

**GH POWER**

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*a technology for a greener  
future*

Q4 2024



# Executive Summary



## Technology Completion Imminent

**Completion of technology imminent** with pilot project testing and production ramp up on-going.

**Near-term revenue** from GH Power's first Green Hydrogen reactor.



## Multiple Use Cases

Originated a **\$1 Billion project pipeline** alongside with **blue-chip** strategic partners.

Leading use cases include leading **power generation for data centers, auto manufacturers**, and energy companies.



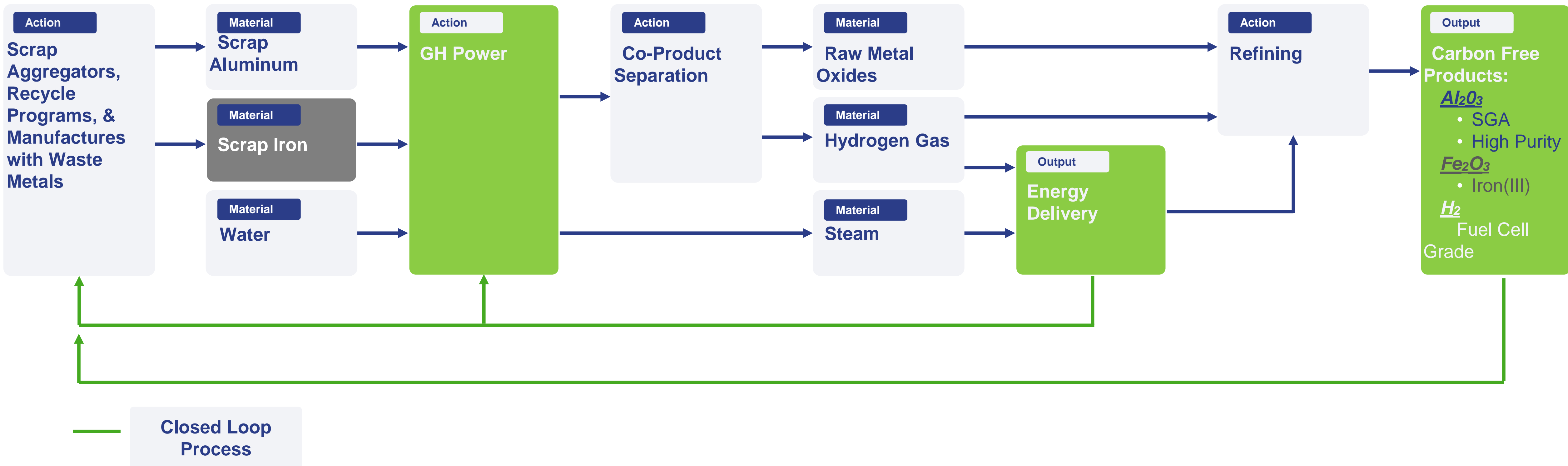
## Strong Financial Returns

Project level returns over **40% IRR and ROI's over 30%** without any green subsidies.

Significant upside from the sale of high-purity aluminum oxide.

# Who is GH Power?

GH Power builds and operates highly efficient energy reactors that deliver green base-load power to industries that need renewable energy now more than ever. The Company's innovative systems can take recycled metal and react them with water to produce carbon-free metal oxides, green hydrogen, and dispatchable energy.



# Benefits of a GH Power Reactor

A First of a kind Technology

A GH Power reactor would provide the following benefits to the buyers of their product and users of their technology:

## Benefits:

- Closed loop model with scrap or waste metals used to generate productive outputs
- A scalable power solution bespoke to customer requirements
- Low-cost green products used within supply chain and manufacturing processes
- High quality heat / steam used green power generation
- Heating / cooling applications
- Green alumina used as input into in demand products
- Co-location drives down cost further
- Energy transition planning to reach ESG commitments
- Behind the meter capabilities exploration
- Receiver of Green Certificates
- Return on investment

## Product Portfolio



# Competitive Advantage

## Benefits:

- GH Power only requires a small amount of start-up power, then is self-sustaining, generating baseload clean energy
- The power reactor has a small footprint, and can be located near the end-user, removing significant amounts of supply chain costs
- Projecting to be the market leader in alumina, with the first zero emission product, & competitive operating cost structure

Hydrogen	Natural Gas	Electrolysis	GHPOWER
<b>Self-Sustaining</b>	No	No	Yes ✓
<b>Footprint</b>	Significant	100 acres	Acre ✓
<b>Proximity to End User</b>	No	No	Yes ✓
<b>Modular</b>	No	No	Yes ✓
<b>Energy Consumption</b>	Energy Intensive	4MW for 1 MW	Net producer ✓
<b>Green</b>	Grey	Power source dependant	Green ✓
<b>Cost of Production (\$USD)</b>	\$1 – \$2/kg <sup>1</sup>	\$5 – \$15/kg <sup>2</sup>	\$1 – \$2/kg <sup>3</sup> ✓

High Purity Alumina	Hydrolysis & Acid Leaching	GHPOWER
<b>Green</b>	No	Yes ✓
<b>Footprint</b>	250,000 sf	10,000 sf ✓
<b>Capex</b>	\$270m	\$10m ✓
<b>Production (MT)</b>	10,000	6,000 ✓
<b>Cost of Production (\$USD)</b>	\$8.90 - \$15.00	\$1.50 <sup>3</sup> ✓

# Hamilton Operational Update

Status

GH Power has built an existing single barrel reactor in Hamilton, Ontario, Canada on-time and on-budget. The current Technology Readiness Level (“TRL”) is 8 moving to 9 in the coming weeks.

July - December:

- Test reactor and all subsystems.
- Increase run time on reactor.
- Send alumina and hydrogen product samples to buyers to analyze.

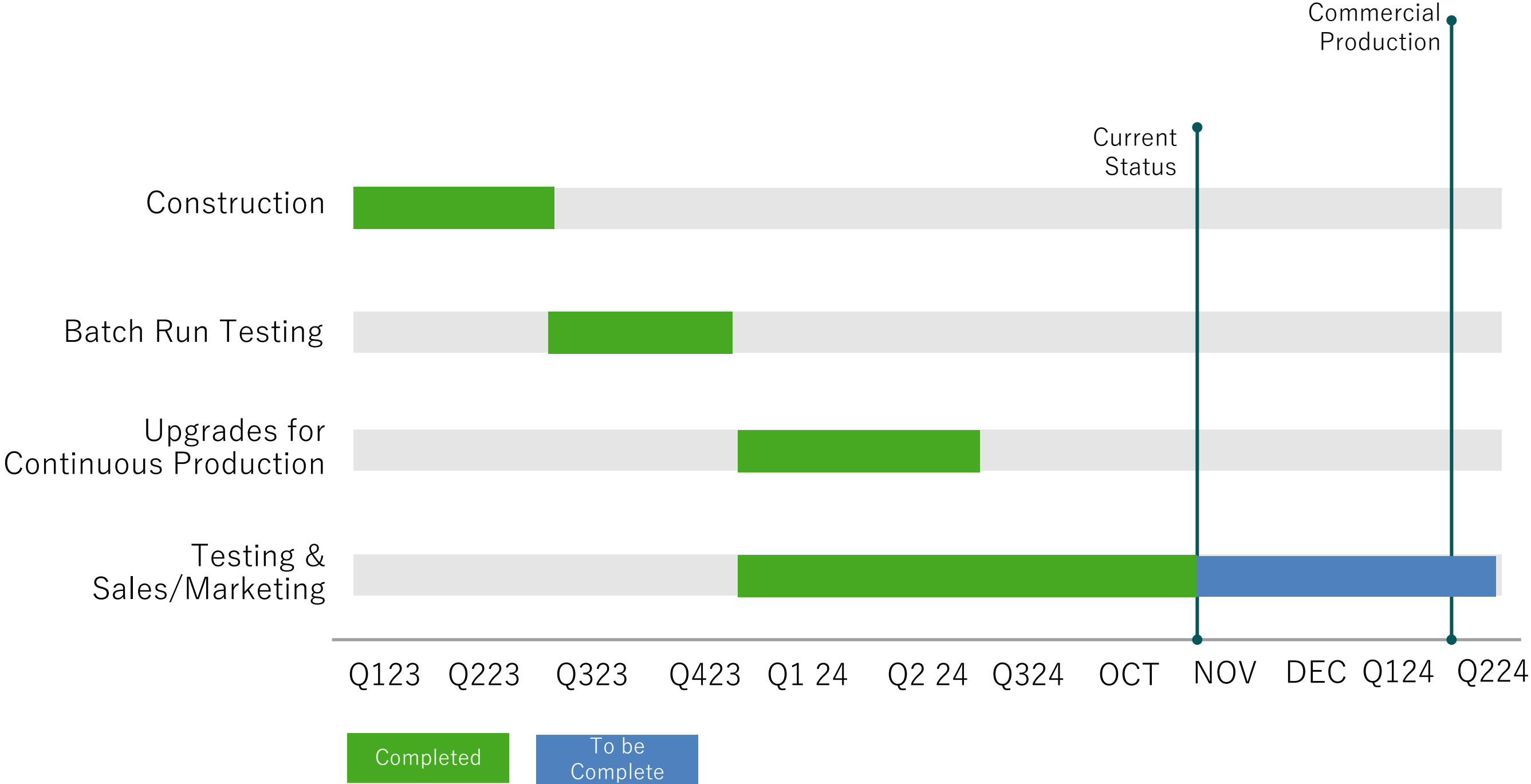
Q1 25

- Install 4N alumina polishing equipment to sell to market at industrial scale.
- Integrate hydrogen compression and storage equipment.
- Begin commercial production of hydrogen and alumina.

Q2 25

- Bolt on power generation equipment to use thermal energy produced for power and heating/cooling for entire building.

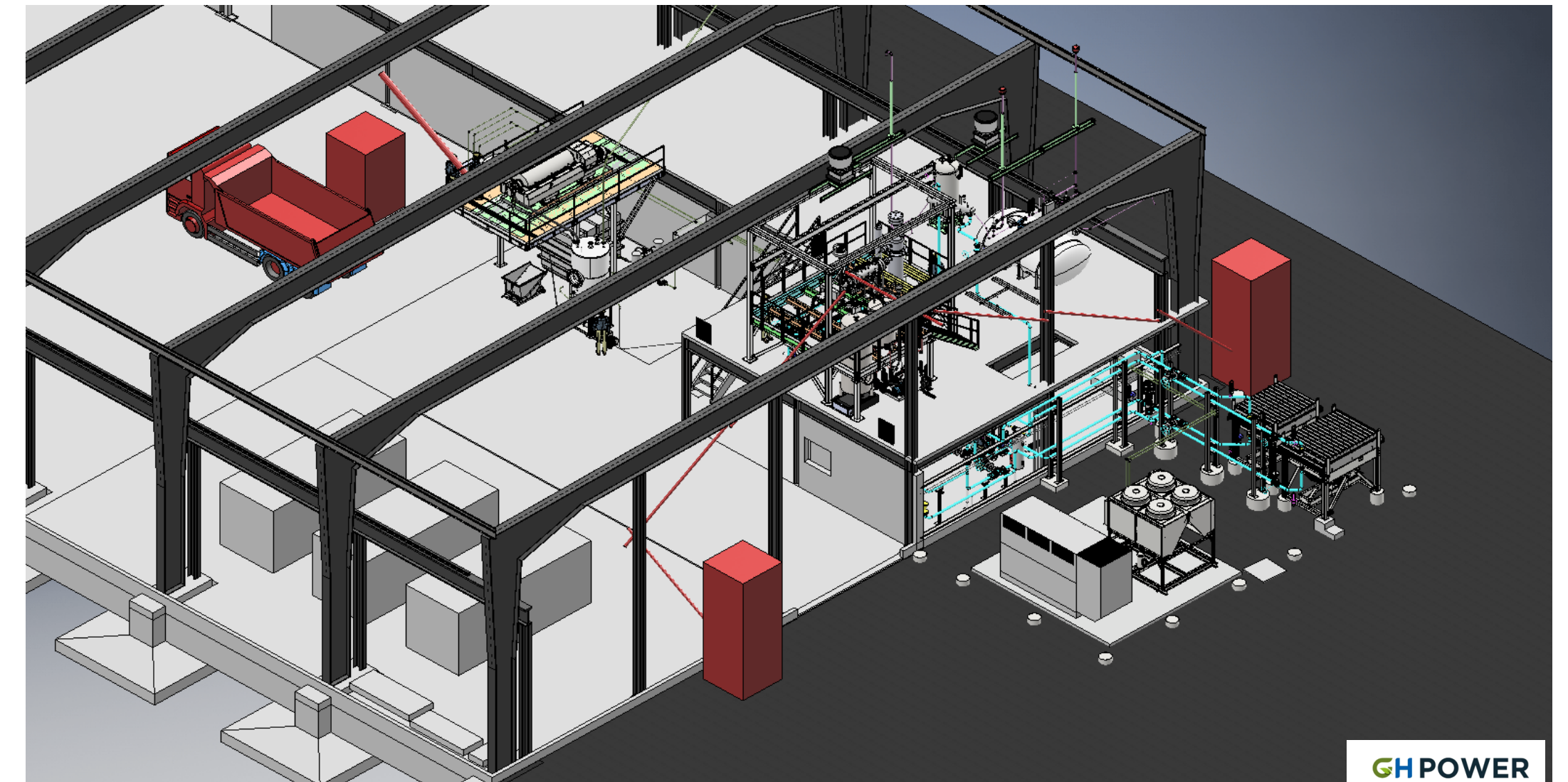
## Reactor Schedule



# Hamilton Site



Location:	1050 Burlington St E
Feedstock:	Scrap aluminum to be provided by global metals aggregator.
Offtakes:	<ol style="list-style-type: none"> <li>1) Alumina: to be sold as input into diverse and growing industries;</li> <li>2) Hydrogen: forming offtake with Canadian operators of hydrogen fuels trucks;</li> <li>3) Carbon Certificates: sold alongside each unit of hydrogen and alumina giving the buyer an offset against their own emissions</li> </ol>
Power & Heating:	GH Power can power and heat/cool the entire site providing lowering operating costs to the surrounding tenants within redevelopment.



# Awards & Global Recognition

## Make-IT Prize US DOE

- The US Department of Energy awarded GH Power the Make-IT Prize for Pioneering Metal Fuels this was entered into jointly with Dominion Energy Innovation Center.
- The Make-IT Prize recognizes GH Power's initiative of utilizing zero-waste metals supply chain and aims to deploy cutting-edge metal fuels and recycling technologies for deep industrial decarbonization and clean energy manufacturing.
- US DOE identifies GH Power as a Manufacturer of Advanced Key Energy Infrastructure Technologies ("Make-IT").

## NRC Grant

- GH Power is proud to receive \$500,000 in funding from the National Research Council of Canada.
- A joint-collaboration with partners in Canada & Germany.
- The Project is the development of high purity alumina with Carleton University.
- GH Power was awarded another grant to receive lab services at a reduced cost from National Research Council.



National Research Council Canada

Canada's largest federal research and development organization

RWTHAACHEN  
UNIVERSITY





# Carbon Certification

## Creating a Greener Future

- GH Power Zero Carbon process will generate Carbon Certificates attached to our 3 products: hydrogen; power; and alumina.
- Buyers can offset against their own carbon emissions.
- Certificates will be verifiable, assured, transferable, and monetizable.
- We are working with globally recognized leading Carbon firms Fresh Coast Climate & DNV.
- GH Power and our Carbon Partners will be using Green Steel created by the worlds largest steel companies (such as Arcelor Mittal and Tata Steel) as a Case Study for our Carbon Certificates.



## Carbon Offset Potential



**1.4 Million Tons<sup>1</sup>**  
of annual carbon offset within  
project pipeline

**Equivalent to**



**Emissions from  
450,000 vehicles**



**Planting  
240,000 trees**

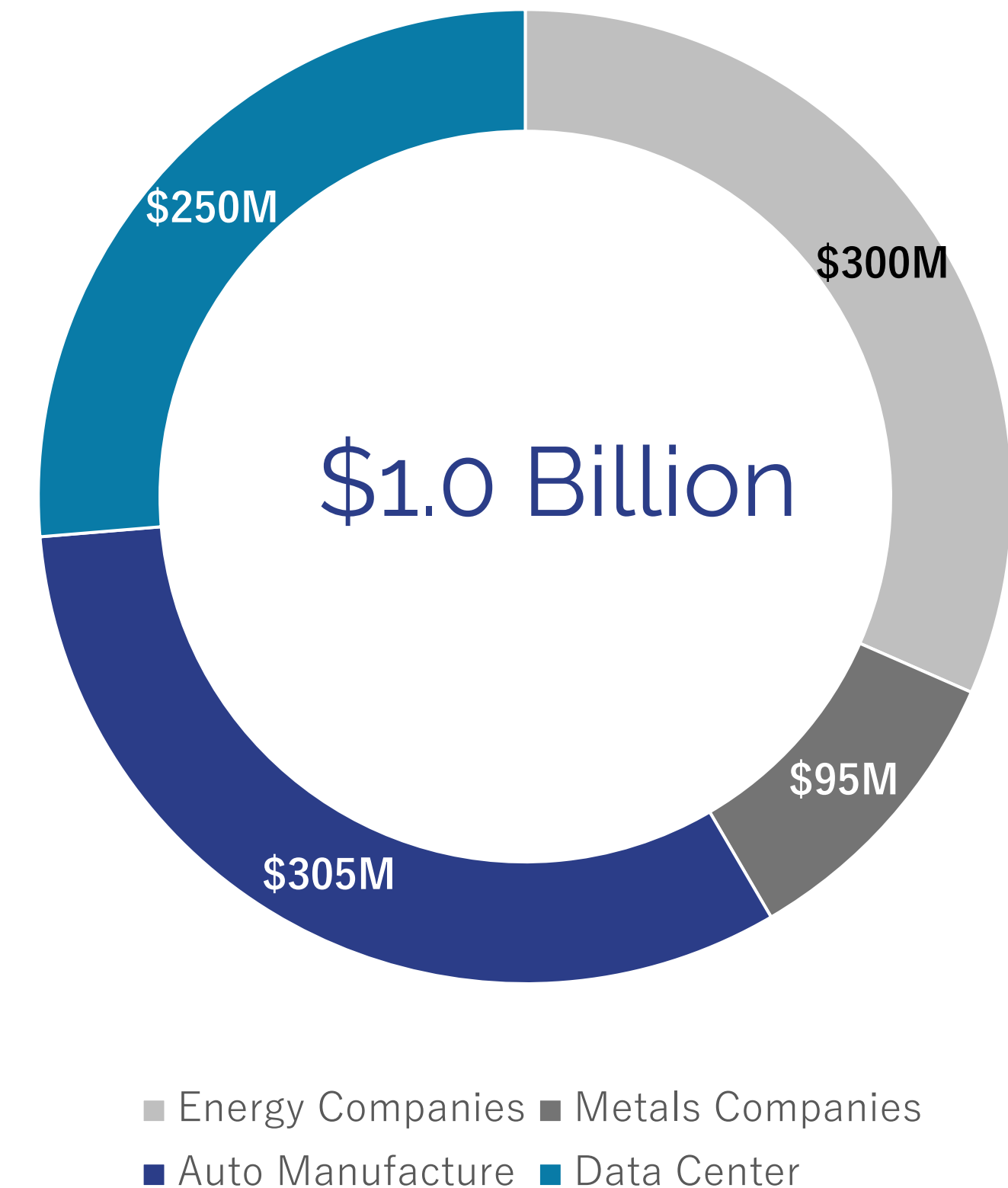
# Scalable Investment

With the successful operations of GH Power's novel reactor in Hamilton, Canada the technology is now fully derisked. Following the first commercial reactor the company plans to scale their technology through their project pipeline alongside blue-chip strategic partners. Through an international roadshow GH Power has originated a robust pipeline with strong demand for their Green Hydrogen, Green Alumina, and Green Energy in the marketplace.

## Work Plan

- Formalize Project to FID
  - Legal documentation, siting, front-end engineering work & siting
- Develop binding off-take and feedstock agreements
  - Hydrogen, Steam, and Alumina
- Grants & Private-Public Participation
  - Funding and credits for green power and alumina
- Secure institutional funding partner
  - Scalable capital partner
- Build Country Specific Corporate Infrastructure
  - Project oversight, local engineering resources, procurement, sales and marketing

## Project Pipeline



# Tech Use Cases: Data Centers & Automobile OEMs



The boom in AI has increased the need for data centers which has sent global power needs soaring. This trend is seen in GH Power's Business Development Pipeline. The Company's solution is ideal for data center developers and users seeking physically isolated redundancy in the form of a **green base load microgrid solution**. Product highlights:

- Zero emission thermal energy for power
- Green heat for cooling
- Green hydrogen for power
- Co-located off the grid power production
- Modular and scalable solution

GH Power has gained strong traction with a number of auto manufacturers. Typically these groups pay to have their scrap aluminum taken away. GH Power can take their waste and turn it into productive uses by co-locating with their existing operations.

## Product Highlights

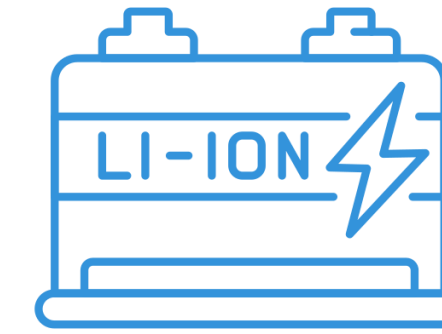
- Closed loop model with scrap metal on-site
- Green heat for paint drying and power generation
- Green alumina used in their supply chain
- Green certificates to offset emissions
- Small footprint
- Ease of operations
- Standardized equipment and processes to scale

# Alumina Overview

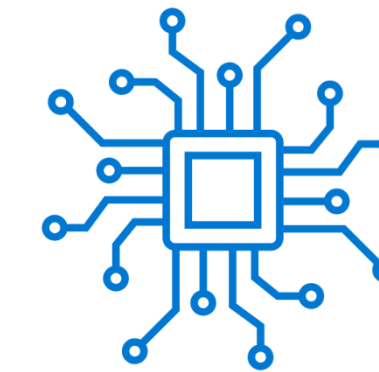
Alumina is a high valuable chemical that has different grades representing purity levels

Grade	Purity
2N (Smelter Grade Alumina "SGA")	99.7%
3N	99.9%
4N	99.99%
5N	99.999%

## Use Cases



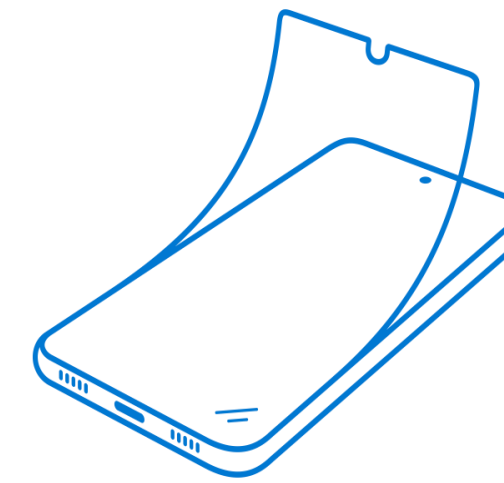
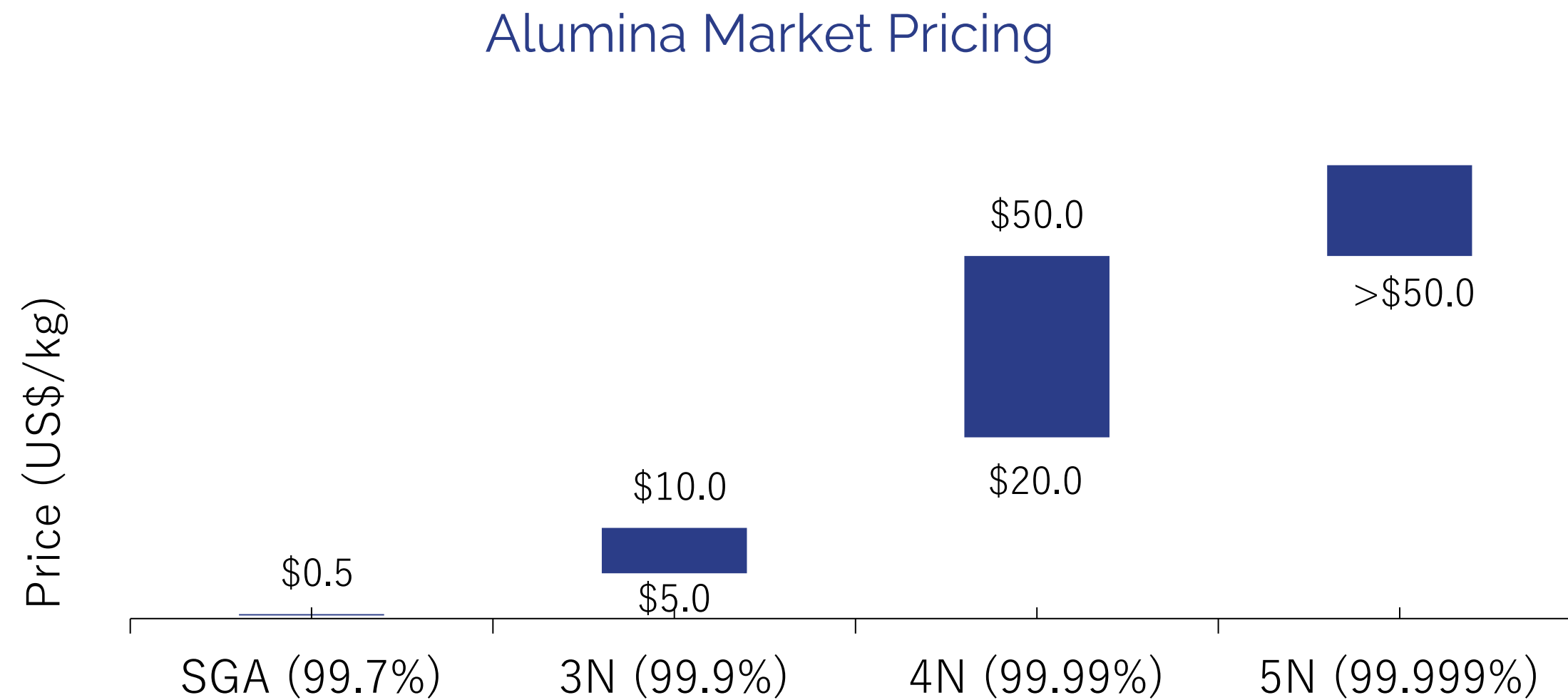
Lithium-ion batteries used in electric cars



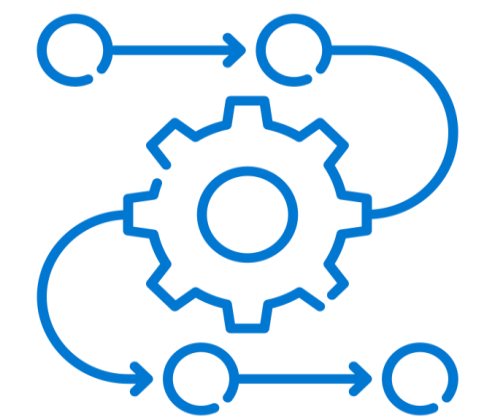
Semi-conductor substrates



LED light



Scratch-proof glass case used in smartphones



Closed loop process back to aluminum smelter

# Management Team

Commissioned 20+ power plants, managed \$3B in power plant refurbishments, managed +8GW



**David White**  
CEO

- 30+ years of experience in the construction of power generation facilities
- Bachelor of Science in Chemical Engineering from Queen's University



**Gary Grahn**  
COO

- 25+ years of international experience in developing projects in energy, oil & gas, utilities, mineral & metals
- Managed over \$1b of electrical generating assets at Bruce Power (7.2GW of power)



**Ken Stewart**  
Chief Engineer

- 40+ years of power plant experience & industry leader in boiler design & technology
- Engineer of Record for 8 power plants



**Michael Miller**  
Director

- 35 + years in infrastructure private equity & development
- Former Board Member at Kinder Morgan
- Managing Director at Oaktree Capital, & management roles at NextEra Energy



**Anand Patel**  
CFO

- 10+ years of real asset capital markets experience with over \$4b in completed transactions
- Managed portfolio of over \$10b in international assets



