Clean and Emissions-Free Construction Covenant (SEB)

Date: June 2023

Status: Draft

Parties

The undersigned:

National Government

1. Minister for Infrastructure and Water Management, Mr M.G.J. Harbers;
2. The Secretary of State for IenW, Ms V.L.W.A. Heijnen;

Parties 1 and 2, hereinafter jointly: IenW;

3. The Minister for Housing and Planning, Mr H.M. de Jonge, hereinafter the VRO;
4. Minister for Economic Affairs and Climate Policy, Ms M.A.M.Adriaansens;
5. The Minister for Climate and Energy, Mr R.A.A. Jetten;

Parties 4 and 5, hereinafter jointly: EZK;

6. The Minister for Nature and Nitrogen, Ms C. van der Wal, hereinafter referred to as: Nature and Nitrogen;
7. The Secretary of State for Defence, Mr C.M. van der Maat, hereinafter: Defence;

Each acting in his or her capacity as governing body and as representative of the State of the Netherlands, hereinafter jointly:**National Government;**

Provinces

8. The Interprovincial Consultation, represented by PM, hereinafter ... [*subject to final decision of IPO Board*].

hereinafter the:**Provinces.**

Municipalities

9. The Municipal Executive of the Municipality of PM, acting as the governing body, represented by PM;
10. The Municipal Executive of the Municipality of PM, acting as the governing body, represented by PM;
11. The Municipal Executive of the Municipality of PM, acting as the governing body, represented by PM;
12. The Municipal Executive of the Municipality of PM, acting as the governing body, represented by PM;

Parties 9 to PM hereinafter jointly the: **Municipalities**.

Water boards

13. The Union of Water Boards represented by PM, Dijkgraaf of PM and member of the Executive Board of the Union of Water Boards, hereinafter the:**Water boards.**

Companies

14. ProRail B.V., represented by PM, hereinafter: ProRail;
15. PM, represented by PM hereinafter: PM;

Parties 1 to 15 hereinafter jointly the:**Clients.**

Network and industry organisations from the sector

16. PM represented by PM, hereinafter the: PM;
17. PM represented by PM, hereinafter the: PM;

18. PM represented by PM, hereinafter the: PM;
19. PM represented by PM, hereinafter the: PM;
20. PM represented by PM, hereinafter the: PM;
21. PM represented by PM, hereinafter the: PM;

Parties 16 to PM hereinafter:**Network and Sector Organisations.**

Parties 1, 3, 4, 7, 14 and PM hereinafter jointly the:**Frontrunners.**

Hereinafter all jointly 'Parties' or each individually a 'Party'.

Considerations

Social objectives and ambitions

1. In the transition to a healthier environment, better climate and better health, the further sustainability of the construction sector and within it, construction equipment, is an indispensable part.
2. Work, vehicles and vessels used in construction, maintenance and demolition projects (hereinafter: construction equipment) emit emissions that are harmful to the environment through nitrogen, the climate through CO_2 emissions and health through particulate matter and nitrogen dioxide.
3. The construction sector is essential for Dutch prosperity and the Dutch economy. In particular, the sector is working on the housing challenge, the energy transition and ensures that our infrastructure is in good condition.
4. To reduce harmful emissions from construction equipment, the Nitrogen Reduction and Nature Improvement Programme[1], the Clean Air Agreement[2], the Climate Accord[3] and the Strategy Towards Climate Neutral and Circular Infra Projects[4] set targets and ambitions.
5. The development of emissions by the construction sector is followed by the Environmental Assessment Agency (PBL). PBL's Climate and Energy Outlook (KEV) shows, in particular, progress towards the target from the Nitrogen Reduction and Nature Improvement Programme of 60% NO_x emission reduction in construction compared to 2018.

In the run-up to the Covenant

6. In order to achieve the objectives and ambitions in the field of nature, climate and health, the National Government in cooperation with provinces, municipalities, water boards, industry organisations and knowledge institutes, the Clean and Emissions-Free Construction [Schoon en Emissionloos Bouwen] programme (hereinafter: SEB programme)[5] was established.
7. The SEB programme focuses on the sustainability of construction equipment used in the construction sector. Construction refers to the sector of businesses, which focuses on new construction, maintenance, alteration or demolition and removal of all or part of a property. This includes companies engaged in the design of the public space in the immediate vicinity of an immovable property. The day-to-day maintenance of greenery is not included. Within the construction sector, this Covenant distinguishes between the following construction segments: earth, water, and road construction (GWW), rail, civil residential and non-residential construction (W&U), shoreline care, shipping channel maintenance and energy projects (power generation and infrastructure). Within this Covenant, the energy construction segment is for the time being limited to onshore energy projects and cable laying activities for the grid at sea (offshore).

[1] www.aanpakstikstof.nl
[2] www.schoneluchtakkoord.nl
[3] www.klimaatakkoord.nl
[4] TK 2019-2020, 32813, No 535
[5] Can be found at: https://www.opwegnaarseb.nl

8. Part of the SEB programme is the roadmap Clean and Emissions-Free Construction[6](hereinafter: roadmap).The roadmap aims to provide clarity to the market and public authorities with a multi-annual perspective leading to increasing emission reductions in the construction sector towards 2030.The roadmap outlines and explains the measures that can be taken within the SEB programme so that emissions can be reduced effectively, feasible, workable and affordable. Where possible, this was done in line with the other measures taken to achieve the reduction in the construction sector and with knowledge and information already available from parties on this subject.
9. The roadmap was drawn up on behalf of the Dutch government and in cooperation with the construction sector, knowledge institutions and governments.
10. In the letter of 25 November 2022 to the House of Representatives, the Minister for Nature and Nitrogen[7] indicated that a Task Force on Clean and Emissions-Free Construction will be set up, consisting of fellow governments, market parties and knowledge institutions. This Covenant meets this intention to establish a Task Force.
11. Apart from the measures in the roadmap and the agreements under this Covenant, when using construction equipment, the Parties must fully comply with regulations, such as working conditions regulations. The Dutch Labour Inspectorate has laid down the monitoring and enforcement related to exposure to diesel engine emissions in the Basic DME Inspection Module[8].

Commitment of the Covenant

12. Article 7.19a of the Built Environment Decree (Bbl), once the Environment Act comes into force, includes the obligation to take 'adequate measures' during construction and demolition works to reduce nitrogen emissions. In the explanatory memorandum to this decree (Bulletin of Acts and Decrees 2021, 287), it was announced that the details of adequate measures would be worked out in the roadmap. The roadmap contains three levels of emission requirements, see recital 17. Application of the minimum level for mobile equipment can be used as part of the interpretation of the concept of 'adequate measures' in Article 7.19a Bbl and can be used by the competent authority when assessing it. Other possible measures include limiting vehicle movements on the construction site or prefabrication to limit construction time (see also SEB Roadmap). The emission reduction obligation applies to construction and demolition activities that require a permit (construction) or notification (construction and demolition). In this Covenant, no agreements are made on the implementation of the emission reduction obligation.
13. With this Covenant, the Parties agree on the implementation of the other parts of the roadmap. In this way, they jointly implement the sustainability of the construction sector. The Parties agree, in particular, on a timeline for reducing emissions from construction equipment and the measures and actions to achieve the reduction. This creates a single shared picture of the sustainability of construction equipment for the coming years, so that the sector knows what the agreements are for the coming period and on which to base decisions on investments, procurement and innovation in particular.
14. The anticipated additional costs of deploying clean and zero-emission construction equipment for the achievement of the emission reduction targets are expected to require an additional financial effort from the Parties. The Parties are aware of this.
15. Where the Parties commit themselves to the agreements contained in this Covenant by signing, the roadmap provides a more comprehensive explanation and background in the conclusion of these agreements.

Approach

[6] Can be found at: https://www.opwegnaarseb.nl

[7] Parliamentary Papers II 2022-23, 34682, No 108

[8] https://www.nlarbeidsinspectie.nl/publicaties/richtlijnen/2019/10/15/basisinspectiemodule-bim-blootstelling-aan-dieselmotoremissies-dme

16. This Covenant agrees on making the use of mobile tools, vehicles and vessels in construction, maintenance and demolition projects more sustainable. Mobile equipment, vehicles and vessels will mean:
    - mobile machines: machines that, in principle, do not use the public road but can be used in a mobile manner, such as are wheeled or portable. They are motorised with their own propulsion system and not primarily intended for road transport of people or goods. Examples of mobile tools include excavators, wheel loaders, aggregates, bulldozers, stationary equipment and mobile cranes. This category also covers all specialised equipment for the construction and maintenance of railways;
    - vehicles: construction transport for the transport of goods, consisting of vans, small lorries, tractors and semi-trailers;
    - vessels: sailing construction equipment that is used in construction work on water, both on inland waterways and out of port, as well as in activities around coastal care and waterway maintenance. Examples of vessels falling within the scope of this Covenant are crane vessels, cable-laying and dredging vessels. This includes vessels deployed in construction works for the offshore energy grid (such as the laying of the power cables).
17. One way of making construction equipment more sustainable is by setting emission requirements for the construction equipment to be deployed in the coming years. This Covenant, like the roadmap, distinguishes three levels of emissions requirements for construction equipment:
    - Minimum level. See recital 12.
    - Basic level. This level sets the bar slightly higher and is included by Clients in tender requirements. This applies to construction, maintenance and demolition projects with a public client (and private Clients who want it). The basic level applies to all construction equipment.
    - Ambitious level. This level is intended for parties – known as frontrunners – who pursue a higher level of ambition than the basic level. The frontrunners apply the basic level, while also making efforts to include the ambitious level in the procurement requirements of a percentage of their construction, maintenance and demolition projects included in this Covenant. These are known as frontrunner projects.
18. Currently, the percentage of frontrunner projects falls within a range. This percentage will be evaluated in 2025. Also in view of the expiry of the construction exemption, which requires us to be smart about how to use scarce emissions-free equipment in the coming years.
19. Four periods will be used for the application of the emission requirements from the three levels. Towards 2030, the emission requirements for the construction equipment will become increasingly strict in each period. The four periods are:
    - [date of signing the Covenant] until 31 December 2024;
    - 1 January 2025 until 31 December 2027;
    - 1 January 2028 until 31 December 2029;
    - 1 January 2030 until 31 December 2030.
20. With this Covenant, the Parties agree whether they apply only the basic level or also the ambitious level within contracts for construction, maintenance and demolition projects. When a Party commits to the basic level, it commits to apply at least the emission standards from that level. For the ambitious level, an effort obligation applies here.
21. For a successful transition to clean and emissions-free construction equipment, a number of preconditions are very important, such as the development of emissions-free construction equipment and charging infrastructure available for the Dutch market. Targeted monitoring will identify any bottlenecks in the fulfilment of these preconditions in good time.
22. The National Charging Infrastructure Agenda exchanges knowledge and experience on charging infrastructure. In addition, cooperation regions, grid operators and the National Government have agreements on the fulfilment of the public task through cooperation agreements. The Parties from this Covenant are encouraged to work closely with the aforementioned the Parties to realise charging infrastructure together.
23. Research has also been carried out under the SEB programme on the costs of making construction equipment more sustainable. The results have been published at www.opwegnaarseb.nl. For the Parties, financing options are important to achieve sustainability

of construction equipment. In the implementation of this Covenant, the government provides financial support through various instruments, both for Clients and contractors.

24. The levels indicate the minimum requirements. If desired, a client may choose to impose higher emission requirements than the level to which the client has committed itself through this Covenant, for example in the case of areas with high exposure to air pollution. Clients can also further challenge and encourage the market, for instance through an award criterion aimed at deploying zero-emission work or vehicles, or taking other measures.
25. Through this Covenant, VRO and Defence commit to applying the emission requirements in procurement orders and contracts for the Government property they own. Where VRO and Defence are The Parties within this Covenant, the application of the emission requirements in procurement contracts and contracts to which VRO and Defence are bound by the Covenant, is carried out by the National Government Real Estate Agency. Where IenW is a party within this Covenant, the application of emission requirements in tenders and contracts to which IenW commits through the Covenant will be carried out by Ministry of Waterways and Public Works.
26. In addition to agreements on requirements for emissions from construction equipment, this Covenant includes agreements on process measures, knowledge development and transfer of information on clean and emissions-free construction, financial instruments, organisation and cooperation, compliance control, monitoring and data sharing, evaluation and communication.
27. The Covenant was technically notified on [PM] July 2023 (notification number 2023/[PM]/NL) according to Article 5(1) of Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services (OJ 2015, L 241).

Provisions

Article 1: Purpose of the Covenant

In this Covenant, the Parties set out agreements to implement the joint objective of reducing emissions in construction by work, feed and vessels, thereby contributing strongly to achieving the goals of the Nitrogen Reduction and Nature Improvement Programme, the Climate Agreement, the Clean Air Agreement and the Climate Neutral and Circular Infraprojects Strategy:

- the ambition to achieve 60 % NO_x emission reduction by 2030 relative to 2018 in construction as part of the structural nitrogen reduction package[9];
- The target of a 75 % reduction in health damage from mobile construction equipment – caused by nitrogen dioxide and particulate matter emissions, in particular – by 2030 relative to 2016, and the phasing out as soon as possible of mobile equipment without particulate filters and with high nitrogen dioxide emissions[10].
- the target of achieving a reduction of 0.4 Mton of CO_2 of emissions from mobile tools and construction logistics by 2030 relative to 2019[11]
- the ambition to work climate-neutral and circular in the national infrastructure projects by 2030[12], with this Covenant focusing on construction equipment.

Article 2: Deployment of emission requirements in tenders

[9] The ambition to achieve a 60 % nitrogen reduction for construction is included in the Explanatory Memorandum (section 5.2) to the Decree of 14 June 2021 amending some general administrative measures on nitrogen reduction and environmental improvement.

[10] For construction equipment, this Covenant implements the Clean Air Agreement target for mobile machinery, as set out in Chapter 2 of Annex 1 in the Clean Air Agreement.

[11] Chapter C2.5 Sustainability in logistics of the Climate Agreement states that the National Government and the co-governments will work in a climate-neutral and circular way as much as possible in their projects in the Civil Engineering Sector (GWW sector, including Rail) by 2030.

[12] TK 2019/2020, 32813, No 535

1. When tendering for construction, maintenance and demolition projects, Clients will apply, as a minimum, the emission requirements of the base level from Tables 1, 3 and 6 of Annex 1. These emission requirements are included in the procurement requirements.
2. Frontrunners will endeavour to apply the emission requirements of the ambitious level from Tables 2, 4 and 7 of Annex 1 when tendering for construction, maintenance and demolition projects at a certain minimum percentage of their project portfolio in a given period. The percentage of the project portfolio follows from the application of Tables 2, 4 and 7 of Annex 1.
3. ProRail designs its tenders to achieve the emission requirements for rail specialist rolling stock from Table 5. To this end, ProRail applies tender requirements or award criteria in its tenders for construction, maintenance and demolition projects. ProRail elaborates on this in its procurement strategy.
4. TenneT designs its tenders so that the emission reduction requirements for Table 8 are achieved. To this end, TenneT applies tendering requirements or award criteria when tendering for offshore energy grid construction projects in Dutch waters. TenneT elaborates on this in its procurement strategy.
5. EZK is exploring in the first evaluation of this Covenant whether the emission requirements for the construction, maintenance and demolition of the offshore energy grid in Dutch waters (Table 8) can be applied to other offshore projects.
6. The Clients will include the emission requirements from Annex 1 when tendering for construction, maintenance and demolition projects, and apply them in construction, demolition and maintenance projects where in-house construction equipment is used.
7. The Clients will include in the contracts for construction, maintenance and demolition projects with a duration of more than five years that requirements will be tightened at the tipping points between two periods, if they fall within the duration of the contract and provided it is still within the term of this Covenant.
8. The emission requirements in Annex 1 apply to new tenders and projects, the emission requirements do not apply to ongoing projects.
9. IenW incorporates the emission requirement and from the basic levels and ambitious levels set out in Annex 1 into the MVI procurement criteria, as published on the website of MVI[13].The Clients will be able to apply these SRI procurement criteria when tendering for construction, demolition and maintenance projects.

Article 3: Other contributions and activities

1. Clients initiate, stimulate and support construction logistics (process) measures where possible that can reduce the number of transport movements to and from the construction site.
2. IenW is actively committed to further strengthening the European standard for air polluting emissions from mobile tools through the network of European Member States and within the European authorities.
3. IenW is committed to providing more scope within European emissions legislation for more far-reaching national measures to reduce emissions from mobile tools through the European Union (EU) and the United Nations Economic Commission for Europe (UN/ECE).
4. Network and industry organisations inform the members of their organisation of this Covenant and developments in this respect, and carry out the objectives agreed in this Covenant.
5. Network and Sector Organisations urge their member organisations to prepare for the application of emission requirements for construction equipment agreed in this Covenant. To this end, they organise meetings for their members, in particular.
6. RAI Association will engage with member vehicle importers on vehicle availability and will continue to encourage them to allocate available zero-emission construction equipment and/or vehicles for the Dutch market where appropriate.
7. RAI Association, BMWT, Bouwend Nederland, MKB-Infra, AFNL, TLN, Cumela, Vereniging van Waterbouwers and ENI provide as much insight as possible into the state of the art on clean and emissions-free construction equipment.

[13] https://www.mvicriteria.nl/

8. Leasing Netherlands – NVL sees leasing as a financing tool to accelerate the transition and encourages its relevant members to use it to accelerate the transition to clean and emissions-free construction equipment, in line with the emission requirements in Annex 1.
9. To ensure that charging infrastructure is not a barrier when deploying battery-electric construction equipment, the Parties endeavour to work closely with the National Charging Infrastructure Agenda, e.g. by actively sharing future charging needs with cooperation regions, jointly gaining experience with the roll-out of charging infrastructure for construction equipment and testing (innovative) charging concepts and solutions.
10. The Parties agree to make efforts to take process measures where possible in addition to emission requirements with the aim of reducing emissions on and to the construction site. National Government will share the latest insights and possibilities through the knowledge base, as mentioned in Article 4. Process measures result in, in particular, fewer and more efficient transport movements to the construction site and fewer (stationary) running hours at the construction site. This could include applying conceptual construction, measures to improve the load factor of construction transport, optimising the number of transport movements using digitalisation, encouraging or requiring the establishment and/or use of construction hubs. Process measures also include measures to reduce the use of construction materials, including design optimisations, life-extending maintenance and circular working.
11. The Clients will incorporate the agreements from this Covenant into their procurement strategy and implement them in their own organisations.
12. The Parties are committed to guiding and accelerating the implementation of the agreements contained in this Covenant within their own organisation.
13. Within their own duties and responsibilities, the Parties will implement the agreements of this Covenant and undertake to seek cooperation with other The Parties and third the Parties if desirable for the elaboration of this Covenant.

Article 4: Knowledge agenda and knowledge base

1. The Parties will cooperate to further develop knowledge and transfer information on clean and emissions-free construction.
2. The Parties agree to make efforts to gain a better understanding of the issues of the SEB knowledge agenda, including, but not limited to, the use of clean and zero-emission construction equipment, energy supply at construction sites including charging infrastructure and innovative charging concepts, safety, efficient construction transport including construction concepts and insight into emissions from construction equipment to and from the construction site.
3. The Parties will address issues from the knowledge agenda by, in particular, conducts their own research or commissioning research, and publish and share the results of the research resulting from the knowledge agenda with each other and third the Parties, and submit the research to the knowledge base.
4. IenW takes the initiative for the knowledge base 'opwegnaarseb.nl', aimed at sharing best practices, guidelines, published research, tools and knowledge questions. The initiative map forms part of this knowledge base and The Parties can add projects to it, when they deploy zero-emission construction equipment.
5. The National Government deploys instruments such as the Knowledge and Innovation Programme, pilots and the Grant Scheme for Clean and Emissions-free Construction Equipment), aimed at supporting The Parties taking up issues from the knowledge agenda.
6. The Parties encourage research and innovation projects aimed at knowledge gaps, after which the results are shared by at least the knowledge base, after which solutions found can be implemented by the Parties.

Article 5: Financial instruments and support

1. The National Government is making EUR 1 billion available for the period up to 2030 for emission-reducing measures in construction targeted at construction work, vehicles and

vessels. EUR 500 million of this is already used to finance the instruments mentioned in the second, third and fourth paragraphs of this Article.

2. IenW supports the construction sector with the subsidy scheme clean and zero-emission construction equipment in the transition to more sustainable construction equipment until 2030.
3. The National Government authorises the Ministry for Public Works and Water Management, ProRail and the National Government Real Estate Agency to set structurally emission-reducing criteria the tendering of construction, maintenance and demolition projects with regard to work, vehicle and vessels.
4. Through the Knowledge and Innovation Programme for Clean and Emissions-Free Construction (K&I SEB), the National Government provides a pathway for developing innovations around new construction concepts and construction logistics, such as use of other materials, construction hubs and prefabrication.
5. The National Government supports Provinces, Municipalities and Water Boards in the implementation of this Covenant. This will be further developed in consultation with co-governments. The support is divided into two pillars. Within the first pillar, support is organised for implementing the agreements of the Covenant in the organisation. This might include support in the form of external expertise for things like organisation and guidance on implementation, assistance, knowledge sharing and other tools. The second pillar provides support for the implementation of concrete projects.
6. The National Government also makes other financial instruments available, such as the Purchase Grant Scheme for zero-emission trucks (AanZET), the Subsidy Scheme for zero-emission company cars (SEBA), the Subsidy Scheme for making inland waterway vessels more sustainable (SRVB) and the Environmental Investment Allowance (MIA).

Article 6: SEB Task Force and secretariat

1. The Parties will establish a Steering Committee: SEB Task Force.
2. The SEB Task Force will be composed of:
    a) A chairperson;
    b) members on behalf of the Parties, such that the various ranks among the Parties are represented, including one representative from each of the Ministries of IenW, BZK, EZK and LNV, one from the provinces, one from the water boards, one from the municipalities and three representatives from the Network and Sector Organisations;
    c) a secretariat to support the SEB Task Force with the day-to-day work.
3. The SEB Task Force meets at least four times a year, or as often as necessary.
4. The tasks of the SEB Task Force are:
    a) monitoring and promoting the purposes of this Covenant;
    b) advising the Parties on the implementation of this Covenant, and how to accelerate it and remove bottlenecks;
    c) the definition of the monitoring approach and the monitoring reports;
    d) reviewing progress and, where necessary and promising, deciding on proposals to increase the effectiveness of the Covenant;
    e) advising on requests for amendments to this Covenant;
5. The SEB Task Force will appoint a number of ambassadors to generate attention to clean and zero-emission construction, promote adherence to the Covenant, drive and accelerate the implementation of the agreements of this Covenant.
6. IenW will ensure the filling of the secretariat referred to in paragraph 2(c), which will, in particular, prepare the consultations of the SEB Task Force.

Article 7: SEB sector consultations and working groups

1. The SEB sector consultation takes place once or twice a year and consists of representatives of the Parties, with the Parties being represented as far as possible by sector and umbrella organisations. By invitation, other governments, market players and

knowledge institutions that are not members of this Covenant can also join the sector consultation. In the SEB sector consultation, proposals from the working groups referred to in Article 7(2) may be put on the agenda for coordination. In turn, the SEB sector consultation may put proposals on the agenda of the SEB Task Force referred to in Article 6(1).

2. In addition to the SEB Sector Consultation, three working groups exist at the entry into force of this Covenant: 'Goal achievement', 'Knowledge agenda' and 'Communication'.
3. The working groups focus on connecting, developing and using initiatives, tools and research to promote sustainability in the construction sector and the implementation of this Covenant.
4. The working groups will consist of a representation of the Parties from the SEB Sector Consultation. The Parties that are not members of this Covenant can also join the working groups. The products and proposals of a working group are drawn up on the basis of co-creation.
5. Working groups will be initiated and finalised according to the need of the Parties to maintain these working groups for the implementation of this Covenant. Prior to the start of a new working group, it is assessed whether a topic is not already sufficiently invested in an existing forum within the SEB programme.
6. The secretariat referred to in Article 6(2)(c) will also provide the secretariat for the sector consultation and working group meetings.

Article 8: Monitoring

1. Partly on the basis of the Climate and Energy Outlook (KEV) of the Netherlands Environmental Assessment Agency, the National Government will monitor the progress of the ambitions and targets referred to in Article 1 and reports on this to the SEB Task Force through the working groups.
2. Each year, the Parties provide information to the SEB Task Force on the progress, bottlenecks and best practices regarding the implementation of the agreements contained in this Covenant. Here, Clients also provide information from which it can be ascertained whether Clients implement the basic level in projects and the number of projects in which the ambitious level is applied. The Government of the Netherlands, in consultation with the Parties, investigates which information is requested for this purpose and the way in which this takes place. The SEB Task Force will determine the final method of monitoring. Information exchange will take place in compliance with Article 12.
3. The Parties share practical experiences and bottlenecks with regard to the implementation of this Covenant with the knowledge base, the working groups and the SEB Task Force and contribute to solutions.
4. The Parties will monitor the increase of clean and emissions-free construction equipment under the control of the Government of the Netherlands. Monitoring includes the proportion of emissions-free construction equipment in use. The monitoring also includes a growth forecast based on the expected availability of zero-emission construction equipment. It also looks at developments in the main preconditions for the growth of clean and zero-emission equipment, such as the available charging infrastructure. If growth is slack, the Parties will take jointly agreed additional actions and implement additional flanking measures if necessary.
5. Network and industry organisations will, where necessary and possible, request information from their members for the implementation of the agreements set out in paragraphs 1 to 4, insofar as this is not contrary to Article 12.
6. The Government of the Netherlands, in cooperation with the Parties, is working on the further development of the monitoring toolbox to support the Parties in monitoring the expected emission reductions, performance and progress. This will also tie in with other monitoring arrangements.
7. The Parties will monitor any implementation issues.
8. The Parties will cooperate on digitisation and data sharing with the Digital Build Environment System [Digitaal Stelsel Gebouwde Omgeving] programme as soon as the Environment Act enters into force.

Article 9: Monitoring compliance when applying emission requirements

1. When tendering, Clients ensure that agreements in contracts on the deployment and emissions of equipment on the construction site and construction transport to and from the construction site are observed in practice.
2. The National Government, in consultation with the Parties, will examine the possibilities for better control of the deployment and emissions of equipment to, from and on the construction site in public tenders and licensing in practice, including consideration of the administrative burden.

Article 10: Progress and evaluation

1. The Parties will provide information to the Secretariat referred to in Article 6(6) on the introduction of clean and emissions-free construction equipment through the working groups, SEB Task Force, knowledge base and annual monitoring referred to in Article 8. This information will include practical experience in applying emission requirements, available charging infrastructure and the availability and development of sufficient clean and zero-emission construction equipment.
2. The National Government will ensure that an independent evaluation of the Roadmap and this Covenant will take place in 2025, 2027 and 2030. The Parties will be closely involved in these evaluations. The evaluation will examine, in particular, whether the policy objectives in the field of nitrogen, CO_2 and particulate matter are met in the most efficient and effective way possible. It will also look at whether the roadmap functions in line with the original assumptions and whether the necessary preconditions are met, including availability of sufficient loading and refuelling infrastructure and zero-emission equipment.
3. Part of the evaluation referred to in paragraph 2 is the feasibility and affordability of applying the levels. The Parties recognise that uncertainty about the availability of zero-emission equipment and additional costs exists mainly in achieving the ambitious level. If the review shows that due to a shortage of zero emission construction equipment, application of the ambitious level is not feasible or if the cost of the ambitious level is significantly higher than foreseen at the time of signing, the Parties will review the number of projects in which this level is applied and consider what measures could increase feasibility.
4. In 2023, the Clean Air Agreement, in cooperation with the SEB programme, will investigate whether wider application of the agreements in this Covenant for mobile machinery outside construction is possible.
5. If it appears that the Parties do not comply with the agreements in this Covenant, the SEB Task Force discusses this with the Parties concerned and an approach is discussed as to how the Parties concerned can still comply with the agreements. Administrative consultations will be organised if necessary.

Article 11: Communication strategy

1. The National Government will conduct stakeholder interviews and support the Communication Working Group with a communication specialist commissioned or employed by National Government, a representative of the Dutch government and representatives of the Parties. The Parties that are not affiliated to this Covenant can also provide input.
2. The Parties will provide input through stakeholder interviews and participation in the Communication Working Group for the Joint Communication Plan, on the basis of which The Parties develop a joint communication strategy.
3. The Parties will jointly implement and update the communication strategy if necessary. The communication approach will be adapted as much as possible to the target group concerned and the phase of the implementation of this Covenant in order to maximise the impact. In addition, the Parties will participate in periodic feedback sessions.
4. The Parties actively communicate about the SEB programme to their own constituencies, and disseminate the messages, initiatives and practical applications that are recognisable for their supporters. The Parties actively gather information from their supporters on

communication needs and issues. The Parties communicate information needs with other The Parties during the Communications Working Group.

Article 12: Exchange of information

1. For the exchange of personal data or other data within the framework of this Covenant, such as company data, competitively sensitive information, and the processing thereof, the Parties agree that the requirements of applicable European and national laws and regulations, such as the General Data Protection Regulation and the Open Government Act, are met.
2. The exchange of information between them will not lead to the exchange of competitive information between the Parties, either directly or indirectly through the SEB Task Force and working groups referred to in Articles 6 and 7 or lead to other agreements contrary to competition law.

Article 13: Compliance and resolution of disputes

1. The Parties agree that compliance with the agreements in this Covenant is not legally enforceable.
2. All disputes relating to this Covenant the Parties will endeavour to resolve by mutual agreement. If the Parties fail to do so, the dispute may be referred to the SEB Task Force.
3. The SEB Task Force will seek a solution to the dispute and give the Parties involved in the dispute an opportunity to express their views. If no solution has been found after six months, the SEB Task Force will provide advice to the Parties involved in the dispute.

Article 14: Implementation in accordance with European law

The agreements of this Covenant and their further elaboration will be implemented in accordance with international law, European law and Dutch law in particular insofar as the agreements are subject to the operation of international, European and Dutch rules relating to procurement, competition, state aid and technical standards and regulations.

Article 15: Amendment of the Covenant

1. The Parties recognise that new developments, insights or other information may lead to the amendment of this Covenant.
2. If it appears that additional efforts are necessary to achieve the objective referred to in Article 1, the Parties will add, to the extent necessary, agreements on additional measures to this Covenant.
3. Any Party may request the other The Parties in writing to amend this Covenant. The request for amendment will be submitted to the Secretariat referred to in Article 6(2).
4. The Secretariat will notify the Parties in writing of the request for amendment of this Covenant within four weeks.
5. An amendment to this Covenant requires the agreement of all the Parties.
6. No later than six weeks after the Secretariat has sent them a request for consent, the Parties will inform the Secretariat whether they can agree to the request. In the absence of a response within the deadline, a party is deemed to have agreed to the amendment.
7. If the request to amend this Covenant is for an amendment to Article 2, the request will be placed on the agenda of the SEB Task Force referred to in Article 6(1).
8. The amendment is published in the Government Gazette and www.[PM]
9. The amendment applies as an annex to this Covenant.
10. A change in this Covenant is also made in the Roadmap SEB.

Article 16: Annex to the Covenant

The annexes to this Covenant form an integral part of this Covenant.

Article 17: Accession to the Covenant

1. New parties may accede for the duration of this Covenant by means of a written request to the Secretariat as referred to in Article 6(2).
2. Accession of a Party to this Covenant will only be possible if all the Parties agree to a request for accession. The Parties will not withhold this consent on unreasonable grounds.
3. The Secretariat of the SEB Task Force will maintain an up-to-date list of the Parties in Annex 2 to this Covenant. This Annex will be published in the Government Gazette every six months, if it changes.

Article 18: Cancellation and termination

1. Either Party may terminate its participation in this Covenant in writing at any time with a notice period of two months. The Party concerned will, in consultation with the other The Parties, ensure that the obligations, agreements and commitments existing at the time of termination under this Covenant are attached.
2. This Covenant may be terminated before the end of the term referred to in Article 19, if all the Parties so agree in writing.

Article 19: Term and entry into force

1. This Covenant will enter into force upon signature by all the Parties and will be entered into for a period from the date of entry into force until 31 December 2030.
2. The Parties will implement all the agreements referred to in this Covenant as soon as possible and within six months at the latest.
3. Extension of the term of this Covenant is possible. The Parties will enter into consultations on the continuation of this Covenant no later than 6 months before 31 December 2030.

Article 20: Publication

After signing this Covenant, its text will be made public in the Government Gazette and on www.[PM].

Article 21: Signature in different copies

This Covenant can be signed in several copies, which together have the same legal effect as if these agreements had been signed by all signatories in one copy.

Article 22: Citation

This Covenant may be cited as the 'Clean and Emissions-Free Construction Covenant'.

Thus agreed and signed in two copies at [place] on [date]:

[Signature by the Parties]

Annex 1 Emission requirements for construction equipment

Table 1 Basic level of mobile equipment

	Periode 1 1 jan. 2023 - 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 en verder
Licht ('minimaterieel' <19 kW)	Geen eis	Geen eis	100% ZE	100% ZE
Licht (19-37 kW)	Stage IIIa	Stage IIIa	100% ZE	100% ZE
Licht (37-56 kW)	Stage IIIb	Stage IIIb	100% ZE	100% ZE
Middelzwaar (56-130 kW)	Stage IIIb	Stage IV met roetfilter*	Stage IV met roetfilter*	Stage IV met roetfilter* (2030) 100% ZE (2035)
Zwaar (130-560 kW)	Stage IIIb	Stage IV met roetfilter*	Stage IV met roetfilter*	Stage IV met roetfilter* (2030) 100% ZE (2035)
Specialistisch (levensduur >15 jaar) Zeer zwaar (>560 kW)	Geen eis	Geen eis	Katalysator en roetfilter*	Katalysator en roetfilter* 100% ZE (2035-2040)
Stationair (generatoren, pompen, torenkranen)	Gelijk aan eisen niet-stationair	Gelijk aan eisen niet-stationair	100% ZE <560kW >560 kW gelijk aan eisen niet-stationair	100% ZE <560kW >560 kW gelijk aan eisen niet-stationair

	Period 1 1 Jan. 2023-31 Dec. 2024	**Period 2** 1 Jan. 2025-31 Dec. 2027	**Period 3** 1 Jan. 2020-31 Dec. 2029	**Period 4** 1 Jan. 2030 and beyond
Light ('mini-material' <19 kW)	No requirement	No requirement	100 % ZE	100 % ZE
Light (19-37 kW)	Stage IIIa	Stage IIIa	100 % ZE	100 % ZE
Light (37-56 kW)	Stage IIIb	Stage IIIb	100 % ZE	100 % ZE
Medium (56-130 kW)	Stage IIIb	Stage IV with particulate filter*	Stage IV with particulate filter*	Stage IV with particulate filter* (2030) 100 % ZE (2035)
Heavy (130-560 kW)	Stage IIIb	Stage IV with particulate filter*	Stage IV with particulate filter*	Stage IV with particulate filter* (2030) 100 % ZE (2035)
Specialist (life > 15 years) Very heavy (> 560 kW)	No requirement	No requirement	Catalyst and particulate filter*	Catalyst and particulate filter* 100 % ZE (2035-2040)
Stationary (generators, pumps, tower cranes)	Equal to non-stationary requirements	Equal to non-stationary requirements	100 % ZE &560kW	100 % ZE &560kW

			>560 kW equal to requirements non-stationary	>560 kW equal to requirements non-stationary

* 'Catalyst' refers to an effective SCR catalyst. 'Soot filter' refers to a working, sealed soot filter.

Table 2 Ambitious level of mobile equipment

	Periode 1 1 jan. 2023 - 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 - en verder
Aandeel koploperprojecten*	5 - 25%	25 - 50%	50 - 80%	75 - 95%
Ingroei emissieloos materieel				
(Percentage ZE verricht arbeid in een project, draaiuren x vermogen)	10 - 30%	30 - 70%	70 - 90%	90 - 100%

	Period 1 1 Jan. 2023-31 Dec. 2024	**Period 2** 1 Jan. 2025-31 Dec. 2027	**Period 3** 1 Jan. 2028-31 Dec. 2029	**Period 4** 1 Jan. 2030-and beyond
Share of Frontrunner projects*	5 – 25 %	25 – 50 %	50 – 80 %	75-95 %
Emissions-free equipment growth				
(Percentage of ZE performed labour in a project, running hours x power)	10-30%	30 – 70 %	70 – 90 %	90-100%

* Percentage of a client's project portfolio

Table 3 Basic level of construction transport

	Periode 1 1 jan. 2023- 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 - en verder
N1 - Bestelauto's	Euro 5	Euro 6	100% ZE	100% ZE
N2 - Lichte vrachtwagens	Euro V	Euro VI	Euro VI	100% ZE
N3 - Zware vrachtwagens	Euro V	Euro VI	Euro VI	Euro VI

	Period 1 1Jan.2D23-31dec.2024	**Period 2** 1 Jan. 2025-31 Dec. 2027	**Period 3** 1 Jan. 2028-31 Dec. 2029	**Period 4** 1 Jan. 2030 and beyond
N1 - Vans	EUR 5	EUR 6	100 % ZE	100 % ZE
N2 - Light trucks	Euro V	Euro VI	Euro VI	100 % ZE

N3 - Heavy trucks	Euro V	Euro VI	Euro VI	Euro VI

Table 4 Ambitious level of construction transport

	Periode 1 1 jan. 2023 - 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 - en verder
Aandeel koploperprojecten*	5 - 25%	25 - 50%	50 - 80%	75 - 95%
Ingroei emissieloos materieel				
N1 - Bestelauto's	50% ZE	100% ZE	100% ZE	100% ZE
N2 - Lichte vrachtwagens	10% ZE	50% ZE	100% ZE	100% ZE
N3 - Zware vrachtwagens	1% ZE	10% ZE	30% ZE	100% ZE

	Period 1 1 Jan. 2023-31 Dec. 2024	Period 2 1 Jan. 2025-31 Dec. 2027	Period 3 1 Jan. 2028-31 Dec. 2029	Period 4 1 Jan. 2030 and beyond
Share of Frontrunner projects*	5-25%	25 – 50 %	50 – 80 %	75 – 95 %
Emissions-free equipment growth				
N1- Delivery vans	50 % ZE	100 % ZE	100 % ZE	100 % ZE
N2 - Light trucks	10 % ZE	50 % ZE	100 % ZE	100 % ZE
N3- Heavy trucks	1%ZE	10 % ZE	30 % ZE	100 % ZE

* Percentage of a client's project portfolio

Table 5 Emission requirements for specialist track equipment

	Periode 1 1 jan. 2023 - 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 - en verder
Minimumeisen aan het ingezette materieel				
Licht spoormaterieel (<56 kW) (met name klein mechanisch gereedschap)	Autonome ontwikkeling (ambitie 20% ZE)	Ambitie: 80% ZE	100% ZE	100% ZE
Middelzwaar spoormaterieel (56-130 kW; waaronder krollen)	Stage IIIb Stimuleren ZE	Stage IV + roetfilter Ambitie: 20% ZE	Stage IV + roetfilter Ambitie: 50% ZE	Ingroei naar 100% ZE (uiterlijk 2035)
Specialistisch / zwaar spoormaterieel	Onderzoek / ontwikkeling verduurzamingsopties (retrofit/ZE/hybride)	Start toepassing SCR + roetfilter Ambitie ZE: min.1 ZE-stopmachine	Eis: minimaal SCR + roetfilter Ingroei ZE: ambitie 10-20% ZE	Eis: minimaal SCR + roetfilter Doorgroeien naar 50-100% ZE (2035-2040)
Rail-wegvoertuigen en bouwtransport*				
Middelzware rail-wegbussen (N1; < 3.500 kg)	Euro 5 Stimuleren ingroei ZE of hybride	Minimaal Euro 6, hybride of ZE *+eisen voor ZE-stadzones	Eis: 100% ZE	Eis: 100% ZE
Middelzwaar rail-weg materieel (N2/3; > 3.500 kg)	Euro V Stimuleren ingroei ZE of hybride	Minimaal Euro VI, hybride of ZE	Minimaal Euro VI, hybride of ZE	N2: 100% ZE N3: Euro VI (ZE in uiterlijk 2035)
Transport van materialen naar de bouwlocatie m.b.v. diesellocs	Onderzoek / ontwikkeling verduurzamingsopties (retrofit/ZE/hybride) Procesmaatregelen	Start toepassing SCR + roetfilter Ingroei hybride / ZE Procesmaatregelen	Toepassing SCR + roetfilter Ambitie: 20% ZE Procesmaatregelen	Toepassing SCR + roetfilter Ambitie: > 50% ZE Procesmaatregelen

	Period 1 1 Jan. 2023-31 Dec. 2024	Period 2 1 Jan. 2025-31 Dec.2027	Period 3 1 Jan. 2028-31 Dec. 2029	Period 4 1 Jan. 2030 and beyond
Minimum requirements for the equipment used				
Light track equipment (<56 kW) (especially small mechanical tools)	Autonomous development (ambition 20% ZE)	Ambition: 80 % ZE	100 % ZE	100 % ZE
Medium-heavy track equipment (56-130 kW; including scrolls)	Stage IIIb Stimulate ZE	Stage IV + particulate filter Ambition: 20 % ZE	Stage IV + particulate filter Ambition: 50 % ZE	Growth to 100% ZE (no later than 2035)

Specialist/heavy track equipment	Research/development of sustainability options (retrofit/ZE/hybrid)	Start application SCR + particulate filter Ambition ZE: min.1 ZE tamping machine	Requirement: minimum SCR + particulate filter Growth ZE: ambition 10-20% ZE	Requirement: minimum SCR + particulate filter Advancing to 50-100% ZE (2035-2040)
Railway vehicles and construction transport*				
Medium-heavy rail-road buses (N1; < 3 500 kg)	EUR 5 Encourage growth ZE or hybrid	Minimum EUR 6,hybrid or ZE *+requirements for ZE city zones	Requirement: 100 % ZE	Requirement: 100 % ZE
Medium-heavy rail-road equipment (N2/3; > 3 500 kg)	Euro V Encourage growth ZE or hybrid	Minimum Euro VI, hybrid or ZE	Minimum Euro VI, hybrid or ZE	N2:100%ZE N3: Euro VI (ZE in 2035 at the latest)
Transport of materials to the construction site by means of diesel locomotives	Research/development of sustainability options (retrofit/ZE/hybrid) Procedural measures	Start application SCR + soot filter Growth hybrid / ZE Procedural measures	Application SCR + particulate filter Ambition: 20 % ZE Procedural measures	Application SCR + particulate filter Ambition: > 50% ZE Procedural measures

Table 6 Basic level of floating construction equipment

	Periode 1 1 jan. 2023 - 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 -en verder
Transitiepad Kustlijnzorg en vaargeulonderhoud – zout Sleephopperzuigers, kraanschip, cutter zuiger, hopperzuiger, water injectie baggeren	Minimaal emissie conform tier klasse I *a/b Minimaal 10% duurzame energiedragers	Minimaal emissie conform tier klasse I *a/b Minimaal 20% duurzame energiedragers	Minimaal emissie conform tier klasse II *a/b Minimaal 40% duurzame energiedragers	Minimaal emissie conform tier klasse III *a/b Minimaal 60% duurzame energiedragers
Transitiepad Kustlijnzorg en vaargeulonderhoud – zoet Transportschip, sleep-, duw- en peilboten, schuifboten, survey schepen, kleine cutterzuigers*d, overig klein varend materieel	Geen eis emissienorm Minimaal 20% duurzame energiedragers	Geen eis emissienorm Minimaal 35% duurzame energiedragers	Minimaal emissies conform CCR II*c Minimaal 60% duurzame energiedragers	Minimaal emissies conform CCR II*c Minimaal 75% duurzame energiedragers
Transitiepad Kustlijnzorg en vaargeulonderhoud – zoet Kraanschip, cutterzuiger, bakkenzuigers, beunschepen, heischepen, werkschepen, hopperzuiger	Geen eis emissienorm Minimaal 20% duurzame energiedragers	Geen eis emissienorm Minimaal 35% duurzame energiedragers	Minimaal emissies conform CCR II*c Minimaal 60% duurzame energiedragers	Minimaal emissies conform stage V (IWP-IWA)*c Minimaal 75% duurzame energiedragers

	Period 1 1 Jan. 2023-31 Dec. 2024	Period 2 1 Jan. 2025-31 Dec. 2027	Period 3 1 Jan. 2020-31 Dec. 2029	Period 4 1 Jan. 2030 and beyond
Transition path Coastline care and fairway maintenance - salt	Minimum emission according to Tier 1 *a/b	Minimum emission according to Tier I *a/b	Minimum emission according to Tier II *a/b	Minimum emission according to Tier III *a/b
Trailing suction hopper dredgers, crane vessel, cutter suction dredger, hopper dredging, water injection dredging	At least 10 % renewable energy sources	At least 20 % renewable energy sources	At least 40 % renewable energy sources	At least 60 % renewable energy sources
Transition path Coastline care and fairway maintenance - fresh	No emission standard requirement	No emission standard requirement	Minimum emissions according to OCR II»c	Minimum emissions according to CCR II*c
Transport vessel, tugs, pushers and sounding boats, pushers, survey vessels, small cutter suction dredgers*d, other small floating equipment	At least 20 % renewable energy sources	At least 35 % renewable energy sources	At least 60 % renewable energy sources	At least 75 % renewable energy sources
Transition path Coastline care and fairway maintenance - fresh	No emission standard requirement	No emission standard requirement	Minimum emissions according to CCR II*c	Minimum emissions according to Stage V (IWP-IWAJ'c)
Crane ship, cutter suction dredger, hopper dredger, barge, pile driver, working vessels, hopper dredger	At least 20 % renewable energy sources	At least 35 % renewable energy sources	At least 60 % renewable energy sources	At least 75 % renewable energy sources

Notes to Table 6:
*a: Certified Tier I to III as established by the International Maritime Organisation (IMO MARPOL Annex VI Regulation 13, 2005) or retrofit complying with Tier I to III emission standards
*b: Except for vessels with a hopper capacity > 15 000 m^2 where it has been demonstrated that they are necessary for the execution of the work
*c: Certified CCR I to CCR II as established by the Central Commission for Navigation on the Rhine, or retrofit meeting emission standards CCR I to CCR II. Certified Stage V (IWP-IWA) as laid down in Regulation (EU) 2016/1628 or retrofit meeting Stage V emission standards (IWP-IWA)
*d: Small cutter pistons are pistons used exclusively in zone 4 waters

Under 'renewable energy carriers', the following options are allowed from SEB:

- Biofuels: Biofuels derived from raw materials listed in Annex IX list A or B from the latest European RED Directive;
- Conventional biofuels;
- RFNBOs: renewable fuels, such as renewable hydrogen and synthetic fuels[14].Also known as RFNBOs; renewable fuels of non-biological origin;
- HE: Renewable electricity.
-

[14]The use of synthetic fuels for vessels is currently not defined in the Energy Transport Regulation, which means that they are not subject to the annual obligation and cannot be claimed on HBEs.

Table 7 Ambitious level of floating construction equipment

	Periode 1 1 jan. 2023 - 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 -en verder
Transitiepad Kustlijnzorg en vaargeulonderhoud – zout Sleephopperzuigers, kraanschip, cutter zuiger, hopperzuiger, water injectie baggeren	Ambitie 20% Tier klasse III *a Ambitie 20% biobrandstoffen Ambitie 1% RFNBO's of HE	Ambitie 50% Tier klasse III *a Ambitie 40% biobrandstoffen Ambitie 2% RFNBO's of HE	100% Tier klasse III *a Ambitie 60% biobrandstoffen Ambitie 5% RFNBO's of HE	100% Tier klasse III *a Ambitie 90% biobrandstoffen Ambitie 10% RFNBO's of HE
Transitiepad Kustlijnzorg en vaargeulonderhoud – zoet Transportschip, sleep-, duw- en peilboten, schuifboten, survey schepen, kleine cutterzuigers*c, overig klein varend materieel	Ambitie 20% biobrandstoffen Ambitie 1% RFNBO's of HE	Ambitie 10% stage V (IWP-IWA-NRE) *a Ambitie 40% biobrandstoffen Ambitie 2% RFNBO's of HE	Ambitie 40% stage V (IWP-IWA-NRE) *b Ambitie 60% biobrandstoffen Ambitie 5% RFNBO's of HE	Ambitie 70% stage V (IWP-IWA-NRE) *b Ambitie 85% biobrandstoffen Ambitie 15% RFNBO's of HE
Transitiepad Kustlijnzorg en vaargeulonderhoud – zoet Kraanschip, cutterzuiger, bakkenzuigers, beunschepen, heischepen, werkschepen, hopperzuiger	Ambitie 20% biobrandstoffen Ambitie 1% RFNBO's of HE	Ambitie 25% stage V (IWP-IWA-NRE) *b Ambitie 40% biobrandstoffen Ambitie 2% RFNBO's of HE	Ambitie 60% stage V (IWP-IWA-NRE) *b Ambitie 60% biobrandstoffen Ambitie 5% RFNBO's of HE	Ambitie 100% stage V (IWP-IWA-NRE) *b Ambitie 85% biobrandstoffen Ambitie 15% RFNBO's of HE

	Period 1 1 Jan. 2023-31 Dec. 2024	Period 2 1 Jan. 2025-31 Dec. 2027	Period 3 1 Jan. 2028-31 Dec. 2029	Period 4 Ijon. 2030-and beyond
Transition path Coastline care and fairway maintenance - salt	Ambition 20% Tier class III >a	Ambition 50 % Tier klasse lil «a	100 %Tier class III «a	100 % Tier class III *a
Trailing suction hopper dredgers, crane vessel, cutter suction dredger, hopper dredging, water injection dredging	Ambition 20 % biofuels Ambition 1 % RFNBOs or HE	Ambition 40 % biofuels Ambition 2 % RFNBOs or HE	Ambition 60 % biofuels Ambition 5 % RFNBOs or HE	Ambition 90 % biofuels Ambition 10 % RFNBOs or HE
Transition path Coastline care and fairway maintenance - fresh	Ambition 20 % biofuels	Ambition 10 % stage V (IWP-IWA-NRE) -a	Ambition 40 % stage V (IWP-IWA-NRE) -b	Ambition 70% stage V (IWP-IWA-NRE) -b
Transport vessel, tugs, pushers and sounding boats, sulphur boats, survey vessels, small cutter suction dredgers, other small floating equipment	Ambition 1 % RFNBOs or HE	Ambition 40 % biofuels Ambition 2 % RFNBOs or HE	Ambition 60 % biofuels Ambition 5 % RFNBOs or HE	Ambition 85 % biofuels Ambition 15 % RFNBOs or HE
Transition path Coastline care and fairway maintenance - fresh Crane ship, cutter suction dredger, hopper dredger, barge, pile driver, working vessels, hopper dredger	Ambition 20 % biofuels Ambition 1 % RFNBOs or HE	Ambition 25 % stage V (IWP-IWA-NRE) Ambition 40 % biofuels Ambition 2 % RFNBOs or HE	Ambition 60 % stage V (IWP-IWA-NRE) «b Ambition 60 % biofuels Ambition 5 % RFNBOs or HE	Ambition 100% stage V (IWP-IWA-NRE) -b Ambition 85 % biofuels Ambition 15 % RFNBOs or HE

Notes to Table 7:
*a: Certified Tier I to III as established by the International Maritime Organisation (IMO MARPOL Annex VI Regulation 13, 2005) or retrofit complying with Tier I to III emission standards
*b: Certified CCR I to CCR II as established by the Central Commission for Navigation on the Rhine, or retrofit meeting emission standards CCR I to CCR II. Certified Stage V (IWP-IWA) as laid down in Regulation (EU) 2016/1628 or retrofit meeting Stage V emission standards (IWP-IWA)
*c: Small cutter pistons are pistons used exclusively in zone 4 waters

Under 'renewable energy carriers', the following options are allowed from SEB:

- Biofuels as referred to in Table 7: Biofuels derived from raw materials listed in Annex IX list A or B from the latest European RED Directive;
- Conventional biofuels;
- RFNBOs: renewable fuels, such as renewable hydrogen and synthetic fuels[15].Also known as RFNBOs; renewable fuels of non-biological origin;
- HE: Renewable electricity.

[15]The use of synthetic fuels for vessels is currently not defined in the Energy Transport Regulation, which means that they are not subject to the annual obligation and cannot be claimed on HBEs.

Table 8 Floating construction equipment Energy (salt)

	Periode 1 1 jan. 2023 - 31 dec. 2024	**Periode 2** 1 jan. 2025 - 31 dec. 2027	**Periode 3** 1 jan. 2028 - 31 dec. 2029	**Periode 4** 1 jan. 2030 -en verder
Kabellegschip, Baggerschip , Valpijpschip, Kraanschip, Crew Tender Vessel, en Wachtschip	Gemiddeld 30% reductie tov IMO NOx Tier II voor alle schepen (*a/b) Gemiddeld minimaal 10% duurzame energiedragers (*c)	Gemiddeld 40% reductie tov IMO NOx Tier II voor alle schepen (*a/b) Gemiddeld minimaal 20% duurzame energiedragers (*c)	Gemiddeld 45% reductie tov IMO NOx Tier II voor alle schepen (*a/b) Gemiddeld minimaal 40% duurzame energiedragers (*c)	Gemiddeld 50% reductie tov IMO NOx Tier II voor alle schepen (*a/b) Gemiddeld minimaal 60% duurzame energiedragers (*c)

	Period 1 1 Jan. 2023-31 Dec. 2024	Period 2 1Jan.2025-31dec.2027	Period 3 1 Jan. 2020-31 Dec. 2029	Period 4 1 Jan. 2030 and beyond
Cable laying vessel, Dredger, Valve Ship, Crane Ship, Crew Tender Vessel, and Waiting Ship	Average 30 % reduction compared to IMO NOx Tier II for all ships (a/b)	Average 40 % reduction compared to IMO NOx Tier II for all ships (*a/b)	Average 45 % reduction compared to IMO NOx Tier II for all ships (*a/b)	Average 50% reduction compared to IMO NOx Tier II for all ships (*a/b)
	At least 10 % renewable energy sources on average (*c)	At least 20 % renewable energy sources on average (*c)	At least 40 % renewable energy sources on average (*c)	At least 60 % renewable energy sources on average (*c)

Notes to Table 8:
*a: Reduction in NOx emissions is the average (over all ships in a project, weighted *by energy consumption*) reduction (in Dutch waters) compared to the situation when all ships are Tier II ships. Tier II refers to the emission requirement on ship diesel engines, as established by the International Maritime Organisation (IMO MARPOL Annex VI Regulation 13, 2005).
*b: Excluded are heavy-lift ships
*c: Percentage of renewable energy carriers as a percentage of the energy consumption of all vessels deployed for the project in Dutch waters

Under 'renewable energy carriers', the following options are allowed from SEB:
- Biofuels: Biofuels derived from raw materials listed in Annex IX list A or B from the latest European RED Directive;
- Conventional biofuels;
- RFNBOs: renewable fuels, such as renewable hydrogen and synthetic fuels[16].Also known as RFNBOs; renewable fuels of non-biological origin;
- HE: Renewable electricity.

[16] The use of synthetic fuels for vessels is currently not defined in the Energy Transport Regulation, which means that they are not subject to the annual obligation and cannot be claimed on HBEs.