



Financial statements

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Consolidated financial statements

Consolidated statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2022	2021
Non-current assets			
Tangible fixed assets	8	26,823	23,811
Right-of-use assets	9	748	433
Intangible assets	10	306	254
Investments in joint ventures	12	630	638
Investments in associates	12	36	34
Deferred tax assets	6	711	162
Other financial assets	13	44	37
Total non-current assets		29,298	25,369
Current assets			
Inventories	14	132	83
Account- and other receivables	15	2,348	2,401
Income tax receivable	6	158	143
Cash and cash equivalents	16	6,547	3,204
Total current assets		9,185	5,831
Assets of disposal group classified as held for sale	11	26	-
Total assets		38,509	31,200

Consolidated statement of financial position

For the year ended 31 December (EUR million)

Equity and liabilities	Notes	2022	2021
Equity			
Equity attributable to ordinary shares	18	5,133	4,844
Hybrid securities	18	2,125	2,125
Equity attributable to owners of the company		7,258	6,969
Non-controlling interests	19	455	455
Total equity		7,713	7,424
Non-current liabilities			
Borrowings	20	19,006	12,366
Contract liabilities	21	531	428
Deferred tax liability	6	12	7
Provisions	22	1,235	1,417
Lease liabilities	9	574	235
Net employee defined benefit liabilities	23	174	351
Other financial liabilities	24	185	183
Other liabilities		31	25
Total non-current liabilities		21,748	15,012
Current liabilities			
Borrowings	20	709	1,339
Contract liabilities	21	17	2
Income tax payable	6	26	6
Provisions	22	77	45
Other financial liabilities	24	550	281
Bank overdrafts	16	-	64
Lease liabilities	9	155	169
Account- and other payables	25	7,489	6,858
Total current liabilities		9,023	8,764
Liabilities of disposal group classified as held for sale	11	25	-
Total equity and liabilities		38,509	31,200

Consolidated statement of income

For the year ended 31 December (EUR million)

	Notes	2022	2021
Revenue	3	8,299	5,524
Grid expenses	4	-7,517	-4,102
Personnel expenses	4	-285	-287
Depreciation and amortisation of assets	8,9,10	-1,233	-1,165
Other operating expenses	4	-322	-303
Other (gains)/losses		-38	-4
Total operating expenses		-9,395	-5,861
Share in profit of joint ventures and associates	12	120	62
Operating result		-976	-275
Finance income	5	43	2
Finance expenses	5	-300	-202
Finance result		-257	-200
Result before income tax		-1,233	-475
Income tax expense	6	354	135
Result for the year		-879	-340
Result attributable to:			
Equity holders of ordinary shares	18	-967	-401
Hybrid securities	18	57	57
Owners of the company		-910	-344
Non-controlling interests	19	31	4
Result for the year		-879	-340

Earnings per share attributable to the equity holders of ordinary shares

For the year ended 31 December (EUR per share)

	Note	2022	2021
Basic and diluted earnings per share	7	-4,835	-2,005

Consolidated statement of comprehensive income

For the year ended 31 December (EUR million)

	Notes	Retained earnings	Unappropriated result	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company	Non-controlling interest	Total equity
		18	18		18		19	
2021								
<i>Items not to be reclassified to profit or loss in subsequent years:</i>								
Re-measurement of defined benefit pensions	23	79	-	79	-	79	-	79
Taxation	6	-23	-	-23	-	-23	-	-23
Total other comprehensive income 2021		56	-	56	-	56	-	56
Result for the year		-	-401	-401	57	-344	4	-340
Total comprehensive income 2021		56	-401	-345	57	-288	4	-284
2022								
<i>Items not to be reclassified to profit or loss in subsequent years:</i>								
Re-measurement of defined benefit pensions	23	217	-	217	-	217	-	217
Taxation	6	-64	-	-64	-	-64	-	-64
Total other comprehensive income 2022		153	-	153	-	153	-	153
Result for the year		-	-967	-967	57	-910	31	-879
Total comprehensive income 2022		153	-967	-814	57	-757	31	-726

Consolidated statement of changes in equity

For the year ended 31 December (EUR million)

	Notes	Attributable to equity holders of the company							Non-controlling interest	Total equity
		Paid-up and called-up capital	Share premium reserve	Retained earnings	Unappropriated result	Equity attributable to ordinary shares	Hybrid securities	Equity attributable to owners of the company		
		18	18	18	18		18		19	
At 1 January 2021		100	1,790	2,686	748	5,324	2,125	7,449	487	7,936
Result for the year		-	-	-	-401	-401	57	-344	4	-340
Total other comprehensive income		-	-	56	-	56	-	56	-	56
Total comprehensive income		-	-	56	-401	-345	57	-288	4	-284
Dividends paid	18	-	-	-	-149	-149	-	-149	-34	-183
Capital repayment	18	-	-	-	-	-	-	-	-2	-2
Distribution on hybrid securities	18	-	-	-	-	-	-57	-57	-	-57
Tax on distribution on hybrid securities	18	-	-	14	-	14	-	14	-	14
Appropriation remaining prior year result		-	-	599	-599	-	-	-	-	-
At 31 December 2021		100	1,790	3,355	-401	4,844	2,125	6,969	455	7,424
At 1 January 2022		100	1,790	3,355	-401	4,844	2,125	6,969	455	7,424
Result for the year		-	-	-	-967	-967	57	-910	31	-879
Total other comprehensive income		-	-	153	-	153	-	153	-	153
Total comprehensive income		-	-	153	-967	-814	57	-757	31	-726
Dividends paid	18	-	-	-	-141	-141	-	-141	-20	-161
Capital contribution	18	-	1,230	-	-	1,230	-	1,230	-	1,230
Capital repayment	18	-	-	-	-	-	-	-	-11	-11
Distribution on hybrid securities	18	-	-	-	-	-	-57	-57	-	-57
Tax on distribution on hybrid securities	18	-	-	14	-	14	-	14	-	14
Appropriation remaining prior year result		-	-	-542	542	-	-	-	-	-
At 31 December 2022		100	3,020	2,980	-967	5,133	2,125	7,258	455	7,713

Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2022	2021
Operational activities			
Operating result		-976	-275
Non-cash adjustments to reconcile result to net cash flows:			
Depreciation, amortisation and impairment of assets	8,9,10	1,233	1,165
Result on disposal of assets		38	-
Share in result of joint ventures and associates	12	-120	-61
Dividends received from joint ventures and associates	12	92	56
Movements in provisions and other (financial) liabilities and assets		104	-59
		1,347	1,101
Working capital adjustments excluding EEG working capital:			
(Increase)/decrease in account- and other receivables	15	-1,026	-90
(Increase)/decrease in inventories		-49	-18
Increase/(decrease) in account- and other payables	25	-33	540
Increase/(decrease) in contract liabilities	21	103	52
Increase/(decrease) in current financial liabilities	24	269	196
Cash generated from operation		-736	680
Income tax paid (net)		-231	-246
Net cash flows from operating activities excluding EEG working capital		-596	1,260
EEG working capital adjustments:			
(Increase)/decrease in EEG receivables	15	592	1,956
(Increase)/decrease EEG deposits > 3 months	15	472	-472
Increase/(decrease) in EEG payables	25	728	2,961
		1,792	4,445
Net cash flows from operating activities		1,196	5,705
Investing activities			
Purchase of tangible and intangible fixed assets	8,10, 25	-4,424	-3,711
Proceeds from sale of tangible and intangible fixed assets		5	11
Capital repayment from joint ventures	12	32	29
Interest received	5	45	3
Capital contribution to joint ventures and associates	12	-3	-
Net cash flows used in investing activities		-4,345	-3,668
Financing activities			
Net financing			
Proceeds from borrowings	20	7,338	3,481
Repayment of borrowings	20	-1,339	-2,243
		5,999	1,238

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Consolidated statement of cash flows

For the year ended 31 December (EUR million)

	Notes	2022		2021	
Other financing activities					
Payment of lease liabilities	9	-221		-156	
Interest paid		-202		-174	
Capital contribution by shareholder	18	1,230		-	
Dividends paid to ordinary shareholders of the company	18	-141		-149	
Distribution on hybrid securities	18	-57		-57	
Repayment of financial liability	24	-20		-40	
Dividends paid and capital repayments to non-controlling interests	19	-32		-36	
			557		-612
Net cash flows from financing activities			6,556		626
Net change in cash and cash equivalents			3,407		2,663
Cash and cash equivalents at 31 December	16	6,547		3,140	
Cash and cash equivalents at 1 January	16	3,140		477	
			3,407		2,663

Notes to the consolidated financial statements

We are continuously improving our financial reporting to make it more relevant and understandable to our stakeholders. These financial statements focus on the key (financial) topics for 2022. Like last year, the notes to the consolidated financial statements are disclosed following more or less the sequence of items in the consolidated statement of financial position and consolidated statement of income. Accounting policies are indicated with ⓘ, while key assumptions and estimates are identified by using 🌩 in front of the header.

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1 Basis for reporting

Basis for preparation

The accounting policies describe our approach to recognise and measure transactions and balance sheet items in our financial statements. Accounting policies, including new European Union (EU) endorsed accounting standards, amendments and interpretations, relating to the consolidated financial statements as a whole are described below. This section also provides general guidance regarding assumptions, estimates and judgements used in the preparation of the financial statements. A more detailed description of accounting policies and significant estimates related to specific reported amounts is presented in the respective notes. Only accounting policies that are deemed material are presented in these financial statements. We consider an item material if, in our view, it is likely to have an impact on the economic decisions of primary users of these financial statements.

General

TenneT Holding B.V. and its subsidiaries are a leading electricity transmission system operator with activities in the Netherlands and a large part of Germany. In the Netherlands, our activities are conducted by TenneT TSO B.V. and its subsidiaries. In Germany, our activities are performed by TenneT GmbH & Co. KG and its subsidiaries.

The Dutch State owns the entire issued share capital of TenneT Holding B.V. Furthermore, TenneT Holding B.V. has issued hybrid securities which are deeply subordinated and are accounted for as part of equity attributable to equity holders of the Company. The registered office of TenneT Holding B.V. is located at Utrechtseweg 310, Arnhem, the Netherlands, with its statutory seat in Arnhem and a registration with the Dutch Commercial Register under number 09083317.

These consolidated financial statements of TenneT Holding B.V. and its subsidiaries (hereafter referred to as 'TenneT', 'the Company' or 'the Group') for the year ended 31 December 2022 were prepared by our Executive Board and authorised for issuance in accordance with a resolution of the Supervisory Board on 8 March 2023. The financial statements will be submitted for adoption at the General Meeting of Shareholders. These consolidated financial statements have been audited by Deloitte Accountants B.V.

Basis for preparation

These consolidated financial statements are prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS) and Part 9 of Book 2 of the Dutch Civil Code. The company financial statements for TenneT Holding B.V. are prepared in accordance with the provisions of Part 9 of Book 2 of the Dutch Civil Code.

The consolidated financial statements are prepared on a going concern basis. The going concern basis presumes that the Group has adequate resources to remain in operation and that the Executive Board intends it to do so, for at least one year from the date of the end of the reporting period.

The consolidated financial statements are prepared on a historical cost basis, unless described otherwise in the accounting policy of a balance sheet position. They are presented in euros and all values are rounded to the nearest million (EUR 000,000), except when otherwise indicated.

Changes in EU-endorsed published IFRS standards and interpretations effective in 2022

Significant new and amended standards adopted by the Group

TenneT has not early adopted any standard, interpretation or amendment that has been issued but is not yet effective.

IFRS standards issued but not yet effective and adopted by the Group

It is anticipated that any issued changes to IFRS standards that are not yet effective and adopted by TenneT will not have a significant impact.

Basis for consolidation

The consolidated financial statements incorporate the financial statements of TenneT Holding B.V. and its subsidiaries as at 31 December 2022. A list of the legal entities included in the consolidation is included in note 31. Subsidiaries are consolidated from the date of acquisition, constituting the date on which control is obtained and continue to be consolidated until the date when such control ceases. The financial statements of subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies. All intercompany balances, transactions, unrealised gains and losses resulting from intercompany transactions and dividends are eliminated in full in consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If we cease to have control over a subsidiary, we derecognise the subsidiary's assets (including goodwill), liabilities and any non-controlling interest in the former subsidiary at the date control is lost (including the cumulative translation differences). Furthermore, the fair value of the consideration received, the fair value of any investment retained and any surplus or deficit in statement of income are recognised. Acquisitions are accounted for using the acquisition method, where the purchase price is allocated to the identifiable assets acquired and liabilities assumed on a fair value basis and the remainder is recognised as goodwill.

Significant accounting judgements, estimates and assumptions

The preparation of financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities and the reported amounts of revenue and expenses during the reporting period. Such estimates are assessed continuously on the basis of previous results and experience, consultations with experts, trends, prognoses and other methods which we deem appropriate in each individual case. Actual results could differ from these estimates. Significant items containing estimates and assumptions are as follows:

Item	Note	Estimate/assumptions
Tangible fixed assets	8	Estimate of remaining useful life, identification of cash-generating units for fixed asset impairment testing
Right-of-use assets and liabilities	9	Estimates of discount rate and expected extension or accelerated termination date
Intangible fixed assets	10	Estimate of recoverable amount and remaining useful life
Impairment review of goodwill	10	Estimate of cash flow projections and pre-tax discount rate
Grid expense payable	25	Amongst others estimate of electricity usage and energy prices
Impairment of current assets	15	Estimate of expected credit losses
Provision for environmental management and decommissioning	22	Estimate of removal costs, removal dates, discount rate and price increases in the period leading up to removal
Tariff related provisions	22	Estimate of electricity usage and number of parties
Other provisions	22	Mainly relate to estimate of probability, realisation date and curtailed feed-in volumes and prices
Net employee benefit obligations	23	Financial, actuarial and demographic assumptions

Functional currency

These consolidated financial statements are presented in euros, which is also the parent company's and all subsidiaries' functional currency.

Adjustment in prior year's figures

After publication of the TenneT Integrated Annual Report 2021, we identified a misstatement in the consolidated statement of cash flows; the increase/(decrease) in account- and other payables was reported as -/- EUR 319 million and should have been EUR 540 million, the purchase of tangible and intangible fixed assets was reported as -/- EUR 2,852 million and should have been -/- EUR 3,711 million. We have adjusted the misstatement.

After publication of the TenneT Integrated Annual Report 2021, we identified a misstatement in the consolidated statement of financial position that the non-controlling interest regarding one of our consolidated entities (TOD3) should be classified as non-current other financial liability instead of total equity. We have adjusted the error retrospectively, for an overview of the impacted accounts reference is made to the table below. Reference is also made to sections 19 and 24. The adjustments are the following:

(EUR million)	1/1/2021	Adjustment	1/1/2021	12/31/2021	Adjustment	12/31/2021
	Published		Adjusted	Published		Adjusted
Balance sheet impact						
Non-controlling interest	689	-203	486	638	-183	455
Total equity	8,138	-203	7,935	7,607	-183	7,424
Non-current other financial liabilities	-	203	203	-	183	183
Impact on Profit and Loss statement						
Interest expenses				-182	-20	-202
Result for the year			N/A	-320	-20	-340

For better presentation purposes, some items in previous year's figures were adjusted. There was neither an impact on the consolidated statement of income nor on total equity.

2 Segment information

This section sets out the financial performance for the year in accordance with the way in which we manage our business (operating segments). We measure and assess our performance based on underlying financial information, which is explained further below.

We generate substantially all of our revenue from our regulated operating segments in the Netherlands and Germany. Therefore, close collaboration with our respective regulators to obtain regulations and agreements that provide reasonable compensation for the risks we face, is key to us. Our involvement in certain limited non-regulated activities is closely related and ancillary to our core tasks.

Segment analysis

Our operating segments consist of:

- TSO Netherlands
- TSO Germany
- Non-regulated activities

For management information purposes, the performance of our regulated activities in the Netherlands and in Germany is considered separately into two geographical segments. This segmentation, based on separately applicable regulatory frameworks, is the key determinant for financial management of the business and for decision-making on budgets, allocation of resources and financing.

Financing activities (including finance income and expenses) are managed on a Group basis and amounts related thereto are not allocated to the segments. Transfer prices between the Netherlands and Germany are set at arm's length in a manner similar to transactions with third parties. These intercompany transactions are eliminated in consolidation.

Our Executive Board is the chief operating decision-making body of the company (as defined by IFRS 8 'Operating segments'). Periodically, it monitors the performance of the respective operating segments for the purpose of performance management and decision making about resource allocation. The segment performance is based on underlying financial information, where EBIT, investments and return on capital are key metrics. The definition of EBIT equals operating result. Performance of non-regulated activities is evaluated based on EBIT and return on capital of these activities.

Underlying financial information is based on the principle of recognising regulatory assets and liabilities for all of our regulated activities. This implies that amounts resulting from past events and which are allowed to be received or are required to be returned through future tariffs are recorded as an asset or liability, respectively. TenneT's Executive Board believes that the presentation of underlying financial information provides additional relevant insight in the actual business, financial performance, and as such economic reality.

① Accounting policies applied for underlying financial information

Underlying financial information matches regulatory revenues and expenses in a corresponding reporting period and defers certain income items until used for investments or tariff reductions.



Matching is achieved through recognition of regulatory deferral accounts. The key requirement for such recognition is that an existing regulatory framework must be in place that permits the future reimbursement or requires the future settlement of regulated assets or liabilities, respectively. Consequently, a regulated asset is recognised in underlying financial information in respect of permitted reimbursements of current year expenses in future year's tariffs. Vice versa, a regulated liability is recognised in underlying financial information in respect of required settlements (i.e. repayments) of current year revenues through future tariffs. Furthermore, until 2015 certain investments in the Netherlands were financed via auction receipts resulting from auctioning available electricity transmission capacity on cross-border interconnections.

We have no individual clients which are invoiced more than 10% of our total group revenue.

(EUR million)	2022			2021		
	Investments	Assets	Liabilities	Investments	Assets	Liabilities
TSO Netherlands	1,527	12,328	7,697	1,552	9,651	6,384
TSO Germany	2,961	27,115	21,574	2,408	22,325	17,126
Non-regulated activities	5	1,779	220	9	437	206
Total segments	4,493	41,222	29,491	3,969	32,413	23,716
Eliminations and adjustments	-	-256	1,980	-	-452	601
Consolidated underlying information	4,493	40,966	31,471	3,969	31,961	24,317

(EUR million)	2022		2021	
	Assets	Liabilities	Assets	Liabilities
TSO Netherlands	10,828	7,260	9,106	6,013
TSO Germany	26,157	21,339	22,109	16,957
Non-regulated activities	1,779	216	437	206
Total segments	38,764	28,815	31,652	23,176
Eliminations and adjustments	-255	1,981	-452	601
Consolidated IFRS information	38,509	30,796	31,200	23,777

Below the reconciliation between underlying total net assets and liabilities and IFRS total net assets and liabilities is disclosed:

(EUR million)	2022	2021
Consolidated underlying information		
Assets	40,966	31,961
Liabilities	-31,471	-24,317
Total net assets and liabilities	9,495	7,644
Regulatory receivables and payables	-2,278	-73
Valuation differences tangible fixed assets	-218	-239
Tax impact	714	91
Total underlying impact	-1,782	-221
Consolidated IFRS information	7,713	7,423
Consolidated IFRS information		
Assets	38,509	31,200
Liabilities	-30,796	-23,777
Total net assets and liabilities	7,713	7,423

Investment amounts recognised under IFRS equal underlying investments.

For an analysis of underlying results please refer to the 'Safeguard sustainable financial performance and investor ratings' section of the Integrated Annual Report.

Regulatory deferral accounts: reconciliation to IFRS figures

The difference between underlying financial information - as presented in the segment information and board report - and IFRS reported figures is related to the recognition of regulated assets and liabilities, auction receipts and the measurement of tangible fixed assets. In the IFRS financial statements, revenue from contracts with customers is recognised when control of the goods or services is transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. In the underlying financial information revenues are recognised according the permissible tariff decision adopted by the regulator. By doing so, volume and post calculation differences are directly matched to the related costs and therefore provide additional relevant insight to manage TenneT's business.

These differences also result in different deferred tax balances in underlying financial information compared to IFRS reported figures. No other differences between underlying financial information and IFRS exist.

Underlying financial information can be reconciled to reported IFRS figures as follows:

(EUR million)	2022					
	TSO NL	TSO Germany	Non-regulated	Total segments	Eliminations	Total
Connection and transmission services	2,459	4,333	-	6,792	-	6,792
Maintenance of the energy balance	301	872	-	1,173	-	1,173
Operation of energy exchanges	2	-	-	2	-	2
Offshore (balancing)	286	1,387	-	1,673	-	1,673
Other	36	105	47	188	12	200
Inter-segment	33	76	4	113	-113	-
Total underlying revenue	3,117	6,773	51	9,941	-101	9,840
Grid expenses	-2,190	-4,715	-1	-6,906	53	-6,853
Other operating expenses	-617	-1,278	-49	-1,944	45	-1,899
Share in profit of joint ventures and associates	2	11	109	122	-	122
Underlying operating result	312	791	110	1,213	-3	1,210
Revenue adjustment to IFRS	-1,220	-323	2	-1,541	-	-1,541
Cost adjustment to IFRS	10	-652	3	-639	-4	-643
Share in profit of joint ventures and associates adjustment to IFRS	-1	-1	-	-2	-	-2
IFRS operating result	-899	-185	115	-969	-7	-976
Finance result						-257
Result before income tax						-1,233
Income tax expense						354
Result for the year						-879

(EUR million)	2021					
	TSO NL	TSO Germany	Non-regulated	Total segments	Eliminations	Total
Connection and transmission services	1,504	3,008	-	4,512	-	4,512
Maintenance of the energy balance	91	283	-	374	-	374
Operation of energy exchanges	4	-	-	4	-	4
Offshore (balancing)	187	1,142	-	1,329	-	1,329
Other	31	72	26	129	19	148
Inter-segment	28	48	1	77	-77	-
Total underlying revenue	1,845	4,553	27	6,425	-58	6,367
Grid expenses	-1,075	-2,772	-2	-3,849	32	-3,817
Other operating expenses	-546	-1,232	-37	-1,815	37	-1,778
Share in profit of joint ventures and associates	1	12	49	62	-	62
Underlying operating result	225	561	37	823	11	834
Revenue adjustment to IFRS	-503	-340	-	-843	-	-843
Cost adjustment to IFRS	7	-273	4	-262	-4	-266
IFRS operating result	-271	-52	41	-282	7	-275
Finance result						-200
Result before income tax						-475
Income tax expense						135
Result for the year						-340

(EUR million)	Reconciliation IFRS to underlying figures					
	2022			2021		
	IFRS figures	Underlying items	Underlying figures	IFRS figures	Underlying items	Underlying figures
Connection and transmission services	4,425	2,567	6,792	3,220	1,292	4,512
Maintenance of the energy balance	1,347	-174	1,173	460	-86	374
Operation of energy exchanges	902	-900	2	392	-388	4
Offshore (balancing)	1,629	44	1,673	1,303	26	1,329
Other	196	4	200	149	1	148
Total revenue	8,299	1,541	9,840	5,524	843	6,367
Grid expenses	-7,517	664	-6,853	-4,102	285	-3,817
Personnel expenses	-285	-	-285	-287	-	-287
Depreciation and amortisation of assets	-1,233	-21	-1,254	-1,165	-20	-1,185
Other operating expenses	-322	-	-322	-303	1	-302
Other (gains)/losses	-38	-	-38	-4	-	-4
Total operating expenses	-9,395	643	-8,752	-5,861	266	-5,595
Share in profit of joint ventures and associates	120	2	122	62	-	62
Operating result	-976	2,186	1,210	-275	1,109	834
Finance income	43	-34	9	2	18	20
Finance expenses	-300	13	-287	-202	-11	-213
Finance result	-257	-21	-278	-200	7	-193
Result before income tax	-1,233	2,165	932	-475	1,116	-641
Income tax expense	354	-615	-261	135	-303	-168
Result for the year	-879	1,550	671	-340	813	473
Result attributable to:						
Equity holders of ordinary shares	-967	1,557	590	-401	805	404
Hybrid securities	57	-	57	57	-	57
Owners of the company	-910	1,557	647	-344	805	461
Non-controlling interests	31	-7	24	4	8	12
Result for the year	-879	1,550	671	-340	813	473
Basic and diluted earnings per share	-4,835		2,950	-2,005		2,020
Underlying items						
To be settled in tariffs		2,603			1,317	
Auction receipts		-900			-387	
Investment contributions		11			-1	
Maintenance of the energy balance		-173			-85	
Revenue		1,541			844	

The increase in the underlying revenues can mainly be explained by:

- The higher costs for redispatch, grid losses, reserve power plants and control power in 2022 result in higher underlying revenues, since those higher costs will be reimbursed through future tariffs;
- Increased revenues due to ongoing and increasing investments, resulting in a growing regulatory asset base and higher onshore and offshore revenues which are based upon these asset base values;
- Increased regulatory returns due to an increase in interest rates.

Our IFRS result takes account of our high costs during 2022, mainly due to the grid expenses, but does not account for future reimbursements we will receive through correspondingly higher future tariffs. This causes for that reason the significant lower EBIT based on IFRS (loss amounting to EUR 976 million) compared to the underlying financial information (profit amounting to EUR 1,210 million).

The material differences between underlying financial information and IFRS are hereafter further disclosed:

To be settled in tariffs

Revenue surpluses and deficits resulting from variances related to actual costs or transmission volumes (ex post) and estimates used to set tariffs (ex ante) are incorporated in the tariffs of subsequent years in both Germany and the Netherlands. In underlying financial information, these surpluses and deficits are recorded as assets and liabilities, respectively, under 'to be settled in tariffs'. The expenses related to these items have to be settled in future tariffs in the coming years.

The underlying item 'to be settled in tariffs' is related to the revenue stream 'connection and transmission services' and concerns an increase amounting to EUR 2,603 million (2021: decrease of EUR 1,317 million).

Auction receipts & investment contributions

Auction receipts result from auctioning the available electricity transmission capacity on cross-border interconnections. These receipts are not at TenneT's free disposal. In accordance with Regulation (EU) 2019/943, auction receipts shall be used to fulfill the following priority objectives:

- a. guaranteeing the actual availability of the allocated capacity including firmness compensation; or
- b. maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, where applicable, or covering costs resulting from network investments that are relevant to reduce interconnector congestion.

In Germany, auction proceeds are recognised as interest-free capital on investments and are released over 20 years. The reversal amounts are applied in the revenue cap of the TenneT TSO GmbH with t-2 offset. Thus, the reversal amount offsets the depreciation of the investments. The difference between IFRS and underlying revenue in Germany in 2022 is EUR 907 million.

When these priority objectives have been adequately fulfilled, auction receipts may be used as income to be taken into account by the regulatory authorities when approving the methodology for calculating network tariffs or fixing network tariffs, or both. In the Netherlands, TenneT agreed with its regulator (Autoriteit Consument en Markt) that investments in interconnectors are no longer financed through the auction receipts as of 2016. The current outstanding balance of auction receipts will be used in accordance with the aforementioned objectives. On 22 November 2022, the competence agreement of 2015 between TenneT and the ACM was dissolved. Investments in previous years financed by using auction receipts are classified as investment contributions and are reported under 'liabilities'. A periodic amount equal to the depreciation charges, plus a portion of the operating expenses, is released to the statement of income, following the release scheme as described above.

The underlying item auction receipts is part of revenue stream 'operations of energy exchanges' for a decrease amounting to EUR 900 million (2021: decrease EUR 387 million). The underlying item investment contribution is part of revenue stream 'other' for an amount of EUR 11 million increase (2021: EUR 1 million increase).

Maintenance of the energy balance

As system manager of the high-voltage grid in the Netherlands, TenneT receives funds for performing certain statutory duties, such as the maintenance of the energy balance. The proceeds from these activities (i.e., imbalance settlements) may only be used after approval by the ACM. Imbalance settlements collected during the year are to be offset in transmission tariffs in the subsequent year. Consequently, these amounts are recorded as a liability and released in the subsequent year in the underlying financial information.

As the balancing group coordinator, TenneT TSO GmbH ('TTG') is responsible for balancing the balancing groups in terms of energy. We balance surplus or shortfall balancing groups by means of control energy and bill the balancing group managers for the resulting costs. For this billing of balance imbalances, the so-called 'Uniform balancing energy price across control zones' (reBAP) is used. As a result, TTG receives higher payments from the balancing group managers than TTG pays to the power plant operators. The resulting additional revenues from the balancing energy billing system are to be deducted from the grid charges. Analogously, revenue shortages will increase future grid fees.

The underlying item maintenance of the energy balance is part of revenue 'stream maintenance' of the energy balance for an amount of EUR 173 million decrease (2021: EUR 85 million decrease).

Depreciation and amortisation of assets

Differences in depreciation and amortisation of assets occur due to the difference in accounting treatment of the regulatory deferral accounts and the related cash flows in order to determine the economic useful life and recoverable amount of the assets resulting from acquisitions and used for impairment analysis.

3 Revenue

(EUR million)	2022					
	TSO NL	TSO Germany	Non-regulated	Total segments	Eliminations	Total
Connection and transmission services	897	3,328	-	4,225	-	4,225
Maintenance of the energy balance	456	891	-	1,347	-	1,347
Operation of energy exchanges	242	660	-	902	-	902
Offshore (balancing)	242	1,387	-	1,629	-	1,629
Other	27	108	49	184	12	196
Inter-segment	33	76	4	113	-113	-
Total IFRS revenue	1,897	6,450	53	8,400	-101	8,299

(EUR million)	2021					
	TSO NL	TSO Germany	Non-regulated	Total segments	Eliminations	Total
Connection and transmission services	801	2,419	-	3,220	-	3,220
Maintenance of the energy balance	166	294	-	460	-	460
Operation of energy exchanges	164	228	-	392	-	392
Offshore (balancing)	161	1,142	-	1,303	-	1,303
Other	22	82	26	130	19	149
Inter-segment	28	48	1	77	-77	-
Total IFRS revenue	1,342	4,213	27	5,582	-58	5,524

Connection and transmission services

Revenue from connection and transmission services is regulated by the ACM in the Netherlands and by the BNetzA in Germany and includes revenue from services provided to DSOs and industrial clients (such as resolution of transmission restrictions, congestion management and reactive power management).

Revenue increased mainly due to ongoing investments and a growing asset base. Furthermore, in Germany the 2022 tariffs include already the increased energy prices of 2021 that we have to pay for ancillary services.

Maintenance of the energy balance

TenneT is responsible to ensure that electricity supply and demand is in balance at all times (i.e. the alternating current frequency in the power grid must be at 50 Hz continuously). If this balance is significantly disrupted, it may result in a power outage or even a black-out, depending on the length and severity of the imbalance. To ensure this balance, TenneT contracts and deploys (among others) reserve and emergency capacity to compensate unexpected fluctuations in supply and demand. The cash in- and outflows associated with maintaining this energy balance (e.g. imbalance settlements) fluctuate considerably and are settled through regulated tariffs in both the Netherlands and Germany in subsequent years.

Revenue increased mainly due to higher energy prices, which resulted in a higher price for the imbalance settlement.

Operation of energy exchanges

This amount includes revenues resulting from the auctioning of cross-border (electricity transmission 'interconnection') capacity.

Revenue increased mainly due to higher energy prices.

Offshore (balancing)

Increase in revenues is explained by the increase in the asset base, its related costs and an increase in the energy prices.

Revenue from offshore (balancing) is regulated.

① Accounting policy

Revenue primarily represents the sales value derived from the connection and transmission of electricity together with the sales value derived from the provision of other services to customers during the year. Revenue from contracts with customers is recognised when control of the goods or services is transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

Revenues arise from contracts with a single performance obligation. The assessment of unbilled connection and transmission services supplied to customers between the date of the last meter reading and year-end is subject to significant judgement. This assessment is primarily based on expected consumption and weather patterns.

If revenue received or receivable exceeds the maximum annual amount as determined by the national regulators, ACM or BNetzA respectively, a downward adjustment will be made to future tariffs to reflect this over-recovery. Under IFRS, no liability is recognised since this adjustment relates to the provision of future services. Similarly, no asset is recognised under IFRS when a regulator permits increases to be made to future tariffs in respect of under-recovery.

Offshore (balancing) revenues in the Netherlands are accounted for in accordance with the recognition and measurement principles of IAS 20. These revenues are not recognised until there is reasonable assurance that the Group satisfies the conditions attached to receiving this income.

4 Operating expenses

Grid expenses

(EUR million)	2022	2021
System services	3,928	2,266
Connection and transmission services	1,334	829
Maintenance of the energy balance	1,176	374
Other	1	-4
Total ancillary services	6,439	3,465
Maintaining and operating transmission grids	1,078	637
Total	7,517	4,102

Due to the current market situation caused by the war in Ukraine energy expenses increased rapidly and are very volatile. This leads to increasing system services due to higher costs related to feed-in management, transmission restrictions, grid losses and redispatch costs. The increase is caused both by higher energy prices due to market situation and more transmission restrictions. Increase of cost of maintaining and operating transmissions grids mainly related to higher insurance costs. The higher grid expenses and project costs will be reimbursed through future tariffs, which will result in considerable higher grid tariffs in future years. Please refer to Note 2 for further details about differences between IFRS and Underlying financial information.

Personnel expenses

(EUR million)	2022	2021
Salaries	461	390
Social security contributions	66	57
Pension charges defined benefit plans	23	24
Pension charges other plans	34	32
Other personnel expenses	22	39
Capitalised costs for (in)tangible fixed assets	-321	-255
Total	285	287
Average internal workforce in FTEs	5,303	4,586
Average internal workforce in FTEs employed in the Netherlands	2,196	1,975
Average internal workforce in FTEs employed in the Germany	3,107	2,611

Key management remuneration

Members of the Executive Board and Supervisory Board are regarded as key management.

Aggregate remuneration of members of the Supervisory Board and Executive Board is as follows:

Supervisory Board (EUR thousand)	Fixed remuneration	Committee fee	Total
2022	128	61	189
2021	126	58	184

Executive Board (EUR thousand)	Fixed remuneration	Pension cost	Termination benefit	Total
2022	1,682	409	-	2,091
2021	1,602	445	513	2,560

The entire Executive Board consists of statutory directors. Pension remuneration equals (i) the contributions payable to the defined contribution plan for service rendered in the period or (ii), for defined benefit plans, the current service cost and, when applicable, past service cost. We refer to the Supervisory Board Report for a more detailed disclosure on remuneration.

Other operating expenses

(EUR million)	2022	2021
Accommodation and office expenses	109	99
Consultancy expenses	54	48
Hiring of temporary personnel	50	49
Travel and living expenses	25	13
Other expenses	84	94
Total	322	303

Auditors' remuneration

The fees listed in the table below relate to the services provided to the Company and its consolidated Group entity by Deloitte Accountants B.V., the Netherlands, the external auditor as referred to in section 1(1) of the Dutch Accounting Firm Oversight Act (Dutch acronym: Wta), as well as by other Dutch and non-Dutch Deloitte individual partnerships and legal entities, including their tax services and advisory groups.

(EUR thousand)	2022	2021
Audit of the financial statements		
Deloitte Accountants B.V.	938	826
Deloitte GmbH Wirtschaftsprüfungsgesellschaft	718	700
Total audit of the financial statements	1,656	1,526
Other assurance services		
Deloitte Accountants B.V.	390	374
Deloitte GmbH Wirtschaftsprüfungsgesellschaft	278	164
Total other assurance services	668	538
Total audit fees	2,324	2,064

The financial audit fees include the aggregate fees in 2022 and 2021 for professional services rendered for the audit of TenneT's Integrated Annual Report and annual statutory financial statements of subsidiaries or services that are normally provided by the auditor in connection with these audits.

The other assurance fees include the aggregate fees invoiced for assurance and services for other audit services, which generally only the company's independent auditor can reasonably provide, such as comfort letters, regulatory statements and audits of grant statements.

① Accounting policy

TenneT has energy purchase contracts for the forward purchase of energy or gas that are used to satisfy physical delivery requirements to customers or for the energy that the group uses itself. Substantially all our costs of purchasing electricity for supply to customers are recoverable at an amount equal to cost. The timing of recovery of these costs can vary between financial periods leading to an under- or over-recovery within any particular year that can lead to large fluctuations in the IFRS income statement. We follow approved policies to manage price and supply risks for our commodity activities.

TenneT's energy procurement risk management policy and delegations of authority govern its commodity trading activities for energy transactions. The purpose of this policy is to ensure we transact within pre-defined risk parameters and only in the physical and financial markets where we or our customers have a physical market requirement. In addition, state regulators require TenneT to manage commodity risk and cost volatility prudently through diversified pricing strategies. In both the Netherlands and Germany, we are required to file a plan outlining our energy procurement strategy to be approved by the respective regulator. In certain cases, we might receive guidance with regard to specific hedging limits.

Energy purchase contracts for the forward purchase of electricity that are used to satisfy physical delivery requirements to customers, or for energy that TenneT uses itself, meet the expected purchase or usage requirements of IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. In note 28 of the consolidated financial statements commitments under such contracts have been disclosed as 'Grid related commitments'.

Operating expenses are expenses incurred during regular day-to-day business, such as system services, connection and transmission services, personnel expenses, depreciation and accommodation and travel costs. Operating expenses are recorded in the statement of income in the period they are incurred.

5 Finance income and expenses

Finance income

This mainly relates to an amount of EUR 38 million that was recognised regarding a settled court case.

Finance expenses

(EUR million)	2022	2021
Interest on borrowings and credit facilities	245	175
Capitalised interest on assets under construction	-12	-13
Interest on provisions	25	1
Interest on defined benefit pension plans	5	3
Interest on lease liability	4	2
Interest on other financial liability	22	20
Other finance expenses	11	14
Total	300	202

Finance expenses mainly increased due to new issued bonds in 2022. These bonds had higher interest rates as bonds issued before 2022. Furthermore the increase is related to bonds issued in 2021 that are now recognised for the full year. Interest on provisions increased due to the increased provisions and increased discount rates.

① Accounting policy

Finance expenses comprise mainly interest expenses, such as interest and fees on borrowings and credit facilities, interest on provisions, interest on defined benefit plans and interest on lease liabilities. Finance expenses are recorded in the statement of income using the effective interest rate method.

6 Corporate income tax

TenneT strives to comply with all applicable tax legislation in a socially responsible manner, maintaining among the highest levels of transparency, quality and integrity. Management responsibility and oversight of our tax strategy lies with our 'Chief Financial Officer' (CFO), our Director Financial Governance & Services and our Head of Tax who monitor our tax activities and report to the Executive Board and the Audit, Risk and Compliance Committee.

Our tax strategy is fully consistent with our corporate strategy. Building a transparent relationship with tax authorities based on mutual trust is an integral part of this strategy. We have built and are continuously improving our tax internal control framework system to be 'in control' and mitigate tax risks and to allow the company to demonstrate to all its stakeholders, including the tax authorities, that the company complies with all applicable laws and regulations.

Corporate income tax is payable in the Netherlands and Germany. In the Netherlands, we have entered into a so called 'horizontal monitoring agreement' with the Dutch tax authorities. TenneT is currently working with the Dutch tax authorities to further extend this agreement. Based on transparency and mutual trust, this agreement is meant to ensure that tax positions are fully disclosed and agreed on in advance, as a result of which generally no tax audits are performed by the Dutch tax authorities. All corporate income tax returns in the Netherlands have been filed up to and including 2020. Corporate income tax paid in the Netherlands in 2022 amounted to EUR 59 million.

In Germany, corporate income and trade tax returns for all German entities have been filed up to and including fiscal year 2021. In 2022, we paid EUR 172 million of corporate income tax in Germany.

Key components of corporate income tax expense are:

Consolidated income statement (EUR million)	2022	2021
Current income tax charge	254	152
Deferred tax:	-608	-287
Income tax expense reported in the statement of income	-354	-135

Consolidated statement of comprehensive income (EUR million)	2022	2021
Effect of re-measurement of defined benefit pensions	-64	-23
Income tax charged directly to other comprehensive income	-64	-23

Corporate income tax on results has been applied at the rates prevailing in the respective countries. In the Netherlands, a statutory corporate income tax rate of 25.8% was applied, while in Germany, on average, a marginal statutory corporate income tax rate of 29.84% was applied (including trade tax levied by municipalities or 'Gewerbsteuer'). Reconciliation between corporate income tax expense and the accounting result multiplied by a statutory corporate income tax rate of 25.8% is as follows:

(EUR million)	2022	2021
Result before corporate income tax	-1,233	-455
Statutory corporate income tax rate in the Netherlands of 25.8% (2021: 25%)	-318	-113
Effect of higher corporate income tax rate in Germany	-17	-8
Effect of future tax rate change in the Netherlands	-	-4
Adjustment in respect to current and deferred tax of previous years	1	-
Non-deductible costs	11	2
Non-taxable income	-29	-9
Tax paid by third parties	-2	-3
At the effective corporate income tax rate of 29% (2021: 30%)	-354	-135

The main reason for the higher effective tax rate of 29% compared to the Dutch statutory tax rate of 25.8% is the effect of the higher tax rate in Germany. Since the accounting result before tax is in a loss position, the items non-taxable income and tax paid by third parties, increase the effective tax rate, which in a positive result position normally decreases the effective tax rate.

Deferred taxes relate to the following:

(EUR million)	Statement of financial position		Statement of income	
	2022	2021	2022	2021
Auction receipts	-41	-60	-19	-79
Investment contributions	-69	-71	-2	2
Tariffs to be settled	327	85	-242	-200
Depreciation for tax purposes	-108	-150	-42	-6
Provisions	262	367	42	-48
Result allocation to hybrid securities	-6	-6	-	-
Receivable/payable	343	-	-343	34
Other	-9	-10	-2	10
Net deferred tax assets/(liabilities)	699	155		
Deferred tax expense/(income)			-608	-287

Deferred taxes are presented in the statement of financial position as follows:

(EUR million)	2022	2021
Deferred tax assets	711	162
Deferred tax liabilities	-12	-7
Deferred tax, net	699	155

Movements in deferred tax positions are set out below.

(EUR million)	2022	2021
At 1 January	155	-109
Tax expense during the period recognised in statement of income	608	287
Transfer to current tax payable	14	14
Adjustment tax expense relating to rate change	-	4
Other movement	-	-4
Tax income during the period recognised in equity	-14	-14
Tax income during the period recognised in other comprehensive income	-64	-23
At 31 December	699	155

① Accounting policy

The corporate income tax charge for the period is recognised in the statement of income, equity or the statement of comprehensive income, in accordance with the relevant accounting treatment of the related transaction. The corporate income tax charge comprises both current and deferred tax.

Current income tax assets and liabilities are measured at the amount expected to be recovered from, or paid to, the tax authorities. The tax rates and tax laws used to calculate these amounts are those enacted or substantively enacted at the reporting date in those countries where we operate and where we generate taxable income.

Deferred tax is recognised using the liability method with respect to temporary differences between the tax bases of assets and liabilities and their respective carrying amounts for financial reporting purposes at the reporting date. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date in the relevant jurisdictions.

Deferred tax is generally recognised in respect of all temporary differences, the carry-forward of unused tax credits and any unused tax losses. Deferred tax assets (also in association with investments in subsidiaries, associates and interests in joint arrangements) are recognised to the extent that it is probable that taxable result will be available against which the deductible temporary differences and the carry-forward of unused tax credits and unused tax losses can be utilised. This assessment is performed annually. Deferred tax is not recognised for the temporary differences arising from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.

Unrecognised deferred tax assets are reassessed at each reporting date and are recognised to the extent that it has become probable that future taxable profits will allow the deferred tax asset to be recovered. There are no unrecognised carry-forward losses per 31 December 2022 (2021: nil).

Deferred tax assets and liabilities are recognised on a gross basis in the statement of financial position unless:

- the entity has a legally enforceable right to set off current tax assets against current tax liabilities and
- the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either:
 - the same taxable entity, or
 - different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

7 Earnings per share

Earnings per share were calculated by dividing results for the year attributable to ordinary shareholder of the Group, after adjustment for the distribution on hybrid securities, by the weighted average number of ordinary shares outstanding during the year. The following table reflects the income and share data used for the basic and diluted earnings per share calculations.

(EUR million)	2022	2021
Result for the year attributable to the ordinary shareholder of the company	-910	-344
Allocation to hybrid securities	-57	-57
Result for the year attributable to equity holders of the company adjusted for the allocation to hybrid securities	-967	-401
Weighted average number of ordinary shares in issue (in thousands)	200	200

① Accounting policy

Calculation of earnings per share is based on the result for the year attributable to TenneT's sole shareholder and the weighted average number of shares outstanding during the year.

8 Tangible fixed assets

(EUR million)	High-voltage substations	High-voltage connections	Other assets	Assets under construction	Total
Cost					
At 1 January 2021	11,132	9,588	1,062	4,933	26,715
Additions	131	258	70	3,439	3,898
Transfers	358	382	24	-764	-
Changes in estimations	119	-78	-	-	41
Disposals	-8	-5	-5	-8	-26
At 31 December 2021	11,732	10,145	1,151	7,600	30,628
Additions	252	331	6	3,825	4,402
Transfers	996	1,071	163	-2,230	-
Changes in estimations	-170	-120	-	-22	-312
Transfer to held-for-sale	-	-	-12	-	-12
Impairment	-	-	-	-9	-9
Disposals	-92	-11	-5	-11	-119
At 31 December 2022	12,718	11,416	1,291	9,153	34,578
Depreciation and impairment					
At 1 January 2021	2,964	2,502	390	-	5,856
Depreciation for the year	530	378	61	-	969
Disposals	-5	-2	-1	-	-8
At 31 December 2021	3,489	2,878	450	-	6,817
Depreciation for the year	555	407	60	-	1,022
Transfer to held-for-sale	-	-	-	-	-
Disposals	-73	-9	-2	-	-84
At 31 December 2022	3,971	3,276	508	-	7,755
Net book value:					
At 1 January 2021	8,168	7,086	672	4,933	20,859
At 31 December 2021	8,243	7,267	701	7,600	23,811
At 31 December 2022	8,747	8,140	783	9,153	26,823

High-voltage substations include onshore and offshore transformer and converter stations. High-voltage connections consist of overhead and underground connections. Unlike lands for substations, lands surrounding high-voltage pylons and cables are generally not owned by TenneT. Other tangible fixed assets consist of office buildings, office ICT equipment and other company assets.

In 2022 the discount rate used for the decommissioning provision was between 2.086% and 2.942% (2021: 0.165% and 0.318%) for offshore wind farms (OWF) connections (see note 22). The discount rate was adjusted in 2022 to reflect current market assessments of the time value of money and the risks specific to this liability. The main part of the decommissioning provision was recognised as part of the carrying value of the related asset. Besides the change of the discount rate, also changes in inflation, changes in underlying assumptions and updated price levels are included in the change of estimates.

The amount of borrowing costs capitalised during 2022 is disclosed in note 5. The effective interest rate used to determine the amount of borrowing costs capitalised was 1.34% (2021: 2.0%).

Annual impairment trigger analyses on tangible assets, and where applicable testing for impairment, is done at the individual asset level, or smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets (cash generating units (CGUs)). For our three operating segments this consists of:

- TSO Netherlands (One large CGU consisting of regulated on- and offshore assets, and the NorNed cable, considered for impairment (triggers), on individual level);
- TSO Germany (One large CGU consisting of regulated on- and offshore assets);
- Non-regulated companies (Several small CGUs as well as individual assets).

The non-regulated companies also include the Joint Venture investment in the BritNed cable, tested, for impairment (triggers), on individual level.

Accounting policy

Tangible fixed assets are valued at cost, net of accumulated depreciation and accumulated impairment losses, if any. Such costs include the cost of replacing part of the asset and borrowing costs for long-term construction projects if the recognition criteria are met. When significant parts of the asset are required to be replaced at intervals, such parts are recognised as individual assets with specific useful lives and depreciated accordingly. Likewise, when major maintenance is performed, its cost is recognised in the carrying amount of the asset as a replacement, if the recognition criteria are met. All other repair and maintenance costs are recognised in the statement of income as incurred. The present value of the expected cost for the decommissioning of an asset after its use is included in the cost of the respective asset, if the recognition criteria for a provision are met. Depreciation is calculated on a straight line basis.

An asset is derecognised on disposal or when no future economic benefits are expected from its use. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of income when the asset is derecognised.

General and specific borrowing costs directly attributable to the acquisition, construction or production of the tangible fixed assets, are added to the cost, until such time that the assets are substantially ready for their intended use or sale. No borrowing costs are capitalised if and to the extent such borrowing costs are directly compensated in the year of construction.

Key estimates and assumptions

To calculate depreciation amounts, the following useful lives of various asset categories were assumed:

Estimated useful lives tangible fixed assets	Years
Substations	
Switches and offshore converter stations	20-35
Offshore platforms	20
Security and control equipment	10-20
Power transformers	20-35
Capacitor banks	20-35
Telecommunications equipment	10-20
Connections	
Pylons/lines	35-40
Cables (subsea and underground)	20-40
Other	
Office buildings	40-50
Office IT equipment	3-5
Process automation facilities	5
Other company assets	5-10

Residual values, useful lives and methods of depreciation of assets are reviewed at each financial year-end and adjusted prospectively, if appropriate.

9 Right-of-use assets and lease liabilities

Right-of-use assets

(EUR million)	Land & buildings	Power plants	NordLink cable	Other right-of-use assets	Total
Cost					
At 1 January 2021	93	90	242	80	505
Additions	37	51	-	10	98
Disposal	-1	-	-	-1	-2
Remeasurement	2	-	-2	-	-
Depreciation	-14	-60	-81	-13	-168
At 31 December 2021	117	81	159	76	433
Additions	32	-	-	6	38
Disposal	-	-	-	-8	-8
Remeasurement	13	98	355	3	469
Transfer to held-for-sale	-	-	-	-3	-3
Depreciation	-21	-70	-73	-17	-181
At 31 December 2022	141	109	441	57	748

Leased Land & Buildings

Land is mainly leased to set up pylons for electricity transmission lines and for constructed substations. These contracts run for a period of 18-142 years. Buildings are leased mainly as office space and for storage space. These contracts run for a period of 1-23 years.

Lease contracts for buildings are negotiated individually and include a range of different terms and conditions, including extension options.

Lease payments are in substance fixed, only a minority of the lease contracts contain clauses with reference to the CPI index.

Leased power plants

TenneT is committed to the use of grid reserve power plants representing lease commitments according to IFRS 16. The commitments have a maturity of 1-3 years and can be prolonged depending on the decision of regulatory authorities.

Lease payments were in substance fixed and TenneT had no power plant leases which contained variable lease payments. Lease contracts did not include any clauses with reference to an index or contractual rate.

Leased NordLink cable

TenneT leases the NordLink submarine cable from NOKA to transport electricity between Germany and Norway. The lease contract is extended which resulted in a remeasurement and has a remaining maturity of 6 years, and no extension option according to IFRS 16 is included in the lease contract. Lease payments are in substance fixed.

Leased others

Telecom lease contracts (including fibreglass cables) run for a period between 1 and 30 years. For qualifying employees TenneT leased cars with a lease term between 1 and 7 years. TenneT does not purchase or guarantee the value of leased telecom assets or cars.

TenneT had several contracts with termination / extension options. In determining the lease term all relevant facts and circumstances that create a significant economic incentive to exercise those options are taken into consideration.

TenneT had no material 'sub lease' contracts in 2022 and 2021 and therefore no material income from subleasing right-of-use assets. TenneT has not entered into any sale and leaseback contracts. No lease contracts with residual value guarantees are entered into. No lease contracts have been concluded that contain restrictions or covenants.

Lease payments were in substance fixed, only some of the lease contracts had pre-determined lease payment changes.

Short-term leases and leases of low value

TenneT leased certain other assets with terms up to 1 year. TenneT considers these assets to be of low-value or short-term in nature and therefore no right of use assets and lease liabilities were recognised for these leases. The aggregate total of short-term lease expenses for more than one month and low value assets lease expenses amounted to EUR 2 million (2021: EUR 2 million).

Lease liability

(EUR million)	2022			2021		
	Current	Non-current	Total	Current	Non-current	Total
Lease liability Land & buildings	20	121	141	17	101	118
Lease liability power plants	53	62	115	72	9	81
Lease liability NordLink	66	349	415	66	64	130
Lease liability other leases	16	42	58	14	61	75
Total	155	574	729	169	235	404

(EUR million)	Lease liability Land & buildings	Lease liability power plants	Lease liability NordLink	Lease liability other leases	Total
At 1 January 2021	92	90	199	81	462
Addition	36	51	-	8	95
Interest	1	-	-	1	2
Remeasurement	3	-	-2	-	1
Repayments	-14	-60	-67	-15	-156
At 31 December 2021	118	81	130	75	404
Addition	28	-	-	6	34
Interest	1	-	3	1	5
Disposal	-	-	-	-8	-8
Remeasurement	12	98	355	5	470
Transfer to held-for-sale:	-	-	-	-3	-3
Repayments	-18	-64	-73	-18	-173
At 31 December 2022	141	115	415	58	729

The total cash outflow (including low value items and short-term leases) in 2022 was EUR 223 million (2021: EUR 158 million). Future cash outflows of leases not yet commenced but to which TenneT is committed mainly relate to leased power plants and amount to EUR 86 million yearly from 2023 till 2032.

The undiscounted maturity analysis of lease liabilities is disclosed in note 26.

(EUR million)	2022	2021
Depreciation expense of right-of-use assets	-181	-168
Short-term lease expenses	-2	-2
Interest expense on lease liabilities	-5	-2
Total amount recognised in profit and loss	-188	-172

Below the discounted maturity of the lease liability:

(EUR million)	2022	2021
<1 month	13	16
1 to 3 months	22	27
3 to 12 months	146	151
1 to 5 years	404	136
More than 5 years	144	74
Total discounted maturity	729	404

① Accounting policy

At inception of a contract, TenneT assesses whether a contract conveys the right to control the use of an identified asset for a period in exchange for consideration, in which case it is classified as a lease.

TenneT recognises a right-of-use asset and a lease liability at the lease commencement date. The asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to restore the underlying asset, less any lease incentives received.

The lease asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term, considered to be indicated by the lease term. The lease asset is periodically adjusted for certain remeasurements of the lease liability and impairment losses (if any).

The lease liability is initially measured at the present value of outstanding lease payments, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, TenneT's incremental borrowing rate. If available, the interest rate implicit in the lease is used for discounting (e.g. car leases). Otherwise the incremental borrowing rate is used and shown in the table below.

	2022	2021
Under 5 year	0.0%-0.5%	0.0%
5-10 years	0.1%-1.6%	0.0%
10-15 years	0.4%-2.2%	0.2%
15-25 years	0.7%-2.5%	0.6%
Above 25 years	1.1%-2.8%	0.9%

After initial recognition, the lease liability is measured at the present value of the remaining lease payments using the effective interest method and is remeasured when there is a change in future lease payments arising from a change in an index or rate or if TenneT changes its assessment of whether it will exercise a purchase, extension or termination option. A corresponding adjustment is made to the carrying amount of the right-of-use asset with any excess over the carrying amount of the asset being recognised as profit or loss.

Short-term leases and leases of low value

TenneT has elected not to recognise right-of-use assets and lease liabilities for short-term leases (leases with a term of 12 months or less) and leases of low-value assets. TenneT recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term or another systematic basis, if that basis is more representative of the pattern of the lessee's benefit. Furthermore, TenneT has elected not to recognise the lease of intangible assets.

10 Intangible assets

(EUR million)	Goodwill	Software	Customer contracts	Other intangible assets	Intangible assets under construction	Total
Cost						
At 1 January 2021	35	308	64	49	73	529
Additions	-	21	-	-2	52	71
Transfers	-1	53	-	-	-52	-
At 31 December 2021	34	382	64	47	73	600
Additions	-	3	-	-	88	91
Transfers	-	46	-	-	-46	-
At 31 December 2022	34	431	64	47	115	691
Amortisation and impairment						
At 1 January 2021	-	244	58	15	-	317
Amortisation for the year	-	23	4	2	-	29
At 31 December 2021	-	267	62	17	-	346
Amortisation for the year	-	35	2	2	-	39
At 31 December 2022	-	302	64	19	-	385
Net book value:						
At 1 January 2021	35	64	6	34	73	212
At 31 December 2021	34	115	2	30	73	254
At 31 December 2022	34	129	-	28	115	306

As at 31 December 2022 and 2021, goodwill was allocated to the cash generating units (CGUs) in the following operating segments: TSO Netherlands (EUR 3 million), TSO Germany (EUR 24 million) and non-regulated activities (EUR 7 million). Please refer to note 11 for details on change of goodwill.

During 2022 EUR 46 million (2021: EUR 39 million) of software was internally developed.

① Accounting policy

Intangible assets are measured at acquisition cost on initial recognition. The cost of intangible assets acquired in a business combination is recognised at fair value at the date of acquisition. Following initial recognition, intangible assets are carried at cost less any accumulated amortisation and accumulated impairment losses. Except for capitalised development costs, internally generated intangible assets are not capitalised and expenses are reflected in the statement of income in the period in which they incur.

Goodwill is initially measured at cost and represents the excess (i) of the consideration transferred over (ii) TenneT's interest in the value of the net identifiable assets, liabilities and contingent liabilities of the acquiree and the amount of the non-controlling interest in the acquiree. After initial recognition, goodwill is measured at cost less accumulated impairment losses.

At each reporting date, we assess whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, the asset's recoverable amount is estimated. The recoverable amount is the higher of an asset's or CGU's fair value less costs of disposal and its value in use. If the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

🔑 Key estimates and assumptions

Estimated useful lives intangible assets	Years
Goodwill	Indefinite
Software	3-12
Customer contracts	10-14
Purchased rights to use land	25-45
Other	5-15

Intangible assets, with the exception of goodwill, are assumed to have a fixed useful life within the ranges outlined above and are amortised over this useful life. The useful life is re-assessed each reporting period. Intangible assets are amortised on a straight line basis, as this best reflects the use of the asset.

Goodwill is assumed to have an indefinite useful life and is therefore not amortised, but is tested for impairment annually or more frequently, if events or changes in circumstances indicate a triggering event, either individually or at CGU level.

Impairment testing of goodwill

For the purpose of annual impairment testing, goodwill acquired in a business combination is allocated to each of the CGUs. For our three operating segments this consists of:

- TSO Netherlands (One large Cash Generating Unit consisting of regulated on- and offshore assets)
- TSO Germany (One large Cash Generating Unit consisting of regulated on- and offshore assets)
- Non-regulated companies (Several small Cash Generating Units)

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects our assessment of current market conditions in respect of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, an appropriate valuation model is used, if no recent market transactions can be identified.

The impairment calculation is based on detailed projections, which are prepared separately for each of the CGUs to which the individual assets are allocated. The projections take into account current regulatory parameters, considering expected future regulatory developments. Management believes that the resulting cash flows can be determined reliably and that they give an appropriate reflection of the CGU's cash flow generating potential.

The recoverable amount of the German CGU was determined based on a value in use calculation using cash flow projections from our three year business plan. The pre-tax discount rate applied to cash flow projections was 6.7% (2021: 3.9%). The cash flows beyond the three-year period until 2044 were estimated on the basis of projected regulatory allowed returns and invested capital. The terminal value was determined estimating the regulatory asset base as of December 2044. We concluded that the recoverable amount as at 31 December 2022 was significantly in excess of the carrying value and as such no impairment loss needed to be recognised.

11 Business combinations

Mergers and acquisitions

As of 31 December 2022 CertiQ B.V. merged with Vertogas B.V. into VertiCer B.V. Vertogas B.V. is the issued body for green gas certificates and was fully owned by Gasunie N.V. After this merger, both Gasunie and TenneT hold 50% of the shares in VertiCer B.V.

Assets and liabilities classified as held for sale

Assets and liabilities classified as held for sale entirely relate to Novec GmbH. The Group currently holds a 100% interest in Novec GmbH. TenneT and management are exploring strategic partnerships which is committed to result in a sale of Novec GmbH.

Novec GmbH is included in the 'non-regulated companies' segment (note 2) and is not considered as a major business line of the Group.

The fair value less costs to sell exceeds the carrying amount of Novec GmbH and the Group expects to realise the sale of Novec GmbH in the course of 2023.

Accounting policy

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of assets and liabilities measured at their acquisition-date fair value (with a limited number of specified exceptions) including the amount of any non-controlling interest in the acquiree. For each business combination, we decide whether to measure the non-controlling interest in the acquiree at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred in connection with an acquisition and included in other operating expenses (see note 4).

Non-current assets held for sale are defined as non-current assets (other than financial instruments or property investments) immediately available for sale and highly likely to be sold within a year. Non-current assets held for sale have been stated at the lower of (i) the asset's carrying value and, (ii) fair value less costs of disposal.

12 Investments in joint ventures and associates

Joint ventures

TenneT has, directly or indirectly, 50% equity stakes in BritNed Development Ltd. ('BritNed'), DC Nordseekabel GmbH & Co. KG ('NOKA'), DC Nordseekabel Beteiligungs GmbH, Reddyn B.V. and Tensz B.V. We have a 20% equity stake in Equigy B.V. and a 25% indirect equity stake in Open Tower Company (OTC). For the investments in Equigy B.V. and OTC, joint control is exercised, despite unequal equity stakes. Therefore both investments are classified as joint ventures as of 2021. In December 2021 Flexcess GmbH was established as joint venture together with TransnetBW. Both shareholders have a 50% equity stake. Flexcess GmbH has a 20% participation in Equigy B.V. effective as of 1 January 2022. As of 31 December 2022 TenneT has a 50% participation in VertiCer B.V.

These investments are classified as joint ventures, for which only the investments in BritNed (legal seat: Arnhem, the Netherlands), OTC (legal seat: Vianen, the Netherlands) and NOKA (legal seat: Bayreuth, Germany) are each considered as an investment of material value. Other joint ventures are considered immaterial and are therefore not further disclosed. TenneT's share in result (which is equal to other and total comprehensive income) of these immaterial joint ventures amounted to EUR 1 million in 2022 (2021: EUR 1 million).

As of 31 December 2022 VertiCer B.V. is a new joint venture and considered to be a non-material joint venture. Further reference is made to note 11.

The table below contains summarised financial information with respect to material joint ventures and a reconciliation with their carrying amounts.

Statement of financial position (EUR million)	2022			2021		
	BritNed	NOKA	OTC	BritNed	NOKA	OTC
Non-current assets	458	783	80	468	840	82
Cash and cash equivalents	140	55	22	56	44	19
Other current assets	23	10	2	38	12	24
Non-current liabilities	-47	-33	-134	-47	-51	-161
Current liabilities	-119	-15	-5	-85	-6	-6
Equity	455	800	-35	430	839	-42
<i>Ownership TenneT</i>	50%	50%	25%	50%	50%	25%
Carrying amount of the investment	228	400	-	215	420	-

Statement of income (EUR million)	2022			2021		
	BritNed	NOKA	OTC	BritNed	NOKA	OTC
Revenue	304	83	30	163	75	26
Depreciation and amortisation	-18	-40	-7	-19	-41	-7
Other costs	-22	-8	-9	-57	-8	-7
Operating result	264	35	14	87	26	12
Finance income and expenses	-3	-1	-4	-2	-1	-5
Income tax expense	-59	-4	-2	-15	-2	-2
Result for the year*	202	30	8	70	23	5
<i>Ownership TenneT</i>	50%	50%	25%	50%	50%	25%
Group's share in result	101	15	2	35	12	1

* Result for the year is equal to other and total comprehensive income.

BritNed

BritNed is a joint venture with National Grid International Ltd (National Grid), the British TSO. It owns and operates a 1,000 MW 'Direct Current' (DC) interconnector between the United Kingdom and the Netherlands. Operating costs and trading revenue are shared equally between TenneT and National Grid. BritNed had contingent liabilities of EUR 1 million (2021: EUR 2 million) mainly related to comfort letters issued. In 2022 EUR 88 million dividend was received from BritNed (2021: EUR 40 million).

TenneT Holding B.V. has, together with the other shareholder National Grid Holding One plc, provided a parent company guarantee on the liabilities of BritNed.

NOKA

NordLink is an interconnector between Norway and Germany jointly owned by Statnett SF, TenneT and KfW IPEX-Bank GmbH (KfW) to establish an interconnector between Norway and Germany under the project name 'NordLink'. Ownership of the interconnector is equally split, with TenneT and KfW owning the southern part through NOKA, a jointly owned company and Statnett owning the northern part. In 2021 the main activity of NOKA was operating the southern part of the interconnector. Operating costs and trading revenue are shared equally between NOKA and Statnett.

At 31 December, NOKA had contingent liabilities of EUR 3 million (2021: EUR 3 million) mainly related to purchase obligations. During 2022 TenneT has withdrawn EUR 32 million from NOKA's capital (2021: EUR 42 million).

OTC

OTC is a holding company and holds majority interests in four separate asset companies: Colonne B.V., Mobile Radio Networks Vehicle B.V. (MRNV), OTC Networks B.V. and OTC II B.V. These companies mainly own infrastructure assets specifically designed for terrestrial communications. OTC had no contingent liabilities as at 31 December 2022 (2021: nil). No dividend from OTC was received in 2022 (2021: nil).

Other

None of our joint ventures are permitted to distribute profits without the consent from all shareholders or partners. We received nil from other interests in joint ventures (2021: nil).

Other interests in joint ventures amounted EUR 2 million at 31 December 2022 (2021: EUR 3 million).

Associates

At 31 December 2022 our substantial investments in associates consisted of a 34% interest in Holding des Gestionaires de Réseaux de Transport d'Electricité S.A.S. (HGRT). In addition, the Group holds four immaterial investments in Energie Data Services Nederland B.V. (EDSN), European Market Coupling Company GmbH (EMCC), WL Winet B.V., Beheer Afsprakenstelsel B.V. (BAS) and TSCNET Services GmbH (TSC). The Group's share in result (which is equal to other and total comprehensive income) of these immaterial associates amounted to nil in 2022 (2021: nil).

Summarised financial information in respect of material associates and reconciliation with their respective carrying amounts, of the investment in the consolidated financial statements is as follows:

	2022	2021
	HGRT	HGRT
Statement of financial position (EUR million)		
Non-current assets	97	91
Current assets	1	1
Non-current liabilities	-	-
Current liabilities	-7	-
Equity	91	92
<i>Ownership TenneT</i>	34%	34%
Carrying amount of the investment	31	31

	2022	2021
	HGRT	HGRT
Statement of income (EUR million)		
Revenue	-	-
Depreciation and amortisation	-	-
Other costs	-	-
Operating result	-	-
Finance income and expenses	13	11
Income tax expense	-	-
Result for the year*	13	11
<i>Ownership TenneT</i>	34%	34%
Group's share in result	4	4

* Result for the year is equal to total and other comprehensive income.

HGRT

The legal seat of HGRT is in Paris, France. HGRT holds a 49% stake in EPEX. EPEX is the exchange for the power spot markets for the 'North West Europe' (NWE) region and the United Kingdom. At 31 December 2022, HGRT had no contingent liabilities outstanding (2021: nil). In 2022 EUR 4 million dividend was received (2021: EUR 3 million).

Other

Our interest in other associates amounted EUR 5 million at 31 December 2022 (2021: EUR 3 million). From other associates we received nil dividend in 2022 (2021: nil).

Accounting policy

A joint venture is an arrangement whereby the parties in the arrangement have joint control over the net assets of the joint arrangement.

Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control. An associate is an entity in which we have significant influence, but no control. Significant influence is the power to participate in the financial and operating policy decisions of the investor.

Investments in joint ventures and associates are accounted for using the equity method. Under the equity method, the investment in the joint venture or associate is initially recognised at cost. The carrying amount of the investment is adjusted to recognise changes in the Group's share of net assets of the investment since the acquisition date. Goodwill relating to the associate is included in the carrying amount of the investment and is neither amortised nor individually tested for impairment.

The statement of income reflects our share in the results of operations of investments. Any change in other comprehensive income of these investments is presented as part of the other comprehensive income. In addition, when there is a change recognised directly in the equity of the investment, our share of any change is recognised in the statement of changes in equity. Unrealised gains and losses resulting from transactions between us and any investment are eliminated to the extent of the interest in such investment. When an associate or joint venture distributes dividend to us in excess of our carrying amount, a liability is recognised if TenneT:

- is obliged to refund the dividend;
- has incurred a legal or constructive obligation; or
- made payments on behalf of the associate.

In the absence of such obligations, the excess in net result for the period is recognised. When the associate or joint venture subsequently generates results, this is only recognised if and to the extent they exceed the excess cash distributions recognised in net results plus any previously unrecognised losses.

After application of the equity method, we determine whether it is necessary to recognise an impairment loss on our investment in the joint venture or associate. At each reporting date, we determine whether there is objective evidence that the investment is impaired. If such evidence exists, the amount of impairment is calculated as the excess of the carrying value of the investment over its recoverable amount and recognised in the statement of income.

Upon loss of significant influence over the joint venture/associate, any retained investment is valued at fair value. Any difference between the carrying amount of the investment upon loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognised in the statement of income.

13 Other financial assets

(EUR million)	2022	2021
Receivables from related parties	-	5
Fees for credit facilities available	3	4
Minority participating interests	15	14
Other	26	14
Total	44	37

The receivables from related parties mainly consisted of loans granted to MRNV, a minority participating interest of Novec B.V., and was redeemed in 2022 (2021: EUR 5 million).

Minorities participating interests includes investments in Westley Fund 3 and 4, located in Menlo Park, California, USA, with fair value of EUR 10 million (2021: EUR 11 million) and in Set Ventures 2 and 3, located in Amsterdam, for a total fair value of EUR 5 million (2021: EUR 3 million). We contributed EUR 3 million in capital for these minorities (2021: EUR 2 million). We have recognised nil (2021: EUR 8 million) fair value gain. Furthermore due to disinvestments by Westley Fund 3 we accounted a result of EUR 2 million.

The position other mainly relates to pension assets. Please refer to Note 23 Net employee defined benefit liabilities for further details.

① Accounting policy

Please refer to note 28, accounting policies for financial instruments.

14 Inventory

Inventory primarily composed of oil and coals stocks which is used for measures taken at power plants that are standing by for TenneT. The allowance for inventory is EUR 8 million (2021: EUR 6 million). The fair value of inventory was not materially different from the carrying value.

① Accounting policies

Inventory is stated at the lower of cost and net realisable value. Cost comprises direct purchase costs and associated costs incurred in bringing inventories to their present condition and location. The net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make a sale.

15 Account- and other receivables

(EUR million)	2022	2021
Amounts to be invoiced to EEG trade debtors	184	790
EEG trade receivables	35	21
EEG short-term bank deposits > 3 months	-	472
Trade receivables	501	401
Amounts to be invoiced	1,051	434
VAT receivables	300	159
Other	277	124
Total	2,348	2,401

EEG trade receivables and amounts to be invoiced to EEG trade debtors

In accordance with the Renewable Energy Sources Act (EEG) TenneT TSO GmbH is required to purchase electricity from producers of renewable energy at fixed feed-in tariffs. Subsequently such renewable energy is sold on power exchanges at spot prices.

EEG revenues and expenses are legally required to be administrated separately and are legally designated to be equal, except for certain potential bonus amounts payable to TenneT for marketing the energy on power exchanges. The EEG levy also includes an additional liquidity buffer to avoid a net financing need for the TSOs. TenneT acts as an agent with respect to these EEG services.

EEG trade debtors and receivables consisted of the accrual of unbilled EEG levy mainly for the month December, the outstanding invoices for the EEG levy, the accrual for horizontal balancing amounts (i.e. unsettled charges to the other German TSOs) and energy trading revenues. EEG trade receivables were not at our free disposal. Please refer to note 25 for the EEG accounts payable.

Please refer to note 16 for EEG deposits.

Trade receivables

As at 31 December, the ageing of trade receivables was as follows:

(EUR million)	Total	Not past due	Past due		
			0-30 days	31-60 days	More than 60 days
2022	501	453	27	13	8
2021	401	371	30	-	-

Changes in the allowance for expected credit losses were as follows:

(EUR million)	2022	2021
At 1 January	40	16
Charge for the year	7	22
Utilisation	-19	-
Unused amounts reversed	-	2
At 31 December	28	40

As at 31 December 2022, receivables with an initial value of EUR 5 million (2021: EUR 21 million) were fully provided for.

Amounts to be invoiced

The majority of the amounts to be invoiced related to unbilled grid fees and rechargeable offshore costs in Germany. The increase is mainly related to increased redispatch costs that will be charged to clients.

① Accounting policy

Please refer to note 28, accounting policies for financial instruments.

16 Cash, cash equivalents and bank overdrafts

Cash and cash equivalents consisted of the following items.

(EUR million)	2022			2021		
	At free disposal	Not at free disposal	Total	At free disposal	Not at free disposal	Total
Collateral securities	-	550	550	-	281	281
EEG funds	-	1,414	1,414	-	771	771
EEG deposits < 3 months	-	3,300	3,300	-	2,150	2,150
Deposits	300	-	300	-	-	-
Cash at bank	982	1	983	2	-	2
Cash and cash equivalents	1,282	5,265	6,547	2	3,202	3,204
Bank overdrafts	-	-	-	-64	-	-64
Total cash and cash equivalents used in cash flow statement	1,282	5,265	6,547	-62	3,202	3,140

Funds related to EEG activities have been legally separated as required by BNetzA. EEG Funds are not at the TenneT's free disposal. For further reference regarding EEG we refer to note 15. Cash at banks carry interest at floating rates based on daily bank deposit rates which may at times be negative.

The Group presents its cash flows in the consolidated statement of cash flows using the indirect method. The Group has elected to classify interest received as cash flows from investing activities and interest paid (including interest on lease liabilities) as cash flows from financing activities.

① Accounting policy

In the consolidated statement of cash flows, cash and cash equivalents include cash at bank, deposits held at call with banks, other short-term highly liquid investments with remaining maturities of three months or less and are presented net of outstanding bank overdrafts. Securities are deposits on collaterals that serve as financial security for auction and energy exchange transactions. A matching obligation is recognised towards the party that deposited the funds as collateral. Securities are stated at fair value upon receipt and subsequently at amortised cost.

17 Capital management

The primary objective of TenneT's capital structure is to ensure a sustainable financial position to absorb adverse changes in the regulatory environment and to enable us to execute our extensive investment programme which is essential for the success of the energy transition in the Netherlands and Germany. The majority of the funding for our investment programme is sourced from the debt capital markets, commercial banks and international financial institutions (e.g. the European Investment Bank).

To maintain broad access to financial markets at favourable conditions, we have defined capital management objectives, policies and processes which include:

1. to maintain a senior unsecured long-term credit rating of at least A3/A-;
2. to maintain a long-term average Funds From Operations (FFO) to Net debt based on 'underlying' financial information of at least 8.5% (with individual years of at least 8.0%);
3. to diversify the maturities of long-term funding instruments to limit refinancing risk;
4. to maintain liquidity through cash and undrawn committed credit lines covering at least our net cash requirement on a rolling 12-month forward-looking basis.

1. Maintain a senior unsecured credit rating of at least A3/A-

As of 31 December 2022 TenneT Holding B.V. had the following senior unsecured long-term credit ratings from Standard & Poor's and Moody's Investor Service, which comply with our financial policy.

Unsecured credit rating at 31 December 2021 and 31 December 2022	Long-term rating	Short-term rating
Standard & Poor's	A- (stable outlook)	A-2
Moody's Investor Service	A3 (stable outlook)	P-2

2. Maintain a long-term average FFO/Net debt ratio based on underlying financial information of at least 8.5%

To maintain a solid financial position, we intend to maintain a long-term average FFO/Net debt ratio of at least 8.5% based on underlying financial information (see note 2), which meets the minimum requirements for an A-/A3 long-term unsecured credit rating as formulated by the credit rating agencies Standard & Poor's and Moody's Investor Service. Individual years have a FFO/Net debt of at least 8.0%.

A reconciliation of the Adjusted FFO and net debt is provided in the following table. Please refer to the chapter 'Secure a sustainable financial performance and investor rating' for detailed information about the Adjusted FFO.

Based on underlying information (EUR million)	2022	2021
Net result for the year	671	473
+ amortisation, depreciation and impairments	1,254	1,185
+ other gains (non-cash)	38	4
+ result on disposal of assets (non-cash)	-	-
Total FFO	1,963	1,662
Capitalised interest on assets under construction	-12	-13
Interest on other financial liability	22	20
Interest on provisions	25	1
50% Hybrid interest	-28	-28
Adjusted FFO	1,970	1,642
Net debt		
+ Long-term borrowings	19,006	12,366
+ Short-term borrowings	709	1,339
+ Bank overdrafts	-	64
- Cash and cash equivalents at free disposal	-1,282	-2
Lease liabilities	729	404
Net employee defined benefit liabilities	174	351
50% Hybrid loan	1,062	1,062
Net debt	20,398	15,584
Adjusted FFO/net debt	9.7%	10.5%
Adjusted net debt		
Net debt	20,398	15,584
Regulatory receivables and payables	-2,278	-73
Adjusted net debt	18,120	15,511
Adjusted FFO/Adjusted net debt	10.9%	10.6%

EUR 2,278 million of our loans is used to prefinance the increased ancillary services, without these prefinancing our FFO/Net debt ratio would be 10.9% (2021: 10.6%) instead of 9.7% (2021: 10.5%). Further reference is made to note 2 'Segment information'.

3. Diversify maturities of long-term funding instruments to limit refinancing risk

To minimise refinancing risk, we diversify the maturity profile of our senior debt. As of 31 December 2022, our interest bearing debt (excluding bank overdrafts) had the following annual redemption profile:

Annual redemption of debt (EUR million)

Year	Maturities	Year	Maturities	Year	Maturities	Year	Maturities	Year	Maturities
2023	709	2028	1,282	2033	1,298	2038	40	2043	14
2024	448	2029	1,742	2034	1,843	2039	784	2044	14
2025	568	2030	782	2035	1,048	2040	784	2045	7
2026	1,973	2031	1,015	2036	628	2041	684		
2027	1,225	2032	1,182	2037	48	2042	1,724		

4. Maintaining liquidity through cash and undrawn committed credit lines covering at least our net cash requirement on a rolling 12-month forward-looking basis

We monitor the liquidity of the Group on a rolling 12-month forward-looking basis. This means that the sum of (i) cash and cash equivalents, (ii) undrawn committed credit facilities and (iii) 12-month expected net cash flow from operating activities should be sufficient to meet the expected aggregate of scheduled debt repayments, investments in fixed assets and dividend payments over the subsequent 12 months. The 12-month liquidity requirement was met on 31 December 2022 and 31 December 2021.

18 Equity

Paid-up and called-up capital

The Company's authorised share capital amounted to EUR 500 million (2021: EUR 500 million), divided into one million shares of EUR 500 each. Of these shares, two hundred thousand shares have been issued and paid-up.

Share premium reserve

The share premium reserve consists of the capital contributions, made by the shareholder of ordinary shares, the Dutch State represented by the Ministry of Finance. In the Dutch State budget 'miljoenennota' of September 2022, the Dutch State has reserved an amount up to EUR 5.11 billion for additional equity contributions for the period 2022-2025. A first tranche of EUR 1,230 million was received in 2022 and the capital contribution has been recognised in the share premium reserve.

Retained earnings

Part of the retained earnings has been presented as legal reserve. For more details see note 41.

Hybrid securities

Hybrid securities are deeply subordinated securities and are, with the exception of common equity, the most junior instruments in the capital structure of the Company. The hybrid securities are undated and do not default on non-payment of coupons (unless such payment was mandatory following a resolution or payment of a dividend to common shareholders, i.e. as so called 'dividend pusher').

The holders of the hybrid securities have limited ability to influence the outcome of a bankruptcy proceeding or a restructuring outside bankruptcy. Consequently, the hybrid security holders cannot oblige TenneT to pay distributions or redeem the securities in part or in full. Payment of distributions on and redemption of the securities is at our sole discretion. As a result, the hybrid securities are classified as part of the equity attributable to the company's owners.

On 31 December 2022, TenneT had EUR 2.1 billion of green hybrid securities outstanding divided in two tranches. The first tranche consisted of EUR 1.1 billion green hybrid securities that bear an optional, cumulative coupon of 2.995%, payable at TenneT's discretion annually on 1 June of each year. As at 31 December 2022, the unpaid cumulative dividend for this tranche amounted to EUR 18 million (2021: EUR 18 million), relating to the period 1 June until 31 December and payable on 1 June 2023. The second tranche consisted of EUR 1 billion green hybrid securities that bear an optional, cumulative coupon of 2.374%, payable at TenneT's discretion annually on 22 October of each year. As at 31 December 2022, the unpaid cumulative dividend for this tranche amounted to EUR 7 million (2021: EUR 7 million).

Dividend distribution

In 2022 a common full-year dividend of EUR 141 million (EUR 705 per share) to our ordinary shareholder was distributed (2021: EUR 149 million). In agreement with the State of the Netherlands TenneT has established a dividend policy with a pay-out of 35% of the underlying profit for the year, after payments of distributions to hybrid securities holders and minority equity investors. We made aggregate distributions to the holders of hybrid securities of EUR 57 million during 2022 (2021: EUR 57 million). The appropriation of the 2022 result is at the free disposal of the General Meeting of Shareholders.

19 Non-controlling interests

The proportion of economic interests held by non-controlling interests in the Group's subsidiaries is as follows:

% Non-Controlling Interests	Country	2022	2021
TenneT Offshore 2. Beteiligungsgesellschaft mbH ('TO2')	Germany	69%	69%
TenneT Offshore 8. Beteiligungsgesellschaft mbH ('TO8')	Germany	63%	63%
ETPA Holding B.V. ('ETPA')	Netherlands	0%	50%

The Group has the power to control TO2 and, TO8 and holds 51% of the voting rights in these entities. TenneT also held 50.002% of the voting rights of and had the power to control ETPA until 27 June 2022, TenneT has sold its shares and has no voting rights anymore in ETPA. Movements in the non-controlling interest, to the extent material, are summarised below.

Movement schedule Non-Controlling interests (EUR million)	TO2	TO8	Total
At 1 January 2021	258	229	487
Result attributable to non-controlling interests	10	-6	4
Dividends paid	-16	-18	-34
Capital repayment	-1	-1	-2
At 31 December 2021	251	204	455
Result attributable to non-controlling interests	16	15	31
Dividends paid	-12	-8	-20
Capital repayment	-13	2	-11
At 31 December 2022	242	213	455

The non-controlling interest in TO2 and TO8 are held by Copenhagen Infrastructure Partners (CIP), which owns respectively 69% and 63% of the voting rights.

Financial information of these subsidiaries, to the extent material, is summarised below on a consolidated basis before intercompany eliminations and in conformity with our accounting principles.

Statement of financial position (EUR million)	2022	
	TO2	TO8
Non-current assets	812	1,218
Current assets	168	234
Non-current liabilities	-555	-906
Current liabilities	-77	-205
Equity	348	341
Attributable to owners of the parent	106	128
Attributable to non-controlling interests	242	213

Statement of financial position (EUR million)	2021	
	TO2	TO8
Non-current assets	911	1,337
Current assets	161	217
Non-current liabilities	-621	-1,000
Current liabilities	-89	-225
Equity	362	329
Attributable to owners of the parent	111	125
Attributable to non-controlling interests	251	204

Statement of income (EUR million)	2022	
	TO2	TO8
Revenue	208	250
Depreciation and amortisation	-80	-102
Other expenses	-86	-95
Operating result	42	53
Finance income and expenses	-11	-18
Income tax expense	-10	-10
Result for the year	21	25
Other comprehensive income	-	-
Total comprehensive income	21	25
Attributable to non-controlling interests	16	15

Statement of income (EUR million)	2021	
	TO2	TO8
Revenue	164	164
Depreciation and amortisation	-82	-104
Other expenses	-52	-58
Operating result	30	2
Finance income and expenses	-8	-15
Income tax expense	-7	3
Result for the year	15	-10
Other comprehensive income	-	-
Total comprehensive income	15	-10
Attributable to non-controlling interests	10	-6

(EUR million)	2022	
	TO2	TO8
Net cash flows from operating activities	68	75
Net cash flows used in investing activities	-12	-16
Net cash flows from financing activities	-56	-59
Change in cash and cash equivalents	-	-

(EUR million)	2021	
	TO2	TO8
Net cash flows from operating activities	75	64
Net cash flows used in investing activities	-12	-11
Net cash flows from financing activities	-63	-53
Change in cash and cash equivalents	-	-

20 Borrowings

(EUR million)	Effective interest rate	Maturity	Redemption schedule	2022	2021
4.625% bond 2011 EUR 500 million	4.70%	Feb-23	At maturity	-	500
0.75% green bond 2017 EUR 500 million	0.87%	Jun-25	At maturity	499	498
1.000% green bond 2016 EUR 500 million	1.05%	Jun-26	At maturity	499	499
1.75% green bond 2015 EUR 500 million	1.84%	Jun-27	At maturity	498	498
1.375% green bond 2018 EUR 500 million	1.50%	Jun-28	At maturity	497	496
1.375% green bond 2017 EUR 500 million	1.42%	Jun-29	At maturity	499	499
0.875% green bond 2019 EUR 500 million	0.99%	Jun-30	At maturity	496	496
4.75% bond 2010 EUR 200 million	4.99%	Jun-30	At maturity	197	197
1.250% green bond 2016 EUR 500 million	1.36%	Oct-33	At maturity	495	494
2.0% green bond 2018 EUR 750 million	2.05%	Jun-34	At maturity	746	746
1.875% green bond 2016 EUR 500 million	2.00%	Jun-36	At maturity	493	493
1.500% green bond 2019 EUR 750 million	1.60%	Jun-39	At maturity	740	740
0.125% green bond 2020 EUR 600 million	0.21%	Nov-32	At maturity	595	595
0.500% green bond 2020 EUR 750 million	0.54%	Nov-40	At maturity	744	744
0.125% green bond 2021 EUR 650 million	0.17%	Jun-27	At maturity	648	648
0.500% green bond 2021 EUR 500 million	0.61%	Jun-31	At maturity	496	495
0.875% green bond 2021 EUR 1,000 million	0.93%	Nov-35	At maturity	994	993
1.125% green bond 2021 EUR 650 million	1.17%	Jun-41	At maturity	646	645
1.625% green bond 2022 EUR 1,250 million	1.12%	Sep-26	At maturity	1,243	-
2.125% green bond 2022 EUR 1,000 million	1.40%	Nov-29	At maturity	993	-
2.375% green bond 2022 EUR 750 million	1.57%	May-33	At maturity	742	-
2.750% green bond 2022 EUR 850 million	1.82%	May-42	At maturity	834	-
3.875% green bond 2022 EUR 650 million	0.70%	Oct-28	At maturity	648	-
4.250% green bond 2022 EUR 500 million	0.77%	Apr-31	At maturity	497	-
4.500% green bond 2022 EUR 1,000 million	0.82%	Oct-34	At maturity	993	-
4.750% green bond 2022 EUR 850 million	0.86%	Oct-44	At maturity	842	-
Non-current interest-bearing bonds				16,574	10,276
2.74% loan 2012 EUR 150 million	2.74%	Sep-23	At maturity	-	150
4.44% loan 2010 EUR 140 million	4.44%	2016-2023	Linear	-	11
0.72% loan 2015 EUR 500 million	0.72%	2018-2032	Linear	310	345
0.77% loan 2015 EUR 150 million	0.77%	2018-2037	Linear	105	112
0.813% loan 2016 EUR 125 million	0.81%	2019-2038	Linear	94	100
0.05% loan 2020 EUR 100 million	0.05%	Sep-26	At maturity	100	100
0.436% loan 2020 EUR 350 million	0.44%	2025-2042	Linear	350	350
0.436% loan 2022 EUR 250 million	0.44%	2025-2043	Linear	250	-
Floating rate Loan 2022-2024 EUR 300 million	0.47%	2022-2024	At maturity	300	-
Non-current interest-bearing loans				1,509	1,168
0.989% green Schuldschein 2016 EUR 100 million	1.01%	May-24	At maturity	100	100
1.310% green Schuldschein 2016 EUR 55 million	1.32%	May-26	At maturity	55	55
1.500% green Schuldschein 2016 EUR 50 million	1.51%	May-28	At maturity	50	50
1.750% green Schuldschein 2016 EUR 43 million	1.76%	May-31	At maturity	43	43
1.750% green Schuldschein 2016 EUR 95 million	1.76%	May-31	At maturity	95	95
2.000% green Schuldschein 2016 EUR 80 million	2.01%	May-36	At maturity	80	80
Non-current interest-bearing Schuldschein				423	423
1.61% USPP 2019 EUR 160 million	1.63%	Jan-29	At maturity	160	160
1.83% USPP 2019 EUR 295 million	1.85%	Jan-31	At maturity	295	294
2.01% USPP 2019 EUR 45 million	2.02%	Jan-34	At maturity	45	45
Total non-current interest-bearing USPP				500	499
Total non-current interest-bearing borrowings				19,006	12,366

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(EUR million)	Effective interest rate	Maturity	Redemption schedule	2022	2021
4.50% bond 2010 EUR 500 million	4.60%	Feb-22	At maturity	-	500
4.625% bond 2011 EUR 500 million	4.70%	Feb-23	At maturity	500	-
Current interest-bearing bonds				500	500
0.646% green Schuldschein 2016 EUR 77 million	0.67%	May-22	At maturity	-	77
Current interest-bearing Schuldschein				-	77
4.71% loan 2010 EUR 40 million	4.71%	Nov-23	Linear	-	3
4.44% loan 2010 EUR 140 million	4.44%	Nov-23	Linear	11	11
2.74% loan 2012 EUR 150 million	2.74%	Sep-23	At maturity	150	-
0.72% loan 2015 EUR 500 million	0.72%	Sep-23	Linear	34	34
0.77% loan 2015 EUR 150 million	0.77%	Apr-23	Linear	8	8
0.813% loan 2016 EUR 125 million	0.81%	Oct-23	Linear	6	6
Variable interest loan 2021 EUR 700 million	Variable	Jan-22	At maturity	-	700
Current interest-bearing loans				209	762
Total current interest-bearing borrowings				709	1,339
Total borrowings				19,715	13,705

Changes in borrowings arising from financing activities are as follows:

(EUR million)	(Non) - current interest-bearing bonds	(Non) - current interest-bearing loans	Non-current interest-bearing Schuldschein	Current interest-bearing EEG related loans	Non-current interest-bearing USPP	Total
At 1 January 2021	8,487	1,445	500	1,528	500	12,460
Cash inflow from new borrowings	2,781	700	-	-	-	3,481
Cash outflow from redemptions	-500	-215	-	-1,528	-	-2,243
Amortisation (non-cash)	8	-	-	-	-1	7
At 31 December 2021	10,776	1,930	500	-	499	13,705
Cash inflow from new borrowings	6,787	550	-	-	-	7,337
Cash outflow from redemptions	-500	-762	-77	-	-	-1,339
Amortisation (non-cash)	11	-	-	-	1	12
At 31 December 2022	17,074	1,718	423	-	500	19,715

TenneT has Revolving Credit Facilities (RCFs) of EUR 3.6 billion as of 31 December 2022. EUR 3.3 billion is available till November 2026 and EUR 0.3 billion till the original maturity date of November 2024. Furthermore, TenneT has also available EUR 0.7 billion of undrawn long-term loan commitments from the EIB at 31 December 2022.

In addition, TenneT has EUR 1.75 billion of committed bilateral RCF's (EUR 1.45 billion undrawn), uncommitted bank facilities of EUR 0.65 billion at its disposal (EUR 0.65 billion undrawn) at 31 December 2022 and committed bank facilities of EUR 0.3 billion at its disposal.

The amount of borrowing costs (including fair value adjustment) capitalised was EUR 126 million (2021: EUR 75 million).

For more information about the fair value see note 27.

① Accounting policy

Refer to note 28, accounting policies for financial instruments.

21 Contract liabilities

(EUR million)	Investment contributions	Other	Total
At 1 January 2021	376	2	378
Addition	75	-	75
Amortisation	-21	-2	-23
At 31 December 2021	430	-	430
Addition	131	-	131
Amortisation	-13	-	-13
At 31 December 2022	548	-	548

(EUR million)	2022			2021		
	Investment contributions	Other contract liabilities	Total	Investment contributions	Other contract liabilities	Total
< 1 year	17	-	17	2	-	2
1-5 years	54	-	54	12	-	12
> 5 years	477	-	477	416	-	416
Total	548	-	548	430	-	430

Additions in contract liabilities mainly relate to new connections from clients that want to connected to our grid.

① Accounting policy

Contract liabilities are recognised when payments are made, or the payments are due (whichever is earlier) before a related performance obligation is satisfied. Contract liabilities are recognised in accordance with the related contract. At initial recognition, contributions received from third parties are measured at transaction price, presented as contract liabilities ('investment contributions') and are subsequently recognised as revenue over the related asset's useful life.

22 Provisions

(EUR million)	2022			2021		
	Current	Non-current	Total	Current	Non-current	Total
Environmental and decommissioning	7	1,193	1,200	14	1,364	1,378
Tariff related	11	9	20	16	14	30
Other	59	33	92	15	39	54
Total	77	1,235	1,312	45	1,417	1,462

(EUR million)	Environmental management and decommissioning	Tariff related	Other	Total
At 1 January 2021	1,159	122	67	1,348
Addition	162	1	11	174
Utilisation	-9	-92	-18	-119
Changes in estimations	78	-	-1	77
Unused amounts reversed	-13	-1	-5	-19
Imputed interest	1	-	-	1
At 31 December 2021	1,378	30	54	1,462
Addition	140	-	55	195
Utilisation	-4	-3	-5	-12
Changes in estimations	-338	-	-9	-347
Unused amounts reversed	-	-7	-4	-11
Imputed interest	24	-	1	25
At 31 December 2022	1,200	20	92	1,312

Provisions for environmental management and decommissioning

Provisions for environmental management and decommissioning serve to cover future obligations in relation to high-voltage connections, underground cables and offshore platforms, including decommissioning costs. Asset retirement obligations are included for the legal and constructive obligations in relation to all our interconnectors and offshore assets. In 2022 EUR 140 million was added (2021: EUR 162 million) for future decommissioning costs for projects constructed during 2022. Changes in estimates related to the provision for decommissioning amounted to a release of EUR 338 million (2021: increase of EUR 78 million), mainly due to changes in the discount rate used and inflation rate, further due to changes in underlying assumptions and applicable price levels. Both amounts were not recognised through the statement of income. There was no material decommissioning of substations in 2022. In line with current regulation and permits, the first decommissioning of an offshore grid connection is expected to start in 2029.

Tariff related provisions

Tariff-related provisions relate to uncertain regulatory compensations of nil (2021: nil) and to provisions for system service fees in the Netherlands. We charge electricity consumers a fee for system services performed. Following a change in law, the court in the Netherlands concluded that only parties with a direct connection to a grid maintained by a TSO are required to pay system service fees for the period prior to 31 December 2014. Consequently, we are required to refund amounts paid by certain parties to us without a direct grid connection. These refunds can be recouped by us through future tariffs. In 2022, nil (2021: nil) of the provided amount matured and was released through the statement of income.

Other provisions

The majority of other provisions relates to the risk of compensation payments associated with delays and interruptions of offshore grid connections in Germany and claims.

The connection of offshore wind farms presents additional technical and organisational challenges. A number of factors, including a lack of supplier resources required for the construction of offshore grid connection systems, as well as weather conditions and the application of new technologies, hindered the timely realisation and/or interrupted the operational phase of offshore grid connection systems.

The majority of the claims are related to construction contracts and planning damage where the estimated additional payments are capitalised.

On 2 September 2022 a short circuit occurred on the newly built substation Dronten and led to a chain of events that caused damage to various parties. For the estimated costs we have recognised a current provision which is recognised through the statement of income.

Furthermore this provision is related to long-term service bonuses.

① Accounting policy

Provisions are recognised when there is (i) a legal or constructive obligation as a result of past events, (ii) it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and (iii) when the amount can be reliably estimated. Provisions are measured at the present value of estimated cash flows to settle obligations, based on expected price levels. Cash flows are discounted at a pre-tax rate that reflects the risks specific to the liability. The unwinding of interest components associated with provisions is recognised in the statement of income as a finance cost.

Estimated future costs are reviewed annually and adjusted as appropriate. Changes in estimated future costs and discount rates for decommissioning costs are recognised as changes in estimations and recorded in tangible fixed assets. All other provisions changes in estimated future costs and discount rates are recognised in the statement of income.

🔑 Key estimates and assumptions

The estimated decommissioning provision involves 1) decommissioning costs and 2) assessing the expected remaining useful life of relevant assets. The main uncertainties related to the decommissioning costs are the removal method (currently assuming reverse installation), the uncertainties around equipment and vessel availability, and market rates at expected time of decommissioning. As at 31 December 2022, limited benchmark information was available. Decommissioning costs are provided for at the present value of expected costs to settle the obligation. The useful life of the offshore grid connections is estimated at 20 till 30 years. For interconnectors the useful life is estimated at 40 years. This provision assumed a discount rate between 2.737% and 2.942% was applied for other provisions (2021: between 0.165% and 0.318%) and an inflation rate between 2.594% and 2.624% (2021: 2.0%). A change in the discount rate of 1 percent point would have a maximum impact of EUR 145 million on the asset value and liability value.

A discount rate of 2.7% was applied for other provisions (2021: 1.5%). A change in discount rate of 1 percent point would have a maximum impact of EUR 3 million on the related book value.

The estimated amount of risks associated with delays and interruptions concerning the Group's offshore activities in Germany is based on the number of offshore grid connections and the compensation payable to the operators of offshore grid connections.

We are of the opinion that the recorded provisions reflect the best estimate of the probable outflow of resources. However, uncertainty about the assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of these provisions in future periods.

Due to the business TenneT operates in and TenneT's legal structure, TenneT faces several contingent liabilities. In general, the following items are recognised as contingent liabilities at TenneT:

- Possible impact of the Dutch and German regulatory frameworks on the TenneT's business financial conditions and net income;
- Operational risks and risks related to material projects;
- Impact of environmental issues;
- Risks relating to the legal structure of TenneT;
- Risks relating to the financing of TenneT;
- Factors which are material for the purpose of assessing market risks.

Uncertainties relating to contingent liabilities make a reliable estimation of the financial impact impossible. For further contingent liabilities we refer to note 29.

23 Net employee defined benefit liabilities

Pension plans Germany

We have defined benefit plans for the majority of our German personnel. Said personnel are mainly employed based on the collective labour agreement of 'Tarifgruppe Energie' and thus enjoy benefits in the form of old-age, disability and surviving dependents' pensions. The large majority of the benefit obligations are based on pension schemes that define annual pension claims based on respective employees' pensionable income of a particular year. Furthermore, each employee is allowed to defer a certain amount of his compensation to raise his pension claim within defined bounds.

The Group contributes to two post-employment defined benefit plans in Germany, pursuant to a works council agreement called 'Betriebliche Alterssicherung' (hereafter referred to as 'pension scheme 2001') and a works council agreement called 'Beitragsplan' (hereafter referred to as 'pension scheme 2008'), as well as to a small number of individual pension commitments. The pension obligations related to these plans are partly covered by assets held in two Contractual Trust Arrangements (CTA) administrated by 'Helaba Pension Trust e.V.' (Helaba). According to German law, TenneT remains ultimately liable for fulfilling these pension obligations.

Pension scheme 2001

This scheme covers employees who started their employment with TenneT Germany on or before 31 December 2007 (or later, if the individual employment contract was agreed on or before 1 April 2008). The scheme became effective on 1 January 2001 and absorbed older plans at the time. As part of the transition in 2001 to the new plan, employees were guaranteed a vested pension claim based on the old plan for their years of service prior to the transition date. The plan offers benefits in the form of old-age, disability and surviving dependents' pensions and is composed of an employer-funded basic level based on the respective employee's yearly pensionable income, an employer-funded top-up level based on the respective company's performance and an employee-funded supplementary level which allows employees to increase their pension entitlement through deferred compensation. Yearly fixed pension claims are calculated with a fixed internal interest rate that sum up to the total earned pension benefits of the respective employee.

Pension scheme 2008

This scheme covers employees who started their employment with TenneT Germany after 31 December 2007 (unless the individual employment contract was agreed before 1 April 2008, in which case the pension scheme 2001 applies). This scheme offers benefits in the form of old-age, disability and surviving dependents' pensions.

Pension cost is composed on the employer-funded basic level based on the respective employee's yearly pensionable income, an employer funded top-up level based on the respective company's performance and an employee-funded supplementary level which allows employees to increase their pension entitlement through deferred compensation. If the employee contribution to the supplementary level reaches a certain level, the company pays an additional contribution of one-third of the respective basic level contribution.

Annually, for each year a contribution to the pension claims is increased with an interest rate that is recalculated based on the weighted average current yield of German Federal Government Bonds (Bundesanleihen), with an effective floor of 3.0% and with different maturities (10, 20 and 30 years) reflecting the average duration of the plan. The annual pension claim contributions for all years of service sum up to the total earned pension benefits of the respective employee.

Differences between the plans are limited and refer mainly to the way internal interest rates and the pensionable income are determined. Therefore, the disclosure in the notes below comprises the combined plans.

Components of the net benefit expense recognised in the statement of income were as follows:

(EUR million)	2022	2021
Current service costs (note 4)	23	24
Net interest costs (note 5)	5	3
Net benefit expense	28	27

The funded status of the plans and the amounts recognised in the statement of financial position as at 31 December were as follows:

(EUR million)	2022	2021
Defined benefit obligation	265	466
Fair value of plan assets	-103	-113
Funded status	162	353
Benefit asset included in other financial assets	14	-
Defined benefit liabilities	176	353
thereof long-term	174	351
thereof short-term	2	2

The defined benefit liabilities as at 31 December 2022 were as follows. The short-term part of the benefit liability is presented as part of note 22 provisions.

(EUR million)	2022	2021
Defined benefit liability long-term	174	351
Defined benefit liability short-term	2	2
Total defined benefit liabilities	176	353

Changes in the present value of the long-term defined benefit obligation ('DBO') over the year were as follows:

(EUR million)	2022	2021
Defined benefit obligation at 1 January	466	514
Current service costs	23	24
Interest costs	6	4
Contributions by plan participants	3	3
Benefits paid	-5	-5
Re-measurements on obligation	-228	-74
Defined benefit obligation at 31 December	265	466

Re-measurements on obligation are mainly due to the change of the discount rate from 1.3% to 3.9%.

Changes in the fair value of plan assets as at 31 December of the year were as follows.

(EUR million)	2022	2021
Fair value of plan assets at 1 January	113	107
Actual return on plan assets	-9	6
Contributions by employer	4	4
Benefits paid	-5	-4
Fair value of plan assets at 31 December	103	113

Major categories of plan assets as a percentage of the fair value of the total plan assets were as follows.

	2022	2021
Quoted in active markets:		
Equity instruments	33%	36%
Debt securities	45%	47%
Other	4%	4%
Unquoted investments:		
Debt securities	0%	0%
Real estate	14%	12%
Cash	3%	0%
Other	1%	1%

Re-measurements, including actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions, recognised in the statement of comprehensive income were as follows:

(EUR million)	2022	2021
Accumulated balance at 1 January	203	282
Re-measurements during the year	-217	-79
Accumulated balance at 31 December	-14	203

Re-measurements of the year originate from; the following items:

(EUR million)	2022	2021
Re-measurements from actuarial gains(-)/losses in DBO	-228	-74
Exceeding return on plan assets (over net interest incl. in net liability)	11	-5
Accumulated balance at 31 December	-217	-79
<i>Thereof:</i>		
actuarial gains(-)/losses from experience	1	-
actuarial gains(-)/losses from changes in actuarial assumptions	-229	-74

① Accounting policy

For defined benefit plans, pension costs are determined using the projected unit credit method. Re-measurements, comprising of actuarial gains and losses, the effect of the asset ceiling (excluding net interest) and the return on plan assets (excluding net interest), are recognised in other comprehensive income in the period in which they occur. Re-measurements are not reclassified to the statement of income in subsequent periods.

Service costs comprising current service costs and, if applicable, past-service costs, gains and losses on curtailments and non-routine settlements are recognised as personnel expenses in the consolidated statement of income. Interest is calculated by applying the discount rate to the net defined benefit liability or asset and is recognised as part of the finance result in the statement of income.

Prepaid pension costs relating to defined benefit plans are capitalised only if they lead to refunds to the employer or to reductions in future contributions to the plan by the employer.

🔑 Key estimates and assumptions

Pension obligations and pension entitlements that are known on the reporting date are valued using economic trend assumptions including, among others, salary growth rates and pension increase rates, that are intended to reflect realistic expectations, as well as variables specific to reporting dates such as discount rates. The principal assumptions used in determining the pension obligation were as follows:

	2022	2021
Discount rate	3.90%	1.30%
Inflation rate	2.00%	2.00%
Future salary increases	2.50%	2.50%
Future pension increases	2.30%	1.75%

Assumptions regarding future mortality experience are set based on actuarial advice in accordance with published statistics and actuarial experience. An increase in each of the main assumptions would have had the followings effects.

(EUR million)	2022	2021
0.25% change of discount rate	-11	-26
0.5% change of salary increase rate	1	2
0.5% change of pension increase rate	1	2
Change of 1 year in life expectancy	6	17

The sensitivities indicated are computed based on the same methods and assumptions used to determine the present value of the defined benefit obligations and are based on variations in a single variable only. Note that the sensitivity analyses may not be representative of an actual change in the defined benefit obligation, as it is unlikely that changes in assumptions would occur in isolation.

Due to the development of plan assets and the change in (statutory) discount rates, we expect to have no obligation to contribute to plan assets in 2023. We expect the following, undiscounted, benefit payments from the plan.

(EUR million)	2022	2021
Within the next 12 months	7	6
Within 1-5 years	31	28
Within 5-10 years	52	47
More than 10 years	482	452
Total	572	533

Pension plan the Netherlands

For the majority of our Dutch personnel we have a multi-employer scheme offered by ABP Pension Fund (ABP) in the Netherlands. The pension contribution rate for 2022 was 21.53% of the pensionable salary. In 2023 we expect to contribute EUR 33 million, based on 2022 number of employees, to the ABP scheme. Compared to the total participants in the ABP pension fund, our share in ABP is limited. We are not liable for any deficits in the multi-employer plan.

ABP has indicated that it is unable to provide the kind of company-specific information required by IFRS for defined-benefit pension schemes. Consequently, this scheme is treated as if it were a defined contribution scheme.

Since the financial situation of the ABP pension plan at 31 December 2015 was inadequate from a regulatory perspective, ABP filed a recovery plan, which was approved by De Nederlandsche Bank (DNB) during the course of 2016. In accordance with this recovery plan, ABP evaluates how recovery is progressing at the start of each year. Progress is measured by means of the policy funding ratio at the end of the preceding year. The policy funding ratio is the 12-month moving average of the nominal funding ratio. ABP's policy funding ratio as at 31 December 2022 was 118.6% (2021: 102.8%) which is above the critical regulatory coverage rate level under which pensions would have to be reduced.

① Accounting policy

Payments to defined contribution plans are charged as an expense in the period to which they relate.

24 Other financial liabilities

Long-term other financial liabilities relate to shares held by Copenhagen Infrastructures in TOD3 for 67%. The movement of this liability is disclosed below.

(EUR million)	2022	2021
At 1 January	183	203
Profit share current year	22	20
Capital repaid	-20	-40
At 31 December	185	183

Short-term other financial liabilities relates to the collateral securities as disclosed in note 16.

① Accounting policy

Please refer to note 28, accounting policies for financial instruments.

25 Account- and other payables

(EUR million)	2022	2021
EEG accounts payable	4,934	4,206
Accounts payable	368	455
Payables in connection with tangible fixed asset purchases	332	423
Grid expenses payable	1,452	1,410
Interest payable	142	105
Social securities and other taxes payable	22	27
Payables to related parties	-	8
Other payables	239	224
Total	7,489	6,858

EEG accounts payable

Refer to note 15.

Payables in connection with tangible fixed assets purchases

Payables in connection with tangible fixed assets purchases related to unbilled services and deliveries for onshore and offshore investment projects.

Interest payable

Interest payable increased due to increased borrowings. These new loans have higher interest rates, which also has impact to the increase of interest payable.

Grid expenses payable

The grid expenses payable consisted mainly of accrued expenses for (i) feed-in management and (ii) redispatch measures. Grid expenses payable mainly increased due to increased prices for grid expenses due to the war in Ukraine.

Key estimates and assumptions

Accrued expenses for measures taken to restore the imbalance of the electricity grid, relate to balancing services provided by various electricity generating parties. At year-end, we record an accrual for all balancing costs. The accrual is based on actual volumes or, if not available, forecast volumes derived from models. Several assumptions are made in these models such as weather conditions, requested volumes and capacity power plant. Prices are based on underlying contracts and/or historical data.

Other payables

Other payables mainly comprised compensation payments to offshore wind farm operators (OWFs), personnel-related liabilities and accruals for which invoices had not yet been received.

Key estimates and assumptions

Compensation payments to OWFs are based on amounts of electricity which could not be fed into the grid. The pass-through accrual is based on a comparison of the costs incurred and the revenue generated by the offshore grid surcharge.

26 Financial risk management

Our business activities are exposed to a number of financial risks such as interest rate risk, credit risk, liquidity risk and refinancing risk, which are described in detail in this note. Our financial risk management strategy primarily focuses on protecting liquidity, equity capital and net result in order to safeguard our ability to continue active operations while providing an adequate return to our shareholders. Our approach to managing financial risks, including a number of specific disclosures (such as a maturity analysis of contractual undiscounted financial obligations) required by accounting standards, are set out in this note. For details about regulatory risks we refer to the 'Corporate Governance' section of our Executive Board report.

Risk management related to financing activities is done by our Treasury department under policies included in the Treasury Statute approved by our Executive Board. The Treasury department's objective is to facilitate the realisation of our financial and strategic objectives from a funding and financial risk perspective. The Treasury Statute includes principles covering specific areas such as interest rate risk, liquidity risk, the use of derivatives and the investment of excess liquidity. The use of all ordinary course financial instruments is permitted, provided these are used solely to cover open positions of the Company. Any speculative use of financial instruments is explicitly not authorised.

Interest rate risk

TenneT is exposed to interest rate risk on its debt portfolio. To limit this risk, our policy is to base the majority of our loan portfolio on fixed interest rates. As of 31 December 2022, the long-term loan portfolio was for more than 98% based on fixed interest rates. An increase or decrease in interest rates of 2 percentage points would result in an increase or decrease of EUR 6 million in our interest cost (2021: EUR 15 million).

Furthermore, there is a risk that interest payable on borrowings exceeds the interest compensation received by TenneT under the prevailing regulatory systems in the Netherlands and Germany, respectively. In 2022, a new regulatory period started in the Netherlands. In Germany, actual interest costs are compensated up to a level customary to the market. The BNetzA determines marketability on the basis of reference interest rates published by the Deutsche Bundesbank. Currently we expect that actual costs of debt for TenneT are below the predefined maximum reference rates, in which case ACM has decided to ex post settle the interest rate for interest rates actually measured in the applicable year of the regulatory period.

Credit risk

TenneT is exposed to the risk of loss resulting from counterparties' defaulting on their commitments including failure to pay or make a delivery on a contract. Our exposure to credit risk from operating activities and treasury activities is inherent to our business activities.

Operational credit risk

In respect of our operating activities, TenneT has a credit policy in place, which takes into account the risk profiles of our counterparties. We also have policies in place to monitor the financial viability of counterparties.

In both the Netherlands and Germany, TenneT is responsible for maintaining the balance between supply and demand of energy. The associated costs are covered by income from parties with balance responsibility, which are charged for any imbalances attributable to them. Any surplus is deducted from subsequent tariffs for system services. For certain situations, securities in the form of bank guarantees and collaterals are held as protection against the default risk of parties with balance responsibility. With respect to investment projects, we require counterparties to deliver bank guarantees or collaterals as a protection against defaults.

The management of energy exchanges, the execution of the Renewable Energy Act in Germany and the maintenance of the energy balance between supply and demand requires transfer of significant cash amounts. Our policies are aimed at minimising the risks associated with the clearing transactions in connection with these cash flows.

Credit risk on trade and other receivables is limited, because most of our trade and other debtors have a low risk of default. Consequently, TenneT requires no material collateral as security and no insurance for credit risk. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets disclosed in note 13 and 15. The movement of the allowance for expected credit losses of trade receivables is included in note 15.

The provision rates for expected credit losses are based on groupings of various customer segments with similar loss patterns (such as customer type and arrears in payments). Any expected credit losses for financial guarantee contracts and commitment letters (if any) are also provided for. The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, trade receivables and other financial assets are written-off if there is no reasonable expectation of recovering the contractual cash flows. The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, TenneT may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group.

Financial credit risk

In 2022, financial credit risk arose mainly from TenneT's transactions and positions with several financial institutions. As at 31 December 2022, the maximum credit risk amounted to nil (2021: nil).

In accordance with our treasury policies, counterparty credit exposure is monitored frequently against the counterparty credit limits. We have concentration limits in place when funds are placed on deposit or when financial derivatives are entered into. At 31 December 2022 we had EUR 301 million at our free disposal for these deposits. These deposits had a maturity of less than 3 months (2021: nil), see note 15.

At 31 December 2022 we had EUR 3,300 million deposits with third parties for EEG cash amounts (2021: EUR 2,622 million) and no financial derivatives outstanding. As of 31 December 2022 these deposits had a maturity of more than 3 months (2021: EUR 472 million), please refer to note 15 and note 16.

Management does not expect any significant losses from non-performance by treasury counterparties.

Liquidity risk

Liquidity risk is defined as the risk that the Group cannot meet its short-term financial obligations. Liquidity is monitored every quarter on a rolling 12-month forward-looking basis. Our 12-month liquidity objective was met on 31 December 2022 and 31 December 2021.

The following maturity schedule presents our financial obligations on a contractual, non-discounted basis.

(EUR million)	Notes	<1 month	1 to 3 months	3 to 12 months	1 to 5 years	More than 5 years	Total
At 31 December 2022							
Lease liabilities	9	13	22	115	427	162	739
Borrowings	20	5	527	543	5,566	17,213	23,854
Total		18	549	658	5,993	17,375	24,593
At 31 December 2021							
Lease liabilities	9	12	21	100	251	69	453
Borrowings	20	704	548	268	2,701	11,408	15,629
Total		716	569	368	2,952	11,477	16,082

(EUR million)	Notes	< 12 months	1 to 5 years	More than 5 years	Total
At 31 December 2022					
Account- and other payables	25	7,353	-	-	7,353
Other financial liabilities	20	550	-	185	735
Total		7,903	-	185	8,088
At 31 December 2021					
Account- and other payables	25	6,750	4	-	6,754
Other financial liabilities	20	95	-	183	278
Total		6,845	4	183	7,032

TenneT's borrowings have a diversified maturity profile, which reduces refinancing risks (see also note 20).

In order to reduce liquidity risk, TenneT has EUR 3.6 billion committed revolving credit facilities (RCFs) at its disposal for general corporate purposes. At 31 December 2022, this facility was undrawn. Furthermore, we had EUR 700 million of undrawn long-term loan commitments from the EIB available at 31 December 2022, and EUR 1.75 billion committed bilateral RCFs (nil drawn at 31 December 2022). Next to that we had EUR 650 million of uncommitted bank facilities (nil million drawn at 31 December 2022).

The EEG has a significant impact on TenneT's working capital position and to prevent negative EEG bank account balances and additional short-term bridge financing, a liquidity buffer can be included in the EEG. In accordance with legislation (EnFG), shortfalls are reimbursed through government contributions at the latest in the following year.

The size of our credit facilities is such that we expect that all substantial adverse financial developments and events can reasonably be expected to be accommodated and that continuation of day-to-day operations is ensured for at least 12 months. The terms and conditions of our credit facilities include negative pledge and pari passu clauses. No security interest over any of the Group's assets has been provided. All credit facilities have floating-rate interest conditions.

TenneT also has access to diversified funding sources through its medium-term note (EMTN) programme and our commercial paper (CP) programme. Both programmes significantly reduce our dependency on bank financing.

TenneT expects to meet its financial obligations for 2023 with (i) cash and cash equivalents, (ii) funds from operations, (iii) unused credit facilities, (iv) capital market transactions and (v) equity contributions from our shareholder. We expect to meet our financial obligations for the subsequent years through various capital market transactions and equity contributions and intend to manage future refinancing risks by spreading the tenors of new financing arrangements.

Equity risk

There is a risk of a lack of access to equity on a sustainable basis. This risk reflects the inability to raise additional equity in a timely fashion in case of unexpectedly large increases in our investment portfolio or negative regulatory developments. Actions taken in order to mitigate this risk are: (i) an active financing strategy to create and maintain an optimal capital structure as well as to diversify funding sources and manage financial risks, (ii) a proactive approach of potential investors and active discussion with our shareholder to contribute additional equity (which effected in EUR 5.11 billion for the period 2022-2025, see note 18) and (iii) lobbying activities to ensure that regulatory frameworks remain adequate to safeguard regulators income and returns to investors.

Commodity price risk

Energy purchase contracts for the forward purchase of electricity that are used to satisfy physical delivery requirements to customers, or for energy that the Group uses itself, meet the expected purchase or usage requirements of IFRS 9. They are, therefore, not recognised in the financial statements until they are realised. Disclosure of commitments under such contracts is made in note 28.

Energy purchase contracts are considered to comprise two components, being a forward purchase of power at spot prices, and a forward purchase of environmental certificates at a variable price (being the contract price less the spot power price). With respect to our current contracts, neither of these components meets the requirement to be accounted for as a derivative. As currently no liquid market for environmental certificates exists, this component meets the expected purchase or usage exemption of IFRS 9. We expect to enter into an increasing number of these contracts, in order to meet our compliance requirements in the short to medium term. It is possible that in future, if and when liquid markets develop, and to the extent that we are in receipt of environmental certificates in excess of our required levels, this exemption may cease to apply, and we may be required to account for forward purchase commitments for environmental certificates as derivatives at fair value through profit and loss.

27 Fair values

The table below provides an overview of the carrying value and fair value of financial instruments, including IFRS treatment and the level in the valuation hierarchy. Instruments are measured at fair value.

(EUR million)	Notes	Carrying amount		Fair value		Hierarchy
		2022	2021	2022	2021	
Financial assets						
<i>Other financial assets:</i>						
- Minority participating interests	13	15	14	15	14	Level 3
Total		15	14	15	14	
Financial liabilities						
<i>Borrowings:</i>						
- Borrowings – bonds	20	17,074	10,776	14,615	11,221	Level 1
- Borrowings – other	20	2,641	2,929	2,221	3,029	Level 2
Total		19,715	13,705	16,836	14,250	

As at 31 December 2022, no instruments carried at fair value were held (2021: nil). Furthermore, we concluded that the fair value of the loans and receivables, cash and cash equivalents, account- and other payables and other financial liabilities approximate their carrying amounts at year end 2022, due to the short-term maturities of these instruments.

The following hierarchy by valuation technique was used to calculate the fair value of assets and liabilities:

- Level 1: Measurement based on quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Measurement based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3: Measurement based on inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

The fair value of the level 2 borrowings was based on discounted cash flows. A change in the assumptions used to calculate the fair value should not result in a significantly different outcome. There were no transfers between the fair value hierarchy levels during 2022 or 2021.

28 ⓘ Accounting policies for financial instruments

Financial assets

All financial assets are recognised initially at fair value, net of directly attributable transaction cost.

After initial recognition financial assets are measured at amortised cost, fair value through other comprehensive income (OCI) and fair value through profit or loss. All of TenneT's financial assets are classified as amortised cost, because the following two conditions are met:

- The financial assets are held within a business model with the objective to hold financial assets in order to collect contractual cash flows, and
- The contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortised cost are subsequently measured using the effective interest (EIR) method and are subject to impairment.

The Group recognises an allowance for expected credit losses (ECLs) for financial assets. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. For trade receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date.

Financial liabilities

All financial liabilities are recognised initially at fair value and, in case of loans, borrowings and payables, net of directly attributable transaction costs. The Group's financial liabilities include trade and other payables, loans and borrowings including bank overdrafts.

After initial recognition at fair value, interest-bearing loans and borrowings are subsequently measured at amortised cost using the EIR method. Gains and losses are recognised in the statement of income when the liabilities are derecognised as well as through the EIR amortisation process. Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortisation is included as finance expense in the statement of income.

29 Contingencies and commitments

Off-balance sheet rights and related obligations consist of the following categories:

(EUR million)	2022	2021
Investment related off-balance items		
<i>Off-balance sheet rights</i>		
Bank guarantees received and other items	1,907	1,440
Comfort letters received	1,620	1,314
Total	3,527	2,754
<i>Off-balance commitments</i>		
Capital commitments	9,923	7,468
Comfort letters issued	797	783
Total	10,720	8,251
Other off-balance items		
<i>Other off-balance obligations</i>		
Grid-related commitments	914	640
Other off-balance sheet commitments	74	55
Total	988	695

The expected cash flows in respect of capital commitments equal the amounts in the above table. For comfort letters issued, no cash flows are expected.

Bank guarantees received and other items

The majority is related to bank guarantees received included guarantees for investment projects. Furthermore, on 2 September 2022 a short circuit occurred on the newly built substation Dronten and led to a chain of events that caused damage to various parties. For the estimated costs we have recognised a current provision. The damages have been reported to the insurance companies and are estimated to be covered.

Comfort letters received

The majority of comfort letters received was from parties involved in the construction of German onshore and offshore projects.

Capital commitments

Capital commitments are commitments entered into with regard to the purchase of tangible fixed assets. Approximately EUR 4.4 billion of capital commitments were payable within 12 months, as at 31 December 2022 (2021: EUR 4.0 billion).

Comfort letters issued

The comfort letters issued mainly related to offshore projects in Germany.

Grid related commitments

Grid-related commitments included unused auction receipts, received in the Netherlands amounting to EUR 86 million (2021: EUR 136 million).

Other

Other off-balance sheet commitments mainly consisted of:

- Compensation claimed by several parties for the delay or non-availability of the offshore grid connection. The related legal proceedings are still pending. If and to the extent the claims are (partly) justified and the payments resulting therefrom could not be passed through to the end customers, the binding rulings may have a negative impact on the financial position;
- Capital commitments to minority participating interests;
- TenneT TSO B.V. is currently involved in a claim procedure because of alleged wrongful termination of construction contracts and in a counter claim procedure against this counter party regarding financial settlement & damages due to the alleged non-fulfilment of the construction contracts.

For these items, it is not practically possible to determine the financial effect and possible timing of cash outflows and cash inflows.

Various other off-balance sheet commitments and contingencies as well as other off-balance sheet rights existed as of 31 December 2022 but were immaterial from a disclosure perspective. The majority of these claims related to (i) construction contracts and planning damage where additional payments would be capitalised, or (ii) claims relating to compensation for delays and interruptions where any compensation would be pass-through for TenneT or (iii) claims relating to refunds of transmission services, which would be compensated in future tariffs. In the unlikely event that these claims would prevail in court, this could have a material impact on the Company's financial situation.

Electricity Revenue Cap Act

The Electricity Revenue Cap Act ('Strompreisbremsegesetz, StromPBG') was passed by the German legislator on 20 December 2022 and went into force on 24 December in the same year. It aims to protect domestic end-consumers in 2023 from strongly increased electricity prices resulting from the turmoil on the energy markets in Europe following the Ukraine war. Energy suppliers will process the price caps in their individual invoices with end-consumers. The aggregated financial impact of this will be paid out starting in the first quarter of 2023 by the TSOs to the energy suppliers on the basis of aggregated volume data. The TSOs are compensated for these payments by direct transfers from the government and by funds received from electricity generators. To enable the process, detailed rules for the calculation of excess revenues from generators as well as for the settlement and pay out to end-consumers are determined in the law. Furthermore, the German regulator BNetzA has an oversight role in the process. Payments from TSOs to end-consumers via the energy suppliers started in February 2023 with retroactive effect as per January. First governmental transfer payments to bridge finance occurred in February 2023. The first inflow of excess revenues from generators is expected for mid of August 2023. TSOs do not expect any liquidity or profitability risks from the regime which they perform as trustees of society and on a pass-through basis.

As per 31 December 2022 no reliable estimate could be made of the to be received overprofit of December 2022 and as such the receivable and corresponding liability are both not recognised in the financial statements. There is no impact on the results and equity per 31 December 2022.

Environmental obligations

The Group is exposed to risks regarding environmental obligations arising from past activities. For example, a number of sites have to be decontaminated and restored to their original condition before being handed back at the end of the contractual period. Under current legislation, environmental plans and any other measures to be adopted have to be agreed with local, regional and national authorities as appropriate. As soon as such plans are approved or other legal obligations arise, a provision is formed based on the most reliable estimate possible of future expenses. TenneT is of the opinion that the currently recognised provisions are adequate, based on information currently available.

30 Related parties

Note 31 provides an overview of legal entities included in the consolidated financial statements.

TenneT has entered into transactions with the following related parties:

- The shareholder, State of the Netherlands: TenneT Holding B.V. is controlled by the Dutch State, which owns 100% of the Company's ordinary shares (refer to note 18);
- Joint ventures NOKA, OTC, BritNed and VertiCer (refer to note 12);
- Associate HGRT (refer to note 12);
- Members of the Executive Board and Supervisory Board of TenneT Holding B.V. (refer to note 4).

31 Consolidated subsidiaries

The following legal entities were included in the consolidation of TenneT Holding B.V.:

Subsidiary	Legal seat	Country	Voting interest		Economic interest		
			2022	2021	2022	2021	
Direct subsidiaries							
ETPA Holding B.V.	Amsterdam	Netherlands	0%	50%	0%	50%	****
NLink International B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
NOVEC B.V.	The Hague	Netherlands	100%	100%	100%	100%	
Relined B.V.	Utrecht	Netherlands	100%	100%	100%	100%	
TenneT Duitsland Coöperatief U.A.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT Green B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
TenneT Orange B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
TenneT TSO B.V.	Arnhem	Netherlands	100%	100%	100%	100%	
TenneT TSO Duitsland B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Indirect subsidiaries							
B.V. Transportnet Zuid-Holland	Voorburg	Netherlands	100%	100%	100%	100%	*
CertiQ B.V.	Arnhem	Netherlands	0%	100%	0%	100%	*****
Duvekot Rentmeesters B.V.	Bathmen	Netherlands	100%	100%	100%	100%	
ETPA B.V.	Amsterdam	Netherlands	0%	50%	0%	50%	
Nadine Netwerk B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Omroepmasten B.V.	Vianen	Netherlands	100%	100%	100%	100%	
Saranne B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
Stichting Beheer Doelgeden Landelijk Hoogspanningsnet	Arnhem	Netherlands	N/A	N/A	N/A	N/A	
TransTenneT B.V.	Arnhem	Netherlands	100%	100%	100%	100%	*
DC Netz DolWin4 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz HelWin1 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
DC Netz SylWin2 GmbH	Bayreuth	Germany	100%	100%	100%	100%	
Globalways GmbH	Stuttgart	Germany	100%	100%	100%	100%	
NOVEC GmbH	Emsbüren	Germany	100%	100%	100%	100%	
Relined GmbH	Emsbüren	Germany	100%	100%	100%	100%	
Greenet Stiftung	Bayreuth	Germany	N/A	N/A	N/A	N/A	
TenneT GmbH & Co. KG	Bayreuth	Germany	100%	100%	100%	100%	**
TenneT Offshore 1. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	31%	31%	
TenneT Offshore 2. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	31%	31%	
TenneT Offshore 8. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	

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Subsidiary	Legal seat	Country	Voting interest		Economic interest		
			2022	2021	2022	2021	
TenneT Offshore 9. Beteiligungsgesellschaft mbH	Bayreuth	Germany	51%	51%	37%	37%	
TenneT Offshore Dolwin3 Beteiligungs GmbH & Co. KG	Bayreuth	Germany	51%	51%	30%	30%	**
TenneT Offshore Dolwin3 GmbH & Co. KG	Bayreuth	Germany	51%	51%	30%	30%	
TenneT Offshore Dolwin3 Verwaltungs GmbH	Bayreuth	Germany	51%	51%	33%	33%	
TenneT Offshore GmbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT TSO GmbH	Bayreuth	Germany	100%	100%	100%	100%	
TenneT Verwaltungs GmbH	Bayreuth	Germany	100%	100%	100%	100%	
WL Winet GmbH (in liquidation)	Emsbüren	Germany	0%	100%	0%	100%	***

* For these companies TenneT has issued a declaration of liability as referred to in Part 9 of Book 2 of the Dutch Civil Code, article 403.

** This company, which has been consolidated in these financial statements, has opted for the exemption of Section 264b of the German Commercial Code.

*** WL Winet GmbH exists since 2016 but never showed a positive result. Although sales were increasing, management didn't expect an improvement of the result due to the lack of finding qualified personnel. Therefore, it was decided to liquidate WL Winet GmbH. The liquidation commenced on 1 March 2019. Effective 18 March 2022, WL Winet GmbH has been liquidated.

**** On 27 June 2022 the Group sold all its shares of ETPA Holding B.V. with a limited result.

***** Per 31 December 2022 CertiQ B.V. merged with Vertogas B.V. into VertiCer B.V. which is a joint venture per the same date, reference is made to note 11.

As TenneT is able to exercise direct control over its management and financial and operational policies, Stichting Beheer Doelgelden Landelijk Hoogspanningsnet, a foundation which temporarily manages funds arising from the maintenance of the energy balance and auctioning of cross-border capacity by TenneT TSO B.V., is included in the consolidation.

As TenneT is able to exercise direct control over its management and financial and operational policies, Greenet Stiftung, the foundation that compensate negative impact due to construction work of TenneT in our German grid is included in the consolidation.

32 Events after the reporting period

On 10 February 2023, TenneT announced that it intends to engage in discussions with the German government, to explore the possibility of a full sale of TenneT's German activities on acceptable terms. On 24 February 2023 the Dutch government decided to further investigate a full sale as the preferred option. TenneT acknowledges that its sole shareholder the Dutch government has not yet taken any final decision, and TenneT will take the next steps in close collaboration with the government.

Company financial statements

Company statement of financial position

For the year ended 31 December (EUR million)

Assets	Notes	2022	2021
Non-current assets			
Investments in subsidiaries	37	8,491	8,216
Investments in joint ventures and associates	38	31	31
Other financial assets	39	17,412	12,861
Total non-current assets		25,934	21,108
Current assets			
Other financial assets	39	323	274
Account- and other receivables	40	1	12
Cash and cash equivalents		1,275	-
Total current assets		1,599	286
Total assets		27,533	21,394

Equity and liabilities	Notes	2022	2021
Equity			
Paid up and called-up capital		100	100
Share premium		3,020	1,790
Legal reserves		181	161
Retained earnings		2,799	3,193
Unappropriated result		-967	-401
Equity attributable to ordinary shares		5,133	4,843
Hybrid securities		2,125	2,125
Equity attributable to owners of the company	41	7,258	6,968
Non-current liabilities			
Borrowings	42	19,006	12,366
Deferred tax liability		7	8
Total non-current liabilities		19,013	12,374
Current liabilities			
Borrowings	42	709	1,339
Bank overdraft		-	64
Account- and other payables	43	553	649
Total current liabilities		1,262	2,052
Total equity and liabilities		27,533	21,394

Company statement of income

For the year ended 31 December (EUR million)

	Notes	2022	2021
Revenue		-	1
Other operating expenses		-10	-8
Other gains/(losses)		-	-
Total operating expenses		-10	-8
Share in profit of joint ventures and associates		5	14
Operating result		-5	7
Finance income	34	281	194
Finance expenses	35	-259	-186
Finance result		22	8
Result before income tax		17	15
Income tax expense		-12	-14
Result from subsidiaries	37	-915	-345
Result for the year		-910	-344

Notes to the company financial statements

These notes contain information about the company financial statements of TenneT Holding B.V. Details related to TenneT Holding B.V.'s financial results and position are provided, as well as a description of the specific accounting policies applied when compiling these company financial statements.

33 Company accounting policies

The company financial statements for TenneT Holding B.V. have been prepared in accordance with the provisions of Part 9 of Book 2 of the Dutch Civil Code. The same principles governing valuation and the determination of results (including the principles governing the classification of financial instruments as equity or liability) have been applied when compiling the company financial statements and the consolidated financial statements, as permitted by Article 2:362, clause 8 of the Dutch Civil Code.

Expected credit loss (ECL) provisions for receivables from subsidiaries have been eliminated as intercompany positions. Changes in these ECL provisions may impact the carrying amounts of the financial assets in the company statement of the financial position due to a possible provision. This may result in a difference between the company's equity and the consolidated equity. No ECL provision was deemed necessary.

34 Finance income

Finance income was mainly related to the interest received on intercompany loans and other in- house financing activities (see note 39). The intercompany agreements have terms equivalent to those that prevail in arm's length transactions.

35 Finance expenses

Finance expenses mainly related to interest on borrowings and credit facilities (2022: EUR 245 million; 2021: EUR 175 million). This increase is related to increased interest rates and increased borrowings.

36 Personnel expenses

TenneT Holding B.V. did not employ any personnel during 2022 or 2021, and as a result did not incur any personnel expenses in those periods. Members of the Executive Board and Supervisory Board of the Company received their remuneration, as disclosed in note 4 of the consolidated financial statements, from other entities within the Group.

37 Investments in subsidiaries

Changes in investments in subsidiaries can be broken down as follows:

(EUR million)	2022	2021
At 1 January	8,216	8,651
Share in result	-915	-345
Deconsolidation	1	-
Capital contribution	1,230	-
Capital repayment	-144	-36
Dividends received	-50	-110
Re-measurement of defined benefit pension	153	56
At 31 December	8,491	8,216

Investments in subsidiaries relate to the legal entities included in the consolidation as disclosed in note 31 of the consolidated financial statements.

① Accounting policies

Investments in subsidiaries are measured at net asset value. The net asset value of a participating interest is determined by valuing assets, provisions and liabilities and calculating the result using the accounting principles applied to the consolidated financial statements.

When TenneT's share of losses in an investment equals or exceeds its interest on investment (including separately presented goodwill or any other unsecured non-current receivables, as part of the net investment) it does not recognise any further losses, unless it has incurred legal or constructive obligations or made payments on behalf of this investment. In such case, TenneT will recognise a provision.

38 Investments in joint ventures and associates

Investments in joint ventures and associates related to HGRT. In 2022, TenneT's share in HGRT's result amounted to EUR 4 million (2021: EUR 4 million) and EUR 4 million (2021: EUR 3 million) dividends were received. Further reference is made to note 12 of the consolidated financial statements.

39 Other financial assets

(EUR million)	2022	2021
Receivables from subsidiaries	17,394	12,843
Minority participating interests	15	14
Other financial assets	3	4
Total	17,412	12,861

In relation to the minority participating interests reference is made to note 13 of the consolidated financial statements.

Receivables from subsidiaries mainly related to intercompany loans and cash management activities of TenneT Holding B.V. The agreed interest rate for the intercompany loans is our cost of fund rate +0.125%. These receivables were unsecured. The movement schedule is as follows:

(EUR million)	2022	2021
At 1 January	12,861	9,828
Additions	5,482	3,190
Capital contribution to minority participating interests	3	-
Repayments	-834	-57
Transfer to current	-100	-108
Fair value adjustment equity investments	-	8
At 31 December	17,412	12,861

TenneT Holding B.V. had EUR 325 million (2021: EUR 271 million) of current other financial assets which were related to receivables from subsidiaries. Certain subsidiaries have guaranteed the payment to, certain creditors of TenneT Holding B.V. up to an aggregate amount of EUR 400 million (2021: EUR 400 million).

40 Account- and other receivables

Account- and other receivables mainly related to corporate income tax receivable.

41 Equity

(EUR million)	Reserve Participating interests	Reserve for internally generated assets	Revaluation reserve	Total legal reserve
At 1 January 2021	94	55	22	171
Result NOKA and HGRT	15	-	-	15
Dividend NOKA and HGRT	-45	-	-	-45
Internally generated intangible assets	-	52	-	52
Amortisation on internally generated intangible assets	-	-19	-	-19
Depreciation revaluation tangible fixed assets	-	-	-11	-11
At 31 December 2021	64	88	11	163
Result NOKA, HGRT, VertiCer and associates	30	-	-	30
Dividend NOKA and HGRT	-25	-	-	-25
Internally generated intangible assets	-	46	-	46
Amortisation on internally generated intangible assets	-	-23	-	-23
Depreciation revaluation tangible fixed assets	-	-	-10	-10
At 31 December 2022	69	111	1	181

The statement of changes in equity and disclosures to that statement are included in the consolidated financial statements. For details on the hybrid securities see note 18.

The revaluation reserve covers the IFRS 1 revaluation of tangible fixed assets in 2004. The reserve for participating interests relates to HGRT, NOKA, VertiCer and associates, for which TenneT does not control payment of dividends. The reserve for internally generated assets relates to software created by internal employees. In the consolidated financial statements, the revaluation reserve, the reserve for internally generated assets and the reserve for participating interests were included in retained earnings.

The legal reserves are not freely distributable.

Appropriation of result for the year ended 31 December 2022

The Integrated Annual Report 2021 was approved in the General Meeting held on 11 March 2022. The General Meeting determined the appropriation of result in accordance with the proposal being made to that end.

The appropriation of the 2022 result is at the free disposal of the General Meeting of Shareholders and has not been recorded in the financial statements.

42 Borrowings

Details on borrowings are included in the consolidated financial statements, see note 20.

43 Account- and other payables

(EUR million)	2022	2021
Payables to subsidiaries	406	544
Interest payable	142	105
Other payables	5	-
Total	553	649

44 Events after the reporting period

See note 32 of the consolidated financial statements.

Arnhem, 8 March 2023

Executive Board TenneT Holding B.V.

M.J.J. van Beek (Chair)

T.C. Meyerjürgens

M.C. Abbenhuis

A.C.H. Freitag

Supervisory Board TenneT Holding B.V.

A.F. van der Touw (Chair)

A.C.C. van Els

L.J. Griffith

E. Kairisto

E.M. Schöne

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