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## Appendix 6: Environmental figures

### Notes

As outlined in the Combined Independent Auditor’s Report (page 165), Appendix 6 is part of the assurance scope of EY’s assurance procedures over KPN’s 2021 sustainability information.

Scoping and calculation methodology of the reported items are specified in Appendix 3 Transparency, materiality and stakeholder engagement (page 179). Coverage of all figures according to materiality assessment (98% of operational cost).

**Table 1: Energy consumption (in PJ)**

	Target 2030 compared to base year	Target 2023 compared to base year	2021	2020	2019	2018	2010 base year
The Netherlands			2132	2428	2728	2.841	3.662
KPN non-NL entities			-	-	-	-	0.217
<b>KPN Group</b>	<b>1.746</b>	<b>1.978</b>	<b>2.132</b>	<b>2.428</b>	<b>2.728</b>	<b>2.841</b>	<b>3.879</b>
Energy directly consumed			0.199	0.246	0.386	0.445	-
Energy indirectly consumed			1.934	2.182	2.342	2.396	-
<b>KPN Group</b>	<b>1.746</b>	<b>1.978</b>	<b>2.132</b>	<b>2.428</b>	<b>2.728</b>	<b>2.841</b>	<b>3.879</b>
<b>% Reduction compared to base year</b>	<b>-55%</b>	<b>-49%</b>	<b>-45%</b>	<b>-37%</b>	<b>-30%</b>	<b>-27%</b>	

**Table 2: Electricity consumption (in GWh)**

	Target 2030 compared to base year	Target 2023 compared to base year	2021	2020	2019	2018	2010 base year
Network			480	548	580	595	697
Offices & Shops			22	25	37	36	72
<b>KPN Group</b>	<b>400</b>	<b>462</b>	<b>502</b>	<b>573</b>	<b>617</b>	<b>631</b>	<b>769</b>
<b>% Reduction compared to base year</b>	<b>-48%</b>	<b>-40%</b>	<b>-35%</b>	<b>-26%</b>	<b>-20%</b>	<b>-18%</b>	

**Table 3: Fuel consumption, lease vehicle fleet**

	Unit	Target as from 2025	Target 2022 compared to base year	2021	2020	2019	2018	2010 base year
Petrol, diesel and LPG	1,000 liter	100% inflow of fossil fuel free cars		3,389	4,311	8,457	9,346	16,597
<b>% Reduction fuels compared to base year</b>			<b>-80%</b>	<b>-80%</b>	<b>-74%</b>	<b>-49%</b>	<b>-44%</b>	
Electric	MWh			2,399	1,891	1,756	839	

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**Table 4: Other Energy consumption KPN Group**

	Unit	2021	2020	2019	2018
Natural gas	1,000 m <sup>3</sup>	2,361	2,746	2,580	3,424
Heating purchased	GJ	28,068	23,531	27,618	29,653
Cooling purchased	GJ	97,711	97,191	92,891	94,571
Diesel for emergency power generators	1,000 liter	107	140	116	103

**Table 5: CO<sub>2</sub>e emissions own operations Scope 1 and 2 (in kTon)<sup>1</sup>**

	Target 2022-2050	2021	2020	2019	2018	2010 base year
Scope 1 KPN NL	0	0	0	0	0	58.8
Scope 2 KPN NL	0	0	0	0	0	35.9
KPN non-NL entities	-	-	-	-	-	25.0
<b>KPN Group</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>119.7</b>

<sup>1</sup> The reported emissions in the table are net scope 1 and scope 2 market based. In the table in section CO<sub>2</sub>e emission and energy management both net and gross scope 1 emissions are reported as well as the location and market based scope 2 emissions

**Table 6: Energy efficiency and Carbon intensity indicators target**

	Target 2022	2021	2020	2019	2018	2010
Ton CO <sub>2</sub> e per Gb/s (2010=100)	0	0	0	0	0	100
GWh per Gb/s (2010=100)	3.0	3.4	3.9	5.4	5.6	100

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**Table 7: CO<sub>2</sub>e emissions Scope 3 (in kTon) KPN the Netherlands**

	Target 2040 compared to base year	Target 2025 compared to base year	Target 2022 compared to base year	2021 <sup>1</sup>	2020	2019	2018	2014 base year
CAT1 Purchased goods and services				455.4	437.7	432.7	452.6	4691
CAT2 Capital goods				164.0	181.3	198.5	174.9	237.5
CAT3 Fuel and energy related activities				2.7	3.4	6.7	11.3	95.3
CAT4 Upstream transportation and distribution				-	-	-	-	-
CAT5 Waste generated in operations				-	-0.0	0.1	0.5	0.3
CAT6 Business travel				1.1	0.9	3.2	3.1	3.2
CAT7 Employee commuting				1.0	2.9	16.5	15.9	17.7
CAT8 Leased assets				-	-	-	-	-
CAT9 Downstream transportation and distribution				13.1	13.5	16.3	18.3	23.0
CAT10 Processing of sold products				-	-	-	-	-
CAT11 Use of sold products				1.6	2.0	2.1	2.6	4.4
CAT12 End-of-life				-	-	-	-	-
CAT13 Downstream leased assets				154.5 <sup>2</sup>	180.0	181.6	182.2	168.9
CAT14 Franchises				-	-	-	-	-
CAT15 Investments				-	-	-	-	-
<b>Total CO<sub>2</sub>e emissions</b>	<b>0.0</b>	<b>765.2</b>	<b>786.2</b>	<b>793.2</b>	<b>821.7</b>	<b>857.6</b>	<b>861.4</b>	<b>1,019.2</b>
<b>Total upstream CO<sub>2</sub>e emissions</b>				<b>624.0</b>	<b>626.2</b>	<b>657.6</b>	<b>658.3</b>	<b>823.0</b>
<b>Total downstream CO<sub>2</sub>e emissions</b>				<b>169.2</b>	<b>195.5</b>	<b>200.0</b>	<b>203.1</b>	<b>196.2</b>
<b>% Reduction compared to base year</b>	<b>net-zero</b>	<b>-25%</b>	<b>-23%</b>	<b>-22%</b>	<b>-19%</b>	<b>-16%</b>	<b>-15%</b>	

1 We have improved our methodology on measuring scope 3 emissions by reconciling the basis for the EIO method. See Appendix 3 for details. We have restated previous years, including the baseline. The baseline has changed from 1,063.2 kTon into 1,019.2 kTon

2 In 2021, KPN improved its calculation method to determine the total electricity consumption of TV set-top boxes. We have restated previous years, including the baseline. Further details on the calculation method in Appendix 3

**Table 8: Other environmental impacts KPN Group**

	Unit	Target 2022	2021	2020	2019	2018
<b>Materials usage</b>						
Cable length	1,000 km		~660	~618	~587	~571
Paper consumption	Tons		233	201	268	459
% FSC or PEFC	%		100%	100%	100%	100%
Coolants (e.g. R407C and R417A)	kg		538	661	657	826
<b>Water consumption</b>						
Offices and shops	1,000 m <sup>3</sup>		38.7	49.2	52.4	66.5
Operations	1,000 m <sup>3</sup>		33.6	34.7	31.7	51.7
<b>KPN Group</b>		<b>80</b>	<b>72.3</b>	<b>83.9</b>	<b>84.1</b>	<b>118.2</b>