



# **2023 Green Finance Report**

Bulk Infrastructure Group AS





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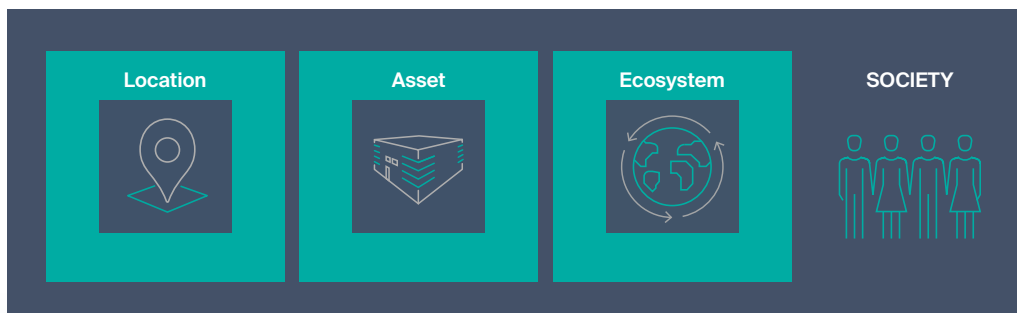
## About Bulk Infrastructure Group AS

Bulk Infrastructure Group AS (Bulk) is a leading provider of sustainable digital infrastructure in the Nordics. We are an industrial investor, developer, and operator of industrial real estate, data centers, and fiber networks. Bulk believes in the value creation opportunity of enabling our digital society to be fully sustainable. Each of Bulk's business areas significantly influences the environment, society, and faces governance challenges. Accelerating positive impact and reducing potential negative effects are fundamental to Bulk's organizational culture.

### Sustainability at Bulk

We define sustainability through an ESG lens, covering environmental, social and governance factors. We support a precautionary approach to environmental challenges and undertake initiatives to promote responsible business conduct.

Bulk has developed a sustainability framework on how we work with sustainability that consists of the perspectives; Location, Asset, Ecosystem and Society. Although each of the focus points of our framework is individually defined, they are not mutually exclusive. This means that we place equal emphasis on all of them in our sustainability efforts. Please refer to our Green Finance Framework or our website for more information: <https://bulkinfrastructure.com/uploads/15.06.22-Bulk-Infrastructure-Group-AS-Green-Finance-Framework.pdf>



# Allocation and Impact reporting

The table below summarizes the allocation as of 31 December 2023 of net proceeds from the NOK 500 million 2022/26 Senior Unsecured Green Bond, issued in September 2022 and the NOK 1,250 million 2023/28 Senior Unsecured Green Bond, issued in August 2023, under Bulk's Green Finance Framework:

Project Category	Allocated Amount (NOKm)	% of Allocated (%)
New and existing green commercial buildings	295.2	18%
Renovated green commercial buildings	-	0%
Sustainable digital infrastructure	1,137.7	68%
Sub-sea data cables	171.3	10%
Energy efficiency	67.9	4%
<b>Eligible / Allocated Amount</b>	<b>1,672.1</b>	<b>100%</b>
2022/26 NOK 500m Senior Unsecured Green Bond	500.0	
2023/28 NOK 1,250m Senior Unsecured Green Bond	1,250.0	
<b>Total Green Financing</b>	<b>1,750.0</b>	
<b>Unallocated Amount (if any)</b>	<b>77.9</b>	

In line with the Green Finance Framework, the green impact has been calculated for all eligible projects.

Project	Eligible project category	Description	Impact indicators
Oslo Internet Exchange (OS-IX)	Sustainable digital infrastructure	Development and acquisition of energy efficient Data Centers with criteria of actual average annual Power Usage Effectiveness (PUE) of 1.35-1.40 or below for data centers housed in renovated and repurposed buildings	Annual PUE 2023 of 1.32
Norway Data Center Campus N01, HV Expansion	Energy efficiency	Local strengthening of the electricity grid in Norway with transformer stations and related infrastructure to utilize the renewable energy	Volume of capacity increases in electricity grid infrastructure 100 MW
The Havsil cable	Sub-sea data cables	Financing of expenditures related to establishing subsea and terrestrial fiberoptic data-cable connections between countries from higher to lower grid emission factor	Grid emissions factor in national electricity grid of the countries which are being connected by cables: Norway 7 gCO <sub>2</sub> e/kWh Denmark 95 gCO <sub>2</sub> e/kWh

Allocation and Impact reporting continues on the next page 

*Allocation and Impact reporting continued*

Project	Eligible project category	Description	Impact indicators
N01 Zone 1 data centers	Sustainable digital infrastructure	Development of energy efficient Data Centers located in Norway with criteria of design PUE 1.20 or below	Design PUE below 1.20
DSV-Vestby	New and existing green commercial building	Development and construction of 39.000 sqm building which have received certification and can document high energy efficiency	BREEAM-NOR-Very Good, energy label dark green A and solar PV-facility on roof
Lettbutikk-Enebakk	New and existing green commercial building	Development and construction of 16.000 sqm building which have received certification and can document high energy efficiency	BREEAM-NOR-Very Good, energy label dark green A and solar PV-facility on roof

**Subsequent events**

On June 18, 2024, Bulk announced a successful tap issue of NOK 750 million under the outstanding 2022/26 Senior Unsecured Green Bond at a tap issue price of 105.5% of par. Net proceeds from this tap issue, in addition to unallocated proceeds as of December 31, 2023, are expected to be allocated under Bulk's Green Finance Framework before year end 2024.





# Sustainable digital infrastructure

## Oslo Internet Exchange (OS-IX)

Our facility in the heart of Oslo offers easy access and convenience to businesses in the city. It is Norway's largest internet gateway, with access to more than 60 different networks, as well as leading national and Nordic IX providers and Tier 1 carriers. Direct access to major fiber networks and cloud providers guarantees optimal service performance.

The data center is in an old printing press and has been expanded over several phases, through the reuse and renovation of the building. Bulk has designed the expansion of OS-IX with high-density workloads in mind, to be ready for both AI and HPC requirements, as well as more traditional data center services. The OS-IX expansion includes three

new data halls, meeting demand both from existing customers in need of increased capacity, and new customers. This will double the capacity, making OS-IX the largest data center in the Oslo metropolitan area. Construction of all three halls has started, with the new capacity expected to be ready-for-service in the first quarter of 2025.

Powered by renewable power, OS-IX has multiple redundant electrical feeds and systems to ensure the highest levels of uptime, making us a highly reliable option for our customers. In 2023, the data center had a PUE of 1.32.





## Norway Data Center Campus N01

Located next to one of Northern Europe's largest sub-stations, the N01 campus in Kristiansand provides affordable energy and high resiliency. The direct connection to the substation minimizes electrical losses and grid expenses. With more than 12 independent feeds, we ensure optimal availability at a minimal cost. N01 is perfect for HPC deployments of any scale, including the next generation of AI infrastructure and Machine Learning workloads. With flexible solutions, we can cater to diverse customer needs, including availability, redundancy, compute density, and scalability.

### HV Expansion

In 2022, Bulk Data Centers completed the installation of a 125 MVA high voltage substation at the N01 Campus. This substation comprises two 125 MVA feeds, delivering

100 MW of 100% renewable energy. This development enables the continued construction of the data center campus with superior resilience.

### Zone 1 Data Center expansion

In 2023, we finished building the second N01 Campus Data Center, serving high-performance computing, enterprises, system integrators, and cloud providers. This greatly boosts our ability to meet client needs. The construction of the third N01 Campus Data Center, a colocation facility for high-density GPU and CPU infrastructure, further solidifies Bulk's role as a leading data center provider in the Nordic region.



## The Havsil cable

Bulk Havsil, the Nordic express route to Europe, was completed and set into operation early 2022. Havsil is the shortest route connecting Norway with continental Europe and connects Bulk's N01 Campus close to Kristiansand, Norway with Bulk data center DK01 in Esbjerg, Denmark. Havsil was selected by the Norwegian Communications Authority as the new secure fiber system for the nation's international data traffic, with Arelion as the service provider. The capacity of the fiber system more than doubles the total existing fiber capacity connecting into Norway.

Bulk's fiber networks unlock the Nordic region's sustainable data centers for customers globally. Low latency, high-capacity fiber networks ensure that customers no longer

need to rely on local data centers powered by non-renewable energy sources. High performance fiber cables also contribute to the fast growth of video conferencing, reducing unnecessary air travel and thereby CO2 emissions. When selecting suppliers, it is a requirement that their operations are run sustainably. Bulk takes care to reduce the environmental impact when fiber routes are planned both subsea and on land. Surveys are done in advance to avoid interfering with spawning grounds for fish and other sea animals.





# Industrial Real Estate

Both DSV Vestby and Lettbutikk Enebakk are founded on the principle of locating industrial real estate near main transport hubs, to minimize transportation time and reduce carbon footprints. Additionally, the Bulk Module standard ensures high flexibility with low life cycle cost.

## DSV Vestby

The tenant DSV, a large international logistics company, required stringent sustainability measures for their logistic facilities. This project achieved a BREEAM-NOR «Very Good» certification, emphasizing reduced carbon footprint and energy-efficient design. The facility is connected to a district heating system fueled by bio-pellets and includes a PV solar installation with a capacity of 994 kWp / 785,100 kWh, making it nearly self-sufficient during daytime in the summer. It has received an energy label of dark green A, the highest rating in Norway's mandatory energy labeling regulation. Construction began in August 2021, and the facility was handed over to DSV in September 2022. It includes two warehouse halls, each approximately 16,000 sqm, an open production and storage mezzanine of about 6,000 sqm, and personnel rooms. The outdoor area includes parking and terminal spaces.

## Lettbutikk Enebakk

The tenant Lettbutikk, a third-party logistic operator, serves the B2B logistic operations in the larger Oslo area. This project earned a BREEAM-NOR "Very Good" certification, focusing on reduced carbon footprint and an energy-efficient design. It incorporates a standalone bio-pellets heating station and a PV solar installation with a capacity of 180 kWp / 143,800 kWh, ensuring near self-sufficiency during daytime in the summer. This facility received an energy label of dark green A. Construction began in August 2021, and the facility was handed over to Lettbutikk in May 2022. It includes two warehouse halls, each around 8,000 sqm, and personnel rooms, along with outdoor parking and terminal areas.



## Calculation approach

Net proceeds issued under Bulk's Green Finance Framework have been allocated to eligible project based on a combination of historical cost, for the sustainable digital infrastructure, sub-sea data cables, and energy efficiency project categories, and fair market value for the new and existing green commercial building project category. For allocations made to the Oslo Internet Exchange (OS-IX) project, allocations have been made against the cost of acquiring 50% of the shares previously owned by Akershus Energi AS and capital expenditures from the acquisition date of these shares, January 19, 2022.

When calculating the energy efficiency of our data centers, we apply PUE as the key performance metric. PUE is the most well-known data center efficiency metric and is defined in ISO/IEC 30134-2 and EN 50600-4-2. PUE is calculated by dividing a data center's total energy consumption, including energy consumption related to cooling and other consumption and losses, by the energy consumption of the IT equipment in the data center.

Investments in fiber optic cables are pivotal in enabling a sustainable digital society. These cables transport data efficiently, allowing data processing to occur in data centers powered by renewable energy, thus achieving a lower carbon footprint. By connecting data centers in Norway, where renewable energy is prevalent, to those in Europe, often reliant on fossil energy, we facilitate reduced CO<sub>2</sub> emissions.

We assess the environmental impact of this transition by examining the change in the carbon footprint associated with the energy mix in the grids of the locations we move data from and to. The data for these grid factors are sourced from the Carbon Footprint report at [2022\\_03\\_emissions\\_factors\\_sources\\_for\\_2021\\_electricity\\_v11.pdf](#) (carbonfootprint.com).





Bulk is racing to bring  
sustainable infrastructure  
to a global audience



Bulk Infrastructure Group AS,  
Karenslyst Allé 53,  
0279 Oslo, Norway  
Phone: +47 47 80 70 00  
[bulkinfrastructure.com](https://bulkinfrastructure.com)