onsite, Inline Processing, Lower OPEX
High Metal Recovery with Lower Carbon Footprint
Clean Residue

Convert residue to high value specialty chemicals

Value-add Specialty Chemicals

Better Recovery, Reduced Carbon Footprint And Energy Consumption = High Return On Investment
Aluminum Dross Recovery:

Market Size

**TODAY - $1 Billion potential DROSRITE™ market**: 
- 2016: 1st order $600K
- 2017: 2nd order from the same Client for $1MM
- 2018: 2-system order
- 2019/2020: 7-systems ordered for ~+$20MM

**TOLLING, a turnkey solution processing solution for smelters with ZERO CAPEX.**

**FUTURE OPPORTUNITIES FOR TECHNOLOGY EXPANSION:**

**The On-Site Advantage:**
Inside the fence “Golden Ticket” to identify additional on-site opportunities for expanded offerings

**Converting Residue to high valuable chemical products:**
- Examples:
  - Ammonium sulphate
  - Aluminum sulphate

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1 3,000,000 TPY of Aluminum dross (2017)*

(≈600 Systems for ~$1 billion)

*AlCircle « Aluminum Dross Processing: A global review », 2017

TPY = Metric Tonne Per Year of Dross

A Turnkey Solution for Smelters with **ZERO CAPEX Requirements**
Additive Manufacturing: 
Market Size

Exclusive Agreement with Aubert & Duval, subsidiary of Eramet, as our European distributor

04/19 – Announces Completion of NEXGEN™ Production Line
• Highest quality metal powder
• Low OPEX & Low CAPEX

04/20 – Signs qualification agreement with Tier One Global Aerospace Company

FUTURE OPPORTUNITIES FOR TECHNOLOGY EXPANSION

~$774 Million
global 3-D printing metals market in 2019 projected to grow to

~$3.2 Billion
by 2024

Growth Driven by:
• Increased Demand
• Lower Manufacturing Costs

1“3-D Printing Metals Market by Form, Technology, Metal Type, End-Use Industry, Region - Global Forecast to 2024” Report, Feb. 2020

Partnered with a Leading Provider of Innovative Metal Powders
PyroGenesis: At the Forefront of Plasma Technology Development & Commercialization

Today: Transforming Four Industries with Commercialized Plasma Solutions

- Iron Ore Pelletization
- Aluminum Dross Recovery
- Waste Treatment
- Metal Powders for Additive Manufacturing

Future Opportunities:
1. Quartz to High Purity Silicon Metal [paid for development with HPQ]
2. Silicon Metal to Nanopowders and Wire Lithium Ion Batteries
3. DROSRITE™ residue refinement
4. Plasma Torch Use in Tunneling

The Future: Multiple Derivative Opportunities Already Identified

At an Inflection Point from Initial Commercialization to Large-Scale Commercialization with Sales Growth and Momentum
At a Financial Inflection Point

Momentum in Backlog Expected to Drive Near-Term Profitability

FINANCIAL RESULTS ($ millions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Gross Margin</th>
<th>Adj. EBITDA</th>
<th>Mod. EBITDA</th>
<th>Comprehensive Income</th>
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</thead>
<tbody>
<tr>
<td>2017</td>
<td>10</td>
<td>5</td>
<td>2</td>
<td>3</td>
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<tr>
<td>2018</td>
<td>20</td>
<td>10</td>
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<td>2019</td>
<td>30</td>
<td>15</td>
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<td>2020</td>
<td>40</td>
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BACKLOG ($ millions)

<table>
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<th>Period</th>
<th>Backlog</th>
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<tr>
<td>Q1/19</td>
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<tr>
<td>Q2/19</td>
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<td>Q3/19</td>
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<td>Q2/20</td>
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<tr>
<td>Q3/20</td>
<td>30</td>
</tr>
<tr>
<td>YE/20</td>
<td>35</td>
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</tbody>
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US NAVY: $11.5MM

DROSRITE™: +$20MM

*Backlog is as of the date of financial reporting for the reporting period in question.

*Modified EBITDA excludes impact of investment in HPQ Silicon Resources Inc and therefore reflects the profitability of operations.
## Market Data & Capitalization Structure
(As of March 31/21) ($Can)

<table>
<thead>
<tr>
<th>MARKET DATA</th>
<th>CAPITALIZATION STRUCTURE</th>
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</thead>
<tbody>
<tr>
<td>Listings</td>
<td>Shares Outstanding: 164.5M</td>
</tr>
<tr>
<td>TSX: PYR</td>
<td>Cash on hand: &gt; $27MM</td>
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<tr>
<td>NASDAQ: PYR</td>
<td>Warrants Outstanding: ~3.0M</td>
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<tr>
<td>FRA: 8PY</td>
<td>Debt: ~ $0</td>
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<tr>
<td>Shares Outstanding</td>
<td>EPS Basic (YE/2020): $0.28</td>
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<tr>
<td>164.5M</td>
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</tr>
<tr>
<td>Share Price (TSX): $8.46</td>
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<tr>
<td>Market Cap: ~ $1.39B</td>
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<tr>
<td>52-Week High/Low: $12.14/$0.41</td>
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<tr>
<td>Management &amp; Board Ownership: ~ 50%</td>
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</table>

PYR Graduated to TSX - November 20, 2020
PYR Listed on NASDAQ - March 11, 2021

- Cash on hand: > $27MM
- Warrants Outstanding: ~3.0M
Growth Strategies: Organic and Synergistic M&A

ORGANIC GROWTH

• Natural growth accelerated by a strong balance sheet
• Golden ticket

SYNERGISTIC MERGERS & ACQUISITIONS

• Targeting private acquisitions (ie. AirScience Press Release dated April 27, 2021)
• Golden Ticket

Focus on GHG emissions reduction
Investment Highlights

POSITIONED TO DRIVE NEAR- AND LONG-TERM SHAREHOLDER VALUE

• Proprietary, patented advanced plasma technologies – vetted and adopted by multiple multibillion dollar industry leaders

• Fully commercialized solutions being actively marketed in four massive, unaddressed market opportunities

• Long-tail of potential additional large-market applications

• Strong balance sheet allows acceleration of organic growth strategy as well as synergistic mergers and acquisitions

• Focus on GHG emissions reduction
Guided by an Experienced Board

**P. Peter Pascali**
Founder, President and CEO
Chair of the Board
Director
- Founded PyroGenesis
- 12+ years in investment banking in NYC

**Ben Naccarato, CPA, CMA**
Member of the Audit Committee
Member of the Compensation Committee
Director
- 30+ years of experience in senior financial positions in the environmental industry

**Robert Radin**
Chair of the Compensation Committee
Member of the Audit Committee
Member of the Nominating and Corporate Governance Committee
Director
- US Army Major General (Ret.)

**Rodney Beveridge**
Member of the Compensation Committee
Member of the Nominating and Corporate Governance Committee
Director
- Vice President, Portfolio Manager at TD Wealth Private Investment Advice
- 15+ years of financial markets expertise

**Andrew Abdalla, CPA, CA**
Chair of the Audit Committee
Member of the Compensation Committee
Member of the Nominating and Corporate Governance Committee
Director
- Partner at MNP
- 20+ years in strategic planning, & tax advice (sales and income tax, acquisitions and divestitures, business valuations, corporate reorganizations & spinoffs)

**Rodayna Kafal**
Director
- Vice President, Investor Relations & Strategic Business Development, PyroGenesis
- 10+ years of engineering expertise, sales, promotional activities and business relations

**Dr. Virendra Jha**
Chair of the Nominating and Corporate Governance Committee
Member of the Compensation Committee
Director
- Member of the Order of Canada
- 42+ years of experience in the Canadian Space Program, ranging from in-depth engineering work to senior management positions in both the private and the public sectors