Long Ideas | Industrial

Pacific Green Technologies: Evolving Into An Environmental Powerhouse That Would Make Darwin Proud

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Summary

- Pacific Green Technologies has a portfolio of cutting-edge emissions control systems and other diverse technology solutions to meet the demand for clean power.
- Pacific Green has secured international partnerships to pursue the trillions of dollars the world will be investing in clean-energy infrastructure to fight global climate change.
- Pacific Green reported revenue of $130 million and EPS of $0.22 in 2020 yet the shares trade at a huge discount of just 1 x Price-to-Sales and 23 x Price-to-Earnings.

This article comes with a disclaimer for readers regarding its length. Almost unavoidable though, given how complex the evolutionary journey has been for Pacific Green Technologies Inc. (OTCQB:OTCQB:PGTK), which will be referred to herein as "PGTK" to represent all their discrete divisions. Readers may want to arm themselves with a good beverage as they embark on this extensive but compelling chronicle that kicks off with a relevant quote from iconic English scientist Charles Darwin:

> "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change."

PGTK has been evolving since its inception so what better investment in the fight against climate change than a company that has taken Darwin's advice to heart and successfully transformed to meet the challenges and opportunities in front of it. Let's study this fascinating enterprise further.

The Problems Are Opportunities

There are few things worse than discovering a serious problem you never really gave much thought to before, like marine pollution. Each year maritime transportation, which accounts for 90% of all volume in the soaring global trade, emits over a billion tons of carbon dioxide. This is about 2.5% of the world's total greenhouse gas emissions and is set to increase 250% by 2050. It's estimated that the 15 largest ships produce as much nitrogen oxide and sulfur oxide as the world's entire fleet of over 750 million cars. What's worse, shipyards add about 1,000 new ships each year and the amount of pollution they produce is like having another 29 billion cars on the roads. The problem isn't just that the massive ship engines run 24 hours a day consuming fuel by the tons per hour, but also that the cheap, heavy fuel that the world's 90,000+ cargo ships run on has more than 2,000 times the sulfur-dioxide emissions allowed for cars on U.S. roads. This pollution from high-sulfur fuel causes respiratory ailments and can aggravate heart disease, according to the World Health Organization (WHO).

Adding to this predicament was an almost complete lack of regulations applied to the giant exhaust stacks of these ships; until last year that is. The International Marine Organization (IMO), which regulates shipping for 168 nations, enacted IMO 2020, designed to make the air cleaner by forcing ships to reduce sulfur emissions. The world's cargo shipowners had a multibillion-dollar choice: buy cleaner-burning fuel or invest in systems that treat the ship's exhaust before letting it out. Cleaner fuels were about 55% more expensive than those in use so fleet owners started looking for technologies like "scrubbers", which filter the exhaust, to help them comply with new emissions standards and save money. The business case made sense: absorb the investment upfront to retrofit existing ships rather than waiting for cheaper cleaner fuels to be developed. This scrubber technology is also expected to progress on pace to help meet even stricter pollution caps expected in the future.

Source: Hellenic Shipping News

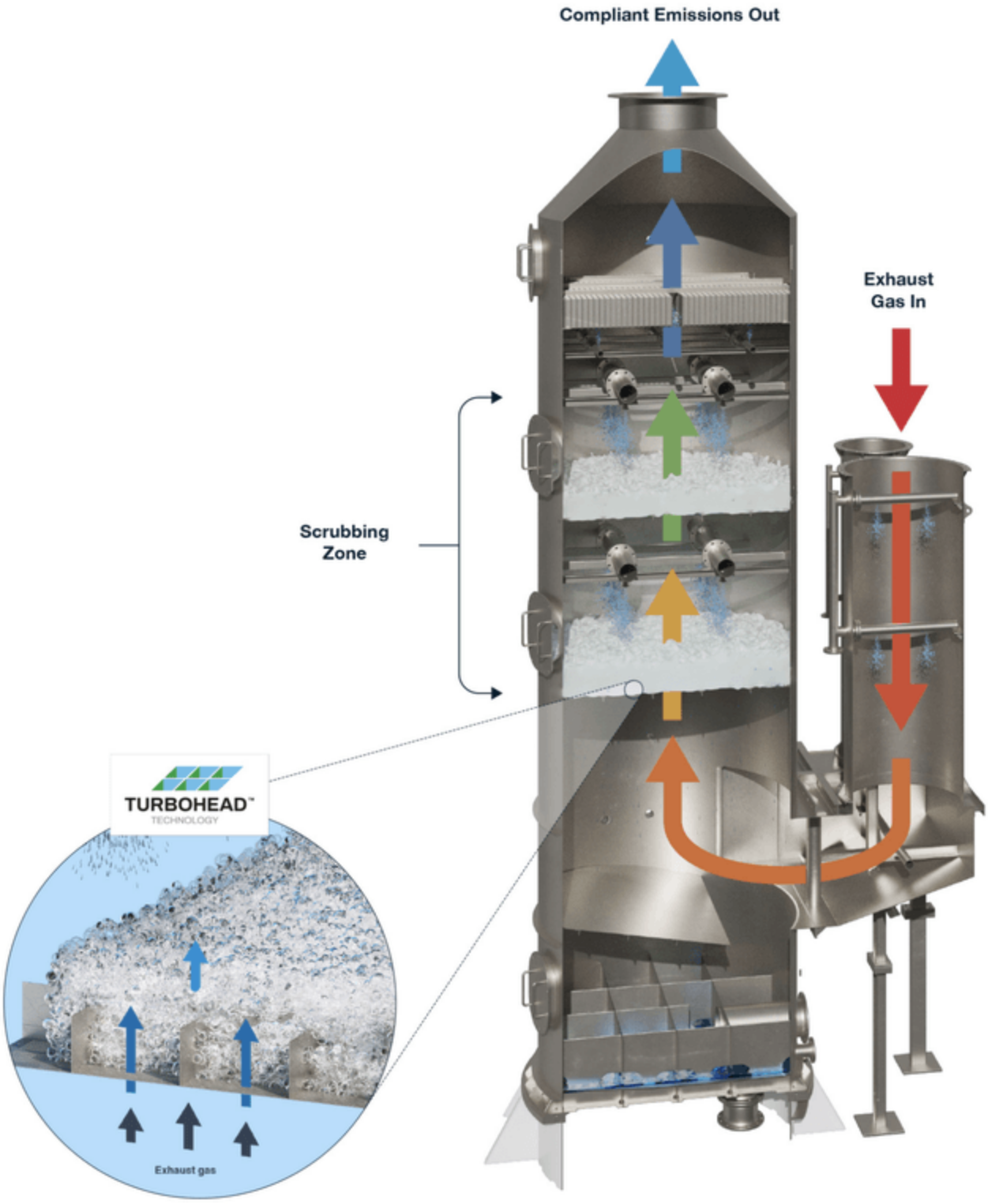
Enter PGTK, armed with a portfolio of cutting-edge emissions control systems, both land-based and marine, along with other newly acquired technologies to meet increasingly stringent environmental standards and address the planet's need for cleaner, more sustainable energy:

Source: Company Presentation

Holding a current order book of over US$210 million and a global footprint with offices in the U.S., Europe, and China, PGTK has embarked on the next stage of its evolution by leveraging strong relationships with local companies to expand in new markets while continuing to grow their pipeline for existing products. Let's explore their journey of growth through organic development, partnership, and acquisition.

The Evolution

PGTK, which started out in 1994 under the name Beta Acquisition Corp., received their first big order in 2010 for a small scrubber that was fitted to a biomass boiler in Vancouver, Canada. That early technology evolved into the ENVI-Marine™ Emissions Control System, a scrubber designed to help ships reduce pollution. According to PGTK, ENVI-Marine™ is more efficient, cheaper to install, and costs around 20% less to run than competing products. The patented TurboHead™ technology, first developed in 2011, is key to its technical success.



Source: Company Website

Ship exhaust includes particles of ash and soot along with sulfur dioxide as an acid gas. To "scrub" these emissions, the ENVI-Marine uses flue gas from slots that generate a high velocity of gas and energy making the water in the scrubber very turbulent and creating a lot of high contact interaction. This dynamic is more efficient than competing technology that uses spray, which is not as uniform and effective in its coverage. The application of seawater and a reagent helps neutralize the sulfur emissions and capture particulate matter. The system is compact and lighter than most other scrubbers, saving ship-owners space and fuel.

PGTK also offers a fuel consumption-based savings-sharing mechanism, whereby the shipowner makes a relatively small initial payment while PGTK covers all remaining costs, including design, engineering, equipment, installation, and sea-trials. PGTK and the owner share the fuel savings for three years, with the owner taking a progressively larger share until assuming 100%. The scrubber typically pays for itself within a year, which effectively guarantees a return on investment and makes the scrubbers more affordable while providing visibility on spend.

The Envi-CleanTM System

In addition to marine applications, the PGTK scrubber technology also proved effective for large displacement engines such as stationary generators, compressors, heavy construction, and mining equipment. This led to the development of the ENVI-Clean™ system, which leverages the patented TurboHeadTM scrubber technology to treat and remove most of the sulfur dioxide, particulate matter, greenhouse gases, and other hazardous air pollutants produced by a plant's combustion of coal, biomass, solid waste, diesel, and other fuels. Non-hazardous wastewater can also be processed and reused for other plant requirements, such as ash cooling or dust control. There are no moving parts, fans, or media to replace in the ENVI-Clean™, which efficiently deals with over 99% of SOx emissions, mitigating against stricter future regulations. The system is easy to retrofit to existing processes, enabling reduced CAPEX and OPEX. Financing packages are also available that leverage PGTK's growing scale.

In 2014, PGTK inked a 10-year joint venture ("JV") with PowerChina SPEM Co. ("PowerChina"), a subsidiary of the largest power plant equipment manufacturer in China, to design, engineer, and install the first ENVI-CleanTM system on the 93MWe power plant for the Yancheng Lianxin Steel Company. By 2017, the ENVI-CleanTM had exceeded the plant's reduction targets for SO2 emissions in both performance and cost savings. The parties then formed a new jointly-owned company to market PGTK's technologies across Asia.

In 2016, the JV secured a huge contract win but for an ENVI-MarineTM for one of Union Maritime Ltd.'s ("UM") large chemical tankers. The system was manufactured by PowerChina then installed in Europe. The parties executed an "energy management contract" structured to use the estimated US$2.7K daily cost savings the system generates (from allowing the continued use of heavy fuel oil instead of high-cost low sulfur fuel) until the sale price of US$2 million was reached. UM agreed to purchase additional systems if the technology proved successful in removing sufficient pollutants to allow their ships to operate in the Sulphur Emissions Control Areas (SECA), international zones that strictly limit airborne sulfur emissions from ships.

Positive results with UM led to more ENVI-MarineTM contracts for the JV in 2018, including a US$79.6 million deal for 52 vessels (delivered in 2019 and 2020) with Scorpio Tankers Inc.; 25 systems for an unnamed international operator; and another new deal with UM, this time for four new ships being built by Hyundai in South Korea, three others built by COSCO in China, and another 16 vessels (for roughly US$29.4 million) to be fitted through 2020. A new customer win for three vessels owned by Landbridge Group Co. Ltd closed out 2018. In 2020, Scorpio ordered a further 14 systems for US$20.3 million, bringing the total installed by the JV to over 100 ENVI-Marine™ on more than 40 different ship types including bulk carriers and oil tankers.

Concentrated Solar Power ("CSP")

In 2019, PGTK announced the acquisition of Shanghai Engin Digital Technology Co. Ltd., ("Engin"), a design and engineering company focused on CSP, Salt Water Desalination, and Waste-to-Energy ("WtE") technologies. Engin, renamed Pacific Green Renewable Technologies (ASIA) Ltd., had already designed and engineered three utility-scale CSP plants in China with two more under construction, and a desalination plant in Indonesia. Particularly impressive with this acquisition was that it was completely funded by the cash flow from PGTK's 2019 profits.

Source: Company Presentation

This strategic acquisition now allowed PGTK to offer a commercially proven, fully integrated, complete CSP solution with pre-designed and pre-developed modular hardware that can reduce construction time and cost. This was timely because in 2019 the Chinese government had implemented new regulations requiring industrial plants to comply with 'ultra-low' emission criteria by 2025. Capitalizing on this, PGTK formed a new International Strategic Alliance with PowerChina for the development of CSP plants. PGTK provides Intellectual Property, design, and engineering. PowerChina provides the EPC role both in China and international markets. New partner, Shouhang, provides manufacturing of the solar field and molten salt tank services.

Battery Energy Storage Systems ("BESS")

In 2020, PGTK made a bold move into the battery energy storage system market by acquiring UK-based Innoergy Ltd., for approximately US$577K and a working capital credit facility of US$455K. Innoergy offers the "EnergyOS" platform, an energy operating system that facilitates the transition to a decentralized, distributed, and secure zero-carbon grid. It uses machine learning and AI to help consumers optimize generating and consuming assets to use energy more intelligently; reducing their carbon footprint and energy costs while providing reliability and resiliency to mitigate intermittent renewable generation. Innoergy has many reputable clients including Osaka Gas Co. Ltd. in Japan and Limejump Ltd., a subsidiary of Royal Dutch Shell. They were also in negotiations to design and develop over 450MW of BESS projects in Europe.

Scott Poulter, PGTK's Chief Executive Officer, had this to say about the acquisition:

> "We believe that the battery energy storage system market has tremendous potential for growth as renewable energy continues to gain momentum. The team at Innoergy provide us with the expertise to build our energy storage platform in conjunction with PowerChina, and together we have the manufacturing capacity to rival the global leaders in the market."

Already in 2021, there have been many new and promising developments. In January, PGTK announced a Framework Agreement with a subsidiary of Sinopec, the world's largest oil refining, gas, and petrochemical conglomerate, to provide EDC services on a portfolio of projects in Onshore/Offshore Wind Power, Photovoltaic Power, and Comprehensive Energy Utilization.

PGTK also just announced a JV with Amr Khashoggi Trading Company Ltd. ("Amkest Group") to market PGTK's environmental technologies in Saudi Arabia and the region. Saudi Arabia's 'Vision 2030' strategic framework calls for 9.5 GW of the Kingdom's energy to be supplied through renewables by 2030.

Scott Poulter, PGTK's CEO, provided this commentary on the deal:

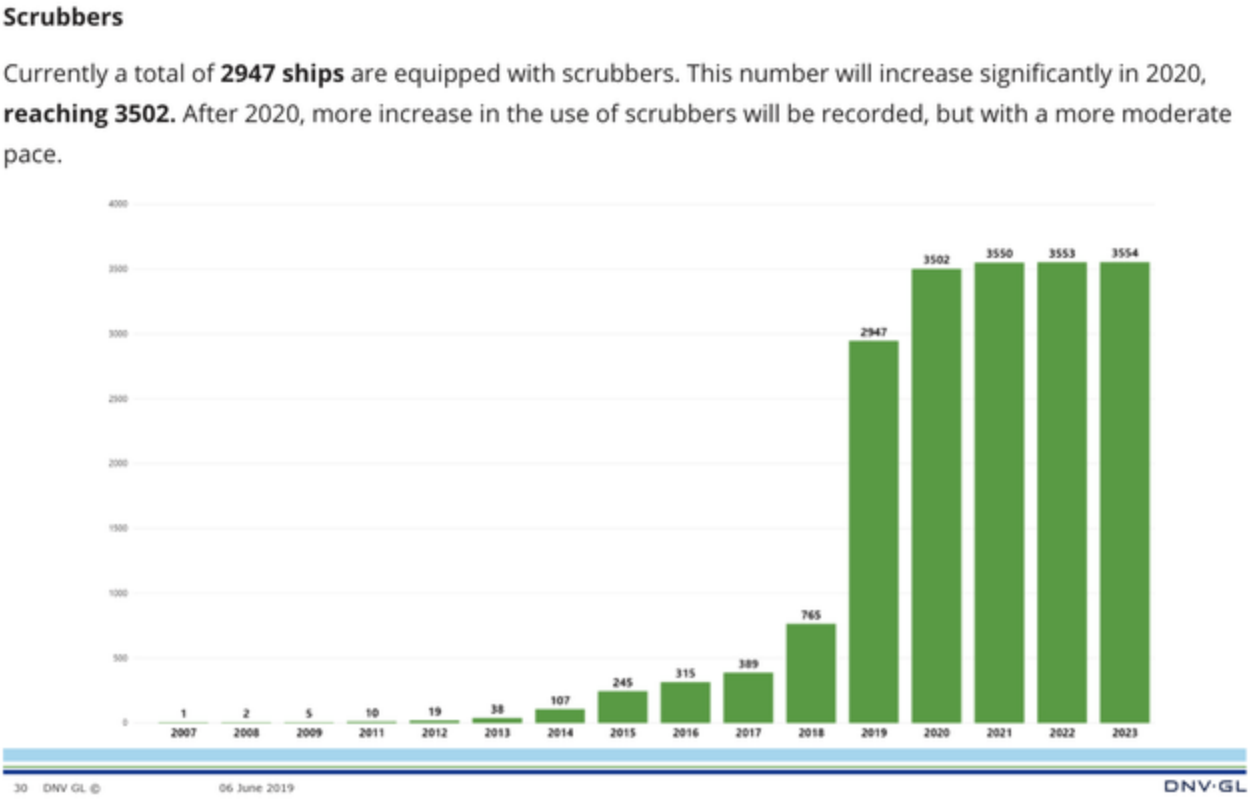
> "In Amkest Group, we have aligned with an organization that brings decades of first-hand, market-specific experience and an incredible track-record of delivering industry-leading solutions across the region. Pacific Green's technologies, particularly in the solar power, desalination and battery energy storage system sectors, provide the perfect solution to the Kingdom's growing demand."

In another exciting move this year, PGTK signed a Battery Energy Storage System Strategic Manufacturing Framework Agreement ("Framework Agreement") with Shanghai Electric Gotion New Energy Technology Co., Ltd. ("SEG"), a JV between Shanghai Electric Group Co. ("Shanghai Electric"), and Guoxuan High-tech Co. PGTK brings experience and industry-knowledge while SEG's track-record of lithium-ion battery production will help the partnership aggressively pursue opportunities in the rapidly expanding worldwide BESS sector. PGTK will manage each project's overall execution, including system design, integration, and commercial optimization, while SEG will manufacture the battery technology equipment.

Over the last five years, PGTK has built the comprehensive capability and resources necessary to provide solutions and carry out entire large-scale projects in the huge and growing industry of CleanTech. Let's examine those disparate market opportunities in depth.

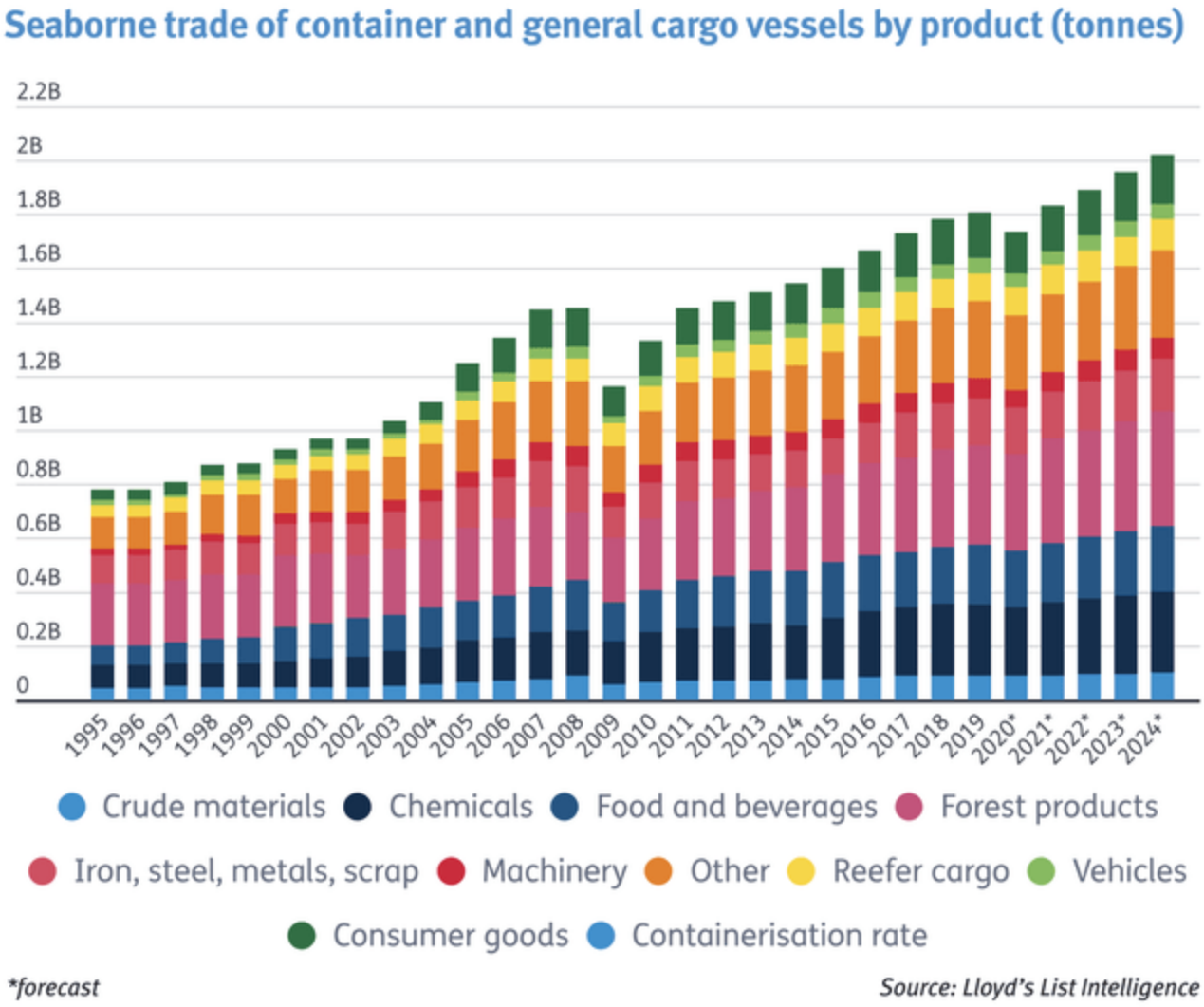
The Markets

To fully understand PGTK's future prospects we need to explore each of their markets, starting with their primary revenue source to date: the market for marine scrubbers, which barely existed five years ago. In 2017, the market size was still just US$91.5 million according to the Global Emission Control Technology Market 2018-2025 report. That equates to about 50 scrubbers. By 2018, over 500 scrubbers had been installed or ordered worldwide. That number grew to almost 3,000 in 2019 and 4,000 by the end of 2020. The Total Available Market (TAM) for marine scrubbers is now projected to reach $160 million by 2025, a CAGR of 7.3% from 2018.



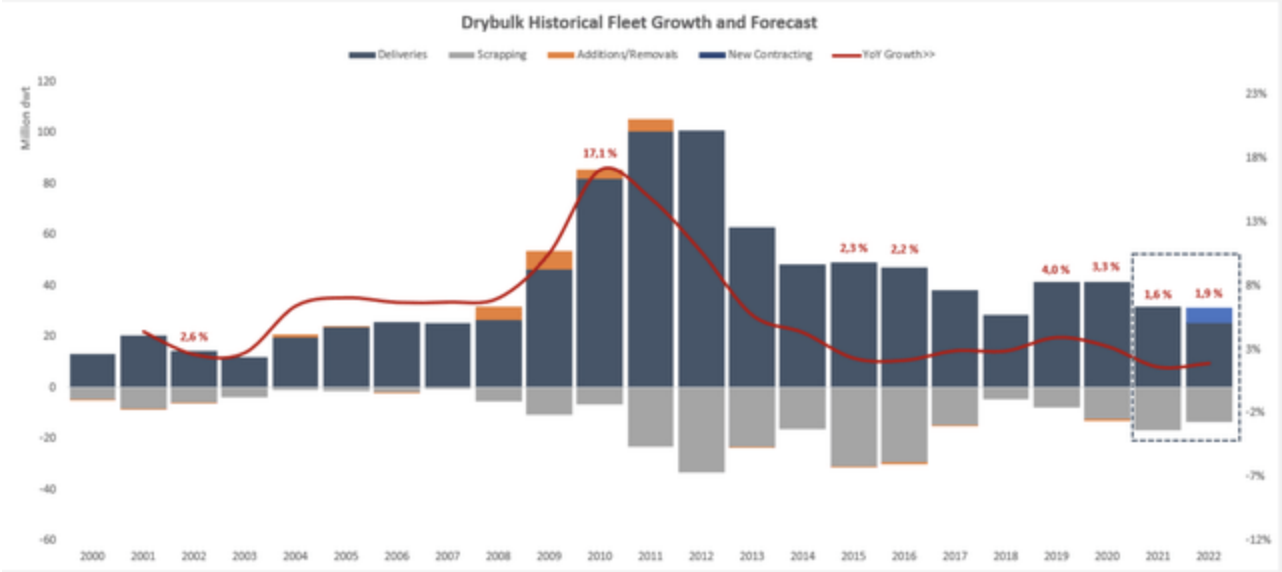
Source: Safety4Sea

The growth in demand is shifting though. Recent numbers from Wärtsilä, Alfa Laval, and Yara Marine (three companies who manage roughly 75% of the world's scrubber market) confirm a reduction in scrubber orders attributed to uncertainty regarding fuel prices and low-sulfur fuels, ambiguity around some ports banning scrubbers, and lower overall shipping volumes. On this last concern, last October The World Trade Organization (WTO) forecast a 9.2% decline in the volume of world merchandise trade for 2020, to be followed by a 7.2% rise in 2021, depending on the evolution of the pandemic and government responses to it. That said, Seaborne trade is forecast to continue to grow well into the future.



Source: Lloyd's List

Flagging global trade has contributed to a reduction in new ship delivery for 2021 and 2022 (it typically takes 24 months to build a ship) as well. In fact, Q3/21 will see the second-fewest quarterly vessels delivered in the last 15 years. 2022 is forecast to be even worse.



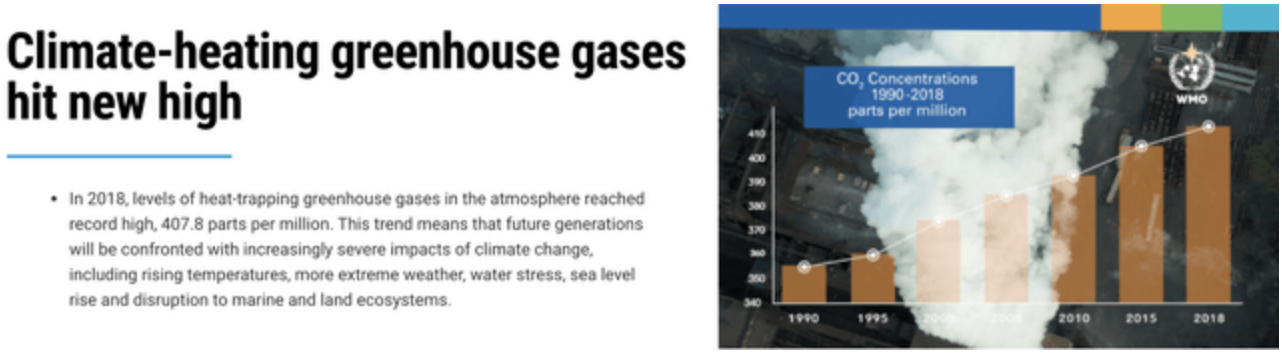
Source: Hellenic Shipping News

The maritime scrubber market has been impacted by all these factors but fortunately, PGTK has mitigated this short-term turbulence with a move into other CleanTech sectors, which we'll dive into now.

The Industrial Emission Control Systems Market

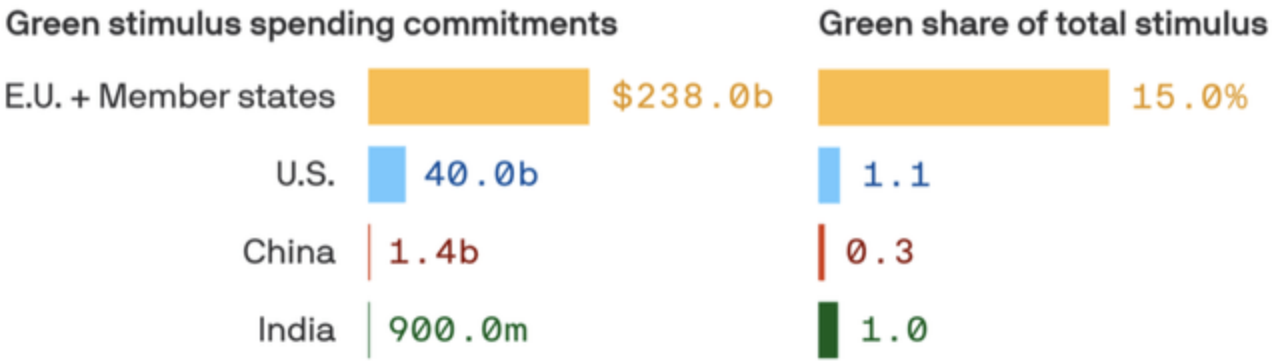
PGTK has been expanding into the global industrial emission control systems market, which is expected to grow by US$6.5 billion during 2020-2024 at a 7% CAGR. The Asia Pacific region will contribute 52% of that growth driven by increasingly stringent government regulations. China, which consumes about half of the world's coal, recently introduced measures designed to reduce energy and carbon intensity in its 12th Five Year Plan. Targets include regional power facilities. China also unveiled a proposal back in 2016 for a $50 trillion global electricity network that would link existing and future solar farms, wind turbines, and electricity plants in Asia, Europe, Africa, and the Americas to help fight pollution and the effects of climate change. The proposal, anticipated to be operational by 2050, is the largest infrastructure project ever attempted. PGTK now has a comprehensive portfolio of technologies and partnerships they can leverage to go after new business from these initiatives.

In the U.S., the implementation of US Clean Air regulations in July 2010 created additional demand for sulfur dioxide removal in all industries emitting sulfur pollution. As long ago as 2013, scrubber technology was being developed to clean the emissions of U.S. industrial plants (video). As a new report from Energy Innovation indicates, even if the world takes drastic action now to reduce CO2 emissions to stabilize atmospheric concentrations, the average surface air temperature will continue to rise for at least a century, and sea level will continue to rise for several millennia. Global greenhouse gas emissions need to fall by 7.6% each year over the next decade if the world is to get back on track towards the goal of limiting temperature rises to 1.5 degrees Celsius. The world needs to act now. Thankfully, on his first day in office, President Biden signed an Executive Order for the U.S. to rejoin the Paris Agreement.



Source: The WMO Greenhouse Gas Bulletin

The UN, the International Energy Agency, and others have called for nations' COVID-19 responses to bolster low-carbon energy and infrastructure. But a recent report from the Rhodium Group shows that "green" provisions in pandemic stimulus packages have been very limited so far among the world's largest greenhouse gas emitters (except for the EU):



Source: Rhodium Group

The new Biden Administration has been an ardent supporter of investing in "green" measures like energy efficiency, zero-emissions energy generation and vehicles. On the campaign trail, President Biden laid out a climate plan that would spend $2 trillion over four years investing in clean-energy infrastructure while cutting carbon emissions to zero in 15 years. The President hopes to steer this ambitious plan through Congress now that the urgent $1.9 trillion relief package has been approved. PGTK can now throw their hat in the ring for the billions of dollars in environmental investment projects likely to materialize from that shift in American support.

The Concentrated Global Solar Power (CSP) Market

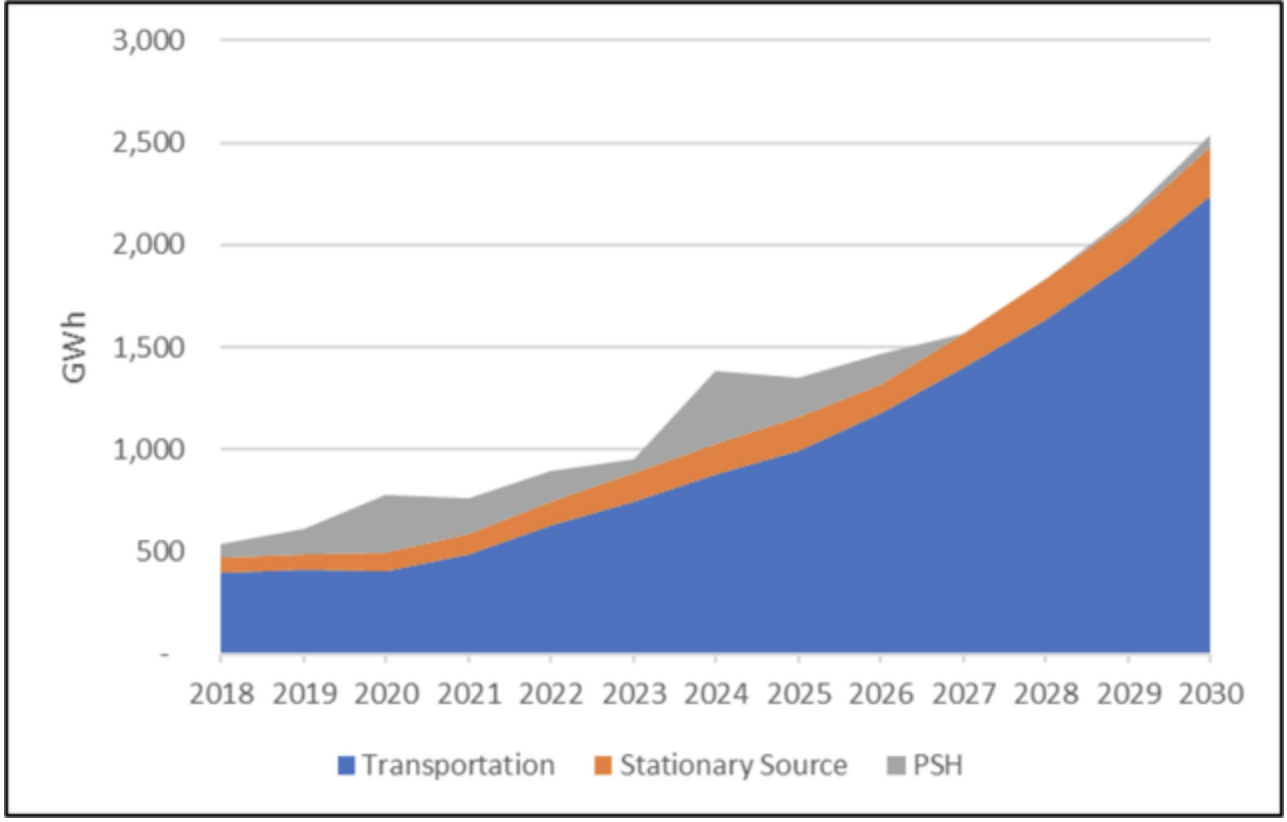
Another lucrative market that PGTK has entered is CSP, whose global size was US$4.5 billion in 2019 and is expected to grow at a CAGR of 9.7% from 2020 to 2027:

Market size value in 2020	USD 5.5 billion
Revenue forecast in 2027	USD 9.5 billion
Growth Rate	CAGR of 9.7% from 2020 to 2027 (Revenue-based)
Market demand in 2020	663.9 MW
Volume forecast in 2027	1441.0 MW
Growth Rate	CAGR of 10.2% from 2020 to 2027

Source: Grandview Research

The BESS Market

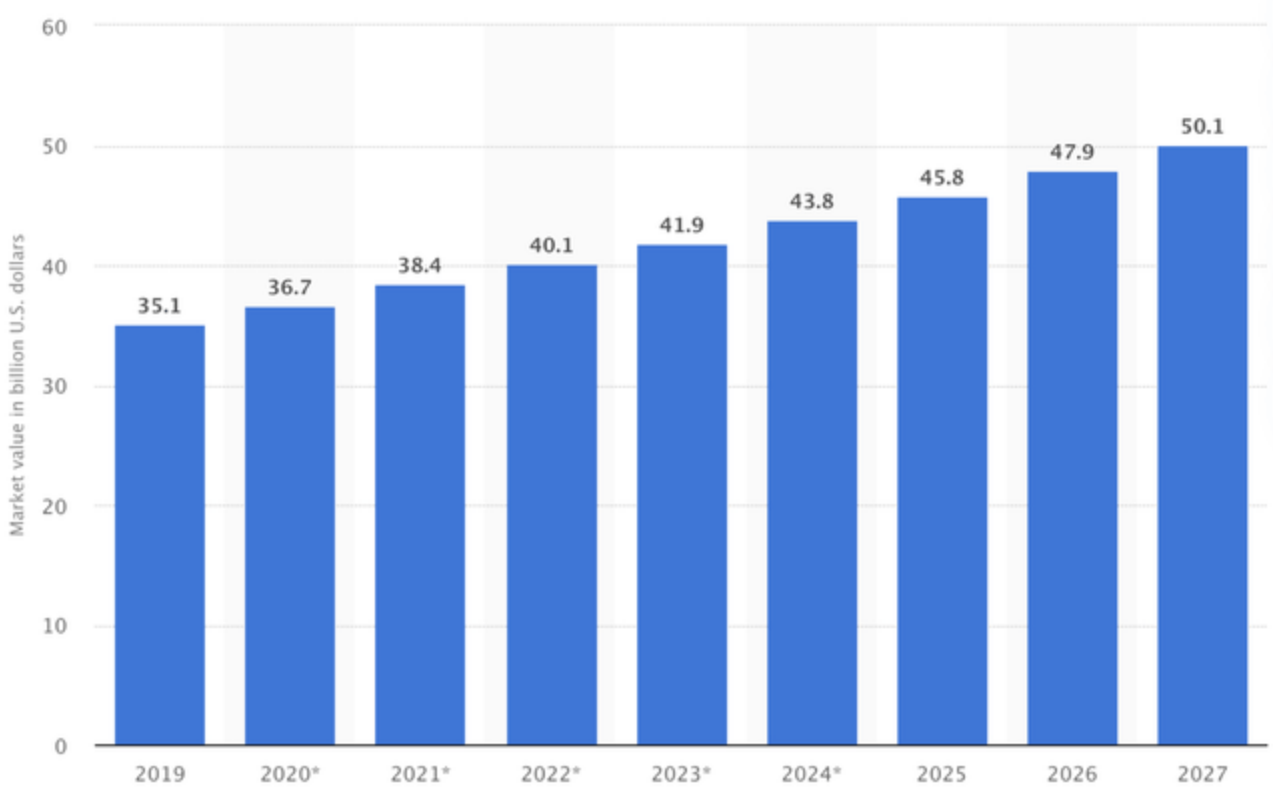
The next big market opportunity is utility-scale storage. A surge in lithium-ion battery production over the last decade has driven prices down to their lowest point in history, making electrified transportation commercially viable in both cost and performance. As a result, batteries will likely play a key role in the reduction of maritime pollution making it a perfect market for PGTK and their recent Innoergy acquisition. Ships that travel short distances (e.g. ferries) can effectively become carbon neutral by using batteries for power and recharging with renewable energy when in port. The energy storage requirements for ferry electrification are likely to be significant, with this mode transporting more than 2.1 billion people a year. The global stationary and transportation annual energy storage market projections are summarized in the chart below:



Source: Energy Storage Grand Challenge Energy Storage Market Report

The Waste-to-Energy Markets

Increasing legislation related to landfill has also led to the emergence of more waste-to-energy plants ("WtE"), which burn municipal waste for conversion to electricity. The global WtE market size was valued at $35.1 billion in 2019 and is projected to reach $50.1 billion by 2027, growing at a CAGR of 4.6% from 2020 to 2027.



Source: Statista

To address this market, PGTK developed the ENVI-Pure™ system, which is well-suited to WtE plants (typically 45-100MW) as it cleans multiple pollutants in a single system. PGTK has successfully tested its ENVI-Pure™ technology at WtE plants in Canada, the UK, and is in discussions regarding the installation of its technologies at WtE facilities in China.

What PGTK must now demonstrate going forward is how and when do their new investments in diverse environmental technologies, along with the variety of multi-national partnerships, start to generate the expected strong revenues. Let's look at recent historical earnings for more insight.

The Financials

A view of the past three years and two quarters illustrates the tremendous growth PGTK has undergone, primarily from selling marine and power plant emissions control systems and related services (described earlier):

Pacific Green Technologies Inc. (OTCQB: PGTK)	FY2018	FY2019	FY2020	Q1/21	Q2/21
Consolidated Statements of Operations - USD ($)	*12-mths to Mar.31*	*12-mths to Mar.31*	*12-mths to Mar.31*	*3-mths to June 31*	*3-mths to Sept.30*
Sales (Note 8)	1,995,000	2,074,950	130,138,574	28,496,361	8,974,063
Cost of goods sold	(1,892,832)	(1,935,150)	(78,566,155)	(16,456,899)	(5,433,145)
Gross profit	102,168	139,800	51,572,419	12,039,462	3,540,918
Expenses					
Advertising and promotion	130,175	590,876	1,257,901	228,375	130,201
Amortization of intangible assets (Note 6)	875,812	875,813	1,070,698	389,661	389,675
Bad debts expense			450,262		
Consulting fees, technical support, and commissions	808,572	5,426,136	22,905,321	5,510,011	2,834,170
Depreciation (Note 5)	9,426	9,425	87,614	47,442	49,208
Foreign exchange loss (gain)	63,666	24,945	(780,567)	(162,952)	207,488
Office and miscellaneous	136,993	268,716	2,721,884	657,008	278,914
Operating lease expense (Note 18)			428,733	130,129	118,038
Professional fees	394,244	844,710	1,428,774	613,116	279,519
Research and development	789,713		98,041		4,368
Salaries and wage expenses		1,037,818	6,527,743	2,202,387	1,119,887
Stock-based compensation (Note 16)		5,974,041			
Transfer agent and filing fees	34,706	39,097	214,203	69,315	71,450
Travel and accommodation	305,648	1,031,922	3,488,165	62,582	109,988
Warranty and related (Note 11)		922,192	1,630,541	863,881	383,414
Total expenses	3,548,955	17,045,691	41,529,313	10,610,955	5,976,320
(Loss) income before other income (expenses)	(3,446,787)	(16,905,891)	10,043,106	1,428,507	(2,435,402)
Other income (expenses)					
Impairment on capitalized costs	(287,631)				
Gain on de-consolidation of subsidiary				(8,817)	239,174
Gain (loss) on change in fair value of derivative liability	(105,175)	(356,081)	257,102		58,380
Gain on reduction of acquisition costs of subsidiary					3,240,250
Financing interest income			95,136	57,714	243,575
Interest expense	(349,489)	(670)	(13,924)	11,277	(33,741)
Provision for loan / convesion of debt (2018)	(16,758)	(349,858)			4,754
Gain on termination of lease					3,019
Lease finance charge		(106,203)			
Other expense		(220,001)			
Total other income (expense)	(759,053)	(1,032,813)	338,314	60,174	3,755,411
Net income (loss) for the period	(4,205,840)	(17,938,704)	10,381,420	1,488,681	1,320,009
Other comprehensive income					
Foreign currency translation gain	6,470	1,986	-63,228	(5,579,700)	139,842
Comprehensive income (loss) for the period	(4,199,370)	(17,936,718)	10,318,192	1,432,884	1,459,851
Net income per share, basic and diluted	($0.13)	($0.41)	$0.22	$0.03	$0.03
Weight average number of common shares outstanding, basic	33,186,231	43,502,044	46,022,709	46,147,471	46,254,406

Source: Author's Research

What stands out was the huge jump in annual revenue from 2019 to 2020, thanks to the large volume of scrubber orders generated over the previous three years. Revenue in Q1/21 was tracking well to this annual run rate until it fell dramatically in Q2 to $8.97 million. This was due to PGTK only recognizing revenue for 15 marine scrubbers last quarter after a key client deferred 32 systems to 2021 (we review "customer concentration" risk later in the article).

On a positive note, PGTK improved gross margin to 42% versus 40% in 2019, as expenses were only $5.98 million after operations were reduced due to Covid-19 restrictions and the closure of the Norway subsidiary because of a lower than forecast oil price spread. PGTK reported $15.4 million in cash in Q2 and working capital of $508K. Management doesn't anticipate requiring additional funds over the next 12 months as expected profit realized from sales of ENVI-Marine units will fund planned expenditures in the short term.

Since its inception in 2011, PGTK had an accumulative deficit of over $72.6 through September 2020. That year they reported their first net income of $10.4 million and an EPS of $0.22. Through the first two quarters of 2021, PGTK reported net income of $1.5 million and $1.3 million, respectively, with a cumulative EPS of $0.06, despite the tough conditions. PGTK expects that future revenues and profitability will be sufficient to sustain operations for the foreseeable future but the current Covid-19 pandemic is causing huge challenges in terms of deliverables to customers. Profitability will depend on their ability to successfully market and sell their recently acquired solutions in the new markets and territories. We will look to the upcoming ER for greater clarity on future guidance for all the new initiatives recently announced.

The Metrics & Valuation

For a holistic view of a company's performance and competitiveness, it is best to consider a variety of metrics. The table below shows PGTK's metrics relative to the industry average:

FUNDAMENTAL ANALYSIS	Pacific Green Technologies (to September/20)	Environmental Services
PER SHARE DATA		
Earnings (TTM)	$0.10	$2.05
Book Value	$0.34	$19.04
Cash Flow (TTM)	$0.13	$5.01
VALUATION		
Price/Earnings	22.7x	53.8x
Price/Sales (TTM)	1.0x	4.1x
Price/Book (MRQ)	5.5x	5.6x
Price/Cash Flow (TTM)	16.8x	23.1x
PROFITABILITY		
Gross Margin	40.06%	39.41%
Operating Margin	3.83%	6.81%
Profit Margin	4.55%	-0.78%
MANAGEMENT EFFECTIVENESS (TTM)		
Return on Assets	6.02%	-0.02%
Return on Equity	27.31%	12.33%
Return on Investment	23.68%	4.31%
FINANCIAL STRENGTH (MRQ)		
Debt to Capital	0.05%	51.20%
Current Ratio	1.0x	1.3x
Quick Ratio	0.1x	5.0x
SIZE		
Market Cap	$103.1M	$27.7B
Revenue	$100.1M	$8.4B
Shares Outstanding	46.0M	300.3
Employees	110	27,842

Source: Author's Research

It quickly becomes evident from examining the metrics that management is executing brilliantly on the fundamentals. The very low 1.0 x Price-to-Sales, 40% margin, positive EPS, and Cash Flow makes the current very low share price look ridiculously undervalued. Consider also that 45% of the 46 million shares outstanding are owned by insiders and investors can rest assured that management is aligned with shareholder's best interests. Meanwhile, there are currently zero analysts covering this under-the-radar juggernaut. It makes value investors shake their head when you think of the ridiculous plays pumped in the market today.

One key suggestion I would make to PGTK management though is to list the stock on one of the major U.S. exchanges to support easier trading and greater exposure to a broader investment community. OTC stocks are always difficult to promote.

The Risks

There are several challenges and risks that PGTK must navigate through as they continue to evolve and compete in new markets. First off, the alternative energies industry is extremely fragmented and crowded, including numerous small companies with local ties. There are also several large, mature companies that possess substantially greater resources that help them offer products or services more innovative, competitively priced, and/or widely available than PGTK's.

Significant drops in the oil price (including low-sulfur fuel oil) can also have an adverse effect on PGTK's business, negatively impacting demand for marine scrubbers, like the oil price war between Saudi Arabia and Russia in 2020 did. There have also been growing concerns expressed over the impact of scrubbers on the environment.

Customer concentration is a concern for PGTK as two key clients accounted for an aggregate 71% in 2020 revenue (from 0% in 2019). The rapid rise in importance of these customers has benefitted the company, but the potential loss of these customers could have a material adverse effect on their financial results and operations. This was evident in the deferment of scrubber orders last quarter that hit revenues hard.

Many of PGTK's suppliers and partners are located in China and Europe, while net sales from outside the U.S. comprised 92% and 100% for 2020 and 2019, respectively, for PGTK. This creates significant risks associated with marketing their technologies, operating, and bidding for projects in many different jurisdictions. PGTK has only limited experience internationally, including compliance with complex commercial and legal requirements, as well as other inherent risks, developments, or actions over which they have limited control.

Covid-19 has also hit PGTK hard. The global marine transportation industry has been negatively affected by travel restrictions and shutdown of businesses, which has reduced demand for marine scrubbers as many vessels sit idle or are taken out of service during the outbreak. Travel bans, quarantines, and other emergency public health measures implemented to address the second wave of the pandemic hurt PGTK's ability to distribute and install products and forced the temporary closure of facilities. Last year, company director Alexander Shead resigned because of restrictions on travel from the pandemic that impacted his ability to perform his executive duties (PGTK stated there were no other issues that led to the resignation). In June of 2020, PGTK closed its Norway office as they rethink the sales strategy in the marine division. Attention needs to be paid by investors to how the ongoing lockdown impacts the upcoming ER.

Conclusion

As we've covered in detail, PGTK has successfully evolved beyond its early days providing marine and land scrubber technologies to the present day, where its portfolio includes CSP, Water Desalination, and BESS solutions. They have also inked an arsenal of strategic partnerships with some of the major players in key markets around the world. Investors now need to see announcements of contract wins coming out of those strong alliances and acquisitions. This is critical now that the market for marine scrubbers has slowed down amidst the pandemic. The new CleanTech markets PGTK has made bold moves to enter should help by diversifying revenues.

With an extremely low share price, a full fiscal year and two-quarters of positive EPS, solid business fundamentals, major initiatives underway, and almost half of the 46 million shares outstanding held by insiders, Pacific Green Technologies is poised for an epic new chapter in what reads like a business version of Charles Darwin's Origin of the Species. Pacific Green Technologies appears to be thriving in its ever-expanding environment. Investors eagerly await further details in the next ER.

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Disclosure: I am/we are long PGTK. I wrote this article myself, and it expresses my own opinions. I am not receiving compensation for it (other than from Seeking Alpha). I have no business relationship with any company whose stock is mentioned in this article.