GLOMAR // OFFSHORE

CO2 Performance Ladder
Communication 2023

Organization: Glomar Offshore
Contact: Martin Buschman

Advisor: Harro van der Vlugt
Consultancy: De Duurzame Adviseurs

Date: July 17, 2024
Version: 1.1

de duurzame adviseurs

Table of contents

1 Introduction to the CO2 Performance Ladder

The CO2 Performance Ladder is a management system that focuses on CO2 reduction, energy savings and the use of sustainable energy within business operations and in projects and in the chain. The system requires continuous improvement of insight, further CO2 reduction measures, communication and cooperation in business operations. It helps organizations structure internal business processes around sustainability and set up sustainability reporting with a focus on CO2. In addition to the social importance of sustainability, it also offers opportunities for inspiring internal and external stakeholders, differentiating themselves from competitors, cost savings and complying with legislation. In addition, certification on the CO2 Performance Ladder can be advantageous in tenders from (public) clients. The more an organisation makes an effort to reduce CO2, the greater the chance of being awarded a contract.

The CO2 Performance Ladder has five levels, with levels one, two and three focusing on the organisation's own organisation and levels four and five taking a step towards the organisation's chain. In order to climb the ladder to the next level, all mandatory standard requirements of the underlying levels must be met. Each level includes the following four perspectives:

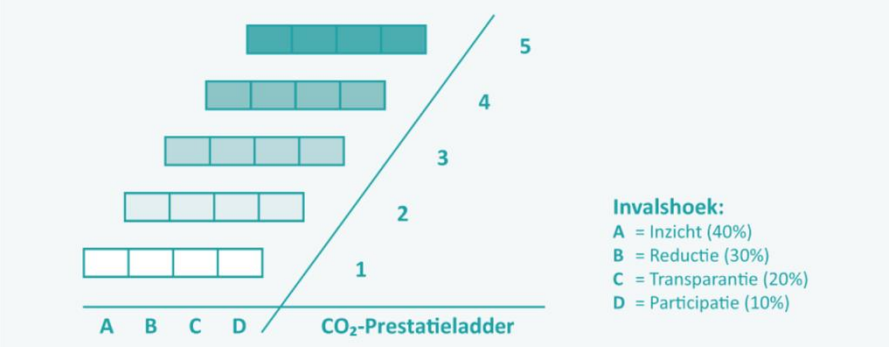
A. Insight makes an organization aware of its own CO2 performance, the risks and opportunities, provides the organization with information that it can use to formulate effective goals and measures to reduce CO2 emissions, and where communication and cooperation should focus. Angle A encourages organisations to know their own emissions and in the chain. The organization achieves continuous improvement in the depth, scope, and efficiency of insight and quality of the emissions inventory.

B. Reduction creates opportunities for reducing energy consumption and CO2 emissions, and promotes cooperation so that the most efficient options for reduction in the chain are addressed. The organization achieves continuous improvement in the efficiency of measures, in setting and achieving goals and demonstrating progress on objectives and measures.

C. Transparency encourages creative engagement among employees. Organizations also know about each other's commitments, and an organization can be held accountable by others for its ambitions and progress. The organization achieves continuous improvement in the depth and dissemination of communication and in the incorporation of input from internal and external stakeholders.

D. Participation allows an organisation to invest in collaboration, sharing its own knowledge and, where possible, making use of knowledge that has been developed elsewhere. The organization achieves continuous improvement in selecting useful initiatives and applying the knowledge in the organization.

A recognised certification body assesses the activities and determines the level of the CO2 Performance Ladder. To do this, steps must be taken at all angles of the ladder. In the figure below, the above text is shown schematically with the corresponding weighting of the angles for certification (source: CO2 Performance Ladder 3.1 Handbook, SKAO).



2 Energy Management Targets

In order to maintain the CO2 Performance Ladder, actions, schedules and responsibilities have been assigned within the organisation. These are shown in this chapter.

Acties, planning en verantwoordelijken

From level	Approach	Action	Interval	Planning	CO2 Project Manager	Management	Accounting	Accreditor		
		PHASE TRANSCENDING								
General		Comply with continuous improvement according to the management cycle	Continuous	Continuous	x	x				
General		Meeting project requirements	Continuous	Continuous	x	x				
General		Comply with mandatory internet publication on the SKAO website	Annual	April	x	x				
General		Comply with contribution obligation to the SKAO	Annual	April	x	x	x			
		PLAN								
2	C	Update control cycle and TVB matrix	Annual	April	x					
3	B	Update and approve energy management action plan	Biannual	April, September	x					
2	C	Update list of internal and external stakeholders	Annual	April	x					
3	C	Update and approve communication plan	Annual	April	x					
General		Update and approve organizational boundaries	Annual	April	x	x				
General		Update organization size	Annual	April	x					
General		Schedule internal audit	Annual	April	x					
General		Schedule an external audit with the certification body	Annual	April	x			x		
1	A	Update list of energy flows	Biannual	April, September	x					
3	A	Update CO2 emission factors	Annual	April	x					
3	B	Update and approve the action plan for scope 1, 2 and 3 (business travel).	Biannual	April	x					
3	B	Update SKAO list of measures and ambition definition	Annual	April, September	x					
3	B	Update and approve objectives of scope 1, 2 and 3 (business travel).	Biannual	April, September	x					
1	D	Inventory possible relevant initiatives	Annual	April	x					
2	D	Update list of initiatives, approve and plan participation	Annual	April	x	x				
		DO								
2	A	Collect data for the CO2 emissions inventory	Annual	April	x		x			
3	A	Prepare emissions inventory report	Annual	April	x					
2	A	Perform energy assessment	Annual	April	x					
3	B	Execute action plan	Continuous	Continuous	x	x				
3	B	Determining progress for scope 1, 2 and 3 (business travel)	Annual	April	x					
3	C	Execute communication plan	Biannual	April, September	x					
3	D	Attend initiatives	Biannual	Continuous	x	x				
		CHECK								
3	A	Perform quality control on the emission inventory reporting	Annual	April			x			
3	B	Evaluate progress of the action plan	Biannual	April, September	x	x				
3	B	Evaluate progress towards objectives	Biannual	April, September	x	x				
3	C	Evaluate implementation of the communication plan	Biannual	April, September	x	x				
3	D	Evaluate attendance at the initiatives	Annual	April	x	x				
General		Conduct internal audit	Annual	April	x					
General		Conduct external audit	Annual	July	x	x		x		
		ACT								
General		Restore corrective actions from internal audit	Annual	May	x	x				
General		Correct discrepancies from the external audit	Annual	July	x	x				
General		Adjust on points of interest from the "check" phase	Biannual	Continuous	x					
General		Include required budgets in the management review	Annual	June	x					
General		Conduct management review including recording outstanding action points	Annual	June	x	x				

Scope 1, 2 en business travel

Emssion flow	Unit	Source	Responsible	Verification	Measures for improvement
Natural gas consumption					
Handelsweg 4	2304 m3	Invoice	QHSE + Accounting	Per invoice	
Handelsweg 12	0 m3	Invoice	QHSE + Accounting	Per invoice	
Marina Park 114	1300 m3	Invoice	QHSE + Accounting	Per invoice	
Het Nieuwe Diep 34A2	0 m3	Invoice	QHSE + Accounting	Per invoice	
Het Nieuwe Diep 34A3	0 m3	Invoice	QHSE + Accounting	Per invoice	
Het Nieuwe Diep 34A5	585 m3	Invoice	QHSE + Accounting	Per invoice	
Het Nieuwe Diep 34A7	2417 m3	Invoice	QHSE + Accounting	Per invoice	
Het Nieuwe Diep 34B1	1059 m3	Invoice	QHSE + Accounting	Per invoice	
Fuel company cars					
Diesel (B7)	13981,85 l	TravelCard reports	QHSE + Accounting	Per vehicle registration	
Petrol	5439,75 l	TravelCard reports	QHSE + Accounting	Per vehicle registration	
Fuel assets (vessels)					
Gasoil	2305459 l	Invoice	QHSE + Accounting	Per vessel	
MGO CXL	355997 l	Invoice	QHSE + Accounting	Per vessel	
ULSD CXL	4116110 l	Invoice	QHSE + Accounting	Per vessel	
Electricity					
Handelsweg 4	2220 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Handelsweg 12	8492 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Marina Park 114	2900 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Het Nieuwe Diep 34A2	1570 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Het Nieuwe Diep 34A3	7296 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Het Nieuwe Diep 34A5	5518 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Het Nieuwe Diep 34A7	1666 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Het Nieuwe Diep 34B1	7169 kWh	Meter readings + invoice	QHSE + Accounting	Accurate	
Heat					
N/A	GJ				
Business travel					
Glomar Offshore	6717 km	Declarations	QHSE + Accounting	Cross verification Accounting/HRM	
Seaspan Holding	941 km	Declarations	QHSE + Accounting		
Air travel					
Flights		Invoice	QHSE + Accounting	Per invoice	
	42000 km				

3 CO2 emissions 2023

TABLE M2. OVERVIEW CO2 EMISSIONS, ENTIRE ORGANIZATION				2023 Full Year	
TYPE EMISSION FLOW SCOPE 1	**NUMBER**	**UNIT**	**CONVERSION FACTOR (g CO2 per unit)**	**EMISSION (tonnes of CO2)**	
Natural gas consumption	7.665	m^3	2.085	15,9	0,1%
Asset Fuel Consumption - Marine Diesel Oil	6.777.566	litre	3.436	23.287,7	99,6%
Fuel consumption assets - HVO6	0	litre	3.081	-	0,0%
Fleet Fuel Consumption - Diesel	13.982	litre	3.256	45,5	0,2%
Fleet Fuel Consumption - Gasoline	5.440	litre	2.821	15,3	0,1%
			Total scope 1	**23.364,4**	
TYPE EMISSION FLOW SCOPE 2	**NUMBER**	**UNIT**	**CONVERSION FACTOR (g CO2 per unit)**	**EMISSION (tonnes of CO2)**	
Electricity consumption - grey electricity (fossil)	36.831	kWh	456	16,8	0%
Electricity consumption - green electricity (renewable)	0	kWh		-	0%
Electricity consumption - cars	0	kWh		-	0%
			Total scope 2	**17**	
TYPE EMISSION FLOW BUSINESS TRAVEL	**NUMBER**	**UNIT**	**CONVERSION FACTOR (g CO2 per unit)**	**EMISSION (tonnes of CO2)**	
Business transport - declared kilometres	7.658	km	193	1,5	0%
Business transport - public transport	0	km	20	-	0%
Air travel <700 km	21.000	km	234	4,9	0%
Air travel 700-2500 km	21.000	km	172	3,6	0%
Air travel >2500 km	0	km	157	-	0%
			Total business travel	**10**	
TOTALE EMISSIES SCOPE 1, 2 EN BUSINESS TRAVEL				**23.391**	

4 CO2 reduction targets and progress

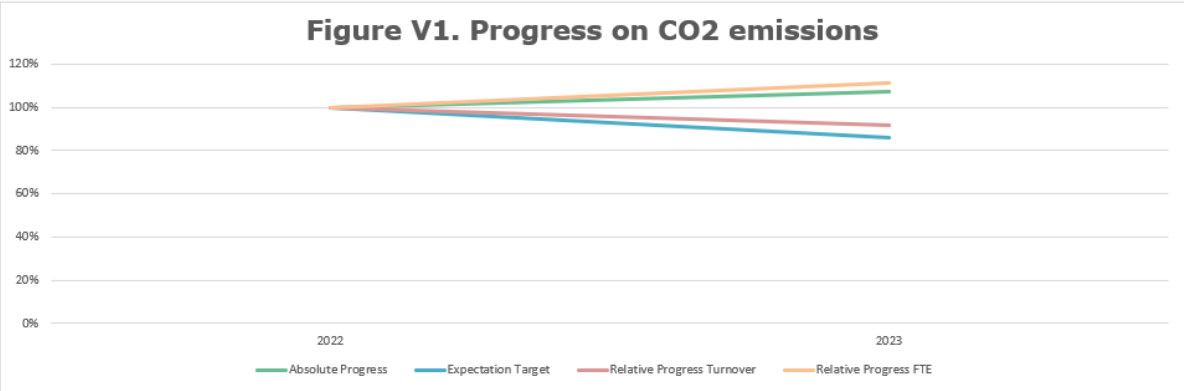
The objectives below are based on CO2 reduction measures that can be found in the action plan in the Excel document "Actions, planning and responsibilities". Here you will also find the calculations of the scope 1, 2 and business travel objectives.

4.1 Main objective

MAIN OBJECTIVE SCOPE 1 AND 2
Glomar Offshore wants to emit 90% less CO2 by 2031 compared to 2022

This target is related to the annual increase in the percentage of litres of HVO compared to fossil diesel until 100% HVO is achieved, resulting in an 89% reduction in CO2 emissions.

ANNUAL OBJECTIVE SCOPE 1 AND 2	
2024	28%
2025	35%
2026	45%
2027	54%
2028	63%
2029	74%
2030	80%
2031	90%



4.2 Sub-objectives

SUB-OBJECTIVES		
	OBJECTIVE	**PROGRESS**
Scope 1	90%	Progress will be determined from 2024 onwards (starting year of reduction measures).
Scope 2	75%	
Business travel	3,5%	
Green electricity	N/A	
Alternative fuels	HVO100 (89%)	
Energy consumption	75%	

5 Plan of action

5.1 Measures, planning, deadline and responsible person(s)

CO2 Reduction Measures	Deadline	Planning	Responsible	Means	Current Status	Action this Year
Scope 1 - Natural Gas Consumption						
Scope 1 - Fuel Consumption						
Applying 100% HVO fuel to ships	**2031**	2024	Management	Availability HVO	Fleet wide HVO30	Availability HVO (location/price)
Purchase and deployment of more fuel-efficient ships and making existing shi	**2027**	2025	Management	Refit/build/invest Vessels	2 Vessels in refit	Continue to finalize this year
Raising crew awareness, shore power where possible	**2030**	2024	QHSE	Awareness campaign	Reminders neccessary	Evaulate end of year
Scope 2 - Electricity Consumption						
Raising employee awareness of the office	**2030**	2024	QHSE	Awareness campaign	Reminders neccessary	Evaulate end of year
Installing solar panels	**2030**	2025	Management	Reconstruction of Office roof pane	In option at contractor	Awaiting option
Business travel						
Business mileage - car						
Minimizing travel by online meetings	**2030**	2025	Management	MS-Teams	Applicable	Raising awareness of Office Personnel
Stimulate carpooling, regularly check tire pressure, e-learning economical dri	**2030**	2024	QHSE	(E)-Learning module	In planning	(E)-Learning evaluation end of year
Energy Rating						
Raise awarness on energy consumption	**2030**	2024	Management	Communication	Limited awareness	Raise awareness, give insight and tips

5.2 Quantitative reduction

Scope 1

Natural gas measures	Reduction on emission flow	Reduction on total	Reduction in tonnes
N/A	0%	0%	-
Total on natural gas consumption	**0%**	**0%**	-

Fuel consumption measures	Reduction on emission flow	Reduction on total	Reduction in tonnes
Applying 100% HVO fuel to ships	89%	89%	19.361,68
Purchase and deployment of more fuel-efficient ships and making existing ships more sustainable	0,5%	0,5%	108,77
Raising crew awareness, shore power where possible	0,5%	0,5%	108,77
Total on fuel consumption	**90%**	**90%**	**19.579,23**

Scope 2

Electricity consumption measures	Reduction on emission flow	Reduction on total	Reduction in tonnes
Raising employee awareness of the office	5,0%	0,005%	1,07
Installing solar panels	70,0%	0,1%	14,98
Total on electricity consumption	**75%**	**0,074%**	**16,05**

Heat consumption measures	Reduction on emission flow	Reduction on total	Reduction in tonnes
N/A	0%	0%	-
Total on heat consumption	**0%**	**0%**	-

Business travel

Measures for business travel	Reduction on emission flow	Reduction on total	Reduction in tonnes
Minimizing travel by online meetings	2,5%	0,0004%	0,09
Stimulate carpooling, regularly check tire pressure, e-learning economical driving	1,0%	0,0002%	0,04
Total on business travel	**3,5%**	**0,001%**	**0,13**

Disclaimer & Colofon

Exclusion of legal liability

Although the information in this report comes from reliable sources and exceptional care has been exercised during the preparation of this report, De Duurzame Adviseurs cannot accept legal liability for errors and inaccuracies, regardless of the cause thereof, and for damage resulting therefrom. The assurance and implementation of the objectives and measures present in this report are the responsibility of the client. De Duurzame Adviseurs cannot be held liable for the failure to achieve goals and/or the incorrect provision of data by the client.

Under no circumstances shall De Duurzame Adviseurs, its owners and/or employees be liable for any indirect, immaterial or consequential damages, including loss of profits or revenues and loss of contracts or orders.

Intellectual property protection

Signature

Author(s):	Harro van der Vlugt, De Duurzame Adviseurs
Attribute:	CO2 Performance Ladder Report 2023
Date:	July 17, 2024
Version:	1.1
Responsible project leader:	Martin Buschman