

To Norges Bank
7 November 2019
UNOFFICIAL ENGLISH TRANSLATION
Recommendation to exclude Cenovus Energy Inc from investment by the Government Pension Fund Global (GPFG)

# **Summary**

The Council on Ethics recommends that Cenovus Energy Inc (Cenovus) be excluded from investment by the Government Pension Fund Global (GPFG) due to the greenhouse gas emissions from its extraction of oil from oil sand. According to the GPFG's ethical guidelines, companies may be excluded if there is an unacceptable risk that they contribute to or are responsible for unacceptable greenhouse gas emissions at an aggregate company level.

The Council on Ethics issued a similar recommendation to exclude the company on 30 May 2017. At that time, however, the criterion was open to different interpretations. This caused Norges Bank to refrain from making a decision on this case until further clarification had been obtained. The Norwegian Ministry of Finance subsequently clarified certain areas of the criterion's interpretation in Report No. 20 (2018–2019) to the Norwegian Storting.

The report states that companies' absolute emission levels, emission intensity and emission reduction policy and targets may constitute the primary grounds for assessment under the climate criterion. At the same time, the report makes it clear that recommendations must contain a description of any climate frameworks to which the company is subject. According to the report, where a company complies with laws and regulations and is covered by strict climate regulations, such as the EU's Emissions Trading Scheme (EU-ETS), its emissions cannot in themselves be said to constitute an unacceptable behaviour. The report further states that the EU's climate regulations must be considered stringent on the basis of its rules, compliance mechanisms, scale-down factor and emissions allowance pricing.

This recommendation has therefore been updated with respect to those issues affected by the Ministry's clarification.

Oil production in general produces high levels of greenhouse gas emissions, and the production of oil from oil sand generates in most cases materially higher greenhouse gas emissions than conventional oil production. The Council on Ethics finds that companies which base their operations on oil sand may therefore be said to have unacceptable greenhouse gas emissions.

Cenovus is a Canadian oil producer, with extensive production of oil from oil sand in Alberta, Canada. More than 90 per cent of the company's oil reserves are in oil sand, and between 2016 and 2018, it doubled its oil sand-based output. Since 2018, all of its oil production has derived from oil sand. The company has substantially reduced its greenhouse gas emissions per unit produced in recent years, but from a high level. Nevertheless, the company's greenhouse gas emissions per unit produced in 2018 were twice the global average and more than three times as high as from oil production in Europe. Cenovus aims to reduce its emissions by 33 per cent in the period 2016 to 2026.

Cenovus is subject to a climate framework that does not incorporate a cap-and-trade based emission trading mechanism, that has no scale-down factor and that has a carbon price that is very much lower than for oil production under the EU-ETS arrangement. The Council therefore takes the view that the company is not regulated by what Report No. 20 (2018–2019) describes as a stringent climate framework.

In its assessment of future risk, the Council on Ethics notes that Cenovus aims to achieve a significant reduction in its greenhouse gas emissions. However, the Council does not consider that the measures are sufficiently concrete or the emission targets sufficiently ambitious. The Council also points out that even if the company did realise its emission-reduction target, it would still not bring the company's emissions down to the average level for conventional oil production. The Council also considers that the company's considerable oil sand reserves

show that Cenovus has a relatively long-term objective of basing much of its production on this resource.

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### 1 Introduction

The Council on Ethics for the Government Pension Fund Global (GPFG) has assessed the fund's investments in Cenovus Energy Inc<sup>1</sup> (Cenovus) against the guidelines for observation and exclusion from the GPFG (ethical guidelines).<sup>2</sup> This was prompted by the inclusion of a new climate criterion in the guidelines with effect from 1 February 2016. Cenovus is a substantial producer of oil from the oil sand reserves in Alberta, Canada, an operation that produces considerable greenhouse gas emissions.

At the close of 2018, the GPFG owned 0.66 per cent of the shares in Cenovus, with a market value of NOK 495 million, as well as fixed-income securities worth NOK 555 million.

## 1.1 Matters considered by the Council

The GPFG's ethical guidelines state that companies "may be put under observation or be excluded if there is an unacceptable risk that the company contributes to or is responsible for... acts or omissions that on an aggregate company level lead to unacceptable greenhouse gas emissions".

The Council on Ethics has assessed the extent to which Cenovus's extraction of oil from oil sand is such that the company should be excluded. Greenhouse gas emissions occur in connection with both the production of oil and its combustion. The Council has assessed only those emissions relating to production. The combustion or use of the oil is largely not undertaken by the company that produces it, and is therefore not included in this assessment.

The report entitled *Fossil-Fuel Investments in the Norwegian Government Pension Fund Global* (the Skancke Report)<sup>3</sup> and Report No. 21 (2014–2015) to the Storting [the Norwegian parliament] emphasise the need for the climate criterion to be applicable to different sectors. The assessment is designed to be forward-looking, in that specific and reliable goals for emission reductions, and the company's degree of success in achieving them, will form part of the assessment. The threshold for exclusion is high also with respect to this criterion.

Report No. 21 (2014–2015) to the Storting presumes that the Council on Ethics will, initially, concentrate on sectors with substantial emissions in absolute terms and on companies with high levels of emission intensity. The intention is for greenhouse gas *emissions* to form the grounds for exclusion, and that any decision must rest on a holistic evaluation of each company. The report to the Storting also points out that "... although it is difficult to define absolute targets for emission intensity, it may still be possible to assess comparable companies against each other".

Cenovus was one of the first companies that the Council on Ethics assessed in light of the ethical guidelines' climate criterion, and on 30 May 2017, the Council issued a recommendation to exclude the company on this basis. However, the wording of the climate criterion was considered open to a variety of interpretations, and after an exchange of views in 2018 between Norges Bank and the Council on how the criterion should be understood, it became clear that further clarification was required. The Norwegian Ministry of Finance

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<sup>&</sup>lt;sup>1</sup> Issuer ID: 14689779

<sup>&</sup>lt;sup>2</sup> English language version: <a href="https://www.regjeringen.no/globalassets/upload/fin/statens-pensjonsfond/formelt-grunnlag/guidelines-for-observation-and-exclusion-from-the-gpfg---17.2.2017.pdf">https://www.regjeringen.no/globalassets/upload/fin/statens-pensjonsfond/formelt-grunnlag/guidelines-for-observation-and-exclusion-from-the-gpfg---17.2.2017.pdf</a>

<sup>3</sup> https://www.regieringen.no/contentassets/d1d5b995b88e4b3281b4cc027b80f64b/expertgroup\_report.pdf

published its clarification in Report No. 20 (2018–2019) to the Storting, which the Storting endorsed, see Recommendation 344S (2018–2019).

The Report to the Storting states that companies' absolute emission levels, emission intensity and emission reduction policy and targets may constitute the primary grounds for assessment under the climate criterion. At the same time, the report makes it clear that recommendations must contain a description of any climate frameworks to which the company is subject. According to the report, where a company complies with laws and regulations and is covered by strict climate regulations, such as the EU's Emissions Trading Scheme (EU-ETS), its emissions cannot in themselves be said to constitute an unacceptable behaviour. The report further states that the EU's climate regulations must be considered stringent on the basis of its rules, compliance mechanisms, scale-down factor and emissions cap-and-trade based allowance pricing.

This recommendation is an update of the recommendation issued in 2017. The update relates first and foremost to the description of the climate framework to which the company is subject. The description of the company's activities since 2016 has also been updated on the basis of publicly available reports published by Cenovus. However, the company has not been presented with a new draft text of the recommendation to exclude it from the GPFG.

The Council takes the view that the criterion's use of the term "unacceptable" means that companies may be excluded if their greenhouse gas emissions are materially higher than those generated by competing enterprises producing similar goods. In other words, the Council does not work on the basis that the company's operations must be assessed together as a whole for it to be deemed unacceptable at the "aggregate company level". For companies which, for example, produce oil as well as other things, the Council will assess emission intensity for each one's entire oil production segment, but will exclude other parts of the business from its assessment. This is in line with Report No. 21 (2014–2015) to the Storting, which points out that "... as one of several factors, it seems reasonable to focus on emission intensity and not necessarily on absolute emission levels. Here, emission intensity means the ratio of emissions to, for example, output volume or sales revenues." The exclusion of companies that produce some oil from fields with a high emission intensity, but also derive a substantial proportion of their oil output from conventional fields with a low emission intensity, will normally not be recommended.

Nevertheless, for a company to be assessed, the overall emission level must also be characterised as high. The exclusion of companies with an insignificant business which, seen in isolation, may have high specific emission levels compared with similar operations will therefore not be recommended.

The term "unacceptable risk" encompasses both an assessment of the probable emissions produced in connection with today's output and technology, and an assessment of future prospects. The Council is of the opinion that it must be probable that the company currently has operations which reach the threshold for exclusion. In addition, it must be probable that the situation will persist for a reasonable period of time to come. In its assessment of future risk, the Council on Ethics takes the view that weight must be given to specific plans for emission reductions, substantiated by documented investment proposals. Overarching, non-binding goals are of less importance. It is quite common for oil producers to list a reduction in greenhouse gas emissions among their goals. Companies with high emission levels that wish to approach the industry average must, therefore, adopt targets which take into account that this average will change over time. Aiming for a moderate reduction by 2030, for example, could therefore result in the distance to the average being even bigger by the time 2030 comes around.

Based on this, the Council deduces the following factors, to which importance will be attached in its assessment of companies under the climate criterion:

- The company's greenhouse gas emissions on an aggregate level for the relevant production processes.
- The company's greenhouse gas emissions per produced unit, compared with those of other companies producing similar goods.
- The company's plans to reduce emissions to a level that is not materially different from similar industrial activities, and which at the same time takes account of the need to reduce emissions as stated in the assessments of the United Nations Framework Convention on Climate Change.
- The regulatory regime to which the company's greenhouse gas emissions are subject.

### 1.2 Sources

Extensive information exists on the issues linked to greenhouse gas emissions deriving from oil production. When assessing this information, however, a major challenge is the almost complete absence of real or metered emission data; only modelled or estimated emission figures are available. In this case, therefore, the Council on Ethics has, as far as possible, based its assessment on numerical data from recognised, independent institutions. See section 3.2 for further details. Information has also been obtained directly from the company and from its website, in addition to general, open sources.

# 2 Background

The basis for the climate criterion in the GFPG's ethical guidelines is the scientific consensus that human activity can influence the climate. The international effort to counteract global warming springs out of the United Nations Framework Convention on Climate Change. Its goal is for the concentration of greenhouse gases to be stabilised at a level that prevents dangerous, human-induced alterations to the planet's climate system.

The Paris Agreement was signed in December 2015. The agreement's objective is for the rise in global temperature to be kept well below 2°C. According to the IPCC's fifth assessment report, 5 global greenhouse gas emissions in 2050 must be 40–70 per cent lower than in 2010 if this objective is to be achieved. According to the IPCC, oil production is part of the sector that generates the highest greenhouse gas emissions.

The IPCC's assessments and the Paris Agreement's goals are global in scope, and are aimed in principle at governments, not individual companies. Nevertheless, the Council considers that companies with high absolute emissions and a high emission intensity have a particular responsibility to help society to reach these objectives.

<sup>&</sup>lt;sup>4</sup> United National Framework Convention on Climate Change:

 $<sup>\</sup>underline{http://unfccc.int/files/essential\ background/convention/background/application/pdf/convention\ text\ with\ a} \\ \underline{nnexes\_english\_for\_posting.pdf}$ 

<sup>&</sup>lt;sup>5</sup> The 5th assessment report of the Intergovernmental Panel on Climate Change (IPCC): <a href="https://www.ipcc.ch/report/ar5/wg3/">https://www.ipcc.ch/report/ar5/wg3/</a>

## 2.1 Different types of oil

Mineral oil and gas may be found in varying quantities and qualities over large parts of the world. Until recently, "conventional" oil accounted for the lion's share of global output. However, new technologies and high prices have significantly boosted the production of "unconventional" oil and gas. There are several different definitions for and ways of distinguishing between conventional and unconventional oil. For practical purposes, it is relevant to draw the dividing line according to the hydrocarbon resources' mobility, i.e. their ability to flow more or less freely in the substrate. The terms are often used as follows:

- *Conventional* oil and gas are hydrocarbons that are mobile and have been trapped in reservoir rock formations because there is a layer of denser rock above that the oil cannot penetrate.
- *Unconventional* oil and gas are either hydrocarbons bound within a type of rock in which they cannot flow freely (eg shale oil and shale gas), or hydrocarbons which have come so close to the surface that the lighter components have broken down or evaporated, leaving an extremely heavy, often almost solid substance, which is therefore not mobile. Oil sand is an example of this latter type of unconventional oil.

A great deal of energy is normally required to produce unconventional oil and gas. For example, oil sand must be heated to a high temperature to make it pumpable and enable the oil to be separated from the ground in which it is absorbed.

# 2.2 Oil sand production

The world's largest known reserves of oil sand are in the Province of Alberta, Canada, and this is where most of the production takes place. Canada's oil deposits are enormous, exceeded only by Venezuela and Saudi Arabia.

The oil in the oil sand is a viscous, practically solid substance that it is impossible to pump. It must be treated in a plant where it is upgraded and made pumpable by dissolving it in light oils or condensates (DILBIT) or by chemically altering its structure (SCO).

Shallow deposits of oil sand are excavated in open-pit mines, while deeper deposits must be made temporarily pumpable where they lie through the addition of vast quantities of heat in the form of steam, and often also chemicals and other substances that make the oil easier to handle. Several different technologies are used, with *Steam Assisted Gravity Drainage* (*SAGD*) gradually having emerged as the most common process. Production of oil from these deeper deposits is called *in-situ* production. Before it can be refined, the oil from *in-situ* production must undergo a similar energy-intensive upgrading process as that obtained from open-pit mines.

SAGD technology is under development, with the focus on reducing costs and greenhouse gas emissions. The majority of companies that use SAGD technology have therefore reduced their greenhouse gas emissions, but from an extremely high level.

Independent research<sup>6</sup> consistently shows that it is considerably more energy-intensive to produce a crude oil that is ready for refining from an average oil sand field than from an

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<sup>&</sup>lt;sup>6</sup> See footnote 14 in section 3.2 below for further details.

average conventional field, and *in-situ* production is, on average, slightly more energy intensive than open-pit operations.

# 3 Scope and nature of the Council on Ethics' investigations

### 3.1 About the company

Cenovus is a Canadian company which produces oil from oil sand, as well as conventional oil and gas. Between 2016 and 2018, the company more than doubled its production of oil from oil sand. In 2018, output totalled just under 400,000 barrels of oil per day.<sup>7</sup> All the oil from oil sand is based on SAGD *in-situ* production.

According to Cenovus, more than 90 per cent of the company's proven reserves are in oil sand, while its entire oil output has derived from oil sand since 2018.

In December 2016, CDP<sup>10</sup> published the report entitled *In the pipeline*, <sup>11</sup> in which it assessed 11 major oil producers on the basis of a number of emission-related parameters. The oil sand company Suncor came out worst overall. Other oil sand companies were not assessed. CDP has analysed a number of factors, the most relevant for our purposes being that, in CDP's assessment, the one company in the survey whose oil production is based on oil sand had the highest emission intensity and the most unfavourable portfolio of production and reserves from a climate point of view.

According to the company's own document *Cenovus Carbon Disclosure: Managing climate-related risks*, emissions from its production of oil from oil sand were higher in 2016 than in 2012, and amount to 0.312 tonnes per cubic metre oil produced, corresponding to an emission level of 0.36 tonnes per tonne of oil produced.<sup>12</sup>

Cenovus has implemented several initiatives to reduce its greenhouse gas emissions, and claims that greenhouse gas emissions per unit of production from its oil sand operations have fallen by 33 per cent since 2009. The company also participates in COSIA, a network of oil sand producers whose member companies support the development of new environmental protection measures and have pledged to share technology with each other. Through this network, Cenovus is leading a research project, along with other oil sand producers, whose objective is to assess the feasibility of employing fuel cells which can bind carbon dioxide in connection with SAGD production. This project has not come very far, and it will be a great

<sup>&</sup>lt;sup>7</sup> Taken from the company's 2018 annual report: <a href="https://www.cenovus.com/invest/docs/2019/2018-annual-report.pdf">https://www.cenovus.com/invest/docs/2019/2018-annual-report.pdf</a>

<sup>&</sup>lt;sup>8</sup> Taken from the company's Annual information form: https://www.cenovus.com/invest/docs/2018/AIF.pdf

<sup>&</sup>lt;sup>9</sup> Taken from the company's *Consolidated Financial Statements* 

https://www.cenovus.com/invest/docs/2018/2018-annual-consolidated-financial-statements.pdf

<sup>&</sup>lt;sup>10</sup> CDP, formerly the Carbon Disclosure Project, is a well-reputed not-for-profit organisation that collects information on climate-related issues from companies and government authorities in large parts of the world. They provide data to the Intergovernmental Panel on Climate Change (IPCC), among others.

<sup>&</sup>lt;sup>11</sup> CDP: "In the pipeline. Which oil and gas companies are preparing for the future?" https://b8f65cb373b1b7b15feb-

 $<sup>\</sup>frac{c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/001/327/original/oil-gas-report-exec-summary-2016.pdf?1479834286$ 

<sup>&</sup>lt;sup>12</sup> Taken from the company's carbon disclosure report 2018. Recalculated on the basis of a specific gravity of 0.87. <a href="https://www.cenovus.com/responsibility/docs/cenovus-carbon-disclosure.pdf">https://www.cenovus.com/responsibility/docs/cenovus-carbon-disclosure.pdf</a>

many years before an industry-ready technology can be fully operational at the company's production sites.

Cenovus has also been involved in a carbon-binding projects, in which carbon dioxide from a brown-coal-based gasworks is injected into a conventional oilfield to boost output therefrom. This project is not linked to the company's oil sand activities.

The company has co-production of steam and electricity at its SAGD fields. This cuts energy consumption compared with the separate production of steam and electrical power to the production facilities. Cenovus has also obtained government approval for the use of a solvent-based process in the Narrows Lake project, which will presumably reduce the need for steam.

According to the company's *Corporate social responsibility report* for 2014, direct greenhouse gas emissions from oil sand operations rose by 95 per cent from 2010 to 2014. According to the company, this is due to an increase in the volume of oil production.<sup>13</sup>

### 3.2 Energy consumption for different production methods

There is little comparable data available for emissions from different companies engaged in oil production. However, data on the distribution between conventional and unconventional oil, with respect to both current output and companies' reserves, is more readily available. Based on a large number of published scientific studies, <sup>14</sup> the Council concludes that the production of unconventional oil from oil sand generally leads to substantially higher greenhouse gas emissions than the production of conventional oil. Thus, companies producing a large proportion of their oil from oil sand will also have a high level of emission intensity from their oil production activities. If, at the same time, a company produces a large overall volume of oil, there may be grounds for saying that there is an unacceptable risk of it generating unacceptable greenhouse gas emissions.

The bulk of the greenhouse gas emissions from oil production occur in that part of the process in which the oil, or minerals containing oil, are pumped up or extracted from the ground and upgraded. There are major differences in the greenhouse gas emissions deriving from extraction of different qualities of oil. The refining process produces fewer emissions and they do not vary as much from field to field.

<sup>14</sup> Several models are used to calculate energy consumption in connection with the production of oil. The models include a great many factors, and the most commonly used ones all give slightly different figures. The various models have been compared in several reports. Adam Brandt from Stanford University has simulated the six most relevant models and has looked at the results they give when oil sand is compared with conventional oil delivered to European refineries. This work is described in the report *Upstream greenhouse gas (GHG) emissions from Canadian oil sands as a feedstock for European refineries.*<a href="http://insideclimatenews.org/sites/default/files/assets/2012-05/Brandt\_EU\_oilsands\_Final.pdf">http://insideclimatenews.org/sites/default/files/assets/2012-05/Brandt\_EU\_oilsands\_Final.pdf</a>. Similarly, IHS-CERA, a firm of analysts based in Cambridge, UK, have examined lifecycle analyses for various types of oil delivered to the US market in its report *Oil sands, Greenhouse Gases, and US oil supply - 2012 update*. <a href="http://www.api.org/~/media/files/%20oil-and-natural-gas/oil\_sands/cera\_oil\_sands\_ghgs\_us\_oil\_supply.pdf">http://www.api.org/~/media/files/%20oil-and-natural-gas/oil\_sands/cera\_oil\_sands\_ghgs\_us\_oil\_supply.pdf</a>. In its 2014 report *Canadian Oil Sands: Life-Cycle Assessments of Greenhouse Gas Emissions, Congressional Research Service* assessed greenhouse gas emissions from oil sand and conventional oil on the basis of different calculation models, <a href="https://fas.org/sgp/crs/misc/R42537.pdf">https://fas.org/sgp/crs/misc/R42537.pdf</a>. All these meta-analyses conclude that production of oil from oil sand generates materially higher greenhouse gas emissions than conventional oil production. However, there is an extremely moderate overlap, with a marginal number of individual conventional oil fields

with higher emission levels than the best oil sand fields.

<sup>&</sup>lt;sup>13</sup> Calgary Journal 13 April 2016: <a href="https://www.calgaryjournal.ca/index.php/news/3228-more-emissions-more-problems">https://www.calgaryjournal.ca/index.php/news/3228-more-emissions-more-problems</a>

The report entitled *GHG Emission Factors for High Carbon Intensity Crude Oils*<sup>15</sup> looks at the background figures from many relevant studies and compares these with the US Environment Protection Agency's figures for the average of oils produced in or imported to the USA. The report shows that, based on a well-to-tank (WTT) analysis, in other words up until the product is ready for combustion, open-pit production generates on average 78 per cent more carbon dioxide emissions than conventional oil. It also finds that *in-situ* production generates, respectively, 139 per cent more emissions (SCO) and 100 per cent more (DILBIT). None of the models produced less than 56 per cent higher emissions (open-pit, two studies), while the worst performer generated 156 per cent higher emissions (*in-situ* SCO, two studies).

In the same way as for oil sand, additional energy is used to produce shale oil. Together, the production of oil from oil sand and shale oil helped make North America's average emission level for 2016 the world's highest, with 262 tonnes of carbon equivalents per 1,000 tonnes of oil produced. The corresponding figure for Europe was 98 tonnes, and for the Middle East it was 51 tonnes. The world average, including North America, stood at 151 tonnes, according to the International Association of Oil & Gas Producers. <sup>16</sup>

#### 3.3 Climate framework

In Canada, greenhouse gas emissions are regulated at both the federal and provincial level. The Council on Ethics has asked Cicero, a Norwegian climate research institution, to analyse the climate framework to which Cenovus is subject, with the emphasis on the conditions that Report No. 20 (2018-2019) to the Storting describe as necessary elements in a stringent framework.

The key findings in Cicero's report are that neither Canada nor Alberta has an established cap-and-trade based emission trading system that covers companies like Cenovus. There is therefore no down-scaling factor for access to emission allowances. At the same time, the carbon price is estimated to be EUR 0.4–3.4, while the comparable carbon price for oil production under the EU-ETS arrangement ranges from EUR 15 (UK) to EUR 52 (Norway, including carbon tax). The main reason for the low carbon prices in Alberta is that although there is a carbon tax of CAD 30, the bulk of the emissions is exempt from it. In addition, Cicero reports that the new provincial government has announced its intention to push the real carbon price significantly lower.

# 4 Information provided by the company

The Council on Ethics first contacted Cenovus in September 2016. In its reply, the company stated that it had cuts its emission intensity by 33 per cent since 2004, and that it already had a materially lower emission level than other, similar companies. In its response to the draft recommendation drawn up in April 2017, the company stated that it had set itself the target of reducing its emission intensity by 33 per cent in the period 2016 to 2026. The company also emphasised that it had pledged to improve its performance with respect to the climate issue by means of substantial investment in technology, and that it uses third parties to verify its results.

See the International Oil & Gas Producers' report: <a href="https://www.iogp.org/bookstore/product/environmental-performance-indicators-2016-data/">https://www.iogp.org/bookstore/product/environmental-performance-indicators-2016-data/</a>

<sup>15</sup> https://www.nrdc.org/sites/default/files/ene\_10070101a.pdf

Cenovus states on its website: "We share the public's concern that climate change is one of the greatest global challenges of our times. As an oil producer, we're committed to doing our part to address climate change. This means finding solutions that will eliminate emissions both from the production of oil and from its use. Solutions that will ensure oil can continue to play a role in enhancing the quality of life around the world for as long as it's needed."

## 5 Assessment of the Council on Ethics

Based on the information available, the Council on Ethics has considered whether there exists an unacceptable risk that Cenovus contributes to or is itself responsible for actions or omissions which, on an aggregate company level, lead to unacceptable greenhouse gas emissions.

Oil production is a sector which, globally, generates high levels of greenhouse gas emissions. It is incontrovertible that, on the whole, production of oil from oil sand reserves in Canada generate materially higher greenhouse gas emissions than conventional oil produced in the USA, the Middle East or Europe. Greenhouse gas emissions from *in-situ* production are also higher than those from open-pit extraction. Several independent assessments show that the emissions from various types of oil sand production, even on the basis of WTT analyses, can often be more than twice from conventional fields. The Council on Ethics finds that the excess emissions from oil sand fields in general are unacceptably high, even though there are variations in emission levels both between different conventional oil fields and between different oil sand fields.

Cenovus is a major producer of oil from oil sand, and bases of its output on oil sand. All this production takes place *in-situ*. Even if the company were at the lower end of the scale for emissions from enterprises producing oil from oil sand, its emissions would still be extremely high.

The Council on Ethics attaches considerable importance to the fact that the company's emissions are substantially higher than the industry average, more than twice the global average and several times higher than emissions from the production of oil in Europe. The Council therefore concludes that the company's greenhouse gas emissions are substantial in absolute terms and that its emission intensity is extremely high.

As a result, Council finds that the company generates unacceptable greenhouse gas emissions at the aggregate company level.

The Council considers that the absence of a cap-and-trade based emissions trading system and corresponding down-scaling factor, as well as a carbon price that is significantly lower than the corresponding cost under the EU-ETS, means that the company is not regulated by what Report No. 20 (2018–2019) to the Storting describes as a stringent climate framework. At the same time, the Council finds that the existing climate framework is not stringent enough to be accorded particular weight in its assessment.

In its assessment of future risk, the Council on Ethics notes that Cenovus aims to reduce its emissions by 33 per cent by 2026. Even if other companies do not reduce their emission levels, Cenovus's emission intensity would, after its planned 33 per cent reduction, still be several times higher than that from oil production in Europe today, and more than twice the global average. The Council therefore finds that even if the company's plans are fully realised, it will not be enough to render its emission level acceptable.

The company's efforts in the area of fuel cell technology are extremely long-term in nature. Its other initiatives do not seem capable of reducing emissions to an acceptable level.

In its assessment of future risk, the Council on ethics also emphasises the fact that Cenovus has almost all of its reserves in oil sand. The Council therefore presumes that it is the company's relatively long-term objective to continue exploiting this type of resources.

### 6 Recommendation

On the basis of an overall assessment, the Council on Ethics recommends that Cenovus be excluded from investment by the Government Pension Fund Global, due to an unacceptable risk that the company contributes to or is responsible for acts or omissions that on an aggregate company level lead to unacceptable greenhouse gas emissions.

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Johan H. Andresen Chair	Hans Chr. Bugge	Cecilie Hellestveit	Brit Rugland	Trude Myklebust
(Sign.)	(Sign.)	(Sign.)	(Sign.)	(Sign.)