

## EXPRESSION OF PRINCIPLES

Dated 11 July 2023

As entered into between:

1. the **Minister of Economic Affairs and Climate Policy**, acting as administrative body (*bestuursorgaan*) and as representative of the State of the Netherlands, represented by Mrs. M.A.M. Adriaansens;
2. the **State Secretary of Infrastructure and Water Management**, acting as administrative body (*bestuursorgaan*), and as representative of the State of the Netherlands, represented by Mrs. V.L.W.A. Heijnen;
3. the **Provincial Executive of the Province of Zeeland** (*College van Gedeputeerde Staten*), acting as administrative body (*bestuursorgaan*), on its behalf Mr. J. de Bat and the royal commissioner of the Province of Zeeland, acting as a representative of the Province of Zeeland, on his behalf Mr. J. de Bat (hereafter: "Province of Zeeland");

and

4. **Yara Sluiskil B.V.**, with its registered office in Sluiskil, the Netherlands and its office address at Industrieweg 10, 4541 HJ in Sluiskil, represented by M. Schlaug and G.A. Gunter (hereafter: "Yara Sluiskil");

**on cooperation in the reduction of Greenhouse gas emissions, in the reduction of impact on the (local) environment, and the contribution to the energy transition and circular economy by Yara Sluiskil**

Parties 1 and 2 hereafter individually as well as jointly referred to as the "State";

Parties 1, 2, 3 and 4 hereafter individually referred to as "Party" and jointly referred to as "Parties".

## **WHEREAS:**

### **1. Legal and policy framework for CO<sub>2</sub> reduction and other emissions**

#### **CO<sub>2</sub> reduction**

1. Parties acknowledge that additional efforts for reduction of Greenhouse gas (GHG) emissions are required to achieve the goals of The Paris Agreement, the European Climate Law, the Dutch Climate Law (*Klimaatwet*) and the Dutch Coalition Agreement (*Coalitieakkoord*);
2. In the Dutch Coalition Agreement as presented on December 15, 2021, GHG reduction targets are increased to at least 55% in 2030 (versus 1990), while the Government aims for 60% GHG reduction in 2030, and for Climate neutrality in 2050 and for establishment of an economy that is climate neutral, fossil free and circular;
3. For the industry, as laid down in the 26 April 2023 letter about the additional climate policies (hereafter: "Kamerbrief Voorjaarsbesluitvorming Klimaat"), the proposed target is reduction of CO<sub>2</sub>-emissions to a maximum of 29.6 million tons (hereafter: Mton) in 2030;
4. The Government will present a national roadmap to accelerate the transition in the Dutch industry towards a climate neutral, fossil free and circular economy. Parties acknowledge that their mutual cooperation will take place in the context of the developing policy around accelerating the transition in the industry;
5. Parties acknowledge that a long-term collaborative approach and consistent long-term government policy in relation to large energy transition projects and related high value risks are beneficial for a successful outcome of the tailor-made approach;
6. Yara Sluiskil underpins that this Expression of Principles and mentioned targets and possible measures do not take into account the potential impact of intended policy measures such as announced in the "Kamerbrief over voorjaarsbesluitvorming Klimaat", dated 26 April 2023 and thereafter, implementation of which could change Yara Sluiskil's options for additional CO<sub>2</sub> reduction in this EoP;
7. Parties acknowledge that the use of fossil-based Carbon Capture and Storage (CCS) is a transitional technology that plays a part in achieving negative emissions to offset hard-to-abate emissions. Being a transitional technology, the application of this technology should be phased out before 2050. To achieve this, the feedstock should gradually be replaced with sustainably sourced biogenic and/or circular feedstock;

#### **Environmental impact**

8. Parties acknowledge that the Dutch Coalition Agreement aims to decrease the reactive nitrogen emissions to reduce the deposition thereof in Dutch Natura 2000 nature areas, and that each sector, including the industrial sector, is expected to contribute fairly to the necessary reduction of reactive nitrogen emissions. The letter regarding nitrogen<sup>1</sup> explains the policy framework;
9. The Government aims, in line with the European Zero Pollution Vision for 2050, to reduce air-, water- and soil contamination by 2050 to levels that are no longer harmful to general health and natural ecosystems, thereby taking into account the limits of planet earth with the aim of realizing a toxin-free environment and has formulated emission reduction and health gain ambitions in several policy acts to this end;
10. The Government has formulated an emission policy that includes the legal obligation to minimise persistent pollutants and pollutants of high concern (*zeer zorgwekkende stoffen* "ZZS") emissions and inform the authorities on achieved reduction and next steps every five years;

### **2. Tailor-Made Approach ("Maatwerk")**

1. The Government aims to facilitate the climate transition of the industry in the Netherlands with, amongst other instruments, a tailor-made approach for the 10-20 largest industrial emitters. As set out in amongst others the letter informing parliament on the tailor-made

---

<sup>1</sup> Kamerbrief *Stand van zaken stikstof en landelijk gebied*, d.d. 15 juli 2022.

approach<sup>2</sup> (hereafter: "Zomerbrief") and the letter informing parliament on the progress of the tailor-made approach<sup>3</sup> (hereafter: "Voortgangsbrief"), the aim of the tailor-made approach is to support these companies, based on mutual commitments, in achieving additional and accelerated CO<sub>2</sub> reduction before 2030 and having a sustainable future in the Netherlands. Furthermore, the aim is to contribute, where possible, to meeting other sustainability challenges in the Netherlands, also in the long term;

2. Where needed, the Government, as stipulated in the Dutch Climate Policy Programme, intends to support the largest industrial emitters in their endeavors in order to contribute to additional and/or accelerated CO<sub>2</sub> reduction, while considering European principles regarding state aid and a level playing field on the internal market. In doing so, the Government aims for a level playing field both within Europe and globally;
3. To ensure a level playing field within Europe, ratified Government policy and legislation aiming for CO<sub>2</sub> and other emissions reduction shall always be compliant with applicable European Directives, such as the applicable version of the Energy Tax Directive, the Energy Efficiency Directive and the Industrial Emission Directive;
4. In the Zomerbrief and the Voortgangsbrief the Minister of Economic Affairs and Climate Policy explained the structure of the discussions with the 10-20 largest emitters for a tailor-made approach. The structure will be along the following lines:
  - i. First, discussions will be held to see whether parties can come to an expression of principles ("EoP"), in which they express their intention to further discuss the possibilities of reducing additional CO<sub>2</sub>-emissions by the respective companies and the possibilities of the Government to assist therewith;
  - ii. Second, if an EoP appears to be a good basis for further discussions, parties intend to continue discussions with the aim to define the specific measures to be taken and intend to agree on those in a draft joint letter of intent ("JLoI");
  - iii. Third, the draft JLoI is submitted to the 'Adviescommissie Maatwerkafspraken Verduurzaming Industrie' for an expert advice to the Minister of Economic Affairs and Climate Policy with respect to among others feasibility, cost-effectiveness and level of ambition;
  - iv. Finally, if a final JLoI has been agreed upon and signed, parties intend to implement and elaborate their agreements in binding tailor-made agreements;
5. The current EoP, therefore, is only of an indicative, non-binding nature, which means that in the further discussions in the context of the tailor-made approach neither Party can be legally held to expressed intentions, statements, facts or numbers in this EoP, among other things because at this stage, such expressed intentions, statements, facts or numbers cannot and will not be fully verified by the Parties to this EoP and because neither Party wants to enter into legally binding commitments with this EoP;
6. Parties confirm explicitly that (i) they shall have full discretion in agreeing on a JLoI or not, and in modifying, removing or completing any intentions, statements, facts or numbers mentioned in this EoP and (ii) that at its sole discretion, either Party may terminate discussions at any time for any reason;

### **3. Yara in the Netherlands**

1. Yara Sluiskil is one of the largest production facilities of Yara International. The Sluiskil location started operations in 1929 and has been part of Norsk Hydro since 1979, of which the fertilizer activities independently proceeded since 2004 under the name Yara. Yara International ASA (hereafter: Yara International) is a global player in the markets for ammonia and nitrogen-containing fertilizers and nitrogen-reducing industrial solutions, its mission is to "responsibly feed the world and protect the planet."<sup>4</sup>;

---

<sup>2</sup> Kamerbrief *Zomerbrief Maatwerk*, d.d. 8 July 2022.

<sup>3</sup> Kamerbrief *Voortgang Maatwerkafspraken*, d.d. 27 February 2023.

<sup>4</sup> Yara Sluiskil, <https://www.yara.com/this-is-yara/mission-vision-and-values/>

2. Yara Sluiskil is the largest fertilizer production location in the Northwest of Europe.<sup>5</sup> The Sluiskil Plant processes up to 2 billion cubic meters of natural gas, 4.5 million tons of water, nitrogen from the air and limestone into 5 million tons of final products. These final products include:
  - a. 3.5 million tons of high quality fertilizers that contribute to the production of food for about 40 million people worldwide;<sup>6</sup>
  - b. 1.5 million tons of industrial chemicals, of which AdBlue (~1 million tons) and pure foodgrade CO<sub>2</sub> (~400,000 tons) are the most important;
    - i. AdBlue plays an important role in the reduction of nitrogen emissions in the mobility sector such as (public) transport vehicles and logistics. With these industrial chemicals Yara Sluiskil contributes to the reduction of 700 kton<sup>7</sup> NO<sub>x</sub> emission in Europe in 2020;
    - ii. CO<sub>2</sub> is an essential product in multiple sectors, such as food production, food packaging, food transport and medical and pharmaceutical applications;
3. Yara International works towards accelerating the development of organic fertilizers, biostimulants, green fertilizers and use of waste and residual streams to recover nutrients;
4. Considering the direct access to open sea and a unique position in the ARRRRA cluster (Antwerpen-Rotterdam-Rijn-Ruhr-area), Yara Sluiskil's prime focus is and will be on making premium ammonia-related products. Furthermore, Yara Sluiskil has a history on innovation and sees a future also in developing and/or making specific high quality renewable hydrogen and circular and biobased products;
5. Yara Sluiskil has contributed to important innovations such as the development of De-N<sub>2</sub>O catalysts, granulation technologies, and Adblue, which are now implemented and used worldwide;
6. Yara Sluiskil is one of the key partners on ammonia in the Netherlands, including safety and environmental aspects, and as such contributes expertise as system player on related policy matters;
7. Parties acknowledge that by producing ammonia and other industrial chemicals, Yara Sluiskil provides essential products for the manufacturing of materials, which can play an important role in the transition towards a sustainable economy;
8. The Sluiskil Plant is a driver of (local) economic activity such as regional employment. With 750 employees the Sluiskil Plant (incl. R&D) provides employment opportunities in the province of Zeeland and stimulates cross-border employment from the Belgian Ghent region and University of Ghent. Yara Sluiskil invested more than 1 billion euro in new installations since 2011<sup>8</sup>. Furthermore, Yara Sluiskil contributes to local economic activities with regional spent in the SME-sector and innovation projects;

#### **4. Position and ambition of Yara Sluiskil in contribution to climate and environmental impact goals**

##### **4.1 General**

1. Since 1990, Yara Sluiskil has built a proven track record in reducing its emissions. It has reduced its Greenhouse gas emissions with 60% and its nitrogen emissions by 70-80%, despite a 60% increase in production since 1990.<sup>9</sup> Yara International and Yara Sluiskil acknowledge their responsibility to work now towards the achievement of Climate neutrality by 2050 and to contribute to the overall national 2030 CO<sub>2</sub> reduction target in the Dutch Coalition Agreement and the Dutch Climate Agreement, while at the same time reducing its impact on the environment. Yara Sluiskil further aims to operate with minimal nitrogen

<sup>5</sup> Yara Sluiskil, <https://www.yara.nl/globalassets/2220875-yara-climate-roadmap-brochure-juni-2022-lr.pdf/>

<sup>6</sup> Yara Integrated Report 2021, <https://www.yara.com/siteassets/investors/057-reports-and-presentations/annual-reports/2021/yara-integrated-report-2021.pdf/>

<sup>7</sup> Internal information, Yara Sluiskil

<sup>8</sup> Internal information, Yara Sluiskil

<sup>9</sup> Based on Yara International Sustainability Report 2021 (<https://www.yara.com/siteassets/investors/057-reports-and-presentations/annual-reports/2021/yara-sustainability-report-2021.pdf/>) and data by RIVM

- emissions in 2050;
2. Yara Sluiskil aims to reduce its dependency on fossil feedstocks and fuels, by moving through a phase of low carbon production towards Climate neutrality in 2050. This is consistent with the mission to create nature-positive solutions that unlock the food-chain potential that Yara International carries out. Additionally, Yara Sluiskil intends to enable the energy transition by production of clean ammonia shipping fuels and energy carriers for transport, energy and industry sectors;
  3. Yara Sluiskil acknowledges the need to engage with local authorities and stakeholders to provide all relevant information about its expected long-term residual heat potential for local and regional heating plans, and will take into account the possibility of future residual heat supply when making investments, in anticipation of the new Heat Act;

#### 4.2 CO<sub>2</sub>

1. Since 1990, Yara Sluiskil has reduced its Greenhouse gas emissions from 5.9 Mton to 3.3 Mton in 2020.<sup>10</sup> The development of the nitrous oxide (laughing gas) reduction catalyst (De-N<sub>2</sub>O catalyst) played an important role in these reduction achievements;
2. The ammonia plants of Yara Sluiskil are part of the top 10% most efficient ammonia<sup>11</sup> plants (according to IFA benchmarks), with a CO<sub>2</sub> footprint that is significantly lower than comparable large production facilities in other regions in the world;<sup>12</sup>
3. Yara Sluiskil's main production process is the production of ammonia, which results in process emission of ca. 2.2 Mton pure CO<sub>2</sub> and other emissions (such as combustion and N<sub>2</sub>O) of ca. 1.1 Mton, relative to 2020 emissions<sup>13</sup>. Precise numbers depend also on production levels and on whether maintenance stops are scheduled;
4. The tailor-made approach is based on the principle that the ambition CO<sub>2</sub> reduction in 2030 has to go beyond the expected CO<sub>2</sub> reduction resulting from the Dutch CO<sub>2</sub> Levy. Yara wishes to underpin its situation regarding the application of the reduction path following the Dutch CO<sub>2</sub> Levy rules, which means that it is also applied to the CO<sub>2</sub> that is used for ureum production and emitted as scope 3 emissions. Until 2030 this CO<sub>2</sub> is difficult to abate, meaning that Yara's effort to reduce CO<sub>2</sub> for the other part of CO<sub>2</sub> is very ambitious;
5. Of the gross Greenhouse gas process emissions of the Sluiskil Plant, 1.4 Mt CO<sub>2</sub> is used as a product in the supply chain and emitted as scope 3 emission<sup>14</sup>. That means that the net on-site Greenhouse gas emissions differ from the gross emissions. The net emissions were reduced from 5.2 Mton in 1990 to 1.9 Mton in 2020, resulting in a local emission reduction of 63% (see Figure 1):
  - a. About 1 Mton CO<sub>2</sub> is used as feedstock for the production of urea fertilizers and AdBlue and about 0.4 Mton CO<sub>2</sub> is supplied to greenhouses and used in food production, food packaging, food transport and medical and pharmaceutical applications. The 1.0 Mton of CO<sub>2</sub> used for the production of urea is not eligible to be counted as a reduction under the Dutch Climate Law. This 1.0 Mton of CO<sub>2</sub> used for the production of urea is not administrated as an emission in the Netherlands based on the IPCC guidelines that are used by RIVM and PBL. Based on the EU-ETS regulations the 1.0 Mton CO<sub>2</sub> is attributed as an emission from Yara Sluiskil, by the Nederlandse Emissieautoriteiten (NEa), and is therefore subject to the Dutch CO<sub>2</sub> levy;
  - b. Yara Sluiskil has been providing residual-heat (1.3PJ) and CO<sub>2</sub> (50-60kT per year) to the WarmCO2 project since 2009, which supplies 125 hectares of greenhouse cultivation in Zeeuws Vlaanderen that creates about 1,000 new jobs and prevents annually more

<sup>10</sup> NeA 2023, CO<sub>2</sub>-emissiecijfers 2013-2020 (via <https://www.emissieautoriteit.nl/onderwerpen/rapportages-en-cijfers-eu-ets/documenten/publicatie/2021/05/05/ets-uitstoot-2020>)

<sup>11</sup> NeA 2023, CO<sub>2</sub>-efficiëntiecijfers 2018-2021 (via <https://www.emissieautoriteit.nl/documenten/publicatie/2023/03/24/co2-efficiëntiecijfers-2018-2021>)

<sup>12</sup> Hoxha & Christensen, 2018. *The carbon footprint of fertiliser production: regional reference values*. Proceedings 805, International Fertiliser Society, 2018.

<sup>13</sup> Internal information on absolute emissions 2020, Yara Sluiskil

<sup>14</sup> Yara Sluiskil internal company information

than 50,000,000 m<sup>3</sup> natural gas intake by the greenhouse farmers, which is an equivalent of about 135 kton<sup>15</sup> per year;

2. Yara Sluiskil would like to express the importance of the EU REDIII directive for its climate roadmap. The EU REDIII directive will be implemented on a national level and could have a major impact on steam methane reformers<sup>16</sup>, such as part of the Sluiskil Plant;
3. Parties are aware that phasing in renewable hydrogen in the production process of Yara Sluiskil as a replacement for grey hydrogen will have an effect on the availability of pure CO<sub>2</sub> for Yara Sluiskil's urea and CO<sub>2</sub> business and/or CCS;

#### Greenhouse gas emissions

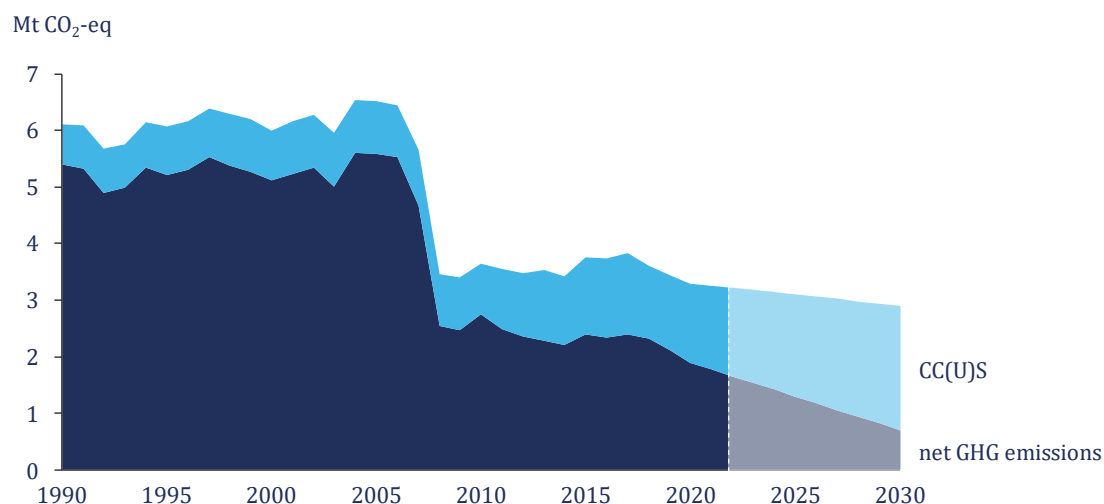


Figure 1: Yara Sluiskil Greenhouse gas Emissions since 1990 and prognosis including intended reductions<sup>17</sup>

4. Yara Sluiskil has developed a decarbonization roadmap towards 2030, called Climate Roadmap 2030. The roadmap contains Yara Sluiskil's ambition to reduce CO<sub>2</sub> emissions by 1.5 Mton in total in 2030 relative to 2020. Yara Sluiskil strives to realize a significant part of this reduction by 2025 as part of this tailor-made approach. The first track of the roadmap concerns the optimization and renewal of existing processes, the second track concerns CCS, and the third track concerns the use of (green) hydrogen, which will run in parallel with the CCS track. In the long run, green energy and circular resources are part of the aspirations of Yara Sluiskil to enable operation of Yara Sluiskil in a climate-neutral economy;
5. Parties are of the opinion that renewable hydrogen plays an important role in achieving climate neutral production for Yara Sluiskil and blue hydrogen and CCS are considered as essential transitional technologies towards this point;
6. Parties acknowledge that Yara Sluiskil's CCS is a significant step in Yara Sluiskil's transitional path towards future production of green ammonia;
7. The State acknowledges that when taking structural measures in 2025, Yara accelerates the reduction of CO<sub>2</sub> relative to the reduction path defined by the Dutch CO<sub>2</sub> Levy, which is important in realising significant cumulative CO<sub>2</sub> reduction and contributes to realising climate goals;
8. An important feedstock for green ammonia is renewable hydrogen. Yara Sluiskil has been the first to use an existing natural gas pipeline<sup>18</sup> that has been repurposed for the intake of hydrogen

<sup>15</sup> <https://www.warmco.nl/page/warmco>

<sup>16</sup> European Parliament Committee on Industry, Research and Energy (2023), <https://www.consilium.europa.eu/media/65109/st10794-en23.pdf> article 22a and 22b.

<sup>17</sup> NeA 2023, for figures 2005-2022, other figures conform same methodology, Based on RIVM data and Yara International Sustainability Report 2021 (<https://www.yara.com/siteassets/investors/057-reports-and-presentations/annual-reports/2021/yara-sustainability-report-2021.pdf/>).

<sup>18</sup> Gasunie, <https://www.gasunie.nl/nieuws/waterstofleiding-gasunie-van-dow-naar-yara-in-gebruik-genomen>

as a feedstock in 2018. Moreover, since 1929 Yara Sluiskil has been handling hydrogen as main feedstock for production. Annually Yara Sluiskil produces and uses up to 340.000 tons of hydrogen;

#### 4.3 Environmental impact such as, ammonia, NO<sub>x</sub> and (nitrogen-containing) dust

1. The emissions of Yara Sluiskil of NO<sub>x</sub>, ammonia, and (nitrogen-containing) dust in 2020 were respectively: 0.8 kton NO<sub>x</sub> emission, 0.25 kton NH<sub>3</sub> emission and 0.2 kton nitrogen-containing dust<sup>19</sup>;
2. Yara Sluiskil, as a large producer of nitrogen compounds (up to 1.9 million tons of ammonia annually), acknowledges the importance of reducing reactive nitrogen emissions (NH<sub>3</sub>, NO<sub>x</sub> and nitrogen-containing dust). In 2018 a new granulation plant (Urea-8) was taken into operation by Yara Sluiskil, allowing the last prilling tower (out of five) to be closed. With this new plant the ammonia and nitrogen-containing dust was reduced by 50% on site level in 2020 compared to 2018;;

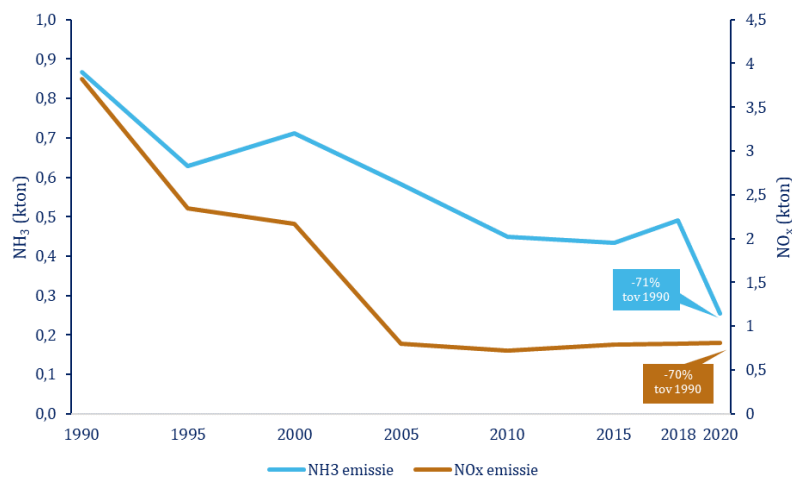


Figure 2: Ammonia and nitrogen oxides emissions by Yara Sluiskil between 1990 and 2020

3. Yara Sluiskil and the State acknowledge that there will be a need for energy carriers that reduce impact on climate change in the (near) future. Yara Sluiskil sees ammonia as a promising energy carrier for hydrogen worldwide. Ammonia is also a carbon-free fuel alternative for shipping and energy production;
4. Yara Sluiskil has extensive expertise on safe handling – storage, loading and use – of ammonia;
5. In 2007, Yara Sluiskil and the federal and regional authorities entered into a covenant to limit transport of ammonia. This covenant was positively evaluated in 2021<sup>20</sup>;
6. In the future, ammonia transport may increase in light of the role of ammonia in the energy transition. Parties acknowledge that if ammonia transport volumes increase it must not lead to a higher external safety risk. Yara Sluiskil strives to safeguard the external safety. The State Secretary of Infrastructure and Water Management, with the Province of Zeeland as the policy-making authorities on this issue aim to improve safety during transport and storage of ammonia, together with companies like Yara Sluiskil;
7. Yara Sluiskil takes in, handles and discharges a significant amount of water at the Sluiskil Plant. Parties acknowledge the potential of improving the water recycle ratio in order to achieve a reduced fresh water intake (at the inlet of the site) and a reduced nitrogen-discharge (at the

<sup>19</sup> RIVM, Emissieregistratie bedrijfsrapport Yara Sluiskil B.V.,

<https://www.emissieregistratie.nl/data/bedrijfsrapporten>

<sup>20</sup> [https://www.zeeland.nl/sites/default/files/digitaalarchief/IB22\\_51975374.pdf](https://www.zeeland.nl/sites/default/files/digitaalarchief/IB22_51975374.pdf), Part of case number: 22178

outlet of the site). Today already about 30% of the water streams on site are re-used as feedstock or recycled to demin water again<sup>21</sup>;

8. Yara Sluiskil implemented an extended water monitoring program and at the same time, created awareness and ownership with all employees related to water management and nitrogen-discharge in the process water;
9. Yara Sluiskil reduced the nitrogen-discharge at the outlet of the plant by implementing additional treatment installations on specific process water streams;
10. Yara Sluiskil recently participated in different investigations for water treatment of which several investigations led to pilots projects at the Sluiskil Plant.

*Tabel 1 Summary table of Yara Sluiskil's realised Greenhouse gas emission reduction, reduced impact on the environment and contribution to the energy transition and third parties.*

Situation 2020 compared to 1990	
Greenhouse gases	2.6 Mt reduction (5.9 to 3.3Mt)
Environmental emissions	80% reduction of NO <sub>x</sub> 3.8Mt to 0.8Mt), 70% reduction of nitrogen containing components, of which ammonia (0.9 to 0.25) and ammoniumnitrate and urea-containing dust (0.8 to 0.2Mt)
Other	Waste heat and CO <sub>2</sub> decoupling to WarmCO <sub>2</sub> , hydrogen exchange within regional cluster by existing gas pipelines and scope-3 emission reductions through products such as AdBlue and advanced fertilizers

## Have agreed:

### 1. Definitions

The following terms, if capitalized as indicated, shall have the following meanings:

- a. **Biogenic feedstock** means feedstock produced or originating from living organisms;
- b. **Carbon Capture and Storage** is the process of capturing, transporting and permanent storing of carbon dioxide to prevent it for entering the atmosphere, and will hereafter also be referred to as 'CCS';
- c. **Circular Feedstock** means feedstock based on reused and/or recycled carbon from any source available;
- d. **CO<sub>2</sub>** is to be understood as all Greenhouse gases in CO<sub>2</sub> equivalent terms, unless stated otherwise;
- e. **Climate neutrality** is to be understood as net-zero Greenhouse gas emissions in CO<sub>2</sub> equivalent terms;
- f. **Dutch Climate Policy Programme** means the governmental policy programme (*beleidsprogramma Klimaat*) dated 2 June 2022 on the main features of the climate policy until 2030 aimed at the realisation of the objectives of the Dutch Climate Law;
- g. **Dutch Climate Law** means the law enacted on March 2 2022 , also known as the *Klimaatwet*;
- h. **Dutch Climate Agreement** means the agreement dated 28 June 2019 as supported by the Government, Dutch companies and other interested parties in relation to the reduction of Greenhouse gases as part of the Dutch climate policy (*Klimaatakkoord*);

<sup>21</sup> Internal information, Yara Sluiskil



- i. **Dutch Coalition Agreement** means coalition agreement (*Coalitieakkoord*) of the current Government dated 15 December 2021;
- j. **Dutch CO<sub>2</sub> Levy** means the national levy on industrial CO<sub>2</sub> emissions, governed by the 'Wet belastingen op milieugrondslag' chapter VIB;
- k. **EoP** means this Expression of Principles;
- l. **Government** means the government of the Netherlands;
- m. **Greenhouse gas emissions** means the emissions of gases listed in Annex II to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for Greenhouse gas emission allowance trading within the European Union;
- n. **Parties** means the Parties to this Expression of Principles;
- o. **PGS12** refers to the safety guidelines for handling and storage of ammonia;
- p. **Sluiskil Plant** means Yara Sluiskil's production site situated at Industrieweg 10, 4541 HJ in Sluiskil, the Netherlands;
- q. **Yara International** means Yara International ASA, the sole shareholder of Yara Sluiskil B.V.;
- r. **Yara Sluiskil** means Yara Sluiskil B.V.

## 2. Objectives

The objectives of this EoP are to:

1. increase and accelerate the reduction of Yara Sluiskil's CO<sub>2</sub> emissions subject to the Dutch CO<sub>2</sub> Levy in the Netherlands, aiming for 1.5 Mton Greenhouse gas reduction in 2030 relative to 2020 and Climate neutrality in 2050.
2. increase and accelerate the reduction of Yara Sluiskil's local environmental impact in the Netherlands, aiming for 20% reduction of NO<sub>x</sub>, 20% reduction of nitrogen containing components such as ammonia (NH<sub>3</sub>) and 20% reduction of ammoniumnitrate- and urea-containing dust in 2030 relative to 2020 as well as safe handling and storage of ammonia.
3. accelerate the energy transition and the transition towards sustainable food production, notably through stimulating markets for sustainable fertilizers and renewable hydrogen carriers, and explore opportunities towards innovation projects to develop new biogenic and/or circular based products, new specialty products and energy and emission effective technologies to reduce CO<sub>2</sub> emissions on all scopes.

*Table 4: Objectives towards contributing to the reduction of Greenhouse gas emissions, the impact on the (local) environment, and to contribute to the energy transition and circular economy by Yara Sluiskil towards 2030 relative to 2020 and onwards, provided the right preconditions are realised.*

	Objectives towards 2030	Objectives after 2030
Greenhouse gases	1.5 Mt reduction	CO <sub>2</sub> neutrality by 2050
Environmental emissions	20% reduction of NO <sub>x</sub> , and 20% reduction of nitrogen-containing components, such as ammonia (NH <sub>3</sub> ) and 20% reduction of ammoniumnitrate- and urea-containing dust	Reduce to minimal levels
Other	Additional waste heat decoupling and innovation towards biobased/circular solutions	Production of biobased/circular fertilizer products

### 3. Intentions

#### Objective 1 – intention to reduce Yara Sluiskil's CO<sub>2</sub> emission

4. Yara Sluiskil intends to contribute to the national Greenhouse gas reduction target in 2030 by reducing its Greenhouse gas emissions by 1.5 Mton in 2030 relative to 2020. This intended reduction of annual CO<sub>2</sub> emissions goes beyond the expected reductions achieved through the Dutch CO<sub>2</sub> Levy by 0.3 Mton CO<sub>2</sub> in 2030. The cumulative emission reduction amounts to 5 Mt between 2020-2030, because measures are realized along an accelerated path compared to the reduction path defined by the Dutch CO<sub>2</sub> Levy.
5. To achieve the above mentioned CO<sub>2</sub> reduction, Yara Sluiskil intends to reduce the CO<sub>2</sub> footprint of its hydrogen production with the flexible and interchangeable use of blue and renewable hydrogen/ammonia.
6. Of the afore mentioned reduction of CO<sub>2</sub> emissions Yara Sluiskil intends to realize a reduction of 0.8 Mton CO<sub>2</sub> through transportation and storage of already captured, pure CO<sub>2</sub> streams – also known as Carbon Capture and Storage (CCS) – by 2025.
7. The State recognizes the importance of Yara Sluiskil's intended CCS project in realizing substantial CO<sub>2</sub> reduction from 2025 onwards.
8. Technological solutions that contribute in realizing the remaining intended 0.7 Mton Greenhouse gas emission reduction, include the adjustment of existing installations by implementing energy efficiency measures such as electrification and other measures, the use of renewable hydrogen, and laughing gas emission reduction. Yara Sluiskil intends to realize part of this reduction by 2025.
9. Parties are discussing and exploring if and how achieving the ambition reduction through CCS and other sustainability measures such as stated in 3.1-3.3 and 3.5 can be supported by the State, in both policy and financial terms.
10. To achieve CO<sub>2</sub> neutrality in 2050, the import of renewable hydrogen is part of the aspirations of Yara Sluiskil to enable operation in a climate-neutral economy.
11. Yara Sluiskil intends to have a direct connection to the national and European hydrogen backbone before 2027. With commitment as low carbon hydrogen customer Yara Sluiskil intends to enable the development of this backbone.
12. The Government has developed a national and regional infrastructure programme (*Programma Infrastructuur voor een Duurzame Industrie (PIDI)*) in which governments, industry and grid operators work together to (i) take stock of all infrastructural needs for the industry, including for Yara Sluiskil, and (ii) enable acceleration of infrastructural projects admitted to the MIEK (*Meerjarenprogramma Infrastructuur en Klimaat*) where desirable and possible.
13. Parties intend to explore how they can contribute to the accomplishment of objective 1 as mentioned in this article 3.1. In this context:
  - a. The State intends to continue to coordinate the – in certain cases accelerated – realisation of MIEK projects, notably the hydrogen backbone;
  - b. All Parties intend to address risks related to the permitting processes and identify pathways to accelerate permitting processes;
  - c. The State intends to explore how existing and future generic subsidy schemes can be adequately funded and be kept up to date to address possible deficiencies, subject to all internal criteria (political consent, subsidy design principles and state support regulations among others);
  - d. The State intends to explore support mechanisms to stimulate low carbon production processes (market pull).

14. Parties acknowledge that it is Yara Sluiskil’s intention not to further trade with other companies additional CO<sub>2</sub> dispensation rights under the ‘Wet belastingen op milieugrondslag’ that ensue from the additional CO<sub>2</sub> reduction realised by the tailor-made approach, in order to prevent a “waterbed effect”. The effects hereof will be discussed in the coming period and worked out in more detail in the JLoI.

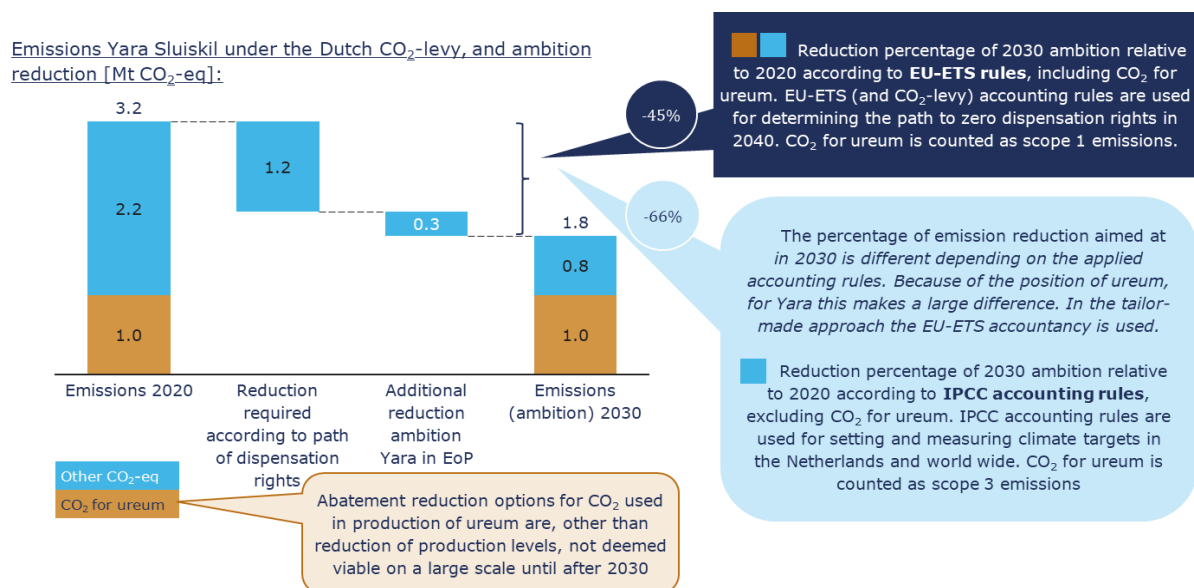


Figure 3 Illustration of Yara Sluiskil’s CO<sub>2</sub>-reduction ambition in Objective 1.

### Objective 2 – intention to reduce Yara Sluiskil’s environmental impact

1. As a first step towards realising reduction of 20% of its NO<sub>x</sub> emissions, Yara Sluiskil aims to implement innovative (beyond-best-available-technology also referred to as BAT+) technology by 2030, provided (financial) government support. Also, for the period after 2030, Yara Sluiskil intends to continually work with the authorities and other stakeholders on assessing how to further reduce the nitrogen emissions at the Sluiskil Plant to minimal levels.
2. Parties intend to investigate how the implementation by Yara Sluiskil of BAT+ technology to reduce Yara’s reactive nitrogen emissions (ammonia emissions and nitrogen containing dust emissions) can be supported.
3. Yara Sluiskil intends to further explore how to reduce 20% or more of its nitrogen-containing components, such as ammonia (NH<sub>3</sub>) as well as 20% or more of its ammoniumnitrate- urea-containing dust emissions on the Sluiskil Plant, by 2030 compared to its emissions in 2020.
4. Also for the period after 2030, Yara Sluiskil intends to continually work with the authorities and other stakeholders on assessing how to further reduce the nitrogen emissions at the Sluiskil Plant to minimal levels.
5. Yara Sluiskil intends to provide shore-power for its cargo ships that are compatible with shore-power in order to reduce that part of its emissions to air (including CO<sub>2</sub> and NO<sub>x</sub>) and reduce noise when these cargo ships will be docked in the quay site of Yara Sluiskil.
6. Yara Sluiskil intends to continue to work on the optimization of the water recycle ratio of the Sluiskil Plant by increasing the sustainable re-use of process water. Furthermore, Yara Sluiskil intends to research new treatment options together with research facilities and water expert knowledge partners and to further investigate potential solutions to reduce thermal discharge to the Canal Gent-Terneuzen.

### Objective 3– intention to accelerate the energy transition and circularity

1. Parties intend to explore the contribution of Yara Sluiskil to allow for efficient integration of renewable electricity by delivering swing capacity of intake of hydrogen.

2. The State intends to promote an ambitious sustainable materials uptake scheme at the European level including the necessary instrumentation.
3. Yara Sluiskil intends to closely contribute to an update of PGS12 – the guideline to safely storing and handling ammonia. With regard to the PGS12 update Yara Sluiskil intends:
  - a. to contribute technical expertise to the update of the PGS12;
  - b. to research and identify site-specific risks of ammonia storage and loading in different scenarios differing in volume and frequency; and
  - c. to research group risks of ammonia transport and bunkering on the Westerschelde.
4. In anticipation of the revised Energy Efficiency Directive (EED, expected 2023) and the revised Heat Act, Yara Sluiskil intends to take the physical measures that are required to facilitate waste heat supply at the first turnaround of its operations/installations in order to avoid extra costs and disruptions in the future.
5. Parallel to the blue and renewable hydrogen track, Yara Sluiskil intends to continue development and innovation towards circular and biobased products.
6. Yara Sluiskil and the State intend to explore opportunities to cooperate in developing research and innovation projects to develop new biogenic and/or circular based products, new specialty product and energy and emission effective technologies to reduce scope 2 and scope 3 emissions.
7. Yara Sluiskil and the State intend to explore opportunities to cooperate and to use and optimize the research facilities and expertise available at Yara Sluiskil.

## **6. Time schedule**

The Parties share a joined sense of urgency. The Parties therefore have the ambition to draw up and agree to a JLoI by Q4 2023.

## **7. Costs**

Each Party bears its own costs associated with this EoP, unless the Parties agree otherwise in writing.

## **8. Interpretation of terms and substance of this document**

1. The terms of this EoP are not legally binding and not legally enforceable upon either Party hereto.
2. The current EoP is only of an indicative, non-binding nature, which means inter alia that neither Party can be legally held to expressed intentions, statements, facts or numbers in this EoP, among other things because at this stage, such expressed intentions, statements, facts or numbers cannot and will not yet be fully verified by the Parties to this EoP and because neither Party wants to enter into legally binding commitments with this EoP; the EoP only serves the goal of affirming Parties' intention to engage in further discussions about the possibilities of additional CO<sub>2</sub> reduction.
3. Yara Sluiskil intends to mature a portfolio of projects reducing CO<sub>2</sub> emission and environmental impact. Investment decisions of Yara Sluiskil remain subject to Yara Sluiskil's internal decision criteria.
4. Parties shall after signing of this EoP begin discussions on a JLoI, which will more specifically describe the plans of the State and Yara Sluiskil in this respect.
5. Parties confirm explicitly that (i) they shall have full discretion in agreeing on a JLoI or not, and in modifying, removing or completing any intentions, statements, facts or numbers mentioned in this EoP, and that (ii) at its sole discretion either Party may terminate discussions at any time for any reason, in which case the terminating Party is not liable for any damages or compensation of costs towards (any of) the other Parties.
6. To the extent this EoP creates any legal relationship between the Parties, that legal relationship shall be governed by and construed in accordance with the laws of the Netherlands. Any dispute about the interpretation or implementation of this EoP will be resolved through consultations between the Parties.

## **9. Other**

This EoP comes into effect on the signature date and will be jointly reviewed upon written request by one or both Parties.

*[Remainder of the page intentionally left blank – signature page on the next page]*

**Signed in four original copies, each in the English language.**

**Minister of Economic Affairs and Climate Policy,**

*acting in her capacity as administrative body (bestuursorgaan) and as representative of the State of the Netherlands,*

---

By: Mrs. M.A.M. Adriaansens

Place:

Date:

**State Secretary of Infrastructure and Water Management,**

*acting in her capacity as administrative body (bestuursorgaan) and as representative of the State of the Netherlands,*

---

By: Mrs. V.L.W.A. Heijnen

Place:

Date:

**The Provincial Executives of the Province of Zeeland (Gedeputeerde Staten),**

*acting as administrative body (bestuursorgaan) and the royal commissioner of the Province of Zeeland, acting as a representative of the Province of Zeeland, on his behalf,*

---

By: J. de Bat

Place:

Date:

**Yara Sluiskil B.V.**

---

By:

Place:

Date: