

# 2021 Sustainability Report

Our Environmental, Social, and Governance Journey

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# Overview

## **About This Report**

This is the first Sustainability Report from Anaergia Inc. (Anaergia), which pertains to the 12-month period ending December 31, 2021. It describes the Environmental, Social, and Governance (ESG) topics that were deemed most material to our stakeholders, including investors, employees, and supply chain partners. As part of our first disclosure, this report contains ESG aspects to describe Anaergia's most significant steps in addressing corporate sustainability.

#### **Boundary**

Unless otherwise specified, the information in this report covers our entire portfolio of owned and operated bioenergy production facilities. We have also included data pertaining to third-party owned biogas facilities commissioned since 2010 that use Anaergia technology solutions and/or are currently operated by Anaergia.

#### **Standards**

This report contains disclosures from the Biofuels Standard developed by the Sustainability Accounting Standards Board (SASB) and addresses the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD), as noted in Appendix 1.

#### **Review and Validation**

The contents of this report were prepared internally and have been reviewed and approved by the Anaergia Executive Management team, with additional review by the Board of Directors (Board). Anaergia's Scope 1 and 2 emissions calculations have been reviewed by Quinn + Partners to confirm alignment with the GHG Protocol Corporate Accounting and Reporting Standard. Quinn + Partners also conducted an independent third-party review of the data and methodology for Anaergia's avoided emissions calculations.

#### How to Reach us

If you have questions about this report or would like to contact Anaergia with feedback, we interact with our stakeholders using the following channels:

Customers and Suppliers: info@anaergia.com

Investors: ir@anaergia.com

On LinkedIn: Anaergia: Overview | LinkedIn On Twitter: Anaergia (@AnaergiaInc) / Twitter

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#### **Letter From Andrew Benedek**

As wildfires, floods, drought, and other weather catastrophes wreak havoc around the world, our imperative to take decisive and immediate climate action has become glaringly obvious. In response, more and more companies, cities, and nations are striving to cut greenhouse gases and reach net-zero emissions by 2050. The time to act is now to mitigate the damage and turn things around. Our future depends on it.

That is why our work at Anaergia is so important. We're tackling climate change from two ways: our technologies (1) prevent the release of methane – a more powerful greenhouse gas emission than carbon dioxide - to the atmosphere, and (2) provide a carbon-negative fuel to avoid emissions from burning conventional fossil fuels.

At Anaergia, we are focused on reducing emissions from methane; a planet-warming greenhouse gas that forms when organic waste—such as food scraps and wastewater biosolids—is put into landfills. When the organic waste is diverted from landfills, we not only prevent the harmful methane from releasing into the atmosphere but put it to productive use making carbon-negative renewable natural gas (RNG), a clean fuel that is essential to tackle climate change.

We cannot truly address climate change without replacing fossil fuels with clean, renewable fuels like RNG. And using RNG is the fastest way to displace carbon-intensive fossil fuels, because it can be distributed without any changes to existing natural gas pipeline infrastructure or end-use appliances.

This is why I founded Anaergia—to tackle climate change by creating a drop-in renewable fuel that can replace fossil energy. I'm proud of our progress thus far. We've developed a portfolio of patented technologies to solve the problem of methane emissions from waste. We've created nearly 400 clean-tech jobs, and we've invested nearly \$400 million in clean energy infrastructure around the world. We've also helped multiple municipal agencies raise funds through public-private partnerships to complete these cleantech projects.

In 2021 we took the company public, raising gross proceeds of \$200 million, and raised an additional \$60M in 2022. The proceeds have allowed us to grow strategically, acquiring 6 new facilities that we are completing or upgrading. Before



the end of 2023, we'll have at least 13 Build Own Operate (BOO) facilities in operations, enabling us to scale our positive climate impact.

Moreover, I'm proud that the projects we have delivered have the capacity to process over 8 million tonnes of organic material each year. These projects have helped avoid over 460,000 tonnes of GHGs in 2021. Year after year, these facilities will continue to prevent new methane emissions and create renewable fuel. And with each new project Anaergia undertakes, the world gets closer to achieving net-zero.

While we have been mindful of ESG issues since our founding in 2007, this report represents our first formal endeavor to take stock and track progress. We have more work to do. We will use this important process to improve from here. We will keep working to get better, and we hope you join us in the fight against climate change.

Sincerely,

Andrew Benedek

Founder, Chairman, and CEO

## **Our Sustainability Highlights**



460K+ tCO2e

Estimated annual GHG emissions avoided in 2021<sup>1</sup>



41x

More GHG emissions avoided by Anaergia projects than our operations emitted in 2021<sup>2</sup>



134 MW

Of renewable electricity generation capacity installed since 2010<sup>3</sup>



5 M MMBTU/yr

Of RNG production capacity installed since 2010<sup>3</sup>



~8 M TONNES/yr

Of feedstock processing capacity installed since 2010<sup>3</sup>



13 B00s

Build, Own, and Operate (BOO) assets<sup>4</sup>

Socia



~\$400 M

Invested in global energy Infrastructure to date



+91

Green jobs created in 2021



**2.02 TRIR** 

Company-wide TRIR of 2.02 achieved in 2021

Governance



**71%**Of Board Members are independent



**29%** 

Of Board Members are racially diverse



+7

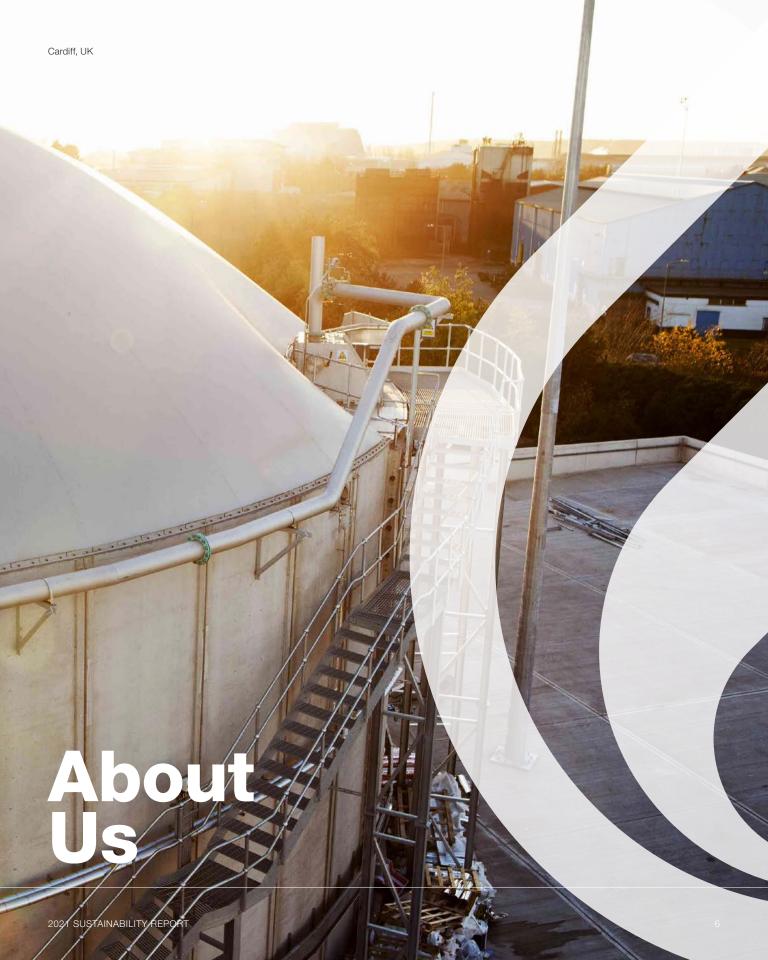
New governance policies and codes

<sup>&</sup>lt;sup>1</sup> Includes estimated emissions avoided at facilities under Anaergia's operational control, as well as third-party facilities commissioned since 2010 that use Anaergia's technology solutions at design specification

<sup>&</sup>lt;sup>2</sup> Includes avoided emissions at facilities as described in (footnote 1) in comparison to Anaergia scope 1 and 2 emissions

<sup>&</sup>lt;sup>3</sup> Includes Anaergia BOO facilities that are in operation and in execution, as well as third-party facilities commissioned since 2010 that use Anaergia's technology solutions

<sup>&</sup>lt;sup>4</sup>Includes Anaergia BOO facilities that are in operation and in execution





## **Our Story**

Our founder and CEO, Dr. Andrew Benedek is an iconic figure in the areas of circular economy, waste-to-value and water treatment solutions, with a track record of commercializing new technology and executing on a long-term vision. He previously founded and grew ZENON Environmental, a leader in water treatment solutions founded in 1980, until its sale to General Electric Company in 2006. In 2007, Andrew was working with scientists studying the effects of global warming on the world's oceans who impressed on him the extent of the threat that climate change posed to society. Andrew felt the need to act and founded Anaergia with the aim of tackling the climate crisis. His vision was to eliminate a major source of greenhouse gas (GHG) emissions by cost effectively turning organic waste into RNG, clean water and fertilizer. Through a series of acquisitions and focused investment on innovation, Anaergia has grown to become a leading integrated waste-tovalue company. We successfully completed our initial public offering on June 23, 2021 and are now traded on the Toronto Stock Exchange under the symbol (TSX: ANRG).

Today, our proprietary technologies and execution capabilities allow us to deliver facilities that divert waste, prevent GHG emissions, create new revenue streams, and maximize renewable energy output. We have successfully delivered our suite of solutions on four continents, via our network of sales offices and manufacturing facilities.

Sustainability remains core to our business purpose. We continue to focus on serving municipalities and communities globally by protecting water, air, and soil. Our passion for environmental sustainability and fight against climate change starts at the top with our CEO Andrew and is shared by every one of our employees.



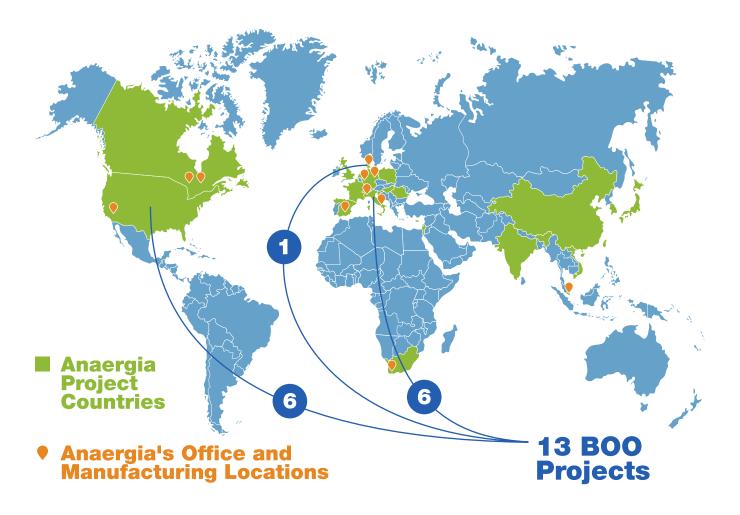
**Our Vision:** To become the world's leading renewable fuel producer while reducing global carbon emissions, protecting the environment and sustaining life for generations to come.



**Our Mission:** To accelerate the world's clean energy transition by transforming waste into renewable fuel, clean water and fertilizer.

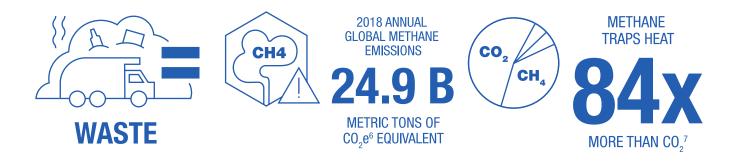
#### **Our Global Reach**

Anaergia is headquartered in Burlington, Ontario, Canada, and has facilities in North America, Europe, Africa, and Asia. As of December 31, 2021, Anaergia is comprised of 345 employees, nine regional offices, and two manufacturing facilities. Our technologies have been deployed at resource recovery facilities in over 17 countries worldwide, including at over 230 facilities since 2010. We also have 13 Build, Own and Operate ("BOO") facilities that have commenced operations or are under construction.



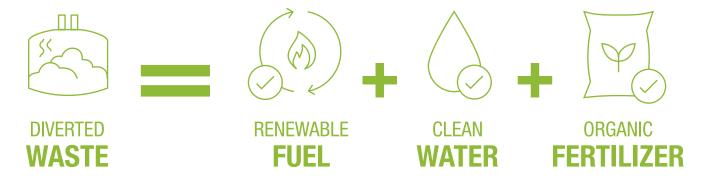
## **How Methane Impacts the Environment**

Of the 1.1°C that humans have warmed the earth, 0.5°C of this warming is due to methane emissions<sup>5</sup>.



#### What We Do

Anaergia's solutions mitigate fugitive methane emissions by diverting organics from landfills to produce carbon-negative RNG, clean water, and organic fertilizer that rejuvenates soils degraded by chemicals.



"Cutting back on methane emissions is one of the most effective things we can do to reduce near-term global warming and keep to 1.5°C."

- Ursela von der Layen, President of the European Commission at COP26

<sup>&</sup>lt;sup>5</sup> Intergovernmental Panel on Climate Change Working Group 1. "Climate Change 2021 The Physical Science Basis Summary for Policy Makers." 2021.

<sup>&</sup>lt;sup>6</sup> Global annual methane emissions when considering 20-year global warming potentials. Sourced from: climatewatch.org. Historical GHG Emissions. 2018.

<sup>&</sup>lt;sup>7</sup> 20-year global warming potential of methane. Sourced from: Intergovernmental Panel on Climate Change. "AR5 Synthesis Report: Climate Change 2014." 2014.

#### **Our Lines of Business**

Anaergia provides a full suite of integrated technologies, positioning ourselves as an attractive partner for key stakeholders as a technology solutions provider with in-house project development, project execution and operation and maintenance (O&M) capabilities.



## We generate value via the following three segments:



#### I. Capital Sales

Our Capital Sales segment consists of technology solutions and services to third party customers, predominantly municipalities and project developers, and includes engineering services, proprietary product sales, engineering procurement and construction contracts, or a combination thereof.



#### **II. Services**

Our Services segment offers third-party O&M and field service contracts, generally 5-10 years in length, with customers that typically include municipalities and project developers that utilize our technology solutions.



#### III. Build, Own, and Operate (BOO)

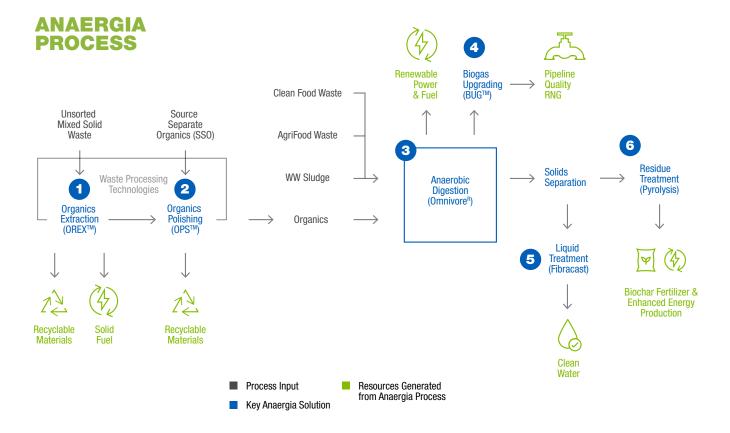
Our BOO segment builds, owns, and operates greenfield or brownfield facilities that are expected to generate high margin revenues and long-term predictable cash flows. This segment capitalizes on our ability to acquire and retrofit existing infrastructure and bypass lengthy permitting processes. These facilities typically utilize our technologies and personnel.

## **The Integrated Anaergia Process**

Anaergia is one of the world's only companies that has built a platform offering completely integrated, cost competitive solutions to maximize resource recovery from a variety of organic waste streams and produce renewable energy, clean water, high quality fertilizer, and recyclables. Our end-to-end solution utilizes a suite of key technologies, including waste process-

ing through the OREX<sup>™</sup>, anaerobic digestion (AD) with our Omnivore® solution, biogas conversion to RNG with our BUG<sup>™</sup> System, liquid treatment with Fibracast Ltd. membrane technology, fertilizer recovery with our ammonia recovery (AMR<sup>™</sup>) technology, and residue treatment with our unique pyrolysis process to produce additional high-value fertilizer.





## **United Nations Sustainable Development Goals**

In 2015, United Nations member states adopted the Sustainable Development Goals (SDGs). This is a set of 17 specific goals that serve as a "blueprint to achieve a better and more sustainable future for all". As a company that is focused

on environmental sustainability, our business activities inherently align with many of these goals. Anaergia contributes to advancing the following SDGs through our business activities:



Our bioenergy facilities extract the water portion of wastewater and liquid waste streams. Harmful contaminants are removed and the purified water is discharged to the natural environment or to a local wastewater treatment plant for reuse in the local community

Our digestion processes are designed to minimize the use of fresh water and maximize the reuse of water recovered from the process



Our proprietary solutions enable renewable energy production across four continents, increasing the global renewable energy supply

Our successful IPO has promoted individual and institutional investment in our clean energy infrastructure



The carbon-negative RNG we produce is of pipeline grade quality and can be used as a drop in replacement for fossil gas in heating and transportation applications without requiring changes to existing gas infrastructure

We work with municipalities and public and private entities to implement our solutions at existing solid waste and wastewater infrastructure, turning these facilities into net energy producers



Our processes ensure the conversion of waste into organic nutrients, preventing the need for carbon intensive synthetically produced fertilizers

Our solutions prevent waste from reaching landfill and allow for the responsible recycling of organics, metals, and minerals



Our technologies and BOO facilities aid governing bodies in achieving their organic waste diversion and emissions reductions goals

We engage directly with policymakers and legislators to ensure climate action policymaking is practical, scalable, and high impact

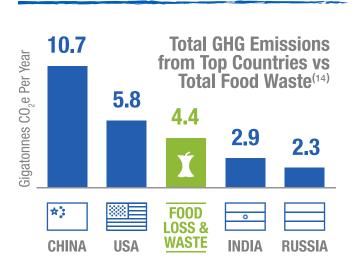
<sup>&</sup>lt;sup>8</sup> United Nations. Take Action for the Sustainable Development Goals. 2022.



## **Climate Change**

In 2021, the Intergovernmental Panel on Climate Change (IPCC) Working Group 1 (WG1) released a body of evidence which unequivocally demonstrates that human influence has warmed the atmosphere, ocean, and land<sup>9</sup>. This warming is a clear contributor to many of the observed changes in weather and climate extremes witnessed in 2021. A key finding of WG1 is the role that fugitive methane emissions have played in the warming of our planet. Of the 1.1°C that humans have warmed the earth, 0.5°C of this warming has been caused by methane emissions<sup>9</sup>. Methane is a powerful greenhouse gas that has a global warming potential (GWP) 84 times greater than that of carbon dioxide and accounts for approximately 37% of global GHG emissions over a 20-year period<sup>10,11</sup>.

In response, the United States and European Union launched the Global Methane Pledge at the 2021 United Nations Climate Change Conference (COP26). This is a commitment to take voluntary actions to reduce global methane emissions by at least 30% from 2020 levels by 2030. To date, over 100 countries have joined this initiative<sup>12</sup>.



Anaergia Organics Diversion Solutions have the potential to dramatically reduce CO<sub>2</sub>e Emissions from Food Loss and Waste



## **How We Tackle Climate Change**

Anaergia's sustainable solutions allow for the diversion of organic waste from landfills and its conversion into renewable fuel and fertilizer, meaningfully contributing to the reduction of methane emissions and mitigating climate change.

Methane is generated and released from the decomposition of organic waste in landfills. This methane is not effectively captured and represents a significant source of global GHG emissions. Food waste is the largest contributor to this problem, as it is the single most landfilled material in many regions<sup>13</sup>. Globally food loss and food waste produce nearly 4.4 billion tonnes of GHG emissions (CO<sub>2</sub>e) each year. If food waste were a country, it would be the third largest emitter of GHGs, behind only China and the United States<sup>14</sup>.

<sup>9</sup> Intergovernmental Panel on Climate Change Working Group 1. "Climate Change 2021 The Physical Science Basis Summary for Policy Makers." 2021.

<sup>&</sup>lt;sup>10</sup> Intergovernmental Panel on Climate Change. "AR5 Synthesis Report: Climate Change 2014." 2014.

<sup>&</sup>lt;sup>11</sup> climatewatch.org. Historical GHG Emissions. 2018.

<sup>12</sup> European Comission. Launch by United States, the European Union, and Partners of the Global Methane Pledge to Keep 1.5C Within Reach. 2021. European Comission.

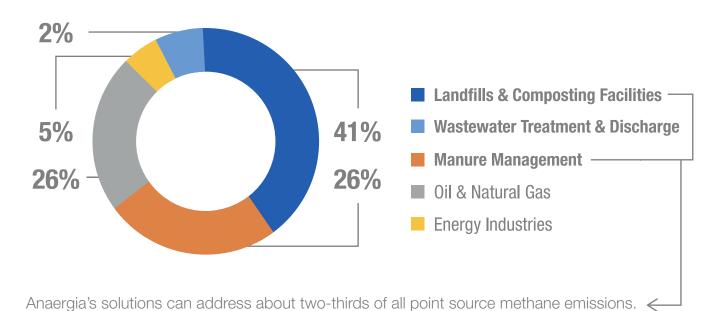
<sup>&</sup>lt;sup>13</sup> U.S. Environmental Protection Agency. —. Facts and Figures about Materials, Waste and Recycling. 2018.

<sup>14</sup> Food and Agriculture Organization of the United Nations. "Food Wastage Food Print and Climate Change." 2015.

In addition, wastewater sludge (biosolids) and manure from agricultural operations are typically disposed of in large pits or directly applied to land; these activities also result in methane emissions. By using these organic waste streams as feedstock, Anaergia is directly preventing the GHG emissions that would have otherwise been released into the atmosphere during their decomposition.

Conservative estimates put global methane emissions from landfills and wastewater at 67 million tonnes of methane per year —20% of total methane emission<sup>15</sup>. Recent work, however, has shown that methane emissions from landfills are much higher than previously thought. A study using NASA technology was recently published in the scientific journal *Nature* which showed that waste management facilities represent over 40% of all point source methane emissions in the state of California<sup>16</sup>.

### Point Source Methane Emissions<sup>16</sup>



When organics are passed into Anaergia's controlled-environment anaerobic digesters, the biogas (containing methane) that is produced is captured rather than released to the atmosphere. The captured biogas is then upgraded to RNG which can be used a direct replacement for fossil natural gas. After

extracting all the potential energy from the organic feedstock, the digested material and recovered nutrients are used as organic fertilizer. This reduces the agricultural community's consumption of synthetic fertilizers, preventing further emissions associated with their carbon-intensive production methods.

<sup>15</sup> Climate and Clean Air Coalition. "Global Methane Assessment: Summary for Policymakers." 2021. United Nations Environment Programme

<sup>&</sup>lt;sup>16</sup> Duren, Riley M. and et al. "California's Methane Super Emitters." Nature 575 (2019): 180-184.

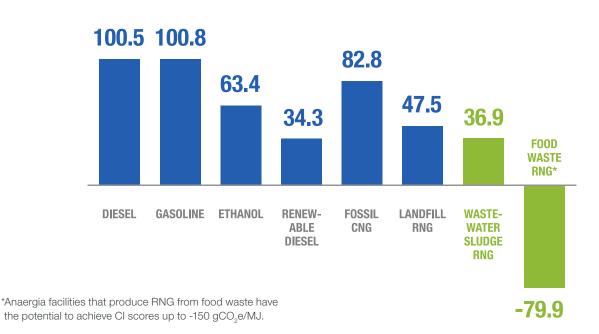
### **Negative Carbon Intensity RNG**

The carbon intensity (CI) of RNG is primarily determined by the type of feedstock used in its production relative to other fuels. By preventing fugitive methane emissions, RNG derived from food waste and agricultural waste streams can have a negative CI. This means that across the fuel life cycle, more carbon is prevented from entering the atmosphere than is emitted per unit of energy produced. The California Air Resources Board (CARB) has assigned RNG produced from food waste an average CI score of -80 gCO<sub>2</sub>e/MJ<sup>17</sup>. RNG derived from other feedstock sources, such as wastewater sludge, can also have a low CI score relative to other fuel types. Comparatively, tra-

ditional compressed natural gas and ethanol have average CI scores of 83 and 63 gCO<sub>2</sub>e/MJ, respectively<sup>17</sup>.

Anaergia's Rialto Bioenergy Facility (the "RBF") produces RNG derived from food waste and biosolids that are diverted from landfills. Given the average negative CI score associated with RNG derived from food waste, as well as facility-specific studies conducted by third-parties, RNG produced at RBF is expected to have a negative carbon intensity score. When used as a transportation fuel, RNG has the potential to play an integral role in decarbonizing GHG emissions in the transportation sector, which accounts for 14% of emissions globally<sup>18</sup>.

## Average Carbon Intensity Score Awarded to Transportation Fuels in 2022 (gCO<sub>2</sub>e/MJ)<sup>17</sup>

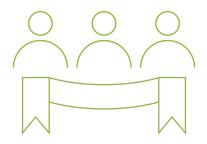


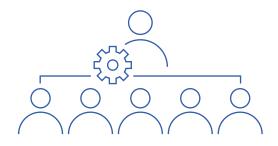
<sup>&</sup>lt;sup>17</sup> California Air Resources Board. LCFS Pathway Certified Carbon Intensities. 10 March 2022.

<sup>&</sup>lt;sup>18</sup> Environmental Protection Agency. Global Greenhouse Gas Emissions Data. 2014.

#### Governance

Anaergia recognizes that climate-related issues are having increasingly material impacts on businesses around the world. As a company with strong sustainability aspirations, climate-related issues are inherently addressed by the Board and Executive management. We recognize that strong climate governance can play a key role in assessing and managing climate-related risks and opportunities for our business.





#### **Board of Directors**

Climate change is inherently addressed by the Board when discussing risks and opportunities stemming from government policy. Many of our Directors have decades of experience in the energy and water industries, and thus provide guidance and oversight in navigating the ESG challenges that are a part of working in the environmental technology field. Climate change can also be addressed when the Board adopts new policies. For example, in 2021 the Board voted to approve our new Code of Conduct which mandates that all employees be committed to promoting environmental stewardship. We insist that all employees, as well as the suppliers and contractors that we work with, comply with all environmental laws and regulations.

#### **Management**

Our CEO, as well as Executive management, are tasked with ensuring that the policies adopted by the Board are carried out on a day-to-day basis by all relevant employees and, at times, vendors as well. Management also has a role in identifying environmental trends that may generate risks and opportunities for our business. For example, the RBF was developed when Executive management saw the need for increased organics diversion facilities in Southern California. Now in operation, this facility helps the surrounding area divert organic waste from landfills, as required by California Senate Bill 1383, and generate RNG to be sold under the California Low-Carbon Fuel Standard (LCFS) program.

A portion of employee compensation relates to Anaergia's overall performance executing our business strategy, which focuses on implementing environmental solutions that should mitigate climate change. As a result, employee compensation incentivizes progress in advancing our mission to provide climate solutions.

## **Strategy**

The Anaergia growth strategy for the future is outlined in our Annual Information Form (the "AIF"). This strategy includes, but is not limited to, shifting our focus to our BOO segment, expanding through project development in select regions, meeting market demand for cost-effective sustainable solutions, and developing and commercializing technologies. This strategy presents both climate-related risks and opportunities in the near and long term. Identification of these risks and opportunities and the actions we can take to best address them is a key practice in ensuring that our growth strategy is achieved.



#### **Market Opportunities**

Anaergia has identified several opportunities resulting from the transition to a low-carbon economy. Most of these opportunities stem from the rapid development of new government policies incentivizing RNG production and landfill diversion, as well as increased consumer demand for carbon negative solutions.

Incentives for RNG production are growing rapidly in several jurisdictions. The California LCFS is the first and most developed U.S. state-level initiative aimed at encouraging the production of low-carbon fuels. This program rewards credits

to fuels with a low carbon intensity and thus heavily promotes the production of carbon negative RNG. The LCFS program has helped California reduce its statewide emissions to below 1990 levels and now serves as an example for how societies around the world can decarbonize<sup>19</sup>. The success of this program has caught the attention of governments around the world and inspired similar legislation in other areas. Several jurisdictions in North America, such as Oregon, Washington, British Columbia, all of Canada, and more, now have active or in development Clean Fuel Standard programs<sup>20</sup>. This presents new economic incentives for selling our fuel in these jurisdictions.

The California Public Utilities Commission recently published a renewable gas standard under which utilities will have to supply 3% RNG by 2025 and 12% RNG by 2030<sup>21</sup>. This requirement is the result of the passing of regulation SB1440, and utilities in California will have to procure 75,000,000 MMBTU of RNG annually by 2030, which is equivalent to approximately 75 biogas facilities the size of the RBF. The rule will prioritize RNG generated from landfill diverted organic waste, strongly supporting Anaergia's California deployment of BOO facilities, which are uniquely positioned to generate RNG from landfill-diverted organics.

Similar legislation has been passed in multiple European nations that will fuel the growth of Anaergia in this region. Specifically, in 2018 the Italian government passed a decree promoting the use of RNG as a transportation fuel. This program provides lucrative incentives for RNG producers that are operational by 2023. There are also several new policies in the United Kingdom driving the growth of RNG production. The Renewable Heat Incentive, as well as a green gas support tariff mechanism will incentivize and increase the use of RNG in the UK<sup>22</sup>. Recent initiatives in Europe have also called for long-term RNG supply increases. This includes the proposal by the European Union called REPowerEU, which will double the EU's previous RNG production target to over 1.3 Billion MMBTU per year by 2030<sup>23</sup>.

<sup>&</sup>lt;sup>19</sup> California Air Resources Board, "Climate pollutants fall below 1990 levels for first time." 2018

<sup>&</sup>lt;sup>20</sup> The Jacobsen. "States with Low-Carbon Fuel Standards or Considering a LCFS like Program." 2020.

<sup>&</sup>lt;sup>21</sup> California Public Utilities Comission. "CPUC Sets Biomethane Targets for Utilities." 2022.

<sup>22</sup> U.K. Department for Business, Energy and Industrial Strategy . "Consultation Outcome: Future Support for Low Carbon Heat." 2020.

<sup>&</sup>lt;sup>23</sup> European Comission. "Questions and Answers on REPowerEU: Joint European action for more affordable, secure and sustainable energy." march 2022.

TARGET OR MANDATE	GEOGRAPHY	SUBSIDY MECHANISM
Reduce CI of transportation fuels by 20% by 2030	California	Low Carbon Fuel Standard
12% RNG by 2030	California	Mandated Target
20% RNG by 2030	Vermont, U.S.	Target
15% RNG by 2030, 30% by 2050	Oregon, U.S.	Target
Reduce CI of transportation fuels by 20% by 2030	British Columbia, Canada	Low Carbon Fuel Standard
5% RNG by 2025	Québec, Canada	Mandated Based on Disctribution Rates
Reduce CI of transportation fuels by 20% by 2038	Washington, U.S.	Clean Fuel Standard
€ 4.8 Billion support scheme for RNG	Italy	Government Investment
10% Renewable gas by 2030, €800 million investment	France	Government Investment
10 billion cubic meters of RNG by 2025	China	Target
Reduce CI of liquid fuel by 12-14%	Canada	Clean Fuel Standard
32% of energy from renewables by 2030	Spain	Government Investment

Source: CARB, California Public Utilities Commission, Vermont Department of Public Service, Oregon Public Utility Commission, CleanBC, Québec Ministry of Energy and Natural Resources, The Ministry for Environment, Land and Sea Protextion of Italy, L'Agence de l'environment et de la maîtrise de l'énergie, The Ministry of Ecology and Environment, Environment, Climate Change Canada, Integrated National Energy and Climate Plan 2021-2030 (Spain).

These are just a few examples of the numerous mechanisms that are providing opportunities for RNG producers. Ultimately, these policy mechanisms, as well as a global drive to decarbonize, are expected to drastically increase the consumption of RNG.

Under the International Energy Agency's Net-Zero by 2050 scenario, RNG demand is expected to grow from its current level of about 200 million MMBTU per year to approximately 8 billion MMBTU per year by 2050<sup>24</sup>.

There is also growing global support to divert organic waste from landfills, providing further opportunities to grow our busi-

ness. In the United States, the EPA has set a goal to reduce the quantity of food waste sent to landfills by 50% from its 2015 level. Multiple states have introduced food waste bans such as California, Massachusetts, Rhode Island, Vermont, Connecticut, and Maryland, as well as many cities including New York, Seattle, Vancouver, and others. In Europe, a new EU law requires the source separation of organic waste from garbage to increase to 65% in the coming years<sup>25</sup>. By 2035, EU law will also require no more than 10% of all generated waste to go to landfill – this value currently sits at 28%<sup>26</sup>.

The rapid growth of policies that incentivize RNG production and those that mandate landfill diversion are presenting opportunities for Anaergia on a global scale. This is helping Anaergia create a global portfolio of BOO assets that is not overly reliant on one policy or geographic area.

<sup>&</sup>lt;sup>24</sup> International Energy Agency, "Net Zero by 2050 A road Map for the Global Energy Sector," 2021,

<sup>&</sup>lt;sup>25</sup> Instituto Superiore per la Protezione e la Ricerca Ambientale. "Rapporto Rifiuti Urbani." 2020.

<sup>&</sup>lt;sup>26</sup> Policy Learning Platform on Environment and Resource Efficiency. "Sustainable Waste Management in a Circular Economy." 2020.

#### **Risks**

#### **Policy and Legal**

As a clean energy producer, Anaergia is subject to risks stemming from government policy and regulation. Continued commitment from governments to reduce GHGs will be required to support our operations. The reduction or elimination of incentives for green energy projects, such as low-carbon fuel standards, could affect our business. To mitigate this, we have expanded globally preventing Anaergia from being overly reliant on any single policy, incentive program, or region. This also allows us to easily pivot operationally such as our recent increased focus in Europe. To further address this risk, our management and business development teams monitor the political landscape to identify jurisdictions that advocate for green energy projects.

Our assets are also exposed to risk from environmental regulations, such as water discharge and air quality emission regulations. Further regulations may increase our operating costs and limit us from expanding or developing facilities. For a discussion on steps we have taken to limit our water risks see the Water section of this report.

#### Market

Our business is primarily focused on the processing of organic waste and wastewater into renewable energy, fertilizer, clean water, and recyclables. Feedstock supply is therefore important to the successful execution of our BOO assets. Lack of sufficient quality or quantity, changes in waste and effluent collection, and termination or breach of contracts can all adversely affect the output from our BOO assets. Long-term "put-or pay" feedstock contracts with multiple suppliers helps reduce these risks.

In addition, our BOO assets are exposed to fluctuations in RNG credit pricing (e.g., RINs and LCFS credits). Anaergia therefore tries to secure "take-or-pay" long-term offtake contracts for a portion of RNG sales to limit the impact of these fluctuations on revenue.

#### **Physical Risk**

Climate change may increase the frequency of severe weather conditions and adverse events, presenting physical risks to our BOO assets. RBF and other operational BOO assets are located in Southern California, where climate change will increase

the risk of wildfires and reduce the supply of fresh water. In 2021, we acquired BOO assets in the eastern U.S. and Europe. By diversifying the geographic location of our facilities, we are diversifying our exposure to physical climate risk. For a description of how RBF manages water, see the RBF case study in this report.



## **Risk Management**

Anaergia's policies do not yet address climate risk management specifically, but they implicitly address climate-related risks, as our business is heavily impacted by the regulatory environment, and this is the subject of considerable discussion with the Board and Executive management. In particular, efforts to mitigate climate-related risks is one of the driving forces to creating regulatory incentives that promote Anaergia's technology, processes, and products. Separately, management provides monitoring, oversight, and guidance on execution and plant operation activities globally, which enables prevention and quick responses to safety, environmental, and other risks. Measures such as our delegation of authority, monthly project dashboard reviews, and status calls provide multiple layers of managing business and environmental risks. This year we also developed our GHG emission tracking program to track our scope 1 and 2 emissions and avoided emissions. This program, along with education on the recommendations of the TCFD, provides us with the tools necessary to better monitor our exposure to climate-related risks in future years.

## Metrics and Targets<sup>27</sup>

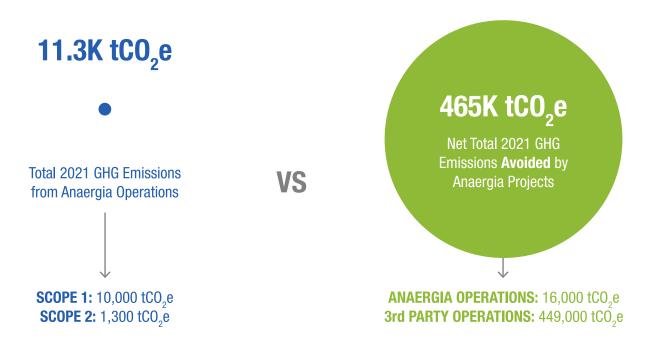
In 2021, Anaergia projects helped avoid ~41x more GHG emissions than our operations emitted.

#### **2021 Operational GHG Emissions**

Operational GHG emissions represent emissions that result due to our activities within our operational control. We use the GHG Protocol Corporate Accounting Standard to determine our operational GHG emissions. This provides us with insight into the GHG emissions we produce and the efficiency with which we conduct our business. Our scope 1 and 2 emissions include GHG emissions produced from our BOO assets, third-party biogas plants that we operate, as well as Anaergia offices and manufacturing facilities.

#### 2021 Avoided Emissions

Avoided emissions represents the net emissions reduced by the use of our technology, compared to conventional operations. We use the CARB LCFS methodology to calculate avoided emissions. We measure the net emissions that are avoided from facilities within our operational control, as well as the net emissions avoided from third-party facilities that use Anaergia's technology solutions when operated at specification. This helps us evaluate the positive climate impact that these projects have in helping reduce global GHG emissions.



#### **Avoidance Offsets**

Our business is to build and sell sustainable solutions that meaningfully contribute to the reduction of GHGs and help mitigate climate change. As our portfolio of operational BOO assets grows, our avoided GHG emissions from generating renewable fuel that can be used to displace fossil fuel-derived natural gas, are expected to far exceed the emissions we generate within our operational control (Scope 1 and 2 emissions). In fact, most of our current BOO facilities generate offset credits that are sold to large emitters in compliance-based markets to help offset the emissions they generate. As a result, we cannot simultaneously generate voluntary carbon offset credits from these projects.

<sup>&</sup>lt;sup>27</sup> See Appendix II: Details on the reporting of GHG Emissions for more detail on our emissions calculation methodology and sources.

#### Water

In the last century, global water use has grown more than two times faster than the human population<sup>28</sup>. The United Nations recognizes that we must treat water as a scarce resource and place a much stronger focus on managing global water demand. As a company with operations on four continents, some of the areas we operate in experience high water stress. We recognize that responsible management of this valuable resource will become increasingly important in future years.

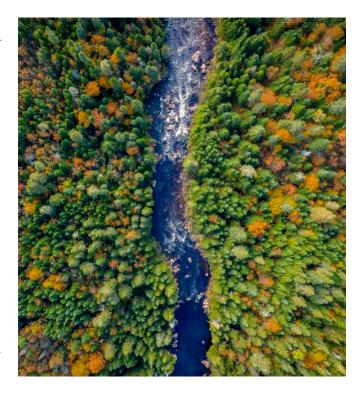
#### **Our Approach**

Water is an integral part of the Anaergia process. The organic waste feedstocks received at our facilities often contain at least 70% water, which alone can translate to well over 100,000 tonnes per year at some of the larger facilities we build or own. A large portion of this water is separated after digestion, treated, and discharged as clean water. Our facilities may also consume external fresh water, as is often required for anaerobic digestion. This presents water risk, as increasing utility costs and discharge regulations may result in additional capital and operating costs for our BOO facilities. Anaergia leverages a combination of technology, engineering design, and existing wastewater infrastructure to mitigate the water risks presented to our business.

Anaergia has its own proprietary technologies to ensure the water leaving biogas facilities we design meets required discharge regulations. We manufacture dewatering equipment that removes water from the solids leaving our digesters. Our patented Ammonia recovery unit (AMR<sup>TM</sup>) removes ammonia from this water, allowing it to be recovered as a fertilizer and ensuring that our wastewater meets ammonia discharge requirements. Finally, our associated company Fibracast, produces membrane filtration technology that we apply to further treat the water leaving our facilities.

Anaergia engineering and design teams have also refined their approach to minimize external water consumption. Anaergia specializes in high-solids digestion. This is a form of digestion that requires less feedstock dilution than traditional digestion processes, reducing external water consumption. Our engineering teams also design biogas facilities to recycle as much water as possible. Partially treated water from the back end of biogas facilities is typically recycled to the front end of the facility for feedstock

<sup>28</sup> United Nations.Water Scarcity. 2021. UN Water.



polishing and dilution, often saving hundreds of tonnes of water per day.

The ability to leverage Anaergia technology at or near existing wastewater treatment infrastructure further reduces water risk. Discharge from existing wastewater treatment operations can be used in our process in place of potable water. This discharge is water that otherwise would have been released to the environment. The use of this water in Anaergia processes therefore does not decrease the local area's availability of potable water and reduces the risks associated with freshwater availability.

#### **Our Progress**

Anaergia currently does not systematically track company-wide water withdrawn and consumed. In future years, we intend to monitor water withdrawal and consumption at our BOO facilities. This will help us gauge our efficiency and begin taking measures to further reduce our water intensity as we seek to implement strong water management practices across our portfolio.

## **Case Study: Sterling Natural Resource Center (SNRC)**

The SNRC is a complete resource recovery and municipal wastewater treatment facility in Highland California that will begin operating in late 2022. Anaergia is providing the process design, feedback sourcing, equipment specification, and more for this next generation facility that will convert municipal wastewater and other organic wastes into renewable energy, clean water, and fertilizer. The clean water discharged from this facility will replenish local water stores and establish a new source of water for the surrounding community. The SNRC is an example of how Anaergia technology can be leveraged within wastewater treatment infrastructure to generate energy and return clean water back to the natural environment.



#### **Key Anaergia Water Technologies**

- Advanced Anaerobic Digestion (Omnivore®)
- Ammonia Recovery (AMR<sup>TM</sup>)
- Membrane Filtration with Fibracast technology

#### **Water Impacts**

- Treatment of up to 8 million gallons per day of municipal wastewater
- Clean water will be discharged to the nearby Bunker Hill Basin, which will store hundreds of millions of gallons of water for dry years
- SNRC will create a new local source of water for the community and 600,000 residents in the region

#### **Waste**

Where others see waste, Anaergia sees resources. Unlike other bioenergy production processes, the Anaergia process utilizes organic feedstocks that would have otherwise been discarded.

#### **Our Approach**

Anaergia recovers value from organic waste feedstocks with a focus on the three largest sub-sectors of this market: solid waste, wastewater, and agriculture. These sectors account for the largest reliable sources of waste creation. A list of specific feedstocks that we have previously worked with includes:

#### **Water Impacts**

- Municipal Solid Waste (MSW)
- Source Separated Organics (SSO)
- Wastewater sludge
- Agricultural animal feed and waste
- Energy crops
- Other commercial or industrial organic wastes (i.e., from food processing facilities)

Anaergia's strategy to primarily utilize organic waste as a feedstock reduces many of the risks associated with traditional bioenergy crops. Organic waste does not require carbon and water intensive harvesting methods. The availability of organic waste feedstock should also not be impacted by climate events to the same extent that purpose grown bioenergy feedstocks are. The Anaergia technology portfolio enables the digestion of a variety of organic waste streams (including MSW), as opposed to relying solely on energy crops or wastes with little or no contamination. The OREX<sup>TM</sup> and OPS<sup>TM</sup> technologies recover and clean organics, while removing inorganic material that would otherwise damage anaerobic digesters or not be suitable for digestion.

Our key performance indicators (KPIs) in this area are the total feedstock processing capacity at Anaergia BOO facilities and completed third-party facilities that utilize Anaergia's technology solutions.

#### **Our Progress**

In 2021, Anaergia continued to make significant contributions to global waste diversion efforts. This impact can mostly be attributed to the continued operation of third-party facilities that use Anaergia technology solutions, as well as operation of Anaergia BOO facilities.

Installed Facilities	Feedstock Capacity (tonnes/year)	Feedstock Capacity Added in 2021 (tonnes/year)
ANAERGIA BOO FACILITIES		
Operating	$545,000^{29}$	310,000
In Execution	1,412,000	1,311,700
THIRD-PARTY FACILITIES 30		
Capital Sales Customers	5,803,000	1,847,000
TOTAL INSTALLED	7,760,000	3,468,700

 $<sup>^{\</sup>rm 29}$  Includes VVWRA (SoCal Biomethane) which began operating in early 2022

<sup>30</sup> Only includes facilities completed after 2010

## Case Study: Sun Valley Waste Management Recycling Park

Anaergia's turnkey OREX™ solid-waste processing line operates at Waste Management's Sun Valley Recycling Park to recycle organics from the Los Angeles region. This line has the capacity to treat up to 800 tonnes per day of MSW, the organic fraction of which is sent to RBF for conversion into carbon-negative RNG and fertilizer.



#### **Key Anaergia Waste Technologies**

- Waste Shredding and Screening
- OREX<sup>™</sup> Press

#### **Key Waste Impacts**

- Treatment of up to 800 tonnes per day of MSW
- Diversion of up to 500 tonnes per day of organic material from landfill

### **Energy**

Recent geopolitical events have highlighted the need for affordable, secure, and sustainable sources of energy. In the European Commission's latest joint action, RNG is cited as a key tool in diversifying gas supplies and reducing the use of fossil fuels in homes, buildings, industries, and power systems. In the International Energy Agency's (IEA) roadmap to net-zero, RNG makes up over 80% of the gas network in many regions by the year 2050<sup>31</sup>.

#### **Our Approach**

Anaergia BOO facilities, as well as third-party biogas facilities using Anaergia technology solutions, are active contributors to the global production of modern bioenergy. Many of the facilities under Anaergia's earlier capital sale projects pro-

duced electricity from biogas, which was exported to local utility grids and industrial customers. This aided these parties in reducing their reliance on other energy production methods. In recent years, with growing interest and incentives for RNG, Anaergia began upgrading biogas to RNG. This RNG can be injected into natural gas pipelines and used for transportation, heating, or energy production. This allows the communities in which Anaergia operates to transition to a carbon-negative fuel source without sacrificing the reliability that comes with traditional natural gas.

Key performance indicators in this area are the total bioenergy production capacity of operational assets in the Anaergia BOO portfolio, as well as the capacity of commissioned third-party biogas facilities that use Anaergia's technology solutions.

#### **Our Progress**

In 2021, all operational Anaergia BOO energy production capacity pertained to our Rialto, VVWRA, and Escondido facilities. With the addition of 6 new facilities to our BOO portfolio, we are on track to more than triple our operational RNG production capacity in the coming years. We have also installed significant production capacity at third-party facilities on four continents.

Installed Facilities	RNG Capacity (MMTBU/Yr)	RNG Capacity Added in 2021 (MMBTU/Yr)	Electrical Capacity (MW)	Electrical Capacity Added in 2021 (MW)
ANAERGIA BOO FACILITIES	3			
Operating	$1,305,000^{32}$	985,000	1.2	0
In Execution	2,850,000	2,479,000	0	0
THIRD-PARTY FACILITIES <sup>3</sup>	3			
Capital Sales Customers	892,000	130,000	133	10.1
TOTAL INSTALLED	5,047,000	3,594,400	134	10.1

<sup>31</sup> International Energy Agency. "Net Zero by 2050 A road Map for the Global Energy Sector." 2021

<sup>32</sup> Includes VVWRA (SoCal Biomethane) which began operating in early 2022

<sup>33</sup> Only includes facilities completed after 2010

## Case Study: Easy Energia

Located in Lazio, Italy, Easy Energia is an Anaergia BOO project that will produce over 140,000 MMBTU per year of RNG. Comissioned in early 2022, this renewable energy project will contribute to an increase in European energy security by reducing the region's reliance on foreign fossil gas and will help the EU reach its goal of producing over 1.3 Billion MMBTU per year by 2030<sup>34</sup>.



#### **Key Anaergia Energy Technologies**

- Anaergia Advanced High Solids Anaerobic Digestion
- Organic Polishing equipment
- Solids Separation equipment

#### **Energy Impacts**

- Production of over 140,000 MMBTU per year of RNG
- This is enough gas to meet the needs of nearly 3000 European homes each year<sup>35</sup>

<sup>34</sup> European Commission. "Questions and Answers on REPowerEU: Joint European action for more affordable, secure and sustainable energy." March 2022.

<sup>35</sup> Office of Gas and Electricity Markets. "Typical Domestic Consumption Values for Gas and Electricity." 2017. ofgem.gov.uk.

## Our Flagship Environmental Solution: The Rialto Bioenergy Facility (RBF)

RBF is one of the largest organic waste diversion and energy recovery facilities in North America. Located in Southern California, the facility serves as a model solution for the aggressive organics diversion and emissions reduction targets set by the State of California.



#### **Climate Change**

- RBF has the capacity to prevent over 200,000 tonnes of CO<sub>2</sub>e emissions per year
- This is the equivalent of removing around 47,000 passengers cars from the road each year<sup>36</sup>

#### Water

- RBF has extensive wastewater treatment capability with an MBR that uses fibracast membrane technology
- Uses external water from the City of Rialto Wastewater treatment plant. This is non-potable water which would otherwise be discharged to the environment and thus doesn't contribute to local water stress
- Has the capacity to internally recycle over 700 tonnes of water per day

#### Waste

- RBF has the capacity to process up to 310,000 tonnes of feedstock per year, which consists of landfill diverted organics and wastewater treatment plant biosolids
- RBF has the "capacity to produce over 30,000 tonnes of organic fertilizer per year

#### **Energy**

- RBF has the capacity to produce 985,000 MMBTU of RNG per year
- This is enough gas to heat over 15,000 American homes<sup>37</sup> per year

<sup>36 &</sup>quot;U.S. Environmental Protection Agency. "Greenhouse Gas Emissions from a Typical Passenger Vehicle." 2018. epa.gov.

<sup>37</sup> American Gas Association. "Natural Gas: The Facts." 2019. aga.org.



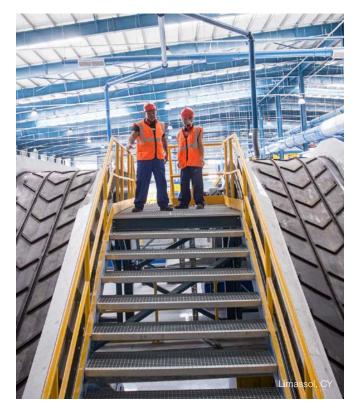
### **Health and Safety**

## Anaergia is committed to making our environment safe for all employees.

Those working directly on site at our BOO facilities, as well as our research engineers working in the laboratory, face the highest safety risk as they are directly exposed to machinery and potentially hazardous materials. As such, we have taken steps to address workplace health and safety and provide all our employees with a safe work environment. This ensures the well-being of our highly valued talent and improves productivity through reduced missed time.

To manage health and safety risk, we rely on a combination of people and procedures. This begins with Executive management which holds a quarterly health and safety meeting to discuss our existing policies and any recent significant events. We also have local health and safety committees for each one of our operating regions to help establish regional and facility-specific policies. At the facility level, each one of our sites adapts a standard Incident and Injury Prevention Plan (IIPP), as well as numerous company-wide or site-specific policies and standard operating procedures. These policies and procedures address relevant prevention measures for fires, slips trips and falls, chemical spills, and more. We also take steps to keep health and safety at the forefront of our minds. Our Code of Conduct specifically addresses workplace health and safety, and we track "near misses" at our operating sites. These near misses are often discussed at our regional quarterly "town hall" meetings to raise awareness and discuss future prevention measures.

We primarily measure our health and safety performance using our Total Recordable Incident Rate (TRIR) as defined by OSHA. TRIR represents the number of safety incidents per 100 full-time employees in a one-year period and thus will provide us with a relative measure of our annual health and safety performance in future years as our company grows. In 2021 our global TRIR fell well below the U.S. national average of 3.1<sup>38</sup>. We also grew our Health and Safety Team, specifically within North America, to increase our capacity to prevent and track workplace injuries at our BOO facilities.





Company-wide TRIR of 2.02 achieved in 2021

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<sup>38</sup> KPA EHS. TRIR Industry Averages. 2021.

## **Diversity, Equity, & Inclusion**

# At Anaergia, we see diversity not as an idea, but as a gateway to innovation and new perspectives.

That's why in 2021 the Anaergia Board voted to approve our new Diversity Policy. As part of this policy the Governance, Compensation, and Nominating Committee will consider diversity when assessing qualified candidates for the Board and management. This includes characteristics such as gender, age, ethnicity, disability, sexual orientation and more. Diversity, in addition to other factors, will also be taken into consideration when the Board oversees talent appointment, recruitment, succession planning, and other processes relating to senior management. The importance of diversity and welcoming those with a different background is also highlighted in our Code of Conduct.

Anaergia will attempt to recruit and select Board and management candidates that represent both gender diversity and business understanding and experience.



## **2021 Community Highlights**

Green Jobs Created	91
Employee Wages and Benefits	36.5 M
Amount Invested in Global Energy Infrastructure	143.3 M
Payments to Providers of Capital	1.3 M
Income Taxes Paid	0.5 M

## **Community Impact**

At Anaergia, we give back to more than just the environment. We strive to play an active role in our communities and believe that charitable giving is an important aspect to building a sustainable future.

Our facilities and regional offices have engaged in numerous charitable efforts to give back to the communities in which we operate. Key efforts from 2021 are highlighted below:

## The Rialto Bioenergy Facility Stewardship Program

Scholarships were awarded to three college students pursuing STEM degrees. Scholarship applicants were required to submit essays outlining how they intend to use their education to promote sustainability and improve the environment.

#### Feed the Digester to Fuel a Healthy World

Each year at Thanksgiving, the Anaergia Burlington office holds this annual food drive event where food items are donated to our "digester." All donations are sent to the Burlington Food Bank, which has experienced a surge in demand throughout the COVID-19 pandemic.

#### **Economic Impact**

As an infrastructure developer, our projects also provide economic benefits to society. As of December 31, 2021, Anaergia employs over 345 people. We consist of over 115 engineers, as well as operators and plant personnel that are often hired from the community surrounding each of our facilities. We also typically outsource the construction of our facilities to third parties, providing opportunity for local contractors.

2021 SUSTAINABILITY REPORT SOCIAL 31

## **Talent Management and Acquisition**

We believe that achieving success begins with people, and we are focused on attracting and retaining a diverse, highly skilled and multigenerational workforce that can help us drive innovative and creative solutions to meet the continually evolving needs of our customers.

We recruit on a global level in more than 9 countries where we operate and we also attract qualified candidates from other countries where we don't have current operations. Our global recruitment and talent acquisition function is strategically located between Singapore and North America to enable us to achieve our diverse and global operating goals.

We have a talent management process that includes an annual performance review with two check-ins throughout the year and employee development and goal-setting planning that encourages regular check-ins throughout the year to focus on

employee and leader feedback to develop skills and further opportunities within the organization.

We also regularly conduct employee engagement surveys to identify ways to improve our business and increase employee engagement. Based on the results of these surveys, we conduct action planning and set deliverables to improve facilitated by Human Resources and in coordination with our leadership, management and employees.

The steps we take to manage our workforce help build a positive workplace culture.

The San Diego Tribune recently named our California office as one of the top places to work in 2021. This was based on employee feedback from an anonymous survey and demonstrates our commitment to the wellbeing of our employees.



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## **Our Approach**

The Anaergia Board of Directors is responsible for the stewardship of Anaergia and for supervising the management and business affairs of the company. The Board uses its experience and expertise to guide management in delivering sustainable returns to our shareholders. The majority of Directors are independent and have previous experience leading successful companies in the sustainable water and energy sectors. The vision that these members share provides guidance to our company.

Ultimately, our governance structure ensures that the goals of the Board and Anaergia shareholders are achieved. Each part of this structure plays a key role in achieving this.

#### Chair:

Anaergia's Chair leads the Board, receives feedback from all independent Directors, and can attend any Board committee meeting.

#### **Board Committees:**

Comprised of only independent Directors, these committees ensure the integrity of our financial statements and Board selection process.

#### **Executive Management:**

As the day-to-day leaders of our business, our executive management team is responsible for ensuring that the policies and practices put in place by the Board are carried out on a day-to-day basis at Anaergia. Our executive management team also plays a key role alongside the Board in identifying risks and opportunities for the company.



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### **2021 Governance Developments**

In 2021, we created several policies to strengthen our governance structure and improve our management of matters that are material to our business.

2021 Development	Description
Governance, Compensation and Nominating Committee	Provides guidelines regarding governance and reviews executive compensation and Director recruitment
Code of Conduct	Provides guidelines for personnel to conduct business in ethical manner
Majority Voting Policy	Provides guidelines for Director approval by the company's shareholders
Anti-Corruption Policy	Provides guidelines for personnel to act with honesty, integrity, and in compliance with applicable
	anti-bribery and anti-corruption laws
Diversity Policy	Provides guidelines for Directors to consider diversity when assessing new candidates
Insider Trading Policy	Provides guidelines that seeks to avoid insiders from trading on undisclosed material information
<u>Disclosure Policy</u>	Provides guidelines for the timely and accurate disclosure of material matters
Whistleblower Policy	Provides guidelines to permit employees to anonymously report violations of company policies with
	protections against retaliation

## **Board of Directors Oversight**

The committees of our Board of Directors provide oversight of key areas of our company, including financial risk exposure, executive compensation, governance guidelines and principles and more. To date, our Board members serve on two main committees.

#### Audit Committee

The Audit Committee provides oversight of material issues, such as risk management processes, the quality and integrity of financial statements, and other responsibilities.

## Governance, Compensation, and Nominating (GCN) Committee

The GCN Committee assists the Board in establishing policies and procedures designed to identify and mitigate risks associated with our compensation policies and practices, as well as to promote the recruitment of diverse candidates qualified to be nominated as Directors, among other responsibilities. The GCN Committee is responsible for the company's approach to governance, including developing governance guidelines and principles and providing governance leadership.

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### **Moving Forward**

In 2021, we began laying the foundation of our ESG journey. Looking ahead, we strive to accelerate the positive climate impact that our projects and technology have, while improving our social and governance practices.

#### **Environment**

In 2021 we acquired multiple BOO assets, that as of December 31, 2021 are still in development, construction, or in the process of being upgraded and have not yet achieved substantial completion. This includes our acquisitions of the Rhode Island and Charlotte Bioenergy facilities, as well as the Tonder facility in Denmark and multiple facilities in Italy. These facilities are not yet producing RNG and therefore do not count towards our 2021 avoided emissions figures. In future years we expect these facilities to significantly increase our avoided emissions.

Another key future element of Anaergia's environmental strategy is our pyrolysis process, which is anticipated to start operating at RBF in 2022. This process can heat biosolids and other organic wastes in the absence of oxygen to produce biochar, a valuable and nutrient-rich fertilizer product. This process is an effective means of destroying toxic chemicals, such as PFAS, in organic waste and is a proven means of achieving carbon removal. Moving forward, we see a large opportunity to deploy this process at existing wastewater treatment and organics recovery facilities.

#### **Social**

As the number of Anaergia's operational facilities continues to grow, so will our need for health and safety monitoring and prevention. We will continue developing Anaergia's structural organizational resilience using effective management and industry's best practices to meet or exceed the safety code's expectation and continue to prevent workplace incidents. In future years we will achieve this through:

Optimizing our global framework of integrated safety management, ensuring best in class Anaergia corporate standards are maintained in addition to satisfying all applicable regional codes and standards at all operating assets

- Improving organizational ability and expertise to promote safety activities and ensure best in class onboarding and training plans for our employees engaged in field activities
- Exploring options of ethical use of AI in safety, security, compliance, and privacy.

We also recognize the benefit that diversity brings to an organization and are committed to creating a more diverse workforce. The Board expects to establish a multi-regional, multi-level and cross-functional Diversity and Inclusion Committee, championed by human resources and sponsored by the GCN Committee, to establish a formal charter, assess internal practices, processes, policies and opportunities, and make recommendations to senior management and the Board in the Fiscal 2022 year.

#### Governance

In future years, we aspire to address and govern ESG topics more explicitly in our organization. We recognize that more formal processes are required to better track and improve our ESG performance. Internally we are working to prepare a formal corporate social responsibility (CSR) policy and ESG strategy. The aim of Anaergia's CSR policy is to ensure the company works ethically, considering human rights as well as the social, economic, and environmental impacts of the business.

As of the publishing of this report we are forming an ESG committee, tasked with formulating and executing our ESG strategy and monitoring climate risks. The actions we took this year and publishing this report serve as our first major step in addressing key ESG matters.

2021 SUSTAINABILITY REPORT MOVING FORWARD 37



## Task Force on Climate-related Financial Disclosures (TCFD) Index

TCFD Topic	Recommended Disclosure	Relevant Section of this Report	
	Describe the Boards Oversight in managing climate-related risks and opportunities	Climate Change: Governance	
Governance	Describe management's role in assessing and managing climate-related risks and opportunities	Climate Change: Governance	
	Describe the climate-related risks and opportunities identified over the short, medium and long term	Climate Change: Strategy	
Strategy	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	Climate Change: Strategy	
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	Not Disclosed	
	Describe the processes for identifying and assessing climate-related risk	Climate Change: Risk Management	
Risk Management	Describe the processes for managing climate-re- lated risk	Not Disclosed	
	Describe how the processes for identifying and managing climate-related risk are integrated into the overall risk management process	Not Disclosed	
	Describe the metrics used to assess climate-re- lated risk	Climate Change: Metrics + Targets	
Metrics + Targets	Disclose Scope 1, 2, and 3 emissions	Climate Change: Metrics + Targets	
	Describe the targets used to manage climate-re- lated risks and opportunities and the organiza- tions performance against targets	Not Disclosed	

2021 SUSTAINABILITY REPORT APPENDIX 39

## **Sustainability Accounting Standards Board (SASB) Biofuels Index**

Sustainability Disclosure Topics and Accounting Metrics

Topic	Accounting Metric	Category	Unit of Measure	SASB Code	Reference or Disclosure
Air Quality	Air emissions of the following pollutants: (1) NOx (excluding N20), (2) SOx, (3) volatile organic compounds (VOCs), (4) particulate matter (PM10), and (5) hazardous air pollutants (HAPs)	Quantitative	Metric Tons (t)	RR-BI-120a.1	Not Disclosed
7 iii quaiity	Number of incidents of non-compliance associated with air quality permits, standards, and regulations	Quantitative	Number	RR-BI-120a.2	Not Disclosed
	1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Thousand cubic me- tres (m³), Percent- age (%)	RR-BI-140a.1	Not Disclosed
Water Management in Manufacturing	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussions and Analysis	N/A	RR-BI-140a.2	Water
	Number of incidents of non-compliance associated with water quality per- mits, standards, and regulations	Quantitative	Number	RR-BI-140a.3	Not Disclosed

## Continued

Topic	Accounting Metric	Category	Unit of Measure	SASB Code	Reference or Disclosure
Life-Cycle Emissions Balance	Lifecycle green- house gas (GHG) emissions, by biofuel type.	Quantitative	Grams of CO <sub>2</sub> e per megajoule (MJ)	RR-BI-410a.1	Not Disclosed
Sourcing and Environmental Impacts of Feedstock	Discussion of strategy to manage risks associated with environmental impacts of feed- stock production	Discussion and Analysis	N/A	RR-BI-430a.1	Waste
Production	Percentage of biofuel production third-party certified to an environmen- tal sustainability standard	Quantitative	Percentage of Gallons (%)	RR-BI-430a.2	Not Disclosed
Management	Amount of subsidies received through government pro- grams	Quantitative	Reporting Currency	RR-BI-530a.1	Not Disclosed
of the Legal and Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion and Analysis	N/A	RR-BI-530a.2	Strategy
Operational Safety, Emergency Preparedness and Response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	Quantitative	Number, Rate	RR-BI-540a.1	PSIC: Not Disclosed PSTIR: Health and Safety (We use a similar measure, TRIR as defined by OSHA) PSISR: Not Disclosed

## Activity Metrics

Activity Metric	Category	Unit of Measure	SASB Code	Reference or Disclosure
Biofuel Production Capacity	Quantitative	MMBTU <sup>39</sup>	RR-BI-000.A	Energy
Production of: (1) renewable fuel, (2) advanced biofuel, (3) biomass-based diesel, and (4) cellulosic biofuel	Quantitative	ммвти	RR-BI-000.B	Fuel produced at the RBF is expected to qualify for RINs. Actual fuel produc- tion not disclosed.
Amount of Feedstock Consumed in Production	Percentage of biofuel production third-party cer- tified to an environmental sustainability standard	Metric Tons	RR-BI-000.C	Feedstock processing capacity is described in Waste. Amount processed not yet disclosed.

 $<sup>^{39}</sup>$  We report our fuel production capacity in MMBTU, as opposed to gallons as the SASB biofuels standard recommends.

## Notes and Methodology for Operational GHG Emissions

#### **Scope 1 Emissions**

Scope 1 emissions are defined by the GHG Protocol Corporate Accounting and Reporting Standard as direct emissions that occur from sources that are owned or controlled by the reporting company. Our scope 1 emissions are consistent with the guidance from the GHG Protocol and were determined using Emission factors from the US Energy Information Administration.

#### **Scope 2 Emissions**

Scope 2 emissions are defined by the GHG Protocol Corporate Accounting and Reporting Standard as emissions from the generation of purchased electricity and other utilities that are consumed by the reporting company. Our scope 2 emissions only include electricity consumption at facilities under Anaergia's operational control and are calculated using the location-based method, meaning the use of grid average emission factors. Sources of Emission factors include the EPA eGRID database, Canada's National Inventory report, and other global databases.

#### **Boundary**

Our scope 1 and 2 emissions include carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ) and nitrous oxide ( $N_2O$ ) converted to units of  $CO_2$  equivalent ( $CO_2$ e) using 100-year global warming potentials from the IPCC fourth assessment report. Sources of emissions included in our scope 1 and 2 emissions include Anaergia offices, manufacturing facilities, and BOO assets that were reported as operational in 2021. This does not include assets that were acquired and still under execution throughout 2021.

## Notes and Methodology for Avoided Emissions

#### **Avoided Emissions (Anaergia Operations)**

Net avoided emissions from facilities under Anaergia's operational control. Life-cycle emissions are estimated using CA-GREET 3.0. It is a regulatory requirement that emissions from fuels sold into the CARB LCFS program are modelled using this source.

#### **Avoided Emissions (3rd Party Operations)**

Net emissions avoided when Anaergia technology solutions are operated at specification at our capital sales customers facilities (not under Anaergia's operational control). Life-cycle Emissions are calculated following the CA-GREET 3.0 approach, modified using location-based emission factors. Emission factors are sourced from CA-GREET 3.0, IPCC, EPA, and other global databases.

#### **Advisories**

#### Forward-looking statements

This Report contains "forward-looking information" within the meaning of applicable securities laws. Forward-looking information may relate to future plans, expectations and intentions, results, levels of activity, performance, goals or achievements, the future impact of the COVID-19 pandemic or other future events or developments and may include information regarding our financial position, business strategy, growth strategy, budgets, operations, financial results, taxes, dividends, plans and objectives. Particularly, information regarding our future results, performance, achievements, prospects or opportunities or the markets in which we operate is forward-looking information. In some cases, forward-looking information can be identified by the use of forward-looking terminology such as "may", "will", "would", "should", "could", "expects", "plans", "intends", "trends", "indicates", "anticipates", "believes", "estimates", "predicts", "likely" or "potential" or the negative or other variations of these words or other comparable words or phrases. In addition, any statements that refer to expectations, intentions, projections or other characterizations of future events or circumstances contain forward-looking information. Statements containing forward-looking information are not facts but instead represent management's expectations, estimates and projections regarding future events or circumstances.

Forward-looking information in this Report include, among other things, statements relating to: our guiding principles relating to ESG and sustainability; the ability of the BOO facilities to continue to prevent new methane emissions and create renewable fuel; market opportunities; expectations regarding our revenue, expenses and operations; expectations regarding industry trends, overall market growth rates and our growth rate; the commencement of operations at the Sterling Natural Resource Center; the ability of our BOO projects to produce RNG and operate at capacity; the expected financial performance of the RBF following the commencement of operations; expectations with respect to recruiting and selecting Board and management candidates that represent both gender diversity and business understanding and experience; expectations with respect to the carbon intensity score of RNG produced at RBF; the ability of our developing BOO facilities to significantly increase our avoided emissions; the use and benefits of our pyrolysis process; optimizing our global framework of integrated safety management; improving organizational ability and expertise to promote safety activities; exploring options of ethical use of Al in safety, security, compliance, and privacy; the establishment of a Diversity and Inclusion Committee; the establishment of formal corporate social responsibility (CSR) policy and ESG strategy; our business plans, growth strategies and ESG initiatives; our competitive position in our industry, including anticipated trends and challenges in our business and the markets in which we operate; and the contribution of our recent ESG initiatives to our future ESG performance.

This forward-looking information and other forward-looking information are based on our opinions, estimates and assumptions in light of our experience and perception of historical trends, current conditions and expected future developments, as well as other factors that we currently believe are appropriate and reasonable in the circumstances. Despite a careful process to prepare and review the forward-looking information, there can be no assurance that the underlying opinions, estimates and assumptions will prove to be correct. Certain assumptions in respect of our ability to build our market share and our growth outlook; our ability to retain key personnel; our ability to maintain and expand geographic scope; our ability to enter into feedstock, offtake arrangements and engineering, procurement and construction contracts of acceptable terms; our ability to maintain good relationships with our customers and suppliers; our ability to execute on our expansion plans; our ability to execute on additional acquisition opportunities; our ability to obtain or maintain existing financing on acceptable terms; currency exchange and interest rates; the impact of competition; the changes and trends in our industry or the global economy; our estimated contracted revenue and revenue from our BOO assets operating at full capacity during their useful life; operations and maintenance cost estimates; conventional levels of contingency, start-up costs and reserves; capital costs remaining steady; the timely construction of facilities; and the continuation of legislation and regulation favouring landfill diversion and environmental attributes for RNG are material factors underlying forward-looking information and management's expectations.

The forward-looking information in this Report is necessarily based on a number of opinions, assumptions and estimates that we considered appropriate and reasonable as of the date such statements were made. It is also subject to known and unknown risks, uncertainties, assumptions and other factors that may cause our actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information, including but not limited to the factors described in greater detail in Anaergia's filings with the Canadian securities regulatory authorities, including the annual information form and the MD&A for the year ended December 31, 2021, which are available on SEDAR at www.sedar.com. If any of these risks or uncertainties materialize, or if the opinions, estimates or assumptions underlying the forward-looking information prove incorrect, actual results or future events might vary materially from those anticipated in the forward-looking information.

All of the forward-looking information contained in this Report is expressly qualified by the foregoing cautionary statements.

#### **Third-Party Information**

This Report includes market, industry and economic data which was obtained from various publicly available sources and other sources believed by Anaergia to be true. Although Anaergia believes it to be reliable, it has not independently verified any of the data from third party sources referred to in this Report or analyzed or verified the underlying reports relied upon or referred to by such sources or ascertained the underlying economic and other assumptions relied upon by such sources. Anaergia believes that its market, industry and economic data is accurate and that its estimates and assumptions are reasonable, but there can be no assurance as to the accuracy or completeness thereof. The accuracy and completeness of the market, industry and economic data and used throughout this Report are not guaranteed and Anaergia makes no representation as to the accuracy of such information.

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