

To Norges Bank

7 November 2019

UNOFFICIAL ENGLISH TRANSLATION

**Recommendation to exclude Imperial Oil Ltd from investment by the
Government Pension Fund Global (GPF)**

Summary

The Council on Ethics recommends that Imperial Oil Ltd (Imperial) be excluded from investment by the Government Pension Fund Global (GPF) due to the greenhouse gas emissions from its extraction of oil from oil sand. According to the GPF'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 29 June 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.

Imperial is a Canadian oil producer, with extensive production of oil from oil sand in Alberta, Canada. More than 95 per cent of the company's oil reserves are in oil sand, and more than 95 per cent of its oil production derives from oil sand. In recent years, the company has employed technology which reduces greenhouse gas emissions at one field, but from a high level. The company's greenhouse gas emissions per unit produced in 2018 were more than twice the global average, and more than four times as high as oil production in Europe. The company aims to reduce its greenhouse gas emissions by 10 per cent from 2016 to 2023.

Imperial 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 Imperial aims to reduce its greenhouse gas emissions, but cannot see that the initiatives are sufficiently concrete or that the emission target is 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. Furthermore, the Council takes the view that the company's considerable oil sand reserves show that Imperial has a relatively long-term objective of basing much of its oil production on this resource.

Table of Contents

1	Introduction	1
1.1	Matters considered by the Council	1
1.2	Sources	3
2	Background	3
2.1	Different types of oil	4
3	Nature and scope of the Council on Ethics' investigations	5
3.1	About the company	5
3.2	Energy consumption for different production methods	5
3.3	Climate framework	6
4	Information provided by the company	7
5	The Council on Ethics' assessment	7
6	Recommendation	8

1 Introduction

The Council on Ethics for the Government Pension Fund Global (GPF) has assessed the fund's investments in Imperial Oil Ltd.¹ (Imperial) against the guidelines for observation and exclusion from the GPF (ethical guidelines).² This was prompted by the inclusion of a new climate criterion in the guidelines with effect from 1 February 2016. Imperial 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 GPF owned 0.47 per cent of the shares in Imperial, with a market value of NOK 815 million.

1.1 Matters considered by the Council

The GPF'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 Imperial's extraction of oil from oil sand is such that it should recommend the company's exclusion.

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)³ 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 intended to be forward-looking, in that specific and reliable goals for emission reductions, as well as the extent to which these have been achieved, will be an element in the assessment. The threshold for exclusion is high also with respect to this criterion.

The report 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".

Imperial was one of the first companies that the Council on Ethics assessed in light of the ethical guidelines' climate criterion, and on 29 June 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

¹ Issuer ID: 104669

² English language version: <https://www.regjeringen.no/globalassets/upload/fin/statens-pensjonsfond/formelt-grunnlag/guidelines-for-observation-and-exclusion-from-the-gpfg---17.2.2017.pdf>

³ https://www.regjeringen.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 Imperial. 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 company'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." A company that produces some oil from fields with a high emission intensity, but also derives a substantial proportion of its oil output from conventional fields with a low emission intensity, will normally not be excluded.

Nevertheless, for a company to warrant assessment, the overall emission level must also be 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 have targets for reductions in greenhouse gas emissions. 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.
- 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 that – 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 GFPG ethical guidelines' climate criterion is the scientific consensus that human activity can influence the climate. The international effort to counteract global warming springs from the United Nations Framework Convention on Climate Change.⁴ 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.

⁴ United National Framework Convention on Climate Change:
http://unfccc.int/files/essential_background/convention/background/application/pdf/convention_text_with_a_nnexes_english_for_posting.pdf

⁵ The 5th assessment report of the Intergovernmental Panel on Climate Change (IPCC):
<https://www.ipcc.ch/report/ar5/wg3/>

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 hydrocarbons that are either bound within a type of rock in which they cannot flow freely (eg shale oil and shale gas), or 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.

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 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.

The SAGD technique is still under development, with the objective of reducing costs and greenhouse gas emissions. The majority of companies that make use of SAGD technology have therefore reduced their greenhouse gas emissions, but from levels that were previously extremely high.

Independent research 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

average conventional field, and *in-situ* production is, on average, slightly more energy intensive than open-pit operations.⁶

3 Nature and scope of the Council on Ethics' investigations

3.1 About the company

Imperial is a Canadian company whose most important business activity is the production of oil from oil sand. The company also has extensive downstream activities, including several refineries and a large distributor network in Canada. The company produces in the region of 360,000 barrels of oil per day. According to the company's *2018 Annual financial statements and management discussion and analysis*,⁷ more than 95 per cent of its oil output derives from oil sand. The company also engages in conventional oil production in Canada. The 2018 report indicates that more than 95 per cent of the company's "proved" reserves are in oil sand.

The company's *Energy and carbon summary*,⁸ shows that its oil production produces 0.39 tonnes of carbon emissions per cubic metre of oil produced. At an assumed specific gravity of 0.87, this amounts to 0.45 tonnes of carbon per tonne of oil produced.⁹ This is three times higher than the global average, and more than four times higher than from oil production in Europe. See section 3.2 below.

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 several published scientific studies, the Council concludes that the production of oil from oil sand generally leads to substantially higher greenhouse gas emissions than the production of conventional oil.¹⁰ Thus, companies producing a large proportion of their oil

⁶ See footnote 10

⁷ https://www.imperialoil.ca/-/media/Imperial/Files/Annual-and-quarterly-reports/2018_financial_statements.pdf

⁸ <https://www.imperialoil.ca/-/media/Imperial/Files/Energy-Carbon-summary.pdf?la=en-CA&hash=68A2C481EBC79C080717A54915AE65BA71725F67>

⁹ Council on Ethics' estimate. Some uncertainty attaches to this estimate.

¹⁰ 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*.

http://insideclimatenews.org/sites/default/files/assets/2012-05/Brandt_EU_oilsands_Final.pdf. 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*.

http://www.api.org/~/-/media/files/%20oil-and-natural-gas/oil_sands/cera_oil_sands_ghgs_us_oil_supply.pdf. In its 2014 report *Canadian Oil Sands: Life-Cycle Assessments of Greenhouse Gas Emissions* <https://fas.org/sgp/crs/misc/R42537.pdf>, Congressional Research Service assessed greenhouse gas emissions from oil sand and conventional oil on the basis of different calculation models. 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 a small number of individual conventional oil fields with slightly higher emission levels than the best oil sand fields.

from oil sand will also have a high level of emission intensity from their oil production activities. If the company's oil production from oil sand is significant, 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/semi-purified. There are major differences in the greenhouse gas emissions deriving from extraction of different qualities of oil. The refining process has lower emissions and they do not vary as much from field to field.

The report entitled *GHG Emission Factors for High Carbon Intensity Crude Oils*¹¹ 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 than conventional oil. It also finds that *in-situ* production generates, respectively, 139 per cent higher emissions (SCO) and 100 per cent higher (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.¹²

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 Imperial 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 Imperial. 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.

¹¹ https://www.nrdc.org/sites/default/files/ene_10070101a.pdf

¹² See the International Oil & Gas Producers' report: <https://www.iogp.org/bookstore/product/environmental-performance-indicators-2016-data/>

4 Information provided by the company

Imperial did not reply to the Council on Ethics' request for information in March 2017. In the May of that year, however, it issued a brief response to the Council's draft recommendation, in which it said: "*Climate change is an important issue for the Canadians and Imperial takes the issue very seriously. At Imperial, our strategy to manage GHG emissions is focused on increasing our own energy efficiency, implementing emission-reducing technology, and advancing research of breakthrough energy technologies.*"

The company emphasised the fact that much of its production now derives from relatively new operations in the Kearl field, where oil sand is extracted from an open-pit mine. By means of new technology, Imperial has reduced the energy consumed, and therefore the volume of greenhouse gas emissions, in its further processing. At the Cold Lake field, water consumption has been significantly reduced. "*We recycle over 95% of the water used in the process and have reduced our freshwater intake by 20-25K bpd. This reduction in water requirements is driven by a reduction in steam requirements, which in turn means reduced GHG emissions. This equates taking 4000 cars off the road every year.*"

On its website, Imperial states: "*The risks associated with climate change are real and warrant action. Increasing carbon emissions in the atmosphere are having a warming effect. There is broad scientific and policy consensus that actions must be taken to further quantify and assess the risks.*"¹³

The company also writes: "*We are committed to positive action on climate change and dedicated to reducing the risk in the most efficient way for society.*" Furthermore, it supports the introduction of a carbon tax, but is more critical of other ways of regulating greenhouse gas emissions.

With respect to specific measures, the company writes: "*We are committed to reducing GHG emissions at our oil sands facilities by improving energy efficiency and investing in the development of game-changing technologies.*" The measures mentioned are the co-production of steam and electrical power, and a further developed upgrading technology that is in use at the Kearl field.

In 2018, the company expanded on its description of the climate crisis, with a wide-ranging presentation of the Paris Agreement. It also stated that it envisaged demand for oil continuing far into the future, and that the company intends to take steps to reduce its 2016 emission level by 10 per cent by 2023.

5 The Council on Ethics' assessment

Based on the information available, the Council on Ethics has considered whether there exists an unacceptable risk that Imperial 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 generates materially higher greenhouse gas emissions than conventional oil produced in the

¹³ <http://www.imperialoil.ca/en-ca/>

USA, the Middle East or Europe. Several independent assessments show that the emissions from various types of oil sand production, even on the basis of WTT analyses, are often 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.

Imperial is a major producer of oil from oil sand, deriving around 95 per cent of its output from oil sand. Even if the company were at the bottom end of the emissions spectrum for companies that produce 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, that they are three times higher than the global average and several times higher than for oil produced 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, the 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 Imperial aims to reduce its greenhouse gas emissions by 10 per cent from 2016 to 2023. Even if other companies do not reduce their emission levels, Imperial's emission intensity would, after its planned 10 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.

In its assessment of future risk, the Council also attaches importance to the fact that Imperial has more than 95 per cent of its reserves in oil sand. The Council therefore presumes that it is the company's relatively long-term objective to continue producing oil on the basis of this type of resources.

6 Recommendation

On the basis of a comprehensive assessment, the Council on Ethics recommends that Imperial Oil Ltd be excluded from investment by the Government Pension Fund Global, due to an unacceptable risk that the company contributes to or is itself responsible for actions or omissions that on an aggregate company level lead to unacceptable greenhouse gas emissions.

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COUNCIL ON ETHICS

THE GOVERNMENT PENSION FUND GLOBAL