

Annual Report 2018



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NUKISSIORFIIT



Introduction

A Targeted Effort

Nukissiorfiit has a great social responsibility. It is Nukissiorfiit's social responsibility to secure access to clean and stable electricity as well as high quality drinking water for families and businesses across the country; to keep prices as low as possible for the benefit of all; to protect environment and climate, ensuring that our country's renewable energy resources are utilized in a sustainable manner; and last but not least, Nukissiorfiit is responsible for its employees to thrive and develop.

2018 has shown that we are well on the way in achieving our goals of responsibility, especially those of the Sector Plan for Energy and Water Supply and Nukissiorfiit's strategic objectives for 2018-2022.

WE MUST USE RENEWABLE ENERGY AND MODERNIZE THE ENERGY SUPPLY

This is no new goal. This year we celebrated 25 years of hydroelectric power. Investing in hydroelectric power has proved an extremely rational decision for society. In 2018, Nukissiorfiit has come a long way with the preparations for new hydroelectric power projects. At the same time, we have tested other renewable energy technologies such as wind power and hybrid plants with solar cells and battery storage. It is crucial essential that we stay innovative, proactive and willing to test new solutions to modernize energy supply in the best way possible both economically and environmentally.

THE WATER QUALITY MUST BE HIGH

Since 2014, we have had special focus on improving water quality – primarily at the settlements. In 2018, we almost reached our goal of removing all boiling recommendations. Currently, boiling recommendation is upheld by authorities in one location only. We expect this recommendation to be revoked in 2019.

PRICES MUST BE KEPT LOW

In 2018, all electricity and water prices have been reduced as a result of the single price reform. We have maintained the same price level in 2019. Nukissiorfiit wants to keep prices low in the future by developing the business.

THE EMPLOYEES MUST THRIVE

Since 2017, we have had special focus on the well-being and personal development of our employees. It is very gratifying to find this year's employee satisfaction survey revealing a high level of job satisfaction – among the top 25 % in both Greenland and Denmark. We shall of course continue our efforts to make our employees thrive still.

I would like to thank all employees. Strategies cannot be realised without the dedication of our employees to ensure the best possible daily operation and to propose innovations for the future supply.

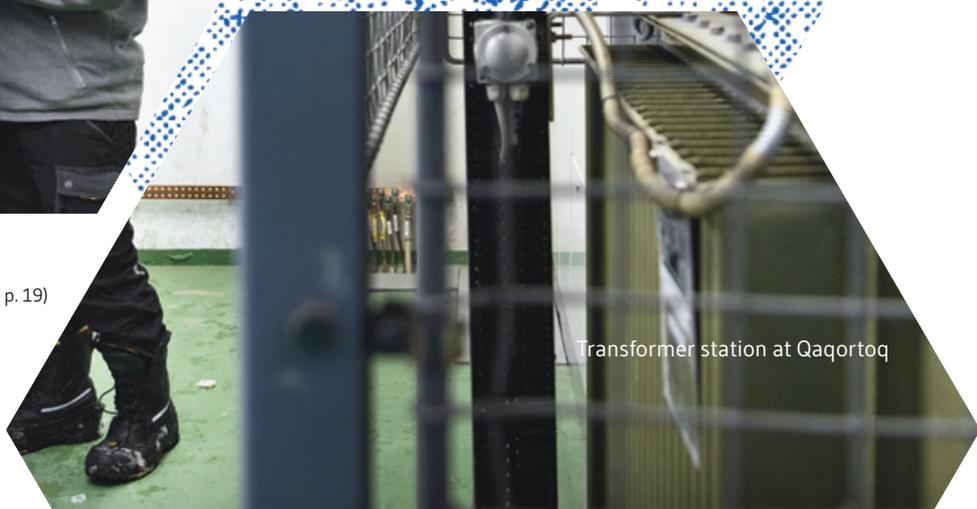


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ANNUAL REPORT 2018

Photos Christian Klindt Sølbeck, Nukissiorfiit (front page, p. 19)

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Transformer station at Qaqortoq

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New waterworks at Egalugaarsuit

Financial Highlights and Key Ratios

DKK mio.

	2018	2017	2016	2015	2014
RESULT					
Net turnover	781.9	836.1	825.4	852.3	825.8
Cost of sales	(196.2)	(204.5)	(203.7)	(223.3)	(213.7)
Operating costs	(368.8)	(309.8)	(302.2)	(308.8)	(296.6)
Amortisations	(127.0)	(241.9)	(244.6)	(237.8)	(232.6)
Rates	(85.4)	(92.9)	(100.7)	(109.0)	(116.2)
Profit for the year before operating grants	4.6	(12.9)	(23.5)	(23.2)	(52.7)
Operating grants	0.0	13.7	24.0	34.4	45.5
Profit for the year after operating grants	4.6	0.8	0.5	11.2	(7.2)
BALANCE SHEET					
Intangible assets	1.4	16.0	26.1	22.4	5.8
Property, plants and equipment	2,773.3	4,320.5	4,411.1	4,510.9	4,633.6
Current assets	246.6	266.5	255.7	301.8	309.1
Equity	1,376.2	2,996.6	2,995.8	2,993.4	2,980.4
Long-term debt	1,480.0	1,466.4	1,466.9	1,596.7	1,729.5
Balance sheet total	3,021.3	4,603.0	4,692.9	4,835.2	4,948.5
CASH FLOWS					
Operating activity	165.1	189.6	279.1	227.1	333.7
Investing activity	(190.2)	(141.3)	(148.5)	(131.7)	(116.0)
Financing activity	18.7	(69.8)	(132.8)	(135.4)	(177.6)
Change in liquidity	(6.5)	(21.6)	(2.2)	(40.0)	40.1
KEY RATIOS					
EBITDA	217.0	321.9	319.5	320.9	315.4
Profit before extraordinary items	4.6	(12.9)	(25.8)	(26.7)	(33.4)
Return on capital employed before operating grants	0.1 %	(0.3 %)	(0.5 %)	(0.5 %)	(1.1 %)
Equity ratio	45.5 %	65.1 %	63.8 %	61.9 %	60.2 %
Nukissiorfiit's net effect on cash flow in Landskassen	(10.4)	198.0	215.8	185.5	146.1
STATISTICS					
Sales of electricity to ordinary consumers (GWh)	317	303	293	293	296
Sales of electricity to the fishing industry (GWh)	39	36	39	39	35
Sales of water to ordinary consumers (mio. m ³)	2.5	2.4	2.5	2.5	2.5
Sales of water to the fishing industry (mio. m ³)	2.3	2.0	1.9	1.9	1.7
Sales of heat (GWh)	224	210	203	203	210
Number of man-year	388	374	375	372	373

Management Statement on the Annual Report

We have today considered and approved the Annual Report for the financial year January 1st - December 31st, 2018, for Nukissiorfiit.

The Annual Report has been prepared in accordance with the Regulation of the Greenlandic Parliament No. 24 of December 22th, 2017 on the accounting management for the Government of Greenland's autonomous companies.

The Regulation stipulates that the Annual Report must be presented in accordance with the regulations in force at any time concerning the Danish Financial Statements Act in Greenland, with the deviations resulting from the company being owned by the Government of Greenland, which is operated on the basis of social considerations, regulated in accordance with special legislation.

We hereby declare:

- That the Annual Report is true – i.e. that the Annual Report does not contain any significant omissions or errors
- That the transactions covered by the financial reporting are in accordance with laws and other regulations as well as entered into agreements and usual practice
- That business procedures have been established that ensure financially appropriate management of the funds covered by the annual report.

The Annual Report is recommended for Inatsisartut's approval.

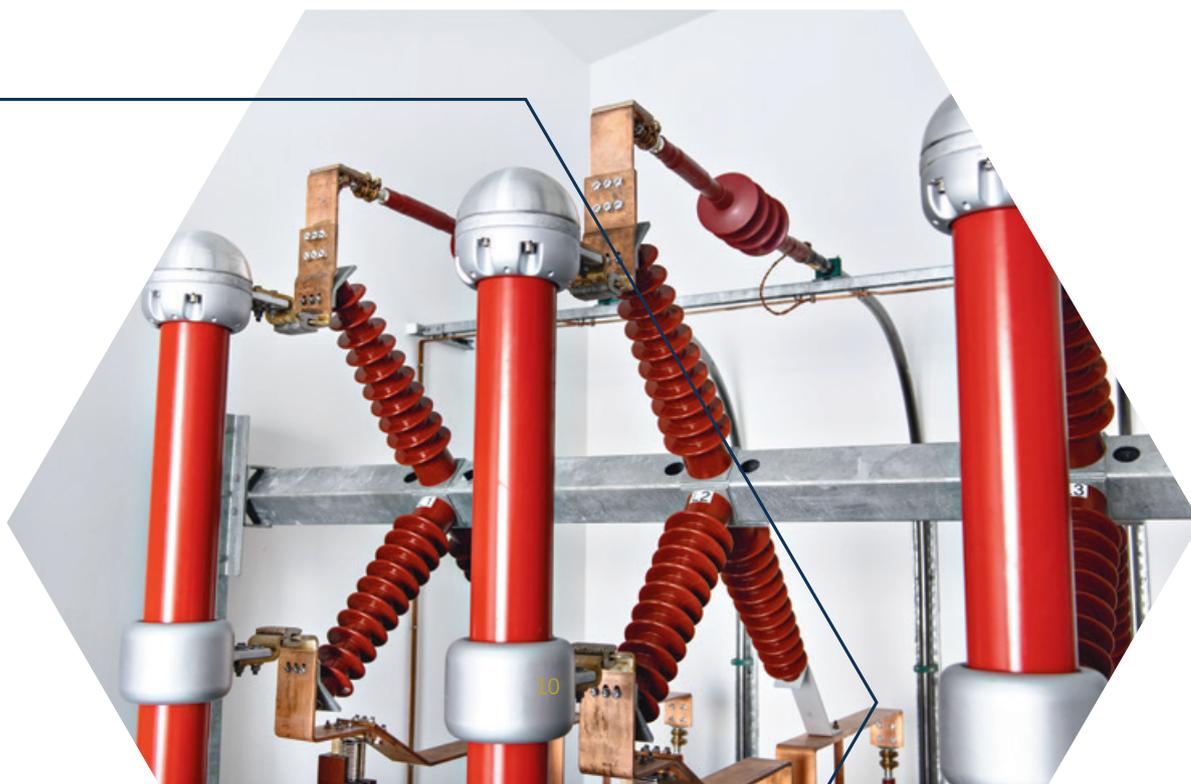
Nuuk, April 26th, 2019

The Ministry of Industry, Energy and Research


Jørn Skov Nielsen
Deputy Minister

Nukissiorfiit


Michael Pedersen
Managing Director (CEO)



Independent Auditors' Endorsement

TO INATSISARTUT (PARLIAMENT)

Endorsement

We have audited the Nukissiorfiit Annual Accounts for the period January 1st - December 31st, 2018 comprising profit and loss statement, balance sheet, cash flow statement and notes including applied accounting policies. The Annual Accounts have been prepared in accordance with the Regulation of the Greenlandic Parliament No. 24 of December 22th, 2017 on the accounting management for the Government of Greenland autonomous companies (the Regulation). The Regulation stipulates that the annual report must be presented in accordance with the regulations in force at any time concerning the Danish Financial Statements Act in Greenland, with the deviations resulting from the company being owned by the Government of Greenland, which is operated on the basis of social considerations, regulated in accordance with special legislation.

It is our opinion that the Annual Accounts give a true and fair view of the company's assets, liabilities and financial position at December 31st 2018 and of the result of the company's activities for the financial year from January 1st 2018 to December 31st 2018 in accordance with the Regulation of the Greenlandic Parliament No. 24 of December 22th, 2017 on the accounting management for the Government of Greenland autonomous companies.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing and the additional requirements applicable in Greenland as well as the standards for public audit, as the audit is carried out in accordance with the terms for the Regulation. Our responsibility under these standards and requirements are described in more detail in the auditor's report section "Auditor's responsibility for the audit of the Annual Accounts". We are independent of the company, in accordance with the international ethical rules for auditors (IESBA's Ethical Rules) and the additional requirements applying in Greenland, just as we have fulfilled our other ethical obligations in relation to these rules and requirements. It is our opinion that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Management's Responsibility for the Annual Accounts

Management is responsible for the preparation of Annual Accounts that gives a true and fair view in accordance with the Regulation. Management is also responsible for the internal control which the management considers necessary in order to prepare Annual Accounts free from material misstatement, whether due to fraud or error.

On preparing the Annual Accounts, the management is responsible for assessing the company's ability to continue operations; disclosing information concerning continued operations, where relevant; and preparing the Annual Accounts on the basis of the accounting policy concerning continued operations, unless the management either intends to liquidate the company, discontinue operations, or has no other realistic alternative to this.

Auditor's Responsibility for the Audit of the Annual Accounts

Our aim is to achieve a high degree of certainty that the overall Annual Accounts is free from material misstatement, whether due to fraud or error, and to present an auditor's endorsement with an opinion. A high degree of certainty is a high level of certainty, but it does not guarantee that an audit performed in accordance with international auditing standards and the additional requirements applying in Greenland, as well as the standards for public audit, will always reveal any material misstatement. Incorrect information may arise as a consequence of fraud or error and may be considered to be material if it can reasonably be expected that it may individually or overall influence the financial decisions taken by users of the accounts on the basis of the Annual Accounts.

As an element of the audit, which is performed in accordance with international auditing standards and the additional requirements applying in Greenland, as well as the standards for public audit, we perform expert assessments and maintain professional scepticism during the audit. In addition:

- We identify and assess the risk of material misstatement in the Annual Accounts, whether due to fraud or error, design and perform audit procedures in reaction to these risks, and obtain audit evi-

dence that is sufficient and appropriate to form a basis for our opinion. The risk of failing to discover material misstatement due to fraud is higher than for material misstatement due to errors, since fraud may include conspiracy, forgery of documents, deliberate omissions, misrepresentation or internal control failure.

- We obtain an understanding of the internal control with relevance for the audit, in order to perform audit procedures that are appropriate in the circumstances, but not to express an opinion concerning the effectiveness of the company's internal control.
- We consider whether the accounting policies applied by the management are appropriate, and whether the accounting estimates and related information prepared by the management are reasonable.
- We conclude whether the management's presentation of the Annual Accounts according to the accounting policy of continued operation is reasonable, and whether on the basis of the audit evidence obtained there is significant uncertainty concerning events or circumstances that may lead to significant doubt concerning the ability of the company to continue operations. If we conclude that a significant uncertainty exists in our audit endorsement, we must draw attention to information about this in the Annual Accounts or, if such information is not sufficient, modify our opinion. Our opinion is based on the audit evidence achieved up to the date of our audit endorsement. Future events or circumstances may entail, however, that the company cannot continue operations.

We communicate with executive management concerning the planned scope and timing of the audit, as well as significant audit observations, including any material deficiencies in the internal control that we identify during the audit.

Statement on the Management's Review

The management is responsible for the management's review.

Our conclusion on the Annual Accounts does not include the management's review, and we do not express any form of conclusion with certainty about the management's review.

Connected to our audit of the Annual Accounts, it is our responsibility to read the management's review, and in this connection consider whether the management's review is substantially inconsistent with the Annual Accounts or our knowledge obtained during the audit or in some other way seems to contain material misstatement.

In addition, our responsibility is to consider whether the management's review contains required information in accordance with the Danish Financial Statements Act.

Based on the work done, we believe that the management's review is in accordance with the annual accounts and has been prepared in accordance with the requirements of the Danish Financial Statements Act. We have not found any material misstatement in the management's review.

Declaration According to other Legislation and other Regulations

Representation on Legal-Critical Audit and Performance Audit

The management is responsible for ensuring that the transactions covered by the financial reporting are in accordance with announced grants, laws and other regulations, as well as with entered into agreements and usual practice. The management is also responsible for ensuring that due account is taken of financial considerations in the management of the funds covered by the financial statements. In this connection, the management is responsible for establishing systems and processes that support economy, productivity and efficiency.



Connected to our audit of the Annual Accounts, our responsibility is to carry out legal-critical audits and management audits of selected issues in accordance with the standards of public audit. In our legal-critical audit, we verify with a high degree of certainty pertaining to the selected issues whether the investigated transactions covered by the financial reporting are in accordance with the relevant provisions of the appropriations, laws and other regulations, as well as agreements concluded and usual practice. In our performance audit, we assess with a high degree of certainty whether the systems, processes or dispositions examined support the financial considerations that are due in the management of the funds and operations of the areas covered by the Annual Accounts.

If, based on the work done, we conclude that there are significant critical remarks, we must report on this in this opinion.

We have no significant critical remarks to report in this regard.

Nuuk, April 26th, 2019

Deloitte

Statsautoriseret Revisionspartnerselskab
CVR-nr. 33 96 35 56

Bo Colbe
State Authorised Public Accountant
MNE-nr. 24634

Year 2018 in Nukissiorfiit

388



EMPLOYEES

9.3 %



ENROLLED IN EDUCATION

1

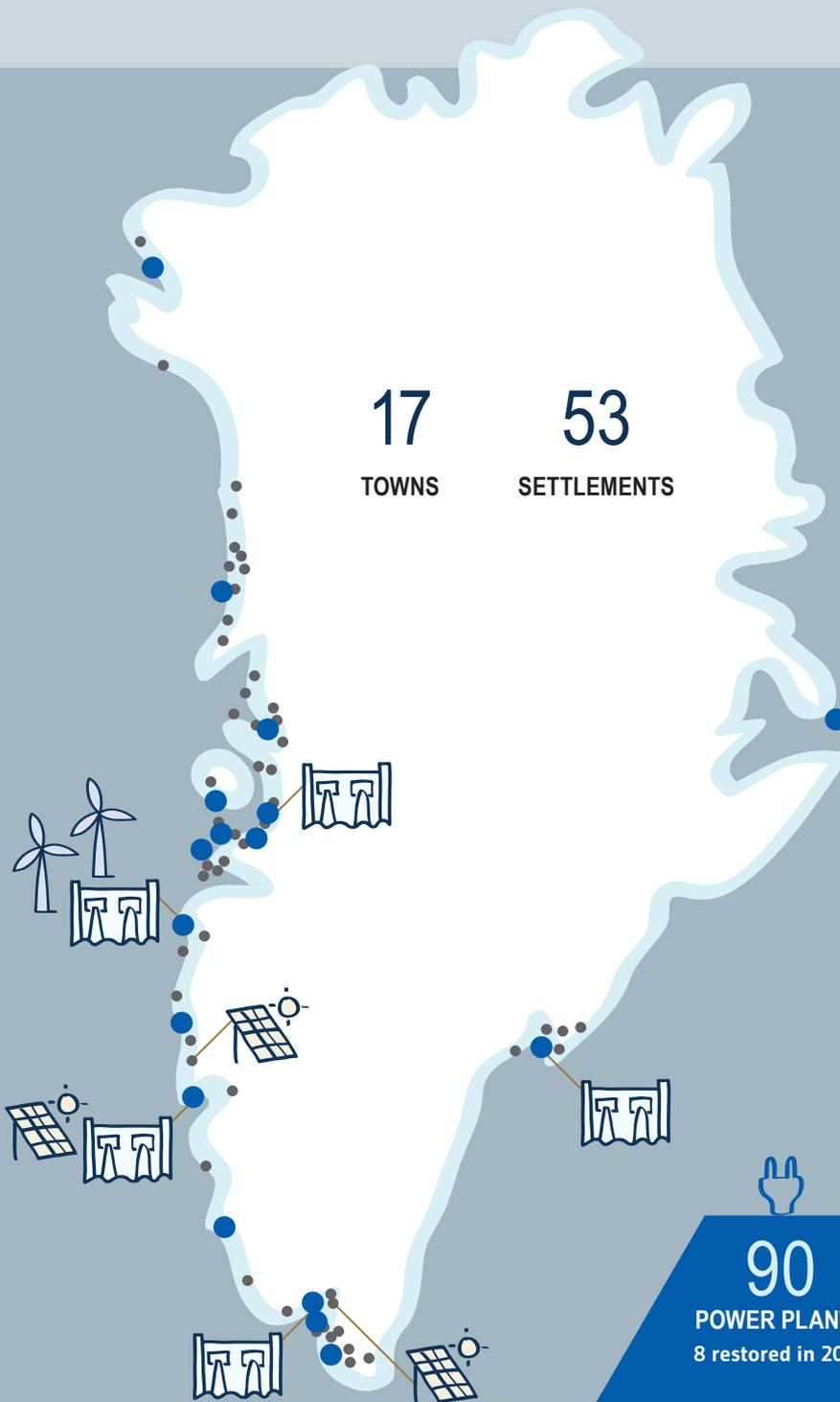


SOFTWARE ROBOT

20,000



COSTUMERS



17

TOWNS

53

SETTLEMENTS

5



HYDROELECTRIC PLANTS

91.3 MW

3



SOLAR CELL PANELS

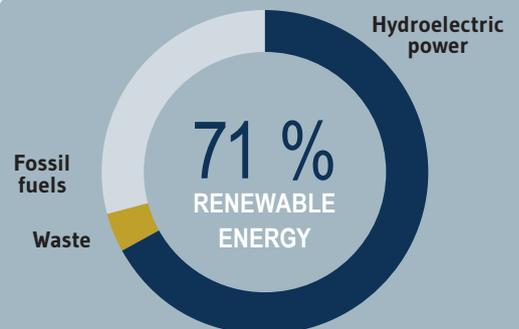
139 kW

2



WIND TURBINES

50 kW



90

POWER PLANTS

8 restored in 2018



23

HEATING PLANTS



69

WATERWORKS

3 upgraded in 2018

Sales 

338 mio. kWh

4.8 mio. m³

342 mio. kWh



List price 

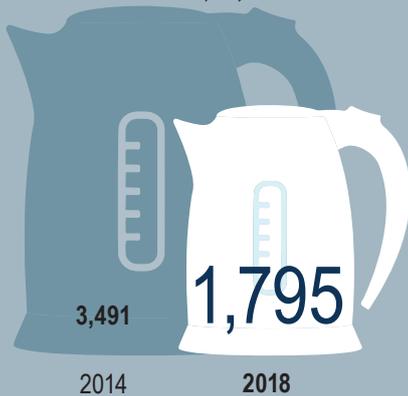
1.60 DKK/kWh

19 DKK/m³

680-740 DKK/MWh

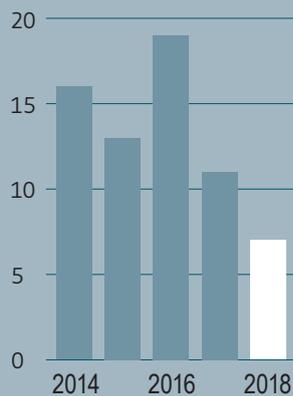
Days

RECOMMENDED WATER BOILING
Number of days



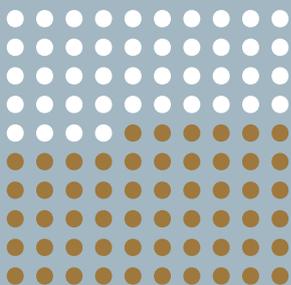
Locations

WITH WATER BOILING RECOMMENDATION
Number



782.0
DKK mio.
TURNOVER

44 % IS SUPPLIED BY WATERWORKS WITH DOCUMENTED DRINKING WATER SAFETY



207.5
DKK mio.
INVESTMENTS

4.6
DKK mio.
ANNUAL RESULT



DKK 63.2 mio.

lower payment through fishing industry rate



Electrical cable from Qorlortorsuaq Hydroelectric plant to Narsaq

Management Report

Public Supply

MORE RENEWABLE ENERGY

In 2030, renewable energy must be used wherever possible. Consequently, Nukissiorfiit is investigating how to base public energy supply of all towns and settlements on hydropower, solar energy, wind power, waste energy or other renewable energy sources.

In 2018, hydrological measuring of hydroelectric power potentials was carried out, wind data was collected, and tests were performed at the new test centre for wind power at Sisimiut (see p. 18). Experience has also been gained at the Igaliku hybrid plant. The hydroelectric power assessments for a series of towns have been recalculated and updated. This enables Nukissiorfiit to make an overall assessment of the technologies best suited for each location. The overall view of the economy of each project makes it possible to prioritize to achieve optimum societal benefit. An overall basis plan for the coming years is expected in 2019.

In 2018, 70.5 percent of Nukissiorfiit's marketed electricity and heating was based on renewable energy in the form of hydroelectric power or waste energy. This is an increase of 1.6 percentage points compared to 2017¹. Figure 1 shows the development of energy consumption and the distribution of fossil fuels, waste heat and hydroelectric power since 2004.

Wind and solar energy currently constitute a very small proportion of the supply, and production from this is not yet included in the statistics. Nukissiorfiit is aware of some production taking place because we pay the owners of the plants for the surplus energy they sell to the public network. As seen from Figure 2, this self-production is still modest but increasing.

Nukissiorfiit's supply covers only part of the country's total energy consumption of electricity and heat. To mention an example, many

Figure 1
Nukissiorfiit's final energy consumption, by energy sources

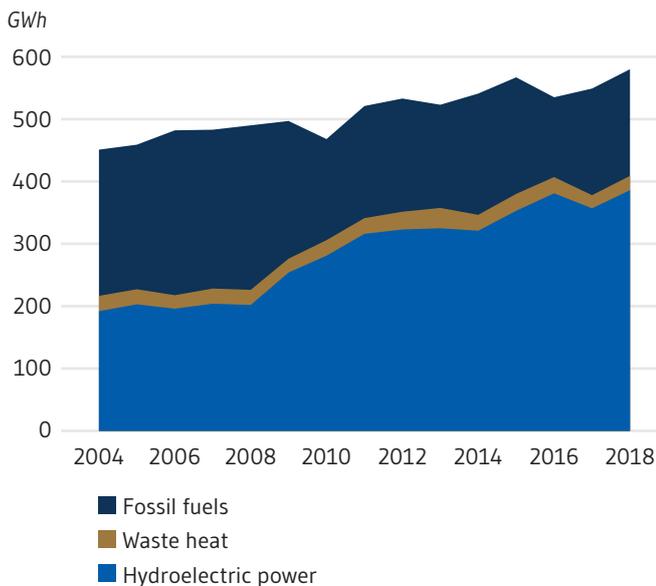
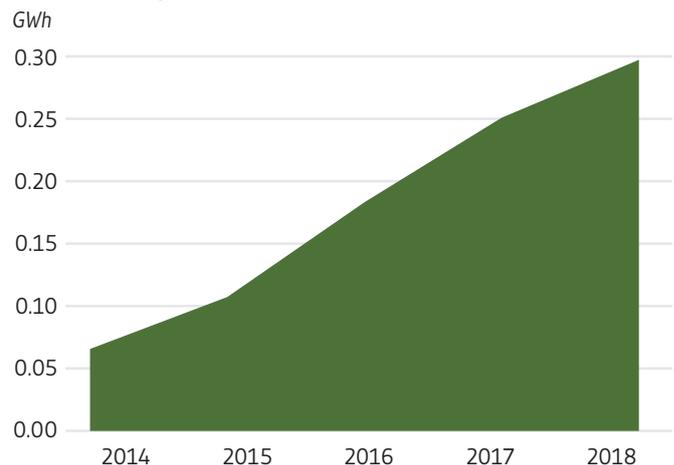


Figure 2
Self-production of renewable energy delivered to Nukissiorfiit's grid, 2014-2018



¹ As a review revealed incorrect production information, the data have since been corrected and therefore differ from the annual accounts for 2017. Accordingly, the hydroelectric power share has been downgraded from 68 percent to 65 percent, and the total renewable energy share from 72 percent to 69 percent.

people use oil furnaces for heating. Renewable energy accounts for a mere 20 percent (approx.) of the country's total energy consumption (2017 figures), and there is a great potential for increased transition to this type of energy. Not only does Nukissioffiit work to make the current energy sales greener, but also to reduce the country's overall use of fossil fuels by converting private heating to public heating. Please see further details, pp 21 and 26.

THE FIRST WIND TURBINES IN THE SUPPLY

With the establishment of a test center for wind power at Sisimiut in 2018, Nukissioffiit's plan to use wind power became a reality. Smaller wind turbines are tested before setup at settlements around the country. We gather experience from two different wind turbines, set up in the autumn. Also, the turbines are used in the teaching at KTI (Technical College Greenland) Sisimiut and at DTU (Technical University of Denmark) Artek, as both institutions are Nukissioffiit's business partners. In the long term, Nukissioffiit is considering the possibility of testing large wind turbines and other types of renewable energy plants in connection with the test center.

There has been a great development in wind turbine technology, currently applied in the Arctic regions of Alaska and Canada. Nukissioffiit is working on a wind survey project to identify wind potentials at towns and settlements. The survey will be based on either existing or new wind data. The ultimate goal is to accurately assess the possibility of installing wind turbines in certain locations to form an economically beneficial part of the electricity and heat supply.

25 YEARS OF HYDROELECTRIC POWER

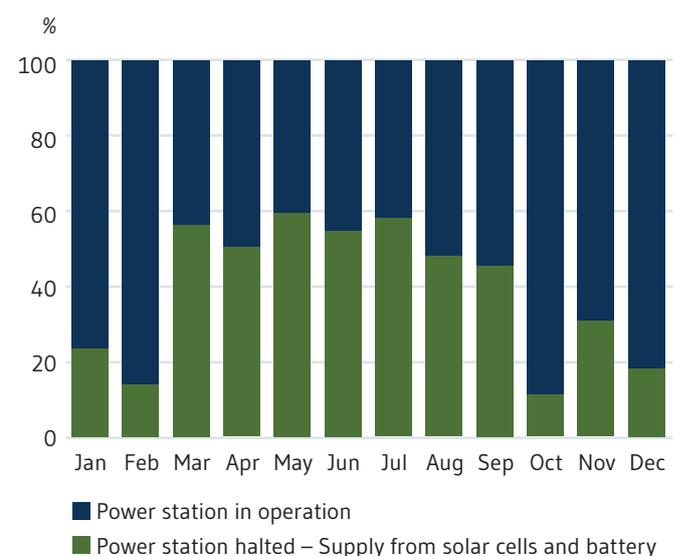
There is good reason to celebrate hydroelectric power in Greenland and when the country's first hydroelectric plant had been in operation for 25 years on October 1st, 2018. Nukissioffiit celebrated the anniversary with a film show, open house on the hydroelectric plant, coffee etc. The film can be watched on Nukissioffiit's website.

Since the opening of the Utoqqarmiut Kangerluarsunnguut hydroelectric plant, hydroelectric power has become the largest energy source of Nukissioffiit's supply. The present five hydroelectric plants benefit our community in several ways. The plants increase self-sufficiency, they provide environmentally sound and stable energy, and they save the country considerably on cost of oil imports. On its own, Utoqqarmiut Kangerluarsunnguut hydroelectric plant has saved the community in excess of DKK 4 billion (2018 prices) on oil costs. The hydroelectric plants are of great importance in keeping energy prices low.

Hydroelectric power must be used even more in the future. Therefore, Nukissioffiit examines both the possibility of expanding the production from the existing plants and establishing new hydroelectric plants as well as micro-hydroelectric plants. These possibilities are explored along the lines described in the Sector Plan for Energy and Water Supply. Currently, Nukissioffiit is looking into hydroelectric power supply of the towns of Maniitsoq, Aasiaat-Qasigiannqut, Nanortalik and Paamiut. Furthermore, possible expansions of the Utoqqarmiut Kangerluarsunnguut hydroelectric plant and the Qorlortorsuaq hydroelectric plant are under investigation. In 2018, hydroelectric power potentials at another six small settlements were examined. In all cases, the use of hydropower is compared with the use of other renewable sources such as solar and wind energy.

In 2018, Nukissioffiit has optimized the hydroelectric plant supplying Tasiilaq. As a result, the water can be utilized more efficiently, and hydroelectric power now periodically contributes to the heat supply in the town. The water reservoir is being expanded. One major project is the possible expansion of the hydroelectric plant at Tasiilaq. With the expansion, additional oil-based heating can be converted to public supply and eliminate the use of about 516,000 liters of oil annually. This corresponds to a saving of 1,372 tonnes CO₂ per year.

Figure 3
Use of power station at Igaliku in 2018



Today, 99 percent of the public electricity and heating supply at Nuuk is covered by renewable energy. However, many houses are heated by private oil-fired boilers outside Nukissiorfiit's supply. We estimate private oil-fired boilers to currently cover Nuuk's heating at 260-290 GWh/year, which is in line with Nukissiorfiit's total sales of electricity and heating at Nuuk in 2018. This leaves great potential for increasing the use of renewable energy by replacing supply from private oil-fired boilers with district heating or electric heating. Replacing oil consumption with public heating based on hydroelectric power will benefit socio-economic. Nukissiorfiit is also focusing on Nuuk's growth, calling for an increased amount of energy. Therefore, in 2018, Nukissiorfiit ordered an in-depth analysis of how to effectively expand energy supply in the coming years. The work along the lines of the recommendations of this analysis's continues in 2019.

ADDITIONAL HYBRID PLANTS AND SOLAR CELLS

The Igaliku pilot project was completed in 2018 and the plant switched to normal operation. In 2018, the plant's solar cells and battery have saved in excess of 15,000 liters on oil for electricity supply. The power plant's diesel generators were halted about 3,500 hours in the course of the year, corresponding to 39 percent of the time. Annual distribution is shown in Figure 3.

Nukissiorfiit gained valuable experience from the Igaliku pilot project enabling us to improve technically and economically on future installations. Consequently, solar cells with battery storage are under establishment elsewhere in the country. Various options for combining energy technologies and storing energy will be tested in the coming years. For hybrid plants of this kind to eliminate the need for fossil fuels, however, is still a long way away. Hopefully, the technological development will soon enable solutions after which the current diesel-powered power stations in settlements can be used as a backup system only.

In 2018, the power station at Atammik was renovated and at the same time solar cells were installed. In the future, Nukissiorfiit will install more solar cells on buildings where solar energy can function well as a supplement to the electricity supply. At any rate, solar cells will be installed on power stations at settlements when they are renovated.



Wind power test centre at Sisimiut

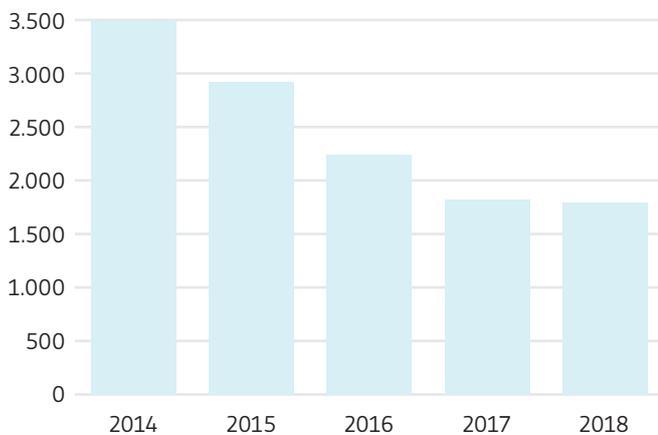


IMPROVED QUALITY OF DRINKING WATER AT SETTLEMENTS

Since 2014, Nukissiorfiit has focused particularly on improving the quality of drinking water – not least at settlements. The results of the effort became evident in 2018, as the call for boiling the water prior to use was cancelled at Qassiarsuk, Eqalugaarsuit, Sarfanguit, Ikerasak and Kangaatsiaq. The total number of required boiling days is decreased. This trend is ongoing since 2014, please see Figure 4. In 2019, the recommendation of boiling at Ammassivik was cancelled. This leaves Isortoq as the only location with boiling recommendation, expected to be withdrawn in the first part of 2019.

The cancellation of boiling recommendations is in part due to the establishment of the first standardized rural waterworks in 2018 at Qassiarsuk, Eqalugaarsuit and Tasiusaq (South Greenland). These waterworks have a standard solution for water treatment, tailored for the settlements, with modules that are readily available and easy to replace. Reducing variation between the waterworks facilitates maintenance and operation. In addition, fewer different components have to be stored, and investment and production costs are expected to fall. It is Nukissiorfiit's goal to establish five new rural waterworks each year. In 2019, the potentials of Atammik, Itilleq, Attu, Ikerasak and Tasiusaq at Upernavik will be investigated.

Figure 4
Number of days requiring boiling of drinking water prior to use, 2014-2018 *



* Requiring boiling of drinking water prior to use means number of days during the year in locations which boiling of the water prior to use was required.

DOCUMENTED DRINKING WATER SAFETY AND PRESSURIZED WATER IN TOWNS

In 2018, the quality assurance system Documented Drinking Water Safety (DDS) was introduced at the waterworks at Nuuk, Sisimiut and Qasigianguit. DDS are the management principles for the operation of waterworks to reduce occurrence of threats to the quality during extraction, treatment or distribution of the water. In practice, this means that the supply has been carefully reviewed; the employees have completed their training; and the waterworks are in compliance with specific design requirements. Quality assurance and operational optimization have also been introduced at the works. The new procedures are already being introduced at Narsaq and Ilulissat and will be introduced at all towns up to 2023. The settlements will apply the procedures in connection with replacement or renovation of their waterworks.

To improve quality, taste and security of supply, the old cast iron pipelines at Qaqortoq, Ilulissat and Nuuk and other cities have been replaced with new water pipelines.

In 2018, the cost of introducing pressurized water to the remaining customers, supplied by tank car, were analyzed, cf. objectives 29 and 30 in the Sector Plan for Energy and Water Supply. The goal is to reduce the number of tank car supplies, as transport by car is very costly and increases the risk of water contamination. Presently, tank cars supply water at 13 towns and 1 settlement. Preliminary results show that the estimated costs of establishing pipelines and discontinuing supply by tank car in four locations will total DKK 14-18 million. The next four locations will cost another DKK 86-106 million. Based on the analysis, Nukissiorfiit continues planning investments to gradually abolish water driving with vehicles.



Tank truck supply at Qaqortoq



Water sampling

INCREASED SALES OF HEATING

Nukissiorfiit wants to increase sales of heating to reduce the country's oil consumption, improve energy plant utilization and increase revenue. This applies to the sale of interruptible electric heating and district heating produced on hydroelectric power, along with increased utilization of the residual heat which is a by-product of the electricity production at the diesel-powered power plants.

In 2018, Nukissiorfiit has installed electro boilers at Ilulissat customers with high heat consumption. At the same time, Nukissiorfiit expands and upgrades the supply network, for more customers to be connected to district heating or interruptible electric heating. The purpose is to benefit from Paakitsoq hydroelectric plant which has the potential to produce more electricity than is produced today. This way, part of the oil-based heating at Ilulissat can be replaced by hydroelectric power heating. This offers several advantages: Improved utilization of the hydropower plant, which is a major societal investment, Nukissiorfiit gains additional income from the sale of heating which in turn keeps consumer prices down, beneficial effect on environment and climate. Efforts to install electric boilers and increase heat deposition at Ilulissat will continue in 2019.

As for utilization of residual heat, a report was prepared in 2018 on the possibilities for optimizing at a number of towns. The opportunities will be included in Nukissiorfiit's operational and construction plans for 2019 and beyond. Also, at the settlements, efforts to increase utilization of residual heat go on, where economically appropriate, e.g. for public buildings such as the shop and service house at settlements.

Today, in some locations, heating for tower-blocks is produced at boiler plants, owned and operated by the housing associations. In 2018, Nukissiorfiit completed an overall status of the boiler plants. The status was made to ascertain if and how the responsibility for these plants can be transferred to Nukissiorfiit to ensure the best possible energy optimization, to the benefit of the housing associations as well as other consumers in the community. In the extreme, inefficient and misaligned heat exchangers may negatively affect the entire district heating distribution in larger parts of a town.



L3

L1

Connection of three power lines to transformer station meters

EFFECTIVE USE OF WASTE ENERGY

In September 2018, Naalakkersuisut and the municipalities decided to change the handling of waste. A joint municipal company for waste management will work to establish two nationwide waste incineration plants and three waste oil incineration plants. The two waste incineration plants will probably be located at Nuuk and Sisimiut in replacement of many small plants around the country.

The plans are in line with the objective in the Sector Plan for Energy and Water Supply to utilize waste more effectively as a green energy resource. At Sisimiut, the hydroelectric plant covers only part of the heating requirement and waste and oil-based heating is therefore used as supplement. Increased use of surplus heat from waste incineration will entail reduced use of fossil fuels, if the waste heat is adapted to the current need for district heating. At Nuuk, hydroelectric power is sufficient to cover the entire heating requirement for the next 5-8 years of the customers connected to Nukissiorfiit's distribution system. Here, the waste heat is a mere supplement that allows for future expansion of the heat distribution to supersede oil. Advance assessment of consequences for Nuuk is complicated as it depends on expansion investment and interconnection of Nukissiorfiit's district heating network.

In support of the objective outlined in the Sector Plan for the Energy and Water Supply Nukissiorfiit is already in the process of merging and expanding the district heating networks at Sisimiut and Nuuk to utilize waste for heat production in the best way possible. These measures ensure that Nukissiorfiit can be able to receive larger quantities of heat from the national waste incineration.

HIGH SECURITY OF SUPPLY

Nukissiorfiit's consumers must be able to rely on electricity, water and heating being supplied when they need it. This is crucial for society to function, and especially critical during the winter months. Accordingly, Nukissiorfiit is always focused on optimum security of supply by preventing supply failures and by securing swift restoration should failure occur.

A high level of security of supply was maintained in 2018. A large outage of the electricity and later on the water in parts of Nuuk is worth mentioning. Electricity and water supply at some settlements, especially in North Greenland, have met challenges. It is particularly critical in this part of the country because of the extreme cold. Every time, without exception, Nukissiorfiit re-established the supply within a few hours.

In 2018, Nukissiorfiit prepared and updated a number of contingency plans to be best prepared for handling supply failures, among other things. This work will continue in 2019. In the summer of 2019, specific targeted inspections and corrections will be initiated at the settlements to prevent errors, especially during the winter.



STRENGTHENED COOPERATION WITH THE FISHING INDUSTRY

The fishing industry is a large consumer, using considerable quantities of water in the production. The industry is currently experiencing growth. Simultaneously, the business has to adjust the size and location of production facilities according to where the fishery resources are located. To make sure that investments are made in increased electricity and water capacities for society, ongoing coordination between the fishing industry and Nukissioffiit is important.

In June 2018, Nukissioffiit invited the fishing industry to a seminar to inform about ongoing projects and to encourage increased cooperation. The fishing industry showed great interest in extended cooperation.

EXCHANGE OF EXPERIENCE AND MARKETING IN CHINA AND ICELAND

In the autumn of 2018, Nukissioffiit participated in a business delegation to China under the leadership of former Minister for Business and Energy, Mr. Aqqalu Jerimiassen. Among other aspects, the purpose of the delegation was to market the notion of water export from Greenland and to utilize the large hydroelectric power potentials for the supply of energy-intensive companies. The visit to China made it clear that Nukissioffiit should stay informed of the technological developments in China within renewable energy and supply of isolated areas. This applies to battery technology, thin film solar cells and hybrid systems, for example.

Nukissioffiit continues to work with the Arctic and neighbouring countries such as Alaska, Canada, Iceland and the Faroe Islands. In 2018, the participation in the Arctic Circle Assembly in Iceland especially made it possible to exchange information with the regional energy industry.

INVESTMENTS IN 2018

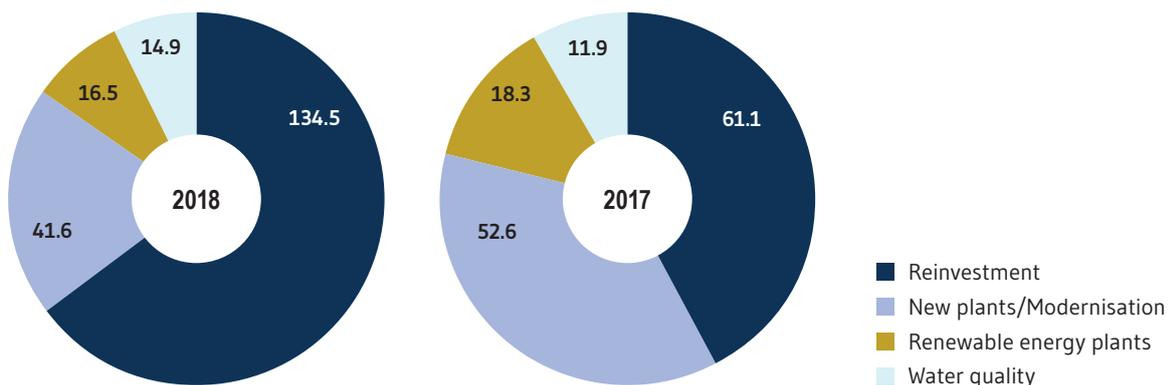
In 2018, Nukissioffiit's investment level was DKK 207.5 million. This is an increase of DKK 63.5 million compared to 2017. Approx. DKK 50 million was invested in the settlements, corresponding to 24 percent. The majority is reinvestment in existing plants and distribution networks, a minor part for modernization, renewable energy plants and optimization of water supply.

Nukissioffiit expects DKK 150-180 million for ordinary reinvestment in 2019. Projects to increase the degree of renewable energy, still in their infancy, will bring total investments to the level of 2018.

The investments requiring most funds in 2018 are:

- Replacement of two parallel 1,010 meters cast iron pipelines for raw water by PE pipelines at Nuuk (DKK 12.8 million)
- Conversion and expansion of 490 meters district heating pipeline, 940 meters electricity wire and 710 meters pipeline to water supply at Vandsøvej, Nuuk, in preparation of the supply of new housing blocks (DKK 10.4 million)
- Replacement of 3,500 meters of small cast iron water pipeline by PE pipelines at Qaqortoq, 1st stage (DKK 10.2 million)
- Upgrading of the electricity grid at Maniitsoq after closure of the previous emergency power plant (DKK 6.6 million)
- Replacement of 1,000 meters of district heating pipeline at Ilulissat (DKK 6.3 million)

Figure 5
Nukissioffiit's investments in DKK million





Power station at Alluitsup Paa



Strategy

Nukissiorfiit's strategic objectives for 2018-2022 are based on Naalakkersuisut's Sector Plan for Energy and Water Supply and set the direction for Nukissiorfiit's efforts and priorities within four main areas: *Business Development, Renewable Energy, Purchasing and Warehousing and Digitization*. The status of 2018 is given below.

BUSINESS DEVELOPMENT

Nukissiorfiit increases focus on business development. In consequence, a department for sales and market development was founded. This department aims at increasing our market share for heating and reducing our (and the country's) dependence on fossil fuels. Through data-driven analysis, the department strives to enhance our understanding of how to better provide customer supply solutions. Our ambition is to offer all customers the most environmentally friendly supply, existing where they reside. Specifically, in cooperation with Ilulissat District, the department is working to increase the sale of interruptible electric heating in Ilulissat to ensure the best possible utilization of Paakitsoq hydroelectric plant.

In 2018, Nukissiorfiit's management secretariat was established to strengthen implementation of the Sector Plan for Energy and Water Supply. The secretariat works to strengthen communication with the politician, the civil service and the general public, and in support of organizational development required to realize the strategic goals to-

ward 2030. To ensure anchoring and progress of the many projects-four project coordinators were employed locally in Nukissiorfiit's districts.

RENEWABLE ENERGY

The share of renewable energy has increased from 68.9 % in 2017 to 70.5 % in 2018, please see page 17. It is in line with Nukissiorfiit's goal of increasing our total production from renewable energy sources by at least 2 % per year. As the shares of renewable energy are affected by a series of circumstances, the goal must be viewed over several years.

As stated in the paragraph on supply, Nukissiorfiit has a multi-faceted approach to renewable energy. Largely, 2018 has been a year of testing and analyzing new opportunities. No large new plants have been established but a few smaller ones. In addition, efforts have been made to increase the utilization of Paakitsoq hydroelectric plant.

As future large plants are put into use, the proportion of renewable energy and thus reduced use of fossil fuels are expected to increase. In order to realize these goals, Nukissiorfiit studies conditions of hydrology and wind ongoing, to provide the framework for the future energy infrastructure, based on the socially most advantageous investments. Please also see page 17.

VARIATIONS OF RENEWABLE ENERGY

The weather hugely influences the rainfall in the water reservoirs of the hydroelectric plants and heating consumption. Although the infrastructure remains unchanged, the share of renewable energy can fluctuate by several percentage points from year to year. Therefore, to avoid misleading impressions of the development, caused by external factors, the 2 percent increase must be viewed as an average over a number of years.



PURCHASING AND WAREHOUSING

Nukissiorfiit's purchasing procedures must be streamlined and simplified. This process was initiated in 2013 with the establishment of a central unit for purchase handling. In 2018, the central unit has introduced an administrative procedure to facilitate the employees' purchases without compromising control. At the same time, the central purchasing unit ensures that the demands for competition exposure are met and local suppliers used as far as possible. In 2018, 71 percent of Nukissiorfiit's total purchases were covered by local suppliers, please see further details on page 39.

We aim at optimizing costs by at least 4 percent annually on purchasing and warehousing. The purchasing department saves an average of 10 percent on their purchases. To secure consistency and cost reduction, continuous efforts are made to increase the share of purchasing contracts.

In the coming years, we shall seek optimized use of Nukissiorfiit's warehouses. To make sure that we stock only what is needed for smooth running of production and distribution facilities, increased control and education will be introduced. To this end, central warehouses for central product types will be established, thus increasing stability of supply.

DIGITALISATION

Nukissiorfiit wants to pioneer the use of digital solutions in Greenland. For this reason, 2018 saw a number of initiatives.

For administrative purposes, Nukissiorfiit implemented a UiPath software robot. The robot solves a number of routine tasks, such as automatic posting of statements of account to customers as well as inquiries about balance statements to suppliers. The robot has freed employees to carry out more complex tasks. It is our ambition to increase the use of software robots in 2019 with the aid of two dedicated RPA developers.

In 2018, an electronic quality management system (KLS) was introduced in operations. KLS digitizes and simplifies work processes and adds to safety.

In September, Nukissiorfiit held a seminar on the future digitalisation within the infrastructure sector – with the participation of a number of partners and experts. Future possibilities for using digital solutions were discussed. Subsequently, Nukissiorfiit has focused particularly on how to manage, structure and centralize data, in order to obtain increased value and improved decisions. Through intelligent use of data, Nukissiorfiit aims at reducing waste of energy and water, occurrences of disruption and better planning of future infrastructural developments. Among other sources, Nukissiorfiit receives data via remote meters at the customers' as well as sensors and measuring equipment at the production facilities.

In 2018, Nukissiorfiit also strengthened its focus on improved communication with external parties via a new website and through increasing communication through social media.

In order to support the entire digitalization development in the organization, Nukissiorfiit prioritizes training of IT employees and has started preparing for increased use of distance learning by e-learning platform.

IT security is another priority. Being a utility company, it is important for Nukissiorfiit to avoid vulnerability to any external threat. Therefore, at the beginning of the year, a security and vulnerability analysis of the company was carried out. As a follow-up, security of access to IT systems and operating systems has been addressed, along with the development of IT emergency plans, recalling of servers and limiting access to Nukissiorfiit's production facilities and other buildings. This work will continue in 2019.

RPA

RPA stands for Robotic Process Automation, and developers are responsible for coding software robots so they can handle multiple simple, routine tasks.

Year 2018 in The Districts

AVANNAA District

The district spent a lot of resources on developing the new quarter at Uummanaq, where housing is built for the victims of the tidal wave at Nuugaatsiaq and Illorsuit in 2017. Further, the district is in the process of establishing electricity and water supply at Qeqertat near Qaanaaq, based on the political decision in 2017.

The year saw a few unwanted electricity and water supply cut-offs, at Upernavik, Tasiusaq and Kullorsuaq to mention some. In some cases, electricity supply was cut off during a period with 25 degrees frost and all resources were applied to re-establish the supply. Improved security of supply is highly prioritized in the district with a view to reducing breakdown frequency.

The fishing industry is expanding in the area and calls for more electricity and water outlets to buy more. The district is working to meet the wants of the fishing industry. In 2019 and 2020, new DDS waterworks are planned at Ikerasak and Tasiusaq. The electricity grid at Upernavik is being strengthened for a new factory, and the water supply to residents and factories is improved.

To improve water supply at Qaanaaq, a new winter water tank will be established. The winter water tank is expected to be ready for use in 2021.

ILULISSAT District

In order to better utilize Paakitsoq hydroelectric plant, the district has found 25 locations at Ilulissat, where electro boilers can be installed. Electro boilers have been purchased corresponding to a total of 2.1 MW. 1.2 MW has been installed in 2018, and the rest will be installed in 2019. At the same time, the district optimizes the district heating network to improve utilization of the capacity. Upon connection of the boilers purchased, more than 8 GWh is expected to be allocated to private heating customers at Ilulissat.

At Ilulissat, water pipelines of cast iron are continuously replaced with new pipelines. To improve safety and control at the combined heat and power plant and the heating plants, the control systems have also been renewed in 2018.

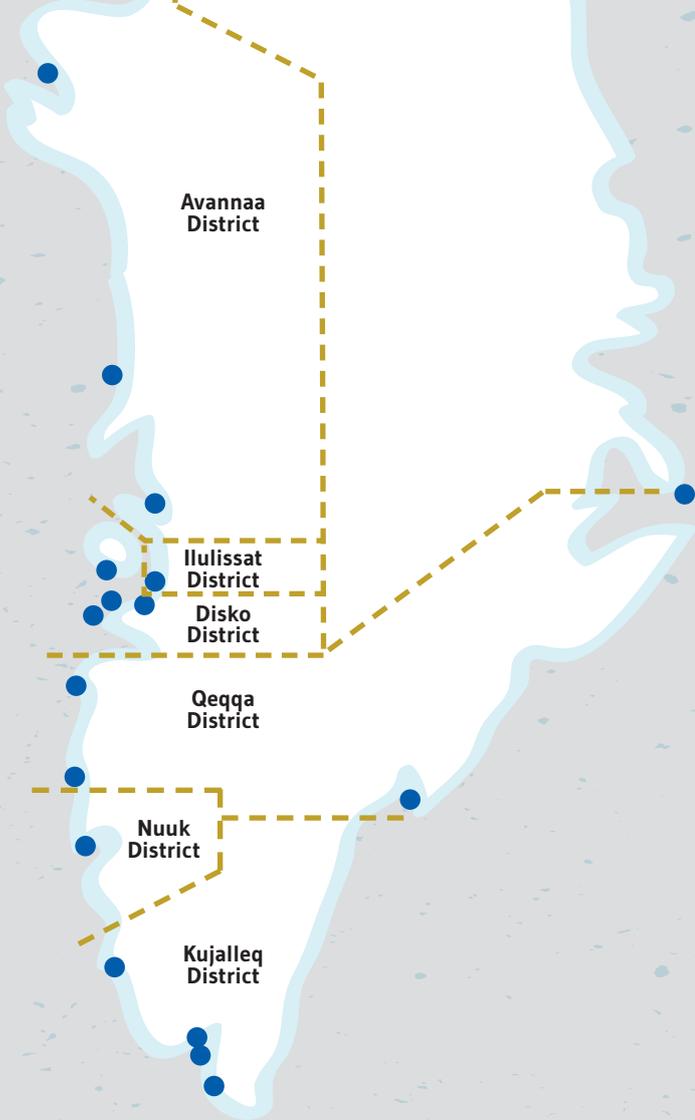
DISKO District

Disko District focuses on what kind of renewable energy should be used at Aasiaat and Qasigiannuit. Particularly the potential for using hydroelectric power has been researched. As an alternative, the wind potential in the area is examined. In 2018, it has been examined how to better utilize residual heat in the two towns. Also, some heating plant control systems have been replaced.

At Kangaatsiaq was previously challenged by insufficient water supply during the winter, e.g. for the fishing industry. In 2018, the district has improved the water supply to cover the town's need throughout the year without immediate restrictions.

At Akunnaaq the district is seeking to use residual heat from the power plant to heat up homes around the power plant.

At Qasigiannuit and Qeqertarsuaq water is supplied by tank truck. Efforts are made to phase out the tank truck supply and build main water pipelines continuously towards 2025.



NUUK District

Nuuk is growing. In 2018, Nukissiorfiit ordered a major analysis of the future supply of Nuuk and how to cover the need for energy. The analysis will be scrutinized in 2019.

Hand in hand with Nukissiorfiit's celebration of Utoqqarmiut Kangerluarsunnguut Hydropower Plant's 25th anniversary, this year, the district had routine checks and repairs of the transmission line to the plant.

The district has introduced DDS on the waterworks at Nuuk. Upon their request, a number of water customers formerly supplied by tank car have had pressurized water installed.

These years, the district heating network at Nuuk is being expanded this to supply new residential areas and optimize the utilization of heat from the waste incineration plant. All heating plants have been supplied with optimized control systems, offering improved safety and better options for remote control, regulation and monitoring of the plants by employees.

At Kapisillit and Qeqertarsuatsiaat, the district optimized the diesel-powered power plants and reached improved utilization and more stable supply.

QEQQA District

Naturally, the new test centre for wind power at Sisimiut received a lot of attention in 2018. The two smaller turbines in the test centre, were erected without the use of large cranes and machines, which is a prerequisite for erection of wind turbines at settlements around the country.

At Tasiilaq, the hydroelectric plant has been optimized and an expansion of the hydroelectric plant is planned, please see description page 18. At Maniitsoq, hydrological investigations of hydroelectric power potentials are still being carried out near the town.

In connection with the renovation of the power plant at Atammik, solar cells have been installed on the roof of the plant.

In 2018, optimizations of the supply have been made. At Sarfannguit, the settlement power station has been renovated, at Ittoqqortoormiit the main power station control has been replaced, and at Maniitsoq both the towns electricity grid and the supply of raw water have been optimized. At Sisimiut, the district heating networks has been expanded and combined to optimize waste heat utilization. The waterworks has been modernized and DDS introduced.

KUJALLEQ District

In 2018, the district installed Nukissiorfiit's first standardised built-in waterworks at Qassiarsuk, Eqalugaarsuit and Tasiusaq. The district is now trying for optimum operation of the new waterworks.

At Nanortalik, Nukissiorfiit is looking into the potential of wind power, and the results are compared with already known potentials of hydropower. The district has updated the power plant at Alluitsup Paa with new generators, new control panel and other optimizations. Next on the agenda is improved utilization of residual heat from the plant.

At Qaqortoq, 3.5 kilometre of water pipelines is being replaced. In 2019, the documented drinking water safety (DDS) process is expected to start throughout the district.

Consequences of the Single Price Reform

The single price reform, which came into force on January 1st, 2018, is of great importance to consumers as well as to Nukissiorfiit. The cost of electricity and water has fallen significantly. For Nukissiorfiit, the single price reform has meant a lower turnover together with changes regarding our subsidy from Landskassen, loan limits, reduction of interest expenses, etc.

In 2018, Nukissiorfiit, in its capacity of public utility company, switched to accounting in accordance with the Accounting Act for Class C enterprises. This, in combination with the single price reform, has resulted in a number of accounting changes with major impact on Nukissiorfiit's fixed assets, depreciation and total economy.

PRICES BEFORE AND AFTER THE SINGLE PRICE REFORM

Under the single price reform, electricity and water prices are the same for all consumers. However, a special price structure is still valid for the fishing industry. As shown in Table 1, the current price for electricity is DKK 1.60 per kWh and for water DKK 19.00 per m³. This represents a significant reduction – especially for consumers previously paying the highest prices, typically at the settlements and towns without hydroelectric supply.

Table 1
Prices for electricity, water and heat in 2017-2019
for ordinary consumers

	2017	2018 <i>Jan.-Aug./Sep.-Dec.</i>	2019
Electricity, DKK/kWh	1.63 - 3.25	1.60	1.60
Water, DKK/m ³	19.12 - 33.40	19.00	19.00
Heating, DKK/MWh	770	770/740	740
Interruptible heating	710	710/680	680

Under the previous price system, in the period 2005 to 2017, Nukissiorfiit's prices for electricity and water were determined by unit costs, which entailed varying prices in various places, depending on the cost of producing and supplying electricity and water. A nationwide maximum and minimum price existed, however. The unit costs are stated in Nukissiorfiit's annual distribution accounts; please see Appendix on page 66.

As for the fishing industry, electricity and water prices vary from one location to another. The fishing industry is rated by 41.5 percent of the local unit costs for electricity and water. The rate, however, should not exceed the prices paid by other consumers or drop below 41.5 percent. Thus, the 2018-2019 prices for the fishing industry range between DKK 0.66 and DKK 1.60 per kWh for electricity, depending on location. For water, the fishing industry pays between DKK 7.89 and DKK 19.00 per m³.

Nukissiorfiit lowered the prices of heat by DKK 30 per MWh as of 1st September 2018 as a result of lower oil prices. For 2019, Nukissiorfiit expects to maintain the same electricity, water and heat prices.

REDUCED REVENUE AND NEW SERVICE CONTRACT PAYMENT

The single price reform has meant that Nukissiorfiit has channeled price reductions in the amount of DKK 153 million to consumers, and that turnover has fallen by the same DKK 153 million. In part, some plants consequently show lower profitability than before January 1st, 2018, and, in part, cash flow from sales is reduced.

As a consequence of reduced profitability some of Nukissiorfiit's plants have been written down at DKK 1.6 billion as of January 1st, 2018. To determine profitability of the fixed assets – and thus the valuation of the assets – Nukissiorfiit has carried out impairment tests. An impairment test is made to find out if the income from the individual plant groups can bear the associated costs. If the income proved lower than the associated costs, the asset was proportionately written down. This write-down has caused Nukissiorfiit's depreciation to drop by DKK 106 million in 2018. Please see page 51-52 for more details.

The balance of Nukissiorfiit's cash flows has been restored in two stages. Firstly, Nukissiorfiit has entered into a service contract with the Government of Greenland. In 2018, the service contract triggered a payment to Nukissiorfiit of DKK 72 million. In addition, an annual 0.22 percent down-scaling of the interest rate on loans raised before 2017 has been introduced and will continue until the original interest rate of 6 percent has been reduced to 3 percent. Secondly, the maturity of loans obtained before 2017 has been extended, effecting liquidity in the amount of DKK 70 million annually. To partly finance this longer maturity granted by Landskassen, Nukissiorfiit's limit for loans was reduced from DKK 130 million to DKK 60 million.

The loan limit of DKK 60 million per year together with the liquidity generated from operations leaves an annual total of approx. DKK 150 million to reinvest. New investments are required to reach a number of the goals in the Sector Plan for Energy and Water Supply, e.g. increased drinking water quality, pressurized water for all towns and settlements, modernization of existing plants and increased production of renewable energy. Funding for the measures described in the Sector Plan for Energy and Water Supply, would have to come from outside the ordinary investment framework. This procedure, however, is not a new phenomenon in that an increased loan limit was previously made available to Nukissiorfiit through the Finance Act for the building of hydroelectric plants.

In the long term, increased investments in renewable energy are meant to improve both Nukissiorfiit's and the national economies. This maneuvering scope is expected to contribute to a part-financing of the initiatives in the Sector Plan for Energy and Water Supply. The need for reinvestment is also expected to go up in the coming years due to inflation and a larger asset mass, resulting from the new investments mentioned above.

THE INFLUENCE OF NEW PRICES ON ENERGY CONSUMPTION

Prior to the introduction of the single price reform, it was subject to speculation if a price reduction of up to 50 percent would increase consumption. Nukissiorfiit has continuously monitored the consumption and found no indication that the reduced prices have entailed increased consumption.

Nukissiorfiit has investigated the volume of sales focusing on locations where prices have dropped the most. The results show that consumption has only risen a few per mille. At Ilulissat and Nuuk, where the prices are almost identical to the prices before the single price reform, however, consumption has gone up. This increase is attributed solely to societal growth and activity in locations with hydroelectric power, benefitting the national economy without burdening the climate.

As electricity and water are greatly needed, consumption is unlikely to change, and the price elasticity of electricity and water is typically very low.

SINGLE PRICES IN MITTARFEQARFIIT (GREENLAND AIRPORTS) SUPPLY AREAS

Initially, the single price reform was introduced in Nukissiorfiit's supply areas only. In 2018, the prices at Kangerlussuaq, Narsarsuaq, Qaarsut and Kulusuk airports were maintained at the same (higher) level as in 2017. However, during the Autumn Assembly 2018, Inatsisartut decided that the new prices on electricity and water should also apply in the Mittarfeqarfiit's supply areas as of January 1st, 2019. This is financed through a transfer of DKK 2.0 million from Nukissiorfiit's grant to indemnify Mittarfeqarfiit. The possibility and entailing financial implications of transferring the universal service obligation towards the supply areas to Nukissiorfiit is subject of ongoing examination.





Corporate Social Responsibility

In Nukissiorfiit, both management and employees are aware of their considerable social responsibility. This responsibility comprises, not least, Nukissiorfiit's supply of high-quality energy and drinking water to families and businesses at all time, the energy and drinking water being produced with respect for the environment and available at fair and stable prices. Another high priority is the employees' well-being and safety.

Nukissiorfiit reports annually on *corporate social responsibility* (CSR), as part of the annual accounts. The reporting follows the requirements of the Danish Financial Statements Act.

POLICY FOR CORPORATE SOCIAL RESPONSIBILITY

Nukissiorfiit's policy on corporate social responsibility, *Tumit* (meaning: footprints), was established in 2013. "Tumit" symbolizes that Nukissiorfiit wishes to make a favourable impression on the environment as well as social and ethical matters.

The overall policy for corporate social responsibility describes the following target areas:

- Access to water and energy
- Human in the centre
- Business ethics
- Commitment to the local community

In addition, Nukissiorfiit has several underlying policies, flexible working hours and a seniority policy. Both policies are in the process of being improved and expanded. Moreover, a stress policy is in the making. All policies aim at achieving balance between work and privacy for the individual employee. Nukissiorfiit also follows the Government of Greenland anti-corruption policy.

Nukissiorfiit plans an update of the CSR policy to ensure that it reflects current circumstances along with the objectives outlined in our strategic objectives for 2018-2022 and the Sector Plan for Energy and Water Supply.

The overall responsibility for CSR is placed in Nukissiorfiit's management secretariat, but the entire organisation is part of the process.

KEY AREAS OF NUKISSIORFIIT'S SOCIAL RESPONSIBILITY

Nukissiorfiit's corporate social responsibility policy focuses on four key areas that were chosen on the assumption of having the greatest beneficial impact on society. It comes to any significant risk or opportunity that society is subjected to by Nukissiorfiit's business activities.

The primary focus of social responsibility is, of course, the significance of energy and water supply to society. It is a question of securing supply, environmental and climatic conditions and economy:

- **Security of supply:** Energy and water supply is always at the risk of interruption. When occasionally interrupted, it is annoyance to families and businesses and could ultimately require evacuation from an area. Therefore, Nukissiorfiit is always striving to prevent disruptions of supply and be best prepared to handle operating problems quickly.
- **Environment and climate:** Nukissiorfiit's production has environmental and climatic impact. Therefore, Nukissiorfiit seeks to limit the use of fossil fuels and redirect to renewable energy. Securing the infrastructure for private individuals to be able to join the public supply where renewable energy is available makes it possible to further reduce the consumption of fossil fuels.
- **Economy:** The prices of electricity, water and heating impact society's development potential. Nukissiorfiit bears a significant responsibility for sound financial conduct by constant focus on optimization and by securing a portfolio of projects to improve the economy, and also help finance some of the objectives in the Sector Plan for Energy and Water Supply, which require increased resources.

Nukissiorfiit's employees are important too. Being a large public company conducting business all over the country, Nukissiorfiit needs to be able to attract employees. Nukissiorfiit is responsible for ensuring that the employees thrive, have good working conditions and access to relevant upgrading and education. Thus, Nukissiorfiit is being able to contribute to a heightened level of education broadly in the country within Nukissiorfiit's areas such as electrical, plumbing and machine work, and within administration.



Water supply

In the work with Corporate Social Responsibility Nukissiorfiit frequently narrows focus on production and employees. However, there is also a broader focus, which is particularly reflected in business ethics and involvement in the local community. Nukissiorfiit is given the opportunity to positively contribute to the society by using, and demanding high quality from, local suppliers and to impose ethical requirements on both local and foreign suppliers.

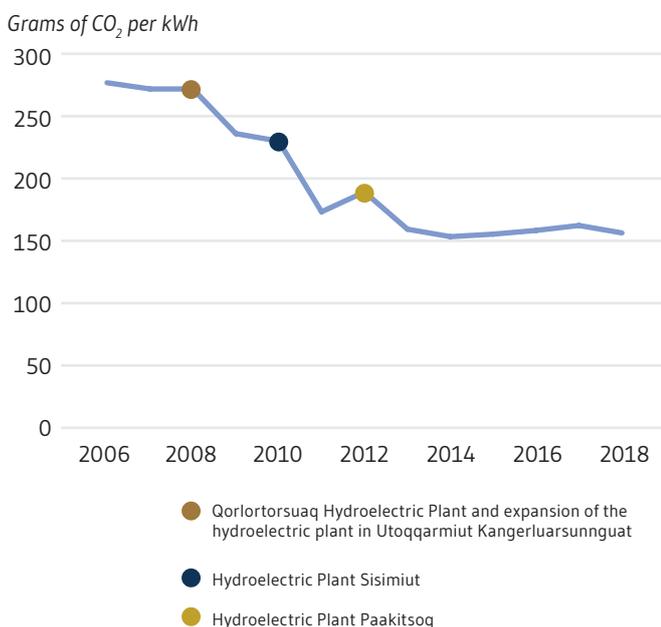
The following outlines status of the four key areas along with initiatives already implemented and scheduled for the future.

ACCESS TO WATER AND ENERGY

Access to water and energy is focused around the following two issues:

- 1) Everyone must have access to high-quality, affordable water and energy, produced with due regard to the impact on environment and climate.
- 2) Nukissiorfiit's stakeholders should see Nukissiorfiit as an open and accessible company with good customer service and must have easy access to information on water and energy supplies.

Figure 6
CO₂ emissions related to Nukissiorfiit's production of electricity and heat



High-Quality Energy and Water

Nukissiorfiit's paramount objective is to increase the share of renewable energy to 100 percent of the energy sales by 2030. In 2018, renewable energy accounted for 70.5 percent of sales of electricity and heating, please see page 17. Nukissiorfiit has launched many initiatives to increase the use of various renewable energy technologies across the country and always with focus on high security of supply.

To comply with the CSR policy, Nukissiorfiit must reduce CO₂ emissions in proportion to production of energy. Emission of CO₂ decreases concurrently with the replacement of fossil fuels with renewable energy. As shown in Figure 6, Nukissiorfiit's CO₂ emission per produced unit of electricity and heat dropped significantly when new hydroelectric power capacity was put into use. Since 2014, emissions have been reasonably steady. Nukissiorfiit expects CO₂ emissions will fall significantly in the coming years, as the ongoing study and preparatory phase results in the establishment of additional renewable energy plants around the country.

In 2018, access to high quality water has improved considerably. In 2019, it is expected that all boiling recommendations will be cancelled. Please see description of the initiatives related to water supply, page 20.

Lower Prices for Electricity, Water and Heat

Nukissiorfiit wants to keep the prices low to ensure the best possible living conditions for the population and to benefit industry. The single price reform resulted in a reduction of the cost of electricity and water for all consumers, at totally DKK 153 million, corresponding to an average reduction of 28 percent compared to 2017. The greatest savings, 51 percent on electricity and 43 percent on water, are found at towns and settlements where maximum prices were formerly paid. As an example, an average family at Tasiilaq with two adults and two children saves just under DKK 8,000 a year with the new prices. The consequences of the reform are described in more detail on page 30-31.



Access to Green Transport

As for transport, Nukissiorfiit wants to promote the use of electric cars in hydroelectric power towns. This enables use of electricity from hydroelectric plants as propellant rather than petrol or diesel. In 2018, once again, Nukissiorfiit purchased electric cars. 14 percent of Nukissiorfiit's fleet is now comprised of electric cars. Nukissiorfiit has also introduced charging stations to be used by our employees to charge private electric and hybrid cars for a fee. This is done to build an infrastructure that facilitates charging, which can otherwise be challenging if the employee does not have easy access to a residential charging station.

Nukissiorfiit has completed and evaluated the pilot project for charging of electric cars at tower blocks, which began in 2016. The evaluation points to both issues and prospects. The pilot project has not been economically worthwhile. Placing of charging stations, structure of accounts settling and reduction of costs for the individual installation are now being reconsidered. Based on the experience gained from the pilot project, we estimate that future solutions are possible and for the benefit of society as well as for Nukissiorfiit's economy.

Nukissiorfiit's Energy and Water Consumption

Nukissiorfiit's corporate social responsibility policy was aimed at reducing the company's own consumption of electricity, water and heating by 10 percent over 5 years. As shown in Table 2, the target was reached for Nukissiorfiit's heating consumption which went down by 41 percent from 2013 to 2018. As far as electricity and water are concerned, however, consumption went up, and the objective was not achieved. In our organization the attention paid to internal consumption has suffered because of our endeavours to improve on the national consumption. Obviously, it would be preferable to achieve both, but having to prioritize, the national improvements must come first, as they can be of greater advantage to climate and society than any internal relations.

Table 2
Nukissiorfiit's internal consumption of electricity, water and heating 2013-2018

	2018	2013	Change
Electricity consumption in towns with hydroelectric power, MWh	8,610	8,035	7 %
Electricity consumption in towns without hydroelectric power, MWh	9,629	8,526	13 %
Water consumption, m ³	16,563	12,134	37 %
Heating consumption, MWh	1,418	2,416	-41 %

Customer Satisfaction

Nukissiorfiit wants to have Greenland's best customer service. We are always attempting to improve our call centre's advice to customers and optimize the processes. Since 2014, the call centre has been situated at the head office to ensure the best possible service.

In 2018, Nukissiorfiit has worked to improve customers' access to details about Nukissiorfiit's operations, products, projects, etc. In aid of this, Nukissiorfiit has a new website making it easier for customers to find relevant information. At the same time, Nukissiorfiit has endeavoured to improve the company's use of social media to inform customers quickly and efficiently about operational disturbances etc. In addition, focus has been on informing, in greater detail, about Nukissiorfiit's work via press releases, short films, publicity material and public events, not least in connection with the celebration of 25 years of hydroelectric power (see page 18). Nukissiorfiit will continue to focus on increasing public awareness and making relevant information available to our customers.

In 2018, Nukissiorfiit initiated a customer satisfaction survey. The results will be available at the beginning of 2019. We shall then be in a position to assess the level of satisfaction among the consumers and follow up with new initiatives.





THE HUMAN AT THE CENTRE

Nukissiorfiit aims at being a desirable place to work with great employee satisfaction together with an environment offering safety and personal development. It is important for Nukissiorfiit's business to be able to attract and retain employees with the right competence. Therefore, in 2018, Nukissiorfiit has prioritized this focus area, which concerns both Nukissiorfiit's current and future employees.

Employee Satisfaction and Security

Status in this area is measured, among other things, by the results of employee satisfaction surveys and the number of accident reports and instructions from the Greenlandic Working Environment Authorities.

This year's survey of employee satisfaction showed that job satisfaction is generally very high among Nukissiorfiit's employees. A score of 76 on job satisfaction places Nukissiorfiit among the top 25 percent in both Greenland and Denmark according to Ennova. This is an increase on previous surveys, the most recent from 2015, as shown in Figure 7. Under the policy for social responsibility, it is Nukissiorfiit's goal to score at least 78 on job satisfaction. A total of 85 percent of the employees participated in the study against our target of no less than 80 percent.

Figure 7
Development in Job Satisfaction and Loyalty in Nukissiorfiit, 2012-2018



Source: Ennova, Employee Satisfaction Survey in Nukissiorfiit 2018

The well-being of the employees is measurable by Nukissiorfiit's ability to hold on to the employees. In 2018, employees celebrated anniversaries of 10, 25 and 40 years at Nukissiorfiit. It is gratifying and most valuable to the company that employees want to stay for so many years. Employee seniority averaged 14.2 years at the end of 2018.

In 2018, Nukissiorfiit reported 15 accidents at work and 1 occupational disease. As shown in Table 3, the number of accidents at work has increased compared to 2017. During 2018, Nukissiorfiit received 2 direct injunctions from the work environment authorities. It is Nukissiorfiit's firm intention to avoid accidents and work that causes the employees to become sick.

One accident caused particular to a follow-up. On April 10th, 2018, two employees had to be evacuated by helicopter, when they were caught in ice and bad weather during transport with Nukissiorfiit's boat from Qaqortoq towards Ammassivik to pick up two operating staff. Fortunately, the evacuation went well. The employees had subsequent emergency assistance. Following the incident, a thorough evaluation concluded that all procedures were observed. Nukissiorfiit will now consider how the assessment of navigation conditions can be improved and if scheduled trips should be cancelled more frequently during unsafe conditions.

Table 3
Accidents at work and injunctions from The Working Environment Authority

	2018	2017	2016	2015	2014
Reported occupational accidents	15	15	7	15	10
Reported occupational diseases	1	2	5	-	6
Direct injunctions from Working Environment Authority	-	2	18	-	-
Injunctions from Working Environment Authority	2	2	22	2	6

Strengthened Security and Cooperation

In 2018, Nukissiorfiit has pursued the new structure for safety and cooperation, which was implemented in 2017. A new collective council for the safety and cooperation councils has been formed along with similar local councils for safety and cooperation in each district. So far the new organization has proven favourable. The topic of work environment has become more visible, involving more people, and common ground between safety and cooperation is considerable. Likewise, the cooperation between management and employees has been strengthened.

An external work environment consultant is still associated with Nukissiorfiit. The consultant organizes workshops, supports managers in their follow-up on the satisfaction surveys, reviews work station ergonomics and conducts individual employee interviews about well-being.

In 2018, Nukissiorfiit introduced interviews on well-being and absence to employees who have an absence rate of more than 6.5 percent over 3 months. The work environment consultant participates in some of the interviews, the purpose of which is to increase well-being, maintain the employment and reduce absence.

Focus on Stress Management

Stress management is on the agenda of the collective council for safety and cooperation. In November, a workshop was held for the council. Groups have subsequently been formed to discuss and prepare guidelines for inclusion in our stress policy, assisted by the work environment consultant. Roll-out in the organization of the stress policy is expected in 2019.

Already, Nukissiorfiit have measures to prevent stress and increase well-being. New managers are offered supervision, and all employees have access to interviews with the work environment consultant about stress, conflicts etc. If an employee needs counselling from a stress coach or a psychologist this can be arranged too. Employees suffering from stress are offered individual therapy, including planning of their return to work.

Safe Use of Chemicals

Nukissiorfiit uses the database ChemiControl to ensure correct, safe handling of chemicals throughout our organization. The database provides an overview of substances and materials and simplifies the making of workplace instructions.

Groups of professionals are in the process of assessing which and where specific chemicals are needed, e.g. at waterworks and power plants. The implementation process has increased focus on use of chemicals throughout the organization, and the number of chemicals has been significantly reduced through standardization. Fewer types of chemicals simplify alert, level of information and instructions on safe handling in case of accidents.

The implementation of ChemiControl will continue in 2019. Employees will be trained in the use of protective equipment and the handling of chemicals.

Digital Workplace Assessments

Another initiative to increase focus on work environment is Nukissiorfiit's introduction of digital workplace assessments. The electronic database Workcyclus makes it easy to compile and implement assessments. In 2018, the system was introduced in District Kujalleq and District Disco. The goal is for the program to be known and used in all districts in 2019, entailing more and better workplace assessments and action plans for relevant areas.

Competence Development

Nukissiorfiit wants to improve education and competence. In 2018, a total of DKK 5.7 million was spent on competence development. This is an increase on 2017 at DKK 3.1 million and 2013 at DKK 4.1 million. Training in IT systems and digitization is prioritized.

In 2018, a major management development course was initiated for the Executive Board and the district managers. It will continue in 2019 and be expanded to include heads of department at the head office. This course should also be seen as a follow-up on the employee satisfaction survey, which revealed that management and communication are areas that could benefit from further strengthening. In respect of Nukissiorfiit's ideology all employees are entitled to good management, which also promotes Nukissiorfiit as an attractive employer.

Nukissiorfiit is preparing courses through the national e-learning platform. The platform gives easy access to all employees in the organization. Courses on IT security and new employee introductions are expected to come first.

Recruitment and Staff Housing

For some time, Nukissiorfiit has been facing challenges in recruiting skilled and highly specialized technical personnel because of competition from private companies for labour. The growth in the building sector makes it difficult for Nukissiorfiit to attract for instance high voltage electricians and electronics technicians. In addition, Nukissiorfiit has faced major difficulties in obtaining staff residences at Nuuk, where the real estate market is depressed. This greatly complicates all recruitment.

Therefore, Nukissiorfiit has applied for permission to build its own staff residences at Nuuk as well as buy and rent housing. Under the Government's scheme, Nukissiorfiit is entitled to staff housing but the supply of residences does not match the demand. In December 2018, The Government of Greenland and Parliament Finance and Tax Committee approved that Nukissiorfiit can start the construction of its own staff housing and, as of now, can rent or buy apartments for housing of staff. Nukissiorfiit has now initiated the design of housing for 16 staff at Nuuk.

The construction of staff housing serves another purpose as well. It is Nukissiorfiit's ambition to live up to the objective of advising Greenland's citizens on resource-saving measures. Nukissiorfiit plans to provide the buildings with new energy technology and other resource-saving measures which can be implemented in other construction projects in Greenland, both public and private.

Young People in Training

It is Nukissiorfiit's goal that 10 percent of our employees should be young people in training, i.e. trainees, students or apprentices. At the end of 2018, 36 employees were in training, corresponding to 9.3 percent. These are ship engineers and electrician apprentices, TNI and AU students, as well as undergraduate technology management and marine engineering and engineering. This is an increase compared to 2017, and Nukissiorfiit is close to the goal of 10 percent.

In 2018, Nukissiorfiit visited a number of educational institutions in Denmark to inform young people about job and education opportunities in Nukissiorfiit. The initiative was successful and has resulted in several contacts from interested people. Nukissiorfiit's efforts related to increasing the level of information on our business and organizing local events are expected to improve future recruitment of young people.



Heating plant at Qassimiut



Distribution of Gender

Traditionally, Nukissiorfiit is a workplace where women are outnumbered by men. In the end of 2018, 84 percent of the employees were men. In the management group², there were 9 women out of 26 managers, or 35 percent women and 65 percent men, i.e. the distribution of gender in the management group is not as unequal as in the rest of the organization.

Nukissiorfiit considers workforce diversity to be beneficial to the company. When recruiting, we make sure that equal conditions apply for both sexes. It is Nukissiorfiit's wish to inspire all employees to become part of the company's management. Our target distribution of gender in the management group is 60/40 which we consider gender neutral.

According to the Danish Financial Statements Act, companies must set a target for the underrepresented gender in senior management and have a policy for increasing their representation at other managerial levels. The Executive Board is regarded as senior management in this context. Presently, the Executive Board consists of three directors. This number inevitably entails over-representation of one gender. Our goal is for both genders to be represented in senior management and gender composition will be taken into account in connection with employment. Nukissiorfiit believes that both genders bring valuable input to the management process. Gender perspectives, however, should never override other competencies required for any position to be adequately fulfilled.

Nukissiorfiit strives for full equality between both sexes, including access to any position in the company.

BUSINESS ETHICS

Nukissiorfiit is the builder for large projects throughout the country and makes large purchases. We find it important to make sure that all projects and purchases are carried out on fair conditions and without distortion of competition.

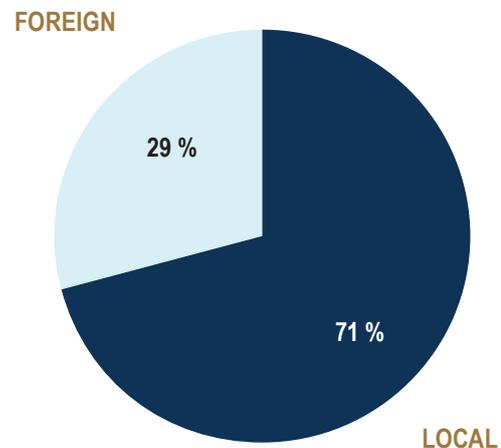
In Nukissiorfiit's CSR policy, the focus area Business Ethics is primarily about Nukissiorfiit's relations with suppliers. Business ethics related to consumers and employees are described in chapters Access to Energy and Water and The Human at the Centre.

Supplier Management and Responsible Purchasing

Nukissiorfiit makes certain demands on their suppliers. Suppliers must respect human rights and labour standards, be respectful of climate and environment, and work actively to combat corruption. For instance, when we purchase engines and generators, we demand that the supplier disposes of the old equipment in due consideration of the environment, through a certified scrap handling company. As for work clothes Nukissiorfiit has emphasized the supplier's production environment and green profile (ISO 14001 certification).

Nukissiorfiit participates in CSR Greenland's work on responsible purchasing.

Figure 8
Nukissiorfiit's purchases in 2018
divided between local and foreign suppliers



² The management team is defined as the Executive Board, district managers, district office managers and department heads at the head office.

Priority is given to local suppliers. Every time we make a purchase we consider if local suppliers can be used advantageously. In 2018, Nukissiorfiit purchased goods and services from local suppliers in the amount of DKK 417 million corresponding to 71 percent of total purchases, as shown in Figure 8.

Anti-Corruption Policy and Gift Policy

Nukissiorfiit adheres to The Government of Greenland anti-corruption policy, including the whistle-blower scheme. By extension, the purpose of Nukissiorfiit's gift policy is to safeguard the integrity of employees and to avoid abuse, illegalities, and unethical influence on our decisions as well as distorted competition. Nukissiorfiit's employees are rarely offered gifts. When it happens, the gift will either be returned or given to the staff association. All suppliers are encouraged to avoid gifting, and Nukissiorfiit avoids restaurant visits, paid by suppliers or other foreign stakeholders, that might be intended to influence Nukissiorfiit.

COMMITMENT TO THE LOCAL COMMUNITY

It is Nukissiorfiit's wish to be active in the development of the Greenlandic community. As one of few companies, Nukissiorfiit is presented at nearly all towns and settlements. This provides a unique opportunity for engagement with the local community, and enables Nukissiorfiit to:

- Improve the opportunities for recruiting local labour and inspire young people to be educated
- Provide good customer service and generally increase knowledge of supply and environmental considerations
- Cooperate with local stakeholders and suppliers
- Be at the forefront of new projects or location-specific requirements through direct dialogue with the citizens

In consequence, Nukissiorfiit took part in several events and instigated others in 2018.

For the Culture Night 2018, Nukissiorfiit arranged events at 19 towns and settlements offering everyone the opportunity to find out about Nukissiorfiit's work. This event is part of our dissemination efforts, please see page 34. In 2018, the head office developed a joint framework and material package for future Culture Night events to facilitate all parts of our organization.

Again in 2018, we participated in the business clean-up day, Saligaatsoq, and helped promote the initiative around the coast. Originally, Saligaatsoq took place at Nuuk, exclusively.

One purpose of this year's celebration of 25 years of hydroelectric power was to reach the broad population with information on the importance of hydroelectric power to the country's energy supply and economy. The anniversary was marked by lectures, exhibitions and film shows at Nuuk Local Museum, Nuutoqaq, open house at the hydroelectric plant at Utoqqarmiut Kangerluarsunnguut, celebrations in Nuuk's community centre and by information material that was made available to the entire country on Nukissiorfiit's website and Facebook page. The events met with great support and interest in the area. Nukissiorfiit will continue to emphasize similar methods of communication in the future.

As mentioned earlier, involvement of the relevant educational institutions has been important for the wind power test centre project at Sisimiut (see page 18). Nukissiorfiit held a seminar on supply for the fishing industry along with a seminar on the future digitalization of the infrastructure sector (see pages 24 and 27). The seminars were intended to strengthen cooperation and exchange experiences with the industry and other stakeholders. In addition, Nukissiorfiit's employees in cross-company ERFA groups are happy to share experience, plans and initiatives in aid of the entire society.

Since 2013, Nukissiorfiit has been a member of CSR Greenland and is represented on the Board. Nukissiorfiit is part of the environmental group and several initiatives under this cooperation.



Expectations for 2019

In 2019, the implementation of the Sector Plan for Energy and Water Supply and the strategic objectives of Nukissiorfiit continue, not least the analysis of how each area of the country can be supplied from renewable energy sources and how to generally modernize and optimize the supply. The number of modernization and optimization initiatives is already included in the construction plans for 2019.

RENEWABLE ENERGY IN SEVERAL WAYS

Nukissiorfiit will continue to work with renewable energy in more ways than one:

- Plans for establishment of *wind turbines* based on wind measurement and experience from Sisimiut will be developed.
- For *hydroelectric power*, the basis for deciding establishment and expansion of large and small power plants will be completed. The project concerning the expansion of the hydroelectric plant at Tasiilaq is expected to start in 2019, and the possibilities for expanding the hydroelectric power supply to Nuuk are being investigated. Projects for the establishment of micro-hydroelectric plants are also expected to commence.
- *Solar cells combined with battery storage*, similar to the plant at Igaliku, are expected to be established at Kangerluk.
- *Solar cells* to be mounted on Nukissiorfiit's buildings in connection with renovation and / or replacement of production facilities.
- The possibilities of using new technologies such as *heat pumps* will be investigated.

OPTIMUM UTILIZATION OF HEAT

Nukissiorfiit will continue to increase sales of heating by utilization of excess capacity from the hydroelectric plants and residual heat from power plants. Nukissiorfiit will also be attentive to the new initiatives on waste incineration in cooperation with the municipalities with regard to efficient use of waste energy. A group of customers who currently settle their account collectively is expected to have individual heat meters installed in 2019. Nukissiorfiit expects to be entrusted with the responsibility for a number of boiler plants. The legal basis for installing individual heat meters was approved in November 2017, but the project has awaited the homeowners' feedback regarding installation.

OPTIMIZED WATER SUPPLY AND POSSIBLE EXPORT

The optimization of the water supply continues. We aim at all boiling recommendations to be lifted in the course of the first 6 months of 2019. DDS is expected to be introduced in seven towns and new waterworks are expected to be put into operation in some settlements. In addition, the distribution network will be further improved, and plans are actively being made to reduce water supply by tank truck. At the same time, Nukissiorfiit awaits the result of Naalakkersuisut's tender for the export of drinking water extracted from areas at Paamiut and Nuuk. The tender expires on August 1st, 2019.

SUPPLY OF QEERTAT

In 2019, Nukissiorfiit's supply area will be expanded to include the Qeertat settlement at Qaanaaq. This was decided politically in 2017. Nukissiorfiit expects electricity supply to be in place in 2019 and water supply will be put into operation in 2020.



BUSINESS DEVELOPMENT

In 2019, special focus will be on deploying additional interruptible heat at Ilulissat and on building competence in the new Department for Sales and Market Development.

DIGITALISATION

In 2019, Nukissiorfiit will strive to transfer more processes to robots and prioritize further optimized use of the ERP system Xellent. Nukissiorfiit also expects to use the national e-learning platform for the benefit of all employees. In 2019, our ambition is to start using a new digital HR system, to standardize and facilitate recruitment, strengthen personnel administration and to make course administration more professional.

ENERGY-EFFICIENT STAFF RESIDENCES

Nukissiorfiit continues planning for the construction of a staff residence building at Nuuk. An important element of this is to determine energy-efficient solutions for the building.

JOB SATISFACTION

Employees' job satisfaction and personal development will stay an important focus in 2019. A satisfaction survey is expected to be completed in the autumn of 2019. Prior to this, a new stress policy and updated senior and flexibility policies will be implemented. This is meant to support Nukissiorfiit's image as a modern, attractive workplace with satisfied employees and high retention rates as well as provide good recruitment options.

Finances

TURNOVER

Nukissiorfiit's primary turnover is determined by quantities of electricity, water and district heating sold multiplied by product prices. Among other things, Nukissiorfiit's tariffs for electricity and heating depend on current oil prices, which may cause primary turnover to fluctuate although sales remain unchanged.

Nukissiorfiit's secondary turnover mainly comprises service contract payments, fees and other services, including service engineers and contractors etc. at Qaanaaq and Ittoqqortoormiit.

EXPENSES

Nukissiorfiit's expenses can be divided into five main groups:

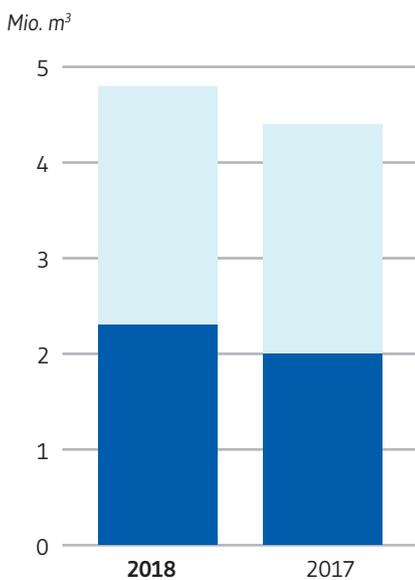
1. Cost of sales DKK 196.2 mio. (25.2 percent), mainly diesel fuel
2. Personnel costs DKK 174.9 mio. (22.5 percent)
3. Other capacity costs DKK 193.8 mio. (24.9 percent)
4. Depreciation DKK 126.9 mio. (16.3 percent)
5. Interest on Landskassen loans DKK 85.4 mio. kr. (11.0 percent).

Figure 9
Sales and turnover in 2018 and 2017 distributed on water and energy

Sales per product



WATER



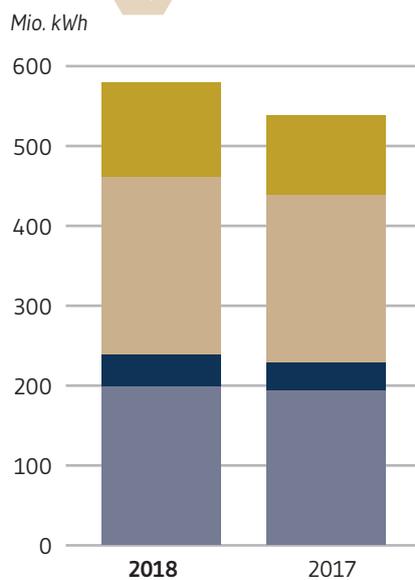
Sales per product



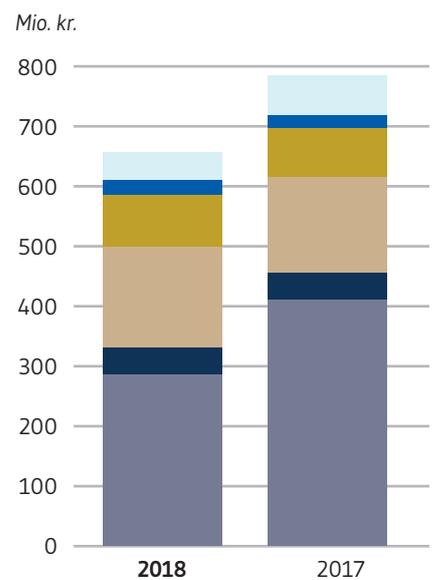
ELECTRICITY



HEATING



Turnover per product



■ Water for ordinary consumers
 ■ Water for the fishing industry
 ■ Electric heating
 ■ District heating
 ■ Electricity for the fishing industry
 ■ Electricity for ordinary consumers for lighting and power



Although hydroelectric power makes up a large share of the production of electricity and heating, diesel fuel remains the primary source of energy in 2018 at 64 locations, supplied by Nukissiorfiit. Also, diesel fuel supplements hydroelectric power at peak times. Diesel fuel's share of the total costs is expected to decline as Nukissiorfiit's production grows greener.

Nukissiorfiit consistently hires new employees on applicable collective agreement terms, and the development in personnel costs coincides with the number of employees and wage increases agreed between the Government of Greenland and the trade unions.

Depreciation reflects capital expenditures of which an increasing part of the fixed assets is investments in hydroelectric power. On long-term loans before 2016 the interest rate paid to Landskassen is 6 percent, whereas the interest rate on new loans is 3 percent. As mentioned in the section on Consequences of the Price Reform, loans with 6 percent interest rate will be gradually lowered to 3 percent. The interest rate will go down by an annual 0.22 percent until it reaches 3 percent.

RESULT AND EXPECTATIONS FOR 2018

The annual result exceeds our expectations at the beginning of the year. Sale of heating has been higher than expected. This larger sale is a result of lower degrees during the year than goes for a normal year which was the basis for the budget. On the other hand, capacity costs were larger than expected. Research into an expansion of Qorlortorsuaq hydroelectric plant should be mentioned as being recognised in the income statement, along with increased expenses for repair and maintenance. Additionally, the write-down of assets as of January 1st, 2018, benefitted the annual depreciation beyond expectation.

BALANCE SHEET

The value of Nukissiorfiit's assets amounts to almost DKK 2.9 billion and consists mainly of production facilities, inventories, accounts receivable and cash equivalents. Nukissiorfiit's equity is DKK 1.4 billion. Long- and short-term debt to Landskassen amounts to DKK 1.5 billion. Furthermore, the foreign funding consists of salaries/wages due and debt to suppliers – a total of DKK 100.3 million.

PLANT PRODUCTION IN 2018

Nukissiorfiit focuses on increasing the number of construction projects carried out as planned. Postponement to subsequent years is industry-specific, as a consequence of, say, increased contractor activity, significantly higher building costs, insufficient internal and external resources, postponement of coordinated municipal projects, etc. During 2018, approx. 1/3 of all planned capital expenditure has been postponed. Such postponement is viewed as conventional.

Stakeholders

CONSUMERS

Currently, Nukissiorfiit has around 20,000 consumers, 20,000 of which buy electricity, 8,400 water and 3,700 district heating. A total of almost 14,000 consumers use the bankers' payment service.

In recent years, Nukissiorfiit's total accounts receivable and losses at the end of the year have developed as follows:

Outstanding balance and losses DKK million	2018	2017	2016
Accounts receivable (debtors) ³	129.6	149.5	143.5
Realised bad debts	2.1	1.4	1.9

Losses typically occur in connection with business bankruptcies, decedent estates and emigrations.

Nukissiorfiit designs its plants according to customer's needs, defined by the expected local demand from private households and the business community, including the fishing industry, whose demands are often decisive for the size of the plants. In general, there is a positive correlation between unit costs and demand, economies of scale. More often than not, society benefits from the great demands of the fishing industry, even if they result in larger plants.

EMPLOYEES

Nukissiorfiit employs 388 full-time equivalents of which 329 are paid by the month and 59 by the hour. In 2018, 27 people left Nukissiorfiit, and 49 was recruited, 3 of whom moved to Greenland to start the employment. This means that there were 22 more employees in Nukissiorfiit in 2018, but only equivalent to 14 full-time employees, as some are part-time employees, and others have only been employed part of the year. 4 of the new employees were aged under 30, and 3 over 50 years.

SUPPLIERS

In 2018, the value of Nukissiorfiit's purchases totals DKK 572 million against DKK 480 million in 2017, distributed among Greenlandic as well as foreign suppliers, as purchases cover ongoing consumption and investment. The goal is to purchase larger volumes from few suppliers to increase competition and obtain more favourable prices for Nukissiorfiit. In 2018, diesel fuel accounted for 31 percent of the total purchase corresponding to DKK 176.4 million.

OWNERSHIP

Nukissiorfiit is an autonomous company under the Ministry of Industry, Energy and Research, headed by Minister Mr. Jess Svane. The economy of an autonomous company is required to balance and Nukissiorfiit is ultimately owned by society and consumers.

The 1997 Regulation of The Greenlandic Parliament on energy supply and the 2007 equivalent on water supply set the framework for Nukissiorfiit's business as primary supplier of electricity, water and district heating in Greenland. As prices and terms of delivery are approved by The Government of Greenland, Nukissiorfiit is obliged to operate as an independent business within this scope taking account of the socioeconomic conditions and focusing on green and customer-efficient solutions.

³ Mainly invoices undue for payment on balance sheet date, (per December 31st, 2018), not reflecting special or abnormal risk.

Pages Trends Alarms File Tools

10 T2 10 T3 Testklar Def

CAN CAN
Gen 2 Gen 3

Generator 1

Antal alarmer: 1 stk
Spænding L1-L2: 401 V
Strøm L1: 0 A
Frekvens L1: 50,0 Hz
Cos phi: -0,00 Cos P.
Effekt: 0 kW
Næste service: 35931 timer
Timer til næste service: 455 timer

Prioritet 2
Semi Auto

1508 Omdr.
Omdrejningsp. 0-2000

Kølevands temperatur: 43 °C
Smøresolie tryk: 6,6 bar
Driftstimer: 35476 timer
kWh total: 356492 kWh

Betjening Generator 1
 Semi Auto
 Auto
 Stop
 Stop
 GB ind
 GB ud

Generator 2

Antal alarmer: 1 stk
Spænding L1-L2: 400 V
Strøm L1: 76 A
Frekvens L1: 50,0 Hz
Cos phi: 0,96 Cos P.
Effekt: 50 kW
Næste service: 3012 timer
Timer til næste service: 499 timer

Prioritet 3
Semi Auto

1501 Omdr.
Omdrejningsp. 0-2000

Kølevands temperatur: 44 °C
Smøresolie tryk: 6,3 bar
Driftstimer: 2713 timer
kWh total: 25331 kWh

Betjening Generator 2
 Semi Auto
 Auto
 Stop
 Stop
 GB ind
 GB ud

Generator 3

Antal alarmer: 3 stk
Spænding L1-L2: 400 V
Strøm L1: 78 A
Frekvens L1: 50,0 Hz
Cos phi: 0,98 Cos P.
Effekt: 52 kW
Næste service: 2980 timer
Timer til næste service: 449 timer

Prioritet
Semi Auto

1500 Omdr.
Omdrejningsp. 0-2000

Kølevands temperatur: 73 °C
Smøresolie tryk: 5,0 bar
Driftstimer: 25331 timer
kWh total: 25331 kWh

Betjening Generator 3
 Semi Auto
 Auto
 Stop
 Stop
 GB ind
 GB ud

Generator 1 køber
Spænding/frekvens ok
Generator bryder ud
Generator bryder ind
Generator bryder klar
Generator bryder stop

Generator 2 køber
Spænding/frekvens ok
Generator bryder ud
Generator bryder ind
Generator bryder klar
Generator bryder stop

Generator 3 køber
Spænding/frekvens ok
Generator bryder ud
Generator bryder ind
Generator bryder klar
Generator bryder stop

Afgang 1 Afgang 6 Afgang 7

Spænding skimme 50,0 Hz
Spænding skimme 500,0 V

Gen 1 AGC
Generator 1
Gen 3 AGC



Risk Management

SECURITY OF SUPPLY

Security of supply is Nukissiorfiit's top priority at all time as any breakdown in production will affect the involved settlements financially and will, in the worst case, necessitate evacuation of population, depending on the season. Therefore, backup and spare capacity at individual towns and settlements are balanced to fit the individual population and the ability to have emergency systems navigated or flown to the location. In order to counter future breakdowns, Nukissiorfiit continues to improve the existing infrastructure, both in the form of increased monitoring, improved control, modernisation, redundancy in the distribution network and storage of critical components.

EMPLOYEES

To attract and keep well-educated employees on public salaries is a major challenge for Nukissiorfiit. We are focused on getting locally anchored staff to occupy all positions in the organization, as described in the section on The Human at the Centre, page 35-38.

OIL PRICE AND CURRENCY

Nukissiorfiit's purchase of diesel oil is settled in DKK, and fluctuations in oil prices cause our costs to match the oil price. In addition, there is a natural connection to our pricing. The latter, however, is politically determined, and time lag between them can occur as well as individual deviations from said principle.

SELLING PRICES

Nukissiorfiit's prices as well as sales and delivery terms are approved by the Government of Greenland, and therefore primarily reflect political choices and, secondarily, the underlying production costs at individual towns and settlements. The new single price system means that all ordinary consumers pay the same tariff for electricity, water and heating. The fishing industry still pays 41.5 percent of local unit costs, but no more than DKK 1.60 per kWh electricity and DKK 19.00 per cubic meter water, which is the going rate for these products.

SUPPLIERS

In Greenland Nukissiorfiit is characterized as a large company. Several of our foreign suppliers, however, count us among the minor financial customers. Practically, this means that we are often unable to achieve the most advantageous terms of delivery and pricing. It also means that we could be dependent on partners with experience in arctic conditions. Similarly, many towns and settlements have few suppliers, entailing construction and deriving product prices to be even more expensive. In general, we endeavour to increase our impact with few qualified suppliers and to support the development of a base of local suppliers of competence and competitiveness. Extended delivery times necessitate an inventory of critical components. In addition, several places in the country have time limits for navigation. This calls for extra planning and management as well as follow-up on product flow for both spare parts and construction projects.

INTEREST RATE RISK

On long-term loans before 2016 the interest rate paid to Landskassen is 6 percent, whereas the interest rate on new loans is 3 percent. As mentioned in the section on Consequences of the Single Price Reform, loans repaid at 6 percent are gradually reduced to 3 percent. This is done with an annual reduced interest rate of 0.22 percent until the interest rate is 3 percent. Based on this interest rate costs are expected to decline over time. Since Nukissiorfiit has loan agreements with the Government in Greenland, there is currently no risk of direct market interest rate effects on Nukissiorfiit.

CLIMATE CHANGES

Changes in the rainfall pattern represent a very specific threat to Nukissiorfiit, as the hydroelectric plants and the supply of drinking water depend on rainfall. Today, drought is a challenge in many parts of the world. If we are forced to supplement or fully replace our hydroelectric plants with oil-fired electricity and heating, our result will be severely strained. Moreover, new drinking water lakes will have to be linked to the existing water supply network through new investment. So far, however, climate changes have caused increased melting to



some of the country's lakes which supply the hydroelectric plants. Therefore, larger amounts than assumed can be collected at Paakitsoq. Nukissiorfiit forecasts climate change in cooperation with Asiaq (Greenland Survey) and DTU, assessing melting and rainfall volumes to existing and future hydroelectric plants.

IT-SECURITY

In 2017, significant focus was directed at optimizing IT security. In 2018, Nukissiorfiit has carried out a security and vulnerability analysis of the company. Follow-up on access to IT system and supply control systems has taken place. Targeted efforts are made to implement support systems for the monitoring of IT connections, including the Control, Regulatory and Monitoring Systems at the production stage (SRO systems). This includes backup systems needed to keep our data safe. IT contingency plans have been worked out, and our servers have been recalled. Also, for reasons of safety, physical access to our production facilities and other buildings will be limited. Further, we seek to optimize the use of the document management system NukiDoc and the ERP system Xellent.

Remarks to The Annual Accounts

The ordinary result for the year was a profit of DKK 4.6 million against a profit of DKK 0.8 million in 2017 after operating grants. Without operating grants, the result in 2017 was a loss of DKK 12.9 million.

The turnover amounted to DKK 782 million in 2018 against DKK 836 million in 2017. The net decrease is thus DKK 54 million, which can primarily be attributed to the consequences of the single price reform.

The price reduction from the single price reform on electricity and water consumption was a total of DKK 153 million. At the same time, Nukissiorfiit has entered into a service contract of DKK 72.3 million, which reduces the revenue loss considerably. Consumption has also increased, corresponding to DKK 15.8 million. However, the higher sales have mainly occurred in Nuuk, where there has been no special price reduction. Nukissiorfiit's analysis has concluded that the price reduction has had no significant sales effect.

Heat sales increased by just over 7 percent, corresponding to DKK 23 million kWh compared to year 2017. The price was reduced by approx. 9 percent on September 1st, 2018, but net sales of DKK 13.2 million more heat in 2018 than the year before. This is because 2018 has been a cold year compared to 2017 and the nearest previous years, which has resulted in higher sales.

Finally, there has been slightly increased income from internal sales of primary electricity for frost protection of water pipelines, but correspondingly slightly reduced various income and reimbursements as well as subsidies for street lighting.

The above-mentioned service contract constitutes the bulk of the secondary turnover and is provided through a reduction in subsidies to public authority, including municipalities and other companies owned by The Government of Greenland, which together have experienced a saving on the cost of electricity and water corresponding to this amount. This service contract represents mainly other net turnover. Further, under secondary turnover, it is mainly revenues from plug-in connections that have not reached the 2017 level. DKK 2.5 million has been realized on this item less income in 2018 than 2017.

Cost of goods sold, mainly comprising gas oil for production of electricity and heating, has increased by DKK 9.9 million in 2018 compared to 2017. In 2018, the cost of gas oil was DKK 176 million against 186 million in 2017. The oil price in 2018 was 7.5 percent lower than the year before. This means that between the two years there has been a saving due to the price drop of approx. DKK 14 million and a slightly higher oil consumption, which has led to approx. DKK 4 mil-

lion in extra cost. The explanation for the fact that no more oil has been used despite a somewhat higher sales of heat and electricity is found in the fact that it is predominantly in the hydroelectric power towns that have been sold more.

Salary and personnel costs advanced by DKK 12.8 million in 2018 compared with 2017, corresponding to 7.9 percent, with a decrease of 4.5 percent in the previous year. Salary costs have advanced by DKK 7.6 million, corresponding to 5 percent. The increase is mainly caused by the fact that the number of employees has increased by 14 full-time employees from 2017 to 2018, and that other staff costs have increased by DKK 5.2 million. Course activities in 2018 cost DKK 2.4 million more than the year before. For workwear, 1.7 million are used more in 2018 than the year before, due to a change to a new type of workwear. Recruitment costs have also been slightly higher than the year before, total DKK 0.4 million.

Other capacity costs, including insurance and operation of plants and buildings, amounted to DKK 193.8 million in 2018 against DKK 147.7 million in 2017, an increase of DKK 46.1 million corresponding to 31.2 percent. The reason for the increase in other capacity costs is, among other things, that DKK 5 million has been used for demolition of the old power plant in Nuuk, that the vehicle operation has cost DKK 2 million more than the year before as a result of more and more expensive repairs and expenses for the rental of vehicles. To this must be mentioned that wind turbine experiments in Sisimiut are operational with DKK 4.4 million. In addition, there has generally been a higher level of repair and maintenance of production equipment of DKK 13.7 million more than in 2017. The distribution network has been repaired for DKK 4.7 million more than the year before, and the IT equipment has generated additional costs for just under DKK 5 million among other things, replacement and upgrading of IT hardware. Preliminary studies of possible expansion of Qorlortorsuaq Hydroelectric Plant have also been commissioned with DKK 18.3 million, since the feasibility studies clarified some difficult construction conditions for the project, which means that the project is reconsidered.

In 2018, repair and maintenance accounted for 38 percent against 36 percent in 2017 of other capacity costs, administration for 20 percent against 24 percent in 2017 and insurance for 8 percent against 10 percent in 2017. To this must be added legal costs associated with lawyers and auditor's services as well as meters etc.

Depreciation and amortisation amounted to DKK 127.0 million in 2018, which is a decrease of DKK 115 million corresponding to almost halving compared to 2017. The decrease is primarily due to im-

pairment of fixed assets at January 1st, 2018 according to the impairment test carried out after the single price reform. The impairment test resulted in a write-down of DKK 1.6 billion of assets on sites that were not profitable with the new reduced tariffs. The write-down is recorded in equity and has had a depreciation-reducing effect in 2018 of approx. DKK 106 million.

The interest expense in 2018 was DKK 85.4 million, which is a decrease of DKK 7.5 million compared with 2017, corresponding to a decline of 8 percent. The decrease caused by repayments on old loans at a higher interest rate than new loans and interest rate reductions on old loans.

In 2018, debtors accounted for DKK 129.6 million, representing an increase of DKK 19.9 million compared with 2017 corresponding to a decline of 13.3 percent. The decline is due to a lower turnover in 2018

than in 2017 (7 percent) in consequence of the reduced prices. Receivables not due on the status day have risen to DKK 22.9 million in 2018 from DKK 12.7 million in 2017. The increase is with some large consumers, where the ability to pay is considered intact.

At the end of 2018, bank deposits were DKK 8.6 million against DKK 15.1 million in 2017. The credit facility was positive in 2018 by DKK 24.8 million against DKK 25.6 million in 2017. Total liquidity thus decreased by DKK 7.3 million.

The total balance amounted to DKK 3.0 billion at the end of 2018 against DKK 4.6 billion in the previous year. Net debts to Landskassen amounted to DKK 1.5 billion as in 2017, and equity DKK 1.4 billion against DKK 3.0 billion in the end of 2017. The write-down of fixed assets over equity, as discussed above, is the reason for the reduced equity.



Heating plant
at Qaqortoq



Applied Accounting Policies

The annual accounts have been prepared in accordance with Greenlandic Parliament Regulation No. 24 of December 22nd, 2017, on the financial reporting for autonomous companies under the Government of Greenland. Thus, accounting policies have changed compared to previous years. Being a public utility company, subject to political price regulations, the new regulation requires Nukissiorfiit to account according to the Danish Financial Statements Act, including the provisions for accounting class C companies.

CSR REPORTING

The transition to the Danish Financial Statements Act provisions has entailed extended reporting on cooperate social responsibility, also known as CSR.

ASSETS AT THE TRANSITION TO A NEW PRICE REFORM – CHANGED ACCOUNTING POLICIES

Demands regarding valuation of assets are stricter under the Danish Financial Statements Act than under "The Regulation of the Greenlandic Parliament No. 25 of November 26th, 1998, on the financial management of autonomous companies, etc." As for valuation of fixed assets, the company's accounting policies have been changed. In consequence, Nukissiorfiit has carried out a valuation test of the individual plant groups per site. This coincides with the plants' earning capacity being reduced as a result of the price reductions in the single price reform, please see the section on the price reform, page 30-31. This change in accounting policies impacts mainly on the financial statements, the change resulting in impaired fixed assets by DKK 1.6 billion and reduced depreciation by DKK 106 million. Please see below Regulations of future practices.

ASSETS AFTER JANUARY 1ST,2018

Another change in accounting policies resulting from appliance of the provisions of the Danish Financial Statements Act is capital investments now being capitalized in the month in which the asset is put into use, and depreciation commences immediately thereafter. So far, fixed assets have been capitalized at year-end and depreciation commenced at the beginning of subsequent years. Please see section on page 52 on tangible and intangible assets.

REGULATIONS

An annual result exceeding +/- 2.5 percent of net revenue gives rise to impairment testing of all of the company's construction groups as per location and per product segment, to identify plants calling for regulation. The calculations include all costs and total turnover. Corrections are only made for structural changes and special events of impermanent character.

Basis for calculation of adjustments is "The Regulation of the Greenlandic Parliament No. 22 of 22nd December 2017 on the determination of prices for electricity, water and collective heating etc.", Chapters 3 to 7 on calculation of Nukissiorfiit's unit costs and distribution accounts. The unit cost is calculated as a weighted average of the costs of the previous 3 years.

Unit costs per plant and product segment are compared with the plant's ability to generate revenue based on the current weighted average tariffs. The weighted average rates are corrected for any structural change such as service contract payment which is recognized as a tariff increase.

All profit-making plants are considered as cross-subsidies to loss-making plants. An average of the past 3 years is applied, in congruence with the above-mentioned unit cost method.

This method produces a segmented account based on locations, revealing profits/losses based on the current annual accounts together with the accounts for the two previous years. Please see the enclosed Absorption costing (Appendix).

If profit-making and loss-making activities balance over 3 years, i.e. the annual result is within +/- 2.5 percent of the average net turnover for the past 3 years, no impairment test or adjustment of the fixed assets is made.

This ensures focus on the company's fixed assets as opposed to structural earnings capacity and structural cost level.

WRITE-DOWNS

Deficits exceeding the above will cause a new write-down of fixed assets at loss-making sites and will have an impact on earnings.

REVALUATIONS

Profits exceeding the above-mentioned profit margin will result in writing up to cost price of assets that were adjusted by the valuation test at the beginning of 2018, and now show indication of a higher value than the book value. The appreciation is made as long as the depreciation effect does not result in a total loss and as long as it does not exceed the downward adjustment at the beginning of 2018.

Revaluations and reversals of previously depreciated capital investments will be made as adjustments to write-downs without effect on the profit and loss account.

RECOGNITION AND MEASUREMENT IN GENERAL

Income is recognized in the income statement as and when earned. Furthermore, costs incurred to achieve the year's earnings are recognized, including depreciation and write-downs and reversals caused by changed accounting estimates of amounts previously recognized in the income statement in accordance with the current rules.

Assets are recognized in the balance sheet when future inflow of economic benefits becomes likely and the value of the asset can be measured reliably.

Commitments are recognized in the balance sheet when future outflow of economic benefits becomes likely and the value of the liability can be measured reliably.

At initial recognition, assets and liabilities are measured at cost price. Subsequently, assets and liabilities are measured as described under each item below.

Upon recognition and measurement, predictable losses and risks, arising prior to the presentation of the annual report and statements, confirming or cancelling conditions effective on the balance sheet date, are taken to account.

The carrying value of intangible assets and tangible fixed assets is reviewed annually to detect any indication of impairment beyond regular depreciation. If any, it is written down at the lower recoverable value.

NET TURNOVER

Revenue comprises primary revenue, which consists of sales invoiced to customers, as well as secondary revenue, which consists of service contract payments, fees and other revenue.

EXTRAORDINARY ITEMS

Extraordinary items comprise income and expenses arising from events outside the normal scope of business. Consequently, they are not expected to recur.

TANGIBLE FIXED ASSETS AND INTANGIBLE ASSETS

In main principle, plants will be activated the same month they are put into use, after which the depreciation commences.

Test plants which are not profitable at the time of the fixed asset investment are charged to the profit and loss account.

As for rolling stock and equipment, depreciation takes effect in the month following acquisition.

Buildings and machinery are still depreciated according to expected life span.

As a rule, IT acquisitions will be written off immediately unless they form part of a large collective project with a multi-annual life expectancy, will be included under intangible fixed assets.

Linear depreciation is conducted, based on the following assessment of expected-useful life:

Buildings and facilities, distribution network included	5-80 years
Vehicles and machinery	4-10 years
IT -projects and ERP- software	3-5 years

Assets costing less than DKK 50,000 per unit are fully expensed in the acquisition year.

INVENTORIES

Inventories are valued at average cost formula plus delivery costs, excluding stocks of fuel oil. Stocks of fuel oil are valued at cost. Write-downs are made at net realizable value, when it is below the purchase price.

Fuel oil and spare parts are included in the inventory value, please see note to inventory.

TRADE RECEIVABLES

Trade receivables are valued at nominal with adjustments for on-account payments by deduction of provision for bad debts. Provision for bad debts is calculated on basis of assessment of the individual receivables.

CASH FLOW STATEMENT

The cash flow statement is presented according to the indirect method and shows cash flows from activities of operating, investing and financing, as well as cash and cash equivalents at the beginning and the end of the financial year.

Cash flows deriving from operating activities are calculated as operating profit adjusted for non-cash operating items, working capital changes and non-recognized operating grants from the Government of Greenland.

Cash flows from investing activities comprise payments in connection with purchase and sale of intangible assets and fixed asset investments.

Cash flows from financing activities include loans, repayment of interest-bearing debt and credit facility changes with the Government of Greenland.

Cash and cash equivalents comprise bank deposits and cash holdings.

FINANCIAL RATIO

Key ratios are prepared in accordance with the Danish Financial Supervisory Authority's Guide "Recommendation and Key Ratio". Reference is made to the summary of principal and key figures regarding the formula for calculating the individual ratios.

Key Ratio Formulas

Return on capital employed: $\frac{\text{Operating profit}}{\text{average balance sheet total}}$

Equity ratio: $\frac{\text{Equity}}{\text{percent of the balance sheet total}}$



Income Statement

	(DKK 1,000)	2018	2017
Net Turnover			
	Sales of electricity	433,897	547,937
	Sales of water	71,372	88,975
	Sales of heat	168,379	160,068
	Sales of residual heat	317	430
	Other net turnover	107,936	38,716
	Net Turnover total	781,901	836,126
	Cost of goods sold	(196,159)	(204,457)
	Contribution Margin	585,742	631,669
Capacity Cost			
1	Staff cost	(174,927)	(162,076)
	Other capacity cost	(193,842)	(147,674)
	Capacity cost total	(368,769)	(309,750)
	Earnings before interest an depreciation	216,973	321,919
	Depreciations and write-downs on assets	(126,987)	(241,944)
	Ernings before interest etc.	89,986	79,975
Interest			
	Interest expense of debt on plants	(85,308)	(93,038)
2	Other interest, net	(87)	173
	Interest total	(85,395)	(92,865)
	Surplus before extraordinary items	4,591	(12,890)
3	Extraordinary items, net	0	0
	Net profit or loss for the year	4,591	(12,890)
	Retained earnings	4,591	(12,890)

Balance Sheet

Assets

	(DKK 1,000)	2018	2017
Fixed assets			
Intangible fixed assets			
4	Software	1,451	16,025
5	Software under development	0	0
	Intangible fixed assets total	1,451	16,025
Tangible fixed assets			
6	Property and plants	2,681,542	4,214,121
7	Plant under construction	69,998	88,733
8	Transportation and tools and equipment	21,761	17,649
	Tangible fixed assets total	2,773,301	4,320,503
	Fixed assets total	2,774,752	4,336,528
Current assets			
Inventories			
9	Stocks	83,297	75,752
	Inventories total	83,297	75,752
Receivable			
10	Trade receivables	129,606	149,493
	Trade receivables from Landskassen	24,766	25,553
11	Other debtors	324	584
	Prepayments	0	0
	Account receivables total	154,696	175,630
Cash and cash equivalents			
	Liquidity	8,603	15,086
	Current assets total	246,596	266,468
	Assets total	3,021,348	4,602,996

Balance Sheet

Equity and liabilities

	(DKK 1,000)	2018	2017
Equity			
	Regular capital contribution	37,160	37,160
12	Adjustment fixed assets	905,940	2,530,974
13	Retained earnings	433,084	428,494
	Equity total	1,376,184	2,996,628
Liabilities			
Long-term liabilities			
14	Long-term debt	1,479,960	1,466,439
	Long-term liabilities total	1,479,960	1,466,439
Short-term debt			
14	Current maturities of long-term debt	64,880	60,480
	Other payables to Landskassen	0	0
	Payable holiday pay and wages	20,246	21,182
	Other payables	58,288	43,616
	Other payables	21,790	14,651
	Deferred income	0	0
	Equity and Liabilities Total	165,204	139,929
	Equity and Liabilities Total	3,021,348	4,602,996
15	Contingent liability and contractual obligations		

Cash Flow Statement

	(DKK 1,000)	2018	2017
	Net profit for the year	4,591	(12,890)
	Depreciation and write-downs of fixed assets	126,987	241,944
	Change in working capital	33,475	1,635
16	Net grant for the year	0	13,712
	Cash flow from operating activities	165,053	244,401
	Purchase of fixed assets	(190,466)	(141,517)
	Sale of fixed assets	222	233
	Cash flow from investing activities	(190,244)	(141,284)
16	Long-term debt	78,400	60,000
16	Principal payments of long-term debt	(60,479)	(129,821)
16	Principal payments of long-term debt	787	(54,851)
	Cash flow from investing activities	18,708	(124,672)
	Nets change in cash and cash equivalents	(6,483)	(21,555)
	Cash and cash equivalents January 1 st	15,086	36,641
	Cash and cash equivalent December 31th	8,603	15,086
	Cash and cash equivalents includes:		
	Cash balance	1	1
	Deposit with bank	8,602	15,085
	Cash and cash equivalents total	8,603	15,086

Notes

(DKK 1,000)

2018

2017

1 Staff Cost

Nukissiorfiit has no obligations for ongoing pension payments.

Staff costs can be specified as follows:

Salaries and wages	161,811	155,448
Other staff cost	17,483	12,154
Self-constructed plant	(4,367)	(5,526)
Staff Cost total	174,927	162,076

Total salary to the Executive Board, including pension, etc.	1,209	1,061
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In 2018, Nukissiorfiit employed monthly and hourly wages, equivalent to 388 full-time employees (full-time equivalents) versus 374 in 2017.

2 Other interest rates, net

Interest income from bank balances	0	0
Interest expenses from Landskassen balances	0	420
Interest expenses from bank balances	(32)	(181)
Various interest expenses	(55)	(66)
Other interest total	(87)	173

3 Extraordinary items, net

There have not been extraordinary items in 2018 and 2017.

In 2016 there was cost of DKK 2.3 million.

Extraordinary income	0	0
Extraordinary expenses	0	0
Extraordinary items total	0	0

(DKK 1,000)	2018	2017
4 Intangible assets		
Acquisition cost		
At the beginning of the year	44,317	39,723
Correction to the beginning of the year	0	(550)
Addition during the year	0	5,144
Disposals during the year	0	0
Acquisition at the end of the year	44,317	44,317
Depreciation and amortisation		
Depreciation at the beginning of the year	(28,291)	(15,591)
Depreciation during the year	(14,575)	(12,701)
Reversed depreciation and amortisation on disposals of the year	0	0
Depreciation and amortisation at the end of the year	(42,866)	(28,292)
Book value per December 31st	1,451	16,025

5 Development of intangible assets

The annual addition of DKK 0 contains own production at DKK 0.

In 2017, own production amounted to DKK 3.2 million of the total addition.

Acquisition cost		
At the beginning of the year	0	1,950
Addition during the year	0	3,194
Finished plants	0	(5,144)
Book value per December 31st	0	0

Notes

(DKK 1,000)	2018	2017
6 Property and plants		
Acquisition cost		
At the beginning of the year	7,073,059	7,044,428
Correction to the beginning of the year	0	(1,908)
Addition during the year	199,684	82,273
Disposals during the year	(15,401)	(51,735)
Acquisition cost at the end of the year	7,257,342	7,073,058
Depreciation and amortisation		
Depreciation at the beginning of the year	(2,858,937)	(2,685,228)
Depreciation, correction to the beginning of the year	(1,625,034)	0
Depreciation for the year	(106,103)	(216,832)
Reversed depreciation and amortisation on disposals of the year	14,274	43,123
Depreciation and amortisation at the end of the year	(4,575,800)	(2,858,937)
Book value per December 31st	2,681,542	4,214,121

7 Plant under construction

The annual addition of DKK 207.5 million contains own production at DKK 4.4 million.
In 2017 own production amounted DKK 3.5 million of the total addition at DKK 144 million.

Acquisition cost		
At the beginning of the year	88,733	37,619
Correction to the beginning of the year	0	(34)
Addition during the year	207,475	143,979
Completed plants	(199,684)	(81,530)
Completed plant taken to the profit and loss account	(26,526)	(11,301)
Book value per December 31st	69,998	88,733

(DKK 1,000) 2018 2017

8 Means of transportation and tools and equipment

Acquisition cost

At the beginning of the year	76,526	71,487
Correction to the beginning of the year	0	0
Addition during the year	9,517	7,393
Disposals during the year	(3,348)	(2,354)
Acquisition at the end of the year	82,695	76,526

Depreciation and amortisation

Depreciation at the beginning of the year	(58,877)	(57,201)
Depreciation during the year	(5,405)	(4,030)
Reversed depreciation and amortisation on disposals of the year	3,348	2,354
Depreciation and amortisation at the end of the year	(60,934)	(58,877)

Book value per December 31st	21,761	17,649
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9 Inventories

Fuel oil	26,987	26,999
Lubrication oil	4,030	4,025
Spare parts and supplies	52,280	44,728
Total	83,297	75,752

10 Receivables from sales and services

The gross amount of DKK 156.3 million has been regulated by DKK 7.0 million to cover losses on doubtful debtors. At the end of 2017, the corresponding regulation amounted DKK 6.9 million. The regulation has been deducted from debtors with the oldest balances.

Age distribution (DKK 1,000)

0-30 days	106,648	136,795
30 days - ½ year	14,780	5,708
½ - 1 year	3,534	2,867
Older	4,644	4,123
Total	129,606	149,493

11 Other debtors

The item "Other receivables" primarily consists of paid deposits.

Notes

(DKK 1,000)	2018	2017
12 Adjustment of production plants values		
1998	1,831,067	1,831,067
2004	742,294	742,294
2005	(36,438)	(36,438)
2006	7,851	7,851
2007	(14,594)	(14,594)
2008	4,682	4,682
2009	2,882	2,882
2011	(6,770)	(6,770)
2018	(1,625,034)	0
Total	905,940	2,530,974

13 Retained earnings		
Retained earnings from previous year	428,493	427,672
Retained earnings in the year	4,591	(12,890)
Grants from Landskassen		
Grants and subsidies for the year	0	0
Grant for the year net	0	13,712
Total	433,084	428,494

14 Long-term debt, due after 5 years	
Long-term debt due after 5 years, amounts to DKK 1,230 million. In 2017 long-term debt amounted to DKK 1,251 million.	

15 Contingent liability/receivables and contractual obligations
Obligations connected with household removals of staff on resignation have not been calculated.

Material contractual obligations:

Material contractual obligations are ongoing regarding construction projects financed under the Finance Act, or self-financed construction projects authorized by the Government of Greenland.



(DKK 1,000)

2018

2017

16	Payment to and from Landskassen		
Payment to Landskassen from Nukissiorfiit			
	Principal payments of long-term debt	60,479	129,821
	Interest on loans to production plants	85,308	93,038
	Interest on credit facility	0	(420)
	Positive DAU-effect on Landskassen	145,787	222,439
	Changes in balance of credit facility	0	54,851
	Positive effect on cash flow on Landskassen	145,787	277,290
Payment from Landskassen to Nukissiorfiit			
	Net appropriation for the year	(72,730)	(13,712)
	Appropriation for construction projects	0	0
	Long-term borrowing	(78,400)	(60,000)
	Landskassen share of streetlight	(4,258)	(5,616)
	Negative DAU-effect on Landskassen	(155,388)	(79,328)
	Changes in balance of credit facility	(787)	0
	Negative effect on cash flow on Landskassen	(156,175)	(79,328)
	Nukissiorfiit's net DAU-effect on Landskassen	(9,601)	143,111
	Nukissiorfiit's net effect on cash flow on Landskassen	(10,388)	197,962
Operating profit calculated according to Landskassen principles			
	Results according to income statement	4,591	(12,890)
	Regulation regarding cash generated acquisitions	(112,066)	(80,815)
	Regulation regarding difference between depreciation and repayment of construction loans	65,604	103,742
	Results according to Landskassen principles	(41,871)	10,037
	Net appropriation for the year	0	13,712
	Less or additional consumption for the year	(41,871)	23,749
	Allocation at the end of the year	22,721	64,592

Notes

(DKK 1,000)

17 Result per site and segment for electricity, water and heating calculated per town/settlement

TOWN/SETTLEMENT	Profit				Deficit			
	ELECTRICITY	WATER	HEATING	TOTAL	ELECTRICITY	WATER	HEATING	TOTAL
Nuuk	103,854	6,245	24,233	134,332				
Narsaq	4,666	-238	-74	4,354				
Tasiilaq	1,053	-241	5	818				
Naajaat	100	0	0	100				
Moriusaq	0	0	0	0				
Qorlortorsuaq	-7	0	0	-7				
Illorsuit	-17	0	0	-17				
Nuugaatsiaq	-68	0	0	-68				
Maniitsoq	-5,618	1,800	3,656	-161				
Qeqertat	-236	37	0	-199				
Savissivik	-342	-57	0	-399				
Tiilerilaaq	-507	42	0	-465				
Kangerluk	-508	-30	0	-538				
Igaliku	-355	-191	0	-546				
Nutaarmiut	-554	0	0	-554				
Isertoq	-580	6	0	-573				
Akunnaaq	-338	-272	0	-610				
Sermiligaaq	-649	1	0	-648				
Qassimiut	-613	-55	0	-668				
Itilleq	-592	-80	0	-672				
Saarloq	-608	-115	0	-723				
Iginniarfik	-513	-234	0	-747				
Niaqornat	-639	-114	0	-753				
Ukkusissat	-581	-208	0	-789				
Ikamiut	-615	-176	0	-791				
Kapisillit	-689	-125	0	-814				
Aappilattoq	-747	-94	0	-841				
Narsarmijit	-775	-112	0	-887				
Kitsissuarsuit	-796	-105	0	-901				
Siorapaluk	-569	-363	0	-932				
Nuussuaq	-810	-165	0	-976				
Kulusuk	-922	-57	0	-979				
Tasiusaq	-647	-359	0	-1,006				
Qassiarsuk	-887	-121	0	-1,008				
Oqaatsut	-786	-268	0	-1,054				
Saqqaq	-813	-247	0	-1,060				
Ikerasaarsuk	-953	-113	0	-1,067				



(DKK 1,000)

(continued)

TOWN/SETTLEMENT	ELECTRICITY	WATER	HEATING	TOTAL
Eqalugaarsuit	-777	-297	0	-1,074
Paamiut	-3,452	-556	2,934	-1,075
Ilimanaq	-1,006	-73	0	-1,079
Innaarsuit	-1,044	-103	0	-1,147
Qeqertaq	-794	-369	0	-1,163
Attu	-915	-274	0	-1,189
Ikerasak	-1,025	-210	0	-1,235
Qeqertarsuatsiaat	-1,417	12	132	-1,273
Kangersuatsiaq	-1,203	-93	0	-1,296
Napasoq	-883	-497	0	-1,380
Ammassivik	-1,045	-349	0	-1,394
Kuummiut	-1,263	-151	0	-1,413
Qaarsut	-1,355	-90	0	-1,446
Aappilattoq	-1,413	-74	0	-1,487
Arsuk	-1,343	-172	0	-1,515
Saattut	-1,274	-300	0	-1,574
Atammik	-1,399	-385	0	-1,784
Upernavik Kujalleq	-1,578	-218	0	-1,797
Kullorsuaq	-1,000	-854	0	-1,854
Sarfannuguit	-1,602	-263	0	-1,865
Tasiusaq	-1,424	-493	0	-1,917
Niaqornaarsuk	-1,482	-581	0	-2,063
Kangaamiut	-1,891	-366	0	-2,257
Alluitsup Paa	-1,964	-576	0	-2,540
Sisimiut	9,687	303	-12,606	-2,616
Ittoqqortoormiit	-2,533	-306	0	-2,840
Kangaatsiaq	-3,107	-155	0	-3,262
Qasigiannuguit	-4,169	28	782	-3,358
Nanortalik	-3,604	-43	-283	-3,931
Ilulissat	17,697	1,119	-23,079	-4,264
Qeqertarsuaq	-3,296	-1,015	0	-4,311
Qaanaaq	-4,724	-3,387	12	-8,099
Uummannaq	-7,841	-1,696	648	-8,888
Upernavik	-6,191	-2,744	-70	-9,005
Qaqortoq	-15,497	1,876	2,687	-10,934
Aasiaat	-17,397	255	1,909	-15,232
Total	12,815	-9,109	885	4,591

Absorption Costing

Not part of Nukissiorfiit's
Annual Report and
not audited

Nukissiorfiit's annual Absorption Costing show expenses for the production and supply of electricity, water and heating at the individual sites. Unit costs for electricity, water and heating indicate the total cost per unit, i.e. per m³ water, per kWh electricity and per MWh heat. Unit costs include the cost of sales, personnel costs, capacity costs, depreciation and interest.

The costs vary considerably from place to place. Among other factors, this variation is caused by different production methods and, in some places, very low sales, entailing high unit costs. Write-down of DKK 1.6 billion DKK in 2018 will significantly impact the Absorption Costing. To maintain consistency with the costs incurred for fixed as-

set investment, thus providing cost-effective knowledge of production costs for each location, the unit costs are calculated using the non-depreciated values so that the full initial depreciation is included in the unit costs shown.

It should be noted that there is high cost sensitivity in the calculation of unit costs where relatively small amounts of energy and water are sold in the settlements.

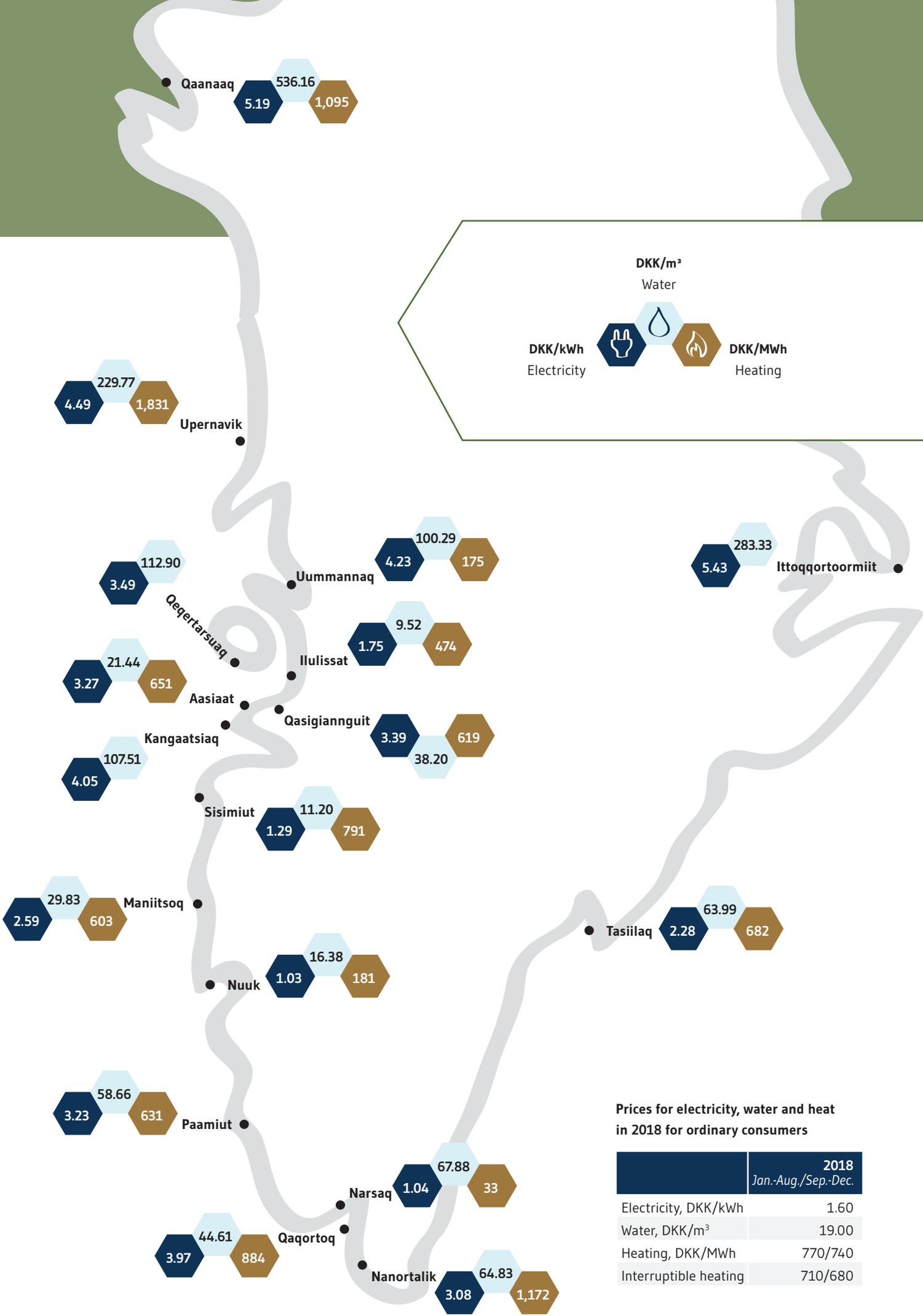
The map below shows the 2018 unit costs in the towns and the table shows the unit costs for all locations supplied by Nukissiorfiit.

READ MORE

Further details of the distribution accounts can be obtained from the Nukissiorfiit website www.nukissiorfiit.gl/kundeservice/priser



Water tapping house at Narsaq



DKK/m³
Water

DKK/kWh
Electricity

DKK/MWh
Heating

Prices for electricity, water and heat in 2018 for ordinary consumers

	2018 Jan.-Aug./Sep.-Dec.
Electricity, DKK/kWh	1.60
Water, DKK/m ³	19.00
Heating, DKK/MWh	770/740
Interruptible heating	710/680



ELECTRICITY
DKK/kWh



WATER
DKK/m³



HEATING
DKK/MWh

	ELECTRICITY DKK/kWh	WATER DKK/m³	HEATING DKK/MWh				
Nanortalik	3.08	64.83	1,172.00	Ilulissat	1.75	9.52	474.00
Aappilattoq	10.01	220.94		Oqaatsut	11.56	1,074.14	
Narsaq Kujalleq	7.81	1,287.20		Qeqertaq	3.73	337.28	
Tasiusaq	11.39	1,495.21		Saqqaq	3.92	119.97	
Ammassivik	15.00	1,541.58		Ilimanaq	5.53	229.06	
Alluitsup Paa	7.80	643.81		Qeqertarsuaq	3.49	112.90	
Qaqortoq	3.97	44.61	884.00	Kangerluk	14.07	522.95	
Saarloq	12.27	1,037.31		Uummannaq	4.23	100.29	175.00
Eqalugaarsuit	7.76	583.20		Niaqornat	8.37	434.85	
Qassimiut	13.14	170.02		Qaarsut	7.59	122.76	
Narsaq	1.04	67.88	33.00	Ikerasak	3.58	71.97	
Igaliku	9.78	273.98		Saattut	3.99	200.88	
Qassiarsuk	11.49	518.07		Ukkusissat	4.92	228.21	
Paamiut	3.23	58.66	631.00	Illorsuit	-	-	
Arsuk	6.75	344.28		Nuugaatsiaq	-	-	
Nuuk	1.03	16.38	181.00	Upernavik	4.49	229.77	1,831.00
Qeqertarsuatsiaat	4.57	170.54		Upernavik Kujalleq	6.08	150.57	
Kapisillit	6.61	542.97		Kangersuatsiaq	10.84	546.19	
Maniitsoq	2.59	29.83	603.00	Aappilattoq	4.15	73.82	
Atammik	5.32	245.38		Nutaarmiut	20.71	-	
Napasoaq	9.07	1,029.63		Tasiusaq	3.50	197.34	
Kangaamiut	4.97	178.73		Nuussuaq	5.20	557.87	
Sisimiut	1.29	11.20	791.00	Kullorsuaq	3.69	629.51	
Itilleq	6.92	335.46		Naajaat	4.36	-	
Sarfannuguit	5.21	464.17		Innaarsuit	3.60	192.02	
Kangaatsiaq	4.05	107.51		Qaanaaq	5.19	536.16	1,095.00
Attu	5.23	244.97		Savissivik	9.96	3,811.03	
Iginniarfik	7.37	808.43		Siorapaluk	9.21	2,152.12	
Niaqornaarsuk	6.51	543.28		Tasiilaq	2.28	63.99	682.00
Ikerasaarsuk	7.49	185.62		Sermiligaaq	5.48	324.89	
Aasiaat	3.27	21.44	651.00	Isortoq	8.35	304.90	
Akunnaaq	4.98	278.96		Kulusuk	4.62	99.66	
Kitsissuarsuit	9.35	891.70		Tiniteqilaaq	6.37	51.37	
Qasigiannuguit	3.39	38.20	619.00	Kuummiut	3.63	95.19	
Ikamiut	7.82	650.43		Ittoqqortoormiit	5.43	283.33	

An empty space indicates that the product is not sold at the site.

