

# Making the case to use garbage to produce renewable fuel, ESG investors look to Cielo to lead the way

“Just because people throw it out and don’t have any use for it, doesn’t mean it’s garbage.” – Andy Warhol

Waste to fuel is one of the hottest sectors right now as the world moves towards greener solutions for both waste and energy. The global waste to fuel energy industry is forecast to grow from US\$35.1 billion in 2019 to US\$50.1 billion by 2027. One company is leading the way with their game changing proprietary technology (license) that turns municipal garbage and other waste into renewable fuels.

The Company is Cielo Waste Solutions Corp. (TSXV: CMC | OTCQB: CWSFF | FSE: C36) (“Cielo”).

Cielo manufactures high-grade renewable diesel, kerosene (aviation jet and marine fuel) and naphtha from all types of garbage waste. Cielo has an exclusive global license from a related party to a technology that can convert multiple different waste streams into renewable diesel at a considerably lower cost than other biofuel companies, all with no harmful emissions.

Cielo’s process is referred to as Thermal Catalytic Depolymerization (TCD). Waste materials are liquified in the reactor with green power and blended with Cielo’s proprietary catalyst. The catalyst causes an instant reaction and forms a distillate which is then distilled further into renewable transportation diesel, kerosene (jet/marine fuel) and naphtha. The process utilizes atmospheric pressure and low heat, thereby resulting in no harmful emissions.

Almost every developed country in the world has a mandate to blend renewable fuels, and Cielo will be selling into this growing market.

## Global waste is growing, as is the demand for 'renewable' diesel fuel

### Global Waste Generated/Year



**2.01**  
Billion Tons  
in 2018



**3.4**  
Billion Tons  
by 2050



**≈ 37%**  
Of Global waste is disposed  
of in landfills

### Demand for Diesel in Canada



**17.4** Billion liters  
of highway diesel  
produced in 2015

**872** Million liters  
of renewable diesel required to meet  
yearly mandate by Canadian Government

**98%**  
of mandated renewable diesel is  
currently imported from overseas  
by ships burning bunker fuel, and  
produced from food crops as feed stock.

### Global Renewable Diesel Production



**4X**  
by 2030

**4.8** Billion liters  
per year in 2019

**19.7** Billion liters  
per year by 2023

Source: Cielo investor presentation

Cielo already has their 100% owned first facility operating in Aldersyde Canada and has a second 100% owned facility in the early stages. Announced on August 24, Cielo has now finalized the purchase of the Fort Saskatchewan (Edmonton, Alberta) industrial site/building and the C\$12 million loan (at a 6%pa rate to fund its purchase) for their second facility. You can read an update on Aldersyde and Fort Saskatchewan/Edmonton [here](#).

**Cielo's first waste to fuel facility at Aldersyde is currently in production**

## Aldersyde Facility



TSXV: CMC  
OTCQB: CWSFF  
WKN: C36

Window to a "Greener" World 10

Source: Cielo investor presentation

### **Cielo has more planned waste to energy facilities on the way**

In total Cielo has plans to rapidly grow to have a total of 11 facilities in the next few years. Two will be Cielo 100% owned projects and 9 will be JV funded projects. The two 100% owned ones I have already discussed above (Aldersyde & Fort Saskatchewan/Edmonton).

The 9 JV facilities (MOU JV with Renewable U Medicine Hat Inc.) are planned for locations in Canada and the U.S., all to be funded by the JV partner. The nine facilities to be built are planned as Grande Prairie, Calgary, Medicine Hat (Dunmore), Lethbridge, Kamloops, Winnipeg, Toronto, Halifax and a location in the USA (to be determined).

After this Cielo plans to grow to 40 locations in the next 5–7 years. This would act to divert annually approximately 3.9 million tonnes of waste, creating approximately 1.3 billion liters of renewable fuel, making Cielo one of the fastest growing ESG companies in the world.

### **Cielo's business model including details for Joint Ventures**

## (JVs)

Cielo has developed a simple modular plant/facility manufacturing system. Each plant can produce 4,000 liters per hour or 32 million liters pa. This format allows for multiple plants to be built based on feedstock supply at each facility site. This also allows Cielo to build in more remote locations and eliminate many transportation issues and/or costs. Each plant costs approximately \$50 million to build. Payback on the capital investment is approximately \$28 million annually based on EBITDA.

When there is a JV, the JV partner is responsible for 100% of the financing of each project. Cielo, as contractor, will execute the planning, construction, commissioning and operation of the JV facilities, and overall manage the joint ventures and receive a 7% fee.

## **Details of the JV model (MOU with Renewable U Medicine Hat Inc. for 9 facilities) and revenues that potentially go to Cielo**

### **Highlights of the proposed terms of the joint venture agreements include:**

**The JV partners** are responsible for **100% of the financing** of each project.

**CIELO, as Contractor**, will execute the planning, construction, commissioning and operation of the JV Facilities, and overall manage the joint ventures and receive a **7% fee**. **9 JV facilities = \$31.5M**

Until the JV Partners recover an amount equal to 100% of the cost of the Projects, the JV Partners will receive 70% of the profits from the first JV Facility in each territory while **Cielo enjoys 30%**. **9 JV's = \$75.6M**

**Upon project cost recovery for each JV Facility**, CIELO will be entitled to receive 50.1% of the profits, and the JV Partners will be entitled to receive 49.9% from the JV Facilities per plant. *This estimate is with only one plant per facility.* **9 JV facilities = \$126M/year**

Source: Cielo investor presentation

Analysts forecast Cielo's revenue to grow rapidly from roughly zero in 2020 to C\$26 million in 2023. After 2023 Cielo forecasts C\$125 million in revenue once three facilities are fully operational. Once at 5-7 facilities running at full

capacity Cielo expects to realize in excess of C\$350 million pa in revenue and almost C\$200 million pa in profits.

### **Closing remarks**

Given that the world produces over 3.5 million tons of garbage a day (over 2 billion tons a year) there is a compelling case to make use of this garbage to produce renewable fuels. The best thing about Cielo is that they do all this with no harmful emissions and at a lower cost than other biofuel companies.

The other best thing is they have a very sound business plan where JV partners pay for the initial refinery capital expenditure thereby minimizing dilution for Cielo stock investors. Also, the Board and Management are highly experienced.

Cielo Waste Solutions trades on a market cap of C\$652 million. Definitely, one to watch the next few years as they look to be moving rapidly with their rollout.

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**'Superstar Stock' Cielo Waste Solutions takes free garbage and turns it into valuable diesel fuel**

*Cielo Waste Solutions' 'waste to fuel'*

## ***refineries will help reduce landfill garbage methane and CO2 emissions***

The global waste to fuel energy industry is just taking off now and is forecast to grow from US\$35.1 billion in 2019 to US\$50.1 billion by 2027, at a CAGR of 4.6% from 2020 to 2027. It is highly likely the growth rates will end up much higher than this forecast given the world produces over 3.5 million tons of garbage a day (over 2 billion tons a year), with the vast majority ending up in landfill dumps.

Cielo Waste Solutions Corp. (TSXV: CMC | OTCQB: CWSFF | FSE: C36) ("Cielo") is in the business of turning our waste into fuel, at a lower cost than typical biofuel companies. Cielo has an exclusive global license from a related party to a technology for refining household, commercial (includes municipal waste) and construction/demolition waste into high-grade renewable fuels/diesel. The technology is also effective on wet organics (compost), all plastics, paper, tires, cardboard, sawdust and wood. Cielo plans to construct renewable diesel refineries globally using alternate waste feedstocks.

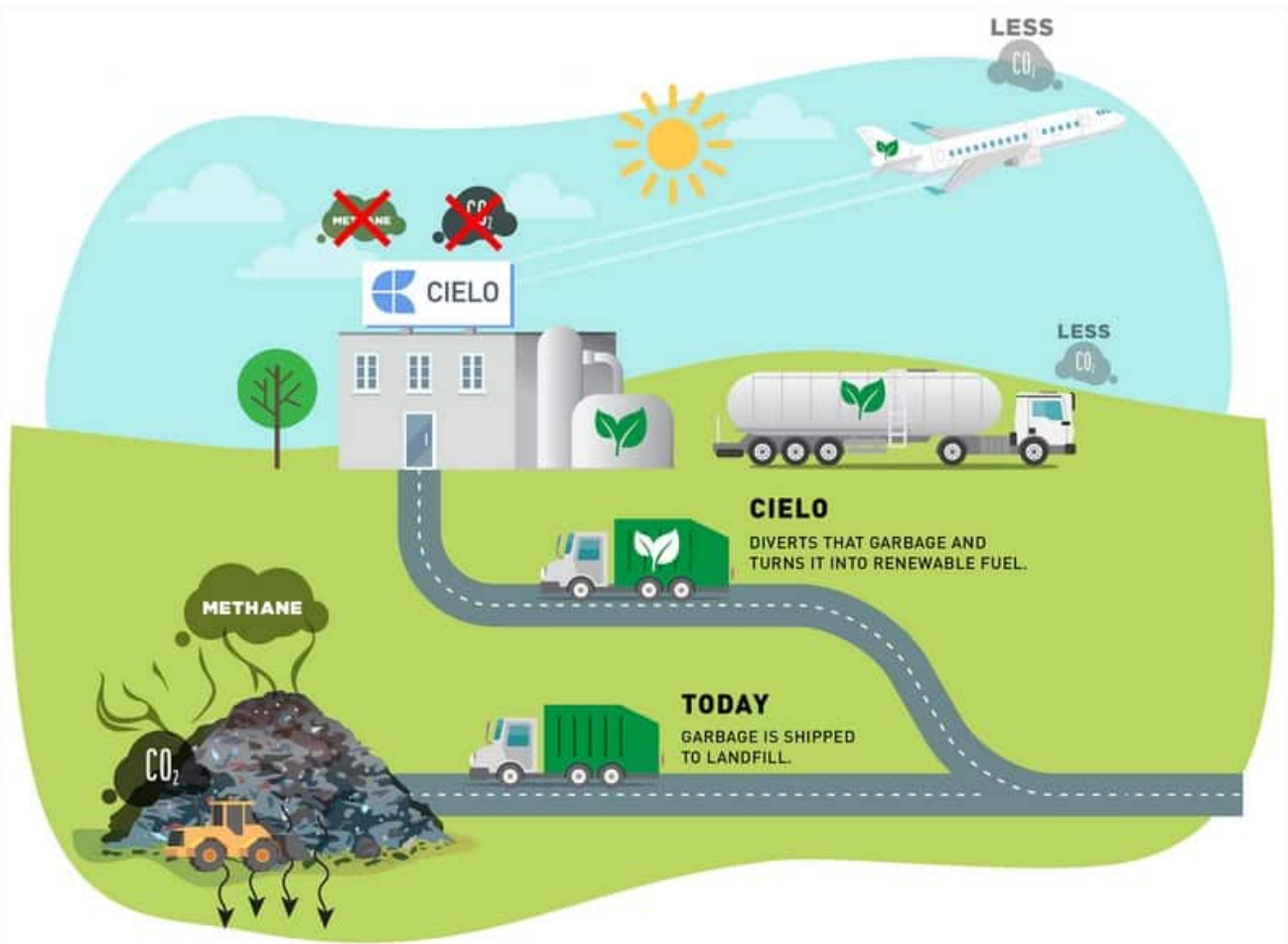


Source: TD Waterhouse stock graph from 7-12-2021

Cielo summarizes well on their website by stating:

“Cielo has an exclusive global license from a related party for a game-changing refining process (“the technology”) that can convert multiple different waste streams into renewable diesel at a considerably lower cost than biodiesel companies. Almost every developed country in the world has a mandate to blend renewable fuels, and Cielo will be selling into this growing market. The global applications of Cielo’s technology are enormous.”

**Today’s waste goes to landfill and produces methane gas and CO<sub>2</sub>, whereas Cielo takes that waste and turns it into renewable fuel**



Source: Cielo

**Cielo's waste to fuel refinery roll out plan progressing well (Cielo projects (2) and JV funded projects (9))**

The Cielo business model is a dual strategy, 100% owned refineries and joint venture (JV) refineries. The JV refineries are designed to reduce upfront CapEx for Cielo by joint venturing with partners who pay to build the waste to renewable fuels facilities.

Cielo already has their 100% owned first refinery operating in Aldersyde Canada. As of July 2021, the Aldersyde plant is currently running at ~5,000 liters per day, on process to ramp up to the designed capacity to produce 24,000 liters per day of diesel fuel. A very nice business given that regular diesel prices globally are averaging about C\$1.73/liter, boosted by the recent oil price surge.



Cielo announced in May 2021, that Cielo has entered into an agreement to purchase land and a 31,750 sq ft building for C\$13 million, on approximately 60 acres in Fort Saskatchewan (Edmonton, Canada), for the purpose of building a second 100% owned refinery facility.

Cielo also has signed an MOU JV with Renewable U Medicine Hat Inc. to expand further in Canada and into the U.S., with a further up to 9 facilities (refineries), all funded by the JV partner. The nine facilities to be built are planned as Grande Prairie, Calgary, Medicine Hat (Dunmore), Lethbridge, Kamloops, Winnipeg, Toronto, Halifax and a location in the USA (to be determined). Highlights of the proposed terms of the joint venture agreements include: The JV partners are responsible for 100% of the financing of each project. Cielo, as contractor, will execute the planning, construction, commissioning and operation of the JV facilities, and overall manage the joint ventures and receive a 7% fee.

Cielo CEO, Don Allan, recently stated:

“With completion of these milestones, Cielo will be in a position to begin to see revenue at our Aldersyde facility as the company begins ongoing production and subsequently see consistent revenue growth from the Edmonton (Ft. Saskatchewan) facility once completed. The completion of these two corporate facilities lays the foundation to build out multiple facilities under the same modular model and as such potentially see exuberant growth over the next 12 to 36 months. We are also very excited to be participating in the sod turning ceremony of the Dunmore facility on Thursday, July 8<sup>th</sup>.”

Analysts forecast Cielo’s revenue to grow rapidly to C\$10 million in 2021, and then double in 2022 to C\$20 million. After 2023, assuming all three facilities operating at full capacity Cielo forecasts C\$125 million in revenue. Once at 5-7 facilities running at full capacity Cielo expects to realize

in excess of C\$350 million pa in revenue and almost C\$200 million pa in profits.

**Cielo expects revenues to rise rapidly as they scale up their own (corporate) refineries and their JV refineries**

**Facility Buildout.** In addition to the pilot/test facility in Aldersyde, Cielo also plans to complete one corporate facility and one JV facility by end of year 2023. With all three plants operating at full capacity Cielo expects to see annual revenues of approx. \$125 million with expected annual EBIDTA of approximately \$56 million.

**Additional Facility Builds.** Cielo expects to build at least 1-2 corporate facilities over the next 24 months in addition to another 1-2 JV facilities. With 5-7 facilities in operation Cielo expects to realize in excess of \$350M in revenue and almost \$200 million in profits.

Source: Cielo company presentation

### **Closing remarks**

Cielo has a great business model that takes free garbage and turns it into valuable diesel fuel. Furthermore, they plan, where possible, to partner with companies that will fund the refinery in return for a share of the profits, thereby reducing CapEx expense to Cielo. It also means Cielo shareholders can see less dilution of their shareholdings, while the business can rapidly scale globally. I would think shareholders would be very happy so far after the Company's past year return of 2,811%.

Cielo Waste Solutions was recently upgraded to the TSXV and is still trading on the same ticker "CMC". Bloomberg lists their current market cap at C\$730 million which is still rather small considering the enormous garbage to energy market revenues of over US\$35 billion pa growing each year. Cielo is a superstar stock after a 29x gain the past year and potentially more to come if they succeed in their expansion plans.

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# **ESG investment Cielo Waste Solutions has plenty of catalyst(s) for a breakout**

For two and a half months now Cielo Waste Solutions Corp. (CSE: CMC | OTCQB: CWSFF | FSE: C36) stock price has been trending sideways in a channel between roughly \$0.70 and \$1.10. Is opportunity knocking for a breakout? I was going to insert a catalyst joke in the context of Cielo's stock price and their underlying business but unless you are familiar with the inner workings of the fuel refining process it wouldn't make much sense and probably wouldn't be that funny. So we'll skip that and take a closer look at what's going on at this green manufacturer of renewable fuel. But trust me, catalyst is important to Cielo's proprietary process.

Cielo has ESG investment written all over it. The Company has developed a proven and patented technology to produce high cetane (a measurement of the quality of diesel fuel where higher is better), ultralow sulfur renewable diesel, kerosene and naphtha fuels. Feedstock (also known as inputs) for the process include the world's most available and inexpensive household, commercial and construction/demolition garbage, wet organics (compost), all plastics, paper, tires, cardboard, sawdust and wood. When one considers that most of this garbage ends up in a landfill where it generates methane emissions while the Cielo process creates virtually no emissions, this goes from a win-win to a win-win-win situation. Then there's the added bonus of reducing reliance on imported biofuels made from agricultural products. So reducing imports and leaving agricultural products for food gets us up to five wins by my math, hence my ESG investment comment.

What makes the story even more interesting from an investment standpoint is that the company believes it can be highly profitable while saving the world from all this garbage and methane. Obviously, the feedstock is relatively cheap but the finished product also fetches a higher market price than biodiesel because of the quality. You'll note that premium gasoline is significantly pricier than regular unleaded at the local gas pump.

## Advantageous Economics Over Traditional Bio-Diesel

	Traditional Biodiesel	Cielo's Renewable Diesel
Production Cost/L	\$0.36 - \$0.50 (Avg \$0.43)	\$0.50
Feedstock Cost/L	\$0.85 - \$1.32 (Avg \$0.97)	\$0.06 - \$0.11
Total Cost	\$1.21 - \$1.82 (Avg \$1.40)	\$0.56 - \$0.61
Price in Alberta	\$1.25/Liter	\$1.67/Liter*
Gross Margin	-12 %	63.4 %

Source: Estimates by Cielo Waste Solutions.

Source: Cielo Corporate Presentation

Now the stock isn't cheap by any stretch of the imagination. The Company has yet to generate any meaningful revenue yet but has a market cap pushing \$500 million, with 612 million shares outstanding based on yesterday's close of \$0.79. However, that can change quickly if they are running their existing Aldersyde facility (Calgary, AB) at 1,000 litres per hour and grossing \$1.67/l, all of a sudden that's \$3.6 million of revenue per quarter which has already started. Growth plans include doubling Aldersyde to 2,000 litres per hour with commissioning sometime in Q4/21, while the Company foresees production from a facility in Dunmore (Medicine Hat, AB) by Q3/22 and commissioning of a new facility in Edmonton in Q4/22. On March 9<sup>th</sup> the Company announced an MOU to build, and

commission, at no cost to Cielo other than internal costs, three renewable fuel facilities, in Winnipeg, Manitoba, Kamloops, British Columbia and a high-volume location to be determined in the United States. And on March 17<sup>th</sup> announced an MOU for Toronto, Ontario as the site for the first Ontario joint venture facility.

With all the development work, tweaking and fine tuning at the Aldersyde facility, Cielo has a scalable modular model which allows them to install a simple plant manufacturing system that can produce up to 4,000 liters per hour or 32 million liters per annum. Each plant costs approximately \$50 million to build. Pay back on the capital investment is approximately \$28 million annually based on EBITDA. Cielo plans up to 40 locations or plants in the next 5-7 years. I won't go through the math on that because my assumptions will probably be different than almost everybody else but the numbers start to get pretty big.

So there's the catalyst (I couldn't resist) for this stock to move. Although all of this isn't going to happen overnight, one has to consider:

- Cielo holds an exclusive global license from a related party with the process patents having been issued in both Canada and the US
- There are currently no major renewable diesel producers in Canada that can sell into the Canadian market.
- Canadian Regulators have mandated minimum blends of renewable diesel into all transportation grade diesel, almost all of which currently is imported. Currently over 872 million liters per year and growing.
- Cielo is not reliant on government assistance or subsidies. Cielo's model is profitable based on current market rates and prices for the sale of their fuels

I'm not a market timer by any stretch of the imagination. Will news come out today or tomorrow that drives this stock higher?

Possibly, but I kind of hope not immediately because that wouldn't look very good for my neutrality on the subject. Nevertheless, the story is interesting from numerous angles and the math is pretty compelling.

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## **Happy Earth Day – Look to these Stock to Support Mother Earth and Boost Your Portfolio Performance**

Investors are taking a deeper dive into corporations, looking beyond financial metrics and into a company's Environmental, Social, and Governance (ESG) standards as a measure of its commitment to all stakeholders, including a healthier planet.

Last year, Laurence Fink, the Founder and CEO of BlackRock, the world's largest asset manager, sent a letter to the CEOs of its invested companies and a second letter to its clients, addressing a focused mandate on sustainable investing. BlackRock sees climate risk as investment risk and plans to act ahead of the serious impacts of climate change by doubling its number of ESG funds.

Below are four companies where ESG has become a critical part of their business or a core belief in building a more sustainable business environment.

### **1. Cielo Waste Solutions Corp. (CSE: CMC | OTCQB: CWSFF | FSE: C36)**

Cielo is literally turning garbage into gas; it doesn't get

much greener than that!

Cielo, a waste to renewable fuel company, has a patented technology that converts landfill garbage into renewable high-grade diesel used in transport trucks and kerosene used for aviation jet and marine fuel.

After 16 years and C\$75 million in research and development, and now a fully functional plant, Cielo is currently riding the “green wave” of investor interest in environmental tech, and the stock price has responded accordingly, up over 1,000% year-to-date.

Cielo is currently rolling out 10 facilities in North America over the next couple of years but with revenues expected from its first plant this year.

Read the latest story about Cielo [here](#).

## **2. mCloud Technologies Corp. (TSXV: MCLD | OTCQB: MCLDF)**

mCloud helps businesses reduce energy waste, maximize energy production and get the most out of critical energy infrastructure. It focuses on using Artificial Intelligence (AI) to curb energy waste in buildings, maximize the energy production of wind turbines and extend the lifespan of critical energy infrastructure in a variety of different industries.

mCloud recently rolled out a new service that detects the leakage of gases during oil and gas production that will drive major carbon emission reductions for its customers in Alberta and the Middle East.

And yesterday, mCloud announced a partnership with three North American energy utility providers to offer its energy-saving solutions for HVAC and improved indoor air quality (IAQ) monitoring solutions that could target over one million commercial buildings in the U.S. and Canada.

Read about yesterday's news release [here](#).

### **3. Nano One Materials Corp. (TSXV: NNO)**

Nano One Materials is a technology company with a patented and scalable industrial process for the production of low-cost, high-performance cathode materials used in lithium-ion batteries.

The cathode determines the battery's capacity and voltage, and can comprise 20% or more of the costs of a lithium-ion battery.

Nano One's proprietary "One Pot" furnace process creates a coated single crystal powder that protects the cathode from side reactions while allowing the transfer of lithium ions between electrolyte and cathode.

And, importantly, the process addresses ESG concerns around energy, waste, and carbon footprint in the lithium-ion battery supply chain. It is an environmentally friendly process using limited water, and as it eliminates intermediate steps, it eliminates expensive and energy-intensive metal conversions and does not have a hazardous waste stream.

See the latest video about Nano One Materials [here](#).

### **4. Neo Lithium Corp. (TSXV: NLC | OTCQX: NTTHF)**

Neo Lithium is advancing its 100% owned Tres Quebradas (3Q) project, a high-grade lithium brine lake and salar complex in Argentina. The 3Q Project is located in Latin America's "Lithium Triangle" and covers 350 KM<sup>2</sup> (~86,500 acres) in the largest lithium-producing area in Argentina.

Last week, Neo Lithium announced that it engaged Golder Associates and the Argentinean National University of San Martin, to help with the ESG program as part of its Feasibility Study for 3Q project.



Waldo Perez, CEO of Neo Lithium said, “We take very seriously our compromise with all of our stakeholders and future generations, which in large part includes all aspects of ESG.”

Neo Lithium wants to be at the low end of the CO<sub>2</sub> emission footprint when compared with other lithium brine projects.

Read the latest story about Neo Lithium [here](#).

**Happy Earth Day, Do Something Nice for Mother Earth.**

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## **Cielo (up 2,166%) plans to use our household and industrial waste to create renewable fuels**

As the world’s leaders come together for President Biden’s Leaders Summit on Climate Change over April 22 and 23, one company is already solving two problems by using our waste to create renewable fuels.

That company is Cielo Waste Solutions Corp. (CSE: CMC | OTCQB: CWSFF | FSE: C36) (“Cielo”). Cielo has an exclusive global license from a related party to a technology that can convert multiple different waste streams into renewable fuels **at a considerably lower cost than other biofuel companies. Renewable fuels can come from almost all our waste products** whereas biofuels come only from organic material (plants & animals) waste.

By 2027, the global waste-to-energy market is expected to be valued at US\$50.1 billion, up from US\$35.1 billion in 2019. Almost every developed country in the world has a mandate to blend renewable fuels, and Cielo will be selling into this growing market. Waste to energy is becoming a legitimate and significant business and the world's waste problem is only getting bigger each year.



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

Source

Cielo describe their waste to fuel system stating:

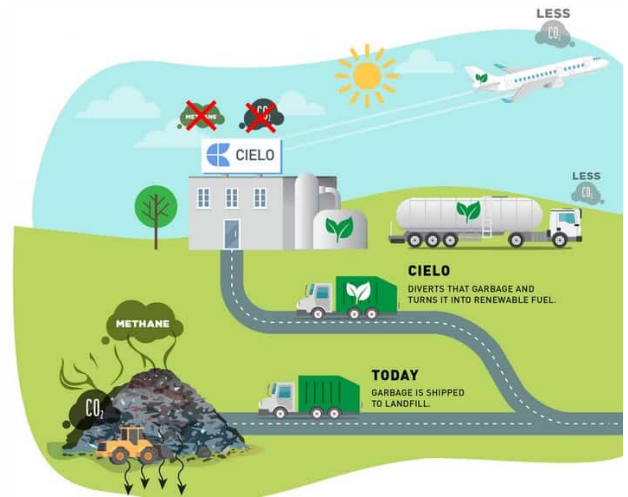
“We have developed a proven and patented technology in conjunction with a related party, which will produce a high cetane, ultralow sulfur renewable diesel, kerosene and naphtha fuels. Feedstock for the facility is the world's most available and inexpensive feedstock of household, commercial and construction/demolition garbage, including feedstocks of Municipal Solid Waste (“MSW”) and cellulosic materials such as wet organics (compost), all plastics, paper, tires, cardboard, sawdust and wood.”

Cielo's advantage to biofuel companies is that they can accept almost any form of industrial and household waste (including plastic, tires, wood waste, organic waste, railway ties and municipal solid waste).

**Cielo takes household and industrial waste and turns it into renewable fuels that can be sold**

## THE CIELO DIFFERENCE

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



Source

### **Cielo's current renewable fuels facility and plans for expansion**

Cielo's existing facility is located in Aldersyde (south of Calgary, Canada). It was bought as a biofuel facility using wood waste but is now being ramped up as a renewable fuel facility using Cielo's technology. Cielo's future facilities will use residential and industrial waste to create renewable fuels. Cielo states:

"Cielo plans to construct renewable diesel refineries using alternate waste feedstocks. Mandates from Federal, Provincial and World governments for greener energy supplies make this the right time for renewable diesel production."

Regarding specifics of Cielo's plans the Company states:

"Cielo is headquartered in Alberta, Canada with plans to build and operate green facilities across North America as well as globally. Cielo is expanding its footprint by having Memorandums of Understanding in place with third parties pursuant to which facilities will be built, at no cost to Cielo, Joint Venture Renewable Diesel Facilities in Grande Prairie, Calgary, Medicine Hat and Lethbridge, Alberta as well as in Nova Scotia. Each JV Facility is projected to cost, depending on throughput approximately \$50 million to build,

commission and place on production. Cielo will be the general contractor and operator of all the proposed JV Facilities.”

Cielo also states: “With plans to build 40 Facilities across North America, Cielo offers the potential to divert annually about 2.6 Million tonnes of waste going into landfills and convert it into about 1.3 Billion litres of renewable diesel each year.”

### **Cielo’s latest news**

April 7, 2021 – Cielo receives conditional grant from Alberta Innovates for Cdn\$500,000.00.

March 16, 2021 – Cielo announces intention to list on the TSX Venture Exchange

March 8, 2021 – Cielo announces entry into United States and expands Canadian Territories. Cielo has entered into a MOU dated March 8, 2021 with Renewable U Energy Inc. (“RUEI”). The MOU provides for Cielo to build, and commission, at no cost to Cielo other than internal costs, three waste to high-grade renewable fuel facilities, one each in Winnipeg, Manitoba, Kamloops, British Columbia and a high-volume location to be determined in the United States.

### **Cielo benefits from the recently executed MOUs (assuming they complete)**

*Cielo would receive non-dilutive funding from 9 follow-on facilities, each at an anticipated cost of ~\$90M generating for Cielo \$15.75M in Management Fees and a carried 50.1% Ownership valued at \$225M*

Source

### **Closing remarks**

Cielo Waste Solutions looks set to soar as they take our waste (including plastics & tires) and turn it into renewable fuels at a lower cost than typical biofuel companies. This is a win-win for the environment and the consumer.

Cielo already has their first facility in Canada and recently signed a highly significant MOU to expand further in Canada and into the U.S., with a further 9 facilities, all funded by the JV partner. The Cielo business model is designed to reduce upfront CapEx by joint venturing with partners who pay to build the waste to renewable fuels facilities.

Cielo currently trades on a market cap of C\$473M after a staggering 1 year rise of 2,166%. Cielo really is on the move and yet has huge potential ahead as they seek to rapidly expand further in North America and globally. What a great story. Stay tuned.

- Don Allan on how Cielo transforms landfill garbage into high-grade renewable fuel (video)

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## **Cielo is Turning Garbage into Liquid Gold**

Yesterday, **Cielo Waste Solutions Corp.** (CSE: CMC | OTCQB: CWSFF | FSE: C36), a waste to renewable fuel company, announced a C\$4 million increase to a previously announced C\$10 million convertible loan facility to fund the Company's expansion plans. The amended agreement brings the total convertible loan to C\$14 million.

Cielo's patent-pending technology converts landfill garbage into renewable high-grade diesel used in transport trucks and kerosene used for aviation jet and marine fuel.

After 16 years and C\$75 million in research and development, and now a fully functional plant, Cielo is currently riding the "green wave" of investor interest in environmental tech,

and the stock price has responded accordingly, up over 1,100% year-to-date.

### **Convertible Loan Fuels Expansion Plans**

On March 3, Cielo announced it has entered into a binding letter of intent to obtain a non-interest bearing, unsecured convertible loan of C\$10 Million.

The initial C\$10 million would be used to purchase a site near Edmonton, Alberta for the Company's new, 100%-owned, waste to renewable fuel facility, and repay Cielo's largest secured lender, which is currently owed approximately C\$3.8 million.

The Edmonton plant marks the beginning of Cielo's expansion plans. Don Allan, President and CEO of Cielo, commented, "We are truly happy to be able to announce that we are commencing a 100% owned Cielo facility ahead of schedule. We have selected the area for the new facility and will start immediately on negotiating the purchase."

The technology is currently operational at its Aldersyde facility, 25 km south of Calgary, Alberta, where wood waste is converted into renewable fuels. The net proceeds of the additional C\$4 million are earmarked to double the production at the Aldersyde facility from 1,000 litres-per-hour (lph) to 2,000 lph and for engineering work on the new Edmonton facility.

Once the land deal is closed, Cielo will focus on its options to raise the C\$50 million required to complete the construction of the new Edmonton facility. Cielo is also continuing to work on the Dunmore facility, near Medicine Hat, Alberta, where it is in the process of building a facility with its joint-venture (JV) partner Renewable U Energy Inc. (RUEI).

### **High-Margin Facility Now Producing Fuel**

Each plant costs approximately C\$50 million to build and could produce around 33 million litres of high-grade renewable diesel annually, which at a price of C\$1.67 per litre, is approximately C\$55.1 million in annual revenues and C\$30 million in EBITDA per plant at the current costs. (See table below.)

## 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/liter	\$1.63/liter*

Source: Estimates by Cielo Waste Solutions.

### Source

The margins are high as Cielo's technology utilizes waste feedstocks that are highly available and inexpensive, including household and commercial garbage, agricultural waste, and used tires, as well as all types of plastic and other materials that currently cannot be recycled.

On February 23, Cielo announced its first significant fuel sale with a purchase commitment for 900,000 litres (238,000 gallons) of renewable diesel at C\$1.67/litre for a total price of C\$1.5 million. The purchaser also obtained the option to purchase another 600,000 litres (159,000 gallons) at the same price for a period of 6 months.

The fuel will be supplied from the Aldersyde facility and is

anticipated to be produced over the next three to five months.

## **Expansion Continues in Canada and Now into the United States**

Cielo is currently focusing on expansion plans across North America before looking at other opportunities globally.

Cielo's management believes there is enough waste feed in Canada for 400 facilities and, since the United States produces almost six times the waste that Canada produces, that would equate to almost another 2,500 facilities there.

Cielo has already signed a Memorandum of Understanding (MOU) with RUEI to build JV facilities in Medicine Hat, Grande Prairie, Calgary, and Lethbridge, Alberta as well as in Nova Scotia.

In addition, on March 9, the Company announced that it entered into MOU with RUEI to build three new facilities, in Winnipeg, Manitoba, Kamloops, British Columbia, and a location to be determined in the United States.

## **Non-Dilutive Facility Funding with Cielo Eventually Owning 50.1% of the Each Plant**

Under the terms of the agreement, RUEI would be responsible for funding the facility in each of the eight territories.

Cielo will be the general contractor and operator of all the proposed JV facilities. RUEI would pay Cielo a 7% management fee on all capital expenditures and a 30% markup on the chemical catalyst used in the conversion process.

Until RUEI recovers 100% of the project cost, Cielo will be entitled to receive 30% of the profits from the JV facility in each territory. Once RUEI recovers 100% of the project costs, Cielo will be entitled to receive 50.1% of the profits.

## **Final Thoughts**



Countries around the world are finally waking up to the garbage crisis and the oceans of plastic literally filling up the planet. In addition, government policies in many countries mandate a certain percentage of biofuels or renewable fuels be blended with fossil transport fuels so the demand is there.

Cielo holds the exclusive licence to a patent-pending, proprietary technology that converts most waste streams into renewable fuel, at a lower cost than most biofuel companies do, putting it at a competitive advantage.

Once the current 10 planned facilities are fully operational, Cielo could be generating C\$170 million in EBITDA and, at a 15x EBITDA multiple, would translate into a market cap of \$2.5 billion, almost five times where it is today.

Cielo closed yesterday at C\$1.19 with a market cap of C\$520.8 million.

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## **Don Allan on how Cielo transforms landfill garbage into high-grade renewable fuel**

In a recent InvestorIntel interview, Peter Clausi spoke with Don Allan, President, CEO & Chairman of Cielo Waste Solutions Corp. (CSE: CMC | OTCQB: CWSFF) about Cielo's waste to renewable fuel technology that transforms landfill garbage into high-grade renewable fuel.

In this InvestorIntel interview, which may also be viewed on

YouTube (click here to subscribe to the InvestorIntel Channel), Don went on to talk about the fast-growing recycling and renewable fuel industries. "Recycling industry is less than seven years old and is already 10,000 times larger than the oil and gas industry. And is going to double in size in the next 5-7 years," Don said.

Don explained how Cielo's technology changes how the world deals with landfills and highlighted the sustainability issues in using food crops to produce renewable fuels. Cielo combines a proprietary catalyst and heat to convert landfill garbage into renewable fuels at a very low cost.

To watch the full interview, click here

### **About Cielo Waste Solutions Corp.**

Cielo Waste Solutions Corp. is a publicly traded company with its shares listed to trade on the Canadian Securities Exchange ("CSE") under the symbol "CMC", the OTC Markets Group, on the OTCQB, under the symbol "CWSFF" and the Frankfurt Securities Exchange under the symbol WKN: C36. Cielo is a waste to renewable fuel company with a game changing technology engineered to help solve the world's garbage crisis. Cielo's technology transforms landfill garbage into renewable high-grade diesel and kerosene (aviation jet and marine fuel). Cielo's proven and patented technology is currently being deployed in the Company's Aldersyde Facility, Alberta, where wood waste is currently being converted into renewable fuels.

Cielo is headquartered in Alberta, Canada with plans to build and operate green facilities across North America as well as globally.

Cielo is expanding its footprint by having Memorandums of Understanding in place with third parties pursuant to which facilities will be built, at no cost to Cielo, Joint Venture Renewable Diesel Facilities in Grande Prairie, Calgary, Medicine Hat and Lethbridge, Alberta as well as in Nova

Scotia. Each JV Facility is projected to cost, depending on throughput approximately \$50 million to build, commission and place on production. Cielo will be the general contractor and operator of all the proposed JV Facilities. The feedstock that will be used in the Company's green facilities is the world's most available and inexpensive feedstock – garbage; including household, commercial/ construction/demolition garbage, used tires, railway ties and telephone poles as well as all types of plastic that currently cannot be recycled.

To learn more about Cielo Waste Solutions Corp., [click here](#)

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