Scandinavianbiogas

TURNING WASTE TO ENERGY FOR A CLEANER WORLD

ANNUAL REPORT 2018

Contents

Cover photo: During 2018 the world's largest liquid biogas (LBG) production facility was commissioned in Skogn, Norway, with an annual capacity of 120 GWh. The investment in the biogas plant is a key element in Scandinavian Biogas's capacity building focus and long-term growth strategy.

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About Scandinavian Biogas

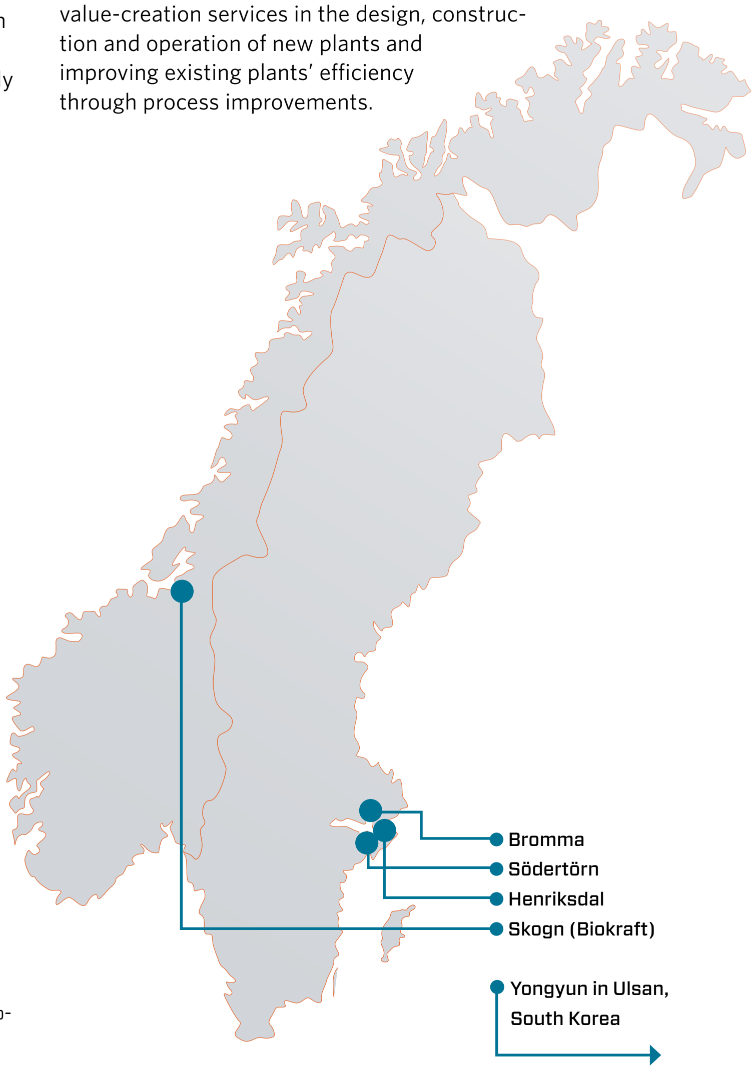
As one of the Nordic region's largest private producers of biogas, Scandinavian Biogas helps customers and partners with what we are best at – designing and operating biogas plants with high resource and energy efficiency. In this way, we support the transition from fossil to renewable energy.

Scandinavian Biogas, founded in 2005, sells renewable energy based on compressed biogas (CBG) and liquid biogas (LBG), as well as several related services. With world-leading expertise in the design and operation of biogas facilities to optimise biogas and bio-fertiliser production, we are market leaders in large-scale biogas production in the Nordic region and South Korea.

A fundamental part of Scandinavian Biogas's strategic focus is the development of methods and services to improve biogas and bio-fertiliser production efficiency for established as well as new types of waste. The main feedstocks currently used are wastewater sludge, food waste, salmon farming waste, and residues from industrial processes. Based on our research and development work with new and more efficient methods, biogas can be produced far more cost- and resource-efficiently than ever before, and we work continuously to develop and improve the digestion process when producing biogas from biomass. We also have leading expertise in purification processes for upgrading biogas to vehicle fuel quality.

Our main products are biogas used in heat production, upgraded and liquid biogas used as vehicle fuel, and bio-fertiliser as a substitute for artificial fertiliser. Focus is on markets in the Nordic region and South Korea.

In close collaboration with partners and customers, we also work to identify growth projects outside our Nordic home market. These projects may include value-creation services in the design, construction and operation of new plants and improving existing plants' efficiency through process improvements.



Scandinavian Biogas Fuels International AB (publ) is domiciled and headquartered in Stockholm. During 2018 the business had a total of 75 (74) employees: 39 (38) in Sweden, 21 (19) in South Korea and 13 (13) in Norway.

Scandinavian Biogas currently has five plants in operation: three in Sweden, one in South Korea and one in Norway, where liquid biogas is produced. Total biogas sales increased 68 per cent over the past five years, from 165 GWh to 278 GWh.

2018 in brief

JAN

Filling station at Södertörn commissioned

A filling station at the biogas plant in Södertörn was commissioned at the beginning of the year. The filling station will sell compressed biogas (CBG) to lorries and refuse vehicles that use the facility. The station has been part-financed with support from Klimatklivet, an initiative of the Swedish Environmental Protection Agency.

FEB

Agreement with Mönsterås Biogas

In February, Scandinavian Biogas signed a co-operation agreement with Mönsterås Biogas to jointly develop options for constructing and operating a large-scale biogas plant in Mönsterås. The goal is to begin construction in 2019. Mönsterås municipality is among Sweden's most expansive in terms of livestock farming and the area's livestock industry produces large amounts of manure. The planned facility will produce 120 GWH of biogas and 40,000 tonnes of high-quality bio-fertiliser annually. The project has received an investment grant of SEK 108 million from Klimatklivet.

JUN

Commissioning of biogas plant in Skogn

Commissioning of the biogas plant in Skogn, Norway, outside Trondheim, began in June. The plant is the world's largest for the production of liquid biogas fuel (LBG). At full production, 12.5 million Nm^3 will be produced at Skogn each year. The primary feedstocks are waste and by-products from the Norwegian fishing and forestry industry.

JUL

Government decision on biogas subsidy

In early July, the Swedish government decided to implement a government biogas subsidy. The government will now be investing SEK 270 million to increase biofuel production. A commission of inquiry has also been appointed to examine methods for strengthening the market for domestic biogas production in the long term. For Scandinavian Biogas's Södertörn facility, the government biogas subsidy is estimated at SEK 21.8 million for the October 2018–September 2019 period.

SEP

Delivery from facility in Skogn

The first customer deliveries of LBG from the plant in Skogn were made in September. The plant subsequently delivered 1.6 million Nm^3 of liquid biogas to customers through year-end.

Official inauguration of the world's largest LBG plant

The biogas plant at Skogn, Norway, was officially inaugurated by Norwegian Prime Minister Erna Solberg on 2 September 2018.

2018

Owner financing

Scandinavian Biogas worked on improving its financial position during the year. One of the Group's loans from an external lender was refinanced in May to a lower rate of interest. The Group strengthened its balance sheet and liquidity during the second and third quarters with a capital contribution of SEK 18 million in subordinated loans. The Group also received subordinated loans of SEK 16 million from the largest shareholders during the fourth quarter.

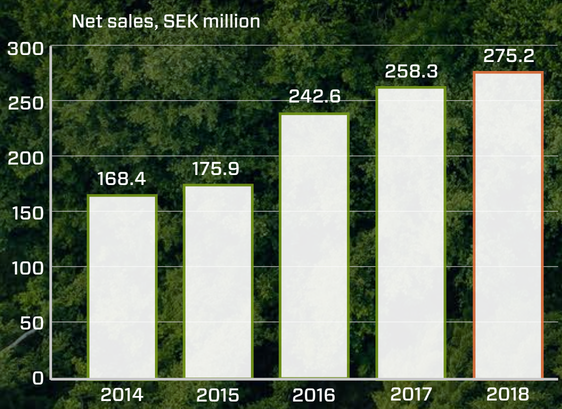
Performance in 2018

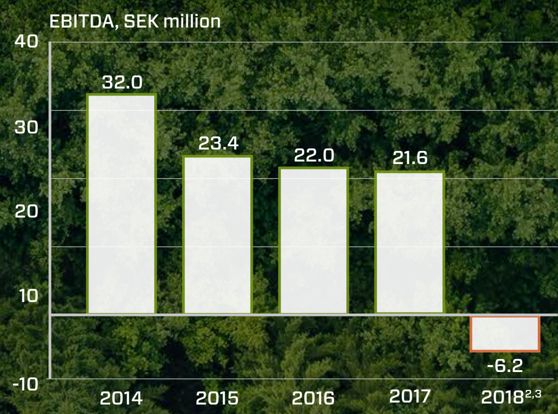
Group biogas sales
278
GWh (270 GWh)

Group organic waste management[1]
119,300
tonnes (121,900 tonnes)

Consolidated net sales
275
SEK M (258 SEK M)

Emissions reduction in Sweden
51,600
tonnes CO_2e (51,900 tonnes)





Scandinavian Biogas Fuels International AB

Group, SEK thousand	2018	2017	2016	2015	2014
Net sales	275,234	258,363	242,610	175,891	168,376
EBITDA	-6,247	21,587	21,972	23,358	31,958
EBITDA %	-2.3%	8.4%	9.1%	13.3%	19.0%
EBIT	-71,808	-42,159	-24,580	-16,817	-5,281
EBIT %	-26.1%	-16.3%	-10.1%	-9.6%	-3.1%
Balance sheet total	1,234,842	1,161,238	1,026,648	760,652	628,037
Adjusted equity/assets ratio, %	20.5%	25.5%	25.5%	28.6%	30.8%

See Note 39 for definitions.

[1] Excluding Skogn.

[2] During 2018, the Group incurred one-off costs totalling SEK 21.8 million (13.6) for disputes and penalty fees, which reduced EBITDA. 2018 EBITDA for Business Area Norway was SEK -14.8 million (-7.7), as the plant at Skogn was not commissioned until June 2018. See page 41.

[3] EBITDA is estimated at over SEK 100 million for 2019. See page 44, Expectations Regarding Future Development.

CEO commentary

2018 was an intensive year for Scandinavian Biogas, with both ups and downs. I am extremely pleased that commissioning of the production plant in Skogn started during the summer, despite some delays. Since September, we have been able to deliver liquid biogas (LBG) to the Norwegian market, where there is great demand from the heavy transport and shipping industries. All of our employees, along with our partners, have been instrumental in the establishment of this plant – the world's largest liquid biogas production plant.

Thanks to investments made during 2017 to increase operational capacity, we achieved high biogas production volumes and high security of supply in 2018. Total production was 278 GWh, a 3 per cent year-on-year increase. New levels of bio-fertiliser production were achieved at Södertörn, and we are seeing increasing demand for bio-fertiliser from the agricultural sector. We systematically manage society's waste products and convert them into renewable energy – a true circular economy.

Important initiatives in the Swedish biogas market

Sweden's new climate policy framework came into effect in early 2018. It includes the long-term goal of achieving zero net greenhouse gas emissions for the country by 2045. Still missing are long-term ground rules for the biogas industry, although a national biogas strategy proposal was produced in April. Scandinavian Biogas was involved in designing the strategy, along with the Swedish Gas Association and other biogas market operators. The common goal is to use at least 15 TWh of biogas in Sweden by 2030, as compared with just over 2 TWh in 2017.

It is now up to politicians and decision makers to demonstrate determination, fortitude and decisiveness on the biogas issue. Adopting the proposal for a national biogas strategy is a good starting point. The government's appointment of a commission of inquiry, which will examine options for providing competitive conditions for biogas in the short and long term, is a welcomed initial decision. When commission representatives visited our plant at Henriksdal in December, we told them that Swedish production requires support in order to promote a national circular economy. At the same time, in order to level the playing field for exports and imports, it is of utmost importance that the ground rules are long-term and aligned with conditions in our neighbouring countries.

In other positive news, the government decided to introduce a government biogas subsidy for raw gas producers in 2018. The subsidy, administered by the Swedish Board of Agriculture, is allocated to the portion of production that upgrades biogas to vehicle fuel quality. Scandinavian Biogas has been granted a government biogas production subsidy for the plant at Södertörn, estimated at SEK 21.8 million over a 12-month period beginning in October 2018. Industry representatives believe that the subsidy is likely to be extended.

Development of Södertörn

The plant at Södertörn faced a series of challenges during the year, resulting in lower production volumes and increased costs. Deliveries of biogas to customers were nevertheless achieved

Norwegian Prime Minister Erna Solberg, flanked on the left by Scandinavian Biogas CEO Matti Vikkula and Biokraft CEO Håvard Wollan, and on the right by Marianne Langvik from Biokraft, Levanger Municipality Chairman Robert Svarva, and TrønderEnergi CEO Ståle Gjersvold.

according to plan, and all agreements have been fulfilled. The plant will be developed and the food waste reception capacity expanded to ensure more stable processing of an increased share of organic household waste. The intention is to invest close to SEK 100 million in the initial stage, taking a further step in expanding the Södertörn plant for large-scale LBG production.

Non-recurring costs

During 2018, the courts rendered judgment in the South Korean lawsuits we have been involved in and, unfortunately, did not rule in our favour. The penalty fee we were ordered to pay for the delayed investment in the upgrading facility was recorded as operating expense during the year, as was the fee in the lawsuit regarding invoicing of certain service costs. Both judgments have been appealed. We are somewhat confident about the appellate decisions, which are expected during the first six months of 2019.

As previously announced, the recorded provisions have an adverse effect on our 2018 results. The provisions, however, are non-recurring and will therefore have no impact on the Group's future profitability. Profitability for the year, EBITDA, was reduced to SEK -6.2 million.

Due to the dispute at Södertörn, the adjusted equity/assets ratio did not meet the corporate bond requirements during the year. A clear majority of voting bondholders confirmed their support of the Group's proposal to waive the adjusted equity/assets ratio requirement for the remainder of the 2018 financial year. This is affirmation of investors' confidence in the company and in biogas as a potential future fuel.

As part of the Group's strategic plan, the Board of Directors and Group management have been working on a prospective listing of the company's share in a suitable marketplace. In parallel with these efforts, various strategic and capital structure alternatives to create and realise the value of the Group's business opportunities and maximise shareholder value are being evaluated in collaboration with external advisors.

In early 2019 we announced our intention to conduct a directed share issue of up to SEK 134 million and a rights issue of up to SEK 10 million. Issue proceeds are planned to be used to finance the expansion at Södertörn and to ensure that certain working capital requirements are met.

Clearer sustainability focus

We have now been working with resource-efficient biogas production for nearly 15 years. With climate-smart, sustainable products, the company is part of the circular economy. We actively support several global environmental goals as well as the national goal of achieving a fossil-free vehicle fleet, managing waste, and recycling nutrients to agriculture.

We clarified our focus on sustainability during the year. For us, sustainability comes down to the way we design, build and manage our plants. This must be done with regard to environmental, social and economic impact on the external environment, our employees, the local community where we operate, our stakeholders, and society as a whole.

We have formulated measurable targets and activities as an initial step for our Swedish operations. For our most important environmental issue – emissions to air – our goal is to reduce annual methane emissions. We have also joined the voluntary

"We are now seeing a paradigm shift, with the advantages of liquid biogas becoming increasingly apparent for heavy transports and shipping in the Nordic region. Liquid biogas (LBG) is the key to future biogas growth."

Self-monitoring Methane Loss initiative designed by the Swedish Waste Management Association. In the area of health and safety – our most important sustainability issue for our employees – we have, among other things, worked to develop our safety inspections at all workplaces. We have also continued our work with a safety committee comprising the director of Business Area Sweden and all safety representatives. For 2018, we are producing our first GRI-referenced sustainability report.

Promising outlook

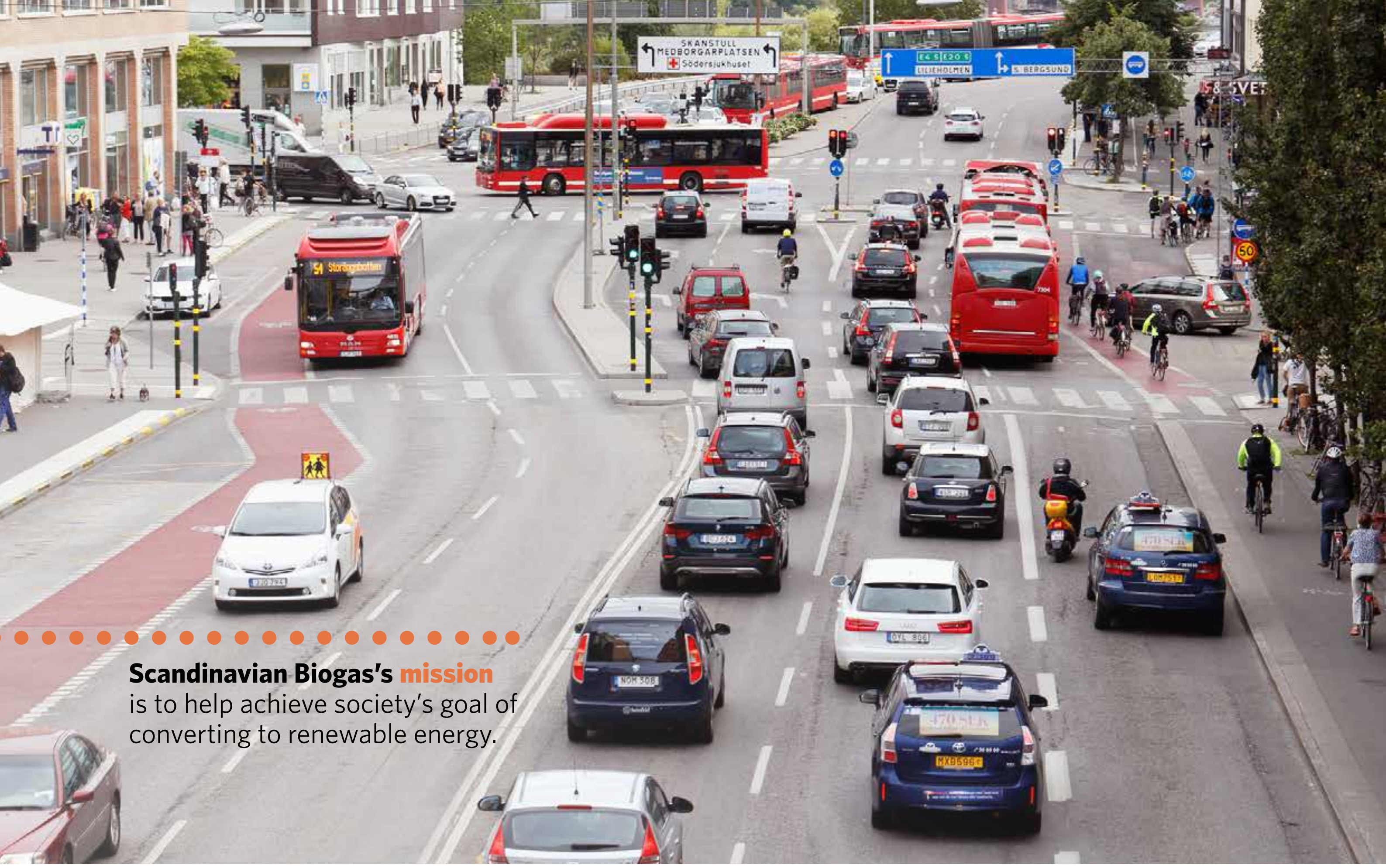
The Paris Agreement, Agenda 2030 and the IPCC's most recent report on the consequences of rising global temperatures have opened the eyes of many decision makers in the political sphere and the business sector. The global energy market is on the verge of a tremendous conversion and the need for renewable energy is increasing year by year. We are now seeing a paradigm shift, with the advantages of liquid biogas becoming increasingly apparent for heavy transports and shipping in the Nordic region. Liquid biogas (LBG) is the key to future biogas growth.

Within the company, we have reorganised to establish a clearer structure, with separate business units for operations in Sweden, Norway and South Korea. With a line-based organisation, we have a more straightforward assignment of responsibilities and greater capacity to capture growth potential in each of our markets.

2018 was a year of successes as well as setbacks. I would like to extend my warmest thanks to all of our employees, customers, partners and investors for your support. Enriched with experience, we are now ready to enter 2019 and we look forward to offering more people the opportunity to join one of the Nordic region's leading biogas companies on our journey.

Stockholm, April 2019

Matti Vikkula
President and CEO



Scandinavian Biogas's mission is to help achieve society's goal of converting to renewable energy.

Strategy and business model

Through its operations, Scandinavian Biogas supports a sustainable transition from fossil to renewable energy. The Company's strategy is based on utilising the Group's unique engineering expertise in biogas production to expand the biogas supply, in Sweden and internationally.

Scandinavian Biogas's aim is to be world-leading in large-scale biogas and bio-fertiliser production. The Company currently holds a leading position in renewable energy and biogas production in the Nordic region. Scandinavian Biogas works to ensure an increased use of biogas in the energy mix. The Nordic heavy road transport sector is currently the most significant area for the Company's growth ambitions, although the biogas market is also expected to grow within maritime transport and industry. Demand for liquid biogas (LBG) has increased in recent years, along with the supply of biogas-powered vehicles. This affects the market for compressed biogas (CBG), which is currently local but is expected to develop into regional or national markets in future.

Business concept

Our business concept is to be a leader in the design, management and operation of biogas plants.

Vision – how we generate value for shareholders

Our vision is to be world-leading in large-scale biogas production.

Operational goals

Scandinavian Biogas's long-term growth target is to increase the Company's biogas sales and deliveries by 20–30 per cent annually. Our mid-term goal is to achieve a total production volume of 1 TWh.

Long-term financial goals

- Project profitability ≥ 15 per cent IRR
- EBIT margin ≥ 10 per cent
- Equity/Assets ratio ≥ 30 per cent

Sustainable and profitable growth

In the Company's efforts to realise its vision, three main areas form the basis of Scandinavian Biogas's growth strategy for the next few years.

Utilise HOLD Technology™ and the Company's unique expertise

HOLD Technology™, Scandinavian Biogas's self-developed process technology for biogas production, is the core of the Company's operations. HOLD Technology™ produces a stable process capable of handling extremely large loads, which in turn produces optimal cost- and resource-efficient production.

After more than ten years of research and development, combined with in-depth practical experience in biogas production, Scandinavian Biogas has world-leading expertise in the optimal design and operation of biogas facilities. The Company's plants in South Korea and at Södertörn are good examples of the technology's application. High production levels and a minimal amount of digestates are achieved with optimised digestion tank capacity. Based on its extensive and world-leading expertise in the field of biogas, Scandinavian Biogas is well positioned to capture growth in the market for resource and energy recovery.

Read more about HOLD Technology™ on page 11.

Increased production capacity

The expansion of production capacity is a key aspect of Scandinavian Biogas's growth strategy. Ongoing efforts to increase capacity are pursued on multiple levels. New investment opportunities are continuously explored, ranging from the design of new plants and takeover of biogas plants from third parties to the expansion of own existing plants. The Company's HOLD Technology™ will be further developed and utilised to a greater extent to improve capacity at existing plants.

The trend in biogas production is towards the construction of larger and larger plants. Scandinavian Biogas's strategy is to focus on plants with an annual capacity of over 50 GWh (CBG) or over 100 GWh (LBG). In recent years, a key aspect of the strategy has been to consolidate a strong position in the Stockholm area. One step towards the realisation of this strategy is the agreement previously entered into by the Company with Stockholm Vatten och Avfall, which guarantees operations at Henriksdal and Bromma for many years to come.

In the next step, Scandinavian Biogas will further expand its LBG production capacity. This will give the Company greater access to national and Nordic gas markets. The investment in and commissioning of the plant in Skogn, Norway, was a step in this strategic direction.

Important work is being done to identify new substrate sources. The Group's research and development efforts have evaluated the suitability of more than 400 organic materials. Potentially interesting substrates have been identified in the pulp and paper industry and elsewhere.

Develop partnerships

Due to its market-leading expertise in biogas production, Scandinavian Biogas has formed trusting relationships with several local and regional players. An example of this is the Company's long-term agreement with Stockholm Vatten och Avfall for the management of local waste resources in the Stockholm area.

Scandinavian Biogas will continue to secure and strengthen long-term strategic partnerships across the entire value chain, from substrate suppliers to valuable by-product customers. The growth projects currently under development by the Company will also be pursued in close collaboration with partners and customers.

In assessing potential new growth projects, the Company uses its well-established project development process, which covers everything from thorough evaluation of the project's potential to construction of the plant in accordance with HOLD Technology™. Based on this process, Scandinavian Biogas can offer long-term partnerships, such as designing and operating biogas production plants for external partners.

Investments in renewable energy

In recent years, Scandinavian Biogas has made extensive investments to support a fossil-free, circular and sustainable society. Increasing biogas production capacity is also a key factor in the Company's growth strategy. New investment opportunities are continuously investigated, particularly production capacity for liquid biogas (LBG). The investment in the plant in Skogn, Norway, was an important step in this development.

Total investments in 2018 amounted to nearly SEK 117 million. Of this amount, investments in Norway accounted for 85 per cent, investments in Sweden 14 per cent, and investments in South Korea approximately 1 per cent.

In coming years, Scandinavian Biogas intends to make significant investments to improve and expand the plant at Södertörn. The goal is to invest close to SEK 100 million in the first stage. Gross investments are estimated at approximately SEK 300 million, half of which is expected to be financed with external investment grants.

Business model

Scandinavian Biogas essentially operates under two business models, based on its world-leading HOLD Technology™. The Company's strength lies in its qualified engineering expertise in the development of resource-efficient, economical processes for many different types of substrate.

With HOLD Technology™, the process concept includes the entire chain – from biogas plant design to managing, pre-treating and digesting organic material and upgrading biogas to vehicle fuel quality. The efficient operation of biogas facilities is at the core of Scandinavian Biogas's business model. The Company attaches great importance to systematically improving and fine-tuning the digestion process.

Scandinavian Biogas's two business models

Build-Own-Operate (BOO) focuses on constructing biogas plants in accordance with HOLD Technology™ and on operating them in a resource-efficient manner based on Scandinavian Biogas's expertise.

Engineering and Operations (E&O) emphasises Scandinavian Biogas's service offering as biogas plants are being designed and operated in accordance with HOLD Technology™.

Value creation through Scandinavian Biogas's qualified engineering expertise in biogas production

- Produces more gas per cubic metre of digestion tank volume
- Provides qualified expertise for a wide range of substrates
- Dramatically shortens the period between start-up and full production capacity
- Achieves greater reactor stability during the digestion process
- Ensures high-quality bio-fertiliser
- Upgrades gas with very low levels of methane leakage
- Achieves cost- and resource-efficient production
- Continuously increases production capacity through process improvements

HOLD Technology™

One of Scandinavian Biogas's success achievements is its self-developed HOLD Technology™, an advanced process technology used to optimise large-scale biogas production. The method is one of the most effective in the world and has been utilised on a full scale in Ulsan, South Korea, where production efficiency has increased 3–5 times since the Company took over in 2007. HOLD stands for High Organic Load Digestion.

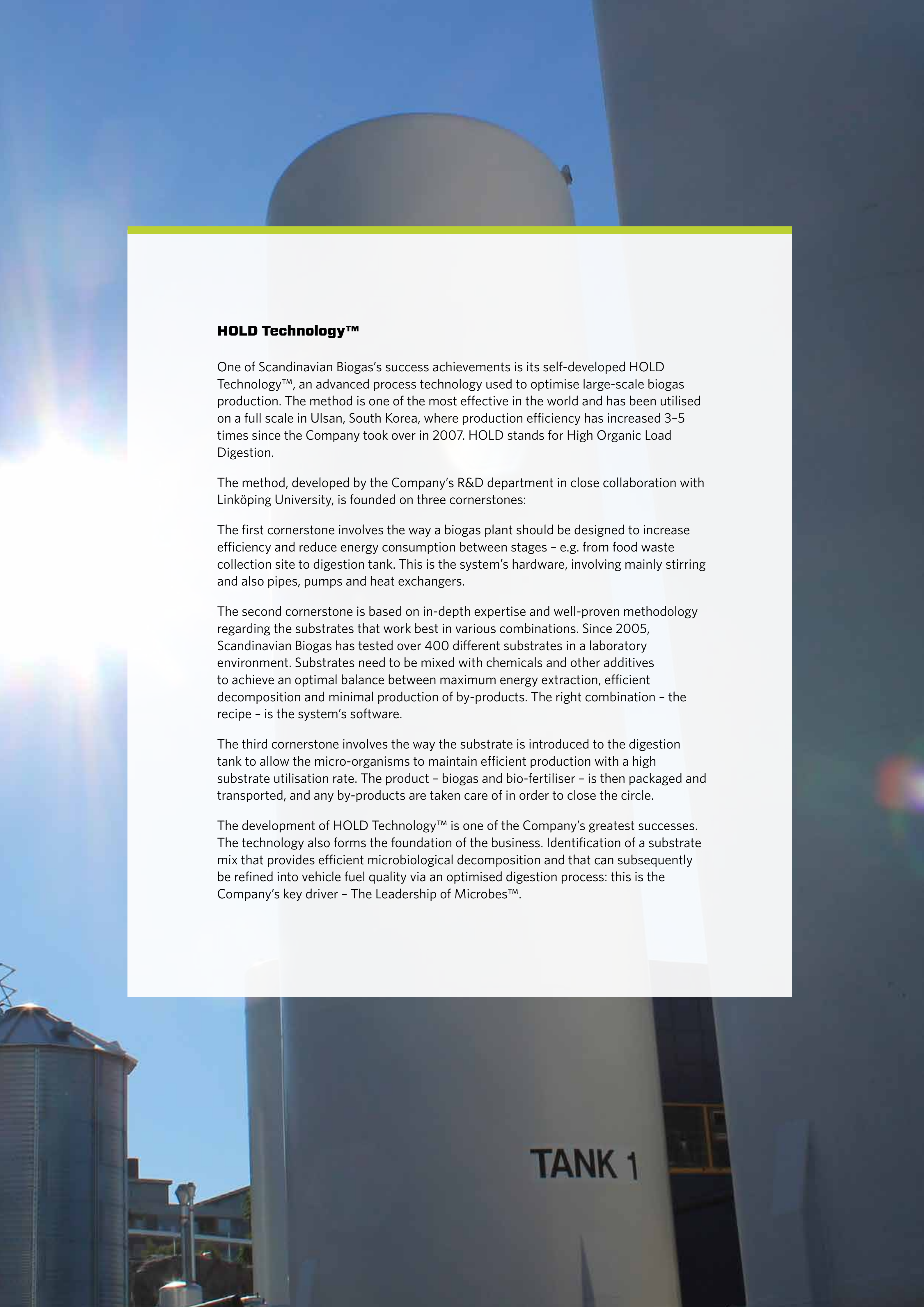
The method, developed by the Company's R&D department in close collaboration with Linköping University, is founded on three cornerstones:

The first cornerstone involves the way a biogas plant should be designed to increase efficiency and reduce energy consumption between stages – e.g. from food waste collection site to digestion tank. This is the system's hardware, involving mainly stirring and also pipes, pumps and heat exchangers.

The second cornerstone is based on in-depth expertise and well-proven methodology regarding the substrates that work best in various combinations. Since 2005, Scandinavian Biogas has tested over 400 different substrates in a laboratory environment. Substrates need to be mixed with chemicals and other additives to achieve an optimal balance between maximum energy extraction, efficient decomposition and minimal production of by-products. The right combination – the recipe – is the system's software.

The third cornerstone involves the way the substrate is introduced to the digestion tank to allow the micro-organisms to maintain efficient production with a high substrate utilisation rate. The product – biogas and bio-fertiliser – is then packaged and transported, and any by-products are taken care of in order to close the circle.

The development of HOLD Technology™ is one of the Company's greatest successes. The technology also forms the foundation of the business. Identification of a substrate mix that provides efficient microbiological decomposition and that can subsequently be refined into vehicle fuel quality via an optimised digestion process: this is the Company's key driver – The Leadership of Microbes™.



Market and key drivers

Today's infrastructure for natural gas is well developed, and biogas can easily be blended into existing natural gas flows. Biogas has many advantages as an energy source. It is normally produced from organic waste that has few other uses, which means that biogas extraction increases the circularity of the energy system and the economy. With low particle and nitric oxide emissions, biogas also benefits the local environment.

The biogas market

Biogas has a wide range of applications. The purpose for which biogas is used is partly determined by conditions and demand in markets where it is produced. In Scandinavia, biogas is used primarily as fuel or for heating, with the greatest growth potential found in the vehicle fuel market and industrial processes. In South Korea, biogas is more commonly used to produce industrial heat.

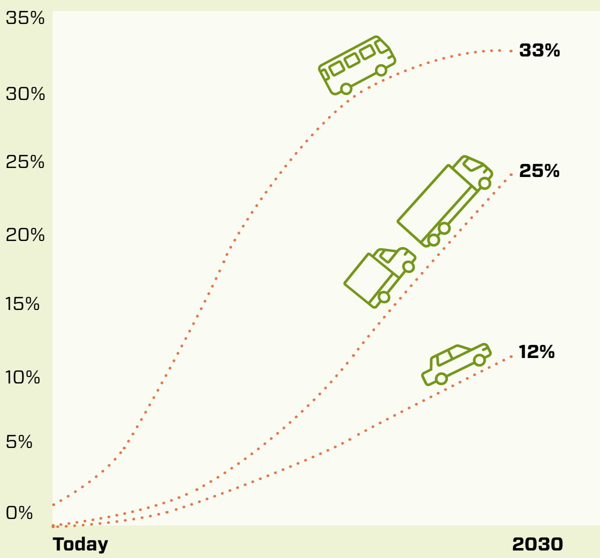
Scandinavian Biogas works with five main market segments for biogas. In addition to these, the bio-fertiliser by-product market is also significant. A prerequisite for realising the long-term potential of biogas is scaling up liquid biogas (LBG) production, as it is easier to use gas in liquid form in industry and as vehicle fuel. Liquid biogas is also better suited for longer transports and can therefore open the way for a Scandinavian biogas market. Biogas is currently distributed locally and regionally by lorry or via a natural gas pipeline network.

Feedstock for biogas

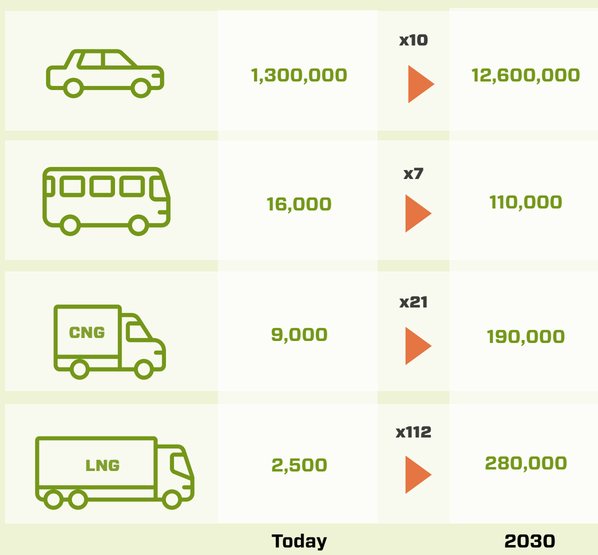
Substrate is needed to produce biogas, and in most cases vario-us types of waste are used as feedstock. Today, as the circular economy mind-set gains more traction, more and more players view waste as a valuable resource. This increases competition for certain waste streams.

Gas vehicles in Europe, 2030

Market share for natural gas vehicles in Europe



Development of natural gas vehicle fleet



Enormous growth potential in Europe

According to estimates, the market for methane-fuelled vehicles in Europe has enormous potential. European trade association NGVA expects the vehicle fleet to be 13 million strong by 2030, distributed between passenger cars, light vehicles, buses, heavy vehicles, and ships. This represents a ten-fold increase from current levels. The development potential for gas-fuelled lorries is deemed particularly significant – from the current 2,500 vehicles to 280,000 in 2030. The supply of renewable gas is expected to increase in parallel with this development.

Source: NGVA, ngva.eu/wp-content/uploads/2018/10/2018-09-24-LNG-workshop-presentations-merged.pdf

Light vehicles	Buses	Heavy transport	Industry	Shipping	Bio-fertiliser
• CBG • Local market • Potential: >4 TWh	• CBG • Local market • Potential : >4 TWh	• LNG/LBG • Scandinavian market • Potential: >10 TWh	• LNG/LBG • Scandinavian market • Potential: ~20 TWh	• LNG/LBG • Scandinavian market • Potential: ~96 TWh	• Three different products • SPCR 120-certified • Local market

Scandinavian Biogas

To improve efficiency and strengthen competitiveness, Scandinavian Biogas places great emphasis on identifying new substrates.

In Sweden, sewage sludge is the most common substrate used in biogas production. Most Swedish treatment plants are equipped with digestion tanks, which limits the growth potential for sewage sludge as a substrate. Food waste is one substrate with great growth potential, as only a small amount of Swedish household food waste is currently being collected. In 2016, 40 per cent of food waste was collected and only 32 per cent of food waste was used for biogas production.[1] Meat industry and forestry residues are other feedstocks with developing potential as biogas substrates.

Main market segments for biogas

Light vehicles

Compressed biogas (CBG) for light vehicles is currently the main segment for biogas in Sweden, although this market is currently dependent on policy instruments. The market is also limited by the supply of gas cars and filling stations. In Sweden, filling stations are mainly concentrated in metropolitan areas, along the natural gas pipeline on the country's west coast, and in Bergslagen. It is today possible to drive a gas vehicle throughout Göta- and Svealand and along the entire Norrland coast.

Buses

Public transport is a strong market for biogas and will remain a key driver in the industry. In 2017, approximately 20 per cent of Sweden's buses ran on biogas, a year-on-year increase of 10 per cent when calculated by number of vehicle kilometres. Municipalities often oversee treatment plants as well as public transport, which has provided opportunities for local cycles that utilise waste. Stockholm Public Transport (SL) and its operators are the players in Sweden that use the most biogas.

Heavy transport

An increasing number of heavy vehicles are powered by alternative fuels such as biogas. This also applies to long-haul traffic. Volvo, Scania, MAN, Mercedes and Iveco are some of the companies that have invested heavily in developing efficient, sustainable fuel solutions. The Euro 6 gas engine is essentially as effective as a diesel engine. Meanwhile, interest in gas trucks and lorries is on the rise in several European countries. Since freight transport is normally done across national borders, this affects conditions for biogas use also in Sweden and Norway. Renewable alternatives such as biogas also benefit from the expected rise in oil prices in the long term. Liquid biogas production and access to filling stations are factors that are currently limiting the use of biogas as a fuel for heavy transport.

Industry

Approximately 9 TWh of gas is used annually by Swedish industry, with biogas representing only a small share of this amount.[2] Most of the industries that use gas are located along the gas grid on Sweden's west coast. In addition to reducing climate impact, the transition to gas from oil and other fossil fuels enables more precise process control. The food industry is therefore particularly interested in gas as a fuel. Estrella, for example, has been using biogas in its production of crisps and snacks since 2017, reducing its carbon emissions by 92 per cent. Stronger financial incentives and increased LBG production would enable biogas to achieve a real impact in industry.

Shipping

The shipping sector has increased its use of gas as fuel in recent years. A 2017 review of newly ordered vessels with links to Sweden showed that half of all new vessels were built to run on gas. Although mainly liquid natural gas is being used, biogas can easily be blended with natural gas, or can replace it entirely. This trend has its origin in the sector's environmental ambitions and

[1] Matavfall i Sverige – uppkomst och behandling 2016. Swedish Environmental Protection Agency, p. 12 www.naturvardsverket.se/Documents/publikationer6400/978-91-620-8811-8.pdf?pid=22466

[2] Swedish Energy Agency

"Our new lorries that run on liquid biogas have significantly less environmental impact than diesel lorries. They are also much more fuel efficient than the gas-fuelled lorries currently on the market."

Mats Franzén,
Product Manager at Volvo Trucks

tough new sulphur emissions standards for the Baltic Sea. Neither natural gas nor biogas give rise to sulphur emissions. Carbon dioxide emissions can be reduced by around 30 per cent using natural gas instead of heavy oil, and by a full 120 per cent using biogas.[1] Supplying the shipping sector's needs, however, requires large quantities of gas. As the supply of LBG increases, several shipping companies are ordering gas-powered vessels. And as more and more vessels are powered by gas, the need for biogas (LBG) also increases dramatically. The Norwegian shipping company Hurtigruten decided in 2018 to invest over SEK 7 billion in technology and sustainable solutions through the year 2021. The vessels will run on a combination of natural gas and liquid biogas, making Hurtigruten the world's first shipping company to use biogas on a large scale.[2] The shipping sector is of great interest for the future.

Market for bio-fertiliser by-product

A residue is formed when organic waste is broken down into biogas. This residue is called 'digested sludge' at treatment plants and 'bio-fertiliser' when produced at other types of plants. Digested sludge and bio-fertiliser can both be used to advantage as fertiliser. Bio-fertiliser is made of nutrients recovered from waste, and some substrates are more appropriate than others. Animal waste, for example, needs to be heat-treated to kill bacteria and infective agents, while vegetable waste does not.

Because bio-fertiliser is rich in nitrogen and phosphorous, it can be highly beneficial in organic farming, where alternatives for nitrogen and phosphorous fertilisers are limited. Today, around half of all bio-fertiliser produced by Swedish biogas plants is utilised. Fertiliser production will be a significant revenue stream for the biogas plants going forward.

"Biogas is the greenest fuel in the shipping industry, and using biogas for cruise liners will be a major boon for the environment. While most of our competitors are still using inexpensive, polluting heavy oil, our ships will literally be fuelled by nature."

Daniel Skjeldam, CEO of Hurtigruten

[1] www.energigas.se/fakta-om-gas/biogas/biogas-och-miljoen/biogasens-klimatprestanda/

[2] Hurtigruten, www.hurtigruten.no/om-oss/presse/presse-mynewsdesk/#/pressreleases/hurtigruten-investerer-over-7-milliarder-i-groenn-teknologi-skal-seile-paa-doed-fisk-2799539

Biogas consumption in Scandinavian Biogas markets

Sweden

- The Swedish biogas market is distinguished by having a large number of small-scale operators – a total of 275 plants.[1]
- Companies taking steps to reduce greenhouse gas emissions were eligible to apply for financial support via Klimatklivet in 2015–17. The initiative is part of the government budget.
- The Swedish government decided in 2018 to introduce a SEK 270 million government biogas subsidy for raw gas producers. Industry representatives believe that the subsidy is likely to be extended.
- Co-digestion plants account for the largest production increase. The most important substrates are sewage sludge (35 per cent), manure (20 per cent) and food waste (11 per cent).[2]
- The share of newly registered biogas cars has increased by 137 per cent between 2008 and 2018.[3]
- The share of biogas in vehicle gas has increased rapidly since introduction in the 1990s and totalled 86 per cent in 2017.[4]

Norway

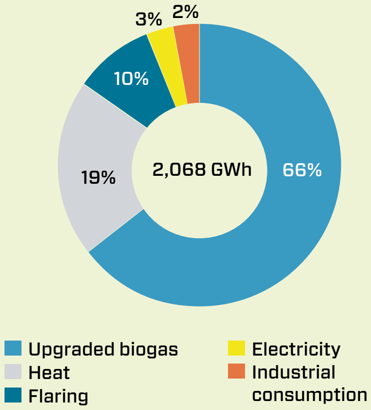
- Norway's biogas production is the least developed among Nordic countries, although there is a clear strategy to increase biogas production in coming years.
- The Norwegian Environment Agency estimates a potential increase in biogas production of 400 per cent during the 2015–25 period.[5]
- Gas-powered buses are driving demand for biogas.
- Several transport companies are investing in liquid biogas and have signed intent agreements for hundreds of heavy biogas-powered vehicles. Since autumn 2017, operators can apply via Norwegian Enova for financial support for investments in heavy transport and refuelling infrastructure.
- There is great potential within shipping, where liquid biogas can be used as a natural gas supplement and a fossil fuel substitute.

South Korea

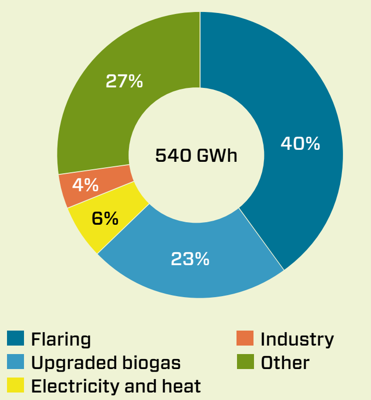
- The market is comprised of a few large-scale biogas plants.
- Electricity and heat production account for most biogas consumption, with vehicle fuel accounting for only a small percentage.
- The main focus of biogas production is electricity generation, which is expected to increase 27 per cent between 2015 and 2020.[6]
- The South Korean government has announced an increase in renewable electricity to 20 per cent by 2030, in line with the Paris Agreement's climate target.
- Subsidies and low-interest loans are offered as partial support for investments in the biogas industry.

[1] Produktion och användning av biogas och rötrester år 2017, Swedish Energy Agency, p. 7.
[2] Ibid., p. 16.
[3] Registered vehicles January 2006 - December 2018, Statistics Sweden
[4] www.energigas.se/fakta-om-gas/saa-haer-anvaends-gas-i-sverige/vaetransporter
[5] Norwegian Environment Agency
[6] Ministry of Environment

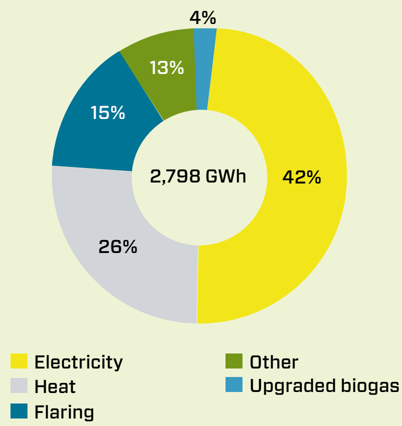
Biogas consumption, Sweden 2017[1]



Biogas consumption, Norway 2016



Biogas consumption, South Korea 2016[2]



[1] Swedish Energy Agency
[2] IEA Bioenergy

Circular economy of biogas

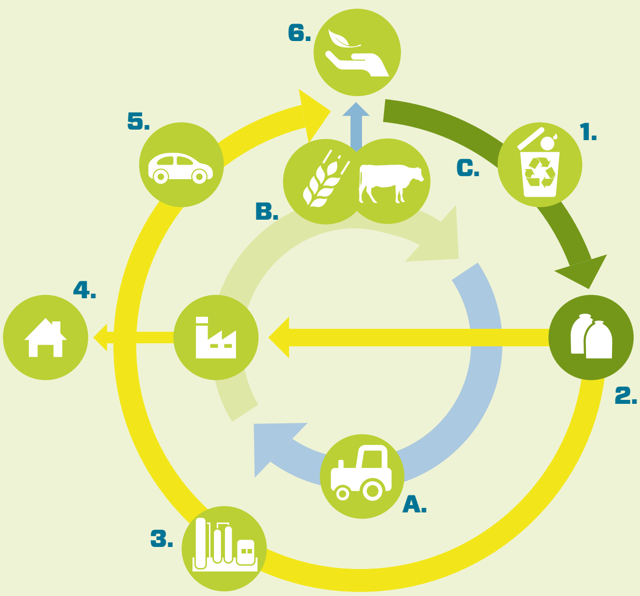
Circular economy is a term referring to economic models that view circular cycles as a business opportunity. The approach is inspired by nature's cycle, with the goal of utilising waste as raw material to the greatest possible extent through re-use or recycling. Biogas is often highlighted as a cornerstone of the circular economy, as it forms part of a closed loop in which waste, wastewater and forestry and industrial residues are used in renewable products such as fuel, electricity and heat.[1] Nutrients in the waste can also be returned to the earth via agriculture as bio-fertiliser. The circle is closed when gas and bio-fertiliser are used.

CERTIFIERAD ÅTERVINNING

Organic waste is processed in Scandinavian Biogas's production of biogas. This gives rise to renewable and locally produced fuel and bio-fertiliser. Nutrients are returned to the earth through agriculture in the form of bio-fertiliser.

In this way, Scandinavian Biogas closes the circle, participates in the circular economy and promotes a sustainable society.

Biogas is the most eco-friendly vehicle fuel from a comprehensive perspective, and helps reduce CO_2 emissions.



The biogas cycle

Biogas production is a natural process, in which organic material is broken down by microorganisms in an oxygen-deficient environment.

1. Recycling of organic waste and residues
2. Waste is digested into biogas
3. Biogas is processed into fuel – CBG or LBG
4. Excess energy is used for heat and electricity
5. Biogas is used as fuel, either as compressed gas (CBG) or as liquid biogas (LBG)
6. The cycle is closed

A. The bio-fertiliser formed during the biogas production process contains key, finite nutrients, which are returned to the earth via agriculture

B. Agriculture yields a harvest that provides food for humans and animals

C. Organic waste (e.g. food waste and manure) is formed

[1] www.energigas.se/om-oss/nyheter-och-press/nyheter/biogas-nyckel-foer-cirkulaer-ekonomi/

Operations

Cost-efficient, large-scale biogas plants

Scandinavian Biogas's core business, which has historically been the production and upgrading of biogas in Sweden and biogas production in South Korea, now includes the production of liquid biogas (LBG) at the Company's plant in Norway, which has been delivering liquid biogas to the Norwegian market since September 2018. At the plant in Ulsan, application of the Company's self-developed HOLD Technology™ has produced a five-fold increase in production efficiency. The plant at Södertörn is scheduled for expansion.

The production plant at Skogn was commissioned in early summer 2018 and is now producing liquid biogas for the Norwegian market, where there is high demand from the heavy transport and shipping sectors. The plant is operated by subsidiary Biokraft AS, which includes energy company TrønderEnergi AS as a significant minority shareholder. Read more about operations in Norway on page 21.

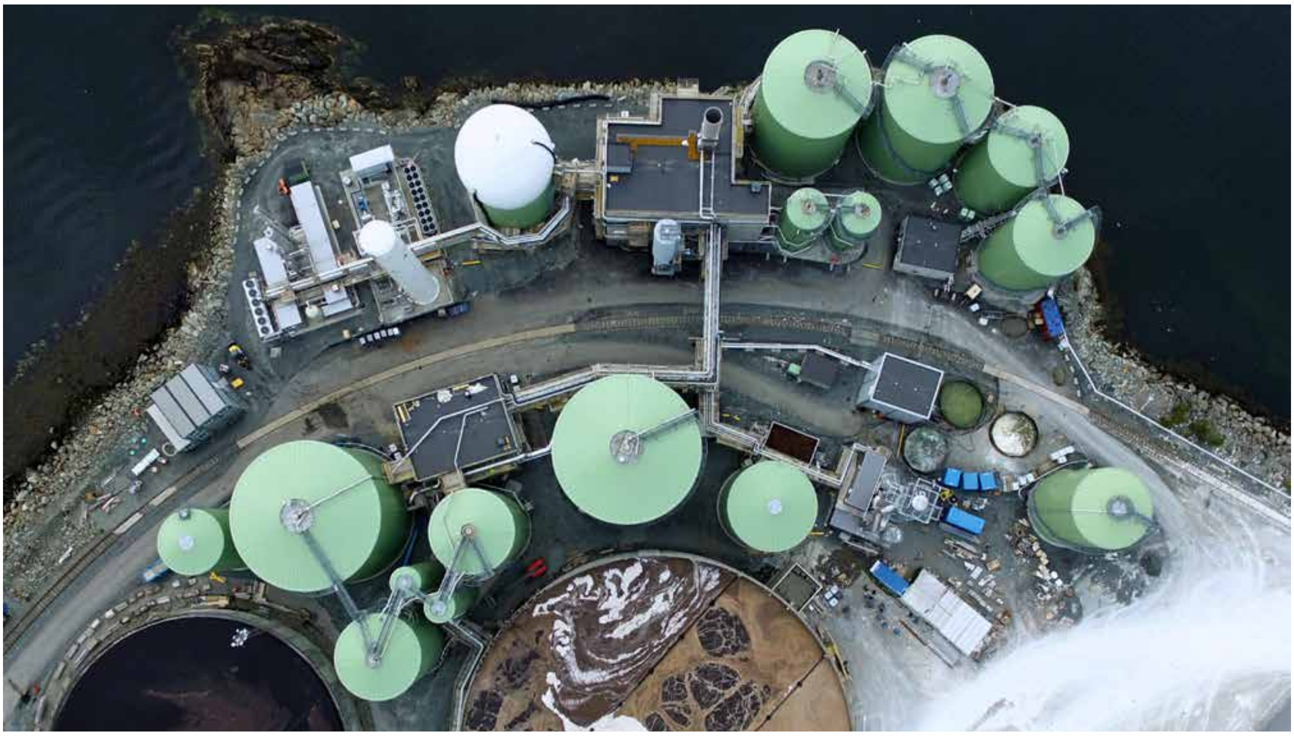
Demand for vehicle gas and bio-fertiliser remains high in Sweden, and the business area is planning an expansion of the plant at Södertörn. The objective is to meet increasing demand and simultaneously fine-tune the process chain to enable delivery of greater volumes of food waste. Read more about operations in Sweden on page 18.

New substrates and feedstocks are continuously tested, and new collaborations provide access to restaurant and household food waste and business waste from various industries. Scandinavian Biogas's operations lay the groundwork for a circular economy and support sustainable development.

Biogas deliveries of **278 GWh** equivalent to annual supply for **655 city buses**

51,604 tonnes CO_2e emissions reduction in Sweden thanks to biogas

Production of 16,600 tonnes of bio-fertiliser covering an area equivalent to **3,444 football pitches**



Operations
Sweden

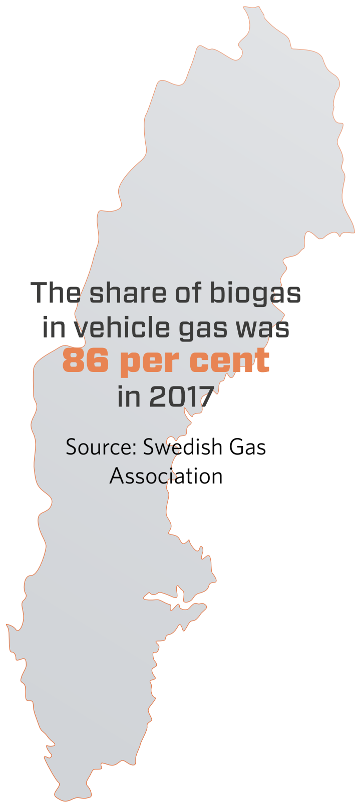
Sweden is Scandinavian Biogas's main market for biogas as vehicle fuel. With three full-scale production plants in the Stockholm area and a production capacity of nearly 300 GWh in 2018, the Company supplies the Swedish market with both bio-fertiliser and biogas.

There are 275 biogas plants in Sweden. Co-digestion plants and treatment plants account for most of the biogas produced.[1] Biogas is exempt from energy and carbon tax and growth has been stable for many years. Since 2014 there has been a lack of long-term political direction in the area and gas vehicle sales and the vehicle gas market have stagnated somewhat, although a series of policy decisions taken during 2018 point in a positive direction.

In June 2018, the Swedish government decided on a government biogas subsidy that will benefit the industry. Biogas production increased 2.5 per cent in 2017 and there was a year-on-year increase in the number of newly registered natural gas vehicles. The government has also appointed a commission of inquiry that will analyse biogas's future based on the new climate policy goals and offer proposals for improving competitive conditions for biogas. The commission will submit its report by June 2019.

Another step in the right direction was the government's decision to provide SEK 200 million to the Drive LBG demonstration cluster to support demonstration projects that develop LBG as a vehicle fuel. The initiative demonstrates that the Group's long-term investment in LBG production is in demand by both the market and the political sphere. In addition, the project for the large-scale fertiliser-based biogas plant in Mönsterås – which will be jointly built and operated by Scandinavian Biogas and Mönsterås Biogas – was awarded an SEK 108 million climate investment grant from Klimatklivet.

Biogas is particularly attractive within the public transport sector across the country. One in five bus kilometres is now fuelled by biogas. The transport sector is the single largest source of emissions in Sweden – accounting for one-third of the country's



Plants in Sweden

[1] Swedish Energy Agency

carbon emissions. Compared with other European countries, though, Sweden is well advanced when it comes to using renewable energy as fuel.

According to Swedish Energy Agency estimates, the total share of renewable fuel in Sweden's transport sector rose from 15 to 23 per cent in 2018.[1] The political target is to reduce the transport sector's greenhouse gas emissions by 70 per cent by 2030, with 2010 as base year. Biodiesel is Sweden's most prevalent renewable fuel, with 86 per cent of the market. With a 6.8 per cent market share, biogas ranks third (after ethanol). HVO (hydrogenated vegetable oil) is the fastest-growing renewable fuel.

Facilities

Scandinavian Biogas's plants are situated based on the Company's strategy of establishing a strong presence in local and regional markets, with a focus on vehicle fuel. Strong relationships with long-term partners have allowed Scandinavian Biogas to deploy and further develop its operations.

All biogas production at Bromma and Henriksdal is conducted within the framework of close co-operation with Stockholm Vatten och Avfall, under which Scandinavian Biogas produces biogas from sludge and raw gas produced by partners. To meet the demand from Stockholm's growing population, the City of Stockholm has decided to increase water treatment capacity and biogas production in the region. The Henriksdal treatment plant will therefore be modernised and expanded, while the Bromma plant is scheduled for decommissioning in 2026. Construction began in late 2017 on a tunnel that will redirect wastewater currently going to Bromma to the Henriksdal treatment plant. The biogas plant at Henriksdal is Scandinavian Biogas's largest in terms of biogas production and revenue.

The plant at Södertörn is operated in collaboration with SRV Återvinning AB, a specialised waste management company owned by the municipalities of Huddinge, Haninge, Botkyrka, Salem and Nynäshamn.

Under the new environmental permit granted in 2017, Scandinavian Biogas is licensed to process up to 260,000 tonnes of food waste annually per facility. Due to production process efficiency, a full 70–80 per cent of the waste's energy can be utilised. The plant's current production capacity is 80 GWh, corresponding to 8.8 million litres of petrol and enough to meet the annual fuel needs of 5,000 private motorists.

Based on the new environmental permit, the business area has begun planning a capacity increase at the plant for received volumes as well as biogas production. The expansion will also allow the reception of additional types of waste. Various changes to biogas logistics are also being considered.

In addition to biogas, the Södertörn plant also produced quality-certified bio-fertiliser. A filling station is a new addition to the plant and became operational in early 2018. The filling station will sell biogas to gas-powered lorries and refuse vehicles that use Södertörn's recycling facility.

[1] http://www.energimyndigheten.se/nyhetsarkiv/2016/allt-mer-fornybart-bransle-vid-transporter/

EffiSludge for Life

EffiSludge for Life is part of the European research programme on environment- and climate-related issues (project no. LIFE14 CCM/SE/000221). The project is aimed at using the by-product bio-sludge to produce liquid biogas (LBG), a process that reduces energy consumption and CO_2 emissions in the process water purification process. The project is jointly operated by Scandinavian Biogas, Norske Skog and majority-owned Norwegian subsidiary Biokraft.

The biogas production plant at Norske Skog's paper mill, located in Skogn, Norway, outside Trondheim, has received a research grant under the framework of the EU's LIFE environmental fund to implement the EffiSludge for Life demonstration project. Now that the biogas plant has entered the operational phase, the mill's internal purification process can be converted from sludge destruction to sludge production. The project runs for four years with start in 2015. Project cost is estimated at SEK 30 million, with the EU grant corresponding to approximately SEK 16 million.

The mill produces close to 500,000 tonnes of paper annually. This currently requires around 20,000 m^3 of process water for chilling, transport and purification. When process water can no longer be re-used due to high levels of organic pollutants, it is directed to the mill's internal purification plant. In the first stage of purification, fibres and loosely suspended materials in the water are allowed to settle. The water is then directed to large tanks for aerobic purification. Oxygen is blown into the water, which allows an active biomass – comprised of bacteria and other microorganisms – to convert organic material in the water into carbon dioxide. The nutrients nitrogen and phosphorous are added to fertilise the active biomass and accelerate the conversion. This process generates surplus bio-sludge – an unwanted by-product that requires massive amounts of energy for drainage prior to being incinerated or deposited in a landfill.

Within the framework of the EffiSludge project, however, bio-sludge is considered a resource and is used as a component in liquid biogas production. Rather than trying to minimise the development of bio-sludge, as is done in conventional aerobic purification, EffiSludge aims to increase sludge production. With less need for ventilation, the purification process can be made more efficient, saving time and energy. Energy consumption is reduced nearly 50 per cent for each tank. Rather than being incinerated or sent to a landfill, the bio-sludge is collected and directed to a digestion tank where it is mixed with other organic material – in this case, waste from the salmon farming industry. The sludge is then broken down to biogas (methane and carbon dioxide) and digestate in an oxygen-free environment. The digestate is rich in organic carbon and nutrients, which are returned to the water purification stage after separation. The biogas produced is upgraded by separating the methane from other gases. The methane is then chilled to liquid form for transport and sale. Converting the waste's sludge into a resource saves 500 grams of carbon dioxide per cubic metre of process water, reducing the mill's CO_2 emissions by 3,500 tonnes annually – corresponding to the amount of fuel needed for 1,400 cars to drive 20,000 kilometres each.

The EffiSludge for Life project promotes better resource utilisation, reducing energy and nutrient consumption while converting organic material from the mill's process water into liquid biogas.

Operations

Norway

The biogas plant in Skogn in central Norway was commissioned during summer 2018. The plant is the world's largest for the production of liquid biogas (LBG) and will have an annual capacity of 12.5 million Nm³ of methane, corresponding to 120 GWh.

The Norwegian economy is facing a major conversion as fossil fuels are to be replaced with renewables. The Norwegian parliament and government have therefore improved conditions for biogas production, with a goal of producing 1 TWh of biogas in Norway by 2020. In the Norwegian public sector, several municipal companies are taking the lead and using biogas as vehicle fuel. Public transport in Oslo (Ruter) and Trondheim (AtB) are two good examples of this.

The Norwegian Climate Act, which came into force on 1 January 2018, forms the basis for the Norwegian conversion to a low-emission society by 2050 and includes specific sub-targets to be achieved by 2030. As from 2018, biofuel is required to comprise at least 10 per cent of the volume of fuel used in road traffic annually. Of this ten per cent, at least 3.5 per cent must be advanced biofuel and at least 4 per cent must be biofuel used in petrol-powered vehicles.

The plant

Commissioning of the world's largest liquid biogas production plant began in late June 2018 in Skogn, outside Trondheim. During its first 6 months of operation the plant delivered 1.6 million Nm³ of liquid biogas to Norwegian customers. The main area of use is fuel for public transport buses and, increasingly, for private sector heavy transport vehicles. The biogas plant is therefore instrumental in converting the heavy transport sector and reducing total carbon dioxide emissions.

Initially, 12.5 million normal cubic metres of renewable biogas will be produced at Skogn annually. The next step is to double production capacity and increase total capacity to 240 GWh per year. The main feedstocks are ensilage from the Norwegian salmon farming industry and process water from Norske Skog's pulp and paper industry in Skogn.

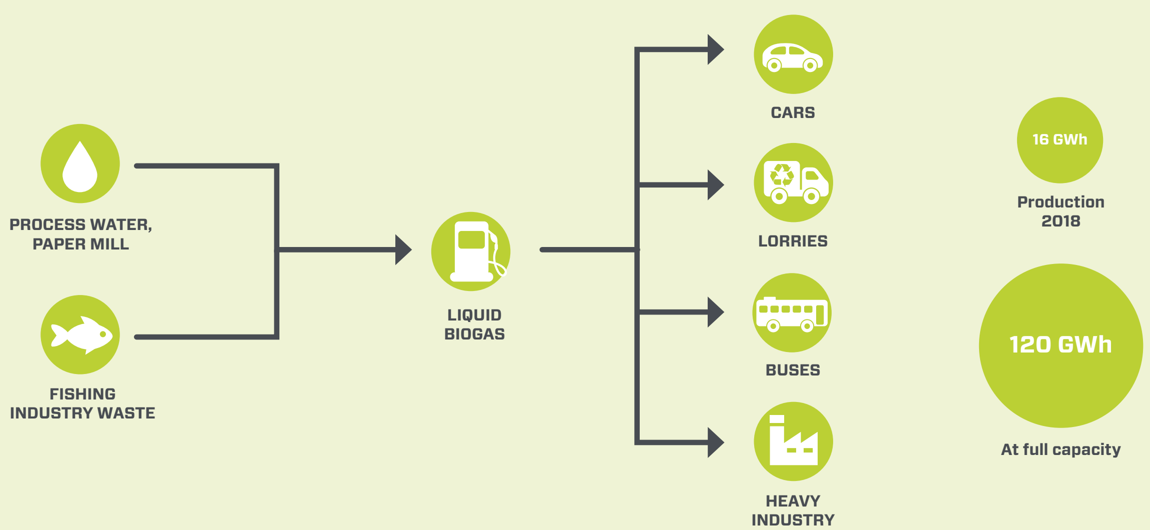
The liquid biogas is purchased and distributed by AGA – a key partner. Over the past ten years AGA has played an important role in the development of the Norwegian biogas market. The market is expected to grow rapidly over the next decade and Scandinavian Biogas will position itself as the leading player in the Norwegian market.

Collaborations

Scandinavian Biogas's work with Biokraft and TrønderEnergi and in collaborations with various national research programmes has enabled the Company to make major investments in research and development. The goal is to develop new methods and systems to increase productivity and make the most of resources along the entire production chain. Investments in a demonstration plant for the EffiSludge project were made possible through a collaboration with Norske Skog. Another research collaboration – the COMPLETE project – is being conducted with partners that include NTNU and SINTEF Ocean. Read more about the EffiSludge project on page 20 and COMPLETE on the following page.

The Norwegian operations are also a key partner to the Norwegian fishing industry – Norway's second largest export industry. Ensilage from the Norwegian salmon farming industry is the main feedstock for biogas production in Skogn. The fishing industry is expected to grow over the next decade, which provides good prospects for increasing the biogas plant's feedstock and improving the reputation of the fishing industry.

Skogn biogas facility for liquid biogas (LBG)



COMPLETE

The COMPLETE research project was initiated in 2016 and runs through 2019. The project is run in collaboration with the Norwegian University of Science and Technology and SINTEF Ocean. The Norwegian Institute of Bioeconomy Research (NIBIO) is also involved in the collaboration. The project is funded by Norway's research council and by Biokraft.

The goal is to create a circular system that utilises residues arising from biogas production and to promote biological carbon capture. Nutrients from residues and by-products from biogas production in Skogn are used to cultivate algae and polychaetes (bristle worms). The microorganisms are then used in the manufacture of animal and fish fodder and, during their growth period, also help to purify the water.

Scandinavian Biogas's ambition is to be a world leader in this field and to set a new standard for energy- and resource-efficient biogas production.

Operations

South Korea

At the Yongyun plant in Ulsan, South Korea, Scandinavian Biogas manages the food waste produced by the more than one million residents of the industrial city of Ulsan. Biogas is produced through pre-treatment of collected food waste followed by co-digestion with primary sludge from Yongyun's wastewater treatment plant.

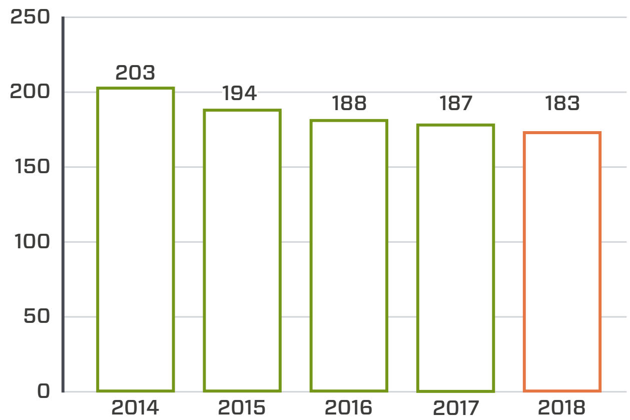
South Korea wants to promote sustainable development and is striving to become a world leader by successfully implementing Agenda 2030 in the country's development plan. Major focus is on the conversion to renewable energy. The capital city of Seoul has adopted its own development targets, based on global development goals, which specify how Seoul can be developed into a sustainable city. Among other things, greenhouse gas emissions will be reduced 40 per cent over 2005 levels.

The plant

After Scandinavian Biogas took over the biogas plant in Ulsan in 2007, the operations have undergone major changes. A fivefold increase in the amount of treated waste was achieved by optimising the plant and biogas production in accordance with the Company's self-developed HOLD Technology™. Approximately 40 tonnes of food waste were handled per day in 2007, as compared with 183 tonnes per day in 2018. With the changes, the City of Ulsan has positioned itself as a model for other South Korean cities – a position that was strengthened in 2013 when Yongyun's biogas facility was named the most efficient in South Korea. The plant was also designated a best practice facility by government authorities in 2015.

Operations in South Korea performed well in terms of volume of treated food waste, and production remained stable during 2018. Revenues are generated from fees for food waste management, which totalled an average of 183 tonnes (187) per day. Additional revenues were generated through the sale of a total of 62 GWh (67) of raw gas during 2018.

Management of food waste in South Korea, tonnes per day



Production includes the management, pre-treatment and digestion of large volumes of waste from City of Ulsan residents, as well as primary sludge from the adjacent Yongyun wastewater treatment plant. Operations in Ulsan are based on close collaboration with the major metropolis and are regulated by a concession agreement that runs through 2026. The plan to build an upgrading plant has been postponed, as gas prices in South Korea are low and demand for upgraded biogas has been weak. There is also a dispute between Scandinavian Biogas and Ulsan City regarding responsibility for such an investment.

Sustainability

The key driver and vision for Scandinavian Biogas is to take an active role in the conversion to a fossil free, circular and sustainable society.

Sustainability

Our view of sustainability

For us, sustainability comes down to the way we design, build and manage our plants. This must be done with regard to environmental, social and economic impact on the external environment, our employees, the local community where we operate, our stakeholders, and society as a whole.

During 2018 we further developed our sustainability work in our Swedish operations by producing strategic work areas, targets, action plans and internal KPIs linked to our most important sustainability issues. The targets are mainly connected to the production facilities where we have our greatest impact. Detailed targets and activities are presented on pages 29–34.

Materiality analysis and stakeholder dialogue

Scandinavian Biogas conducted a materiality analysis during 2017, which included an internal workshop with representatives from all Company departments as well as an employee survey. The analysis identified the Company's most important sustainability issues with regard to social, economic and environmental impact on the external environment and on the Company. The most important issues for employees are health, safety, compliance and business ethics.

The analysis also identified Scandinavian Biogas's most important stakeholders. Customers, owners and financiers, employees, the media, government authorities, and suppliers and partners are the stakeholders who influence or are most affected by the Company's activities.

During 2018 the Company maintained continuous dialogue with our partners, customers and suppliers. This dialogue revealed that working environment, transport, product labelling, energy consumption and waste recycling are particularly important issues for those who collect food waste. For bio-fertiliser customers, product quality and eco-certification are also key issues. Gas customers highlight compliance with biofuel sustainability criteria, traceability, locally produced gas and transport as particularly important issues. We intend to strengthen our dialogue with stakeholders to improve our understanding of their needs and expectations for the Company's sustainability work.

Nearby operations

The Company's facilities are located near other waste businesses, wastewater treatment plants and residential areas. Dialogue and co-operation with nearby operations is essential to Scandinavian Biogas's ability to operate as a biogas producer and to minimise risks. Regular collaborative meetings are held with neighbouring businesses, and nearby households are informed whenever changes are made to a production facility.

Scandinavian Biogas's three overarching sustainability goals

1

Move towards a fossil-free, circular and sustainable society through investments, innovation and growth in the biogas field. One of the Company's strategic goals is an annual 20–30 per cent increase in biogas deliveries.

2

Efficient and responsible operations

- Continuously reduce the operation's negative environmental impact and produce renewable products with high environmental performance and resource efficiency.
- Be a responsible and transparent partner and manage the business in a trustworthy manner.

3

Be an attractive employer that supports a safe and secure workplace, with committed employees.

Scandinavian Biogas's key sustainability issues

For 2018, Scandinavian Biogas is producing its first GRI-referenced report, with seven topic-specific disclosures.

Strategic work area	Key sustainability issue	UN Sustainable Development Goals	Inform	GRI disclosure	Page reference
Increase annual biogas deliveries by 20-30%	Investments in renewable energy		√		10
	Sustainable biogas		√	√	29
	Long-term returns		√		8
Resource efficiency Climate and environmental performance	Emissions to air		√	√	29-30
	Energy		√	√	29-30
	Waste		√	√	31
	Water		√		29-30
	Material		√		29-30
	Emissions to land & water		√		31
Product quality	Labelling		√	√	32
Responsibility & transparency	Compliance		√		28
	Business ethics		√	√	29
	Suppliers		√		9
	Nearby operations		√		25
Committed employees Safe & secure workplace	Health & Safety		√	√	33-34
	Training		√		33

Scandinavian Biogas actively supports sustainable development goals

Agenda 2030 – the UN's agenda for sustainable development, with 17 sustainable development goals – is based on the three dimensions of sustainability: economic, social and environmental. According to a study by the Biogas Research Centre,[1] global biogas production directly or indirectly supports all sustainable development goals. The Swedish Gas Association,[2] a trade association, argues that the benefits of producing and utilising biogas and bio-fertiliser include greater security of supply for energy and food, reduced dependence on imported natural gas and mineral fertiliser, and creation of local jobs and business opportunities. Scandinavian Biogas's core business is directly linked to five of the sustainable development goals.

Sustainable energy for all – significantly increase the share of renewable energy in the global energy mix.

In achieving this development goal, biogas is a key component in the global energy mix. Scandinavian Biogas invests in and produces biogas, which replaces fossil fuels. We ensure that the biogas provides an emissions reduction of more than 50% as compared with fossil fuels and that the feedstocks used have not caused damage to areas of high biological value.

Sustainable cities and communities – reduce cities' environmental impact per person. The goal involves devoting particular attention to air quality and waste management.

The Company offers organic waste treatment solutions and recovers the energy and nutrients in the waste, creating an alternative to waste incineration. Biogas also improves city air quality by reducing exhaust emissions of nitric oxides and harmful particles.

Decent work and economic growth – safeguard employee rights and promote a safe and secure working environment.

Laying the foundation for a safe and secure working environment through systematic working environment management and empathetic leadership is a high priority issue for Scandinavian Biogas.

Sustainable consumption and production – responsible waste recycling.

Scandinavian Biogas views organic waste as a resource. In Sweden, the Company recovers 76,500 tonnes of waste annually, delivers 200 GWh of biogas, and restores 192 tonnes of nutrients to Swedish agriculture. Operating our biogas plants in a responsible manner is a foundation of the Company's sustainability work. Focus is on material, energy and water optimisation and on preventing emissions to air, water and land.

Sustainable industry, innovation and infrastructure – adapt industries to make them more sustainable, and improve resource efficiency.

One of the Company's sustainability targets is to constantly improve resource efficiency at the production plants. The Company works continuously to replace older technology with cleaner, more efficient alternatives.

[1] The Role of Biogas Solutions in the Circular and Bio-Based Economy, Biogas Research Centre, 2016.

[2] Förslag till Nationell Biogasstrategi 2.0, Swedish Gas Association, April 2018

Sustainability

Sustainability management

Scandinavian Biogas's management of sustainability work is under development. The goal is to integrate sustainability in all parts of the business, with proactive accountability from an environmental, social and economic perspective. In time, this will also include operations in Norway and South Korea.

Group management is responsible for overall sustainability strategy, targets, activities and follow-up, while operational responsibility lies with the individual business areas. Sustainability work at the production facilities is carried out by the production manager and staff, who work with operating personnel to produce targets and action plans. The ambition is to have production managers and business area management monitor internal KPIs associated with sustainability issues on a quarterly and annual basis as from 2019.

Business area management has overall responsibility for working environment and social sustainability issues, which are delegated to departmental heads. Targets and activities are monitored through an annual management review led by the Quality manager and HR manager.

Values and ethical guidelines

Sustainability work at Scandinavian Biogas is a matter of running operations in a responsible manner and ensuring that we have a safe workplace with committed employees.

The Company has several policies in place. The business ethics policy includes business ethics principles for employees and stipulates compliance in all business dealings, respect for the UN Declaration of Human Rights, and zero tolerance for corruption. In order to meet the overall goal of being a responsible and transparent partner and managing operations in a manner that inspires confidence, the policy will be developed on a regular basis and a code of conduct for suppliers will be produced. The Company's requirements and expectations for working conditions, human rights, the environment and anti-corruption will be clarified in the Code of Conduct. The policy on workplace discrimination, harassment and bullying will be reworked into a policy that includes guidelines for equal treatment, diversity and inclusion. The Company will also launch an internal process to clarify and firmly establish the Company's values.

Company policies are adopted by Group management.

Compliance and operating systems

The operating companies are subject to authorisation and notification requirements. Accordingly, the companies are required to have environmental permits as well as permits to use explosives and inflammable products and substances in their operations.

Scandinavian Biogas has an operating system with self-monitoring programmes for safety, quality, environment and working environment. Working preventively and applying the precautionary principle are fundamental considerations when, for example, purchasing new technology. The Company maintains regular dialogue with regulatory authorities and reports any incidents and operational disruptions than may affect the external environment or human health.

The Company had no monetary, administrative or legal sanctions for non-compliance with environmental, security or working environment legislation in 2018.

Policy documents for operations in Sweden (most recent update)

- Business ethics policy (2013)
- Working environment policy (2013)
- Policy on workplace discrimination, harassment and bullying (2016)
- Environmental policy (2018)
- Policies for inflammable and hazardous materials (2018)
- Quality policy (2017)
- Policy on intangible assets (2015)

Legal requirements for security, environment, working environment and quality

- Act on Sustainability Criteria for Biofuels and Bioliquids
- Act on Inflammable and Explosive Products
- Seveso Directive
- Environmental Code (environmental permits)
- ABP Ordinance (ABP permits)
- Planning and Building Act (building permits)
- Work Environment Act

Sustainability

Environment and product quality

For Scandinavian Biogas, the sustainable production of biogas and bio-fertiliser involves feedstock traceability, production with the greatest possible resource efficiency and environmental and climate performance, and the lowest possible environmental impact.

Environment and resource efficiency

Operating our facilities resource-efficiently entails optimising the biogas process with the Company's HOLD Technology™ as well as optimising water, energy and chemical usage. It also involves minimising emissions to air, water and land. These parameters are directly linked to the plants' environmental impact and the products' environmental and climate performance. They also go hand-in-hand with cost efficiency. The table below presents environmental targets for the production facilities in Sweden.

Scandinavian Biogas works continuously to maintain high levels of environmental and climate performance and of waste and residue traceability. The plants' self-produced biogas and small share of purchased biogas meet the sustainability criteria specified in the Act on Sustainability Criteria for Biofuels and Bioliquids, which exempts sold vehicle gas from carbon tax. According to the criteria, the feedstock used may not have caused damage to areas of high biological value and the biogas must produce at least 50 per cent less greenhouse gas emissions than fossil fuels.

During 2018 emissions were reduced 70–95 per cent, depending on type of waste and residue, for the Company's gas production in Sweden. This is ensured through regular feedstock evaluations and life cycle analyses that take into account transport emissions; consumption of energy, water and chemical products; and the plants' methane emissions. The plants in Sweden delivered 200 GWh of vehicle gas in 2018, corresponding to approximately 20 million litres of petrol – enough to supply around 422 city buses for one year or meet the fuel needs of around 20,666 private motorists (15,000 km). The plant at Södertörn produced 16,600 tonnes of bio-fertiliser as fossil fertiliser replacement. Total emissions reduction in 2018 for biogas and bio-fertiliser amounted to 51,600 tonnes CO_2e. The value chain, from a feedstock and product perspective, is illustrated on the following page.

Emissions to air

Scandinavian Biogas's most important and prioritised environmental issue is the emission of methane gas into the atmosphere. Methane emissions are biogenic, meaning that they are produced from biomass and do not give rise to new methane gas emissions but are rather part of the natural carbon cycle. Low methane emissions are crucial to the biogas's climate performance, the plants' security and the Company's finances. Emissions provisions for methane gas are included in the environmental permits for each facility.

During 2018 the Swedish plants joined the voluntary Self-monitoring Methane Loss initiative for biogas plants. Designed

Scandinavian Biogas's environmental targets in Sweden

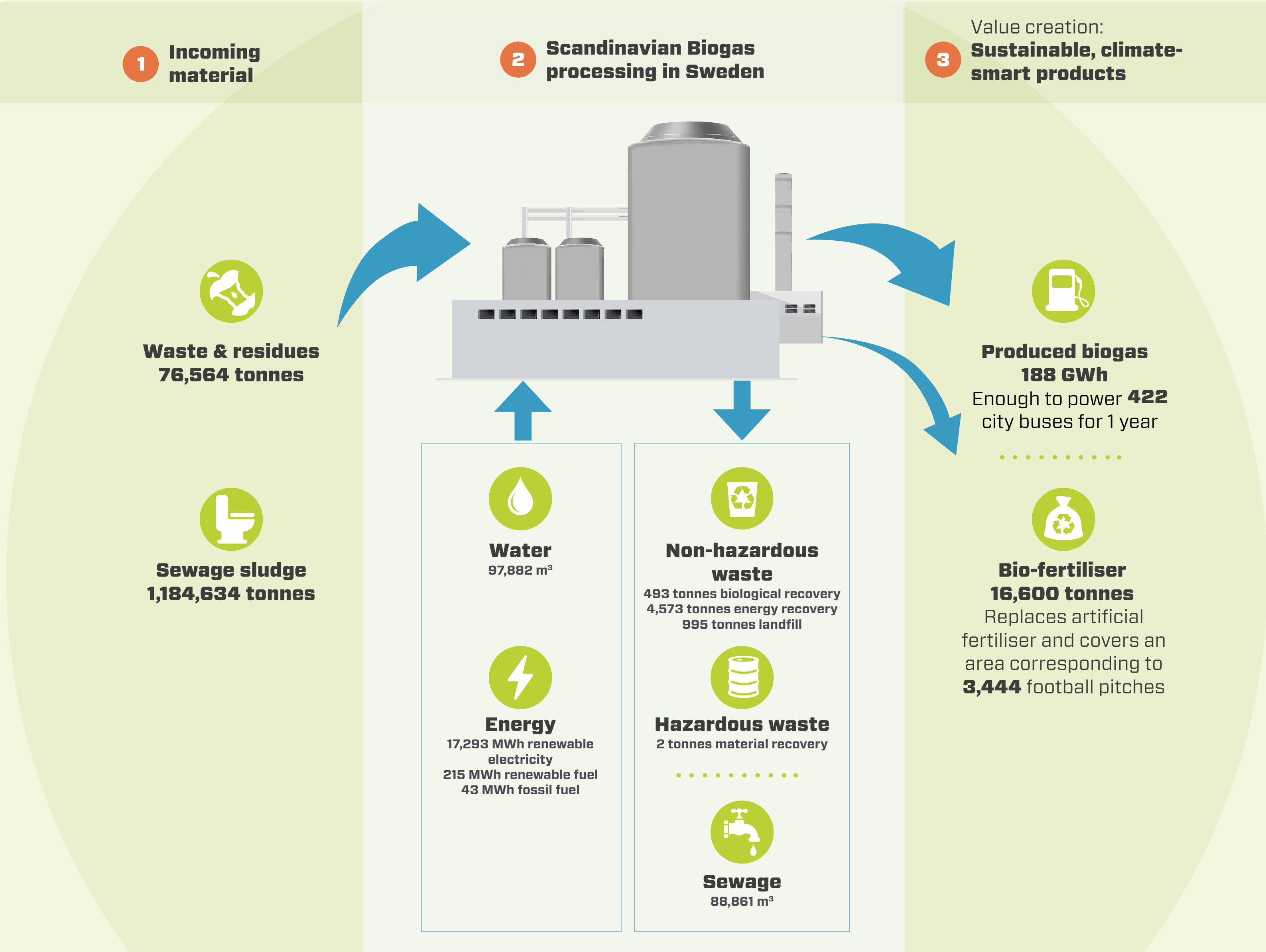
Strategic work area	Environmental target	Base year 2018
Improve resource efficiency Improve climate and environmental performance Reduce negative environmental impact	Emissions	
	Operating companies join Self-monitoring Methane Loss initiative in 2018	Achieved in 2018
	Identification of types of fuel used by road transports to and from the plants	Achieved in 2018
	Annual reduction of methane gas emissions as a percentage of amount of biomethane produced	Base year 2019
	Increase availability of methane destruction units to 90% by 2023	83.1%
	100% renewable fuel used by machinery by 2019	83%
	Water and Energy	
	Conduct an energy survey by 2020	
	Reduce consumption of drinking water per produced biomethane energy unit by 50% by 2023*	0.84 l/kWh
	Reduce total amount of nutrients in wastewater by 30% by 2023*	110 tonnes
	Reduce use of biogas for heat production per produced biomethane energy unit by 20% by 2023*	0.035 kWh/kWh
	Annual reduction in share of flared gas per produced biomethane energy unit*	0.016 kWh/kWh
	Material	
	Cleaning agents and personal hygiene products in staff areas to be eco-labelled	Achieved in 2018

*Relates to facilities where targets are applicable

Value chain from a feedstock and product perspective

51,604 tonnes CO_2e reduction in Sweden

(Biogas)



by the Swedish Waste Management Association, the initiative focuses on the systematic identification and reduction of methane emissions. The system for documenting systematic leakage detection has been improved at the plants and reviewed by an external party. A dedicated working group prepares action plans aimed at minimising methane leaks and improving availability of the destruction units, which incinerate a residual gas from the digestion process. External measurements of the plants' total methane emissions were also conducted. In 2019 the plants will set an annual target for emissions reduction in relation to amount of methane gas produced.

Water and energy

The Company has a circular production process, with internal water and heat recovery. The plants produce heat from the combustion of biogas and this heat is recovered internally. Waste heat is also utilised. All purchased electricity is origin- and eco-labelled. All work vehicles at one plant ran on diesel during the first six months of 2018, but have subsequently switched to HVO. As from 2019, the ambition is to use 100% renewable machinery fuel.

Optimising water consumption involves minimising the amount of drinking water added during the process and recycling reject water and rinse water internally. This is currently done at the Södertörn plant. The Company's goal is to minimise water consumption and biogas consumption in internal heat production per produced biomethane energy unit by 50 and 20 per cent, respectively. We expect to achieve these goals through investments, renovations and operational optimisations. The amount of wastewater and total amount of nutrients in wastewater are also expected to be reduced in conjunction with operational optimisations. Energy and water optimisation initiatives are led by production managers in collaboration with process and project managers.

Emissions to land and water

Emissions to stormwater and wastewater systems are a crucial issue at the Södertörn plant, since spillages may occur during the receiving, treatment and dispatch of organic material (e.g. during unloading). The Company stepped up its work on preventive measures during the year.

Waste

As a waste treatment company, it is essential that Scandinavian Biogas take responsibility for waste arising from the treatment process. Food waste includes plastic, sand, stone and metal objects, which are separated in various stages and comprise non-hazardous waste. Plastic and metal are used for energy recovery (4,547 tonnes in 2018) and glass, sand and stone are landfilled (980 tonnes in 2018). Hazardous waste, comprised mainly of waste oil, is sent to material recovery. The Company works continuously to reduce the waste amount and utilise the maximum possible amount of organic material.

Food waste is converted to bio-fertiliser that is spread on arable land.

Plant design and construction

To ensure the lowest possible emissions to air, water and land as well as high availability and resource efficiency at the plants, the Company has identified a workflow used when designing and planning new plants:

1. Identification of the plant's available energy sources, energy and water requirements and potential emissions zones, and the type of waste to be treated.

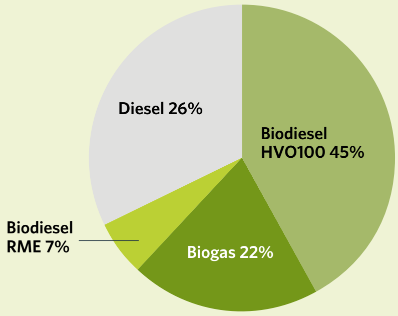
2. Adaptation of plant design to minimise emissions to air, land and water and to optimise water and energy use. Examples include ensuring the collection of waste- and stormwater and adapting construction material to incoming feedstocks, and reusing energy and water to the greatest possible extent.

3. Monitor unavoidable emissions and ensure measurement of resource flows.

An initiative was launched during 2018 to ensure systematic learning from previous projects, with a focus on methane emissions, wastage, water and energy. This work will continue and past experience will be incorporated into future investment projects.

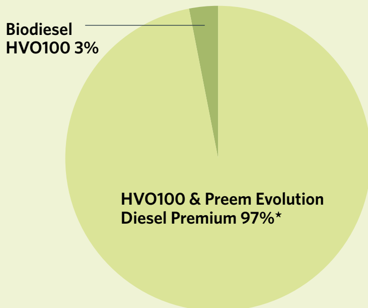
Around 10,650 transports of food waste, biogas and bio-fertiliser travel to and from our plants in Sweden every year. Transports are made by customers, suppliers and hauliers. During 2018 the Company conducted a survey of types of fuel used. Feedstock for the diesel referenced in the diagram below is 7–30 per cent renewable. Scandinavian Biogas will continue its dialogue with market operators regarding the conversion to renewable fuels.

Fuels used in road transport of food waste



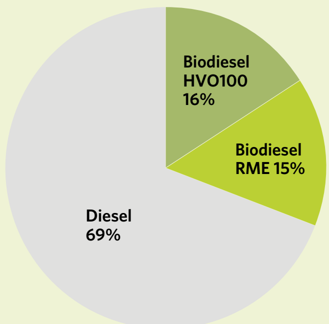
Percentages of fuel used in incoming transports of food waste. Over 9,100 transports.

Fuels used in road transport of biogas



Percentages of fuel used in biogas transports in MEG containers. Approximately 1,000 transports.
*Haulier used HVO100 and Preem Evolution Diesel Premium, producing an 85% emissions reduction.

Fuels used in road transport of bio-fertiliser



Percentages of fuel used in bio-fertiliser transports. 550 transports.

Certification and product quality

Product quality is a key issue for the Company and our customers. The upgraded biogas we produce meets Swedish Vehicle Gas Quality Standards. The bio-fertiliser produced at Södertörn is spread on arable land and must maintain a high level of quality. Food waste contains undesirable substances, specified in the Waste section on page 31. Upstream work, detailed quality requirements, random sampling and regular collaboration with waste management operators are therefore crucial in maintaining a high level of product quality.

Scandinavian Biogas is certified under the Swedish Waste Management and Recycling Association's SPCR 120 regulations. This certification involves strict quality control of everything from incoming feedstock to the final product, with stringent requirements for traceability, infectious disease control, metal content and pollutants. Product information provided to fertiliser customers also includes instructions on how the product should be spread. The Company intensified its upstream work during 2018 by conducting supplier visits focused on quality and traceability. The Swedish Waste Management and Recycling Association also conducts annual visits and audits at the Södertörn plant. This certification is the first step towards KRAV-certified production.

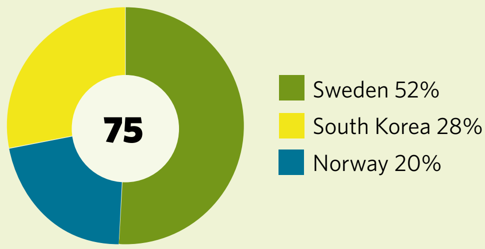
The Company's goal is to raise its ambitions and apply to the Swedish Board of Agriculture for Collection System Approval. According to the EU Organic Farming Regulation, this approval is a sub-requirement for the eco-certification of bio-fertiliser. Board of Agriculture approval would signify that Scandinavian Biogas is able to guarantee traceability, quality control and self-monitoring across the entire collection chain. The application was prepared during the year in close co-operation with food waste collectors.

Sustainability

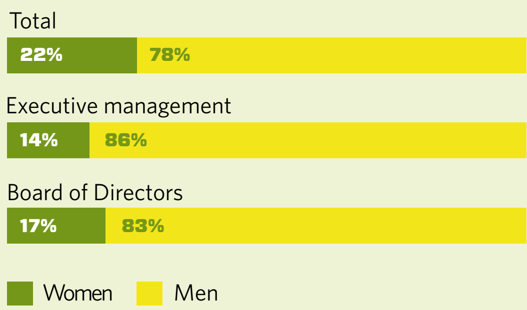
Safe and secure workplace with committed employees

Skilled and committed employees are essential for Scandinavian Biogas's continued development. Scandinavian Biogas needs to be a safe and secure workplace, where our employees are inspired by their work and have opportunities to develop.

Number of employees at 31 December 2018



Gender distribution 2018



Our employees are responsible for the Company's advancement. Scandinavian Biogas operates in the gas, waste and construction industries, and our employees may be exposed to various types of risks in their daily work. A systematic working environment is therefore a decisive factor in minimising risks and preventing ill-health and accidents. Psychosocial issues such as equal treatment, workload and organisational working environment are crucial to employee well-being.

Governance

Scandinavian Biogas has a systematic working environment system (SAM). Safety rules and procedures are a fundamental component of plant operation. New employees go through an introduction programme and receive fire protection training. As from 2019, the HR manager has overall responsibility for SAM. Each unit manager has operational responsibility and works with employees to strengthen ongoing working environment efforts, identify inadequacies and implement improvement measures.

The Company has a safety committee comprised of safety representatives from every workplace, the HR manager and the director of Business Area Sweden. This is an important forum for exchanging health and safety experience and addressing potential risks and requirements. The Company also collaborates with local unions that pursue issues concerning the physical and psychosocial working environment.

A summary of the Company's systematic working environment management – including risk assessments conducted, safety inspections and incidents – is reported annually to evaluate methods for improvement.

Leadership

Good leadership is a prerequisite for employee commitment and well-being. Empathetic leadership creates a sense of community and highlights successes in employees' daily work. An understanding of people's similarities and differences not only creates a sense of security – it also provides an internal structure that forms the foundation for employees' personal development and feeling of loyalty towards the organisation.

Systematic working environment management

Scandinavian Biogas is responsible for ensuring a safe and secure working environment for its employees as well as for contracted staff, who are also covered by the systematic working environment system. The number of contracted staff was limited in 2018. All employees have collective agreements, health and wellness benefits, reduced working hours, and income and supplementary insurance. The Company pays for vaccinations for operating and laboratory personnel and for contracted operating staff. We ensure that contracted staff and contractors are insured via their employers. All staff and contractors who visit the plants are required to sign specific security regulations, provided in Swedish and English, before beginning any work.

The Company offers employees occupational health services and check-ups during working hours, and works continuously to develop health programmes adapted to various work duties. To safeguard employee privacy, results of medical exams and other health services are never compiled on the individual level.

For quality assurance of working environment management, all unit managers, safety representatives and HSEQ managers receive working environment training. All operating personnel also receive external training in gas safety, hot work, electrical safety, first aid and HLR, as well as internal safety training. All training is conducted during working hours and is documented in the Company's training register.

Regular safety inspections are a key component for detecting operational risks. During 2018 safety representatives conducted at least two safety inspections at each plant. Two inspections were initiated at the laboratory, and one at the head office. The long-term goal is to increase this number to four comprehensive safety inspections per plant annually.

Targeted risk assessments are conducted as needed. The Company has a procedure in place specifying situations in which a risk assessment is required, e.g. when renovating a plant, purchasing new chemicals or making organisational changes. The top priority is eliminating hazards, followed by reducing the likelihood of the event occurring, and finally introducing measures to mitigate consequences.

Scandinavian Biogas has procedures in place and available for use by all employees for reporting inadequacies, incidents and accidents. Pursuant to the Swedish Work Environment Act, employees are always entitled to refrain from work if it is deemed such work may present a serious hazard to life and health. Gas managers and safety representatives are also entitled to stop a work process, or shut down the entire plant, if the work presents an immediate serious hazard for the employee. A procedure will be produced for protecting employees from reprisals. The Company has a zero vision for accidents and incidents, and will be developing a health and wellness policy to address preventive health issues, a rehabilitation policy and guidelines for HR managers.

Board of Directors

Göran Persson
Chairman of the board
Born 1949

Chairman of Scandinavian Biogas since November 2009. Prime minister of Sweden 1996–2006, finance minister 1994–96. Persson's extensive experience covers public affairs, financial markets, mergers & acquisitions, international politics and the EU. Chairman of LKAB, Pegroco Invest AB, Cambio Healthcare Systems AB and Foresto AB.

Andreas Ahlström
Board member
Born 1976. Elected to the board 2011.

M.Sc. from the Hanken School of Economics in Helsinki. Ahlström has worked for Ahlström Capital since 2010, with overall responsibility for the company's new cleantech investments. He sits on the boards of three of the company's fund portfolio companies, including publicly listed Suominen.

Sara Anderson
Board member
Born 1976. Elected to the board 2015.

M.Sc. in Chemical Engineering from the Royal Institute of Technology in Stockholm. Fifteen years' experience in working with implementation of and increased use of biogas as a vehicle fuel. Anderson works as a consultant and heads the Sustainable Production Processes section at IVL Swedish Environmental Research Institute. Prior to that she worked as a consultant at 2050 Consulting and was responsible for fuel and energy strategy at Stockholm Public Transport (SL).

Anders Bengtsson
Board member
Born 1963. Elected to the board 2009.

MBA from the Monterey Institute of International Studies, USA. Twenty years' experience as CEO of small and mid-sized companies and several years' experience as management consultant (including at Semcon AB). Board member and partner at BTAB Invest, board member of Diös Fastigheter AB and other publicly listed companies. Bengtsson invests in renewable energy and other companies and sits on the boards of several companies.

Hans Hansson
Board member
Born 1947. Elected to the board 2013.

Hansson has served as CEO of seven Scania Group companies, including the group's bus factory in Denmark. He then served as CEO of all of Scania's bus operations and established a lorry factory in Russia. Currently runs his own business.

Board of Directors, continued

David Schelin
Board member
Born 1965. Elected to the board 2017.

M.Sc. in Electrical Engineering from Chalmers University of Technology and Columbia Business School. Serves as board member and advisor to several companies. Former CEO of Ragn-Sells AB and COO of Niscayah Group. Schelin has also held senior positions in the telecom sector, most recently as VP Services for Ericsson in Southeast Asia. CEO of Euromaint Rail since 2017 and chairman of re:newcell ab.

Lars Bengtsson
Board member, employee representative
Born 1963. Employed 2015.

Studied biogas technology at Halmstad University. Background in industrial and municipal wastewater and water treatment operations. Over ten years' experience in research and testing of anaerobic wastewater treatment and biological decomposition.

Malin Gustafsson
Board member, employee representative
Born 1979. Employed 2010.

M.Sc. in Technical Biology from Linköping University's Institute of Technology. Previously worked as process engineer and project manager, and held similar roles, at Affibody AB, Mercatus Engineering AB and Scandinavian GtS AB. Currently Sustainability and Project Manager for Business Area Sweden.

Erik Danielsson
Honorary chairman

Erik Danielsson, former President and CEO of Pharmacia, is founder of Scandinavian Biogas and was appointed honorary chairman on 26 November 2009.

Danielsson's experience and drive have contributed significantly to Scandinavian Biogas's development. He was involved in establishing operations in Sweden and South Korea during his tenure as chairman of the board, and his strong commitment and entrepreneurial spirit were crucial in efforts to move the Company into the next phase in the face of numerous challenges and financial difficulties during the 2008–09 financial crisis.

Executive management

As from January 2019

Matti Vikkula
President and CEO

President and CEO of Scandinavian Biogas since 2011. M.Sc. in Economics from the Helsinki School of Economics. Chairman of iTaito Oy. Previously management group member at telecom operator Elisa, CEO of Saunalahti, partner at PwC Management Consulting and chairman of Efore Oyj.

Michael Wallis Olausson
Director Business Area Sweden

Employed since 2009. Responsible for Business Area Sweden, including customer and business strategies and development of new business opportunities and collaborations. Formerly Lt. Colonel, Swedish Armed Forces, and management consultant at Deloitte. MBA from the Stockholm School of Economics.

Jörgen Ejlertsson
Director of R&D

Professor Jörgen Ejlertsson is a co-founder of Scandinavian Biogas Fuels AB and has been active within R&D since then. M.Sc. in Agriculture from the Swedish University of Agricultural Sciences (SLU) in Uppsala and PhD in Environmental Microbiology from Linköping University, where he is a senior lecturer in Water in Nature and Society.

Fredrik Henckel
CFO (interim)

Since 2018, responsible for all financial reporting. Also serves as HR manager. Henckel has 25 years' international and financial experience from a range of industries. CEO of two small listed companies 2011–17. MBA from Stockholm University.

Håvard Wollan
Director Business Area Norway

Employed since 2016. Co-founder and CEO of Biokraft AS. Wollan has over 20 years' international experience as an entrepreneur, manager, consultant and investor. M.Sc. from the Norwegian University of Science and Technology and MBA from Heriot-Watt University.

Kenny Cho
Director Business Area South Korea

Employed since 2011. Responsible for operations and development of business opportunities in South Korea. MBA from CA University.

During 2018 the Group's executive management team included Jean Collin (CTO), Lars Hammarlo (senior operations advisor and biogas specialist) and Johan Larsson (head of sourcing & supply chain). Lotta Lindstam (CFO) resigned at year-end 2018/19.

> "Biogas is fueling more and more tanks, as well as minds. Naturally."

Göran Persson,
Chairman of Scandinavian Biogas

Board of Directors' report

The Board of Directors and the Chief Executive Officer of Scandinavian Biogas Fuels International AB (publ), 556528-4733, hereby submit the annual report and consolidated accounts for financial year 2018.

Operations

Scandinavian Biogas is a leading player in large-scale biogas production, with world-leading expertise in the design and operation of biogas facilities – encompassing everything from pre-treatment to fuel upgrading – to optimise biogas production. The Group's focus is on facilitating the transition from fossil to renewable energy.

Scandinavian Biogas's business concept is to be a leader in the design, management and operation of biogas plants. This is achieved by constantly improving the biogas production digestion process from various types of biomass, generated primarily from wastewater treatment sludge, food waste, and industrial processes such as food and biofuel (e.g. glycerol) manufacturing. The Group also provides leading expertise in the purification process for upgrading biogas to vehicle fuel quality and for utilising digestion process residues as bio-fertiliser. Scandinavian Biogas is focused on markets in the Nordic region and South Korea. The Group invests in owned or leased production facilities, primarily in the Nordic region, and provides its expertise as a service in other markets.

With the Group's strategic focus on research and development, Scandinavian Biogas places high priority on developing methods to improve biogas and bio-fertiliser production efficiency for both established and new types of waste, residues and other organic material. Cost and resource efficiency improvements to production are made possible thanks to the Company's expertise and methodology.

The Group's operations are primarily conducted via subsidiaries, while the Parent Company serves in an administrative capacity.

Scandinavian Biogas Fuels International AB (publ) is domiciled and headquartered in Stockholm. At year-end 2018 the Company had a total of 75 (76) employees: 39 (42) in Sweden, 21 (21) in South Korea and 15 (13) in Norway.

Licensable activities

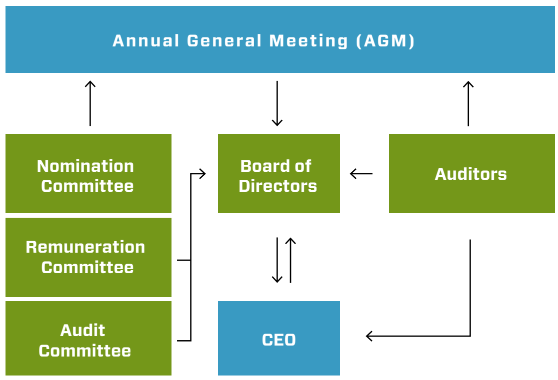
The Company conducts operations subject to the environmental code in three Swedish subsidiaries. The Group's licence and registration activities affect the external environment mainly through subsidiaries Scandinavian Biogas Stockholm AB (SBSt), Scandinavian Biogas Södertörn AB (SBSö) and Scandinavian Biogas Recycling AB (SBR), which are subject to environmental permits and permits to conduct business with explosive and flammable products and substances. SBSt and SBSö produce upgraded biogas and may affect the external environment through the emission of methane. SBSö also produces bio-fertiliser, which may affect the external environment through the leakage of nitrogen-rich bio-fertiliser. SBR receives and pre-treats organic waste, which may affect the external environment primarily through the leakage of pre-treated organic waste (slurry). To enable minimisation of the risk of external influences on the environment, all companies have a business system that includes regular controls and the ongoing management of any incidents. The upgrading facilities, for example, are connected to methane deconstruction facilities in order to combust any leakage of methane.

The Group

Scandinavian Biogas Fuels International AB (publ) is the Parent Company of the Scandinavian Biogas Group, which encompasses a number of wholly and partly owned companies registered in Sweden, South Korea and Norway. Operations are primarily conducted in subsidiaries. Scandinavian Biogas Fuels AB also has a branch office in Norway.

Corporate governance

Scandinavian Biogas Fuels International AB (publ) is governed, managed and controlled through a division of responsibilities between shareholders at the annual general meeting, the board of directors and the chief executive officer in accordance with the Swedish Companies Act. The Company's corporate governance is organised and monitored as illustrated below.



Corporate governance within Scandinavian Biogas follows the Swedish Annual Accounts Act but does not yet fully follow the Swedish Corporate Governance Code. The internal corporate governance framework is comprised of the Company's Articles of Association, rules of procedure for the board of directors, instructions for the CEO, instructions for financial reporting, and other policies and guidelines.

Shareholders exercise their influence at the Annual General Meeting (AGM), the Company's highest decision-making body. The AGM elects the board of directors and auditors; adopts the income statement and balance sheet; and resolves on appropriation of profits, discharge from liability and amendments to the Articles of Association. The AGM also adopts guidelines for board fees and resolves on new share issues. The Swedish Companies Act (2005:551) and the Articles of Association stipulate the manner in which Annual General Meeting and Extraordinary General Meeting notices are to be issued and specify who is entitled to attend and vote at meetings. Shareholders may not vote or otherwise participate in meetings remotely. Each share carries one vote and all shareholders have identical rights.

The AGM is held within six months of the close of the financial year. Shareholders listed in the shareholders' register as at the record date and who have provided notification of their participation are entitled to participate at the AGM. The AGM notice is published in the Swedish Official Gazette and made available on the Company's website. Details on the AGM notice are published in Dagens Industri. Documents to be presented at the AGM are made available at the Company's head office and on the Company's website no less than three weeks prior to the AGM, and are mailed to shareholders upon request.

The AGM resolves on appointments and dismissals of board members and on amendments to the Articles of Association.

The AGM held on 25 June 2018 resolved to authorise the board to make decision(s), within the scope of the Articles of Association and during the period through the next AGM, on the issue of shares, bonds and/or convertible instruments. The board is authorised to approve the issue of a maximum total of 36,000,000 shares, corresponding to a maximum of approximately 34 per cent of shares in the Company as at the date of the AGM notice. The shares are to be issued at the market subscription price, subject to market rate subscription discounts when applicable. Payment for shares shall be in cash, in kind, set-off of Company debt or otherwise qualified.

Board of Directors

The board is comprised of Göran Persson (chairman), Anders Bengtsson, Andreas Ahlström, Hans Hansson (independent), Sara Anderson (independent), David Schelin (independent), and employee representatives Malin Gustafsson and Lars Bengtsson. Board meetings are scheduled 12 months ahead of time, with at least five meetings per year. However, around 12–15 meetings are usually held per year, of which a few are via telephone. The auditors participate in at least one board meeting per year to report the results of their audit of the Group and its legal entities.

Nomination Committee

Nomination Committee members are Göran Persson, Örjan Björnsson, Jonas Bengtsson, Peter Immonen and Andreas Ahlström. The committee meets at least once per year. Committee duties include proposing to the AGM board composition, remuneration fees for board and committee work, and election of auditors.

Remuneration Committee

Remuneration Committee members are Göran Persson, Anders Bengtsson and Andreas Ahlström. The committee is tasked with determining salary and other benefits for the CEO and other senior executives, as well as bonuses paid to other employees.

Audit Committee

The Audit Committee is comprised of Anders Bengtsson (chairman), Hans Hansson and Sara Anderson. The committee is responsible for i) monitoring the Company's financial reporting, ii) with respect to financial reporting, monitoring the efficiency of the Company's internal control and risk management, iii) staying informed on the audit of the annual report and consolidated accounts, iv) reviewing and monitoring the auditors' impartiality and independence, paying particular attention to whether the auditors provide the Company with services other than auditing services, and v) assisting in the preparation of proposals for the AGM's election of auditors.

Internal control and audit

Under the provisions of the Companies Act (2005:551), the board of directors has overall responsibility for ensuring that the Company's organisation is designed in such a way as to provide satisfactory control of the Company's accounting, management of assets and financial condition. The Company's internal control structure is based on division of duties between the board and the CEO. Regular reporting and examination of financial results is conducted by the operational units' management bodies and by the board of directors.

The Parent Company's Articles of Association stipulate that one or two approved or authorised public accountants and up to two deputy auditors or, alternatively, a registered public accounting firm, are to be appointed by the AGM. The auditor and deputy auditors (if any) are elected on an annual basis by the AGM for the period through conclusion of the next AGM.

The auditor examines the annual accounts, consolidated accounts and accounting records, as well as administration by the board and CEO.

Executive management

The Group's management team is comprised of President & CEO Matti Vikkula, Director of Business Area Sweden Michael Wallis Olausson, General Manager of South Korean operations Kenny Cho, and General Manager of Norwegian operations Håvard Wollan. Other key people in the Group include Director of R&D Jörgen Ejlertsson and interim CFO Fredrik Henckel.

Ownership structure on balance sheet date, %

AC Cleantech Growth Fund 1 Holding AB and related parties	29.3%
Bengtssons Tidnings AB and related parties	28.8%
Wipunen Varainhallinta Oy	10.3%
Reliquum (formerly Novator Biogas Sweden SARL)	5.6%
Ajanta Oy and related parties	5.5%
Erik Danielsson and family, incl. companies	5.2%
John Nurminen Oy and related parties	4.0%
Other	11.3%
	100.0%

Financial overview

Group

(SEK thousand)	31 Dec 2018	31 Dec 2017	31 Dec 2016	31 Dec 2015	31 Dec 2014
Net sales	275,234	258,363	242,610	175,891	168,376
EBITDA	-6,247	21,587	21,972	23,358	31,958
Operating results	-71,808	-42,159	-24,580	-16,817	-5,281
Balance sheet total	1,234,842	1,161,238	1,026,648	760,652	628,037
Adjusted equity/ assets ratio, %	20.5	25.5	25.5	28.6	30.8

Parent Company

(SEK thousand)	31 Dec 2018	31 Dec 2017	31 Dec 2016	31 Dec 2015	31 Dec 2014
Net sales	1,200	1,200	1,200	1,200	1,200
Operating results	-2,742	-1,930	-1,965	-2,513	-1,104
Balance sheet total	509,816	517,628	504,351	299,093	353,168
Equity/assets ratio, %	41.7	49.4	55.1	98.9	86.0

Consolidated net sales for the financial year totalled SEK 275.2 million (258.4), a year-on-year increase of 6.5 per cent. The increase is attributable to increased biogas sales in Sweden, while sales in Skogn, Norway, also contributed. Total revenues for 2018 amounted to SEK 310.2 million (289.3), an increase of 7.2 per cent. Other operating income includes SEK 0.5 million (8.6) of re-invoicing, with corresponding expenses reported under other external costs. Costs for raw materials and consumables increased 20.6 per cent year-on-year, due mainly to an updated assessment and higher recorded value of the penalty fee in South Korea, higher costs for substrate in Sweden, increased operating expenses at Södertörn, and the start of operations in Skogn, Norway, in September 2018. Other external costs increased during the year due primarily to the court decision in the dispute with a Södertörn supplier, other expenses for legal services, higher maintenance costs, and commissioning of the plant in Skogn. Personnel costs also increased, mainly due to the addition of personnel in Norway.

Consolidated EBITDA totalled SEK -6.2 million (21.6) for the financial year. The decrease is mainly attributable to one-off costs related to the dispute with the Södertörn facility's main supplier and to the penalty fee in South Korea, and to other costs for dispute-related legal services totalling SEK 21.8 million (13.6). EBITDA for Business Area Norway was SEK -14.8 million for 2018 (-7.7), as the plant was not commissioned until July 2018. The biogas production subsidy totalled SEK 4.8 million during fourth quarter 2018. The allocated subsidy applies to an initial period of October 2018–September 2019.

The Group posted an operating loss of SEK -71.8 million (-42.2) for the financial year. The change is mainly attributable, as above, to a one-off cost related to the dispute with the Södertörn facility's main supplier and to the penalty fee in South Korea. The Group posted a loss after tax of -109.9 million (-75.0), of which SEK 3.8 million (1.0) pertains to unrealised exchange rate fluctuations, attributable mainly to dollar-based, long-term intra-group financing in South Korea.

Total assets at 31 December 2018 amounted to SEK 1,234.8 million (1,161.2), a 6.3 per cent year-on-year increase. Finance lease-related borrowing totalled SEK 304.6 million (257.7). Equity was impacted by net profit/loss for the period and by two contributions: a new share issue of SEK 7.6 million from non-controlling interests, and a conditional capital contribution of SEK 3.6 million from minority non-controlling shareholders.

The consolidated cash balance was SEK 94.8 million (86.9) at 31 December 2018.

Investments

Investments in tangible and intangible assets during the financial year totalled SEK 116.8 million (166.8), of which SEK 100.2 million (122) were made in Norway.

The carrying amount of the Group's tangible and intangible assets was SEK 989.7 million (946.4) at 31 December 2018, of which SEK 292.5 million (245.7) pertains to objects leased by the Group through long-term finance lease agreements.

Parent Company

Parent Company income during the financial year totalled SEK 1.4 million (1.8). Results before appropriations and tax totalled SEK -18.3 million (-35.6). The regular impairment assessment conducted during the financial year found no write-down requirement.

Parent Company results after tax totalled SEK -43.3 million (-87.1) in 2018. Net results for the year include group contributions to subsidiaries totalling SEK 25.0 million (51.5), primarily attributable to the penalty fee in Ulsan (see Note 28, Provisions).

The Parent Company balance sheet total was SEK 509.8 million (517.6) at the close of the financial year. The Parent Company's cash balance totalled SEK 1.6 million (7.5) at the same date.

Related-party transactions

Loan agreements totalling SEK 34 million were signed with the major shareholders during the May–November 2018 period. The loans have a fixed rate of 8 per cent and shall be used in any potential new rights issue. If unused, the loans mature on 11 February 2020. SEK 0.3 million (0.3) was paid to a board member's employer for consultancy fees during full-year 2018. No other transactions with related parties have taken place during the interim period or full-year 2018.

Significant events during the year

Commissioning in Skogn, Norge

Commissioning of the liquid biogas plant in Skogn, Norway, began in late June 2018. The first customer deliveries of LBG were made in September 2018. Full production capacity is estimated at 12.5 million Nm^3, corresponding to approximately 120 GWh. Customer deliveries of 1.6 million Nm^3 (16 GWh) of LBG were made during the September–December 2018 period.

New co-operation agreement

The Group signed a co-operation agreement with Mönsterås Biogas AB to jointly develop an investment project for potential biogas production in Mönsterås municipality. Development work will be conducted in a jointly owned company with the aim of treating 100,000 tonnes of substrate and producing more than 110 GWh of LBG annually. The Group has established a new company, Mönsterås Biogasproduktion AB, which at the close of the financial year was still wholly owned by the Group.

Filling station operational

A filling station at the Group's biogas plant in Södertörn became operational at the beginning of the year. The filling station will mainly sell pure biogas to lorries and refuse vehicles that use the SRV recycling facility in Södertörn. The facility has been part-financed with support from Klimatklivet, an initiative of the Swedish Environmental Protection Agency.

Written procedure

During second quarter 2018, a written request was made to bondholders to waive certain terms and conditions of their bond holdings, with a clear majority of bondholders voting to approve the request. The adjusted equity/assets ratio did not meet the corporate bond requirements as at 30 September 2018. During fourth quarter 2018, a clear majority of bondholders confirmed their support to waive the requirement for the third and fourth quarters of 2018.

Refinancing

Project financing for the Södertörn biogas plant was refinanced during Q2 2018 with bank loans at lower rates.

Government support for biogas producers

In early July 2018, the Swedish government decided to facilitate the profitability and competitiveness of existing biogas production by introducing a scheme to support production between October 2018 and September 2019. Raw gas producers can apply for subsidy for the portion of their production earmarked for upgrade to vehicle fuel-quality, provided that it does not originate from sewage sludge, food-based production of biofuels, or gas extracted from landfill. The Group therefore only applied for a subsidy for the Södertörn plant. The subsidy totals SEK 270 million and is administered by the Swedish Board of Agriculture, which has determined that the initiative will amount to SEK 0.26 per kWh (around SEK 2.60 per Nm^3). This has been allocated and an advance payment of SEK 21.8 million was issued to the Group in mid-December. For further information, please see Biogasstöd 2018 on the Swedish Board of Agriculture's website: jordbruksverket.se.

In late June, political parties in Denmark reached a new energy agreement that will manage the long-term transition to renewable energy. The agreement regulates support provided to biogas production from 2021 through 2032, which is also likely to influence a decision on continued production support in Sweden beyond October 2019.

Subordinated loans

During the May–November 2018 period, the Parent Company received subordinated loans of SEK 34 million from the largest shareholders.

Dispute concerning upgrading facility in South Korea

The civil court in Ulsan announced its decision on 23 August 2018 regarding the ongoing dispute with Ulsan City concerning the contractual obligation to invest in a gas upgrading facility at the Ulsan site by the end of 2017. The court ruling, which was unfavourable to the Group, entitles Ulsan City to an annual fee estimated to approximately SEK 8–9 million, rather than the approximately SEK 3 million per year expected by the Group. The Group has appealed the decision and asked three South Korean law firms to provide their legal assessment of the situation. This led to a change in the calculation of the present value of the provision for the period November 2012 through December 2017, resulting in a one-off cost of approximately SEK 6.6 million (SEK 13.6 million for full-year 2017) in the item Raw materials and consumables in September 2018. An impairment test was also conducted, resulting in the assessment that there is no write-down requirement for the concession right at the close of the financial year. The recorded penalty expense for the full-year corresponds with the court's ruling. For additional information about, and the background to, the dispute, see Note 28, Provisions.

Profitability improvement programme initiated

An action and investment programme, focused on the Södertörn facility, was launched to improve the Group's profitability. The re-organisation process has now been completed.

Corporate bond

The adjusted equity/assets ratio did not meet the corporate bond requirements as at 30 September 2018. A clear majority of bondholders confirmed their support of the Group's proposal to waive the equity/assets ratio requirement for the third and fourth quarters of 2018.

Production and sales

Business Area Sweden

Biogas sales from operations in Sweden totalled 20.0 Nm^3 (20.3) during the financial year, corresponding to approximately 200 GWh (203). The price of external organic material (e.g. glycerol), which is used to some degree with food waste and sewage sludge in biogas production, remained high during the financial year. There was a breakdown of an intermediate storage tank at Södertörn early in the year, resulting in reduced production volumes and increased costs. The tank has now been repaired and improved. Customer deliveries of biogas have been made according to plan and all agreements have been fulfilled in full. An average of 144 tonnes (147) of organic waste per day was processed by Business Area Sweden during the financial year.

Business Area South Korea

The facility in South Korea received an average of 183 tonnes (187) of food waste per day during the financial year. Sales of raw gas during the same period amounted to 9.0 million Nm^3 (9.8), or approximately 62 GWh (67). A total of 10.2 million Nm^3 (10.6) of raw gas was produced.

Business Area Norway

Commissioning of the liquid biogas facility in Skogn, Norway, started in late June 2018, and 1.6 million Nm3 of liquid biogas was sold to customers during the September–December 2018 period, corresponding to approximately 16 GWh. Full production capacity is estimated at 12.5 million Nm^3, equivalent to approximately 120 GWh.

Ongoing investment projects

Skogn, Norway

Construction of a production plant for liquid biogas in Skogn, Norway, commenced in August 2015 and commissioning commenced in late Q2 2018. The facility comprises multiple functions, all of which were in operation at year-end. In view of the fact that the project has been delayed, the Group has entered the delay penalty as an investment reduction from December 2017 through early March 2018. Long-term sales contracts for all planned biogas production are in place and long-term access to most feedstock supply is secured through contracts with main feedstock suppliers.

EffiSludge/LIFE

Scandinavian Biogas was previously awarded a grant from EU/LIFE aimed at increasing biogas production in the pulp and paper industry. The goal of the project is to build and operate the first demonstration process to produce biogas from wastewater from Norske Skog's paper mill in Skogn while also reducing the plant's electricity consumption. The total project cost is estimated at just under SEK 30 million, with the EU grant equivalent to approximately SEK 16 million. SEK 7.6 million was paid to the Group in December 2018 and SEK 5.2 million was received during 2015.

Information on risks and uncertainties

Described below are the main risks that may have an impact on Scandinavian Biogas's operations and future development. The account does not purport to be comprehensive and the risk factors are not listed in any order of significance. See also Note 3, Financial Risk Management.

Competition and maintaining competitive edge

Scandinavian Biogas's operations are largely dependent on the demand for biogas, particularly in Sweden. Biogas is currently one of the most environmentally attractive energy carriers, and as the market matures more companies are expected to be established. Increased competition for the organic material used in biogas production is anticipated, both from other biogas producers and from producers of other renewable energy carriers. It is therefore vital that Scandinavian Biogas continue its strategic research and development activities that facilitate the digestion of new types of substrates, and eventually identify ways of producing biogas from organic waste more efficiently.

Revenue generation

Revenue streams from biogas production differ from market to market. At the same time, the price of biogas is of key significance to Scandinavian Biogas. There is a risk that revenue levels to fund the Group's future projects may not suffice if the market price of fossil energy remains at a low level.

Political risks

The political situation in areas where Scandinavian Biogas operates is of great significance to the Company's operations. Partners, customers and suppliers are largely comprised of municipalities or the equivalent, public sector entities, and companies. This means that any change in political engagement or tax laws may have a major impact on projects and the Company's ability to generate revenues despite contracts entered into previously. Many projects are also contract-based, with revenue streams spanning time horizons 15 years or longer. The uncertainty of unforeseen events that may occur in the future poses a risk for the Group. Continued expansion into markets with stable conditions may mitigate this type of risk for Scandinavian Biogas. The risk of any political decisions that might have a negative impact on the production of biofuels is currently deemed to be limited.

Dependence on public authority decisions and permits

Scandinavian Biogas's operations are dependent on permits granted by public authorities under the environmental code and the approval of applications. Processing times may take up to one year or more in some cases, with some projects consequently coming to a halt and being delayed. All of the Group's facilities hold valid permits.

Long sales cycles for new contracts

The sales cycle from the first point of contact with the customer to the generation of revenues may span several years. As a rule, projects are extensive and complex to carry out. Entrance into new markets also involves major work efforts and cultural understanding. All of these factors pose a risk, which may be mitigated through well-conducted market studies, employees with local knowledge and strong networks, and experience in the successful completion of similar projects.

Accidents and environmental hazards

One example of environmental risk associated with biogas production is major leakage of methane. Another example is emission of nitrogen-rich bio-fertiliser to soil and groundwater. Accidents may also occur, and Scandinavian Biogas works continuously to enhance its safety and security procedures. In many areas these are now integrated with day-to-day business activities, and the Company continuously strives to mitigate the risk of accidents and environmental hazards.

Financial risks

A number of technical challenges arose at the Södertörn biogas plant during the year, and production was consequently worse than planned. Various measures have been taken, but there remains a risk that ongoing process adaptations may temporarily affect future production volumes.

Disputes

Court proceedings concerning the dispute with one of the main suppliers to the Södertörn facility have ended, and the ruling announced in October was unfavourable to the Group. The arbitrator's ruling essentially followed the opposing party's arguments. The ruling, which cannot be appealed, entails a one-off cost totalling approximately SEK 12.3 million in September 2018. SEK 9.6 million of this amount affects EBITDA and the remainder affects net financial items. The cash effect is estimated to be SEK 10–12 million higher than expected.

Due to disagreements with Ulsan City relating to operations in Ulsan, South Korea, the Korean subsidiary started legal proceedings in Ulsan's administrative court in 2017 regarding certain service costs that Ulsan City invoiced to the subsidiary. In the summer of 2018, the court ruled that the invoices from Ulsan City for service costs are not classified as an administrative issue, and are thus not subject to administrative law. The Group appealed the court's ruling in August 2018 and a ruling from a higher court is expected during the first half of 2019.

The total nominal value of the disputed service costs is estimated at around SEK 80 million for the entire contract period (15 years), subject to annual food waste volumes, prices and exchange rates. Annual service costs amount to around SEK 5 million, and it is assumed that the result of this dispute may have a mainly positive effect on Group profit, corresponding to a reduction in one-off costs of SEK 40 million and a reduction of approximately SEK 5 million per year going forward.

On 23 August 2018, the court in Ulsan announced its decision regarding the ongoing dispute with Ulsan City concerning the contractual obligation to invest in a gas upgrading facility at the Ulsan site by the end of 2017; see Significant events during the year.

As previously communicated, one of the Group's suppliers to the project in Skogn, Norway, has made compensation claims, mainly for groundwork. During Q2 the supplier increased its demand from NOK 52 million to around NOK 78 million, and a formal demand was filed in October 2018. The Group has, however, previously entered into a settlement agreement with the supplier and continues to be of the opinion that the specified compensation is covered by the settlement. The Group has nevertheless, for precautionary purposes, reserved NOK 5 million of the demand amount in its Norwegian company as an increased capital cost pursuant to generally accepted practice.

The decrease in profitability has a negative effect on the Group's cash flow, which increases liquidity risk. The Group is therefore planning to conduct a share issue as authorised by the AGM of 25 June 2018, has concluded a re-organisation process, and has launched an action and investment programme, focused on the Södertörn facility, to improve profitability.

The adjusted equity/assets ratio did not meet the corporate bond requirements as at 30 September 2018. A clear majority of bondholders confirmed their support to waive the adjusted equity/assets ratio requirement for the third and fourth quarters of 2018. The Group identified a risk that the adjusted equity/assets ratio requirement may not be met for the first and second quarters of 2019 and therefore initiated a process during the interim period to propose that bondholders waive the requirement. During April 2019 a clear majority of bondholders confirmed their support of the Group's proposal to waive the adjusted equity/assets ratio requirement for the first and second quarters of 2019. The terms of the waiver specify a fee of 1.00% and receipt of at least SEK 80 million, exclusive of transaction costs, from the directed share issue or subordinated loans, with a minimum of SEK 30 million to be received by 30 June 2019 and the remainder, up to SEK 50 million, by 31 August 2019.

Expectations regarding future development

Increasing demand

There is a great need for renewable energy that can replace fossil fuels such as coal, oil and natural gas at reasonable prices. Interest in biogas has increased in various evaluations of renewable alternatives that can be mass-produced, as has demand for biogas, which is expected to increase further as availability increases. In sectors including the heavy transport sector, demand for liquid biogas is expected to increase significantly in coming years. However, the current low market price of fossil energy causes some uncertainty as to the biogas market price as well as the growth of and new investments in renewable energy.

Policy instruments key to market development

Biogas is among the renewable fuels that are most effective in reducing climate impact and improving air quality. The greatest environmental benefits are achieved in heavy vehicles (e.g. bus services), which is why more and more cities are choosing to prioritise biogas over other renewable alternatives. In some cases, however, biogas supply is a limiting factor. Sweden is a pioneer in the use of biogas as vehicle fuel, particularly within bus services, and the country's strategy can be expected to spread to other countries. The Swedish public transport system is well advanced in this area and there are indications that biogas-powered public transport will spread to other Nordic countries. The increased use of biogas in the public transport system lays the foundation for expanded production, particularly in metropolitan regions. Scandinavian Biogas, through subgroup Scandinavian Biogas Sweden AB, has an excellent foundation for continued expansion in the Stockholm region. Due to high production costs, however, biogas will not be able to compete price-wise with natural gas in the foreseeable future – so it is essential that political interest, on the national and local levels, in supporting biogas production remains in place.

Long-term goal

The Group's long-term goal is to ensure

- growth corresponding to a 20–30 per cent increase in average annual biogas sales and deliveries
- total capacity of one terawatt hour (1 TWh) achieved during the first stage, with growth based on own production or on contractual knowledge management
- project profitability of at least 15% IRR
- an EBIT margin of at least 10%
- an equity/assets ratio of at least 30%

Based on planned investments and improvements at Södertörn, the Group has a goal of achieving approximately SEK 500 million in annual sales and profitability of at least 30% (EBITDA %). Gross investments are estimated to correspond to around SEK 300 million, approximately half of which is expected to be financed by investment grant.

In recent years, the Group has pursued increased production in the Stockholm area – an effort that remains underway. The combined full technical capacity of all plants in Sweden is estimated at over 30 million Nm^3 of fuel-quality biogas, or approximately 300 GWh. The environmental permit at Södertörn, granted in 2017, also enables a sharp production increase at Södertörn over time. The plant in South Korea is expected to continue to have an annual production capacity of around 65 GWh. In addition, the annual production capacity in Norway is estimated at 12.5 million Nm^3 of liquid biogas, or about 120 GWh. With its current plants and ongoing projects, the Group's total production capacity is expected to be close to 500 GWh at full capacity.

The Group expects 2019 operational profitability (EBITDA) to exceed SEK 100 million, as the plant at Skogn is expected to be fully operational and the government production subsidy will have a positive impact on Södertörn's profitability.

Financing

The business is financed by way of equity, loans from external creditors and finance leasing. In Sweden, a major portion of production facilities are leased under lease agreements with original durations of around 25 years. Non-current interest-bearing liabilities, exclusive of finance leases, totalled SEK 566.0 million (475.4) as at 31 December 2018. The change is attributable to new loans raised from shareholders and non-controlling interests, and to investment of the funds remaining from the June 2017 bond issue in the facility at Skogn, Norway.

The Group's cash balances totalled SEK 94.8 million (86.9) as at 31 December 2018.

Following approval of the written procedure during Q2 2018, the Group has used part of the remaining capital from the June 2017 bond issue to finance the investment in Norway.

Any need for additional working capital is expected to be financed with debt or equity, subordinated to the corporate bond. The Group wants to expand and is actively working on new projects. The Group expects that financing of major future projects will require various types of co-operation and financing, depending on the project's structure and positioning.

As part of the Group's strategic plan, the board of directors and Group management have been working on a prospective listing of the Company's share in a suitable marketplace. In parallel with these efforts, various strategic and capital structure alternatives to create and realise the value of the Group's business opportunities and maximise shareholder value have been evaluated in collaboration with external advisors.

As authorised by the 2018 AGM, the Group intends to investigate the possibility of conducting a directed share issue of up to SEK 134 million to a number of institutional and private investors. As part of the directed share issue, the Company intends to offer certain existing shareholders the option of converting loans totalling SEK 34 million into shares. The Company also intends to conduct a rights issue of up to SEK 10 million during spring 2019 at the same subscription price as is determined in the directed share issue. In total, the Company intends to issue shares with a value of up to approximately SEK 144 million.

The share

The number of shares was unchanged during the financial year and totalled 107,098,839 (107,098,839) at 31 December 2018. The quotient value is SEK 0.20 per share. Each share carries one vote. All outstanding shares are ordinary shares and therefore carry the right to equal shares in the assets and profit of Scandinavian Biogas Fuels International AB (publ).

Warrants

All outstanding warrants held by employees and the CEO at 31 March 2018, expired on 1 April 2018 without being exercised. Accordingly, there are no outstanding options.

Significant events after the end of the period

A settlement agreement was signed in January 2019 in the dispute with the main supplier to the Södertörn facility, which was concluded in October 2018. The Group will pay the counterparty a total of SEK 15.6 million through the end of August 2019.

The Group's board of directors decided in February that the Group intends to investigate the possibility of conducting a directed share issue of up to SEK 134 million to a number of institutional and private investors and to offer certain shareholders the option of converting loans totalling SEK 34 million into shares. The Company also intends to conduct a rights issue of up to SEK 10 million at the same subscription price as is determined in the directed share issue. In total, the Company intends to issue shares with a value of up to approximately SEK 144 million.

The new plant in Skogn delivered approximately 2.2 million Nm^3 of LBG during the January–March 2019 period, an increase of approximately 45% on a monthly basis, as compared with monthly LBG deliveries during fourth quarter 2018.

The Group identified a risk that the adjusted equity/assets ratio requirement may not be met for the first and second quarters of 2019 and therefore initiated a process during the interim period to propose that bondholders waive the requirement. During April 2019 a clear majority of bondholders confirmed their support of the Group's proposal to waive the adjusted equity/assets ratio requirement for the first and second quarters of 2019. The terms of the waiver specify a fee of 1.00% and receipt of at least SEK 80 million, exclusive of transaction costs, from the directed share issue or subordinated loans, with a minimum of SEK 30 million to be received by 30 June 2019 and the remainder, up to SEK 50 million, by 31 August 2019.

Proposed allocation of profit/loss

The board of directors proposes that the following amount, SEK 188,901,310, be allocated as follows:

	Amount in SEK
Accumulated profit/loss	-381,260,162
Share premium reserve	613,502,704
Loss for the year	-43,341,232
Total	188,901,310
Carried forward	188,901,310
Total	**188,901,310**

With regard to the Company's performance and financial position, please refer to the following financial statements and accompanying notes.

Consolidated statement of comprehensive income

Amounts in SEK thousand	Note	2018	2017
Operating income			
Net sales	6	275,234	258,363
Capitalised work on own account	8	13,077	15,841
Other operating income	11, 13	21,901	15,127
Total		**310,212**	**289,331**
Operating expenses			
Raw materials and consumables		-166,336	-137,890
Other external costs	9	-81,664	-65,064
Personnel costs	10	-68,459	-64,790
Depreciation, amortisation and impairment of tangible and intangible assets		-64,057	-62,802
Other operating expenses	11, 14	-1,504	-944
Total operating expenses		**-382,020**	**-331,490**
Operating profit/loss		**-71,808**	**-42,159**
Financial income		4,502	2,036
Financial expense		-49,783	-37,552
Net financial items	12, 14	**-45,283**	**-35,516**
Profit/loss before taxes		**-117,091**	**-77,675**
Income tax	13	7,163	2,628
Profit/loss for the year		**-109,928**	**-75,047**
Other comprehensive income			
Actuarial results on post-employment benefits	10	-349	167
Exchange differences	14	2,002	-2,394
Other comprehensive income for the year, net after tax		**1,653**	**-2,227**
Total comprehensive income for the year		**-108,275**	**-77,274**
All items in the Group's other comprehensive income may be reversed in the income statement.			
Profit/loss for the year attributable to:			
Parent Company shareholders		-90,408	-68,587
Non-controlling interests		-19,520	-6,460
		-109,928	**-75,047**
Profit/loss for the year attributable to:			
Parent Company shareholders		-90,279	-67,718
Non-controlling interests		-17,996	-9,556
		-108,275	**-77,274**

The notes presented on pages 56–75 are an integrated part of these annual and consolidated accounts.

Consolidated balance sheet

Amounts in SEK thousand	Note	31 Dec 2018	31 Dec 2017
ASSETS			
Non-current assets			
Intangible assets	15		
Capitalised development costs		12,975	14,279
Concessions and similar rights		78,210	85,486
Patents and licences		1,488	104
Goodwill		6,617	6,466
Total intangible assets		**99,290**	**106,335**
Tangible assets	16		
Buildings and land		186,350	194,672
Plant and machinery		335,017	287,368
Equipment, tools, fixtures and fittings		10,936	10,797
Construction work in progress		358,124	347,189
Total tangible assets		**890,427**	**840,026**
Financial assets			
Deferred tax assets	18	16,956	9,930
Other non-current receivables	19	14,248	35,949
Total financial assets		**31,204**	**45,879**
Other non-current assets			
Accrued income and prepaid expenses	20	1,778	2,222
Total other non-current assets		**1,778**	**2,222**
Total non-current assets		**1,022,669**	**994,462**
Current assets			
Inventories, etc.			
Raw materials and consumables		5,499	1,876
Total inventories		**5,499**	**1,876**
Current receivables			
Trade accounts receivable	22	44,058	30,803
Other receivables	23	52,982	31,492
Prepaid expenses and accrued income	24	14,816	15,720
Cash and cash equivalents	25	94,788	86,885
Total current receivables		**206,644**	**164,900**
Total current assets		**212,143**	**166,776**
TOTAL ASSETS		**1,234,842**	**1,161,238**

The notes presented on pages 56–75 are an integrated part of these annual and consolidated accounts.

Consolidated balance sheet, continued

Amounts in SEK thousand	Note	31 Dec 2018	31 Dec 2017
EQUITY			
Equity attributable to Parent Company shareholders			
Share capital	26	21,420	21,420
Other paid-in capital		754,685	754,685
Translation reserve		3,636	1,872
Retained earnings including comprehensive income for the year		-700,637	-608,597
		79,104	**169,380**
Non-controlling interests		**52,789**	**59,544**
Total equity		**131,893**	**228,924**
LIABILITIES			
Non-current liabilities			
Borrowings	27, 29, 30	853,815	718,366
Deferred tax liabilities	18	2,053	2,101
Other provisions	28, 30	37,315	24,925
Total non-current liabilities		**893,183**	**745,392**
Current liabilities			
Borrowings	27	25,749	72,550
Accounts payable		86,755	50,887
Other liabilities	31	39,923	18,120
Accrued expenses and deferred income	32	57,339	45,365
Total current liabilities		**209,766**	**186,922**
TOTAL EQUITY AND LIABILITIES		**1,234,842**	**1,161,238**

The notes presented on pages 56–75 are an integrated part of these annual and consolidated accounts.

Consolidated statement of changes in equity

		Attributable to Parent Company shareholders						
Amounts in SEK thousand	**Note**	**Share capital**	**Other paid-in capital**	**Translation reserve**	**Retained earnings**	**Total**	**Non-controlling interests**	**Total equity**
Opening balance, 1 January 2017		**18,019**	**693,305**	**1,136**	**-540,143**	**172,317**	**53,962**	**226,279**
Profit/loss for the year					-68,587	**-68,587**	-6,460	**-75,047**
Other comprehensive income								
Actuarial results on post-employment benefits					133	**133**	34	**167**
Exchange differences				736		**736**	-3,130	**-2,394**
Total comprehensive income				**736**	**-68,454**	**-67,718**	**-9,556**	**-77,274**
New share issue	26	3,401	62,923			**66,324**		**66,324**
Issue expenses[1]			-1,543			**-1,543**		**-1,543**
Contributions from non-controlling interests	17					**-**	15,138	**15,138**
Total contributions from and distributions to shareholders, recognised directly in equity		**3,401**	**61,380**	**-**	**-**	**64,781**	**15,138**	**79,919**
Closing balance, 31 December 2017		**21,420**	**754,685**	**1,872**	**-608,597**	**169,380**	**59,544**	**228,924**
Opening balance, 1 January 2018		**21,420**	**754,685**	**1,872**	**-608,597**	**169,380**	**59,544**	**228,924**
Profit/loss for the year					-90,408	**-90,408**	-19,520	**-109,928**
Other comprehensive income								
Actuarial results on post-employment benefits					-291	**-291**	-58	**-349**
Exchange differences				1,764	-1,341	**423**	1,579	**2,002**
Total comprehensive income				**1,764**	**-92,040**	**-90,276**	**-17,999**	**-108,275**
Contributions from non-controlling interests	17						11,244	**11,244**
Total contributions from and distributions to shareholders, recognised directly in equity							**11,244**	**11,244**
Closing balance, 31 December 2018		**21,420**	**754,685**	**3,636**	**-700,637**	**79,104**	**52,789**	**131,893**

The notes presented on pages 56-75 are an integrated part of these annual and consolidated accounts.

[1] The tax effect of issue expenses recognised in equity totals SEK 0 thousand (340).

Consolidated statement of cash flows

Amounts in SEK thousand	Note	2018	2017
Cash flow from operating activities			
Operating profit/loss before financial items		-71,808	-42,159
Amortisation/depreciation		64,057	62,802
Other non-cash items	35	10,923	23,893
Interest received		121	125
Interest paid		-37,235	-35,913
Cash flow from operating activities before changes in working capital		**-33,943**	**8,748**
Cash flow from changes in working capital			
Increase/decrease in inventories		-3,623	-751
Increase/decrease in operating receivables		-33,841	271
Increase/decrease in operating liabilities		69,645	5,496
Total changes in working capital		**32,181**	**5,016**
Cash flow from changes in working capital		**-1,762**	**13,764**
Cash flow from investing activities			
Acquisition of intangible assets	15	-1,679	-2,216
Acquisition of tangible assets	16	-48,859	-187,478
Investments in subsidiaries	33	6,985	-
Divestment/amortisation of other financial assets		444	445
Restricted bank balances and other changes in financial assets		21,701	-14,430
Cash flow from investing activities		**-21,408**	**-203,679**
Cash flow from financing activities			
New share issue	26	-	64,781
Loans raised	27	94,735	154,860
Loan amortisation		-72,233	-30,929
Contribution to/from minority shareholders	17	7,644	15,138
Cash flow from financing activities		**30,146**	**203,850**
Total cash flow for the year		**6,979**	**13,935**
Decrease/increase in cash and cash equivalents			
Cash and cash equivalents at beginning of the year	25	86,885	73,871
Exchange differences in cash and cash equivalents		927	-921
Cash and cash equivalents at year-end	25	**94,788**	**86,885**

The notes presented on pages 56-75 are an integrated part of these annual and consolidated accounts.

Parent Company income statement

Amounts in SEK thousand	Note	2018	2017
Operating income			
Net sales	6, 7	1,200	1,200
Other operating income	11	230	594
Total operating income		**1,430**	**1,794**
Operating expenses			
Other external costs	9	-3,382	-3,041
Personnel costs	10	-779	-681
Other operating expenses	11	-11	-2
Total operating expenses		**-4,172**	**-3,724**
Operating profit/loss		**-2,742**	**-1,930**
Profit/loss from participations in group companies	12, 17	-	-27,067
Interest income		11,952	21,721
Interest expense		-27,550	-28,344
Net financial items	12	**-15,598**	**-33,690**
Profit/loss before appropriations and tax		**-18,341**	**-35,620**
Appropriations			
Group contributions paid		-25,000	-51,500
Total appropriations		**-25,000**	**-51,500**
Profit/loss before tax		**-43,341**	**-87,120**
Income tax	13	-	-
Profit/loss for the year		**-43,341**	**-87,120**

No items are recognised as other comprehensive income in the Parent Company and, accordingly, total comprehensive income corresponds with profit/loss for the year.

The notes presented on pages 56-75 are an integrated part of these annual and consolidated accounts.

Parent Company balance sheet

Amounts in SEK thousand	Note	31 Dec 2018	31 Dec 2017
ASSETS			
Non-current assets			
Financial assets			
Participations in group companies	17	189,453	175,899
Receivables from group companies		266,828	144,292
Other non-current receivables	19	-	12,078
Total financial assets		**456,280**	**332,269**
Total non-current assets		**456,280**	**332,269**
Current assets			
Current receivables			
Receivables from group companies		48,270	174,916
Other receivables	23	202	555
Prepaid expenses and accrued income	24	3,415	2,371
Total current receivables		**51,887**	**177,842**
Cash and bank balances	25	**1,649**	**7,517**
Total current assets		**53,536**	**185,359**
TOTAL ASSETS		**509,816**	**517,628**

The notes presented on pages 56-75 are an integrated part of these annual and consolidated accounts.

Parent Company balance sheet, continued

Amounts in SEK thousand	Note	31 Dec 2018	31 Dec 2017
EQUITY AND LIABILITIES			
Equity	26		
Restricted equity			
Share capital		21,420	21,420
Statutory reserve		2,043	2,043
Total restricted equity		**23,463**	**23,463**
Non-restricted equity			
Retained earnings		-381,260	-294,140
Share premium reserve		613,503	613,503
Profit/loss for the year		-43,341	-87,120
Total non-restricted equity		**188,902**	**232,243**
Total equity		**212,365**	**255,706**
Non-current liabilities			
Interest-bearing loans	27, 29	262,565	225,418
Intra-group loans	27	23,000	23,000
Total non-current liabilities		**285,565**	**248,418**
Current liabilities			
Borrowings	27	19	19
Accounts payable		932	3,235
Liabilities to group companies		6,112	5,560
Other liabilities	31	129	56
Accrued expenses and deferred income	32	4,693	4,634
Total current liabilities		**11,886**	**13,504**
TOTAL EQUITY AND LIABILITIES		**509,816**	**517,628**

The notes presented on pages 56-75 are an integrated part of these annual and consolidated accounts.

Parent Company statement of changes in equity

		Restricted equity		Non-restricted equity		
Amounts in SEK thousand	**Note**	**Share capital**	**Statutory reserve**	**Share premium fund**	**Retained earnings**	**Total equity**
Opening balance, 1 January 2017		**18,019**	**2,043**	**552,124**	**-294,141**	**278,045**
Comprehensive income						
Profit/loss for the year					-87,120	**-87,120**
Total comprehensive income					**-87,120**	**-87,120**
Transactions with shareholders						
New share issue	26	3,401		62,923		**66,324**
Issue expenses[1]				-1,544		**-1,544**
Closing balance, 31 December 2017		**21,420**	**2,043**	**613,503**	**-381,260**	**255,706**
Opening balance, 1 January 2018		**21,420**	**2,043**	**613,503**	**-381,260**	**255,706**
Comprehensive income						
Profit/loss for the year					-43,341	**-43,341**
Total comprehensive income					**-43,341**	**-43,341**
Closing balance, 31 December 2018		**21,420**	**2,043**	**613,503**	**-424,601**	**212,365**

The notes presented on pages 56-75 are an integrated part of these annual and consolidated accounts.

[1] The tax effect of issue expenses recognised in equity totals SEK 0 thousand (340).

Parent Company statement of cash flows

Amounts in SEK thousand	Note	2018	2017
Cash flow from operating activities			
Operating profit/loss before financial items		-2,742	-1,930
Adjustments for non-cash items	35	325	-749
Interest received		2,700	6,406
Interest paid		-22,861	-24,909
Cash flow from operating activities before changes in working capital		**-22,578**	**-21,182**
Cash flow from changes in working capital			
Increase/decrease in operating receivables		125,955	-2,805
Increase/decrease in operating liabilities		-1,618	2,433
Total changes in working capital		**124,337**	**-372**
Cash flow from operating activities		**101,759**	**-21,554**
Investing activities			
Investments in subsidiaries	17, 33	-8,153	-15,156
Loans to subsidiaries		-122,536	-32,820
Divestment/amortisation of other financial assets		-	44,665
Group contributions received/paid		-25,000	-51,500
Restricted bank balances and other changes in financial assets	19	12,078	-12,078
Cash flow from investing activities		**-143,611**	**-66,889**
Financing activities			
New share issue	26	-	64,781
Loans raised	27	35,984	30,497
Cash flow from financing activities		**35,984**	**95,278**
Cash flow for the year		**-5,868**	**6,835**
Opening cash and cash equivalents	25	**7,517**	**682**
Closing cash and cash equivalents	25	**1,649**	**7,517**

The notes presented on pages 56-75 are an integrated part of these annual and consolidated accounts.

Notes

Note 1 General information

Scandinavian Biogas Fuels International AB (publ) is a public limited liability company and is registered in Stockholm, Sweden. The headquarters are located at Holländargatan 21A, SE 111 60, Stockholm, Sweden.

The board of directors approved the publication of the consolidated accounts and annual report on 25 April 2019.

Unless otherwise specified, all amounts are in SEK thousand. Figures in brackets pertain to the year-earlier period.

Note 2 Summary of key accounting principles

The principal accounting policies applied in these consolidated accounts are set out below. These policies have been consistently applied to all years presented, unless otherwise stated. The consolidated accounts include Scandinavian Biogas Fuels International AB and its subsidiaries.

2.1 Basis of presentation

The consolidated accounts for Scandinavian Biogas Fuels International AB have been prepared in accordance with the Swedish Annual Accounts Act, RFR 1 'Supplementary Accounting Rules for Groups', and International Financial Reporting Standards (IFRS) and interpretations by the IFRS Interpretations Committee (IFRS IC) as adopted by the EU. This is Scandinavian Biogas Fuels International AB's seventh annual report prepared in accordance with the International Financial Reporting Standards (IFRS). The consolidated accounts have been prepared using the cost method.

The Parent Company's financial statements are prepared in accordance with RFR 2 'Accounting for Legal Entities' and the Swedish Annual Accounts Act. In cases where the Parent Company applies other accounting principles than those applied by the Group, these are listed separately at the end of this note.

The preparation of financial statements in conformity with IFRS requires the use of certain significant estimates for accounting purposes. It also requires management to exercise its judgement in applying the Group's accounting policies; see Note 4, Significant Estimates and Assessments.

New standards, amendments and interpretations applied by the Group

No amended standards applicable during 2018 had an impact on Scandinavian Biogas Fuels International AB's accounting principles or disclosures.

New standards and interpretations not yet applied by the Group

A number of new standards and interpretations come into effect for financial years beginning after 1 January 2018 and were applied when preparing these financial statements. Of these new standards and interpretations, it is primarily IFRS 16 that is expected to have a material impact on the Group's financial statements.

IFRS 9 Financial Instruments covers the classification, valuation and reporting of financial assets and liabilities and introduces new rules for hedge accounting. The full version of IFRS 9 was issued in July 2014. It replaces the sections of IAS 39 covering classification and valuation of financial instruments and introduces a new impairment model.

There are three valuation categories for financial assets: amortised cost, fair value through profit or loss, and fair value through comprehensive income. Classification of an instrument is determined by the company's business model and the instrument's characteristics. Investments in own capital instruments are recognised at fair value through comprehensive income, although there is also an option to recognise the instrument at fair value through profit or loss at initial recognition; in this case, there is no subsequent reclassification to the income statement when the instrument is sold. IFRS 9 also introduces a new model for calculating credit loss reserves, based on anticipated credit losses. There is no change to the classification and valuation of financial liabilities, except in cases where a liability is recognised at fair value through comprehensive income based on the fair value alternative. Changes in value attributable to changes in own credit risk are reported in other comprehensive income.

IFRS 9 relaxes the requirements for application of hedge accounting by replacing the 80–125 criterion with requirements for the establishment of a financial relationship between hedging instrument and hedged item, and by stipulating that the hedging ratio must be the same as the figure applied in connection with risk management. There are also changes to hedging documentation, as compared with IAS 39 requirements. The standard is applied for financial years beginning on or after 1 January 2018, and the Group elected not to apply the standard in advance. The Group has also elected to apply the simplification rule for trade receivables and contract assets. Accordingly, the Group is not required to assess whether credit risk has increased since initial recognition, but can recognise a loss allowance corresponding to expected credit losses over the entire term of the financial asset.

The Group's assessment is that IFRS 9 does not have an effect on the Group's results or position. The Group's financial assets are comprised solely of assets that will be classified at amortised cost and, based on current non-existent credit losses for these assets, a credit loss reserve is not deemed relevant.

IFRS 15 Revenue from contracts with customers regulates the manner in which revenue is recognised, replacing IAS 18 'Revenue', IAS 11 'Construction Contracts' and associated interpretations. The new standard introduces a new five-step model for revenue recognition based on when control of a good or service is transferred to the customer. The basic principle is that a company recognises revenue when (or as) the entity satisfies a performance obligation by transferring control of promised goods or services to a customer, at an amount that reflects that which the company expects to receive as compensation for the goods or services transferred. IFRS 15 introduces a five-step model:

Step 1 Identify the contract(s) with a customer
Step 2 Identify the performance obligations in the contract
Step 3 Determine the transaction price
Step 4 Allocate the transaction price to the performance obligations in the contract
Step 5 Recognise revenue when (or as) the entity satisfies a performance obligation

IFRS 15 provides additional guidance on and introduces increased disclosure requirements.

The Group has elected to apply the standard as from 1 January 2018 and not to apply the standard with full retroactivity. Under this method, adjustments are done only to contracts that are not completed prior to 1 January 2018, the effect of the transition is recognised in 2018 opening retained earnings, and comparative figures are not recalculated. Following a review of all significant customer contracts and application of the five-step model, the Group's assessment is that IFRS 15 does not have any effect on the Group's results or position, although it will entail substantially increased disclosure.

IFRS 16 'Leases' will replace IAS 17 'Leases'. Nearly all lease agreements will be recognised in the balance sheet, as distinction will no longer be made between operating and finance lease agreements. Under the new standard, an asset (the right to use a lease asset) and a financial obligation to pay leasing fees is recognised. Short-term leases and leases of low-value assets are excluded. The standard will mainly affect recognition of the Group's operating lease agreements. The Group's assessment is that IFRS 16 involves recognition of a large number of the lease agreements currently recognised as operating leases (e.g. land and storage tank leases) as assets and liabilities as from 1 January 2019. This will result in a decrease in other external costs and an increase in amortisation and financial expense. The standard will also involve increased disclosure in the annual report. The Group will be applying a modified retroactive approach and does not intend to apply the standard in advance. The total effect on assets and liabilities in the consolidated balance sheet is estimated at approximately 356 MSEK and 359 MSEK, respectively, from 1 January 2019 based on existing lease agreements, a large portion of which are already managed as finance leases.

No other IFRS or IFRIC interpretations that are not yet effective are expected to have any significant impact on the Group.

2.2 Consolidated accounts

A subsidiary is an entity over which the Group has the power to govern financial and operating policies (controlling interest) in a way normally associated with a shareholding of more than half of the voting rights. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. A subsidiary is no longer consolidated from the date such control ceases.

The acquisition method is applied in reporting the Group's business combinations. The purchase price for acquisition of a subsidiary is the fair value of transferred assets, liabilities and equity interests issued by the Group. The purchase price also includes the fair value of all assets and liabilities that are the result of an agreement on a conditional purchase price. Acquisition-related costs are expensed as incurred. Identifiable assets acquired and liabilities assumed in a business combination are initially measured at their fair values at the date of acquisition.

Intra-group transactions, balances and unrealised profit and loss on transactions between Group companies are eliminated. Accounting policies of subsidiaries have been changed where necessary to ensure consistent application of the Group's policies.

2.3 Translation of foreign currency

Functional currency and reporting currency

The Group's various units use local currency as functional currency, as local currency has been defined as the currency of the primary economic environment in which the entity mainly operates. The consolidated accounts are presented in Swedish Kronor (SEK), which is both the Parent Company's functional currency and the Group's presentation currency.

Transactions and balance sheet items

Foreign currency transactions are translated into functional currency using the exchange rates in effect on the transaction date. Exchange rate gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies at the closing day rate are recognised in the income statement.

Translation of foreign Group companies

The results and financial position of all Group entities with functional currency different from the reporting currency are translated into the reporting currency. Assets and liabilities from each entity's balance sheet are translated from their functional currency into the Group's reporting currency (Swedish Kronor) at the exchange rate in effect at the closing date. Revenues and expenses from each income statement are translated to Swedish Kronor at the average exchange rates in effect at each transaction date. Exchange rate differences arising on translation of foreign operations are recognised in other comprehensive income.

2.4 Intangible assets

Capitalised expenditures for development and similar work

Capitalised expenditures for development and similar work are comprised of internally developed intangible assets. The Scandinavian Biogas Fuels International Group engages in research and development. Research costs are expensed as research expenditures when incurred. Development expenditures or such costs incurred in the development phase of an internal project, which are directly attributable to the development and testing of the substrates from which biogas can be produced, are recognised as intangible assets when all criteria specified in IAS 38, p. 57, are satisfied.

Internally developed intangible assets are amortised on a straight-line basis over a 5–10-year period.

Concessions and similar rights

The subsidiary in Ulsan, South Korea, has signed a service agreement that does not convey the right to control the use of the Company's public service infrastructure. The Group recognises an intangible asset to the extent it is entitled to charge for the use of the public service (see also subsection 2.18, Service Concession Arrangements).

Amortisation is calculated over the contract period (i.e. 15-year period through March 2026) using the straight-line method.

Goodwill

The Group's goodwill is attributable to business combinations. The amount by which the purchase price exceeds the fair value of identifiable net assets acquired is reported as goodwill. If the amount is less than the fair value of the acquired subsidiary's assets, in the event of a 'bargain purchase', the difference is recognised directly in the statement of comprehensive income. The Group applies the 'partial goodwill' method in reporting goodwill arising from business combinations; accordingly, goodwill is calculated as the difference between the purchase price paid and the Group's share in identifiable acquired net assets. See Note 33, Business Combinations.

2.5 Tangible assets

Tangible assets are reported at cost of acquisition less depreciation. Cost of acquisition includes expenditures directly attributable to acquisition of the asset.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will benefit the Group and the cost of the asset can be reliably measured. The carrying amount of a replaced part is removed from the balance sheet. All other repairs and maintenance are reported as expenses in the income statement during the period incurred.

Each part of a tangible asset with a cost of acquisition that is significant in relation to the asset's total cost of acquisition is depreciated separately. Land and construction work in progress are not depreciated. Other assets are depreciated on a straight-line basis as follows:

Buildings	30 years
Plant and machinery	10–30 years
Equipment, tools, fixtures and fittings	3–5 years

The assets' residual value and useful life are reviewed at each reporting date and adjusted if necessary. An asset's carrying amount is immediately written down to its recoverable value if the carrying amount exceeds the estimated recoverable value. See also Note 4, Significant Estimates and Assessments.

Gains and losses on the disposal of tangible assets are determined by comparing sale proceeds with the carrying amount and are recognised in other operating income and other operating expenses in the income statement.

Of total tangible and intangible assets of SEK 989.4 million (946.4), SEK 536.1 million (570.0) are located in Sweden, SEK 78.5 million (85.9) in South Korea, and SEK 374.8 million (290.5) in Norway.

2.6 Impairment of non-financial assets

Assets with an indefinite useful life (e.g. goodwill) are not written down but are tested annually for impairment. Assets are assessed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised as the amount by which the asset's carrying amount exceeds its recoverable value. The recoverable value is an asset's fair value less costs related to its sale or its value in use, whichever is greater. For purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

2.7 Inventories

Inventories are comprised of granules and organic material substrates and are reported at acquisition cost or net realisable value, whichever is lower. Obsolescence risk is taken into account. Acquisition cost is calculated based on the first-in, first-out principle, and includes fees for bringing the goods to their present location and condition.

2.8 Financial instruments – general

Financial instruments are included in several balance sheet items and are specified in subsections 2.9–2.12. Subsection 2.8 details the general rules applicable to financial instruments.

2.8.1 Classification

The Group classifies its financial assets and liabilities in the following categories: financial assets and liabilities at fair value through the income statement; financial assets and liabilities at fair value through other comprehensive income; loans and receivables; and other financial liabilities. Classification is based on the purpose for which the financial asset or liability was acquired. The Group has no assets or liabilities at fair value through the income statement for this or the previous financial year.

Financial assets and liabilities at fair value through other comprehensive income

Non-monetary financial assets and liabilities are classified as financial assets and liabilities at fair value through other comprehensive income. An example of non-monetary financial assets and liabilities is the mandatory Severance Liability provision in South Korea.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are included in current assets with the exception of items with maturities longer than 12 months after the balance sheet date, which are classified as non-current assets. Group loans and receivables are comprised of trade accounts receivable, cash and cash equivalents (see subsections 2.9 and 2.10), and the financial instruments reported in other receivables.

Other financial liabilities

Group borrowings, loans from shareholders, convertible debt, trade accounts payable and the portion of other current liabilities relating to financial instruments are classified as other financial liabilities.

2.8.2 Reporting and valuation

Purchases and sales of financial assets are recognised on the trade date, the date on which the Group commits to purchase or sell the asset. For all financial assets not carried at fair value through the income statement, financial instruments are initially recognised at fair value plus transaction costs. Financial assets are derecognised when the rights to receive cash flows from the instruments have expired or have been transferred and the Group has transferred substantially all risks and benefits of ownership. Financial liabilities are derecognised when the obligation in the agreement has been fulfilled or otherwise terminated.

Financial assets and liabilities at fair value through other comprehensive income are recognised with application of the projected unit credit method. The mandatory Severance Liability provision in South Korea is revalued to fair value through other comprehensive income pursuant to IAS 19, and other translation differences for non-monetary financial assets and liabilities are also valued at fair value through other comprehensive income.

Loans and receivables as well as other financial liabilities are carried at amortised cost after the acquisition date, applying the effective interest method.

2.8.3 Offsetting financial instruments

Financial assets and liabilities are offset and the net amount is presented in the balance sheet only when there is a legally enforceable right to offset the recognised amounts and an intention to adjust them on a net basis or to realise the asset and adjust the liability simultaneously.

2.8.4 Impairment of financial instruments

Assets carried at amortised cost (loans and receivables)

The Group assesses at the end of each reporting period whether there is objective evidence that a write-down is required for a financial asset or group of assets. A financial asset or group of assets is written down only if there is objective evidence that a write-down is required due to the occurrence of one or more events following initial recognition of the asset, which event(s) have an impact on estimated future cash flows for the financial asset or group of assets that can be reliably estimated.

Impairment is calculated as the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate. The asset's carrying amount is written down and the impairment amount is recognised in the consolidated income statement within other external costs or net financial items, depending on which financial asset is impaired. If the write-down requirement decreases in a subsequent period and the decrease can be related objectively to an event occurring after the impairment was recognised, the reversal of the previously recognised impairment loss is recognised in the consolidated income statement within other external costs or net financial items, depending on which financial asset was impaired.

2.9 Trade accounts receivable

Trade accounts receivable are financial instruments comprised of amounts due from customers for goods and services sold in the ordinary course of business. Payments expected within a year or less are classified as current assets; other expected payments are reported as non-current assets.

Trade accounts receivable are initially recognised at fair value and subsequently measured at amortised cost using the effective interest method, less any provisions for impairment.

2.10 Cash and cash equivalents

Cash and cash equivalents are financial instruments and include cash and bank balances reported in the balance sheet and statement of cash flows. Restricted bank balances are not reported as cash and cash equivalents, but as financial assets or other current receivables, depending on when they are expected to be released.

2.11 Accounts payable

Accounts payables are financial instruments and represent obligations to pay for goods and services acquired from suppliers in the ordinary course of business. Accounts payable are classified as current liabilities if payment is due within one year or less; otherwise, they are reported as non-current liabilities.

Accounts payable are recognised at nominal value. The carrying amount of accounts payable is assumed to approximate fair value, as this item is short-term in nature.

2.12 Borrowings

Borrowings and loans from shareholders are financial instruments and are initially recognised at fair value, net of transaction costs. Borrowings are subsequently stated at amortised cost, with any difference between the proceeds (net of transaction costs) and the redemption value recognised in the income statement over the term of the loan using the effective interest method.

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting period.

2.13 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets (assets that necessarily take a substantial period of time to prepare for intended use or sale) are reported as part of such assets' acquisition value. Capitalisation ceases when all activities necessary to prepare the asset for its intended use or sale are substantially completed.

Capitalisable borrowing costs are reduced by financial income arising from temporary investment of specifically borrowed capital pending use in the financing of the asset. All other borrowing costs are expensed as incurred.

2.14 Government grants

Government grants related to investments in plants, machinery and equipment are recognised as a liability until the corresponding investment cost has been incurred by the Company, after which the cost of acquisition for the relevant asset is reduced.

Government grants related to cost recovery are expensed and recognised as revenue in the income statement over the periods covered by the grants.

2.15 Current and deferred tax

Tax expense for the year comprises current and deferred tax. Current tax expense is calculated based on tax provisions enacted or substantively enacted as at the balance sheet date in the countries in which the Parent Company and its subsidiaries operate and generate taxable income.

Deferred tax is recognised, using the liability method, on temporary differences arising between the tax base of assets and liabilities and their carrying amounts in the consolidated accounts. Deferred income tax is determined using tax rates enacted or substantively enacted as of the balance sheet date and expected to be applicable when the related deferred income tax asset is realised or the deferred tax liability is paid.

Deferred tax assets on tax losses are recognised to the extent it is probable that future taxable profit will be available, against which the loss can be utilised.

Deferred tax assets and liabilities are offset when there is either a legally enforceable right to offset current tax assets against tax liabilities, or when the deferred tax assets and liabilities pertain to taxes levied by the same taxation authority on the same or different taxable entities and the intention is to settle the balances through net payments.

2.16 Employee benefits

Pension commitments

The Group has defined contribution and defined benefit pension plans.

In Sweden, the Group's primary defined contribution pension plan is the ITP1 plan, secured through fees to Alecta. The pension plan in Norway is similar to the plan in Sweden.

The Group has defined benefit plans in South Korea, where the employees are entitled to post-employment benefits based on final salary and length of employment.

A defined contribution plan is a pension plan under which the Group pays fixed contributions to a separate legal entity. The Group has no legal or constructive obligations to pay further contributions if the legal entity does not hold sufficient assets to pay all employee benefits relating to employee service in current and prior periods.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as a personnel cost when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in future payments is available to the Group.

Bonus plans

The Group recognises a liability and an expense for bonuses. The Group recognises a provision when there is a legal obligation or a constructive obligation to do so due to past practice.

2.17 Revenue recognition

Revenues comprise the fair value of consideration received or receivable for goods sold in the Group's operating activities. Revenues from the sale of goods mainly consist of the sale of biogas. Revenues are recognised net of VAT and discounts and after eliminating intra-group sales.

Revenues from the sale of goods are recognised when risks and rewards of ownership of the goods have passed to the buyer, which usually occurs in connection with delivery, and when the revenues and associated costs can be measured reliably and it is probable that the economic benefits associated with the sale of the units benefit the Group.

Revenues from services relate primarily to the collection of organic waste. Revenues from the sale of services are recognised over the period during which services are rendered. Revenue is calculated by determining the degree of completion of the specific transaction based on the amount of services rendered relative to total services to be performed.

2.18 Service concession arrangements

The operations in South Korea have entered into service concession arrangements associated with the biogas plant there. As service concession arrangements do not transfer the right to control the use of the infrastructure for public services to the Group, infrastructure associated with these arrangements is not recognised as a tangible asset. Compensation received or receivable by the Group is recognised at fair value. Compensation has been assessed as entitlement to an intangible asset, as the arrangement gives the Group the right (licence) to charge users for the public service.

2.19 Leases

The Group holds operating leases, including for land, office space, cars, and storage tanks.

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the income statement on a straight-line basis over the lease period.

The Group leases certain non-current assets. Leases of non-current assets in which the Group assumes substantially all of the risks and rewards of ownership are classified as finance leases.

Each finance lease payment comprises amortisation of the debt and financial charges. The corresponding payment obligations, net of financial charges, are included in the balance sheet items non-current borrowings and current borrowings. The interest element of the financial cost is recognised in the income statement over the lease period so that each accounting period is charged with an amount corresponding to a fixed interest rate for the balance of the liability. Non-current assets held under finance leases are depreciated over the asset's useful life or the lease term, whichever is shorter.

2.20 Cash flow statement

The cash flow statement is prepared using the indirect method. Accordingly, operating income is adjusted for transactions that do not result in cash payments during the period and for any income or expense attributable to investment or financing activity cash flows.

2.21 Share capital

Ordinary shares are classified as equity. Transaction costs directly attributable to the issue of new shares or warrants are recognised in equity, net of tax, as a deduction from the issue proceeds.

2.22 Share-based benefits

The Group had a share-based programme (warrants) that matured in April 2018 without being exercised.

2.23 Parent Company accounting principles

The Parent Company applies accounting principles other than those applied by the Group as detailed below.

Presentation

The income statement and balance sheet follow the Swedish Annual Accounts Act. The statement of changes in equity also follows the Group's table format but must contain the columns specified in the Annual Accounts Act. There are also differences in terminology, particularly in respect of financial income, expenses and equity.

Participations in subsidiaries

Participations in subsidiaries are recognised at cost after deduction for any impairment losses. Costs include acquisition-related expenses and any additional purchase consideration paid.

An estimate of recoverable amount is made when there is an indication that participations in subsidiaries have decreased in value. If this amount is lower than the carrying amount, a write-down is recognised and reported in profit/loss from participations in Group companies.

Group contributions

Group contributions are recognised as appropriations in the income statement.

Lease agreements

All leases, regardless of whether they are finance or operating leases, are classified as operating lease agreements.

Financial instruments

IAS 39 is not applied in the Parent Company, and financial instruments are valued at cost of acquisition.

Guarantee commitments/financial guarantees

The Parent Company has signed guarantees on behalf of subsidiaries. Such commitments are classified under IFRS as financial guarantee contracts. For these agreements, the parent applies relaxation rules pursuant to RFR 2 (IAS 39, p. 2), and accordingly reports the surety as a contingent liability. A provision is made when the Parent Company believes that a payment will likely be required to settle an obligation.

Note 3 Financial risk management

3.1 Financial risk factors

Through its business activities, the Group is exposed to a variety of financial risks: market risk (including currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall strategy focuses on reducing the potentially adverse effects on financial performance.

a) Market risk

(i) Currency risk

Scandinavian Biogas is exposed to currency risk given that the Company conducts transactions in foreign currencies (transaction risk) and has foreign subsidiaries (translation risk).

Transaction risk

Transaction risk is the risk of impact on consolidated net income and cash flow due to changes to the value of commercial flows in foreign currencies following changes in exchange rates. The subsidiaries in South Korea and Norway use KRW and NOK, respectively, as accounting currency, but exposure is deemed negligible as revenue and expenses are in the same currency. The Group makes certain purchases in EUR but this does not present a significant currency risk, as it does not have any significant foreign currency transactions.

In 2018, exchange rate differences recognised in the consolidated income statement totalled SEK 3.8 million (1.0). The Group has analysed its sensitivity to changes in exchange rates. If the Swedish Krona had weakened/strengthened by one per cent against the USD, KRW and EUR, with all other variables held constant, net results for the year would have been SEK 1.9 million (1.9) higher/lower.

Translation risk

There is risk associated with the Group's translation of the net assets of foreign subsidiaries to the consolidating currency, the Swedish Krona (SEK). The Group's foreign subsidiaries are in South Korea (KRW) and Norway (NOK). The Group is also affected by the translation of foreign subsidiaries' income statements into SEK. This exposure is not hedged.

The Group has analysed its sensitivity to changes in exchange rates. If the Swedish Krona had weakened/strengthened by one per cent against the KRW and NOK, with all other variables held constant, net results for the year would have been SEK 1.8 million (2.3) higher/lower.

(ii) Interest rate risk

Changes in interest-bearing financial assets and liabilities held by the Group linked to market interest rates affect the results and cash flow from operations. Interest rate risk is the risk that changes in market interest rates may have an adverse impact on the Group's net income. Borrowings issued at variable rates expose the Group to cash flow interest rate risk, which is partially offset by cash assets at floating rates. In 2018 and 2017, the Group's borrowings at variable interest rates were in Swedish Kronor.

Of the Group's total interest-bearing debt of SEK 879.6 million (790.9), SEK 268.2 million (226.2) is at a fixed interest rate and the remainder at a variable rate. The Group is therefore exposed to a certain amount of interest rate risk. The Group has cash and cash equivalents totalling SEK 94.8 million (86.9) at variable rates. The Group's interest income is affected by the general interest rate climate.

Variable-rate liabilities as at the balance sheet date totalled SEK 611.4 million (564.7) and the Company's cash and cash equivalents totalled SEK 94.8 million (86.9). A +/- one per cent change in interest rates would result in an impact on net interest income/expense of +/- SEK 6.1 million (5.6). An interest rate reduction produces a lower effect than an interest rate increase in SEK, as the rate on the corporate bond has a STIBOR floor of 0.00 per cent.

b) Credit risk

Credit risk or counterparty risk is the risk that the counterparty to a financial transaction fails to fulfil its obligations when due. Scandinavian Biogas's credit risk includes cash and cash equivalents, trade accounts receivable and other receivables. With respect to cash and cash equivalents, credit risk is considered to be low given that counterparties are well-known banks with high credit ratings – such as Nordea (credit rating Aa3) and Sparebank 1 SMN (credit rating A1) – for which loans to the Group are higher than deposits. Scandinavian Biogas deems credit risk to be low, as sales are made to large, stable customers with whom the Group has good WTP (willingness to pay) experience. The Group monitors customers' credit ratings and reviews the terms of credit if necessary.

c) Liquidity risk

Liquidity risk is the risk of the Group having insufficient funds to pay its financial liability obligations.

The objective of the Company's liquidity management is to minimise the risk that the Group will not have sufficient cash to meet its commercial obligations. Cash flow forecasts are prepared regularly. Management closely monitors rolling forecasts of the Group's liquidity reserve to ensure that the Group has sufficient cash resources to meet the needs of operating activities. Liquidity risks in the operating companies Scandinavian Biogas Stockholm AB and Scandinavian Biogas Korea Co., Ltd. are considered minor, while the risk is higher in the development company Scandinavian Biogas Fuels AB and in Scandinavian Biogas Södertörn AB.

The financing of existing projects and operations in the coming year will largely be resolved with equity. In order to arrange financing for future projects and strengthen liquidity, the Group is looking at a number of different alternatives such as project financing, refinancing, listing of the Company's share, and other strategic and capital structure alternatives.

A number of capital adequacy requirements (covenants) are applicable to the Group's borrowings. These are mainly comprised of requirements for financial key ratios such as profitability and equity/assets ratio, as well as requirements for cash-in-hand. The Group also has restricted bank deposits in Norway. These are reported as other non-current receivables in cases where the funds are restricted for more than one year; otherwise, they are reported as other receivables. Of the Group's total borrowings of SEK 879.6 million (790.9), SEK 515.1 million (514.9) is subject to various capital adequacy requirements. There are no covenants for the Group's finance leases.

At 31 December 2018 the Group's liquid assets totalled SEK 94,788 thousand (86,885). The Group has no undrawn credit facilities. Other future liquidity pressures are the payment of accounts payable and other current liabilities and repayment of loans. The table below shows the contractual, undiscounted cash flows that comprise financial liabilities, broken down by duration on the balance sheet date to the contractual maturity date. For 2017, the table includes future finance leases totalling SEK 12.4 million which were not included in the balance sheet at the balance sheet date, due to the fact that the lease period did not commence until 2018. The Parent Company issued an SEK 200 million corporate bond in February 2016 and a subsequent bond of SEK 30 million in June 2017. The bonds have four-year durations and mature in February 2020.

At 31 December 2018 (SEK thousand)	< 1 year	1-2 years	2-5 years	> 5 years
Borrowings	63,264	298,144	180,846	125,496
Finance lease liabilities	26,244	27,587	80,140	275,532
Other provisions	8,042	5,227	7,237	7,639
Accounts payable	86,755	-	-	-
Other current liabilities	39,923	-	-	-

At 31 December 2017 (SEK thousand)	< 1 year	1-2 years	2-5 years	> 5 years
Borrowings	95,028	66,947	362,758	141,270
Finance lease liabilities	21,456	23,902	70,327	254,566
Other provisions	5,783	3,759	5,205	5,494
Accounts payable	50,887	-	-	-
Other current liabilities	176	-	-	-

3.2 Capital risk management

The Group's goal with regard to its capital structure is to safeguard the Group in its ability to continue its operations, in order to provide returns to shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

3.3 Calculation of fair value

The carrying value, less impairment provisions, of trade accounts receivable and other receivables and of accounts payable and other liabilities is assumed to correspond to their fair values, given that these items are short-term in nature.

Note 4 Significant estimates and assessments

Estimates and assessments are evaluated regularly and are based on historical experience and other factors, including expectations of future events deemed reasonable under current conditions.

Significant estimates and assessments for accounting purposes

The Group makes estimates and assumptions about the future. The accounting estimates that result from these, by definition, seldom correspond to actual results. The estimates and assumptions that have a significant risk of material adjustments to the carrying values of assets and liabilities within the next financial year are outlined below.

Valuation of loss carry-forwards

The Group reviews on an annual basis the appropriateness of capitalising deferred tax assets for the year's tax loss carry-forwards. Deferred tax assets are only recognised for loss carry-forwards when it is probable that they can be utilised against future taxable income and against temporary taxable differences. Loss carry-forwards in the Norwegian companies are valued upon determination that there is sufficient future profit to utilise them. No elements of the other loss carry-forwards have been valued, as it is not deemed that profits in the foreseeable future are likely to exceed the costs for development, commissioning of new investment projects and Group-wide functions. See Note 18, Deferred Tax.

Goodwill

The Group's goodwill is derived from the acquisition of the Norwegian group and is considered to have an indefinite useful life. Impairment testing is conducted on a continuous basis through the Group's review of future cash flows and determination of a number of estimates and assessments, mainly related to future biogas price and operating costs. As the facility in Norway was just recently commissioned during summer 2018, production and sales volumes were estimated based on previous experience, performance data from suppliers and management's expectations for future market development. Cash flow forecasts are based on the approved budget and forecasts for the next five years. See Note 15, Intangible Assets.

Service concession arrangements

The Group has service concession arrangements and, accordingly, an intangible asset (concession right) is recognised to the extent the Group is entitled to charge users of the public service. The intangible asset is recognised based on the fair value of consideration the Group has received or will receive. Fair value was estimated at the present value of future cash flows the Group expects to receive from the concession rights. Assessment of expected future cash flows requires management to make estimates and assessments concerning the future, the most significant of which are future market price of liquid natural gas (LNG) and operating costs. See Note 15, Intangible Assets.

Valuation of tangible assets

Impairment testing of the Group's facilities is conducted on a regular basis. Impairment testing is based on estimated future cash flows, with several assumptions applied in this assessment – the most significant of which are future production volumes, biogas price and operating costs. Each facility was assessed independently, excluding the two leased from Stockholm Vatten och Avfall (Bromma and Henriksdal), which were treated as a single cash-generating unit. See Note 16, Tangible Assets.

Penalty fee provision

A provision for the penalty fee in Ulsan City has been made in view of the upgrading issue at the plant in South Korea. The provision was calculated as the present value of the South Korean subsidiary's accumulated liability under the terms of the contract, as at the balance sheet date. An assessment of the probable amount of the penalty fee was made in calculating present value, which produced a discount rate of 13.86%. According to legal opinions from three leading South Korean law firms, the contractual amount is unreasonable and the penalty fee should be significantly lower – a maximum of 37.5 per cent of the contractual amount. Under the contract, the accumulated liability for the period November 2012 through December 2017 is to be amortised continuously through the end of the contractual period (i.e. for just over eight years). See also Note 28, Provisions.

Capitalised development costs

The Group recognises development costs that meet all criteria specified in IAS 38, p. 57, as intangible assets. Costs are primarily comprised of lab tests of various organic substrates and substrate combinations from which biogas can be produced and optimised. Capitalisation is only done on development costs for assets that the Group i) deems are technically possible to complete; ii) intends to complete; iii) deems are possible to use or sell; iv) deems will have the capacity to generate future financial advantages; v) deems there are sufficient technical, financial and other resources to complete; and vi) deems it is possible to reliably measure development costs. Estimates and assessments must be made in assessing which development costs to capitalise, based on expectations of future cash flows that the asset is expected to generate.

Investment in Biogas Uppland

Management has analysed the degree of influence the Group has over Biogas Uppland AB and has determined that the Group has control over operations. This determination was based on representation on the board and on contract terms, even though the Group holds a 50 per cent stake. The investment has therefore been classified as a subsidiary and has been consolidated.

Claims on subsidiaries in South Korea

In the Swedish part of the Group there are claims on subsidiary Scandinavian Biogas Korea Co., Ltd., denominated in USD and KRW. Exchange rate fluctuations in 2018 resulted in an unrealised exchange difference of SEK 3.8 million (1.1). Given that debt is amortised pursuant to a fixed plan and is expected to be fully amortised by 2025, the Group has determined that this claim should not be seen as a net investment in the South Korean company. Accordingly, exchange rate fluctuations are recognised in net financial items and not, as otherwise would have been the case, in other comprehensive income.

Note 5 Segment reporting

As from 1 January 2017, Scandinavian Biogas's operations are divided into three segments based on geographic location. The Group's operations are managed and reported based on operating segments Business Area Sweden, Business Area South Korea and Business Area Norway. Operations also include a Service Centre and Research & Development segment. The business areas are geographic organisations, with the head of each business area reporting directly to Group management.

Segment data is based on the same accounting policies as those applied by the Group as a whole and is consolidated (i.e. cleared of intra-group items).

Income statement by segment	**1 Jan-31 Dec 2018**	**1 Jan-31 Dec 2017**
Operating income		
Business Area Sweden	220,440	213,694
- of which, external revenue	*217,498*	*211,725*
- of which, internal revenue	*2,942*	*1,969*
Business Area South Korea	52,215	50,839
- of which, external revenue	*52,215*	*50,839*
Business Area Norway	29,718	12,784
- of which, external revenue	*29,718*	*12,784*
Service Centre and R&D	44,859	45,640
- of which, external revenue	*10,781*	*5,438*
- of which, internal revenue	*34,078*	*40,202*
Eliminations	-37,020	-33,626
Group total	**310,212**	**289,331**
Raw materials and consumables		
Business Area Sweden	-116,747	-104,220
Business Area South Korea	-31,919	-31,032
Business Area Norway	-17,712	-69
Service Centre and R&D	-2,316	-5,639
Eliminations	2,358	3,070
Group total	**-166,336**	**-137,890**
Gross profit/loss		
Business Area Sweden	103,693	109,474
Business Area South Korea	20,296	19,807
Business Area Norway	12,006	12,715
Service Centre and R&D	42,543	40,001
Eliminations	-34,662	-30,556
Group total	**143,876**	**151,441**
Other external costs		
Business Area Sweden	-60,386	-64,007
Business Area South Korea	-11,692	-9,087
Business Area Norway	-13,575	-10,313
Service Centre and R&D	-25,252	-12,213
Eliminations	29,241	30,556
Group total	**-81,664**	**-65,064**

Income statement by segment	**1 Jan-31 Dec 2018**	**1 Jan-31 Dec 2017**
Personnel costs		
Business Area South Korea	-9,686	-9,026
Business Area Norway	-13,183	-10,101
Service Centre and R&D	-45,590	-45,663
Group total	**-68,459**	**-64,790**
EBITDA		
Business Area Sweden	43,307	45,467
Business Area South Korea	-1,082	1,694
Business Area Norway	-14,752	-7,699
Service Centre and R&D	-28,299	-17,875
Eliminations	-5,421	-
Group total	**-6,247**	**21,587**
Depreciation, amortisation and impairment of tangible and intangible assets	-64,057	-62,802
Other operating expenses	-1,504	-944
Total operating expenses	**-215,684**	**-193,600**
Operating profit/loss	**-71,808**	**-42,159**
Net exchange differences	3,794	1,041
Financial income	161	125
Financial expense	-49,238	-36,682
Net financial items	**-45,283**	**-35,516**
Profit/loss before tax	**-117,091**	**-77,675**
Income tax	7,163	2,628
Profit/loss for the period	**-109,928**	**-75,047**

All employees in Sweden are employed by subsidiary Scandinavian Biogas Fuels AB in the Service Centre and R&D segment, which then invoices other Group companies for work performed. Business Area Sweden therefore reports personnel costs as intra-group consultant fees in other external costs.

Condensed balance sheet by segment	**31 Dec 2018**	**31 Dec 2017**
Non-current assets		
Business Area Sweden	521,187	556,135
Business Area South Korea	81,354	88,573
Business Area Norway	407,863	319,654
Service Centre and R&D	12,295	30,100
Group total	**1,022,699**	**994,462**
Current assets		
Business Area Sweden	109,135	69,039
Business Area South Korea	14,908	10,883
Business Area Norway	74,516	59,512
Service Centre and R&D	13,584	27,342
Group total	**212,143**	**166,776**
Total assets, Group	**1,234,842**	**1,161,238**
Non-current liabilities		
Business Area Sweden	301,807	271,478
Business Area South Korea	37,315	24,925
Business Area Norway	269,508	203,198
Service Centre and R&D	57,151	20,373
Unallocated	227,402	225,418
Group total	**893,183**	**745,392**
Current liabilities		
Business Area Sweden	111,035	132,012
Business Area South Korea	12,414	9,379

Business Area Norway	49,568	15,165
Service Centre and R&D	36,749	30,366
Group total	**209,766**	**186,922**
Total liabilities, Group	**1,102,949**	**932,314**

Note 6 Distribution of net sales

Net sales are distributed by type of revenue as follows:

Group	2018	2017
Sale of goods, Sweden	188,701	182,874
Sale of goods, South Korea	15,741	15,825
Sale of goods, Norway	14,516	-
Sale of services, Sweden	19,803	21,596
Sale of services, South Korea	36,474	35,015
Sale of services, Norway	-	260
Business-related re-invoicing, Sweden	-1	2,793
Group total	**275,234**	**258,363**

Parent Company	2018	2017
Sale of services	1,200	1,200
Parent Company total	**1,200**	**1,200**

Business-related re-invoicing refers primarily to materials and consultant services purchased in the capacity as technical entrepreneur and re-invoiced to external parties within the scope of various types of co-operation agreements.

Of the Group's net sales of SEK 275.2 million (258.4), the largest individual customers account for SEK 92.1 million (88.4), SEK 37.6 million (36.6) and SEK 36.5 million (35.0), respectively. These three customers account for 60.4 per cent (61.9) of the Group's total net sales, of which 14.1 per cent (13.6) is attributable to South Korea and the remainder to Sweden. No other customers account for more than 10 per cent of sales.

Note 7 Parent Company sales to and purchases from Group companies

During the year the Parent Company invoiced subsidiaries SEK 1,428 thousand (1,792) for Group-wide services and purchased services from subsidiaries in the amount of SEK 0 thousand (17).

Note 8 Capitalised work on own account

The Company capitalised staff costs related to work performed on new construction work in progress and on development projects. The costs capitalised relate to direct labour costs, social fees and a mark-up for other expenses.

Note 9 Remuneration to auditors

An audit assignment refers to examination of the annual report and accounting records, the board and CEO's administration of the Company, other duties resting with the Company's auditors, and advisory services and other support arising in the course of such examination or performance of such other duties. Everything else is considered other services.

Group	2018	2017
PWC		
Audit assignment	1,322	830
Audit work other than audit assignment	64	255
Tax consultancy	54	71
Other services	342	217
Total	**1,783**	**1,373**
Other auditors		
Audit assignment	14	9
Tax consultancy	7	8
Other services	17	16
Total	**38**	**33**
Group total	**1,821**	**1,406**

Parent Company	2018	2017
PwC		
Audit assignment	902	360
Audit work other than audit assignment	10	242
Tax consultancy	3	4
Other services	79	69
Total	**994**	**675**

During financial year 2018, Group payments to the audit firm and its network totalled SEK 1,821 thousand (of which SEK 1,233 thousand to the audit firm), distributed into the following categories:

- Audit assignment (SEK 1,322 thousand to audit firm and network, of which SEK 1,129 thousand to audit firm)
- Other statutory audit work (SEK 64 thousand to audit firm and network, of which SEK 10 thousand to audit firm)
- Tax consultancy (SEK 54 thousand to audit firm and network, of which SEK 15 thousand to audit firm)
- Valuation services (nil to audit firm and network, of which nil to audit firm)

Other services (SEK 342 thousand to audit firm and network, of which SEK 79 thousand to audit firm)

Note 10 Employee benefits, etc.

Group	2018	2017
Salaries and other benefits	49,720	46,510
Social fees	11,653	11,044
Pension expenses – defined contribution plans	4,535	4,640
Pension expenses – defined benefit plans	836	555
Group total	**66,744**	**62,749**

Salaries, other benefits and payroll overhead

	2018	2018	2017	2017
	Salaries and other benefits (of which, bonuses)	Social fees (of which, pension costs)	Salaries and other benefits (of which, bonuses)	Social fees (of which, pension costs)
Board members, CEO and other senior executives	9,441 (-)	3,719 (1,507)	9,443 (-)	3,960 (1,695)
Other employees	40,278 (-)	13,305 (3,864)	37,067 (-)	12,279 (3,500)
Group total	**49,720 (-)**	**17,024 (5,371)**	**46,510 (-)**	**16,239 (5,195)**

No share options were distributed to board members or employees during this or the previous financial year.

Gender distribution – board members and other senior executives, Group (including subsidiaries)

	2018	2018	2017	2017
	No. on balance sheet date	Of which, women	No. on balance sheet date	Of which, women

Board members	6	1	6	1
CEO and other senior executives	7	1	7	1
Group total	**13**	**2**	**13**	**2**

Parent Company	**2018**	**2017**
Salaries and other benefits	655	684
Social fees	124	135
Parent Company total	**779**	**820**

Salaries, other benefits and payroll overhead

	2018	**2018**	**2017**	**2017**
	Salaries and other benefits (of which, bonuses)	**Social fees (of which, pension costs)**	**Salaries and other benefits (of which, bonuses)**	**Social fees (of which, pension costs)**
Board members, CEO and other senior executives	655 (-)	124 (-)	684 (-)	135 (-)
Other employees	-	-	-	-
Parent Company total	**655 (-)**	**124 (-)**	**684 (-)**	**135 (-)**

Remuneration to senior executives

Remuneration to the CEO and other senior executives is comprised of basic salary, variable remuneration, other benefits and financial instruments, etc. 'Other senior executives' are the individuals who, together with the CEO, comprise Group management. For management structure, see the Corporate Governance section of the Board of Directors' Report.

The CEO is entitled to 12 months' salary in the event his employment is terminated by the Company. There are no other termination benefit agreements.

Board members and senior executives received the following remuneration:

Remuneration and other benefits, 2018	**Basic salary/ director's fee**	**Variable remuneration**	**Other benefits**	**Pension costs**	**Other remuneration**	**Total**
Chairman Göran Persson	350	-	-	-	-	**350**
Board member Anders Bengtsson	75	-	-	-	-	**75**
Board member Andreas Ahlström	50	-	-	-	-	**50**
Board member Hans Hansson	65	-	-	-	-	**65**
Board member Sara Anderson	65	-	-	-	-	**65**
Board member David Schelin	50	-	-	-	-	**50**
CEO Matti Vikkula	3,138	-	141	426	-	**3,705**
Other senior executives (6 persons)	5,648	-	123	1,081	-	**6,852**
Total	**9,441**	**-**	**264**	**1,507**	**-**	**11,212**

Remuneration and other benefits, 2017	**Basic salary/ director's fee**	**Variable remuneration**	**Other benefits**	**Pension costs**	**Other remuneration**	**Total**
Chairman Göran Persson	350	-	-	-	-	**350**
Board member Anders Bengtsson	75	-	-	-	-	**75**
Board member Andreas Ahlström	50	-	-	-	-	**50**
Board member Hans Hansson	65	-	-	-	-	**65**
Board member Sara Anderson	65	-	-	-	-	**65**
Board member Raif Nisametdin (17 Jan–14 Apr)	17	-	-	-	-	**17**
Board member David Schelin (17 May–17 Dec)	33	-	-	-	-	**33**
Board member Andreas Berg (17 Jan–17 Jul)	29	-	-	-	-	**29**
CEO Matti Vikkula	3,001	-	98	586	-	**3,684**
Other senior executives (5 persons)	5,759	-	88	1,109	-	**6,956**
Total	**9,443**	**-**	**186**	**1,695**	**-**	**11,325**

The chairman, board members and members of the Audit Committee receive remuneration as determined by the Annual General Meeting. No specific payment is made for other committee work. With regard to Parent Company salaries and compensation, board-related expenses totalled SEK 779 thousand (820), while the subsidiaries' other external expenses, totalling SEK 264 thousand (312), relate to consultancy fees to the employer of a board member.

Average number of employees, by country

	2018	2018	2017	2017
	Average number of employees	Of which, women	Average number of employees	Of which, women
Sweden		-	-	-
Parent Company total	**-**	**-**	**-**	**-**
Subsidiaries				
Sweden	37.8	10.9	42.8	11.4
South Korea	20.9	0.6	21.3	0.3
Norway	13.2	4.1	9.6	1.4
Total subsidiaries	**71.9**	**15.6**	**73.7**	**13.1**
Group total	**71.9**	**15.6**	**73.7**	**13.1**

Gender distribution – board members and other senior executives, Parent Company

	2018	2018	2017	2017
	No. at balance sheet date	Of which, women	No. at balance sheet date	Of which, women
Board members	6	1	6	1
CEO and other senior excecutives	1	-	1	-
Parent Company total	**7**	**1**	**7**	**1**

Pension plans

Group	**31 Dec 2018**	**31 Dec 2017**
Obligations on the balance sheet for:		
Defined benefit pension plans	-3,113	- 2,584
Recognition in the income statement for:		
Costs for defined benefit pension plans	1,184	389
Costs for defined contribution pension plans	4,535	4,640
Amounts reported in other comprehensive income	-349	167

Group	**31 Dec 2018**	**31 Dec 2017**
Present value of funded obligations	-3,113	-2,584
Unrecorded actuarial gains	-	-
Net liability in the balance sheet	**-3,113**	**-2,584**

Change in the defined benefit obligation for the year:

Group	**31 Dec 2018**	**31 Dec 2017**
At beginning of the year	2,584	3,342
Costs for employee service during the current year	757	476
Interest expense	79	79
Actuarial losses(+)/gains(-)	349	-167
Exchange differences	118	45
Benefits paid	-774	-1,191
At year-end	**3,113**	**2,584**

Amounts recognised in the income statement for defined benefit plans:

Group	**31 Dec 2018**	**31 Dec 2017**
Costs for employee service during the current year	757	476
Interest expense	79	79
Actuarial gains/losses reported during the year	349	-167
Total	**1,184**	**389**

Principal actuarial assumptions:

Group	**31 Dec 2018**	**31 Dec 2017**
Discount rate	2.57%	3.08%
Future salary increases	3.00%	3.00%

Plan assets are comprised of:

Group	**31 Dec 2018**	**31 Dec 2017**
Other	-	-
Total	**-**	**-**
Present value of defined benefit obligation	-3,113	-2,584
Fair value of plan assets	-	-
Deficit	**-3,113**	**-2,584**

Note 11 Other operating income and other operating expense

	Group		Parent Company	
Other operating income	**2018**	**2017**	**2018**	**2017**
Exchange gains	1,543	881	2	-
Grants received	15,777	4,788	-	-
Non-business-related re-invoicing	423	8,589	228	592
Other	4,158	869	-	2
Total other operating income	**21,901**	**15,127**	**230**	**594**

	Group		Parent Company	
Other operating expenses	**2018**	**2017**	**2018**	**2017**
Exchange losses	1,495	944	11	2
Other	9	-	-	-
Total other operating expenses	**1,504**	**944**	**11**	**2**

Note 12 Financial income and expense/Interest income and expense

	Group		Parent Company	
Financial income/Interest income	**2018**	**2017**	**2018**	**2017**
Interest income on bank deposits	111	95	-	-
Interest income from Group companies	-	-	11,578	21,721
Exchange gains	5,497	1,920	-	-
Other financial income	50	21	374	-
Total financial income/ interest income	**5,658**	**2,036**	**11,952**	**21,721**

	Group		Parent Company	
Financial expense/Interest expense	**2018**	**2017**	**2018**	**2017**
Impairment of participations in Group companies	-	-	-	27,067
Interest expense on borrowings	39,079	32,958	23,900	21,819
Intra-group interest expense	-	-	1,166	2,274
Exchange losses	1,703	870	-	749
Other financial expense	10,159	3,724	2,484	3,502
Total financial expense/ interest expense	**50,941**	**37,552**	**27,550**	**55,411**
Total net financial items	**-45,283**	**-35,516**	**-15,598**	**-33,690**

The Parent Company's impairment of participations in Group companies for last year is primarily due to the penalty fee in Ulsan.

Note 13 Income tax/Tax on profit for the year

	Group		Parent Company	
	2018	2017	2018	2017
Current tax:				
Current tax on profit for the year	-	-	-	-
Adjustments related to previous years	-	-	-	-
Total current tax	**-**	**-**	**-**	**-**
Deferred tax (see Note 18):				
Accrual and reversal of temporary differences	7,163	2,628	-	-
Total deferred tax	**7,163**	**2,628**	**-**	**-**
Income tax	**7,163**	**2,628**	**-**	**-**

Income tax on profit differs from the theoretical amount that would have arisen if the weighted average tax rate on profit was applied to profits for the consolidated companies, as follows:

	Group		Parent Company	
	2018	2017	2018	2017
Profit/loss before tax	-117,091	-77,675	-43,341	-87,120
Tax calculated pursuant to applicable national tax rates on profit/loss before tax in each country	24,005	13,304	9,535	19,166
Tax effects of:				
Non-taxable income	-	68	-	340
Non-deductible expense	-32	-45	-	-5,955
Tax losses for which no deferred tax asset is recognised	-16,810	-10,699	-9,535	-13,551
Tax revenue/expense	**7,163**	**2,628**	**-**	**-**

The weighted average tax rate is 20.5% (17.1) for the Group and 22.0% (22.0) for the Parent Company.

	Group		Parent Company	
Income tax recognised in equity during the year:	**2018**	**2017**	**2018**	**2017**
Current tax:				
- Issue expenses	-	-	-	-
Deferred tax:				
- Issue expenses	-	340	-	340
Total income tax recognised in equity	**-**	**340**	**-**	**340**

Note 14 Exchange differences

Exchange differences are recognised in the income statement as follows:

	Group		Parent Company	
	2018	2017	2018	2017
Exchange differences in operating profit/loss	48	-63	-10	-2
Exchanges differences in net financial items	3,794	1,050	374	-749
Total exchange differences in the income statement	**3,842**	**987**	**364**	**-751**
Amounts reported in other comprehensive income	**2,002**	**-2,394**	**-**	

Note 15 Intangible assets

Group	Goodwill	Capitalised development costs	Concessions and similar rights	Patents and licences	Total
At 1 January 2017					
Cost of acquisition	6,807	16,457	197,422	4,724	**225,410**
Accumulated amortisation and impairment	-	-2,985	-93,708	-4,598	**-101,291**
Closing carrying amount	**6,807**	**13,472**	**103,714**	**126**	**124,119**
Financial year 2017					
Opening carrying amount	6,807	13,472	103,714	126	**124,119**
Purchases/ reprocessing	-	2,216	-	-	**2,216**
Reclassifications	-	-	-	22	**22**
Translation differences	-341	-	5,488	-	**5,147**
Amortisation	-	-1,409	-11,724	-44	**-13,177**
Impairment	-	-	-11,992	-	**-11,992**
Closing carrying amount	**6,466**	**14,279**	**85,486**	**104**	**106,335**
At 31 December 2017					
Cost of acquisition	6,466	18,673	208,655	4,747	**238,541**
Accumulated amortisation and impairment	-	-4,394	-123,169	-4,643	**-132,206**
Closing carrying amount	**6,466**	**14,279**	**85,486**	**104**	**106,335**
Financial year 2018					
Opening carrying amount	6,466	14,279	85,486	104	**106,335**
Purchases/ reprocessing	-	-	-	293	**293**
Reclassifications	-	157	-	1,261	**1,418**
Translation differences	151	-	3,441	1	**3,593**
Amortisation	-	-1,461	-10,741	-171	**-12,373**
Impairment		-	24	-	**24**
Closing carrying amount	**6,617**	**12,975**	**78,210**	**1,488**	**99,290**
At 31 December 2018					
Cost of acquisition	6,617	17,511	217,534	6,302	**247,964**
Accumulated amortisation and impairment	-	-4,536	-139,324	-4,814	**-148,674**
Closing carrying amount	**6,617**	**12,975**	**78,210**	**1,488**	**99,290**

The total amount for research and development expensed during the period was SEK 5,054 thousand (3,098).

Based on the results of an impairment test of goodwill, it was deemed that there was no write-down requirement during the financial year. The Group conducted a sensitivity analysis against changes in the impairment test. If the cost of capital had been 0.5 percentage point higher and profitability (EBITDA margin) one percentage point lower, with all other variables held constant, there would nonetheless have been no write-down requirement for goodwill. The cost of capital, produced by an external party, is based on assessments of weighted return requirements for interest-bearing liabilities and equity in proportion to estimated percentage in an optimal industrial capital structure. A 2 per cent long-term growth rate and a 10.5 per cent cost of capital were used in this year's impairment testing of goodwill. The Group's goodwill is attributable to Business Area Norway.

Based on the results of an impairment test of the concession right, it was deemed that there was no write-down requirement during the financial year. The Group conducted a sensitivity analysis against changes in the impairment test. If the cost of capital had been 0.5 percentage point higher and profitability (EBITDA margin) one percentage point lower, with all other variables held constant, there would nonetheless have been no write-down requirement. A 2.5 per cent long-term growth rate and a 13.3 per cent cost of capital were used in this year's impairment testing of the concession right. The Group's concession right is attributable to Business Area South Korea.

Note 16 Tangible assets

Group	Buildings and land	Plant and machinery	Equipment, tools, fixtures and fittings	Construction work in progress	Total
At 1 January 2017					
Cost of acquisition	224,499	320,792	27,958	277,129	**850,378**
Accumulated depreciation and impairment	-27,675	-53,640	-15,007	-37,641	**-133,962**
Carrying amount	**196,824**	**267,152**	**12,951**	**239,488**	**716,415**
Financial year 2017					
Opening carrying amount	196,824	267,157	12,951	239,488	**716,415**
Acquisition	2,952	13,809	1,492	171,829	**190,083**
Capitalisation	4,092	31,683	-	-35,775	**-**
Advances paid	-	-	-	-25,487	**-25,487**
Capitalised interest	-	-	-	16,444	**16,444**
Late penalty	-	-	-	-10,566	**-10,566**
Sale and disposal	-	-	-465	-	**-465**
Reclassifications	-	-	-22	-	**-22**
Translation differences	-	-	3	-8,744	**-8,741**
Depreciation	-9,196	-25,276	-3,163	-	**-37,635**
Closing carrying amount	**194,672**	**287,368**	**10,797**	**347,189**	**840,026**
At 31 December 2017					
Cost of acquisition	231,543	366,284	28,284	384,911	**1,011,023**
Accumulated depreciation and impairment	-36,871	-78,916	-17,487	-37,722	**-170,997**
Carrying amount	**194,672**	**287,368**	**10,797**	**347,189**	**840,026**
Financial year 2018					
Opening carrying amount	194,672	287,368	10,797	347,189	**840,026**
Acquisition	-1	67,889	4,164	43,687	**115,739**
Capitalisation	1,046	9,093	-	-10,139	**-**
Capitalised interest	-	-	-	10,101	**10,101**
Late penalty	-	-	-	-23,365	**-23,365**
Sale and disposal	-	-	-1,222	-5,750	**-6,972**
Reclassifications	37	-676	639	-684	**-684**
Translation differences	1	94	24	7,169	**7,288**
Depreciation	-9,405	-28,751	-3,466	-10,084	**-51,706**
Closing carrying amount	**186,350**	**335,017**	**10,936**	**358,124**	**890,427**
At 31 December 2018					
Cost of acquisition	232,628	442,585	33,189	405,705	**1,114,108**
Accumulated depreciation and impairment	-46,278	-107,568	-22,253	-47,581	**-223,681**
Carrying amount	**186,350**	**335,017**	**10,936**	**358,124**	**890,427**

Construction work in progress as at 31 December 2018 is mainly comprised of investments in the Norwegian plant and part of the plant at Södertörn.

During the year the Group capitalised borrowing fees of SEK 10,101 thousand (16,444) on qualifying assets in the form of construction work in progress.

Based on the results of impairment tests, it was deemed that there was no write-down requirement for tangible assets during the financial year; see also Note 4, Significant Estimates and Assessments. The Group conducted a sensitivity analysis against changes in the impairment test. If the cost of capital had been 0.5 percentage point higher and profitability (EBITDA margin) one percentage point lower, with all other variables held constant, there would nevertheless have been no write-down requirement for the plants in Norway, Södertörn, Henriksdal or Bromma.

A cost of capital of 10.5 per cent for Sweden and Norway and of 13.3 per cent for South Korea was used in this year's assessment. The cost of capital is based on assessments of weighted return requirements for interest-bearing liabilities and equity in proportion to estimated percentage in an optimal industrial capital structure.

Tangible assets include objects leased by the Group through finance lease agreements at the following amounts:

	2018	2017
Buildings and land	109,298	114,515
Plant and machinery	170,410	116,356
Equipment, tools, fixtures and fittings	5,867	7,878
Construction work in progress	6,974	6,974
Carrying amount	**292,549**	**245,723**

Note 17 Participations in Group companies

Parent Company	31 Dec 2018	31 Dec 2017
Accumulated cost		
Opening cost of acquisition	606,460	591,304
Acquisitions during the year	13,554	15,156
	620,014	**606,460**
Accumulated impairment		
Opening balance	-430,561	-403,494
Impairment for the year	-	-27,067
	-430,561	**-430,561**
Closing carrying amount at year-end	**189,453**	**175,899**

Participations in Group companies increased SEK 13.6 million during the financial year due to an SEK 5.4 million conditional capital contribution to Scandinavian Biogas Recycling AB (via Scandinavian Biogas Sweden AB) and an SEK 8.2 million share issue in Biokraft Holding AS. Subsidiaries received group contributions of SEK 25.9 million (51.5) during the same period.

Non-controlling interests contributed SEK 7.6 million in conjunction with the new share issue and SEK 3.6 million in conjunction with the conditional capital contribution.

The Parent Company holds shares in the following subsidiaries:

Name	Corp. reg. no.	Domicile	Share of equity/Share of votes	No. of shares	Carrying amount 31 Dec 2018	Carrying amount 31 Dec 2017
Direct holdings						
Scandinavian Biogas Fuels AB	556691-9196	Stockholm	100 %	166,667	274	274
Scandinavian Biogas Sweden AB	556807-2986	Stockholm	100 %	50,000	107,450	102,050
Biokraft Holding AS	916683405	Trondheim (Norway)	50.03 %	52,147,487	81,729	73,575
Indirect holdings						
Biogas Uppland AB	556636-0227	Uppsala	50 %			
Mönsterås Biogasproduktion AB	559148-3168	Stockholm	100 %			
Scandinavian Biogas Södertörn AB	556712-1735	Stockholm	100 %			
Scandinavian Biogas Fuels i Varberg AB	556748-8357	Varberg	100 %			
Scandinavian Biogas Korea Co., Ltd.	610-84-00961	Ulsan (South Korea)	82.17 %			
Scandinavian Biogas Korea Co., Ltd.	285011-0174239	Seoul (South Korea)	90 %			
Scandinavian Biogas Stockholm AB	556489-7899	Stockholm	100 %			
Scandinavian Biogas Recycling AB	556934-4384	Stockholm	60 %			
Biokraft AS	894625902	Trondheim (Norway)	50.03 %			
Total					**189,453**	**175,899**

Significant subsidiaries and their activities

Scandinavian Biogas Fuels AB designs biogas facilities, with a major focus on optimising production and conducting research in the biogas field. Scandinavian Biogas Fuels AB also has a branch office in Norway with the same name, corporate ID number 917 357 420.

Scandinavian Biogas Korea Co., Ltd. operates a plant in Ulsan, South Korea, that produces raw gas, primarily from food waste. Revenues are generated by gate fees (i.e. payment for receiving waste) and from gas sales.

Scandinavian Biogas Stockholm AB's operations comprise the production and trade of upgraded biogas.

Scandinavian Biogas Södertörn AB (SBSö) and Scandinavian Biogas Recycling AB (SBR) work in close collaboration, with their overall business encompassing the entire biogas production process. SBR is responsible for pre-treatment and SBSö for the digestion, upgrading and management of digestate.

In early 2016, 50.03 per cent of the shares were acquired in Norwegian company Biokraft Holding AS, which owns 100 per cent of the shares in Biokraft AS. Biokraft AS has made an investment in an LBG production facility in Skogn, Norway, which has an estimated production capacity of 120 GWh at full capacity.

All subsidiaries are consolidated in the Group. The share of voting power in subsidiaries directly owned by the Parent Company does not differ from the share of ordinary shares owned.

Biogas Uppland AB is consolidated, given that Scandinavian Biogas Fuels AB is entitled to appoint the chairman who in turn holds the casting vote. Accordingly, Scandinavian Biogas Fuels is deemed to have control over Biogas Uppland.

The total ownership of non-controlling interests for the period amounted to SEK 52,789 thousand (59,544), of which SEK 58,124 thousand (61,970) is attributable to the Biokraft Group in Norway. Holdings of non-controlling interests in the remaining subsidiaries with minority shareholders are insignificant.

Significant constraints

There are no significant constraints within the Group other than certain restrictions in moving capital between subsidiaries due to loan agreement regulations, etc.

Summary of financial information on subsidiaries with significant non-controlling interests

A summary of financial information for each subsidiary with significant non-controlling interests is presented below. Amounts are presented before intra-group eliminations.

Summary from the balance sheet

Biokraft Group	2018	2017
Non-current assets	441,219	319,713
Current assets	74,665	59,515
Total assets	**515,884**	**379,228**
Non-current liabilities	351,366	239,813
Current liabilities	48,200	15,400
Total liabilities	**399,566**	**255,213**
Net assets	**116,318**	**124,015**

Summary of information on earnings and comprehensive income

Biokraft Group	2018	2017
Revenue	29,718	12,784
Profit/loss for the year	-27,088	-6,892
Total comprehensive income for the year	**-23,345**	**-9,923**
Total comprehensive income attributable to non-controlling interests	**-11,525**	**-4,959**

Summary of cash flow statement

Biokraft Group	2018	2017
Cash flow from operating activities		
Cash flow from operations	-14,848	-7,276
Interest received/paid	-2,465	52
Total change in working capital	18,412	-3,335
Cash flow from operating activities	1,099	-10,559
Cash flow from investing activities	-34,768	-151,578
Cash flow from financing activities	23,223	165,024
Decrease/increase in cash and cash equivalents	**-10,446**	**2,887**
Cash and cash equivalents at beginning of the year	24,897	23,172
Exchange rate difference in cash and cash equivalents	537	-1,162
Cash and cash equivalents at year-end	**14,998**	**24,897**

Note 18 Deferred tax

	Group		Parent Company	
	2018	2017	2018	2017
Deferred tax expense, temporary differences	89	-133	-	-
Deferred tax revenue, temporary differences	7,074	2,761	-	-
Total deferred tax in the income statement	**7,163**	**2,628**	**-**	**-**

Deferred tax assets	31 Dec 2018	31 Dec 2017
Deferred tax assets to be utilised after 12 months	16,956	9,930
Deferred tax assets to be utilised within 12 months	-	-
Total deferred tax assets	**16,956**	**9,930**

Deferred tax liabilities	31 Dec 2018	31 Dec 2017
Deferred tax liabilities to be utilised after 12 months	2,053	2,101
Deferred tax liabilities to be utilised within 12 months	-	-
Total deferred tax liabilities	**2,053**	**2,101**
Net deferred tax liabilities/assets	**14,903**	**7,829**

Changes in deferred tax assets and liabilities during the year as reported in the income statement, without taking into account set-offs made in the same fiscal jurisdiction, are presented below.

Deferred tax liabilities	31 Dec 2018	31 Dec 2017
At 1 January	**2,101**	**1,968**
Development costs	-91	104
Finance leases	43	29
At 31 December	**2,053**	**2,101**

Deferred tax assets	31 Dec 2018	31 Dec 2017
At 1 January	**9,930**	**7,601**
Deferred tax on net results for the year in Norwegian subsidiaries	6,989	1,650
Intra-group profit in non-current assets	-	17
Finance leases	-	1,093
Translation difference	37	-431
At 31 December	**16,956**	**9,930**

Deferred tax assets are reported for tax loss carry-forwards to the extent it is likely they can be utilised against future taxable profit. Loss carry-forwards do not expire at any given date, with the exception of the South Korean loss carry-forward which expires after 10 years.

Deferred tax assets are mainly attributable to the Norwegian subsidiaries. An assessment has been made that operations in Norway will generate a taxable surplus in the foreseeable future, while within other operations there remain significant deficits that are not expected with any reasonable certainty to be covered by surpluses in the foreseeable future. Loss carry-forwards for which deferred tax assets have not been capitalised total SEK 467.4 million (390).

Note 19 Other non-current receivables

Group	31 Dec 2018	31 Dec 2017
Restricted bank balances	10,688	32,462
Other	3,560	3,487
Group total	**14,248**	**35,949**

Parent Company	31 Dec 2018	31 Dec 2017
Restricted bank balances	-	12,078
Parent Company total	**-**	**12,078**

Note 20 Other non-current assets

Group	31 Dec 2018	31 Dec 2017
Accumulated cost		
At beginning of the year	2,222	2,667
Deductible portion	-444	-445
Carrying amount at year-end	**1,778**	**2,222**

Non-current prepaid expenses pertain to a renegotiation fee expensed over the term of the agreement (9 years).

Note 21 Financial instruments per category

Assets on the balance sheet

Group	Assets at fair value through profit or loss	Assets at fair value through other comprehensive income	Loans and receivables	Total
31 December 2018				
Trade accounts receivable	-	-	44,058	**44,058**
Other receivables	-	-	67,230	**67,230**
Cash and cash equivalents		-	94,788	**94,788**
Total	**-**	**-**	**206,076**	**206,076**
31 December 2017				
Trade accounts receivable	-	-	30,803	**30,803**
Other receivables	-	-	64,685	**64,685**
Cash and cash equivalents		-	86,885	**86,885**
Total	**-**	**-**	**182,373**	**182,373**

Liabilities on the balance sheet

Group	Liabilities at fair value through profit or loss	Liabilities at fair value through other comprehensive income	Other financial liabilities	Total
31 December 2018				
Borrowings	-	-	879,564	**879,564**
Accounts payable	-	-	86,755	**86,755**
Accrued expenses	-	3,113	-	**3,113**
Other liabilities	-	-	39,923	**39,923**
Total	**-**	**3,113**	**1,006,242**	**1,009,355**
31 December 2017				
Borrowings	-	-	790,916	**790,916**
Accounts payable	-	-	50,887	**50,887**
Accrued expenses	-	2,537	-	**2,537**
Other liabilities	-	-	176	**176**
Total	**-**	**2,537**	**841,979**	**844,516**

Note 22 Trade accounts receivable

	31 Dec 2018	31 Dec 2017
Trade accounts receivable	44,058	30,803
Less: provision for doubtful receivables	-	-
Trade accounts receivable – net	**44,058**	**30,803**

At 31 December 2018, substantiated trade accounts receivable totalled SEK 44,058 thousand (30,803).

At 31 December 2018, trade accounts receivable totalling SEK 8,532 thousand (7,123) were past due, but impairment was not deemed necessary.

An age analysis of trade accounts receivable is presented below.

	31 Dec 2018	31 Dec 2017
1–30 days	7,312	7,031
31–60 days	1,220	-
> 61 days	-	92
Total overdue trade accounts receivable	**8,532**	**7,123**

Changes in the provision for doubtful receivables:

	31 Dec 2018	31 Dec 2017
At 1 January	**-**	**-318**
Receivables written off during the year as non-recoverable	-	318
At 31 December	**-**	**-**

Allocations to and reversals of provisions for doubtful receivables are included in other external expenses in the income statement. No collateral or other guarantee is provided for receivables outstanding as at the balance sheet date.

Note 23 Other receivables

Group	31 Dec 2018	31 Dec 2017
Tax account and preliminary F-tax	1,980	740
VAT receivable	3,733	2,016
Grants, unpaid	5,906	16,707
Late penalty	36,299	10,566
Other items	5,064	1,463
Group total	**52,982**	**31,492**

Parent Company	31 Dec 2018	31 Dec 2017
VAT receivable	202	555
Parent Company total	**202**	**555**

Note 24 Prepaid expenses and accrued income

Group	31 Dec 2018	31 Dec 2017
Accrued income	1,299	925
Prepaid insurance premiums	1,270	1,695
Prepaid rents and lease payments	2,548	7,619
Prepaid transaction and legal expenses	2,940	3,612
Other items	6,759	1,869
Group total	**14,816**	**15,720**

Parent Company	31 Dec 2018	31 Dec 2017
Prepaid insurance premiums	198	35
Prepaid transaction expenses	2,940	2,235
Other items	276	101
Parent Company total	**3,415**	**2,371**

Note 25 Cash and cash equivalents/Cash and bank balances

The following items are included in cash and cash equivalents on the balance sheet and statement of cash flows:

Group	31 Dec 2018	31 Dec 2017
Cash and bank balances	94,788	86,885
Group total	**94,788**	**86,885**

Parent Company	31 Dec 2018	31 Dec 2017
Cash and bank balances	1,649	7,517
Parent Company total	**1,649**	**7,517**

None of the funds in cash and cash equivalents are restricted.

Note 26 Share capital, other paid-in capital and proposed appropriation of profit

	Number of shares (thousand)	Share capital	Other paid-in capital	Total
At 31 December 2017	**107,099**	**21,420**	**754,685**	**776,105**
New share issues	-	-	-	-
Issue expenses	-	-	-	-
At 31 December 2018	**107,099**	**21,420**	**754,685**	**776,105**

Share capital is comprised of 107,098,839 shares. Each share carries one vote. All shares issued by the Parent Company are paid in full.

The Board of Directors proposes that unappropriated earnings, SEK 188,901,310, be distributed as follows:

	Amount in SEK
Accumulated profit/loss	-381,260,162
Share premium reserve	613,502,704
Profit/loss for the year	-43,341,232
Total	**188,901,310**
Carried forward	188,901,310
Total	**188,901,310**

Warrants

All outstanding warrants held by employees and the CEO at 31 March 2018, expired on 1 April 2018 without being exercised. Accordingly, there are no outstanding options.

Note 27 Borrowings

Group	31 Dec 2018	31 Dec 2017
Non-current		
Loans from credit institutions	283,422	231,699
Bond loans	227,402	225,418
Liabilities related to finance leases	287,821	242,949
Other non-current borrowings	55,170	18,300
Total non-current borrowings	**853,815**	**718,366**
Current		
Loans from credit institutions	9,019	57,800
Liabilities related to finance leases	16,730	14,750
Total current borrowings	**25,749**	**72,550**
Total borrowings	**879,564**	**790,916**

Parent Company	31 Dec 2018	31 Dec 2017
Non-current		
Bond loans	262,565	225,418
Intra-group loans	23,000	23,000
Total non-current borrowings	**285,565**	**248,418**
Current		
Loans from shareholders	19	19
Total current borrowings	**19**	**19**
Total borrowings	**285,584**	**248,437**

Loans from credit institutions

Loans from credit institutions mature through 2027 and finance leases run through 2039. Interest-bearing loans carry an average annual interest rate of 5.9 per cent (6.9). Group borrowings are in SEK and NOK.

Total borrowings include bank loans and other secured borrowings of SEK 813,174 thousand (806,646). Security for loans from credit institutions is comprised of liens on assets as well as pledged intra-group loans, assets and shares in subsidiaries.

The carrying amount and fair value of non-current borrowings is presented below.

	Carrying amount		Fair value	
	31 Dec 2018	31 Dec 2017	31 Dec 2018	31 Dec 2017
Loans from lenders	283,422	231,699	283,422	231,699
Corporate bond	227,402	225,418	225,102	231,605
Liabilities related to finance leases	287,821	242,949	287,821	242,949
Other non-current borrowings	55,170	18,300	55,170	18,300

The fair value of non-current financial liabilities is calculated based on future cash flows of principal and interest discounted at the current market rate on the balance sheet date.

The fair value of current borrowings corresponds to the carrying amount, as the discount rate is not significant.

Note 28 Provisions

Group	2018	2017
At 1 January	**24,925**	**9,375**
Provision for the year, penalty fee risk	11,329	15,377
Translation difference	1,061	173
At 31 December	**37,315**	**24,925**

There is a risk that subsidiary Scandinavian Biogas Korea Co., Ltd. in Ulsan, South Korea, will need to pay a penalty to Ulsan City for not upgrading gas. As per agreement, an investment in an upgrading plant in Ulsan was to be made by December 2017. As there is currently no interest in upgraded gas in South Korea, the Company deems the contractual obligation to be unreasonable and has therefore not made the investment. Ulsan City is therefore entitled under the terms of the contract to charge a penalty fee equivalent to a portion of gas sales. This penalty fee applies retroactively from November 2012 (the Company has already paid through October 2012). The nominal value of the provision for the entire contractual penalty fee was approximately SEK 55 million at the balance sheet date. The Company deems the penalty fee level to be unreasonable. The Group has retained three leading South Korean law firms, who maintain that a significantly lower penalty fee is more reasonable. Nonetheless, the provision at the close of the financial year corresponds to the present value of the entire contractual penalty fee amount, payable within seven years. A discount rate of 13.86 per cent was applied in calculating present value, which takes into account dispute-related risks.

The Parent Company has no Provisions.

Note 29 Pledged assets

Group	31 Dec 2018	31 Dec 2017
Liens on assets	48,000	48,000
Pledged assets	412,144	368,272
Assets financed through finance leases	285,575	238,751
Shares in Scandinavian Biogas Fuels AB	-	23,064
Shares in Scandinavian Biogas Stockholm AB	58,227	58,227
Shares in Scandinavian Biogas Södertörn AB	9,153	8,209
Shares in Scandinavian Biogas Fuels i Varberg AB	76	78
Shares in Biokraft Holding AS	-	62,045
Group total	**813,174**	**806,646**

Parent Company	31 Dec 2018	31 Dec 2017
Shares in Scandinavian Biogas Sweden AB	107,450	102,050
Shares in Scandinavian Biogas Fuels AB	274	274
Shares in Biokraft Holding AS	81,729	73,575
Pledged intra-group loan to Scandinavian Biogas Sweden AB	-	229,111
Parent Company total	**189,453**	**405,010**

Note 30 Contingent liabilities

Group	31 Dec 2018	31 Dec 2017
Contingent liability – subsidiary investment grants	16,372	10,869
Contingent liability – Parent Company corporate bond	230,000	230,000
Group total	**246,372**	**240,869**

Parent Company	31 Dec 2018	31 Dec 2017
Contingent liability – subsidiary loans from credit institutions	32,500	32,500
Contingent liability – subsidiary investment grants	16,372	10,869
Parent Company totalt	**48,872**	**43,369**

Contingent liabilities for subsidiary loans from credit institutions pertain to general guarantee commitments. Subsidiary Scandinavian Biogas Fuels AB has guaranteed the Parent Company's corporate bond.

Note 31 Other liabilities

Group	31 Dec 2018	31 Dec 2017
VAT liability	446	528
Tax at source	1,313	1,217
Public funding	37,931	16,199
Other	233	176
Group total	**39,923**	**18,120**

Parent Company	31 Dec 2018	31 Dec 2017
VAT liability	-	45
Tax at source	-	10
Other	129	1
Parent Company total	**129**	**56**

Note 32 Accrued expenses and deferred income

Group	31 Dec 2018	31 Dec 2017
Accrued interest	6,715	10,154
Accrued payroll-related expenses	10,882	9,357
Accrued expenses – gas and electricity	9,778	5,474
Accrued board fees	627	526
Construction work in progress	7,252	7,805
Accrued lease and rental expenses	478	1,857
Accrued operation and maintenance expenses	467	2,876
Other items	21,141	7,316
Group total	**57,339**	**45,365**

Parent Company	31 Dec 2018	31 Dec 2017
Accrued interest	3,125	3,250
Accrued board fees	627	526
Other items	941	858
Parent Company total	**4,693**	**4,634**

Note 33 Business combinations

Business combinations

On 11 February 2016 the Group acquired 50.03 per cent of the shares in Biokraft Holding AS, a company registered in Norway that owns all shares in Biokraft AS. The purchase price totalled NOK 57,999,147.66. A small portion of the acquisition was conducted directly with the owners, with the major portion conducted in conjunction with a new share issue. The surplus value of the acquisition has been estimated at SEK 6.4 million. Acquisition costs for lawyers, etc. totalled SEK 0.8 million and were reported in the income statement as other external costs.

Information on acquired net assets and goodwill:

	At acquisition date
Purchase price:	
- funds paid via direct acquisition	2,981
- funds paid via new share issue	54,670
Total purchase price	**57,651**
Fair value of acquired assets (see below)	-51,231
Surplus value/Goodwill	**6,420**

Assets and liabilities included in the acquisition, according to preliminary assessment:

	Fair value
Cash and cash equivalents	101,393
Tangible assets	6,933
Deferred tax assets	5,765
Trade accounts receivable and other receivables	4,935
Accounts payable and other liabilities	-6,688
Borrowings	-9,940
Identifiable assets acquired	**102,398**
Non-controlling interests	-51,167
Surplus value/Goodwill	6,420
Acquired net assets	**57,651**

Surplus value is classified as goodwill and is attributable to increased market shares in the Nordic region, establishment in the Norwegian market, and future liquid biogas production at the biogas facility in Skogn, Norway. All of the Group's existing plants currently produce compressed biogas. No part of recognised goodwill is expected to be tax deductible.

Fair value of non-controlling interest in Biokraft Holding AS, an unlisted company, was calculated by multiplying non-controlling interest (49.97 per cent) by the value of the identified assets acquired.

Sales for full-year 2016 (i.e. including the period prior to the acquisition) totalled SEK 15.1 million. Profit/loss for the year was SEK -2.9 million.

Note 34 Lease agreements

Operating leases

The Group's operating leases pertain mainly to office space, land, storage tanks and cars. No subleasing is conducted. Cars are leased under three-year contracts after which i) the car is returned at no charge, or ii) the lease may be extended on one-year basis, or iii) the car may be purchased at contractual residual value. The land at Henriksdal and Södertörn is leased for a 25-year period and the land at Bromma until the closure of Stockholm Vatten och Avfall's wastewater treatment plant, which is expected in 2026. Land leases are classified as operating leases, as no risks are transferred to the lessee and as depreciation/amortisation is not considered necessary for land. The storage tank lease agreement runs for five years with a five-year extension option for the lessee. If the agreement is not cancelled or extended by five years, it is automatically extended for consecutive two-year periods. At the end of the leasing period, the lessee's only responsibility is to clean the tank thoroughly.

Future minimum lease payments under non-cancellable operating leases effective at the reporting date are payable as follows:

Group	31 Dec 2018	31 Dec 2017
Within 1 year	10,405	10,405
1 to 5 years	19,778	22,437
6 to 10 years	14,670	14,145
More than 10 years	22,969	25,799
Group total	**67,822**	**72,786**

The Group's costs for operating leases during the financial year totalled SEK 13,244 thousand (10,093).

Finance leases

The Group's finance lease agreements comprise the lease of biogas/pre-treatment plants as well as other tangible assets located mainly at Henriksdal, Bromma, Södertörn and, from 2018, Skogn.

A 25-year lease agreement covering land and facilities at Henriksdal and Bromma was signed in 2014. Rent for the land and facilities at Henriksdal is calculated at book value at time of sale spread over 20 years, with a rent rebate the first and last 30 months, and a variable rate corresponding to two-year government bonds plus a market-rate margin. Rent for land and facilities at Bromma is calculated in the same way, without a rent rebate. This agreement applies as long as the facility at Bromma remains. The City of Stockholm has decided to phase out the facility, with a preliminary date set for 2026. The effect of the phase-out of the treatment plant at Bromma is not expected to be significant, as redirection of biogas production to Henriksdal is planned.

Land and assets were broken down based on the carrying amount of assets sold at time of sale. The Group reports the portion related to other assets as tangible assets and the debt is recorded to Stockholm Vatten och Avfall AB. Land is classified as an operating lease; see above.

Subsidiary Scandinavian Biogas Recycling AB leases land and facilities from SRV Återvinning AB under a 25-year lease agreement. Rent for the land is classified as an operating lease, while rent for the other facilities is classified as a finance lease. Rent is calculated at carrying acquisition value at commencement of the rental period divided over 20, 15 and 7 years using a variable rate corresponding to three months STIBOR plus a market-rate margin.

Finance lease liabilities

Lease liabilities are effectively secured, as rights to the leased assets revert to the lessor in the event of non-payment.

Gross finance lease liabilities – minimum lease payments:	31 Dec 2018	31 Dec 2017
Within 1 year	22,817	21,168
1 to 5 years	89,897	80,075
6 to 10 years	105,686	87,946
More than 10 years	137,605	119,854
Total	**356,005**	**309,043**

Present value of finance lease liabilities:	31 Dec 2018	31 Dec 2017
Within 1 year	16,729	14,750
1 to 5 years	68,440	57,398
6 to 10 years	85,903	66,074
More than 10 years	121,244	97,385
Total	**292,315**	**235,608**

The tables above also include future minimum lease payments pertaining to contracted leases, which at 31 December 2018 are not on the balance sheet.

The Group's finance lease expenses totalled SEK 22,699 thousand (19,319) for the financial year.

No lease agreements are held by the Parent Company.

Note 35 Other non-cash items

Group	31 Dec 2018	31 Dec 2017
Other provisions	12,390	15,550
Accrued late penalty	-	10,566
Actuarial results on post-employment benefits	-349	167
Unrealised exchange difference	-169	-
Unallocated translation difference	-	426
Other	-949	-2,816
Group total	**10,923**	**23,893**

Parent Company	31 Dec 2018	31 Dec 2017
Unrealised exchange difference	362	-749
Other	-37	-
Parent Company total	**325**	**-749**

Note 36 Net indebtedness

Group	31 Dec 2018	31 Dec 2017
Cash and cash equivalents	94,788	86,885
Finance leases – payable within 1 year	-16,730	-14,750
Other loans – payable within 1 year	-9,019	-57,800
Finance leases – payable after 1 year	-287,821	-242,949
Other loans – payable after 1 year	-565,994	-475,417
Net debt	**-784,776**	**-704,031**

Cash and cash equivalents	94,788	86,885
Gross debt – fixed interest rates	-268,186	-226,197
Gross debt – variable interest rates	-611,378	-564,719
Net debt	**-784,776**	**-704,031**

Group	Cash and cash equivalents	Finance leases < 1 yr	Finance leases > 1 yr	Loans < 1 yr	Loans > 1 yr	Total
Net debt at 1 January 2018	**86,885**	**-14,750**	**-242,949**	**-57,800**	**-475,417**	**-704,031**
Cash flow	6,976		15,179	55,055	-91,156	-13,946
Exchange rate adjustments	927			-	-5,695	-4,768
Other non-cash items		-1,980	-60,051	-6,274	6,274	-62,031
Net debt at 31 December 2018	**94,788**	**-16,730**	**-287,821**	**-9,019**	**-565,994**	**-784,776**

Note 37 Share-based benefits

2014 warrant programme

All outstanding warrants held by employees and the CEO at 31 March 2018, expired on 1 April 2018 without being exercised. Accordingly, there are no outstanding options

Group – number of warrants	31 Dec 2018	31 Dec 2017
CEO	-	400,000
Other senior executives	-	130,000
Other employees		35,000
Group total	**-**	**565,000**

All options were vested at date of issue and the entire expense charged to 2014 profit/loss.

Note 38 Related-party transactions

AC Cleantech Growthfund 1 Holding AB (and related parties) owns 29.3 per cent and Bengtssons Tidnings AB (and related parties) owns 28.8 per cent of the shares in Scandinavian Biogas Fuels International AB (publ), and are deemed to have significant influence over the Group. Of the remaining 41.9 per cent of the shares, no single owner holds more than 15 per cent. Other related parties are Group subsidiaries and senior executives (i.e. board members and management) and their families.

The following transactions were conducted with related parties:

Purchase of goods and services	2018	2017
Purchase of services		
- Key management personnel (consultancy services)	264	312
Total	**264**	**312**

The purchase of services in the above table pertains to consulting fees paid to the employer of one board member. No sales were made to related parties outside the Group during this or the previous financial year.

Goods and services are purchased from and sold to subsidiaries on normal market terms. Services purchased from related parties are based on normal market terms and purchases are conducted on a commercial basis.

Loans from companies with significant influence over the company:	2018	2017
At beginning of the year	-	-
Loans raised during the year	34,000	14,000
Interest	1,164	419
Amount offset via new share issue	-	-14,419
At year-end	**35,164**	**-**

Note 39 Definition of key ratios

Debt/Equity ratio

The Group evaluates capital on the basis of the debt/equity ratio. This key ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings (including consolidated balance sheet items current borrowings and non-current borrowings) less cash and cash equivalents. Equity is calculated as equity in the consolidated balance sheet. Total capital is calculated as net debt plus equity.

	31 Dec 2018	31 Dec 2017
Total borrowings (Note 27)	879,564	790,916
Less: cash and cash equivalents (Note 25)	-94,788	-86,885
Net debt	**784,776**	**704,031**
Equity	131,893	228,924
Total capital	**916,669**	**932,955**
Debt/Equity ratio	**85.6%**	**75.5%**

Operating results (EBIT)

Operating results (EBIT – Earnings Before Interest and Tax) provide an overview of the Group's total earnings generation and are calculated as operating results before financial items and tax.

EBITDA

EBITDA is a profitability measure considered by the Group as relevant for investors interested in earnings generation before investments in assets. The Group defines EBITDA (Earnings Before Interest, Tax, Depreciation and Amortisation) as operating results exclusive of other operating expenses and amortisation/depreciation and impairment of tangible and intangible assets. The EBITDA margin is calculated by dividing EBITDA by total revenues.

	2018	2017
Operating results	-71,808	-42,159
- Amortisation/depreciation and impairment of tangible and intangible assets	64,057	62,802
- Other operating expenses	1,504	944
EBITDA	**-6,247**	**21,587**

Gross profit/loss

Gross profit/loss is a profitability measure showing the Company's revenues less variable production costs.

	2018	2017
Total revenues	310,212	289,331
- Raw materials and consumables	-166,336	-137,890
Gross profit/loss	**143,876**	**151,441**

Adjusted equity/assets ratio

The equity/assets ratio shows the proportion of assets financed with equity. The Group uses an adjusted equity/assets ratio, as this metric is defined in the corporate bond prospectus. The adjusted equity/assets ratio is calculated as the sum of total equity (including non-controlling interests) and subordinated loans divided by total assets adjusted for the grant from Enova. The grant from Enova for the Norwegian project in Skogn is included in the prospectus as a subordinated loan, but is a grant that does not require repayment. Subordinated loans at the end of the financial year total SEK 55.2 million (18.3) and pertain to loans from minority shareholders in Biokraft Holding AS to that company.

	31 Dec 2018	31 Dec 2017
Total equity (incl. non-controlling interests)	131,893	228,924
Subordinated loans (incl. Enova)	138,375	84,222
	270,268	**313,146**
Total assets	1,234,842	1,161,238
Grant from Enova	83,205	65,922
	1,318,047	**1,227,160**
Adjusted equity/assets ratio	**20.5%**	**25.5%**

Note 40 Events after the balance sheet date

A settlement agreement was signed in January 2019 in the dispute with the main supplier to the Södertörn facility, which was concluded in October 2018. The Group will pay the counterparty a total of SEK 15.6 million through the end of August 2019.

In February, the Group Board of Directors decided that the Group intends to investigate the possibility of conducting a directed share issue of up to SEK 134 million to a number of institutional and private investors, as authorised by the 2018 AGM. As part of the directed share issue, the Company intends to offer certain existing shareholders the option of converting loans totalling SEK 34 million into shares. The Company also intends to conduct a rights issue of up to SEK 10 million during spring 2019 at the same subscription price as is determined in the directed share issue. In total, the Company intends to issue shares with a value of up to approximately SEK 144 million.

The new plant at Skogn delivered approximately 2.2 MNm^3 of LBG during the January–March 2019 period, an increase of 45% on a monthly basis, as compared with monthly LBG deliveries during fourth quarter 2018.

The Group identified a risk that the adjusted equity/assets ratio requirement may not be met for the first and second quarters of 2019 and therefore initiated a process during the interim period to propose that bondholders waive the requirement. During April 2019 a clear majority of bondholders confirmed their support of the Group's proposal to waive the adjusted equity/assets ratio requirement for the first and second quarters of 2019. The terms of the waiver specify a fee of 1.00% and receipt of at least SEK 80 million, exclusive of transaction costs, from the directed share issue or subordinated loans, with a minimum of SEK 30 million to be received by 30 June 2019 and the remainder, up to SEK 50 million, by 31 August 2019.

The consolidated income statement and balance sheet will be presented to the Annual General Meeting on 27 June 2019 for adoption.

The Board of Directors and Chief Executive Officer certify that the consolidated accounts have been prepared in accordance with International Financial Reporting Standards as adopted by the EU and provide a true and fair view of the Group's financial position and results. The annual accounts have been prepared in accordance with generally accepted accounting principles and provide a true and fair view of the Parent Company's financial position and results.

The Board of Directors' Report for the Group and Parent Company provides a fair review of the development of the Group and the Parent Company's financial position and results and describes material risks and uncertainties facing both the Parent Company and the companies included in the Group.

Stockholm, 25 April 2019

Göran Persson Chairman	Matti Vikkula Chief Executive Officer
Anders Bengtsson Board member	Andreas Ahlström Board member
Hans Hansson Board member	Sara Anderson Board member
David Schelin Board member	Malin Gustavsson Board member
Lars Bengtsson Board member	

Our audit report was submitted on __/__ 2019

Öhrlings PricewaterhouseCoopers AB

Lars Kylberg

Authorised Public Accountant
Chief Auditor

Auditor's report

To the general meeting of the shareholders of Scandinavian Biogas Fuels International AB (publ), corporate identity number 556528-4733

Report on the annual accounts and consolidated accounts

Opinions

We have audited the annual accounts and consolidated accounts of Scandinavian Biogas Fuels International AB (publ) for financial year 2018, with the exception of the corporate governance report on pages 39–40. The annual accounts and consolidated accounts of the company are included on pages 39–75 in this document.

In our opinion, the annual accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the parent company as of 31 December 2018 and its financial performance and cash flow for the year then ended in accordance with the Annual Accounts Act. The consolidated accounts have been prepared in accordance with the Annual Accounts Act and present fairly, in all material respects, the financial position of the group as of 31 December 2018 and its financial performance and cash flow for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, and the Annual Accounts Act. Our opinion does not cover the corporate governance report on pages 39–40. The statutory administration report is consistent with the other parts of the annual accounts and consolidated accounts.

We therefore recommend that the general meeting of shareholders adopt the consolidated statement of comprehensive income, the consolidated balance sheet, and the parent company's income statement and balance sheet.

Our opinions in this report on the annual accounts and consolidated accounts are consistent with the contents of the supplementary report submitted to the parent company's audit committee pursuant to article 11 of the Auditor Regulation (537/2014).

Basis for opinions

We conducted our audit in accordance with International Standards on Auditing (ISAs) and generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities pursuant to these requirements. This includes, based on our best knowledge and belief, the provision of no prohibited services as stipulated in article 5.1 of the Auditor Regulation (537/2014) to the audited company or, as applicable, to the parent company or its controlled companies located within the EU.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Our audit approach

Audit scope

The company's operations are comprised of waste management and the production of biogas in liquid and gas form at owned and leased facilities in Sweden, Norway and South Korea.

In our audit we reviewed all subsidiaries. Given that several of these facilities are under construction, valuation of the facilities was a significant issue in our audit. As presented in the Key Audit Matters section, there is a dispute concerning a penalty fee at the plant in South Korea, which affects the plant's value.

We designed our audit by determining materiality and assessing the risk of material misstatement in the financial statements. In particular, we considered areas in which the CEO and Board of Directors made subjective judgements; e.g. in respect of significant accounting estimates that involved making assumptions and consideration of future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the financial statements as a whole, taking into account the structure of the group, the accounting processes and controls, and the industry in which the group operates.

Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance as to whether the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the financial statements as a whole.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual accounts and consolidated accounts for the current period. These matters were addressed in the context of our audit of, and in forming our opinion on, the annual accounts and consolidated accounts as a whole, but we do not provide a separate opinion on these matters.

Valuation of the concession for the right to charge under service concession arrangements and the provision for the dispute regarding the penalty fee

Note 2:18 specifies that the group, through its South Korean subsidiary, is entitled to charge for service concession arrangements associated with the biogas plant in Ulsan, for which the carrying amount is SEK 78.2 million. The board of directors' report and Note 4 indicate that the group's South Korean subsidiary is involved in two legal disputes with Ulsan City. As stated in the board of directors' report and Note 4, one of these disputes involves the South Korean subsidiary's failure to upgrade the plant to ensure its capacity to produce upgraded gas. Under the terms of the contract with Ulsan City, the company is obliged to pay a penalty fee, retroactive to November 2012, due to its failure to make this investment. The contract stipulates that the penalty fee amount is to be calculated as a percentage of the value of gas produced during the contractual period, which extends through March 2026. The board of directors' report references a court decision of August 2018 that held fully in favour of Ulsan City. The company considers the contractual terms to be unreasonable and has appealed the ruling. The company's assessment, based on three legal opinions from three South Korean law firms, is that the final penalty fee will be 37.5% of the contractual penalty amount.

The dispute affects the accounts in two ways.

- For the period November 2012 through 31 December 2018, the penalty fee for the concession right is to be amortised interest-free over the remaining contractual period. This obligation is reported as a provision and is valued at fair value, with the cost of capital taking into account the risks associated with the dispute. Note 28 specifies that the provision totals SEK 37 million and provides details on assessments that were made.
- The value of the concession right in South Korea is based on future cash flows, which are affected by the estimated amount of the penalty fee. The penalty fee amount is a key parameter in the impairment test conducted by the group for the concession right. Note 15 specifies the central assessments made and provides details on the evaluation of these assessments.

How our audit addressed the key audit matter

Our review of the penalty fee dispute included a review and examination of the legal opinions obtained by the group. We also reviewed the group's cost of capital calculations used for fair value valuation for the provision and for discounting cash flows in the impairment test conducted for the concession right, and we examined the basis upon which these calculations were made.

We verified significant assumptions in the cost of capital calculation with internal specialists and we examined, evaluated and challenged the way in which the group viewed the dispute in the company-specific risk premium. We also examined and evaluated the group's application of applicable accounting standards for the provision and the impairment test. In order to assess the residual carrying amount of non-current assets, we examined the group's impairment test of the concession right for an entitlement to charge for service concession arrangements at the plant in Ulsan (South Korea), to use forecasts, and to assess the underlying assumptions regarding financial information. We also evaluated the accuracy of the company's previous assumptions and prognoses. Finally, we evaluated the completeness of the information provided by the company in Note 15 and Note 28.

Information other than the annual accounts and consolidated accounts

This document also contains, on pages 1–38, information other than the annual accounts and consolidated accounts. The Board of Directors and the Chief Executive Officer are responsible for this other information.

Our opinion on the annual accounts and consolidated accounts does not cover this other information and we do not express any form of assurance regarding this other information.

In connection with our audit of the annual accounts and consolidated accounts, our responsibility is to read the information identified above and consider whether the information is materially inconsistent with the annual accounts and consolidated accounts. In this procedure we also take into account our knowledge otherwise obtained in the audit and assess whether the information otherwise appears to be materially misstated.

If, based on the work performed concerning this information, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors and the Chief Executive Officer

The Board of Directors and the Chief Executive Officer are responsible for the preparation of the annual accounts and consolidated accounts and for ensuring that these provide a fair presentation in accordance with the Annual Accounts Act and, with respect to the consolidated accounts, in accordance with IFRS as adopted by the EU and with the Annual Accounts Act. The Board of Directors and the Chief Executive Officer are also responsible for such internal control as they deem necessary to enable the preparation of annual accounts and consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts and consolidated accounts, the Board of Directors and the Chief Executive Officer are responsible for assessment of the company's and the group's ability to continue as a going concern. They disclose, as applicable, matters related to continuance as a going concern and application of the going concern basis of accounting. The going concern basis of accounting is not applied, however, if the Board of Directors and the Chief Executive Officer intend to liquidate the company, to cease operations, or have no realistic alternative but to do so.

The Audit Committee's duties include overseeing the company's financial reporting process, without prejudice to the Board of Director's responsibilities and tasks in general.

Auditor's responsibility

Our objectives are to obtain reasonable assurance about whether the annual accounts and consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with

ISAs and generally accepted auditing standards in Sweden will always detect a material misstatement when it exists. Misstatements may arise from fraud or error and are considered material if, individually or in the aggregate, they can reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts and consolidated accounts.

A further description of our responsibility for the audit of the annual accounts and consolidated accounts is available on the Supervisory Board of Public Accountants website: www. revisorsinspektionen.se/rn/showdocument/documents/ rev_dok/revisors_ansvar.pdf. This description is part of the auditor´s report.

Report on other legal and regulatory requirements

Opinions

In addition to our audit of the annual accounts and consolidated accounts, we have also audited the administration of the Board of Directors and the Chief Executive Officer of Scandinavian Biogas Fuels International AB (publ) for financial year 2018 and the proposed appropriation of the company's profit or loss.

We recommend to the general meeting of shareholders that the profit be appropriated in accordance with the proposal in the board of directors' report and that the members of the Board of Directors and the Chief Executive Officer be discharged from liability for the financial year.

Basis for opinions

We conducted the audit in accordance with generally accepted auditing standards in Sweden. Our responsibilities under those standards are further described in the Auditor's Responsibilities section. We are independent of the parent company and the group in accordance with professional ethics for accountants in Sweden and have otherwise fulfilled our ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions.

Responsibilities of the Board of Directors and the Chief Executive Officer

The Board of Directors is responsible for the proposal for appropriations of the company's profit or loss. At the proposal of a dividend, this includes an assessment of whether the dividend is justifiable considering the requirements which the company's and the group's type of operations, size and risks place on the size of the parent company's and the group's equity, consolidation requirements, liquidity and position in general.

The Board of Directors is responsible for the company's organisation and the administration of the company's affairs. This includes continuous assessment of the company's and the group's financial situation and ensuring that the company's organisation is designed to ensure prudent control of accounting, management of assets and the company's financial affairs. The Chief Executive Officer manages ongoing administration in accordance with the Board of Directors' guidelines and instructions and takes measures necessary to ensure, among other things, that the company's accounting is in accordance with law and that assets are managed in a prudent manner.

Auditor's responsibility

Our objective concerning the audit of the administration, and thus our opinion on discharge from liability, is to obtain audit evidence to assess with a reasonable degree of assurance whether any member of the Board of Directors or the Chief Executive Officer in any material respect:

- has undertaken any action or been guilty of any omission which may give rise to liability for the company, or
- has in any other way acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association.

Our objective concerning the audit of the proposed appropriation of the company's profit or loss, and thus our opinion on this, is to assess with a reasonable degree of assurance whether the proposal is in accordance with the Companies Act.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with generally accepted auditing standards in Sweden will always detect actions or omissions that can give rise to liability for the company, or that the proposed appropriation of the company's profit or loss is not in accordance with the Companies Act.

A further description of our responsibility for the audit of the administration is available on the Supervisory Board of Public Accountants website: www.revisorsinspektionen.se/revisorsansvar. This description is part of the auditor´s report.

The auditor's examination of the corporate governance report

The Board of Directors is responsible for ensuring that the corporate governance report on pages 39–40 has been prepared in accordance with the Annual Accounts Act.

Our examination of the corporate governance report was conducted in accordance with FAR´s auditing standard RevU 16, 'The auditor´s examination of the corporate governance report'. Accordingly, our examination of the corporate governance report is different and substantially less in scope than an audit conducted in accordance with International Standards on Auditing and generally accepted auditing standards in Sweden. We believe that the examination has provided us with sufficient basis for our opinions.

A corporate governance report has been prepared. Disclosures in accordance with chapter 6, §6, second paragraph, points 2–6 of the Annual Accounts Act and chapter 7, §31, second paragraph of the same law are consistent with the other parts of the annual accounts and consolidated accounts and are in accordance with the Annual Accounts Act.

Öhrlings PricewaterhouseCoopers AB, Torsgatan 21, 113 97 Stockholm, was appointed Scandinavian Biogas Fuels International AB's auditor by the general meeting of shareholders on 25 June 2018, and has served as the company's auditor since 18 June 2007.

Uppsala, 25 April 2019

Öhrlings PricewaterhouseCoopers AB

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Lars Kylberg
Authorised Public Accountant

About the Sustainability Report

Accounting principles

The Sustainability Report follows Scandinavian Biogas's financial year and refers to the period 1 January–31 December 2018. The reporting of environmental data includes only operations in Sweden and is focused on the companies operating production facilities in Sweden. Employee data includes all three business areas and countries. Financial information follows the same accounting principles as those used for Scandinavian Biogas's consolidated accounts.

The report is a GRI-referenced report and, accordingly, Scandinavian Biogas has selected a number of disclosures from the GRI Standards, which are presented in the GRI index on pages 81–82. This is the Company's first GRI-referenced report and is based on GRI principles: the inclusion of stakeholders, sustainability context, materiality and completeness. The report has not been subject to external certification or third-party review.

Sustainability data was collected from various departments by a project manager.

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Validation of the materiality analysis

Sustainability issues commonly highlighted by customers, suppliers and partners in regular contractual meetings were compiled during 2018 and are presented on page 28. This process confirmed several of the key issues identified during 2017.

Methods of measurement and calculation

Climate and environmental impact

Calculations of the operating companies' emissions reduction for produced biogas used an industry-specific life cycle analysis tool[1] (LCA tool) produced by the Swedish Gas Association for reporting on amounts of sustainable biofuel sold to the Swedish Energy Agency. Emissions reduction calculations include:

- Substrate gas potential and dry matter content
- Carbon dioxide emissions from transporting waste and residues to the plant
- The plant's methane gas emissions
- Carbon dioxide emissions from inputs such as water and chemical consumption
- Energy consumption
- The plant's internal fuel consumption

Emissions reductions for the bio-fertiliser product were not included in this year's report.

Waste

The plants' inbound waste includes all waste received at Bromma, Henriksdal and Södertörn, including sewage sludge and grease trap sludge digested by Stockholm Vatten och Avfall at these plants.

Waste generated at the plants is disposed of by well-established waste operators holding valid licences for environmentally hazardous operations. No waste management targets have been set, as the amount of waste generated is dependent on the type of waste and residues received by the plants.

Energy and water consumption

Water consumption is monitored monthly and reconciled with invoiced volumes. Recycled water is measured and calculated with internal meters.

The operating companies and the office in Stockholm purchase only eco- and origin-labelled electricity, which does not give rise to carbon emissions. Energy consumption is measured and logged on a continuous basis, internally and externally.

Road transport

The calculation of emissions reduction for produced biogas includes carbon dioxide emissions from the transport of inbound waste and residues to the plants. The LCA tool takes into account distance, type of fuel used, and freight home. Emissions from the transport of gas sold by the plants to end customers are included in the LCA tool. For gas that is re-sold by customers, transport emissions are not included in the LCA tool, as customers include this in their reporting to the Swedish Energy Agency.

The fuel type pie charts on page 31 show results from all operators delivering more than 500 tonnes of food waste to the Södertörn biogas plant. These 12 operators transport 96 per cent of all inbound food waste. Gas and bio-fertiliser transports are represented by only 3 operators. The price and supply of HVO100 increased and decreased, respectively, during 2018, which affected operators' capacity to run on renewable diesel.

Methane emissions

Methane gas emissions are based on continuous measurement of incoming and outgoing gas flows, including diffuse emissions, and on external measurements of the plants' total emissions.

[1] http://www.energigas.se/publikationer/haallbarhetskriterier-foer-biodrivmedel/

Glossary

Biomethane: Umbrella term for gas blends comprised mainly of methane gas and produced from biomass.

Digestate is the part of the organic material / substrate that has not been converted to biogas but remains in solid / liquid form.

Digester / Digestion tank: Gastight container for the anaerobic digestion of organic material.

Drinking water: Water purchased from municipal treatment plants.

Energy carrier: Substance or physical process that is used to store or transport energy. Examples include electricity, hydrogen, ethanol, petrol and methane.

Energy sources: Natural resources or natural phenomena that can be converted into energy forms such as light, movement and heat. A distinction is made between stored (fossil) and abundant (renewable) energy sources. Examples of stored energy include oil, natural gas and coal; examples of renewable energy sources are biomass, hydropower and wind and solar energy.

Gas cleaning: Process for purifying raw gas from water vapour, sulphur compounds and particulates. The gas may then be further processed to separate methane and carbon dioxide. Vehicle fuel-quality biogas contains 97±1% methane.

Greenhouse gases: Gases that have the ability to absorb infrared radiation reflected from the Earth into the atmosphere (greenhouse effect). The greenhouse effect is essential for life on earth (without it the Earth's average temperature would be around -18°C). However, due to human activity the concentration of greenhouse gases is increasing. Examples of greenhouse gases are carbon dioxide, methane, water vapour and nitrogen oxides.

Methane: Odourless gas with high energy content (~10 kWh per normal cubic metre). Methane (CH_4) is the simplest hydrocarbon and is composed of one carbon atom and four hydrogen atoms.

Natural gas: A stored (fossil) gas mixture compromised of approximately 90 per cent methane.

Normal cubic metre relative to one litre: A normal cubic metre of biogas upgraded to vehicle fuel (97% methane and 3% CO_2) contains as much energy as 1.1 litres of petrol.

Organic waste: Waste from plants and animals.

Pre-treatment in biogas production: Organic material used in the production of biogas needs in some cases to be pre-treated prior to the digestion process. The purpose of pre-treatment is to increase the material's total biogas potential (i.e. the quantity of biogas that can be extracted from the material) and/or to increase the speed of digestion. Pre-treatment may be thermal, chemical or mechanical, and combinations of one or more methods may be used. The treatment opens up/ breaks down complex organic molecules, making them more accessible to digestion microorganisms.

Raw gas: Gas formed in a biogas process. Raw gas mainly contains methane and carbon dioxide but also sulphur compounds, water vapour, particulates, etc.

Substrate: Organic material digested in a biogas process.

Upstream work: Preventive efforts to preclude appearance of undesirable substances in incoming material. Involves dialogue with and audit visits to waste operators.

Vehicle fuel: Energy source used as fuel in vehicles. Raw gas produced in the biogas process must be cleaned and upgraded to 97±1% methane in order to be defined and sold as vehicle fuel.

GRI index

Page references in this GRI index refer to Scandinavian Biogas's 2018 Annual Report.

General disclosures

Disclosure	Description	Page	Comment
2016 GRI 102: General disclosures 2016			
Organisational profile			
102-1	Name of the organisation	Cover	
102-2	Activities, brands, products, and services	3	
102-3	Location of headquarters	3	
102-4	Location of operations	3	
102-5	Ownership and legal form	39	
102-6	Markets served	3, 12-15	
102-7	Scale of the organisation	3, 5, 39	
102-8	Information on employees and other workers	33	
102-9	Supply chain	9, 12-13, 19	
102-10	Significant changes to the organisation and its supply chain	41	
102-11	Precautionary Principle or approach	28	
102-12	External initiatives	28-29	
102-13	Membership of associations		Avfall Sverige, Energigas Sverige, Biogas Öst
Strategy			
102-14	Statement from senior decision-maker	6-7	
Ethics and integrity			
102-16	Values, principles, standards, and norms of behaviour	28	
Governance			
102-18	Governance structure	28, 39-40	
Stakeholder engagement			
102-40	List of stakeholder groups	25	
102-41	Collective bargaining agreements	33	
102-42	Identifying and selecting stakeholders	25	
102-43	Approach to stakeholder engagement	25	
102-44	Key topics and concerns raised	25	
Reporting practice			
102-45	Entities included in the consolidated financial statements	56	
102-46	Defining report content and topic boundaries	25, 79	
102-47	List of material topics	26	
102-48	Restatements of information		This is the Company's first GRI-referenced report.
102-49	Changes in reporting		This is the Company's first GRI-referenced report.
102-50	Reporting period	79	
102-51	Date of most recent report		This is the Company's first GRI-referenced report.
102-52	Reporting cycle	79	
102-53	Contact point for questions regarding the report	79	
102-54	Claims of reporting in accordance with the GRI Standards	79	
102-55	GRI content index	81-82	
102-56	External assurance		The Sustainability Report has not been subject to third-party review.

Key topics

Disclosure	Description	Page	Comment
Economic standards			
GRI 201: Economic performance 2016			
103-1-3	Explanation of the material topic and its boundary, management approach and evaluation of management approach	8, 39-40	
201-1	Direct economic value generated and distributed	46	
Environmental standards			
302-1 Energy consumption within the organisation 2016			
103-1-3	Explanation of the material topic and its boundary, management approach and evaluation of management approach	28-30	
302-1	Energy consumption within the organisation	29-30	
GRI 305-5 Reduction of GHG emissions 2016			
103-1-3	Explanation of the material topic and its boundary, management approach and evaluation of management approach	28-30	
305-5	Reduction of GHG emissions	29-30, 79	
GRI 306-2 Waste by type and disposal method 2016			
103-1-3	Explanation of the material topic and its boundary, management approach and evaluation of management approach	29, 31, 79	
306-2	Waste by type and disposal method	30-31	
GRI OG14 Volume of biofuels produced meeting sustainability criteria			
103-1-3	Explanation of the material topic and its boundary, management approach and evaluation of management approach	25, 28	
OG14	Volume of biofuels produced meeting sustainability criteria	29-30, 79	
Social standards			
GRI 403: Occupational health and safety 2018			
103-1-3	Explanation of the material topic and its boundary, management approach and evaluation of management approach	28, 33	
403-1	Occupational health and safety management system	33	
403-2	Hazard identification, risk assessment, and incident investigation	28, 33-34	
403-3	Occupational health services	33	
403-4	Worker participation, consultation, and communication on occupational health and safety	33-34	
403-5	Worker training on occupational health and safety	33	
403-6	Promotion of worker health	33	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships		Irrelevant, as the company operates all workplaces with all employees.
403-8	Workers covered by an occupational health and safety management system	33	
GRI 417: Marketing and labelling 2016			
103-1-3	Explanation of the material topic and its boundary, management approach and evaluation of management approach	28, 32	
417-1	Requirements for product and service information and labelling	32	


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