



CIELO

Cielo Waste Solutions Corp.

December 2019 Investor

Presentation

CSE:CMC

A Window to a Cleaner World.



Disclaimer

This presentation contains certain statements that may be deemed “forward-looking statements”. All statements in this document, other than statements of historical fact, that address events or developments that Cielo Waste Solutions Corp. (“Company”) expects to occur, are forward looking statements. Forward looking statements are statements that are not historical facts and are generally, but not always, identified by the words “expects”, “plans”, “anticipates”, “believes”, “intends”, “estimates”, “projects”, “potential” and similar expressions, or that events or conditions “will”, “would”, “may”, “could” or “should” occur.

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward-looking statements.

Factors that could cause the actual results to differ materially from those in forward looking statements include but are not limited to the inability to complete the successful commissioning and commercialization of the Company’s technology and refineries, inability by licensor to obtain patents, failure to successfully negotiate and finalize joint venture agreements, inability to maintain or obtain sufficient financing to complete the Company’s objectives, inability to obtain requisite regulatory and other approvals to successfully commercialize the technology and refineries.

Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements. Forward looking statements are based on the beliefs, estimates and opinions of the Company’s management on the date the statements are made. The Company undertakes no obligation to update these forward-looking statements in the event that management’s beliefs, estimates or opinions, or other factors, should change.



By 2050, the world is expected to generate 3.4 Billion tons of waste annually, increasing drastically from today's 2.01 Billion tonnes in 2016.

– *World Bank Group*



Company Overview

- Cielo is a publicly traded waste-to-energy company, with primary operations in Red Deer, Alberta, Canada that transforms landfill garbage into high grade renewable fuel.
- Cielo holds the exclusive licence for the global rights to a patent-pending proprietary technology capable of converting multiple waste streams into renewable fuel, at a considerably lower cost than biofuel companies.
- Cielo's first commercial refinery in Aldersyde, AB, is being engineered to operate on a continuous flow basis, operating 24-hours a day, roughly 341 days per year, and accepting almost any form of industrial and household waste – including but not limited to **all types of plastic, tires, wood waste, organic waste, railway ties and municipal solid waste.**



Company Overview Continued

- Cielo uses a refining process referred to as **Thermal Catalytic Depolymerization**, which blends waste with a proprietary chemical catalyst and low heat to change the composition of the material, producing renewable transportation diesel, jet fuel and naphtha fuel.
- Canadian regulations require a minimum blend of renewable diesel be used in all transportation diesel fuel. Cielo's renewable fuel can be used in highway, air, ocean and railway sectors, and as a fuel in remote off-grid communities. Cielo's renewable naphtha will be used in the diluent market.
- Once built and operating at full capacity, Cielo's five planned Alberta refineries are expected to each produce around 2,000 litres of renewable fuel per hour.
- Cielo's technology is scalable, capable of rapid expansion.

With plans to build 40 Refineries across North America, Cielo offers the potential to divert annually about 1 Million tonnes of waste going into landfills and convert it into about 650 Million litres of renewable diesel each year.



Experienced Management Team



Don Allan
President & CEO

30+ years of executive leadership experience including experience in debt and equity capital markets, strategy and planning, risk management and investor relations. Extensive background in business development, engineering, marketing and project development.



Dr. Roderick Facey
Lead Engineer

Professional engineer with a doctorate degree from the University of Alberta. Chemical Systems, Structural, Environmental, Mechanical & Process Engineering Specialist.



**Shannon Wzykoski, CPA,
CMA**
Chief Financial Officer

20+ years of experience working with rapidly growing and changing companies. Past 10 years as a co-owner with the SSCR Corporate Solutions consulting group in Red Deer.



Stuart McCormick
VP Compliance & Reg. Affairs

30+ years as Professional Civil and Environmental Engineer. Extensive experience in permits, business strategy, planning and project management.

Supportive Board Of Directors

Don Allan
Chairman

- President & CEO of Cielo

Robin Ray

- CGA and Partner, MacNevin & Ray
- 30+ years of experience as an officer and director of publicly-traded companies.

Chris Dovbniak

- 30+ years of experience in process management control and purchasing
- Retired instrumentation technician

Doug MacKenzie

- Former EVP Suncor (Refining and Marketing),
- Former Sr VP PetroCanada
- Previous CEO of Permolex International

Mel Angelvedt

- President, Bozco Enterprises
- 30+ years of experience in process and service in the oil and gas sector

Demand for Biodiesel in Canada

Locations	Blend %	Diesel Consumed 2015	Biofuels Required
BC	4.0%	1,852	74
AB	2.0%	4,019	80
SK	2.0%	1,315	26
MB	2.0%	1,350	27
ON	2.0%	5,427	109
QC	0.0%	3,177	0
Maritimes	0.0%	1,140	0
Territories	0.0%	178	0
Canada	2.0%	17,412	348
Total/Average	3.8%	17.4 Billion L/Y	664 Million L/Y

Source: Estimates by Cielo Waste Solutions

Advantageous Economics Over Traditional Diesel

	Traditional Biodiesel	Cielo's Renewable Diesel
Production Cost/L	\$0.36 - \$0.50 (Avg \$0.43)	\$0.39 - \$0.64
Feedstock Cost/L	\$0.85 - \$1.32 (Avg \$0.97)	\$0.06 - \$0.11
Total Cost	\$1.21 - \$1.82 (Avg \$1.40)	\$0.45 - \$0.75
Price in Edmonton	\$1.25/litre	\$1.55 - \$1.80/litre*

Source: Estimates by Cielo Waste Solutions.

- Production Cost estimates are for 2,000 lph production
- Cielo's Catalytic Thermal Depolymerization technology allows feedstock to be converted into High Grade Renewable Diesel in considerably less time than traditional Bio-diesel
- Cielo can use a wide range of waste feedstocks for which many companies must pay a disposal fee

* Estimates received from third party fuel sales company



Our Process to Convert Waste

Cielo's process is referred to as **Catalytic Thermal Depolymerization**. Waste materials are blended with used motor oil and a powdered chemical catalyst. The mixture is then heated to a temperature that breaks down the molecules and “cracks” the materials into a blend of distillate fuels. The fuels are then further processed into renewable transportation diesel, jet fuel and naphtha fuel.

Simply put, Cielo combines a proprietary catalyst and heat to convert garbage into renewable fuels.

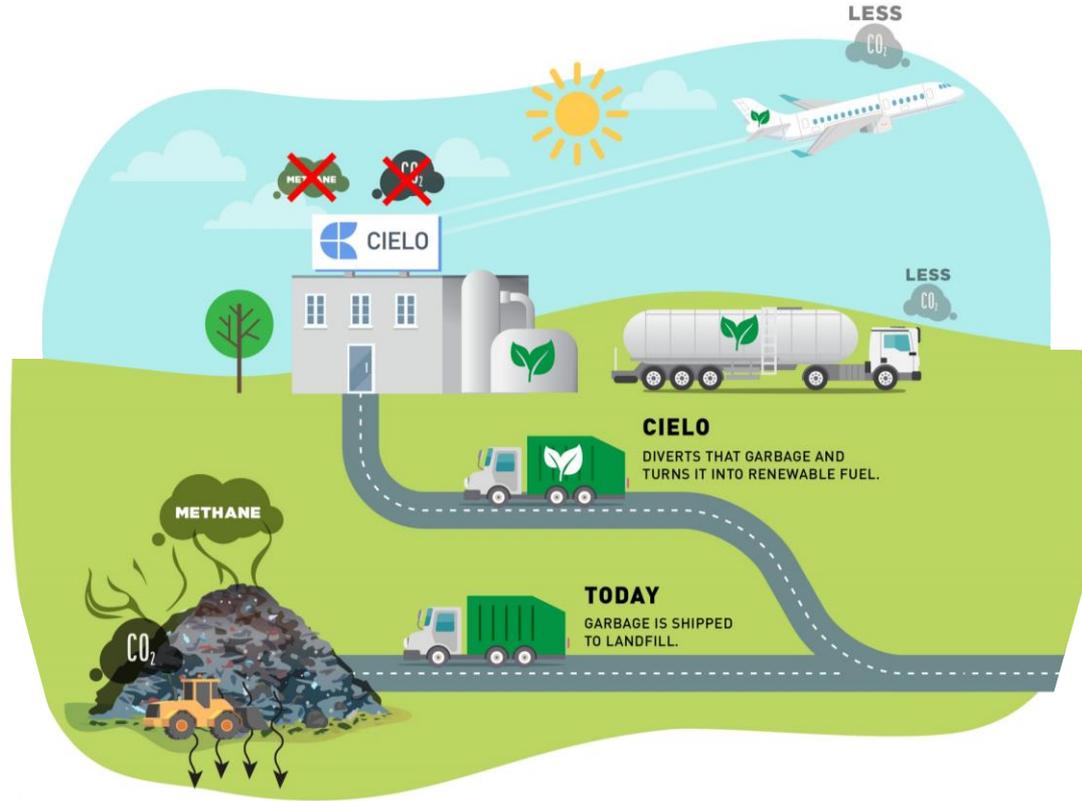
Highlights of our process:

- Process utilizes atmospheric pressure and low heat, expected to result in lower capex costs and the advantages of using unskilled labor to operate plant
- Process is significantly faster than traditional biodiesel processing
- Modular design facilitates scaling for global deployment
- Lower input costs as a result of being able to use multiple different waste sources, rather than solely depending on feedstocks derived from food crops.
- Patent is currently pending on the process in USA and Canada
- The catalyst formulation will be treated as a trade secret and will not be patented

The Cielo Advantage



- Cielo refineries can transform most household and industrial waste that currently goes to landfill into valuable diesel fuel.
- Our refineries operate with virtually no emissions.
- We help in greatly reducing methane emissions from landfills, as well as reduce reliance on imported biofuels made from agricultural products.



Completed R&D Phase

- Over 200 upgrading technologies were reviewed
- A detailed evaluation on 22 technologies was performed
- Worldwide Exclusive licence Agreement signed on a technology that converts multiple feedstocks (sawdust, plastics, tires, construction waste and municipal organic and solid waste) into renewable diesel
- R&D began in November 2004 with millions invested to date, before and after Cielo's acquisition of the technology
- Cielo operated a demonstration plant for 4.5 years that allowed the study of the feedstocks, catalysts, blending ratios, temperatures, etc.

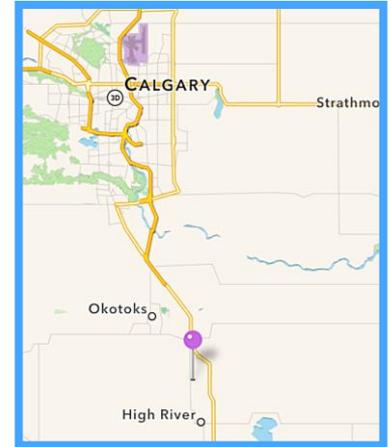
Recent Engineering Design Improvements

- Improvements to the front-end of the process have been implemented that allow for higher waste volumes and multiple feedstocks
- Waste recovery process has been added to the reactor which now vaporizes the waste stream, allowing for recapture of catalyst and hydrocarbons, providing a much cleaner waste ash, as well as higher production and EBITDA numbers
- Cielo is conducting additional R&D to optimize the process. Encouraging results are being recorded.
- Engineering and procurement initiatives for the JV refineries are underway

With all the recent engineering design improvements now nearing completion, it is anticipated that the Aldersyde Refinery will be up and running on a continuous flow basis in Q4 2019.

Benefits of First Refinery in Aldersyde

- Purchased existing biodiesel plant & land
- Hosted Grand Opening on July 11th, 2019
- Improved modifications have resulted in higher production and lower operating costs
- 2.45-acre site fully serviced with land use zoning in place
- Only 25 km south of Calgary
- Close to multiple feedstock suppliers and contractors



Completed Operations

- ✓ Secured feedstock supply for entire production volume for Aldersyde Refinery
- ✓ Signed off-take agreement to sell all production
- ✓ \$.13/liter Alberta Bio-Producers Grant

Phase I Upgraded

- ✓ Modifications to design resulted in increase to projected capacity
- ✓ Output capacity projected to be ~350 liters per hour (l/h) and then scaled up to 1,000 l/h
- ✓ Design changes will increase production, recovery of waste and lowering operational costs

Next Operational Phases

Phase 2

- Additional automation to be added
- Addition of Material Recovery Equipment for multiple feedstocks
- Increased productive capacity at Aldersyde to 2,000 l/h of renewable fuels

Phase 3

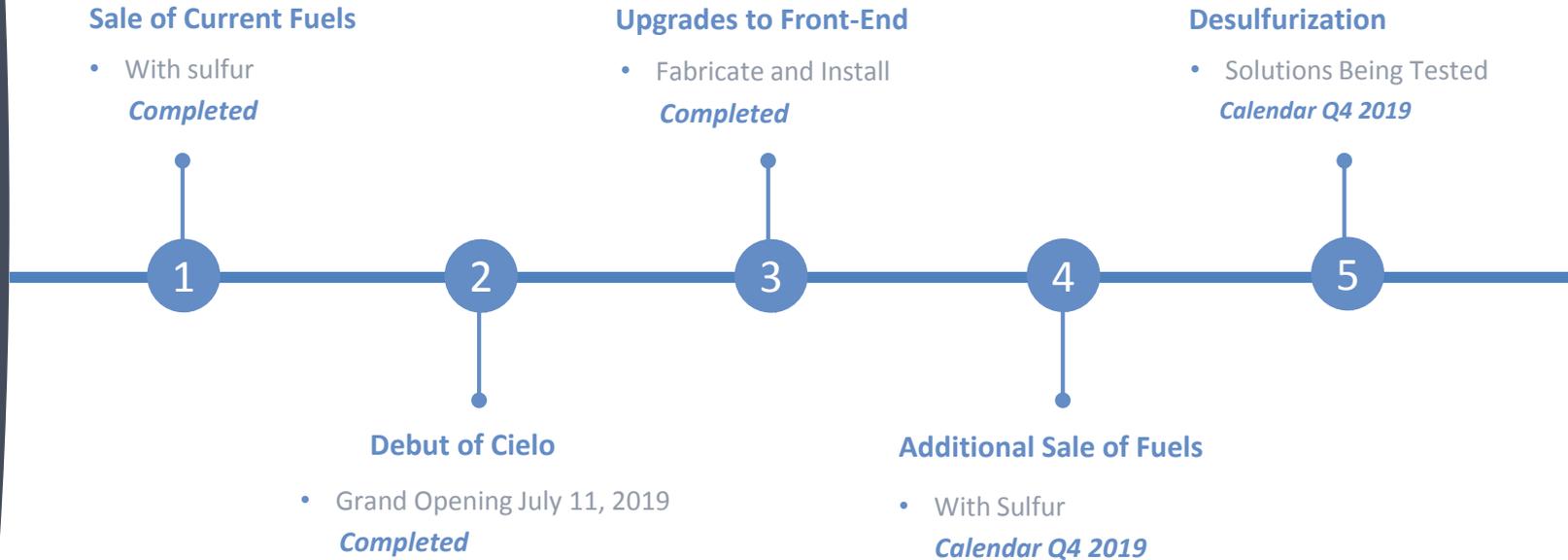
- Initiation of Joint Venture Refineries

Recent Executed MOUs

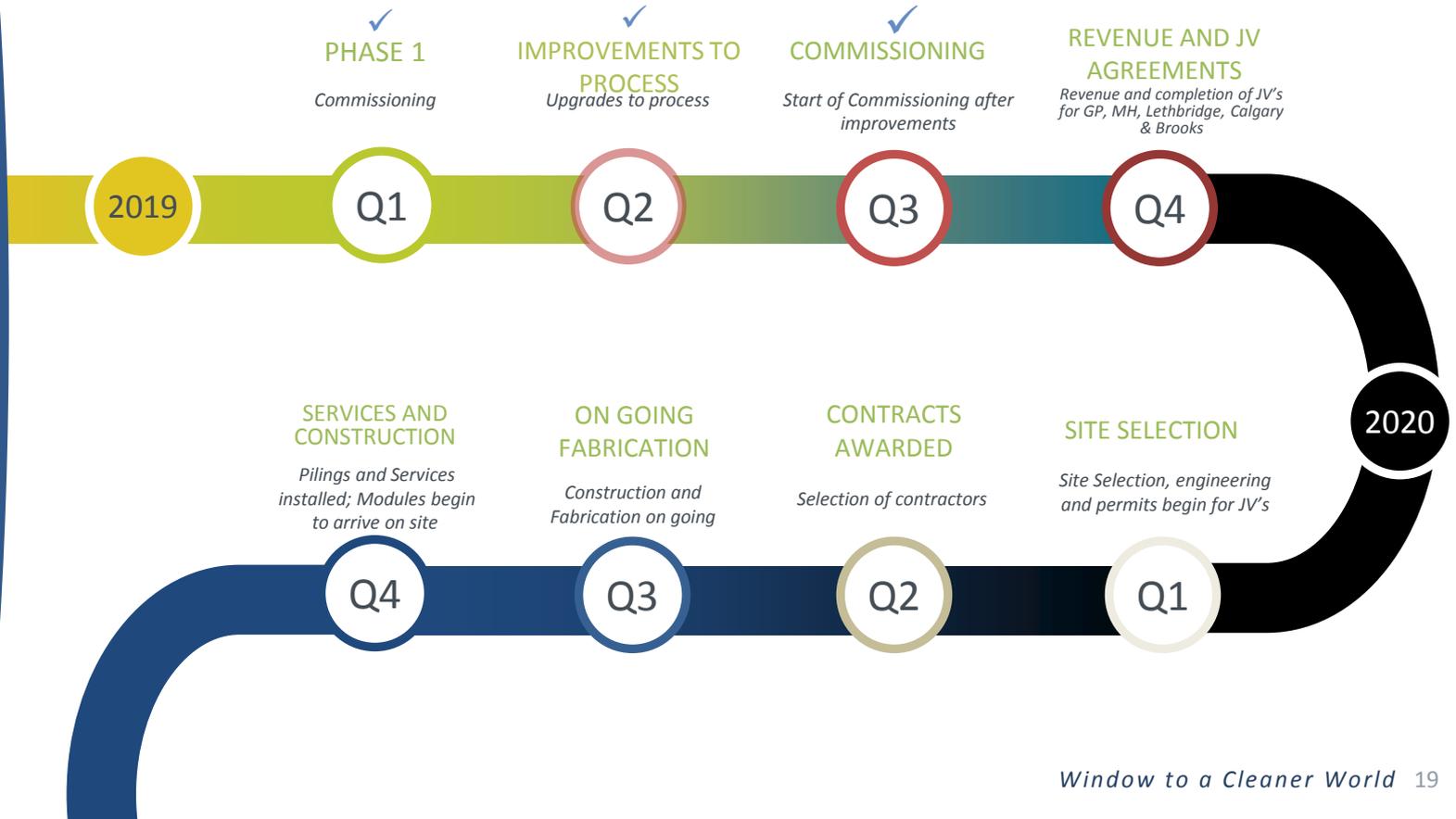
- Cielo recently signed memorandums of understanding for Joint Ventures in Grande Prairie, Calgary, Medicine Hat, Lethbridge & Brooks (“JV Refineries”)
- **Highlights of the proposed terms of the joint venture agreements include:**
 - Joint venture partners (“JV Partners”) are responsible for 100% of the financing of each project (“Project”) including land (railway access and servicing, buildings, equipment, permitting, constructing and commissioning of the JV Refineries
 - CIELO will execute the planning, construction, commissioning and operation of the JV Refineries, and overall manage the joint ventures
 - Until the JV Partners recover an amount equal to 100% of the cost of the Projects (“Project Costs”), the JV Partners will be entitled to receive 70% of the profits from the first JV Refinery in each territory.
 - Upon the receipt by JV Partners of an amount equal to 100% of the Project Costs for each JV Refinery, CIELO will be entitled to receive 50.1%, and the JV Partners will be entitled to receive 49.9%, of the profits from the JV Refineries.

Cielo would receive non-dilutive funding from 5 follow-on refineries, each at an anticipated cost of ~\$25M generating for Cielo \$8.75M in Management Fees and a carried 50.1% Ownership valued at \$62.5M

2019 Milestones – Completed & Upcoming



Calendar 2019 – 2020 Operational Timeline



Investment Highlights

- **Proven Technology** – millions of dollars and years spent on R&D (through various related companies), validation from multiple 3rd parties; **cutting-edge technology** is a game changing solution to the world's garbage problem
- **Exclusive license** - Cielo holds an exclusive global license from a related party with ability to purchase license back by Cielo
- **Patent** – process patent has been filed in the USA and Canada by the license provider
- **Little Canadian Competition** – no major renewable diesel producers in Canada that can sell to this market
- **Permits** – Municipal and Provincial Permits approved
- First commercial refinery at Aldersyde now operating 24-hours a day
- Achieved first production and first sales of product
- **Ability to use waste feedstocks** – unlimited availability at a low cost
- **Low carbon end-product** – reductions in GHG emissions
- Signed long-term feedstock supply agreement with **CP Rail** for scrap railroad ties for 4,000lph refinery
- Targeted to be Canada's first renewable diesel producer, a product that is fully compatible with fossil diesel
- **Regulated Demand** - Canadian Regulators have mandated minimum blend of renewable diesel into all transportation grade diesel, almost all of which currently must be imported

Share Metrics & Ownership Summary

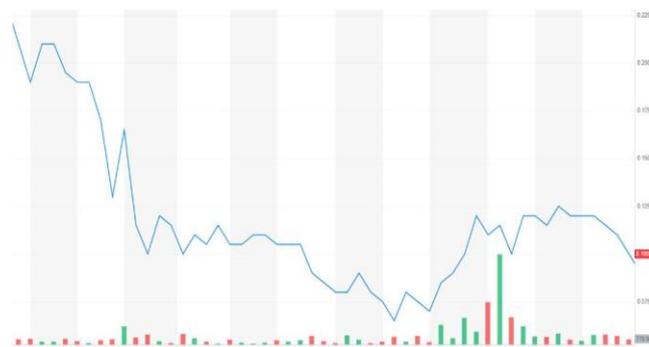


Cielo (CSE:CMC)	
Share Price (CAD)	\$0.105
Market Cap (CAD)	\$20.3M
Shares Outstanding	193,755,881
Warrants	45,786,226
Options	5.5M @ C\$0.10 (exp. Nov 7, 2019) 4.74M @ C\$0.25 (exp. Jan 12, 2021)
Restricted Share Units	4,750,000
Fully Diluted Shares Outstanding	364,149,297
52 Week Range (CAD)	\$0.06 - \$0.25

Ownership Summary

Management and Insiders undiluted	21%
Management and Insiders diluted	37%

52 Week Price Chart (**as of Sep 30, 2019)



As of September 30, 2019

Cielo's Green Refineries Have The Potential To Solve The Global Garbage Crisis & Make The Planet A Better Place For Generations To Come



Operational Headquarters
Cielo Waste Solutions Corp.
Bridgeview Place II
Suite 115, 5114-58 Street
Red Deer, Alberta, T4N 2L8

Tel: (403) 348-2972
www.cielows.com
[https://www.8020connect.com/
groups/cielo-waste-solutions-corp](https://www.8020connect.com/groups/cielo-waste-solutions-corp)

Donald Allan,
President & CEO
Donallan@cielows.com