

DC Dredging Group Energy Management Program

Periodic reporting 1st semester 2022





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1 Introduction

1.1 Periodic reporting

As part of its implementation of the CO2 performance ladder, DC Dredging reports on its CO2 emissions, measures and progress towards reduction targets every six months.

This periodical report describes the following aspects:

- An analysis of CO2 emissions from the first half of 2022;
- The progress of reduction targets through trend analysis;

The preparation of periodic reporting is part of the energy management system introduced under the CO2 performance ladder. This system is described in the Energy Management Program.

The energy management program is based on the European Standard NEN-EN-ISO 50001 "Energy management systems - Requirements with guidance for use". This standard describes the requirements that an energy management program must meet.

The ISO 50001, like ISO 9001 and ISO 14001, is based on the plan-do-check-act (PDCA) cycle: define policies and objectives, plan actions, implement measures, monitor results and, on that basis, re-establish new objectives and possibly adjust policies. This cycle is the core of this standard and will also be used as a structure for this energy management program.

This report describes all the issues as described in the ISO standard

2 Basic information

2.1 Description of the organization

DC Dredging is a group of companies which are mainly involved in extracting granules at sea for the construction industry. This extraction takes place with sea-going vessels. The products are delivered either directly or via inland waterway vessels to the customer. We are also carrying out small dredging projects such as spraying beaches.

2.2 Operational boundaries

Contributions to CO₂ emissions are included in the ISO 14064-1 and the GHG protocol, divided into three scopes. DC Dredging inventorizes, analyzes and reports its energy consumption for its scope 1 and 2 emissions according to ISO 14064-1:

- Scope 1: consumption of fuel in operation
- Scope 2: indirect greenhouse gas emissions from the use of energy produced elsewhere from fossil fuels.
- Scope 3: indirect greenhouse gas emissions from activities elsewhere leading to CO₂ emissions.

In order to inventorize and analyze energy consumption, DC Dredging uses its own transfer program based on the above scoping diagram and conversion factors for converting energy consumption into CO₂ emissions (Annex C Manual CO₂ Performance ladder).

2.3 Responsibilities

Document	Content	Responsible	Update
Energy management program (B1)	Energy policy	MT	Annual
Internal Audit (1.1)	Review of the Energy Management Program	Internal Auditor Mother DC Dredging (DC Industrial)	Annual
Communication plan (C1)	Target groups, methods and information to be transferred	Finance Manager	Annual
Periodic reporting (1.2a/b)	Progress and analysis	Finance Manager	Half-yearly
Action Plan (B2)	Reduction measures, responsibilities and initiatives	MT	Annual
Executive Board assessment 1.2	Management review of the CO ₂ performance ladder with input results from audits, follow-up actions from other management assessments and recommendation for improvement	MT	Annual

2.4 Base year

By clearly identifying areas of interest, reduction measures can be targeted and effectively implemented in the organization. Energy consumption analyses will be compared to a defined base year in order to assess the effects of measures, also over time. This initial energy consumption inventory was carried out for 2017, which is also a base year.

2.5 Reporting period

This periodical report describes the CO₂ emissions from the first half of 2022.

2.6 Projects with award advantage

There have been no projects with an award advantage.

3 Analysis and Progress

3.1 Energy performance and emissions 2022 1st semester

An energy performance statement has been produced within the organization for the first half of 2022.

The different energy flows within DC Dredging have been mapped. An emission inventory looked at which forms of energy are purchased by the various companies under DC. They concern:

Organization Name	Ship/activity	Production of	Scope 1 [t CO ₂]	Consumption [liters] fuel oil	Scope 2 [t CO ₂] (Electra)	Total [t CO ₂]
Ships:						
Interballast BV	DC Ostend	Sand and gravel	4 911	1 429 224		4 911
Interballast BV	Interballast III	Sand	1 701	495,068		1 701
DC Rio BV	RIO	Sand	2,470	718,952		2,470
DC Vlaanderen	DC Vlaanderen	Sand	3,528	1 026 875		3,528
DC Rock BV	DC Brugge	Sand	2,962	862,089		2,962
DC River	DC Orisant	Gravel	17,419	5 069 533		17,419
DC River	Inland waterway vessels	Sand and gravel	2,153	626,645		2,153
		Subtotal:	35,145	10 228 386		35,145
Office and quay:						
DC River	Office Breskens	1.31% / 2*			na	230
DC River	Office and Kade Sluiskil	1.31% / 2*			na	230
		Subtotal:				460
		Total CO2 scope 1+2 :				35,605
				Total CO ₂ scope 1		35,145
				Scope 2 share		652

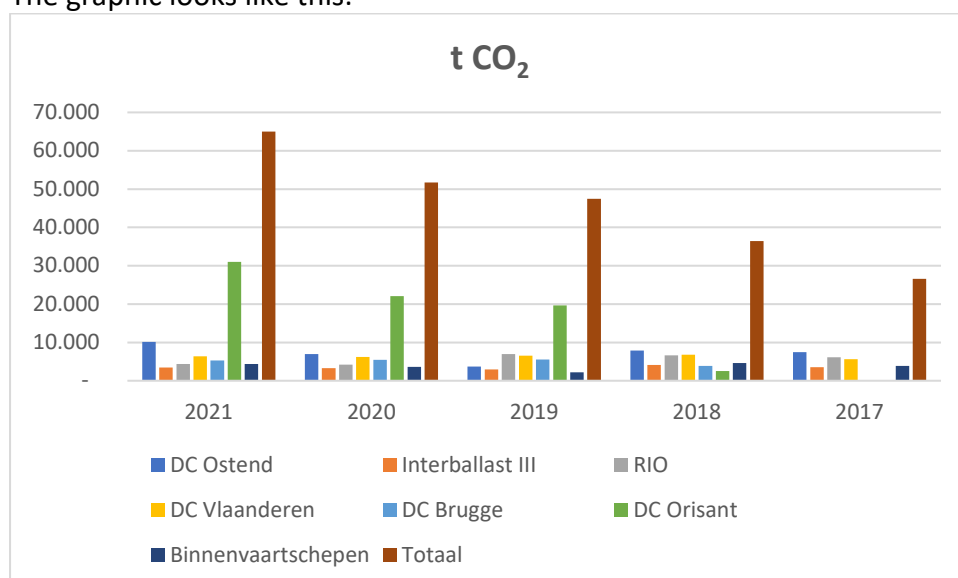
*As the 2018 CO₂ calculation showed that the scope 2 share is very marginal (1,31%) and its activities remained similar to 2018 (financial statements are similar), consumption was not verified for 2020, 2021 and 2022, but increased by 1,31% counted against total scope 2 consumption.

In the design of our CO₂, the system has concluded that almost 99% of our CO₂ consumption is determined by our Marine Gas Oil consumption of the ships. Our measures are therefore aimed in particular at reducing this consumption. In other words, although the scope 2 measures may have an advantage, this would be very marginal in overall terms.

The following are the previous year's emissions as reported:

Organization Name	Ship/activity	[t CO ₂]	[t CO ₂]	[t CO ₂]	[t CO ₂]	[t CO ₂]
Ships:	Ships	2021	2020	2019	2018	2017
Interballast BV	DC Ostend	10,133	6 920	3,735	7,848	7,489
Interballast BV	Interballast III	3,462	3 288	2 910	4,142	3,518
DC Rio BV	RIO	4,407	4,188	6,969	6,641	6,135
DC Vlaanderen	DC Vlaanderen	6,342	6,177	6,536	6,767	5,584
DC Rock BV	DC Brugge	5 280	5,480	5 520	3,904	N/A
DC River	DC Orisant	31,002	22,049	19,618	2,515	N/A
DC River	Inland waterway vessels	4,376	3,620	2,162	4,632	3,886
	Total	65,002	51,722	47,450	36,449	26,612
Office and quay:						
DC River	Office Breskens	426	339	339	171	171
DC River	Office and Kade Sluiskil	426	339	339	171	171
		852	678	678	342	342
		65,854	52,400	48,128	36,791	26,954

The graphic looks like this:



We see an increase in emissions over the years. This is mainly due to the efforts of the DC Orisant. In 2018, this ship entered into operation. The ship was fully operational only in

2020 due to startup problems. Of course, there is also a higher level of production in our sales.

3.2 Progress on reduction targets

Despite the increase in emissions, we have taken a number of measures in early 2022 to reduce the gas oil consumption of ships and CO₂ emissions. The main objective is to reduce fuel consumption by 2% per ton of turnover.

The following actions have already been taken or will be taken in the second half of the year:

- Investment in solar panels at our site of Sluiskil
- Research into the use of alternative fuels during projects
- Place LED lights wherever possible.
- Economic navigation (in particular DC Orisant, also driven by high fuel prices)

In addition to the above measures, the MT seeks to increase its knowledge in the field of CO₂ reduction by participating in various initiatives in this field:

- Member of the Association of Aquaculture Producers (participation in the group of seagoing vessels);
- Participation in NVLB (participation in the Western Scheldt Sands Working Group)
- Membership of Schuttevaer.en
- Participation in CO₂ Neutral events

4 Evaluation of the 2022 Action Plan

4.1 Progress on reduction targets

Our objective 1 (scope 1) is as follows:

Reduce overall fuel oil consumption per ton of turnover by 2%; by the end of 2021 (related to 2017).

The following actions have already been taken or will be taken in the second half of the year:

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- Research into the use of alternative fuels during projects
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In addition to the above measures, the MT seeks to increase its knowledge in the field of CO₂ reduction by participating in various initiatives in this field:

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- Membership of Schuttevaer.en
- Participation in CO₂ Neutral events
- Informing staff about developments in CO₂ reduction (through meetings and learning on the job)

4.2 Conclusion on progress and achievement

Reducing the CO₂ of our ships is difficult. Only a significant investment in engines will be able to contribute. However, we can see that the awareness of staff and the participation in solutions has increased.