



Interim report

1 JANUARY 2023 – 30 JUNE 2023



This is C-Green

EVERY YEAR THE WORLD produces 5.7 billion tons of sewage sludge and other wet organic waste which is incinerated, disposed of in landfills, or spread on agricultural land, resulting in enormous emissions of greenhouse gases and the loss of valuable resources.

C-Green is a Swedish clean-tech company that enables the harvest of energy and nutrients, including phosphorus and nitrogen, from wet waste and effectively reduces greenhouse gas emissions from sludge handling. We capture the wet carbon in sludge and concentrate it in HTC hydrochar, a dry sterile material that can be used as biofuel to replace fossil fuels, as soil improvement or as a carbon sink.

Using a combination of hydrothermal carbonization (HTC) and wet oxidation, both well-proven technologies, our OxyPower HTC™ biorefinery is powered by the heat generated from the sludge. It is compact and specially designed in three sizes for large-scale serial production, consisting of easily transportable prefabricated modules the size of standard containers.

Our headquarters in Stockholm are equipped with a customized, state-of-the-art lab for sludge analysis. Our two mobile plants - one for HTC and one for wet oxidation - together make up our mobile biorefinery that can process wet waste at customer sites.

»Our headquarters in Stockholm are equipped with a customized, state-of-the-art lab for sludge analysis.«



»Our core values are sustainability, respect, transparency, creativity and collaboration.«

CEO Commentary

OUR NEW STRATEGY to offer three different plant sizes has created a lot of interest on the market. The smallest size, T1, with a capacity of up to 1,000 wet tons annually, will be a useful marketing tool for early adopter customers who want to validate the technology before investing in a full-scale biorefinery. T1 can be rented or purchased and is easy to transport. T1 is highly suitable for MWWTPs in communities of up to 10,000 inhabitants.

Our mid-size biorefinery, T5, with a capacity of up to 5,000 wet tons annually, is a perfect fit for cities with up to 50,000 inhabitants. In Germany alone there are 200 cities of that size. We expect new stricter wastewater and sludge directives to be implemented in the EU during the coming years, which will drive small to medium-sized cities towards a more circular solution to the sludge problem.

Our full-scale plant, T25, with a capacity of up to 25,000 wet tons annually, continues to generate keen interest from customers. T5 and T25 will be our main volume products going forward. The next full-scale plant (T25) will be commissioned during the summer of 2024, in cooperation with the environmental company Ragn-Sells on their site in Norrköping, Sweden.

A recent research cooperation between C-Green and Karlstad University has indicated lucrative synergistic effects on biogas production resulting from our technology. We have initiated further research and have applied for a patent for the process which could potentially substantially improve the future returns from our biorefineries.

Despite the current turbulence on the financial markets, investors continue to show a keen interest in C-Green. We are in dialogue with several investors who, in addition to capital, can offer key industrial competence and provide access to strong networks. We plan to offer a total of EUR 10 million in convertible loans in September. The first closing of about EUR 4 million with an anchor investor is expected to take place during mid-October. The convertible loan issue will be open until the end of 2023, with several closings during the period. The next share issue, which will set the conversation rate, is planned for the first half of 2024.

Michael Sjöberg, CEO



FOTO: JOEL SHERWOOD, SEB

»We have applied for a patent for the process which could potentially substantially improve the future returns from our biorefineries.«



New product range to meet customer demand

AFTER EXTENSIVE consultation with our customers, we will now expand our product range. While still offering a biorefinery with a capacity of 25,000 wet tons (T25) per year, we are now developing smaller units that will better meet the demands of small and medium-sized MWWTPs. Our two new products – the pilot-size HTC-unit, T1, and the middle-sized plant, T5 – are being developed in sequence and will offer a range of features.

HTC MOBILE PILOT – T1

T1 will enable the testing and validation of the technology on customer sites, which is a key to the success of HTC sludge treatment as a wet waste handling technology. The mobile T1 will have an annual capacity of 500–1,000 wet tons. This unit will be particularly attractive to customers who want to validate the business case before investing in a full-scale plant. It will also be suitable for industrial customers or waste management companies with small sludge streams that are otherwise difficult to treat and for communities of up to 10,000 inhabitants.

SMALL PLANT – T5

This plant will offer a flexible, local sludge solution to rural MWWTPs and biogas plants that want to increase production. With an annual capacity of 3,000 – 5,000 wet tons, our target is to make the T5 the size of three 40-foot containers. As potentially stricter wastewater and sludge directives are implemented and requirements for phosphorus recovery are put in place, the T5 will offer a viable alternative.

New patent for nitrogen removal

IN MARCH, C-Green's patent for energy-efficient bacterial nitrogen removal was approved. C-Green now has nine approved patents and two pending. The patents cover the system solution, reactor design, the use of wet oxidation, effective integration of the HTC process in chemical pulp mills, energy-efficient water management, bacterial nitrogen removal and synergistic effects on biogas production.

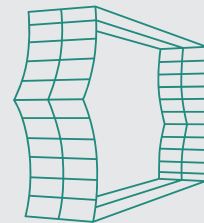
A recent research cooperation between C-Green and Karlstad University has indicated lucrative synergistic effects on biogas production resulting from our technology. We have initiated further research and have applied for a patent for the process, which could potentially substantially improve the future returns from our biorefineries. In 2022, C-Green's patent portfolio was valued by Kransell & Wennborg at between MEUR 4.1 and MEUR 29.7. When and if the new patent application is approved, we will have the portfolio valuation updated.



HTC Pilot – T1 – HTC Only
500–1,000 wet tons per year



Small plant – T5
3,000–5,000 wet tons per year



Full-scale plant – T25
25,000 wet tons per year

»C-Green now has nine approved patents and two pending.«

Delivery project: Ragn-Sells

IN 2022, C-Green signed a contract with the environmental company Ragn-Sells, one of Sweden's largest sludge handlers. The intention is to establish eight to ten OxyPower HTC™ biorefineries in the coming years. Work continues on delivering the first of these biorefineries which will process municipal sludge from different sources, planned to be commissioned during the summer of 2024 at a Ragn-Sells' recycling center near Norrköping, Sweden. With an annual maximum capacity of 25,000 wet tons the facility will be able to produce 5,000 tons of hydrochar and will be equipped with a system for nitrogen recovery. C-Green will own the biorefinery and earn recurring revenue streams from a gate fee per ton of sludge. This facility will act as a demonstration biorefinery for the MWWT segment. The hydrochar produced will be incinerated and the energy recovered. The resulting ash will be processed using Ragn-Sell's Ash2Phos technology, which is now being developed, to extract phosphorus and other substances. The project is partially financed by the Swedish Energy Agency with SEK 40 million.

»With an annual maximum capacity of 25,000 wet tons the facility will be able to produce 5,000 tons of hydrochar and will be equipped with a system for nitrogen recovery.«



Focus Markets

Netherlands – a high potential market

REYM AND WATERNET: SUCCESSFUL PILOT TRIALS IN ROTTERDAM

During the second quarter, we carried out a series of successful pilot trials in Rotterdam in cooperation with REYM and Waternet. Two mixed streams of industrial sludge from the Rotterdam harbor area were processed, as well as four municipal sewage sludge streams originating from different steps in Waternet's water treatment site at Amsterdam West. These pilot trials were the first step in a pre-study that we are carrying with these two customers, which is expected to be completed by the end of 2023. The purpose of the pre-study is to determine the commercial and technological relevance of HTC treatment of these types of sludge.

OPEN HOUSE AT REYM IN ROTTERDAM

IN JUNE, we hosted an open house event at our pilot plant installation at REYM BV Rotterdam, together with our Dutch partner iTanks, REYM, Waternet, and InnoEnergy. The opportunity to showcase our process live on-site proved to be very valuable. More than 30 potential customers participated, which led to many new contacts and leads in different sectors. REYM presented on HTC treatment and wet oxidation and how our technology can increase flexibility and reduce the risks of sludge management. Guests were given a demonstration of the OxyPower treatment of sludge and the production of hydrochar in the pilot.

C-Green's cooperation with REYM and Waternet focusses on circular and climate-smart sludge handling in the Netherlands and the establishment of OxyPower HTC™ biorefineries there. Waternet is Amsterdam's wastewater treatment provider, serving 1.5 million people with clean water and wastewater treatment. REYM Rotterdam is a leading Dutch industrial waste recycling company and part of the REMONDIS Group, the world's largest privately-owned water and recycling companies, with 32,000 employees serving 30 million people.

Open house at C-Green pilot in Rotterdam in June



NEW COOPERATION WITH SPIE

IN APRIL, C-Green signed an MoU with SPIE Nederlands, the largest multi-technical service provider in the Netherlands. SPIE can provide expertise and capacity to manufacture, install, and maintain C-Green biorefineries in the Netherlands and potentially other countries in Europe. The Netherlands is a high-potential market for C-Green, considering its dense population and key industries, such as agriculture and food production. At present, incineration is the predominant way of handling wet waste. With 4,300 employees, SPIE Nederland is the largest multi-technical service provider in the Netherlands. They support their customers in industry services such as engineering, construction, maintenance, and optimization of industrial processes.

»The Netherlands is a high-potential market for C-Green, considering its dense population and key industries, such as agriculture and food production.«

Italy: C-Green finalist in challenge hosted by IREN

IN MARCH, C-Green participated in the Call4Circular challenge hosted by IREN, one of the four biggest energy and waste management companies in Italy. The pitching competition began with a screening of more than 100 green-tech start-up companies that were deemed to be able to add value to IREN's business development. We made it through the three qualification rounds and, as one of the eight finalists, we pitched for IREN senior management in Turin on April 5th. Qualification for the final round will open doors for potential pre-studies and pilot trials together with IREN and their partners.

A recent extensive study of the Italian sludge market carried out by ICA Studio in Milan concluded that C-Green's technology has significant potential for addressing the challenges of sewage sludge treatment in Italy. The main competing technologies in Italy are waste-to-energy plants or pyrolysis in the north and landfilling or direct spreading in the south. The study showed the advantages of our biorefinery compared to incineration plants: its smaller size, lower investment costs, lower environmental impact, and potential material recovery.

»As one of the eight finalists, we pitched for IREN senior management in Turin on April 5th.«

France: New sludge disposal legislation drives interest in HTC alternatives

IN FRANCE, a new law is being prepared that will put stricter restrictions on the spreading of sludge on agricultural land. This is causing increased interest in HTC sludge treatment and the first tenders requiring HTC technology have been announced. Interest is also growing in the synergistic effects of integrating HTC treatment with biogas production, as most large MWWTPs in France have anaerobic digestion as a step in their sludge treatment. Strong interest has been shown by French customers in our pilot-size plant T1 as a starting point and in T5 and T25 in the medium to long-term.

»Interest is also growing in the synergistic effects of integrating HTC treatment with biogas production.«

North America: submission of tender

DURING THE PERIOD we signed two Joint Business Concepts (JBCs) through the Low Carbon Business Action (LCBA), an EU-funded platform aimed at developing B2B relations between EU-based providers of low carbon technologies and companies in North and South America. The JBCs were signed with Ucluelet First Nation and Proteus Waters, both situated in Canada and focused on evaluating the potential of T1 units for sludge treatment. In August, C-Green and our North American partner, Next Rung Technology, responded to a tender from Portland Water District in Oregon for a treatment site for municipal sewage sludge and potentially other wet waste from the region.



Financials

During the first half of 2023, C-Green had a total revenue of SEK 3.4 million (Q1 SEK 1.4 million and Q2 SEK 2.0 million). Operating costs during the period amounted to SEK 30.2 million (Q1 SEK 16.1 million and Q2 SEK 14.1 million), which resulted in a total loss of SEK -26.8 million. At the end of the period the company had cash in the amount of SEK 2.8 million and equity that amounted to SEK 28.4 million.

In December 2022, an extraordinary general meeting decided on a directed new share issue to KIC InnoEnergy SE of 27,520 class A shares. The new share issue was carried out in January 2023. In January 2023, C-Green also issued 14.3 MSEK in convertible debentures for B shares, with 6% interest and no discount at conversion.

In July, after the end of the period, C-Green secured loans from a current major A shareholder in the amount of €400.000 and a loan of SEK 10 million from a family office. At end of August, we had cash in the amount of SEK 11.2 million.

Despite the current turbulence on the financial markets, investors continue to show a keen interest in C-Green. We are in dialogue with several investors who, in addition to capital, can offer key industrial competence and provide access to strong networks. We plan to offer a total of EUR 10 million in convertible loans in September. The first closing of about EUR 4 million with an anchor investor is expected to take place during mid-October. The convertible loan issue will be open until the end of 2023, with several closings during the period. The next share issue, which will set the conversion rate, is planned for the first half of 2024.

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Financial Statements in Brief

INCOME STATEMENT

kSEK	2023 Q1 JAN-MAR	2022 Q1 JAN-MAR	2023 Q2 APR-JUN	2022 Q2 APR-JUN	2023 H1 JAN-JUN	2022 H1 JAN-JUN
Operating income net sales	274	-	1 035	-	1 309	-
Other operating income	1 134	687	944	612	2 078	1 299
Total operating income	1 408	687	1 979	612	3 387	1 299
Raw materials and consumables	-4 916	-1 029	-3 442	-1 534	-8 358	-2 562
Other external costs	-3 591	-2 973	-2 860	-3 143	-6 451	-6 116
Personnel Costs	-5 538	-4 747	-6 039	-5 765	-11 578	-10 512
Depreciation	-1 642	-610	-1 603	-1 306	-3 245	-1 916
Other Operating expenses	-32	-41	-27	-31	-59	-72
Financial instruments	-346	-1	-140	-300	-486	-301
Appropriations	-	-	-	-110	-	-110
Total operating expenses	-16 066	-9 401	-14 111	-12 188	-30 176	-21 589
ESTIMATED TOTAL PROFIT/ LOSS FOR THE PERIOD	-14 658	-8 714	-12 132	-11 576	-26 789	-20 290

BALANCE SHEET

kSEK	2023 Q1 JAN-MAR	2022 Q1 JAN-MAR	2023 Q2 APR-JUN	2022 Q2 APR-JUN	2023 H1 JAN-JUN	2022 H1 JAN-JUN
ASSETS						
Fixed Assets						
Intangible assets	28 251	24 383	27 652	25 968	27 652	25 968
Tangible assets	34 579	15 543	33 791	35 584	33 791	35 584
Financial assets (Long term receivables)	340	340	340	340	340	340
Total fixed assets	63 170	40 266	61 783	61 892	61 783	61 892
Current assets						
Current receivables	5 301	3 777	5 905	3 645	5 905	3 645
Cash and bank balances	12 341	19 865	2 768	12 662	2 768	12 662
Total current assets	17 642	23 642	8 673	16 306	8 673	16 306
TOTAL ASSETS	80 812	63 908	70 456	78 198	70 456	78 198

EQUITY AND LIABILITIES

kSEK	2023 Q1 JAN-MAR	2022 Q1 JAN-MAR	2023 Q2 APR-JUN	2022 Q2 APR-JUN	2023 H1 JAN-JUN	2022 H1 JAN-JUN
Equity						
Number of shares	1 390 058	1 255 562	1 390 058	1 255 562	1 390 058	1 255 562
Quota value (in SEK)	0,53	0,53	0,53	0,53	0,53	0,53
Share capital	-737	-665	-737	-665	-737	-665
Unregistrerad share capital	-	-38	-	-38	-	-38
Options	-	-13	-	-13	-	-13
Patent revaluation fund	-8 710	-10 253	-8 710	-10 253	-8 710	-10 253
Convertible emission	-14 300	-	-14 300	-	-14 300	-
Emission 2021	-40 070	-40 070	-40 070	-40 070	-40 070	-40 070
Fund balanced cost	-16 416	-9 627	-16 416	-9 627	-16 416	-9 627
Share premium fund	-93 036	-73 230	-93 036	-73 230	-93 036	-73 230
Retained profit/loss	118 115	81 703	118 115	61 408	118 115	61 408
Profit/loss for the period	14 658	8 714	26 789	20 290	26 789	20 290
Total equity	-40 496	-43 480	-28 365	-52 199	-28 365	-52 199
Provisions	-2 402	-2 802	-2 402	-2 802	-2 402	-2 802
Long term liabilities	-10 000	-	-10 000	-	-10 000	-
Current liabilities	-27 914	-17 626	-29 689	-23 197	-29 689	-23 197
TOTAL EQUITY AND LIABILITIES	-80 812	-63 908	-70 456	-78 198	-70 456	-78 198

CHANGES IN EQUITY

kSEK	SHARE CAPITAL	OTHER CAPITAL CONTRIBUTIONS	RETAINED PROFIT/LOSS	PROFIT/LOSS YTD	TOTAL EQUITY
Shareholders equity as per December 31, 2021	665	38	-52 362	-29 341	52 194
Shareholders' equity as per December 31, 2022	722	15	-66 241	-51 874	41 357
Shareholders' equity as per March 31, 2023	737	-	-118 115	-14 658	40 496
Shareholders' equity as per June 30, 2023	737	-	-118 115	-26 789	28 365

CASHFLOW STATEMENT

kSEK	2023 Q1 JAN-MAR	2022 Q1 JAN-MAR	2023 Q2 APR-JUN	2022 Q2 APR-JUN	2023 H1 JAN-JUN	2022 H1 JAN-JUN
Cash and cash equivalents at start of the period	16 445	33 075	12 341	19 865	16 445	33 075
Net cash flow for the period	-4 104	-13 210	-9 573	-7 203	-13 677	-20 413
Cash and cash equivalents at the end of period	12 341	19 865	2 768	12 662	2 768	12 662

Other information

C-GREEN'S TEAM

At the end of June, C-Green had 24 employees, 6 women and 18 men. We speak eleven languages: Swedish, English, Swiss German, German, Spanish, French, Arabic, Afrikaans, Polish, Finnish, and Farsi. Together we have a total of 3 PhDs & 14 Master's degrees.

Contact Person

Margaret Rainey
Chief Communications and
Sustainability Officer
margaret.rainey@c-green.se

Contact Information

C-Green AB
Växlarevägen 31, 170 63 Solna
www.c-green.se
Reg. no. 559001-6001



Accounting Principles

APPLIED RULES

This interim report is prepared in accordance with the Swedish Annual Accounts Act (Swedish Årsredovisningslagen (1995:1554)).

FOREIGN CURRENCY

The Company's functional currency is Swedish kronor (SEK), which is also the reporting currency. Transactions in foreign currency are translated to the functional currency using the exchange rates in effect on the transaction date.

EMPLOYEE COMPENSATION: PENSIONS

The Company has defined pension plans. Costs for defined contribution pension plans are expensed in pace with payment of premiums.

INTANGIBLE ASSETS

Intangible fixed assets are reported at acquisition value after deductions for accumulated depreciation and any writedowns. Depreciation takes place on a straight-line basis over the asset's estimated useful life. Assessment of an asset's residual value and useful life is made annually.

TANGIBLE ASSETS

Tangible assets are reported at cost less accumulated depreciation and any impairment losses. Depreciation is recognized on a straight-line basis over the asset's estimated useful life, which estimated to be three to ten years. Estimation of an asset's residual value and useful life is done yearly.

CASHFLOW STATEMENTS

Cash flow statements are prepared according to the direct method.

Review

This interim report has not been reviewed by the company's auditors.

