

# CARBON FOOTPRINT REPORT 2020



ELSEWEDY  
ELECTRIC

Elsewedy Electric Carbon Footprint 2020  
Issued: December 2021

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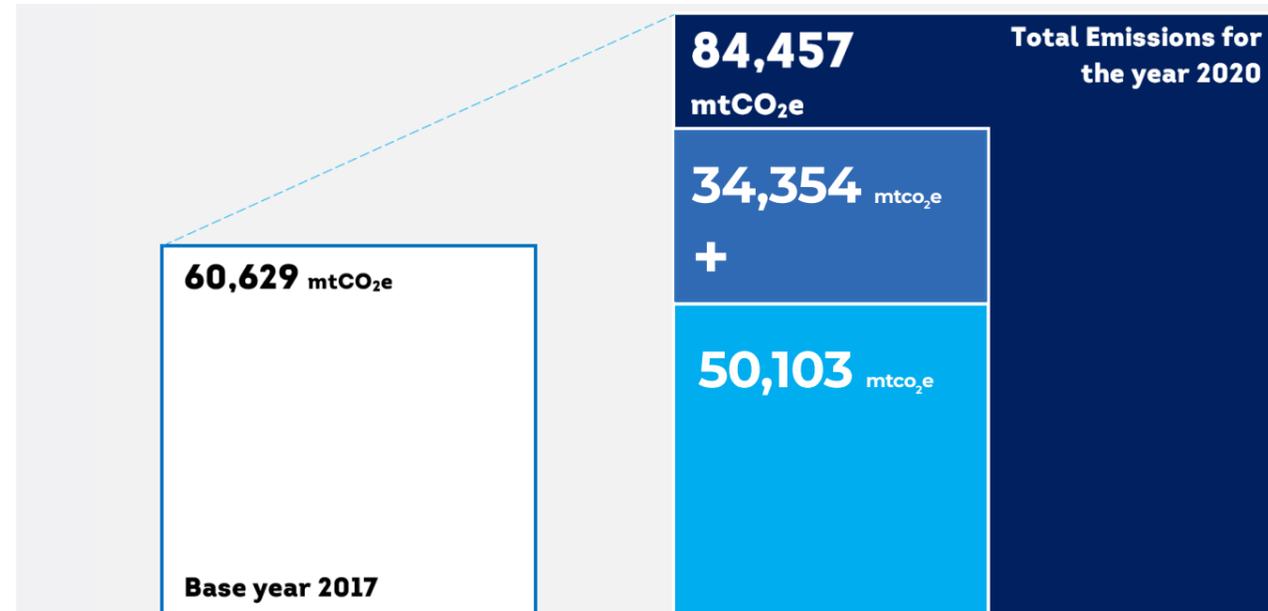
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## ABBREVIATIONS & ACRONYMS

CDM	Clean Development Mechanism
CDP	Carbon Disclosure Project
CFP	Carbon Footprint
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide equivalent
DEFRA	Department for Environment, Food & Rural Affairs
EF	Emission Factor
GHG	Greenhouse Gases
GWP	Global Warming Potential
HCWW	Holding Company for Water and Wastewater
IPCC	Intergovernmental Panel on Climate Change
kWh	Kilowatt hour
L	Litre
mt	Metric tons
mtCO <sub>2</sub> e	Metric tons Carbon Dioxide equivalent
MWh	Megawatt hour
pkm	Passenger-kilometre
SBTi	Science-based Targets initiative
SDG	Sustainable Development Goals
tkm	Ton kilometer
WF	Water Footprint
WTT	Well-to-Tank



# EMISSIONS SUMMARY



## Base year 2017 Emissions resulting from the following Organizational boundaries

- UIC
- EGYTECH
- ISKRAEMECO
- ISKR SLOVENIA
- TRANSFORMERS
- EGYPLAST

## Reporting year 2020 Emissions resulting from the same organizational and operational boundaries as 2017

- UIC
- EGYTECH
- ISKRAEMECO
- ISKRAEMECO SLOVENIA
- TRANSFORMERS
- EGYPLAST

**50,103** mtCO<sub>2</sub>e

## Emissions resulting from additional organization boundaries:

- USW Factory

+

## Additional operational boundaries, This includes:

- Scope 1: Refrigerant leakage (mtCO<sub>2</sub>e)
- New Scope 3 Activities (mtCO<sub>2</sub>e)

- WTT Emissions for all fuel burning activities
- Water and wastewater treatment
- Purchased goods
- Downstream Transportation
- Exports

**34,354** mtCO<sub>2</sub>e

Starting this year, we decided to expand our boundaries for more accurate calculations, and this included Scope 1 and 3 emissions.

## EMISSIONS PER ACTIVITY

**84,457.5** mtCO<sub>2</sub>e

TOTAL EMISSIONS FOR THE YEAR 2020, 84,457.5 mtCO<sub>2</sub>e

SCOPE 1 – DIRECT EMISSIONS	13,195.46 mtCO <sub>2</sub> e	15.6%
ACTIVITY	mtCO <sub>2</sub> e	
Fuel burning – Owned vehicles	1,411.44	
Fuel burning – Diesel	3,714.55	
Fuel burning – Natural Gas	3,534.46	
Refrigerant leakage	4,535.01	
SCOPE 2 – INDIRECT EMISSIONS	41,442.90 mtCO <sub>2</sub> e	49.1%
ACTIVITY	mtCO <sub>2</sub> e	
Purchased electricity	41,442.90	
SCOPE 3 – INDIRECT EMISSIONS	29,819.09 mtCO <sub>2</sub> e	35.3%
ACTIVITY	mtCO <sub>2</sub> e	
Fuel burning – Owned vehicles (WTT)	358.13	
Fuel burning – Diesel (WTT)	890.18	
Fuel burning – Natural Gas (WTT)	459.55	
Water usage & wastewater treatment	271.52	
Solid waste disposal	561.27	
Purchased goods	320.60	
Downstream transportation + (WTT)	722.60	
Fuel Burning – Business travel + (WTT)	84.16	
Air Travel + (WTT)	257.13	
Exports	11,350.73	
Paper consumption	57.85	
Commuting + (WTT)	14,485.37	

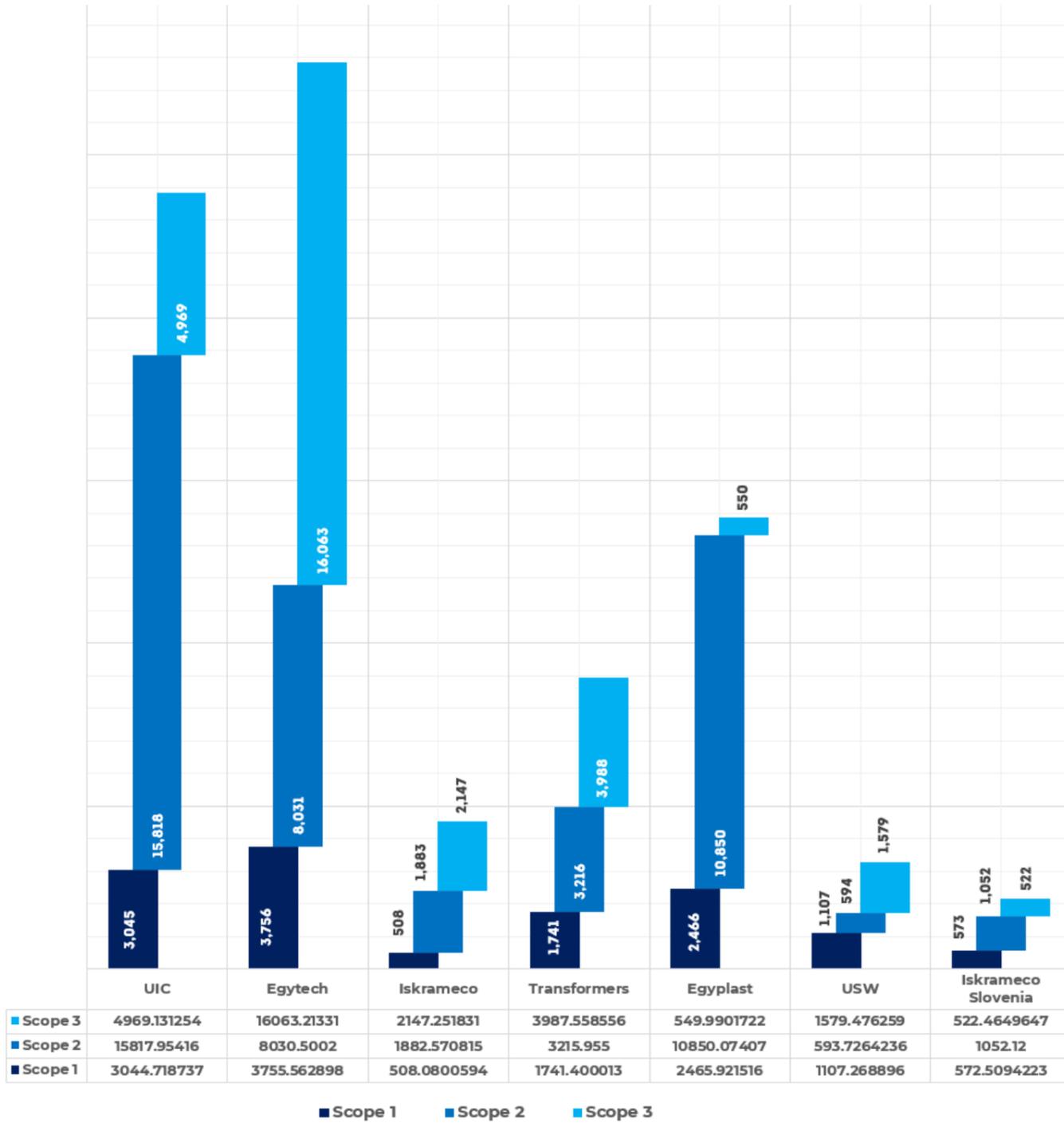


**CARBON FOOTPRINT  
RESULTS PER FACTORY**

<b>GHG emissions</b>														
	<b>UIC</b>		<b>EGYTECH</b>		<b>ISKRAEMECO</b>		<b>TRANSFORMERS</b>		<b>EGYPLAST</b>		<b>USW</b>		<b>ISKRAEMECO SLOVENIA</b>	
<b>Studied Aspects</b>	<b>mtCO<sub>2</sub>e</b>	<b>%</b>	<b>mtCO<sub>2</sub>e</b>	<b>%</b>	<b>mtCO<sub>2</sub>e</b>	<b>%</b>	<b>mtCO<sub>2</sub>e</b>	<b>%</b>	<b>mtCO<sub>2</sub>e</b>	<b>%</b>	<b>mtCO<sub>2</sub>e</b>	<b>%</b>	<b>mtCO<sub>2</sub>e</b>	<b>%</b>
Fuel burning – Owned vehicles	127.1	0.5%	520.1	1.7%	161.2	3.2%	41.6	0.4%	543.2	3.3%	-	-	18	0.8%
Fuel burning – Diesel	131	0.5%	2,052	6.8%	25	0.5%	891.1	8.8%	597.4	3.6%	0	-	18	0.8%
Fuel burning – Natural Gas	2,638	9.6%	-	-	-	-	-	-	0.00	-	361	-	536	25.0%
Refrigerant leakage	149	0.5%	1,184	3.9%	322	6.3%	808.7	8.0%	1,325.3	8.1%	746	20.3%	0	0.0%
Purchased electricity	15,818	68.6%	8,031	31.8%	1,883	43.9%	3,215.9	37.9%	10,850.1	78.5%	594	19.2%	1,052	49.0%
Fuel burning – Owned vehicles (WTT)	35	0.1%	143	0.5%	35	0.7%	10.0	0.1%	131.1	0.8%	-	-	4	0.2%
Fuel burning – Diesel (WTT)	31.4	0.1%	491.7	1.6%	6.0	0.1%	213.6	2.1%	143.2	0.9%	-	-	4.4	0.2%
Fuel burning – Natural Gas (WTT)	342.9	1.2%	-	-	-	-	-	-	0.00	-	46.9	1.3%	69.7	3.2%
Water usage & wastewater treatment	18.1	0.1%	7.2	0.0%	1.3	0.0%	6.45	0.1%	92.9	0.7%	31.1	1.0%	114.6	5.3%
Solid waste disposal	306	3.3%	63	2.5%	3	4.2%	134.1	6.5%	5.6	3.1%	40	6.7%	11	0.5%
Purchased goods	-	-	-	-	34.7	-	21.46	-	-	-	-	-	264.4	12.3%
Downstream transportation + (WTT)	232.3	0.8%	203.4	0.7%	45.3	0.9%	82.13	0.8%	159.49	1.0%	-	-	0	0.0%
Fuel Burning – Business travel + (WTT)	27.73	0.1%	12.14	0.0%	-	-	41.76	0.4%	1.53	0.0%	1	0.0%	0	0.0%
Air Travel + (WTT)	33.21	0.1%	29.9	0.1%	70.2	1.4%	61.4	0.7%	13.05	0.1%	-	-	49.4	2.3%
Exports	-	-	9,533.3	31.7%	499.5	9.8%	503.9	5.0%	Excl.	-	813.9	22.1%	0	0.0%
Paper consumption	4.07	0.0%	39.8	0.1%	0.74	0.0%	4.31	0.0%	3.21	0.0%	1.2	0.0%	4.6	0.2%
Commuting + (WTT)	3,939	14.4%	5540.4	18.4%	1,451.8	28.4%	2,908.4	28.8%	0.00	0.0%	645.8	17.5%	0	0.0%
<b>Total</b>	<b>23,831.80</b>		<b>27,849.28</b>		<b>4,537.90</b>		<b>8,944.91</b>		<b>13,865.99</b>		<b>3,280.47</b>		<b>2,147.09</b>	
<b>Intensity* (mtCO<sub>2</sub>e/ Product)</b>	0.025 mtCO <sub>2</sub> e/ton		0.41 mtCO <sub>2</sub> e/ton		0.002 mtCO <sub>2</sub> e/E.Meters		10.17 mtCO <sub>2</sub> e/transf.		0.16 mtCO <sub>2</sub> e/ton		0.04 mtCO <sub>2</sub> e/ton		0.00067 mtCO <sub>2</sub> e/ton	

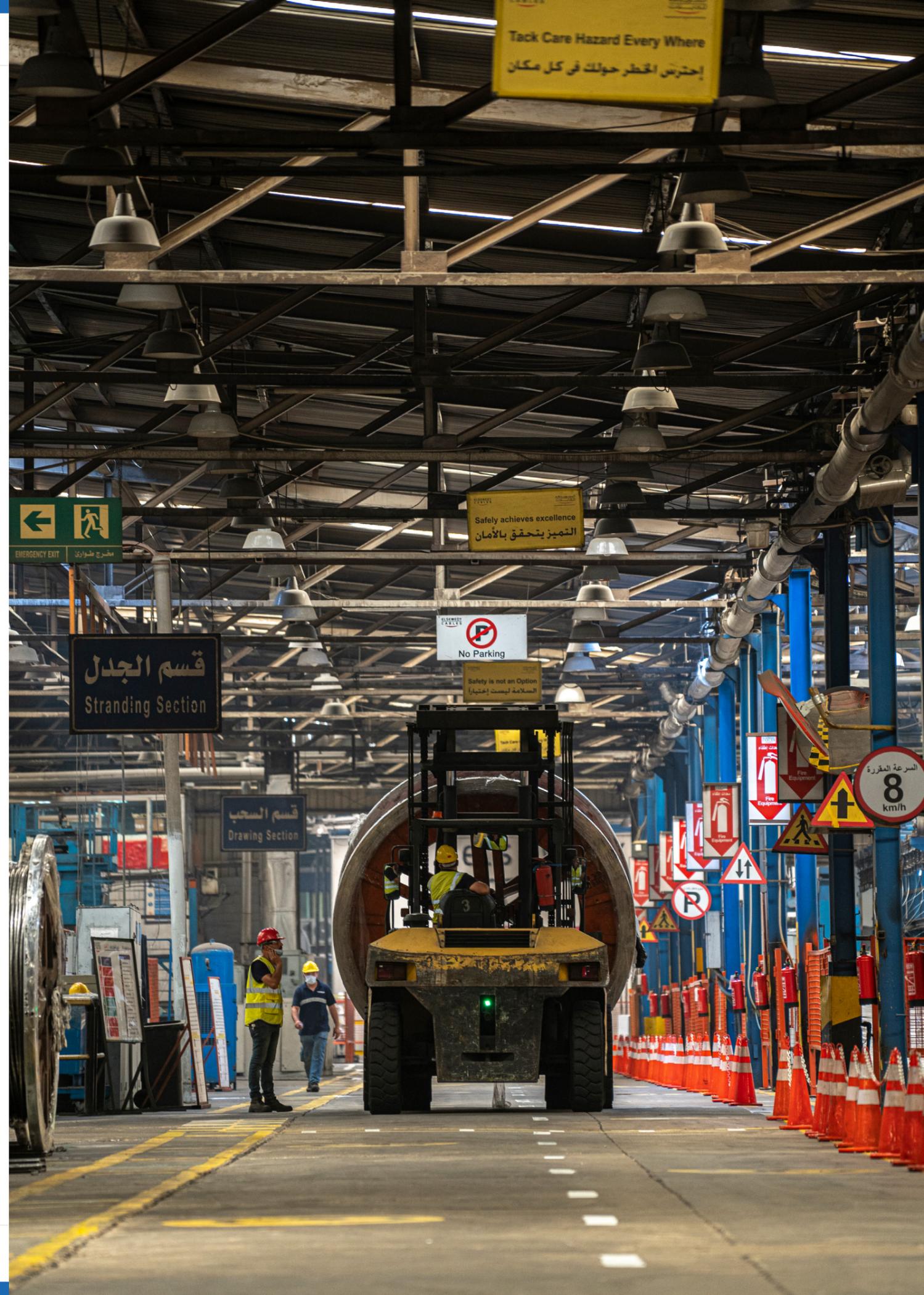
(\*) Scope 1 and 2 only

## CARBON FOOTPRINT RESULTS PER FACTORY



	UIC	Egytech	Iskrameco	Transformers	Egyplast	USW	Iskrameco Slovenia
Scope 3	4969.131254	16063.21331	2147.251831	3987.558556	549.9901722	1579.476259	522.4649647
Scope 2	15817.95416	8030.5002	1882.570815	3215.955	10850.07407	593.7264236	1052.12
Scope 1	3044.718737	3755.562898	508.0800594	1741.400013	2465.921516	1107.268896	572.5094223

■ Scope 1 ■ Scope 2 ■ Scope 3



# Executive Summary

We aspire to be leaders in corporate sustainability, and we are committed to doing our best to serve our customers, while caring for the environment. We aim to use our knowledge of our environmental impact to better develop more sustainable business scenarios and evaluate our future policies. The **Carbon Footprint Analysis** uniquely approaches the issue of sustainability by reference to the overall emissions related to our operations.

The annual footprint accounting report also enables us to **benchmark** performance indicators and **evaluate** progress over time. This report provides Elsewedy Electric and its stakeholders with a detailed account of the footprint of the organization's operations in its 7 factories across Egypt and Slovenia; this includes United Industries, Iskraemeco Slovenia and Egypt, Egytech cables and Elsewedy Cables, United Steel Wires, Elsewedy for plastic industry (Egyplast) and Elsewedy Transformers. The report also sets our basis for effective climate action, combining efforts by clearly describing areas of our climate impact and highlighting points of intervention needed to significantly reduce Greenhouse gases (GHG) emissions over decades.

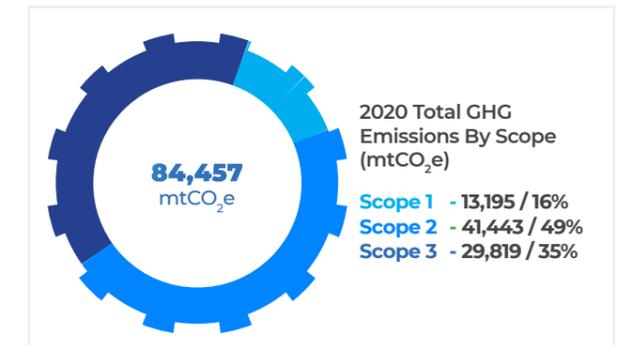
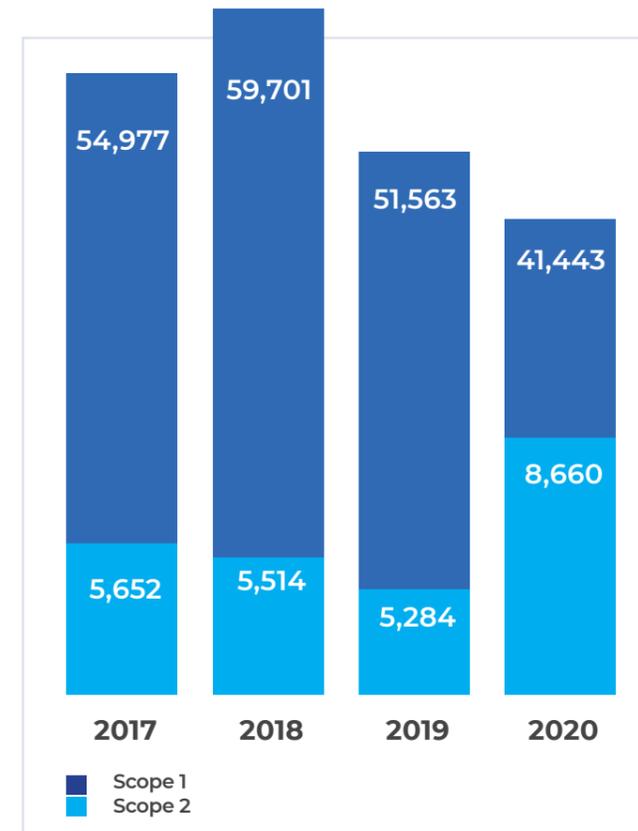
The reporting period is from the 1st of January to the 31st of December 2020, covering GHG emissions of our main activities, embracing direct emissions from controlled equipment and assets, emissions from purchased electricity, and selected indirect emissions resulting from our operations. Based in Egypt, we export worldwide, and thus related emissions were also taken into account based on the data available.

The analysis and calculations were based on the **Greenhouse Gas Protocol**, the Intergovernmental Panel on Climate Change (IPCC) Guidelines for Greenhouse Gas Inventories, and the **ISO 14064-1:2018** standards.

## THE TOTAL GHG EMISSIONS OF THE STUDIED BOUNDARY, INCLUDING:



<b>2017*</b>	→	60,629**	mtCO <sub>2</sub> e	
<b>2018</b>	→	65,215	mtCO <sub>2</sub> e	▲ +7.6%
<b>2019</b>	→	56,847	mtCO <sub>2</sub> e	▼ -6.2%
<b>2020</b>	→	50,103	mtCO <sub>2</sub> e	▼ -17.3%



(\*) 2017 is considered the baseline year which all the following years are compared to  
 (\*\*)Scopes 1 and 2 only are taken into account for the same operational and organizational boundaries as 2017

## BASE YEAR (BY) COMPARISON

The year 2020 saw continued growth in Elsewedy Electric's productivity for all its factories which should have increased the emissions when compared to the base year 2017. However, the total Scope 1 and 2 emissions were reduced by over 17% due to a reduction of 24% in the electricity consumption among other factors.

# 24%

▶ SINCE 2017, ELSEWEDY ELECTRIC HAS REDUCED ITS SCOPE 2 EMISSIONS BY 24%

# 17%

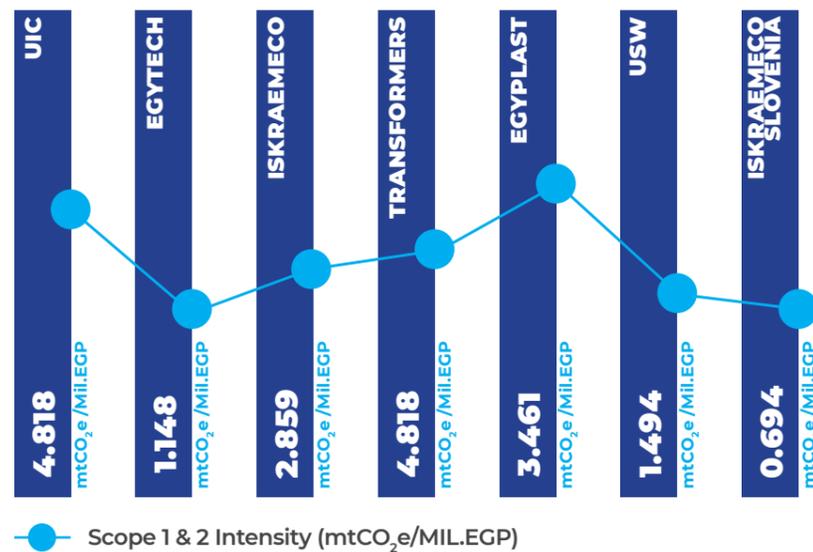
▶ THE TOTAL SCOPE 1&2 ABSOLUTE EMISSIONS FOR THE YEAR 2020 DECREASED BY OVER 17% IN COMPARISON TO THE BASE YEAR

Scope	BY - 2017	2018	2019	2020 Actual	2020 Modified*	Difference
Scope 1 – mtCO <sub>2</sub> e	5,652	5,515	5,285	13,195	8,660	+53%
Scope 2 – mtCO <sub>2</sub> e	54,977	59,701	51,563	41,443	41,443	-24%
Scope 1 + 2 – mtCO <sub>2</sub> e	60,629	65,215	56,847	54,638	50,103	-17%
Scope 3 – mtCO <sub>2</sub> e	1,899	1,708	1,867	29,819	12,724	+570%
<b>Total – mtCO<sub>2</sub>e</b>	<b>62,529</b>	<b>66,923</b>	<b>58,714</b>	<b>84,457</b>	<b>62,827</b>	<b>+0.5%</b>

## CARBON INTENSITY

Starting this year, Elsewedy Electric is introducing a new carbon intensity unit. This will help in understanding and analyzing the performance of each factory when compared to the base year intensity in the upcoming years.

ELSEWEDY's New Carbon Emissions Intensity  
Scope 1 & 2 intensity (mtCO<sub>2</sub>e/ MIL.EGP)



\* 2017 is considered the baseline year which all the following years are compared to. Scope 1 emissions resulting from refrigerant leakage were removed as it was not accounted for in the previous year. Scope 3 emissions resulting from the following activities were removed in order to compare the emissions accurately:

- Well to Tank emissions for all fuel burning activities
- Water and wastewater treatment
- Purchased goods
- Downstream transportation
- Exports

## 2025 Targets

### CLIMATE SCENARIO ALIGNED WITH A 2 DEGREE TEMPERATURE GOAL

Since this is widely seen as the accepted limitation of temperature growth, Elsewedy Electric will be committing to achieving the following absolute reduction targets by the year 2025.

Scope	Base year 2017	Reporting Year 2020*	Target Year 2025	% Reduction	Status
Scope 1 – mtCO <sub>2</sub> e	5,652	8,660	4,522	20%	0% Achieved
Scope 2 – mtCO <sub>2</sub> e	54,977	41,443	43,982	20%	Fully Achieved
Scope 1 + 2 – mtCO <sub>2</sub> e	60,629	50,103	48,503	20%	87% Achieved

\* 2017 is considered the baseline year which all the following years are compared to. Scope 1 emissions resulting from refrigerant leakage were removed as it was not accounted for in the previous year.



## ABSOLUTE EMISSIONS COMPARISON WITH PREVIOUS YEARS

Starting this year we decided to expand our boundaries for more comprehensive calculations and this has included enhancing Scope 1 and 3 emissions as well as extending the organizational boundaries to include the USW factory. We included the following activities in our calculations:

- ▶ Refrigerant leakage (Scope 1)
- ▶ Well-to-Tank emissions for all fuel burning activities (Scope 3)
- ▶ Water and wastewater treatment (Scope 3)
- ▶ Purchased goods (Scope 3)
- ▶ Downstream transportation (Scope 3)
- ▶ Exports (Scope 3)

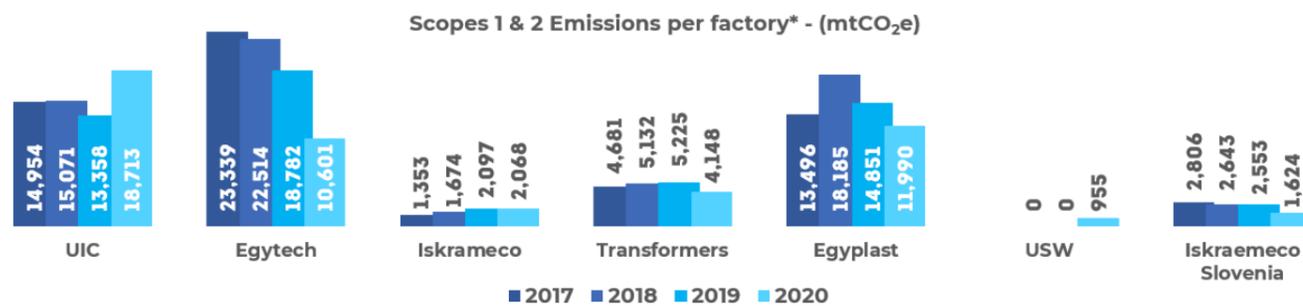
	2017	2018	2019	2020
<b>NO. OF FACTORIES</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>7</b>
→ UIC	→ ✓	→ ✓	→ ✓	→ ✓
→ EGYTECH	→ ✓	→ ✓	→ ✓	→ ✓
→ ISKRAEMECO	→ ✓	→ ✓	→ ✓	→ ✓
→ ISKRAEMECO SLOVENIA	→ ✓	→ ✓	→ ✓	→ ✓
→ TRANSFORMERS	→ ✓	→ ✓	→ ✓	→ ✓
→ EGYPLAST	→ ✓	→ ✓	→ ✓	→ ✓
→ USW**	→ ✗	→ ✗	→ ✗	→ ✓

<b>SCOPE 1 EMISSIONS * mtCO<sub>2</sub>e</b>	<b>5,652</b>	<b>5,514</b>	<b>-2.4%</b>	<b>5,284</b>	<b>-6.5%</b>	<b>8,661</b>	<b>+53.2%</b>
<b>SCOPE 2 EMISSIONS * mtCO<sub>2</sub>e</b>	<b>54,977</b>	<b>59,701</b>	<b>+8.6%</b>	<b>51,563</b>	<b>-6.2%</b>	<b>41,443</b>	<b>-24.6%</b>
<b>TOTAL SCOPE 1 &amp; 2* mtCO<sub>2</sub>e</b>	<b>60,629</b>	<b>65,215</b>	<b>+7.6%</b>	<b>56,847</b>	<b>-6.2%</b>	<b>50,103</b>	<b>-17.3%</b>

Additional operational boundaries, this includes:	
- Scope 1: Refrigerant leakage (mtCO <sub>2</sub> e)	
- New Scope 3 activities (mtCO <sub>2</sub> e)	<b>32,028</b>

Additional organizational boundaries:	
- United Steel Wires Factory - Scopes 1,2 and 3 (mtCO <sub>2</sub> e)	<b>3,280</b>

<b>Total Carbon Footprint for the year 2020 mtCO<sub>2</sub>e</b>	<b>84,457</b>
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(\*) When comparing 2020 with the base year emissions, the following should be considered:

1- USW factory emissions were removed from the comparison in order to ensure consistency in the operational and organizational boundaries.

2- Scope 1 emissions resulting from refrigerant leakage were removed as it was not accounted for in the previous year.



## I. Introduction

Elsewedy Electric fully understands that climate change is currently humanity's most threatening issue, and requires urgent, collective action by nations, governments, and businesses worldwide to halt the crisis and ensure a sustainable, livable world for the generations to come. Achieving net-zero by 2050 at the latest and curbing the rise in temperature above 1.5°C is no longer an option. As a group operating in the energy sector, we fully realize our responsibility in committing to become a net-zero corporation by 2030 through a robust action plan that aligns with climate science.

### Elsewedy Electric Climate Policy

Elsewedy Electric Group has devised its first [Climate Policy](#) in mid-2021, aiming to continue developing and increasing the investments in renewable energy markets, as well as developing a group-wide low-carbon business model across the entire value chain. In addition, the policy vividly sets all priority areas of action, and clearly specifies the roles and responsibilities for each action, starting from top management, to employees, workers, and suppliers.

### Responding to CDP Climate Change and Water Security

Elsewedy Electric is maintaining its position as a regional leader in the industry and aims to lead through its sustainable actions and initiatives. Aiming to maintain transparency with its stakeholders, Elsewedy Electric has disclosed for the first time to CDP's 2021 [Climate Change](#) and [Water Security](#), in addition to setting its GHG reduction targets in line with the SBTi criteria.

### Assessing our Annual Carbon Footprint

As management cannot be achieved without measurement, achieving carbon neutrality has to start with assessing our baseline performance; this is where conducting our GHG emissions assessments are a crucial step towards our net-zero ambition.

Elsewedy Electric has been conducting its GHG emissions assessment since 2017 and continues to enhance and improve the quality of data and the methodologies adopted to account for the emissions year-over-year. In our 2020 assessment, we have successfully expanded our organizational and operational boundaries to include an additional facility, as well as account for GHG emissions resulting from additional activities.

<sup>1</sup> Elsewedy Electric was listed in Forbes Middle East's Top 100 Companies in 2020 and in 2021.



## II.

# ABOUT OUR FACILITIES WITHIN THE SCOPE OF THIS REPORT

## UNITED INDUSTRIES (UIC)

United Industries is the branch of Elsewedy Cables that guarantees meeting tailored customer requirements. From the Domestic Appliance Cord to the extremely high-performance Category 7 Local Area Network cables required for the next generation of computers, and from the small pairs telephone cables required in home and business premises to the complex instrumentation cables needed to monitor natural resources.

United Industries aims to become a regional and global leader in the cables industry, providing local and global markets with the highest quality products that comply with recognized international standards, and that meet our clients' needs and enhance their experience.

Our customer's experience has always been our number one priority. United Industries' substantial annual investment aims to increase production capacity, thereby fulfilling market needs with progressing cost reduction to ensure international competitiveness. Research, development, and innovation in processes, activities, and products are vital to our strong market presence. The production facility covers a total area of 70,684 m<sup>2</sup> and operates with a total workforce of 947 employees as of 2020.

At United Industries, we comply with the requirements of ISO 9001, ISO 14001, ISO 45001, and have acquired ISO 50001 for Energy Management Systems in 2020.

## ISKRAEMECO ENERGY MEASUREMENT

**Iskraemeco** is a globally recognized brand with its solutions found in more than 80 countries worldwide. For more than seven decades, Iskraemeco has been delivering quality products, solutions and services that make efficient use of energy a reality for energy companies worldwide.

In 2008, Iskraemeco Slovenia has been acquired by Elsewedy Electric. A shared vision of a smarter, more energy-efficient future is the driving force that connects the two companies in energy ventures. The Iskraemeco factory in Egypt was established in 2008, and is where different types of smart meters including standalone, prepaid, and others are manufactured.

Our robust portfolio of smart metering solutions let us predict future needs for efficient energy management. Digitalized solutions based on IoT, data lakes, and smart cities give utilities the necessary data to manage energy use, anticipate demand, and optimize costs. It also helps consumers act more sustainably, while significantly lowering their energy bills.

The production facility in Egypt covers a total area of 50,595 m<sup>2</sup> and operates with a total workforce of 337 employees as of 2020, while the facility in Slovenia covers an area of 34,670 m<sup>2</sup>, with a total headcount of 851 employees as of 2020.

At Iskraemeco, we comply with all relevant health, safety, and environmental legislation and standards – ISO 9001, ISO 14001, ISO 17020, ISO 17025, ISO 27001, ISO 45001, ISO 50001, MID Directive and OHSAS 18001.

**Check out more about what we do through our [Iskraemeco Company Profile](#).**

## UNITED STEEL WIRES (USW)

United Steel Wires Factory has joined the market of galvanized steel wires since 2006 with the mission of providing the manufacturers of electrical cables with the best quality galvanized steel wires for electrical cables armoring and providing the steel cores for overhead conductors reinforcement. This is achieved over a production facility of 35,000 m<sup>2</sup> using the most advanced technologies, fully automated control systems and a qualified team of 350 employees.

We provide some of the most comprehensive and innovative cabling products in the Middle East. Our product range includes steel and aluminum products, in addition to raw materials products e.g. iron ore.

We were the first manufacturer in Egypt to produce Prestressed Concrete Strands. PC Strands are used to prestress structural components to improve load capacity and are suitable for tall buildings, parking spaces, water tanks, silos, malls, airports, stadiums, hospitals, tunnels and bridges. As leaders in the field, we have approved standards at the Faculty of Engineering of Ain Shams University, the BELAC laboratory in Belgium and the Chicago Technical Lab in the USA.

At USW, we comply with the requirements of international standards including quality, environmental and health & safety management systems - ISO 9001, ISO 14001, and ISO 45001.

**Read more about USW's products and manufacturing processes [here](#).**

## EGYTECH CABLES AND ELSEWEDY CABLES – EGYPT

Egytech is a subsidiary of Elsewedy Electric Cables sector. Elsewedy Cables is one of the leading worldwide manufacturers producing a wide range of cables, wires, special cables such as fire resistance cables, fiber optic cables, network cables, cable accessories and integrated solutions.

The company has been able to maximize its commitment to improve efficiency by ensuring that its management possesses the expertise and talent necessary for the most critical business needs and has thus succeeded in maintaining a solid financial position.

Egytech's production covers a variety of products including low voltage and medium voltage cables up to 36 kV, high voltage, and extra-high voltage cables up to 500 kV, overhead transmission lines up to 750 kV, and optical ground wires up to 500 kV. The production facility covers a total area of 42,000 m<sup>2</sup> and operates with a total workforce of 1,089 employees as of 2020.

At Egytech, we comply with the requirements of international standards including quality, environmental and health and safety management systems - ISO 9001, ISO 14001, and ISO 45001.

**Check out more about our products in our [Energy Cables Catalogue](#).**

## ELSEWEDY TRANSFORMERS – EGYPT

Elsewedy Transformers, established in 2005, has been committed to providing customers with world-class products and services. We produce power transformers ranging up to 250 MVA and up to 220 kV class including oil immersed distribution transformers, cast resin transformers, in addition to offering modular solutions and transformer services.

Our competitively-priced products adhere to the highest international standards subject to rigorous quality checks and testing to ensure our customers receive the superior products they've come to expect from Elsewedy Transformers. We use cutting-edge processes, such as the latest magnetic field analysis, to guarantee that the core and winding design and types used in Elsewedy power transformers have the highest levels of stability and efficiency. Our production facility in Egypt covers a total area of 138,188 m<sup>2</sup> and operates with a total workforce of 838 employees as of 2020.

At Elsewedy Transformers, we comply with the requirements of international standards including ISO 9001, ISO/IEC 17025, ISO 14001, OHSAS 18001, and IRC 60076-11.

**Check out more about our products in our [Transformers Focus Catalogue](#).**

## ELSEWEDY FOR PLASTIC INDUSTRY (EGYPLAST)

Egyptian Company for Plastic Industry Elsewedy Egyplast was established in 1996 as a subsidiary of Elsewedy Electric Group. At Egyplast, we create and process polymer compounds for a sustainable future. Approximately 700 employees contribute to the success of our customers in various sectors, both locally and worldwide. Our portfolio expands across 5 main product namely: PVC Compounds, Masterbatch, Special Compounds, PP Fibers, and Fiberglass Poles.

Egyplast is considered one of the largest manufacturers of plastic compounds in the Middle East and Africa. These include PVC Compounds, Special Cable Compounds, and Masterbatch, for various applications with an annual production capacity of 120,000 tons. The production facility covers a total area of 60,000 m<sup>2</sup> and operates with a total workforce of 800 employees as of 2020.

At Egyplast, we comply with the requirements of international standards including ISO 9001, ISO 14001:2015/COR 1:2009, ISO 45001, in addition to RoHS and REACH regulations.

**Check our [company profile](#) for more info about our products range.**

# 1. CARBON FOOTPRINT METHODOLOGY

This carbon footprint assessment is conducted based on the GHG Protocol Guidelines, along with several international and widely applied standards, protocols, and guidelines specially developed for accounting and reporting GHG emissions, including but not limited to the following:

- ▶ **The Greenhouse Gas Protocol Guidelines** include, but not limited to:
  - A Corporate Accounting and Reporting Standard
  - Corporate Value Chain (Scope 3) Accounting and Reporting Standard
  - GHG Protocol Agricultural Guidance – Interpreting the Corporate Accounting and Reporting Standard for the agricultural sector
- ▶ **ISO 14064-1:2018:** Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals
- ▶ **2006 Intergovernmental Panel on Climate Change (IPCC)** Guidelines for Greenhouse Gas Inventories (with 2019 Refinements).

In alignment with the GHG protocol, the carbon footprint assessment accounted for all seven greenhouse gases covered by the Kyoto protocol: namely carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>).

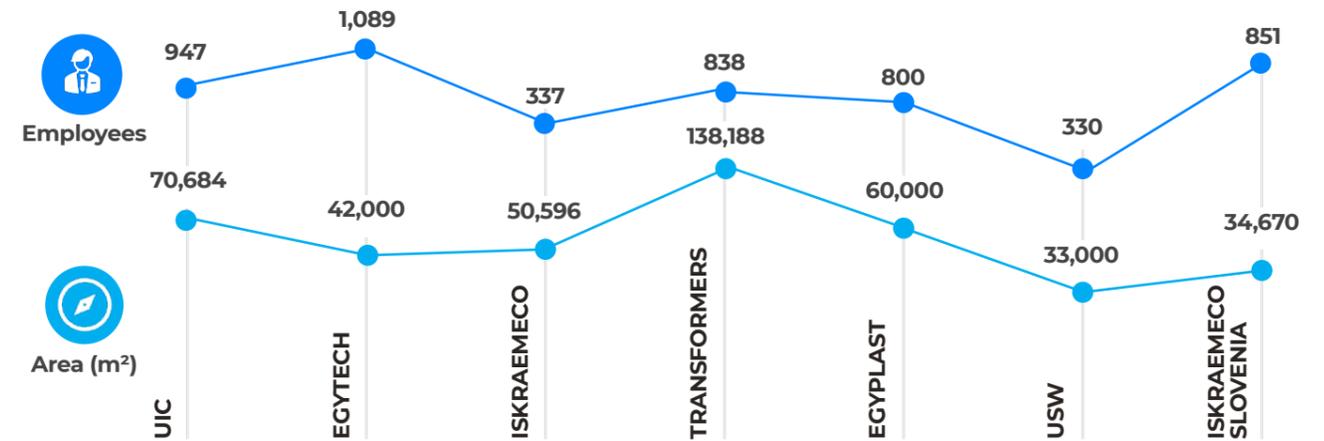
All activities related to Elsewedy Electric's 7 factories have been identified with their corresponding emissions accounted for. Activity data of 2020 was retrieved from the data recordings and all data has been reviewed and refined.

Each activity falls under a certain scope according to the GHG Protocol Guidelines; Scope 1 (Direct emissions), Scope 2 (Indirect emissions associated with the consumption of purchased electricity) and Scope 3 (Indirect emissions that are a consequence of the operations of the organization but are not directly owned or controlled by the reporting company).

## BOUNDARIES

### Organizational boundaries

The organizational boundary defines the businesses and operations that constitute the company for the purpose of accounting and reporting greenhouse gas emissions. Companies can choose to report either the emissions from operations over which they have financial or operational control (the control approach) or from operations according to their share of equity in the operation (the equity share approach). Elsewedy Electric's carbon footprint uses the operational control approach. As such, it included 7 of the main factories in Egypt.



### Operational Boundaries

The emissions fall under different scopes: **Scope 1**, resulting from our owned or controlled equipment and assets; **Scope 2** covering emissions from purchased electricity; and Scope 3 embracing significant indirect emissions resulting from our operations.

In conformance with the GHG Protocol Corporate Standard, the reporting of Scope 1 and Scope 2 emissions, direct emissions and indirect emissions resulting from purchased electricity, are mandatory to report. However, emissions falling under Scope 3 are optional and businesses may choose which emissions to report.

The operational boundaries for Elsewedy's 2020 CFP report include the following:

## SCOPE 1

Emissions from sources that are owned or controlled by the Elsewedy Electric Group (i.e. any owned or controlled activities that release emissions straight into the atmosphere). The list of scope 1 activities include the following:

- ▶ Refrigerants leaking
- ▶ Fuel burning on-site (Generators, equipment, etc.) Fuel burning for company owned vehicles (this includes downstream and upstream transportation)
- ▶ Natural gas, diesel

## SCOPE 2

Emissions associated with the consumption of purchased electricity, heat or steam from a source that is not owned or controlled by the Elsewedy Electric Group.

The list of Scope 2 activities include the following:

- ▶ Purchased electricity

## SCOPE 3

Emissions resulting from other activities. This includes transport fuel used by air business travel, and employee-owned vehicles for commuting to and from work; emissions resulting from courier shipment; emissions from waste disposal, etc. The list of Scope 3 activities include the following:

- ▶ Fuel burning – Owned vehicles (Well-To-Tank)
- ▶ Fuel burning – Diesel (WTT)
- ▶ Fuel burning – Natural Gas (WTT)
- ▶ Water usage & wastewater treatment
- ▶ Solid waste disposal
- ▶ Purchased goods
- ▶ Downstream transportation + (WTT)
- ▶ Fuel Burning – Business travel + (WTT)
- ▶ Air Travel + (WTT)
- ▶ Exports
- ▶ Paper consumption
- ▶ Commuting + (WTT)

## CALCULATION APPROACH

When calculating the CFP of Elsewedy Electric's Factories, the emissions of each activity have been considered. Each activity falls under a certain scope, which is described more in depth under each activity. The general calculation approach for the emissions, counted in mtCO<sub>2</sub>e, is multiplying the activity with its corresponding emission factor. When doing this, a unit analysis is performed in order to make sure the results of the emissions are obtained in the desired unit mtCO<sub>2</sub>e. The general formula for calculating the emissions for each activity is according to the equation below.

The unit of the GHG Emissions is metric tons carbon dioxide equivalent (mtCO<sub>2</sub>e). The unit CO<sub>2</sub>e refers to an amount of a GHG, whose atmospheric impact has been standardized to that one-unit mass of carbon dioxide (CO<sub>2</sub>), based on the global warming potential (GWP) of the gas.

$$\text{GHG Emissions, E [mtCO}_2\text{e]} = \text{Activity, A [unit]} \times \text{Emission Factor, EF [mtCO}_2\text{e/unit]}$$

The general formula could be applied for each activity to obtain its emissions. All activities were calculated for the fiscal year, 2020. Thus, the emissions accounted for, were those of the total value for each activity in a single fiscal year.



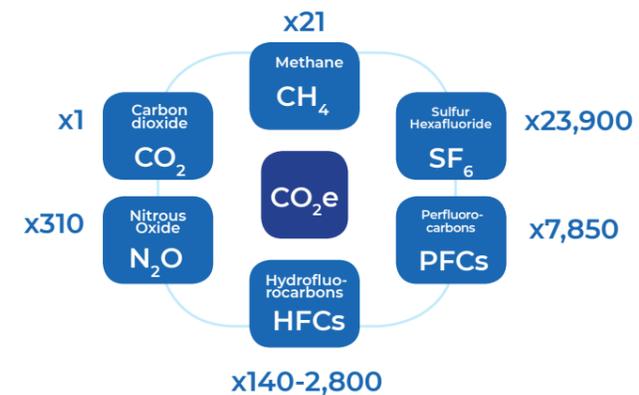
## EMISSION FACTORS

Emission factors (EF) are representing the quantity of pollutants released to the atmosphere caused by a certain activity. The emission factor is usually expressed as the carbon dioxide equivalent (CO<sub>2</sub>e) emissions generated by a unit weight, volume, distance, or duration of the activity, e.g., CO<sub>2</sub>e /liter fuel consumed, CO<sub>2</sub>e /km driven or CO<sub>2</sub>e /kWh of purchased electricity etc.

- **DEFRA** Department for Environment, Food & Rural Affairs UK 2020
- **IPCC** Intergovernmental Panel on Climate Change
- **Country Specific Emission Factors** Emission factor calculated specifically for Egypt

With regards to the country specific grid electricity emission factor, the emission factor was derived based on the Clean Development Mechanism (CDM) Methodology. The emission factor is based on Egypt's fuel mix and power generation and the country's trends and strategies. Each fuel in the power generation is considered, where the Net Calorific Value (NCV) of the fuel is used to obtain the country specific grid emission factor.

A human activity emits different kinds of (GHGs). A physical characteristic of a GHG represents their impact on the greenhouse effect and allows 1 kg of GHG to convert into an x amount of kg of Carbon Dioxide equivalent, noted CO<sub>2</sub>e. Thus, emissions of different gases can be compared.



The emission factor for water supply and wastewater treatment is calculated using a conversion formula, provided by the Holding Company for Water and Wastewater (HCWW). Based on the amount of energy consumed in each process; the corresponding emission factor has been obtained.

## DATA SOURCES AND QUALITY

All data utilized to calculate the emissions arising from our activities is derived from our database. The quality of the data has been assessed and presented below, where the data of each sector of the business has been assessed separately in order to allow a better analysis and demonstration of resolution and additional clarifications.

Different types of data may be used to carry out a corporate carbon footprint. The most used types of data are:

- ▶ **Primary data:** data taken during interviews as well as recorded data that are directly linked to the assessment.
- ▶ **The monthly consumption of each factory in the form of invoices that are used to calculate the emissions resulting from different activities.**
- ▶ **Secondary data:** such as databases, studies, and reports.
- ▶ **Assumptions:** assumptions made based on internationally recognized standards and studies.

ACTIVITY	DATA	RESOLUTION	ACCURACY	COMMENTS
Fuel Burning - Owned vehicles	4,166,700.00 215,214.00	Km Liters	High	-
Fuel Burning - Diesel	1,451,746.00	Liters	High	-
Fuel Burning - Natural gas	1,747,433.17	m <sup>3</sup>	High	-
Refrigerant leakage	965.6	Kg freon	High	-
Purchased Electricity	97,218,026.33	kWh	High	-
Water usage and wastewater	866,855.00	m <sup>3</sup>	High	-
Solid Waste disposal	14,619.00	Tons	Medium	The solid waste per employee needs to be recorded
Purchased goods	463.68	tons	Medium	The data for all the factories were not available
Fuel burning - Downstream transportation	604,622.43	km	High	-
Fuel Burning - Business travel	569,647.00	km	High	Data needs to be recorded in km or liters and not destinations
Air Travel	1,274,713.78	km	High	Data needs to be collected for all factories
Exports	79,424.00	tons	High	More accurate data about the exact weight per container and the name of each port needs to be provided
Commuting		p.km	High	-
Paper Consumption	62.92	tons	High	-

Weak – Priority area for improvement
  Satisfactory – Could be improved
  Good – No changes recommended

## RELEVANCY & EXCLUSIONS

Some of our Scope 3 emissions have not been included in this carbon footprint report due to data not being attainable or activities whose emission quantification is beyond Elsewedy's operation and control. The exclusion rationale per category has also been specified.

#	ACTIVITY	DESCRIPTION	STATUS
1	Purchased goods and services	This includes office supplies like paper consumption.	Relevant, calculated
2	Capital goods	Emissions from Elsewedy's capital goods (buildings, cars, etc.).	Relevant, not yet calculated
3	"Fuel and energy-related activities (not included in Scope 1 and 2)"	This includes any Scope 3 energy emissions; in this case it's WTT emissions.	Relevant, calculated
4	Upstream transportation and distribution	Emissions from raw materials and products transportation to the factories.	Relevant, not yet calculated
5	Waste generated in operations	This includes the waste generated from the different operations occurring at each factory in addition to the waste generated from the employees.	Relevant, calculated
6	Business travel	This includes business travel using Elsewedy's owned vehicles, and business flights.	Relevant, calculated
7	Employee commuting	This includes emissions from use of coasters, and from employees commuting using their private vehicles.	Relevant, calculated
8	Upstream leased assets	This category is not relevant as Elsewedy Electric does not lease any type of assets.	Not relevant
9	Downstream transportation	Transportation from the factories to the warehouses and exports.	Relevant, calculated
10	Processing of sold products	-	Relevant, not yet calculated
11	Use of sold products	-	Relevant, not yet calculated
12	End of life treatment of sold products	-	Relevant, not yet calculated
13	Downstream leased assets	Elsewedy Electric does not lease any assets to any third party.	Not relevant
14	Franchises	Elsewedy Electric does not operate any franchises.	Relevant, calculated
15	Investments	-	Relevant, but not yet calculated

## REPORTING PERIOD

The reporting period covers emissions data from the 1st of January 2020 to the 31st of December 2020. The year 2017 is the base-year to which all the activities in the upcoming years are compared to and referenced.

## CARBON FOOTPRINT CALCULATIONS AND EQUATIONS

### Electricity Consumption

Electricity consumption is an indirect emissions activity which falls under Scope 2. At Elsewedy Electric, Electricity is mainly used in production equipment, motors, furnaces, HVAC, lighting, computers, etc. The electricity consumption data per month was obtained from each factory's database. Emissions from electricity consumption are the product of the national grid emission factor and the annual electricity consumption of each factory.

$$\text{Electricity Consumption Emissions (mtCO}_2\text{e)} = \text{Electricity Consumption (kWh)} \times \text{EF (mtCO}_2\text{e/kWh)}$$

The grid electricity emission factor is country specific and is calculated based on the Clean Development Mechanism (CDM) Methodological Tool. The CDM tool is used to calculate the emission factor based on Egypt's power generation and fuel mix following the country's trend and strategies. As per Iskraemeco Slovenia's factory, the emission factor used was extracted from DEFRA's database.

### Municipal Water Usage And Wastewater Treatment

Water usage and wastewater treatment are considered indirect emissions activities and fall under Scope 3. The factories are supplied by domestic water through the municipality infrastructure system. The water consumption data per month was obtained from each factory's database. Emissions from water consumption and wastewater treatment are mainly due to the energy consumed in the process. Therefore, the emissions were calculated using a conversion formula: for water supply 350 Wh/m<sup>3</sup>, and for wastewater treatment 88 Wh/m<sup>3</sup>. Emissions from water consumption and wastewater treatment are the product of the national grid emission factor (As per the factory's location) and the electricity consumption of the processes. As per Iskraemeco Slovenia's factory, the emission factor used was extracted from DEFRA.

$$\text{Energy Consumption (Wh)} = \text{Water supply/wastewater (m}^3\text{)} \times \text{Conversion formula (Wh/m}^3\text{)}$$

$$\text{Water Supply and Treatment (mtCO}_2\text{e)} = \text{Energy Consumption (kWh)} \times \text{EF (mtCO}_2\text{e/kWh)}$$

### Fuel Burning

#### ► DIESEL

Diesel fuel is consumed by the generators that also supplies our factory's electricity demands. Every month, the fuel burned by in our factories is logged into the data base. The total amount of fuel consumed was multiplied by the corresponding emission factor to calculate the corresponding direct emissions.

$$\text{Fuel burning - Diesel emissions (mtCO}_2\text{e)} = \text{Fuel consumption (L)} \times \text{EF (mtCO}_2\text{e/L)}$$

Well-to-Tank (WTT) are emissions resulting from the production of a fuel, including resource extraction, initial processing, transport, fuel production, distribution and marketing, and delivery into the fuel tank of a consumer vehicle. This report accounted for WTT emissions in order to capture the maximum climate impacts from fuel burning activities. Emissions related to fuel burning WTT fall under Scope 3.

$$\text{Fuel burning - Diesel WTT emissions (mtCO}_2\text{e)} = \text{Fuel burned quantity (L)} \times \text{WTT EF (mtCO}_2\text{e/L)}$$

## Fuel Burning

### ▶ NATURAL GAS

Natural gas is used at some of the factories. Since it is directly used by our owned facilities, the emissions resulting from the consumption of natural gas were accounted for under Scope 1 (direct emissions). The monthly consumption of natural gas in m<sup>3</sup> were retrieved from the data recordings. The emissions due

to the natural gas consumption were calculated by multiplying the total annual amount consumed in m<sup>3</sup> by the corresponding emission factor. WTT emissions were accounted for in order to capture the maximum climate impacts related to this activity.

$$\text{Fuel burning – Natural Gas emissions (mtCO}_2\text{e)} = \text{Fuel consumption (m}^3\text{)} \times \text{EF (mtCO}_2\text{e/ m}^3\text{)}$$

$$\text{Fuel burning – Natural Gas WTT emissions (mtCO}_2\text{e)} = \text{Fuel consumption (m}^3\text{)} \times \text{WTT-EF (mtCO}_2\text{e/ m}^3\text{)}$$

### ▶ OWNED VEHICLES

Emissions resulting from the owned vehicles fall under Scope 1 direct emissions. The fuel burned by the owned vehicles, or the data related to the distance travelled for each owned truck is logged into each factory's database monthly. WTT emissions were accounted for in order to capture the maximum climate impacts related to this activity.

$$\text{Owned Vehicle Emissions (mtCO}_2\text{e)} = \text{Fuel consumption (L)} \times \text{EF (mtCO}_2\text{e/ L)}$$

$$\text{Owned Vehicle WTT Emissions (mtCO}_2\text{e)} = \text{Fuel consumption (L)} \times \text{WTT-EF (mtCO}_2\text{e/ L)}$$

## TRAVEL RELATED EMISSIONS

### Employee Commuting

Employees and workers commute every day to and from work from different locations all over Egypt. In general, the employees and workers use different types of transportation including private cars, carpooling, mini buses, and minibuses.

The daily distances were calculated for the buses in km multiplied by the working days and then multiplied by the corresponding emission factor to get the commuting emissions. Emissions from employee commuting vehicles fall under Scope 3. WTT emissions are also accounted for under Scope 3.

$$\text{Commuting Emissions (mtCO}_2\text{e)} = \text{Working days} \times \text{Travelled distance (Km/ day)} \times \text{EF (mtCO}_2\text{e/ Km)}$$

$$\text{Commuting WTT Emissions (mtCO}_2\text{e)} = \text{Working days} \times \text{Travelled distance (Km/ day)} \times \text{WTT-EF (mtCO}_2\text{e/ Km)}$$

### Air Travel

Aerial transportation emissions fall under Scope 3 (indirect emissions). The emissions were calculated by multiplying the total distance travelled per passenger (pkm) for each flight category (domestic, short haul, and long haul) by the corresponding emission factor.

$$\text{Air Travel Emissions (KgCO}_2\text{e)} = \text{Distance travelled per passenger (pkm)} \times \text{EF (KgCO}_2\text{e/ pkm)}$$

WTT emissions were also accounted for to capture the maximum climate impacts related to this activity.

$$\text{Commuting WTT Emissions (mtCO}_2\text{e)} = \text{working days} \times \text{Travelled distance (Km/ day)} \times \text{WTT-EF (mtCO}_2\text{e/ Km)}$$

### Business Travel

Besides air travel and commuting, there are other business travel related emissions occurring at each of our factories. This is when an employee takes a vehicle in order to get to a meeting/conference or other business-related purpose.

Since the vehicles used are not owned by Elsewedy Electric, the emissions resulting from the business travel fall under Scope 3 indirect emissions. The following formulae were used to calculate the exact emissions in mtCO<sub>2</sub>e:

$$\text{Owned Vehicle Emissions (mtCO}_2\text{e)} = \text{Fuel consumption (L)} \times \text{EF (mtCO}_2\text{e/ L)}$$

$$\text{Owned Vehicle WTT Emissions (mtCO}_2\text{e)} = \text{Fuel consumption (L)} \times \text{WTT-EF (mtCO}_2\text{e/ L)}$$

### Downstream Transportation

This represents the emissions resulting from the transportation of products and shipments to different destinations. The resulting emissions fall under Scope 3 and were calculated by multiplying the weight of

each shipment and the distance travelled by the corresponding emission factor. The data was retrieved from the database of each factor.

$$\text{Downstream Transportation Emissions (mtCO}_2\text{e)} = \text{Distance travelled per weight of shipment (tkm)} \times \text{EF (mtCO}_2\text{e/ tkm)}$$

$$\text{Downstream Transportation WTT Emissions (mtCO}_2\text{e)} = \text{Distance travelled per weight of shipment (tkm)} \times \text{WTT EF (mtCO}_2\text{e/ tkm)}$$

### REFRIGERANT LEAKAGE

Refrigerants are fluids used in refrigeration cycles for cooling purposes. The refrigerants' yearly consumption was retrieved from each factory's database. The emissions corresponding to refrigerant leakage were accounted for under Scope 1.

The total emissions were calculated by multiplying the total volume of refrigerants used by the corresponding emission factor:

$$\text{Refrigerant Leakage Emissions (mtCO}_2\text{e)} = \text{Refrigerant leakage (Kg)} \times \text{EF (mtCO}_2\text{e/ Kg)}$$

## SOLID WASTE DISPOSAL

Solid waste disposal falls under Scope 3 (indirect emissions). Emissions from solid waste disposal are the product of the emission factor for each waste type, the quantity of waste for each type and the fate of each waste stream.

Several waste types are generated and disposed of at each factory, including cartons, plastics, metal scraps

and wood. Since the activities of each factory differ, the waste disposal varies accordingly as well. Most of the waste at the factories is measured in tons, except for some other streams which are counted as units of items.

The waste quantities, types and destination are recorded in the database monthly.

$$\text{Solid Waste Emissions (mtCO}_2\text{e)} = \text{Quantity of waste/type (t)} \times \text{EF/type (mtCO}_2\text{e/t)}$$

## PURCHASED GOODS

For the factories the purchased goods consist of hygiene disposable items, such as gloves, head covers, face masks in addition to office supplies such as ink, pens, block notes, etc. The resulting emissions fall under Scope 3.

The yearly amounts of consumables per type have been retrieved from the factories' data recordings, as units of items. The emissions were obtained by multiplying the emission factor per unit by the number of items.

$$\text{Emissions of Purchased Goods (mtCO}_2\text{e)} = \sum \text{Quantity of item (units)} \times \text{EF of item (mtCO}_2\text{e/unit)}$$

## PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions).

Emissions from paper consumption are the product of the emission factor of the paper by the weight of paper used for each paper type.

The emission factor accounted for extraction, processing, manufacturing, and transportation.

$$\text{Paper Consumption Emissions (mtCO}_2\text{e)} = \sum \text{weight of Paper (ton)} \times \text{EF of paper (mtCO}_2\text{e/ton)}$$

## EXPORTS

As a leading electric cables, transformers and meters manufacturer in Egypt, Elsewedy Electric exports its products to more than 100 countries worldwide. The exported products were transported via ocean routes on container ships. The emissions resulting from marine and land shipping of our products were accounted for under Scope 3.

The type, weight, and destination of each shipment were retrieved from our database. The distance travelled per shipment was then calculated using a port-to-port calculator. The distance travelled and the weight of each product were multiplied to produce the ton-km (tkm), which was then multiplied by the corresponding emission factor to produce the total emissions.

$$\text{Exports Emissions (mtCO}_2\text{e)} = \sum \text{Weight of Paper (ton)} \times \text{EF of paper (mtCO}_2\text{e/ton)}$$



## 2.

# 2020 CARBON FOOTPRINT RESULTS

### UNITED INDUSTRIES (UIC) FACTORY GHG EMISSIONS

#### DIESEL

Emissions resulting from diesel fuel burning on site fall under Scope 1 (direct emissions). Diesel fuel is used to operate mobile machinery and by the generators that supply our electricity demands. The United Industries consumed 51,405 liters of diesel annually. Which resulted in 130.88 mtCO<sub>2</sub>e (Scope 1) and 31.6 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

#### REFRIGERANTS LEAKAGE

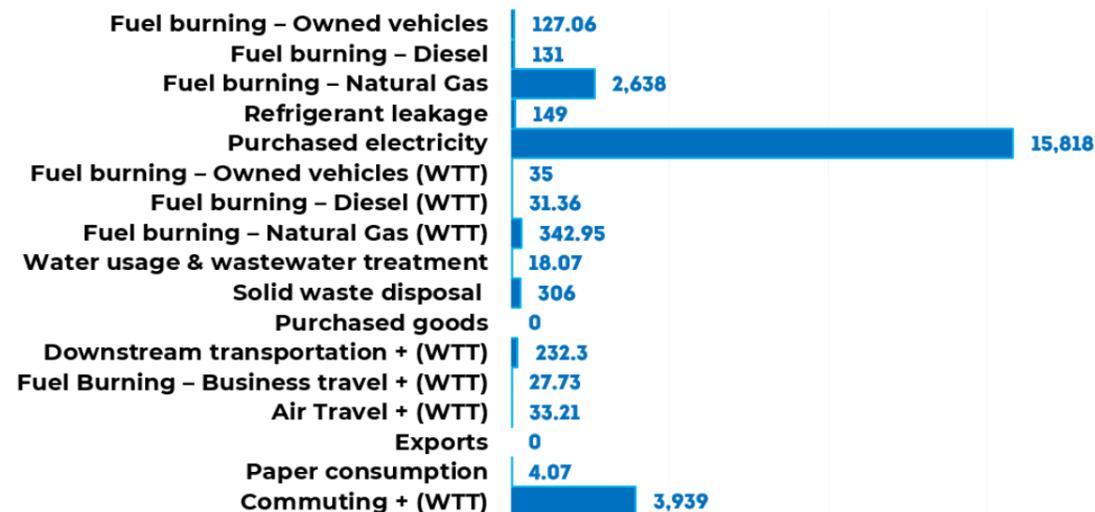
Refrigerants are fluids used in refrigeration cycles to cool a space. The emissions corresponding to refrigerant leakage were accounted for under Scope 1. We have consumed 81 kg of refrigerants (between R22 and A134) in the UIC factory which resulted in 149.16 mtCO<sub>2</sub>e.

#### NATURAL GAS

Since it is directly used by our facility, the emissions resulting from the consumption of natural gas were accounted for under Scope 1. To capture the maximum climate impacts of fuel burning, the Well-To-Tank (WTT) emissions which fall under Scope 3 (indirect emissions) were included in the organization's emissions. UIC factory consumed 1,304,032 liters of diesel annually. Which resulted in 2,637.61 mtCO<sub>2</sub>e and 342.95 mtCO<sub>2</sub>e in WTT emissions.

#### PURCHASED ELECTRICITY

Purchased Electricity falls under Scope 2 (Indirect emissions). The electricity consumption for the year 2020 was 4,365,657 kWh, which resulted in 1,052.12 mtCO<sub>2</sub>e. Electricity consumption is the largest contributor to UIC's emissions at around 29% of total emissions.



#### SOLID WASTE

Waste disposal emissions were accounted for under Scope 3 indirect emissions. The emissions are associated with the transportation of the recycling facilities and the disposal of non-recyclable waste to landfills. The United Industries waste generated for the year 2020 was about 2,026 tons of recycled waste and 600 tons of municipal solid waste that was disposed in landfills. This resulted in 305.6 mtCO<sub>2</sub>e.

#### WATER & WASTEWATER TREATMENT

Water supply and wastewater treatment emissions are linked to the electricity consumed to supply and treat the water and fall under Scope 3 (indirect emissions). The UIC factory's water consumption for the year 2020 was 99,807 m<sup>3</sup>, which resulted in 15.17 mtCO<sub>2</sub>e in water consumption and 2.89 mtCO<sub>2</sub>e in wastewater treatment emissions.

#### DOWNSTREAM TRANSPORTATION

Emissions resulting from vehicles that are not owned by the company fall under Scope 3 (indirect emissions). Those vehicles are used for the transportation of products from factories to distribution centers and finally to outlets. The distance travelled by these trucks in the year 2020 was equal to 194,371 km which resulted in 187.44 mtCO<sub>2</sub>e and 44.86 mtCO<sub>2</sub>e in WTT emissions.

#### BUSINESS TRAVEL

Emissions from business related trips in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3. UIC's business trips totaled 124,834 km in 2020, which resulted in 21.76 mtCO<sub>2</sub>e in indirect emissions, and 5.97 mtCO<sub>2</sub>e in WTT emissions.

#### AIR TRAVEL

Aerial transportation emissions fall under Scope 3 (indirect emissions). UIC's air flights in 2020 was equal to 58 international flights which in total covered a distance of 164,618 km. This resulted in 29.93 mtCO<sub>2</sub>e in direct emissions and 3.28 mtCO<sub>2</sub>e in WTT emissions.

#### OWNED VEHICLES

Emissions resulting from our owned vehicles fall under Scope 1 direct emissions. Those vehicles are used mainly for the transportation of products. The distance travelled by the factory's owned vehicles for the year 2020 was 729,000 km which resulted in 127.06 mtCO<sub>2</sub>e and 34.85 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

#### COMMUTING

Emissions from employees commuting in vehicles that are not owned by the company fall under Scope 3. WTT emissions are also accounted for under Scope 3. UIC's employees travelled 31,698,00 km in 2020, which resulted in 3,174.98 mtCO<sub>2</sub>e in indirect emissions, and 764.03 mtCO<sub>2</sub>e in WTT emissions.

#### PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions). The emissions from paper consumption totaled 4.07 mtCO<sub>2</sub>e from the use of 4.43 tons of paper.

Total area (m <sup>2</sup> )	70,684
Number of employees	947
Carbon Footprint – Scope 1 mtCO <sub>2</sub> e	3,044.72
Carbon Footprint – Scope 2 mtCO <sub>2</sub> e	15,817.95
Carbon Footprint – Scope 3 mtCO <sub>2</sub> e	4,969.13
Carbon Footprint – Total mtCO <sub>2</sub> e	23,831.80
Production (tons)	883,830.49
Scope 1 & 2: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.021
Scope 1, 2 & 3: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.03
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025
Scope 1 and 2 emissions to be reduced to	16,505 mtCO <sub>2</sub> e

## UIC'S EMISSIONS PER ACTIVITY OVER THE YEARS

### SCOPE 1 – DIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	136.9	116.0	134.5	127.06
Fuel burning – Diesel	384.5	384.5	384.5	130.88
Fuel burning – Natural Gas	1,455.7	1,557.8	919.06	2,637.61
Refrigerant leakage	NA	NA	NA	149.16
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	<b>1,977.1</b>	<b>2,058.3</b>	<b>1,438.1</b>	<b>3,044.72</b>

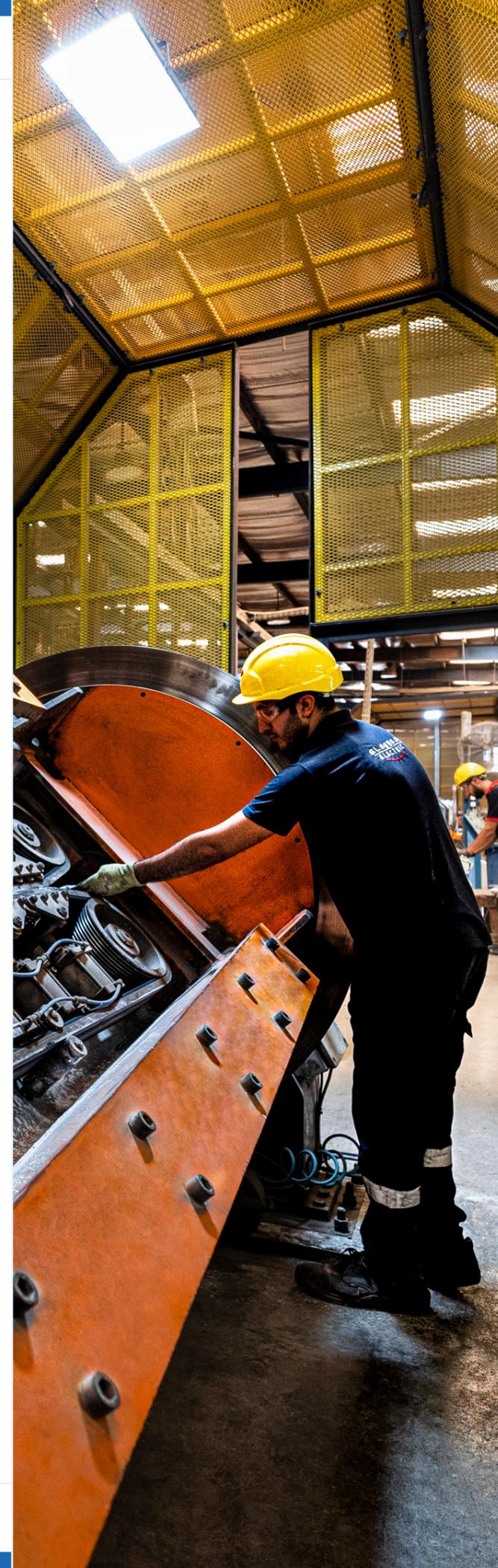
### SCOPE 2 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Purchased electricity	12,977.4	13,012.8	11,901.6	15,817.95

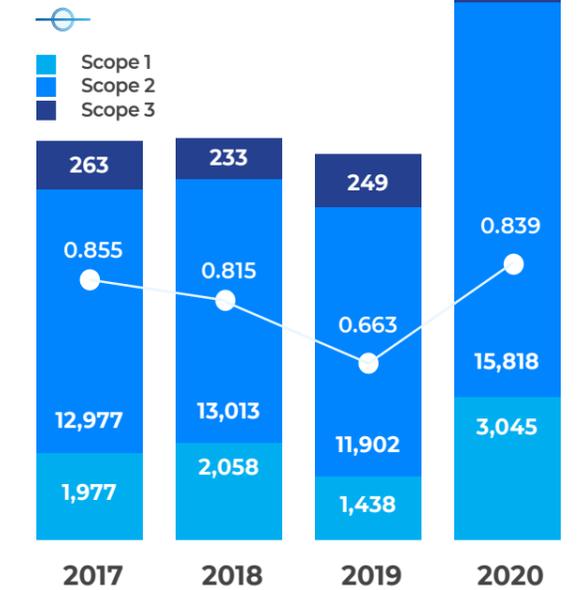
### SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	NA	NA	NA	34.85
Fuel burning – Diesel (WTT)	NA	NA	NA	31.36
Fuel burning – Natural Gas (WTT)	NA	NA	NA	342.95
Water usage & wastewater treatment	NA	NA	NA	18.07
Solid waste disposal	63.5	38.8	39.12	305.59
Purchased goods	NA	NA	NA	NA
Downstream transportation + (WTT)	NA	NA	NA	232.30
Fuel Burning – Business travel + (WTT)	16.3	31.4	40.49	27.73
Air Travel + (WTT)	NA	NA	NA	33.21
Exports	NA	NA	NA	NA
Paper consumption	5.4	8.0	6.47	4.07
Commuting + (WTT)	178.2	154.6	162.61	3,939
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	<b>263</b>	<b>233</b>	<b>249</b>	<b>4,969.13</b>

NA: Not available



Scope 1 & 2 Intensity  
mtCO<sub>2</sub>e/ ton



TOTAL EMISSIONS  
FOR THE YEAR  
2020

Scope 1 3,044.72  
Scope 2 15,817.95  
Scope 3 4,969.13

## EGYTECH FACTORY GHG EMISSIONS

### DIESEL

Emissions resulting from diesel fuel burning on site fall under Scope 1 (direct emissions). Diesel fuel is used to operate mobile machinery and by the generators that supply most of our electricity demands. The factory consumed 805,801 liters of diesel annually, which resulted in 2,051.59 mtCO<sub>2</sub>e (Scope 1) and 491.66 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### PURCHASED ELECTRICITY

Purchased Electricity falls under Scope 2 (indirect emissions). The electricity consumption for the year 2020 was 18,460,920 kWh, which resulted in 8,030.5 mtCO<sub>2</sub>e. Electricity consumption is the second largest contributor to Egytech's emissions at around 29% of total emissions.

### WATER & WASTEWATER TREATMENT

Water supply and wastewater treatment emissions are linked to the electricity consumed to supply and treat the water and fall under Scope 3, indirect emissions. Egytech factory's water consumption for the year 2020 was 39,746 m<sup>3</sup>, which resulted in 6.04 mtCO<sub>2</sub>e in water consumption and 1.15 mtCO<sub>2</sub>e in wastewater treatment emissions.

### AIR TRAVEL

Aerial transportation emissions fall under Scope 3 (indirect emissions). Egytech's air flights in 2020 were equal to 26 international flights which in total covered a distance of 148,472 km. This resulted in 26.99 mtCO<sub>2</sub>e in direct emissions and 2.96 mtCO<sub>2</sub>e in WTT emissions.

### PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions). The emissions from paper consumption totaled 39.76 mtCO<sub>2</sub>e from the use of 43.24 tons of paper.

### EXPORTS

The emissions resulting from marine and land shipping of our products were accounted for under Scope 3. Our products were exported to 45 cities all over the world by marine and land shipping. The total ton-kilometers were equal to 494,877,643 ton.km which resulted in 9,533.32 mtCO<sub>2</sub>e.

### OWNED VEHICLES

Emissions resulting from our owned vehicles fall under Scope 1 direct emissions. Those vehicles are used mainly for the transportation of products. Some of the data for the owned vehicles was recorded in the kilometers traveled by a group of vehicles while other data was recorded by the liters consumed by another group of vehicles. The traveled distance was equal to 640,000 km while the fuel consumption for other vehicles was equal to 1,860,000 liters

### REFRIGERANTS LEAKAGE

Refrigerants are fluids used in refrigeration cycles to cool a space. The emissions corresponding to refrigerant leakage were accounted for under Scope 1. We have consumed 395 kg of refrigerants (between R22 and A134) in the Egytech factory which resulted in 1,183.92 mtCO<sub>2</sub>e.

### SOLID WASTE

Waste disposal emissions were accounted for under Scope 3 indirect emissions. The emissions are associated with the transportation of the waste to recycling facilities. Egytech's waste generated for the year 2020 was about 2,945.16 tons of waste that was sent to recycling facilities, which resulted in 62.78 mtCO<sub>2</sub>e.

### BUSINESS TRAVEL

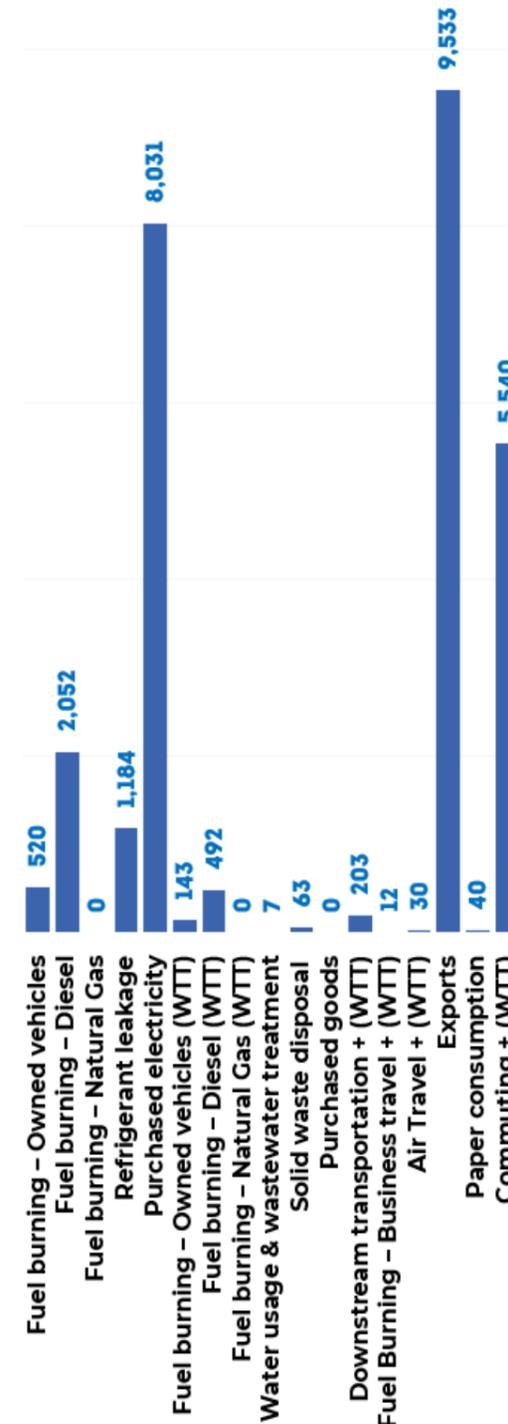
Emissions from business related trips in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3. Egytech's business trips totaled 54,661 km in 2020, which resulted in 9.53 mtCO<sub>2</sub>e in indirect emissions, and 2.61 mtCO<sub>2</sub>e in WTT emissions.

### DOWNSTREAM TRANSPORTATION

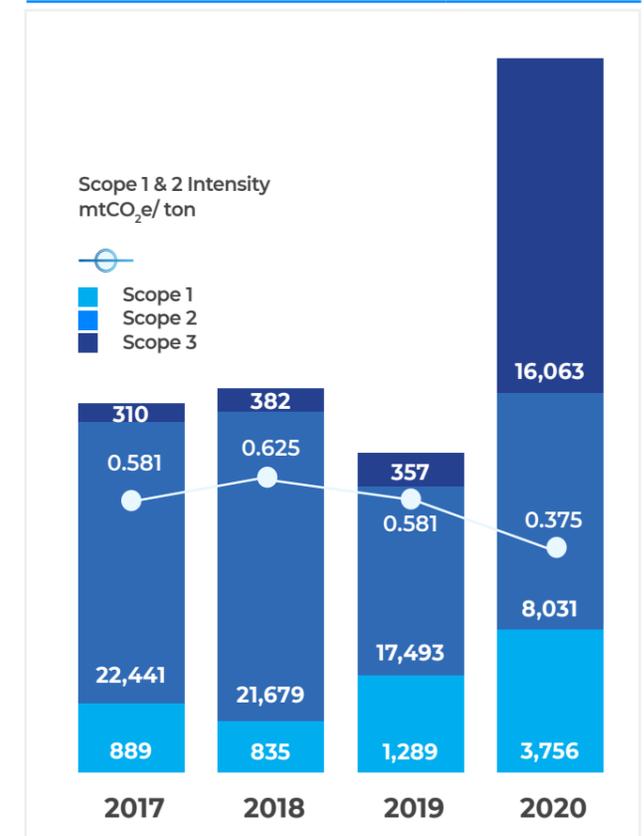
Emissions resulting from vehicles that are not owned by the company fall under Scope 3 indirect emissions. Those vehicles are used for the transportation of products from factories to distribution centers and finally to outlets. The distance travelled by these trucks in the year 2020 was equal to 170,191 km which resulted in 164.12 mtCO<sub>2</sub>e and 39.28 mtCO<sub>2</sub>e in WTT emissions.

### COMMUTING

Emissions from employees commuting in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3. Egytech's employees travelled 42,252,000 km in 2020, which resulted in 4,459.10 mtCO<sub>2</sub>e in indirect emissions, and 1,081.25 mtCO<sub>2</sub>e in WTT emissions.



Total area (m <sup>2</sup> )	42,000
Number of employees	1,089
Carbon Footprint - Scope 1 mtCO <sub>2</sub> e	3,755.56
Carbon Footprint - Scope 2 mtCO <sub>2</sub> e	8,030.50
Carbon Footprint - Scope 3 mtCO <sub>2</sub> e	16,063.21
Carbon Footprint - Total mtCO <sub>2</sub> e	27,849.28
Production	32,798
Production unit	Ton
Scope 1 & 2: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.36
Scope 1, 2 & 3: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.85
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025
Scope 1 and 2 emissions to be reduced to	10,313



## EGYTECH'S EMISSIONS PER ACTIVITY OVER THE YEARS

### SCOPE 1 – DIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	128.56	150.03	270.63	520.05
Fuel burning – Diesel	769.82	684.83	1,018.10	2,051.59
Fuel burning – Natural Gas	-	-	-	-
Refrigerant leakage	NA	NA	NA	1,183.92
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	<b>898</b>	<b>835</b>	<b>1,289</b>	<b>3,755.56</b>

### SCOPE 2 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Purchased electricity	22,441	21,679	17,493	8,030.5

### SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	NA	NA	NA	142.66
Fuel burning – Diesel (WTT)	NA	NA	NA	491.66
Fuel burning – Natural Gas (WTT)	-	-	-	-
Water usage & wastewater treatment	NA	NA	NA	7.19
Solid waste disposal	15.51	10.41	10.12	62.78
Purchased goods	NA	NA	NA	NA
Downstream transportation + (WTT)	NA	NA	NA	203.40
Fuel Burning – Business travel + (WTT)	18.10	148	48.36	12.14
Air Travel + (WTT)	NA	NA	NA	29.95
Exports	NA	NA	NA	9,533.32
Paper consumption	70.77	10.80	81.55	39.76
Commuting + (WTT)	205.81	213.01	217.39	5,540.35
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	<b>310</b>	<b>382</b>	<b>357</b>	<b>16,063.21</b>

NA: Not available



## ISKRAEMECO FACTORY GHG EMISSIONS

### DIESEL

Emissions resulting from diesel fuel burning on site fall under Scope 1 (direct emissions). Diesel fuel is used to operate mobile machinery and by the generators that supply most of our electricity demands. The factory consumed 9,891 liters of diesel annually, which resulted in 25.18 mtCO<sub>2</sub>e (Scope 1) and 6.03 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### PURCHASED ELECTRICITY

Purchased Electricity falls under Scope 2 (Indirect emissions). The electricity consumption for the year 2020 was 4,327,749 kWh, which resulted in 1,882.57 mtCO<sub>2</sub>e. Electricity consumption is the largest contributor to ISKRAEMECO's emissions at around 41% of total emissions.

### WATER & WASTEWATER TREATMENT

Water supply and wastewater treatment emissions are linked to the electricity consumed to supply and treat the water and fall under Scope 3, indirect emissions. The factory's water consumption for the year 2020 was 6,880 m<sup>3</sup>, which resulted in 1.05 mtCO<sub>2</sub>e in water consumption and 0.2 mtCO<sub>2</sub>e in wastewater treatment emissions.

### PURCHASED GOODS

For the factories, the purchased goods consist of hygiene disposable items, such as gloves, head covers, face masks in addition to office supplies such as ink, pens, block notes, etc. The resulting emissions fall under Scope 3. The factory has consumed about 27.3 tons of different consumables in the year 2020 which resulted in 34.74 mtCO<sub>2</sub>e of indirect emissions.

### COMMUTING

Emissions from employees commuting in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3. ISKRAEMECO's employees travelled 32,287,320 km in 2020, which resulted in 1,171.85 mtCO<sub>2</sub>e in indirect emissions, and 279.95 mtCO<sub>2</sub>e in WTT emissions.

### PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions). The emissions from paper consumption totaled 0.74 mtCO<sub>2</sub>e from the use of 0.8 tons of paper.

### OWNED VEHICLES

Emissions resulting from our owned vehicles fall under Scope 1 direct emissions. Those vehicles are used mainly for the transportation of products. The distance travelled by the factory's owned vehicles for the year 2020 was 734,000 km which resulted in 161.20 mtCO<sub>2</sub>e and 35.09 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### REFRIGERANTS LEAKAGE

Refrigerants are fluids used in refrigeration cycles to cool a space. The emissions corresponding to refrigerant leakage were accounted for under Scope 1. We have consumed 55 kg of refrigerants (between R22 and A134) in the factory which resulted in 321.70 mtCO<sub>2</sub>e.

### SOLID WASTE

Waste disposal emissions were accounted for under Scope 3 indirect emissions. The emissions are associated with the transportation of the waste to recycling facilities. The waste generated for the year 2020 in ISKRAEMECO was about 125.00 tons of waste that was sent to recycling facilities, which resulted in 2.67 mtCO<sub>2</sub>e.

### DOWNSTREAM TRANSPORTATION

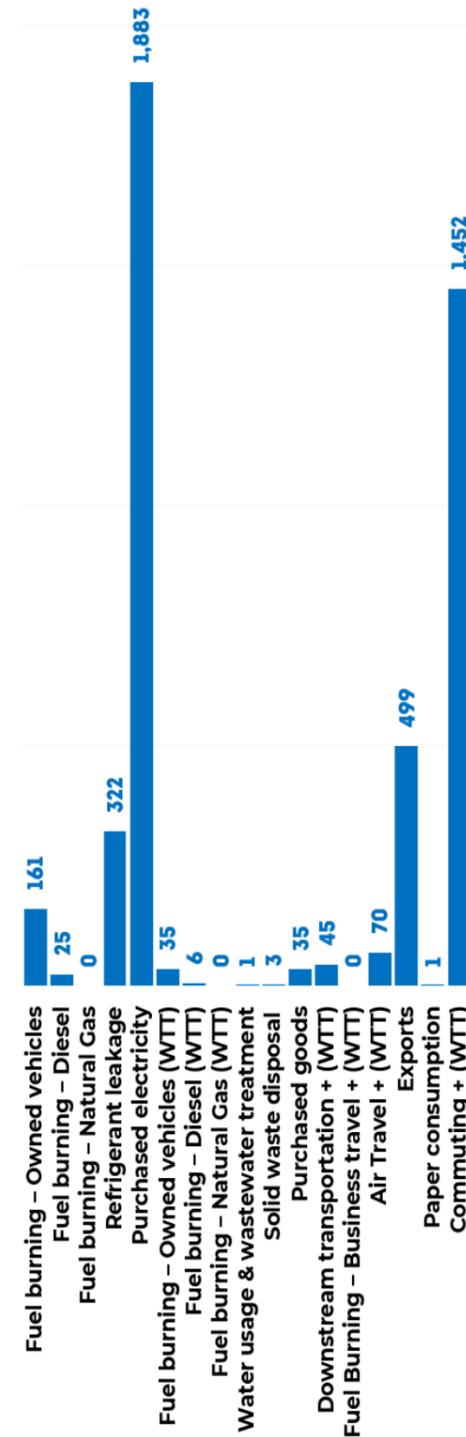
Emissions resulting from vehicles that are not owned by the company fall under Scope 3 (indirect emissions). Those vehicles are used for the transportation of products from factories to distribution centers and finally to outlets. The distance travelled by these trucks in the year 2020 was equal to 37,889 km which resulted in 36.54 mtCO<sub>2</sub>e and 8.74 mtCO<sub>2</sub>e in WTT emissions.

### EXPORTS

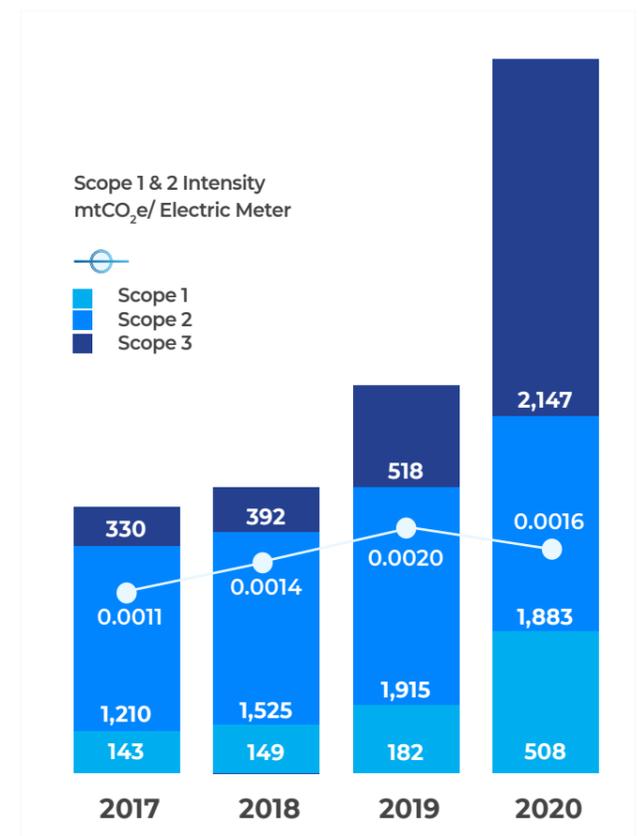
The emissions resulting from marine and land shipping of our products were accounted for under Scope 3. The products were exported to 10 cities all over the world by marine and land shipping. The total ton-kilometers were equal to 66,253 ton.km which resulted in 499.48 mtCO<sub>2</sub>e.

### AIR TRAVEL

Aerial transportation emissions fall under Scope 3 (indirect emissions). The air flights in 2020 were equal to 100 international flights which in total covered a distance of 347,900 km. This resulted in 63.25 mtCO<sub>2</sub>e in direct emissions and 6.93 mtCO<sub>2</sub>e in WTT emissions.



Total area (m <sup>2</sup> )	50,595.90
Number of employees	337
Carbon Footprint - Scope 1 mtCO <sub>2</sub> e	508.08
Carbon Footprint - Scope 2 mtCO <sub>2</sub> e	1,882.57
Carbon Footprint - Scope 3 mtCO <sub>2</sub> e	2,147.25
Carbon Footprint - Total mtCO <sub>2</sub> e	4,537.90
Production (Electric Meters)	1,280,159
Scope 1 & 2: Carbon Intensity (mtCO <sub>2</sub> e / Electric meter)	0.002
Scope 1, 2 & 3: Carbon Intensity (mtCO <sub>2</sub> e / Electric meter)	0.004
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025
Scope 1 and 2 emissions to be reduced to	2,091



## IKSRAEMECO'S EMISSIONS PER ACTIVITY OVER THE YEARS

### SCOPE 1 – DIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	129	132	162	161.20
Fuel burning – Diesel	14	16	20	25.18
Fuel burning – Natural Gas	-	-	-	-
Refrigerant leakage	NA	NA	NA	321.70
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	<b>143</b>	<b>149</b>	<b>182</b>	<b>508.08</b>

### SCOPE 2 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Purchased electricity	1,210	1,525	1,915	1,882.57

### SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	NA	NA	NA	35.09
Fuel burning – Diesel (WTT)	NA	NA	NA	6.03
Fuel burning – Natural Gas (WTT)	-	-	-	-
Water usage & wastewater treatment	NA	NA	NA	1.25
Solid waste disposal	1.5	1.3	1.5	2.67
Purchased goods	NA	NA	NA	34.74
Downstream transportation + (WTT)	NA	NA	NA	45.28
Fuel Burning – Business travel + (WTT)	188	249	362	-
Air Travel + (WTT)	NA	NA	NA	70.18
Exports	NA	NA	NA	499.48
Paper consumption	1.5	2.7	3.4	0.74
Commuting + (WTT)	140	138	151	1,451.79
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	<b>330</b>	<b>392</b>	<b>518</b>	<b>2,147.25</b>

NA: Not available



## TRANSFORMERS FACTORY GHG EMISSIONS

### DIESEL

Emissions resulting from diesel fuel burning on site fall under Scope 1 (direct emissions). Diesel fuel is used to operate mobile machinery and by the generators that supply most of our electricity demands. The factory consumed 350,000 liters of diesel annually, which resulted in 891.11 mtCO<sub>2</sub>e (Scope 1) and 213.55 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### PURCHASED ELECTRICITY

Purchased Electricity falls under Scope 2 (indirect emissions). The electricity consumption for the year 2020 was 7,393,000 kWh, which resulted in 3,215.96 mtCO<sub>2</sub>e. Electricity consumption is the largest contributor to TRANSFORMER's emissions at around 36% of total emissions.

### WATER & WASTEWATER TREATMENT

Water supply and wastewater treatment emissions are linked to the electricity consumed to supply and treat the water and fall under Scope 3, indirect emissions. The factory's water consumption for the year 2020 was 35,621 m<sup>3</sup>, which resulted in 5.41 mtCO<sub>2</sub>e in water consumption and 1.03 mtCO<sub>2</sub>e in wastewater treatment emissions.

### PURCHASED GOODS

For the factories the purchased goods consist of hygiene disposable items, such as gloves, head covers, face masks in addition to office supplies such as ink, pens, block notes, etc. The resulting emissions fall under Scope 3. The factory has consumed about 8.33 tons of different consumables in the year 2020 which resulted in 21.46 mtCO<sub>2</sub>e of indirect emissions.

### OWNED VEHICLES

Emissions resulting from our owned vehicles fall under Scope 1 direct emissions. Those vehicles are used mainly for the transportation of products. The distance travelled by the factory's owned vehicles for the year 2020 was 203,700 km which resulted in 41.59 mtCO<sub>2</sub>e and 10.02 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### REFRIGERANTS LEAKAGE

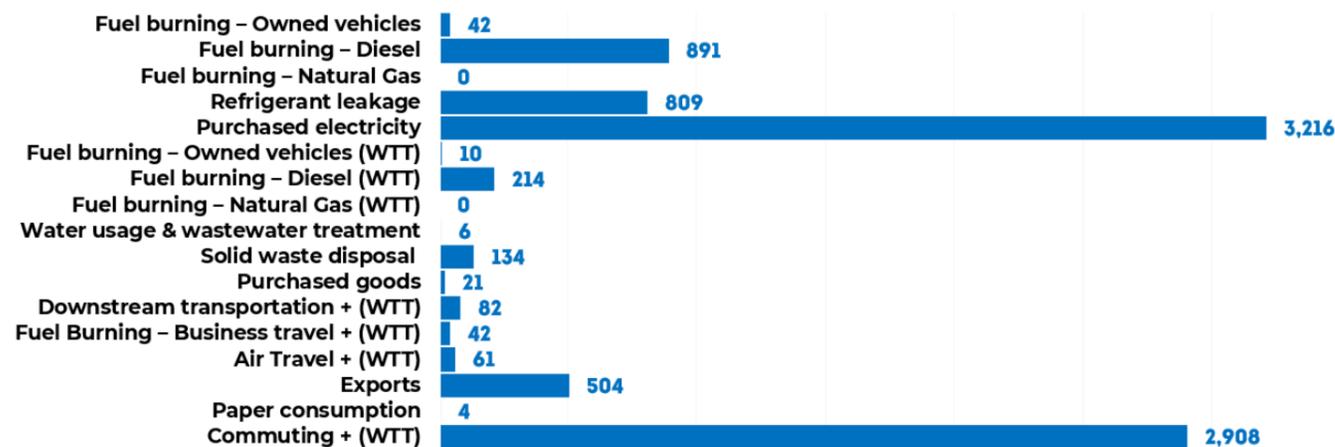
Refrigerants are fluids used in refrigeration cycles to cool a space. The emissions corresponding to refrigerant leakage were accounted for under Scope 1. We have consumed 300 kg of refrigerants (between R22 and A134) in the factory which resulted in 808.70 mtCO<sub>2</sub>e.

### SOLID WASTE

Waste disposal emissions were accounted for under Scope 3 (indirect emissions). The emissions are associated with the transportation of the waste to recycling facilities. The waste generated for the year 2020 in TRANSFORMERS was about 6,292.49 tons of waste that was sent to recycling facilities, which resulted in 134.14 mtCO<sub>2</sub>e.

### DOWNSTREAM TRANSPORTATION

Emissions resulting from vehicles that are not owned by the company fall under Scope 3 indirect emissions. Those vehicles are used for the transportation of products from factories to distribution centers and finally to outlets. The distance travelled by these trucks in the year 2020 was equal to 37,889 km which resulted in 36.54 mtCO<sub>2</sub>e and 8.74 mtCO<sub>2</sub>e in WTT emissions.

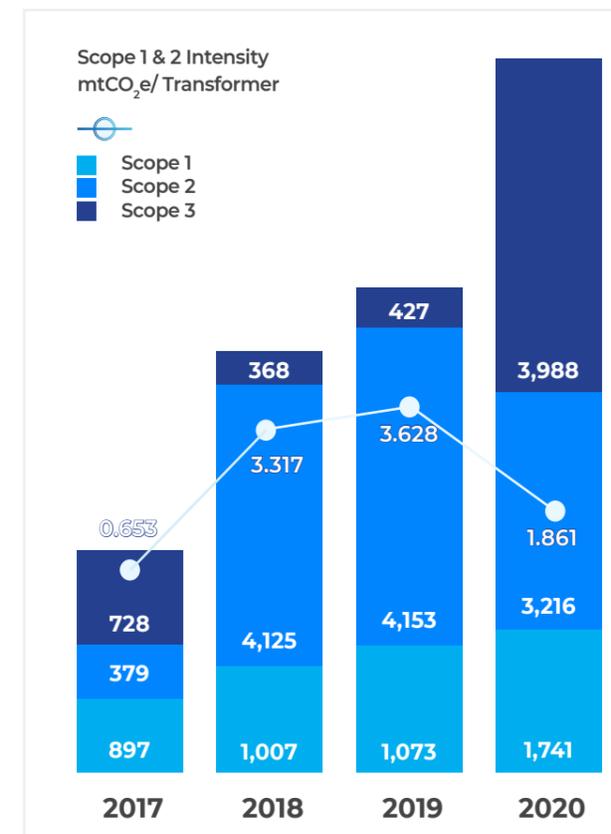


### COMMUTING

Emissions from employees commuting in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3. Transformers' employees travelled 42,252,000 km in 2020, which resulted in 2,304.40 mtCO<sub>2</sub>e in indirect emissions, and 604.02 mtCO<sub>2</sub>e in WTT emissions.

### BUSINESS TRAVEL

Emissions from business related trips in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3. Transformers' business trips totaled 184,194 km in 2020, which resulted in 32.97 mtCO<sub>2</sub>e in indirect emissions, and 8.97 mtCO<sub>2</sub>e in WTT emissions.



### EXPORTS

The emissions resulting from marine and land shipping of our products were accounted for under Scope 3. The products were exported to 5 countries by marine and land shipping. The total ton-kilometers were equal to 68,721 ton.km which resulted in 66.27 mtCO<sub>2</sub>e.

### AIR TRAVEL

Aerial transportation emissions fall under Scope 3 (indirect emissions). The air flights in 2020 were equal to 54 international and 4 national flights which in total covered a distance of 304,224 km. This resulted in 55.31 mtCO<sub>2</sub>e in direct emissions and 6.06 mtCO<sub>2</sub>e in WTT emissions.

### PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions). The emissions from paper consumption totaled 4.31 mtCO<sub>2</sub>e from the use of 4.69 tons of paper.

Total area (m <sup>2</sup> )	138,188
Number of employees	838
Carbon Footprint – Scope 1 mtCO <sub>2</sub> e	1,741.40
Carbon Footprint – Scope 2 mtCO <sub>2</sub> e	3,215.96
Carbon Footprint – Scope 3 mtCO <sub>2</sub> e	3,987.56
Carbon Footprint – Total mtCO <sub>2</sub> e	8,944.91
Production (Transformers)	548
Scope 1 & 2: Carbon Intensity (mtCO <sub>2</sub> e/ transformer)	9.05
Scope 1, 2 & 3: Carbon Intensity (mtCO <sub>2</sub> e/ transformer)	16.32
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025
Scope 1 and 2 emissions to be reduced to	4,338

## TRANSFORMERS' EMISSIONS PER ACTIVITY OVER THE YEARS

### SCOPE 1 – DIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	96.07	72.15	72.15	41.59
Fuel burning – Diesel	801.00	934.50	1,001.25	891.11
Fuel burning – Natural Gas	-	-	-	-
Refrigerant leakage	NA	NA	NA	808.70
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	<b>897.07</b>	<b>1,007</b>	<b>1,073.4</b>	<b>1,741.40</b>

### SCOPE 2 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Purchased electricity	3,783.50	4,124.50	4,151.50	3,215.96

### SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	NA	NA	NA	10.02
Fuel burning – Diesel (WTT)	NA	NA	NA	213.55
Fuel burning – Natural Gas (WTT)	-	-	-	-
Water usage & wastewater treatment	NA	NA	NA	6.45
Solid waste disposal	11.55	23.06	21.57	134.14
Purchased goods	NA	NA	NA	21.46
Downstream transportation + (WTT)	NA	NA	NA	82.13
Fuel Burning – Business travel + (WTT)	325.51	161.74	226.80	41.76
Air Travel + (WTT)	NA	NA	NA	61.37
Exports	NA	NA	NA	503.95
Paper consumption	2.62	7.36	8.62	4.31
Commuting + (WTT)	388.68	175.48	170.03	2,908.42
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	<b>728.37</b>	<b>367.64</b>	<b>427.02</b>	<b>3,987.56</b>

NA: Not available



## EGYPLAST FACTORY GHG EMISSIONS

### DIESEL

Emissions resulting from diesel fuel burning on site fall under Scope 1 (direct emissions). Diesel fuel is used to operate mobile machinery and by the generators that supply most of our electricity demands. The factory consumed 234,694 liters of diesel annually, which resulted in 597.42 mtCO<sub>2</sub>e (Scope 1) and 143.17 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### PURCHASED ELECTRICITY

Purchased Electricity falls under Scope 2 (Indirect emissions). The electricity consumption for the year 2020 was 24,942,699 kWh, which resulted in 18,850.07 mtCO<sub>2</sub>e. Electricity consumption is the largest contributor to EGYPLAST's emissions at around 78% of total emissions.

### WATER & WASTEWATER TREATMENT

Water supply and wastewater treatment emissions are linked to the electricity consumed to supply and treat the water and fall under Scope 3, indirect emissions. The factory's water consumption for the year 2020 was 512,981 m<sup>3</sup>, which resulted in 77.97 mtCO<sub>2</sub>e in water consumption and 14.88 mtCO<sub>2</sub>e in wastewater treatment emissions.

### PURCHASED GOODS

For the factories, the purchased goods consist of hygiene disposable items, such as gloves, head covers, face masks in addition to office supplies such as ink, pens, block notes, etc. The resulting emissions fall under Scope 3. The factory has consumed about 8.33 tons of different consumables in the year 2020 which resulted in 21.46 mtCO<sub>2</sub>e of indirect emissions.

### BUSINESS TRAVEL

Emissions from business related trips in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3. EGYPLAST's business trips totaled 6,900 km in 2020, which resulted in 1.20 mtCO<sub>2</sub>e in indirect emissions, and 0.33 mtCO<sub>2</sub>e in WTT emissions.

### AIR TRAVEL

Aerial transportation emissions fall under Scope 3 (indirect emissions). The air flights in 2020 were equal to 54 international and 4 national flights which 64,699.58 km. This resulted in 11.76 mtCO<sub>2</sub>e in direct emissions and 1.29 mtCO<sub>2</sub>e in WTT emissions.

### OWNED VEHICLES

Emissions resulting from our owned vehicles fall under Scope 1 (direct emissions). Those vehicles are used for the transportation of products and employees commuting. The fuel consumed by the factory's owned vehicles for the year 2020 was 215,214 L which resulted in 543.18 mtCO<sub>2</sub>e and 130.10 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### REFRIGERANTS LEAKAGE

Refrigerants are fluids used in refrigeration cycles to cool a space. The emissions corresponding to refrigerant leakage were accounted for under Scope 1. We have consumed 680 kg of refrigerants (between R22 and A134) in the factory which resulted in 1,325.32 mtCO<sub>2</sub>e.

### SOLID WASTE

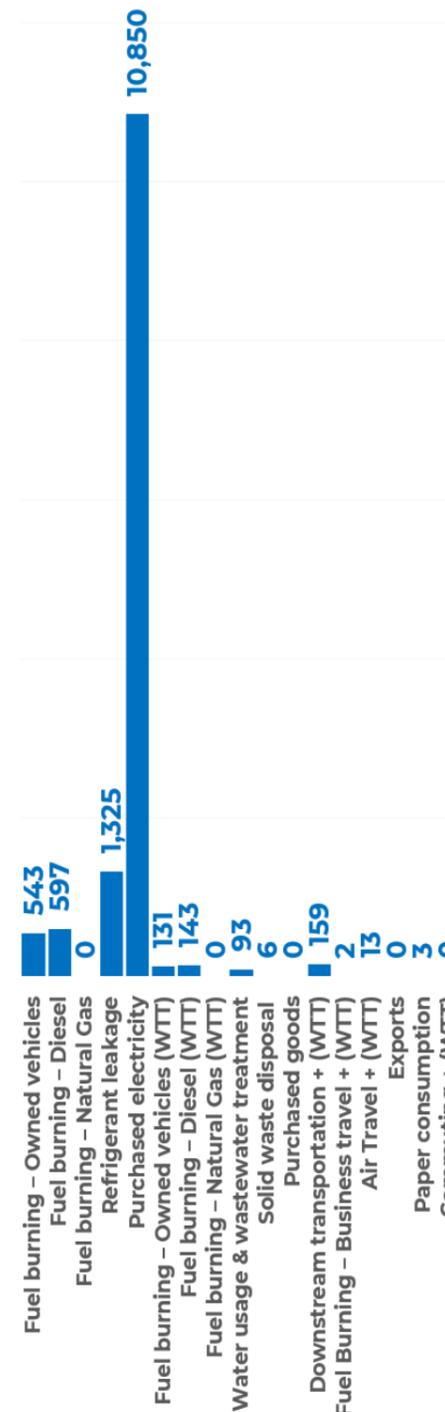
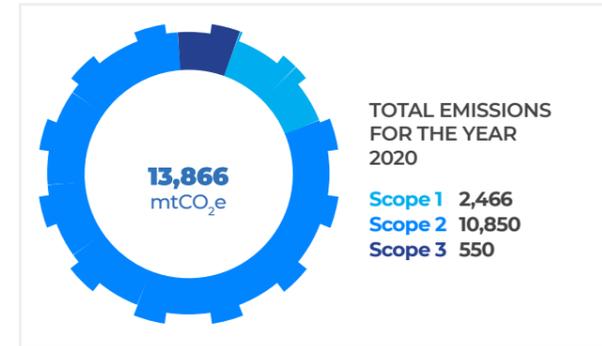
Waste disposal emissions were accounted for under Scope 3 (indirect emissions). The emissions are associated with the transportation of the waste to recycling facilities. The waste generated for the year 2020 in EGYPLAST was about 262.25 tons of waste that was sent to recycling facilities, which resulted in 5.59 mtCO<sub>2</sub>e.

### DOWNSTREAM TRANSPORTATION

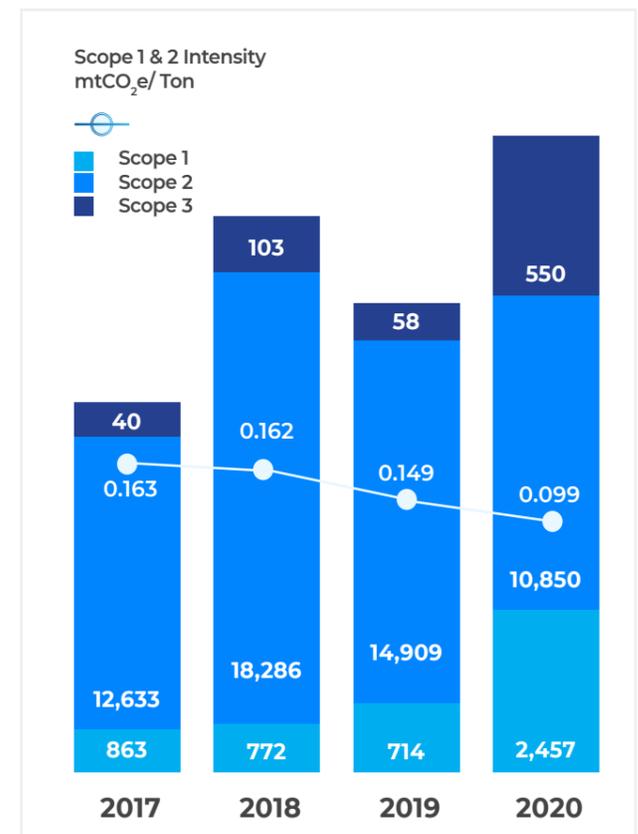
Emissions resulting from vehicles that are not owned by the company fall under Scope 3 indirect emissions. Those vehicles are used for the transportation of products from factories to distribution centers and finally to outlets. The distance travelled by these trucks in the year 2020 was equal to 133,450 km which resulted in 128.69 mtCO<sub>2</sub>e and 30.80 mtCO<sub>2</sub>e in WTT emissions.

### PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions). The emissions from paper consumption totaled 3.21 mtCO<sub>2</sub>e from the use of 3.49 tons of paper.



Total area (m <sup>2</sup> )	60,000
Number of employees	800
Carbon Footprint - Scope 1 mtCO <sub>2</sub> e	2,466
Carbon Footprint - Scope 2 mtCO <sub>2</sub> e	10,850
Carbon Footprint - Scope 3 mtCO <sub>2</sub> e	550
Carbon Footprint - Total mtCO <sub>2</sub> e	13,866
Production (ton)	93,954
Scope 1 & 2: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.142
Scope 1, 2 & 3: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.15
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025
Scope 1 and 2 emissions to be reduced to	11,651



## EGYPLAST'S EMISSIONS PER ACTIVITY OVER THE YEARS

### SCOPE 1 – DIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	653.50	533.14	500.03	543.18
Fuel burning – Diesel	209.55	238.73	213.60	597.42
Fuel burning – Natural Gas	-	-	-	-
Refrigerant leakage	NA	NA	NA	1,325.32
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	<b>863</b>	<b>772</b>	<b>714</b>	<b>2,456.92</b>

### SCOPE 2 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Purchased electricity	12,633	18,286	14,909	10,850.07

### SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	NA	NA	NA	131.10
Fuel burning – Diesel (WTT)	NA	NA	NA	143.17
Fuel burning – Natural Gas (WTT)	-	-	-	-
Water usage & wastewater treatment	NA	NA	NA	20.47
Solid waste disposal	23.40	25.52	12.41	5.59
Purchased goods	NA	NA	NA	NA
Downstream transportation + (WTT)	NA	NA	NA	159.49
Fuel Burning – Business travel + (WTT)	9.99	70.45	41.04	1.53
Air Travel + (WTT)	NA	NA	NA	13.05
Exports	NA	NA	NA	NA
Paper consumption	6.82	7.11	4.64	3.21
Commuting + (WTT)	!	!	!	!
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	<b>40</b>	<b>103</b>	<b>58</b>	<b>549.99</b>

“!” Emissions from employees commuting are included in the owned vehicles emissions as the employees used the company’s owned vehicle for commuting purposes.



## USW FACTORY GHG EMISSIONS

### NATURAL GAS

Since it is directly used by our facility, the emissions resulting from the consumption of natural gas were accounted for under Scope 1.

To capture the maximum climate impacts of fuel burning, the Well-to-Tank (WTT) emissions which fall under Scope 3 (indirect emissions) were included in the organization's emissions.

USW factory consumed 178,505 liters of diesel annually, which resulted in 361.06 mtCO<sub>2</sub>e and 46.95 mtCO<sub>2</sub>e in WTT emissions.

### PURCHASED ELECTRICITY

Purchased Electricity falls under Scope 2 (indirect emissions).

The electricity consumption for the year 2020 was 1,364,888 kWh, which resulted in 593.73 mtCO<sub>2</sub>e.

Electricity consumption is the second largest contributor to USW's emissions at around 18% of total emissions.

### WATER & WASTEWATER TREATMENT

Water supply and wastewater treatment emissions are linked to the electricity consumed to supply and treat the water and fall under Scope 3 (indirect emissions).

The factory's water consumption for the year 2020 was 171,820 m<sup>3</sup>, which resulted in 26.12 mtCO<sub>2</sub>e in water consumption and 4.98 mtCO<sub>2</sub>e in wastewater treatment emissions.

### EXPORTS

The emissions resulting from marine and land shipping of our products were accounted for under Scope 3.

The products were exported to 14 countries by marine and land shipping. The total ton-kilometers were equal to 274,011 ton.km which resulted in 813.98 mtCO<sub>2</sub>e.

### SOLID WASTE

Waste disposal emissions were accounted for under Scope 3 (indirect emissions). The emissions are associated with the transportation of the waste to recycling facilities.

The waste generated for the year 2020 in USW was about 1,853.87 tons of waste that was sent to recycling facilities, which resulted in 39.52 mtCO<sub>2</sub>e.

### REFRIGERANTS LEAKAGE

Refrigerants are fluids used in refrigeration cycles to cool a space. The emissions corresponding to refrigerant leakage were accounted for under Scope 1.

We have consumed 136 kg of refrigerants (Between R22 and A134) in the factory which resulted in 746.21 mtCO<sub>2</sub>e.

### BUSINESS TRAVEL

Emissions from business related trips in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3.

USW's business trips totaled 3,982 km in 2020, which resulted in 0.78 mtCO<sub>2</sub>e in indirect emissions, and 0.21 mtCO<sub>2</sub>e in WTT emissions.

### COMMUTING

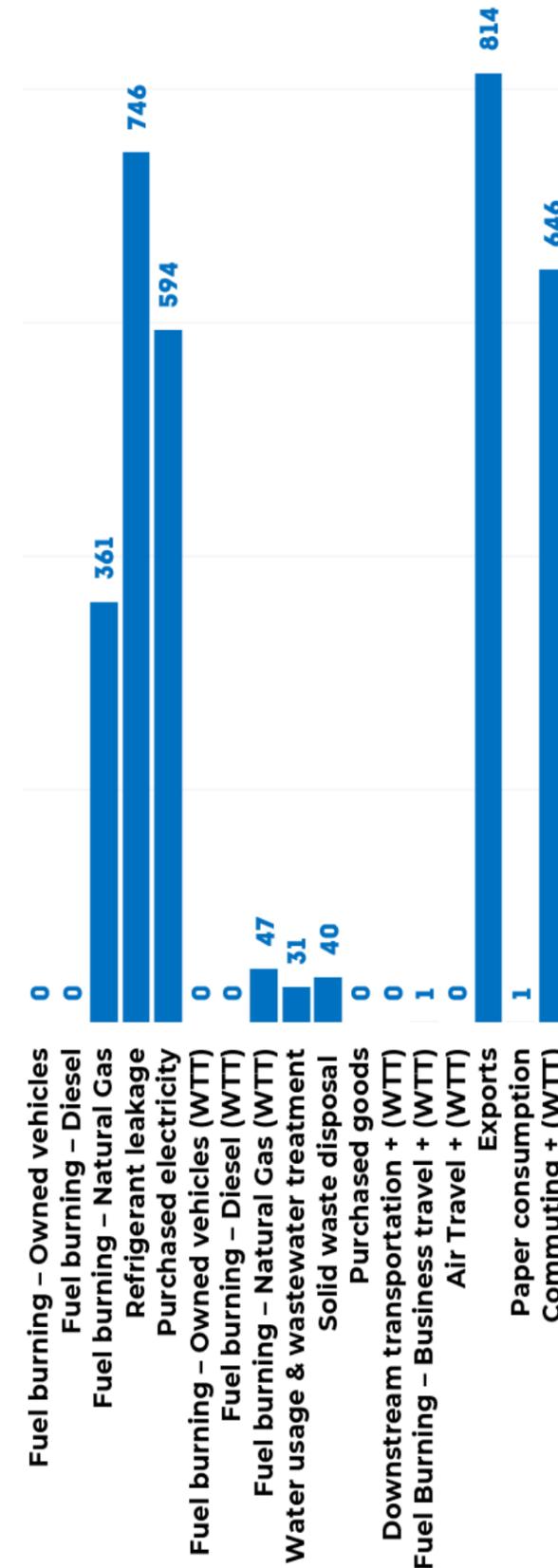
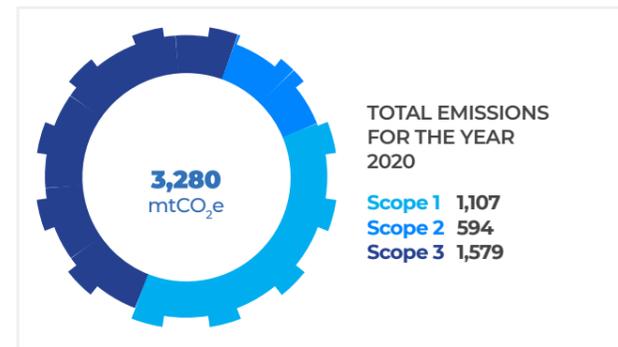
Emissions from employees commuting in vehicles that are not owned by the company falls under Scope 3. WTT emissions are also accounted for under Scope 3.

USW's employees travelled 7,848,600 km in 2020, which resulted in 520.39 mtCO<sub>2</sub>e in indirect emissions, and 125.40 mtCO<sub>2</sub>e in WTT emissions.

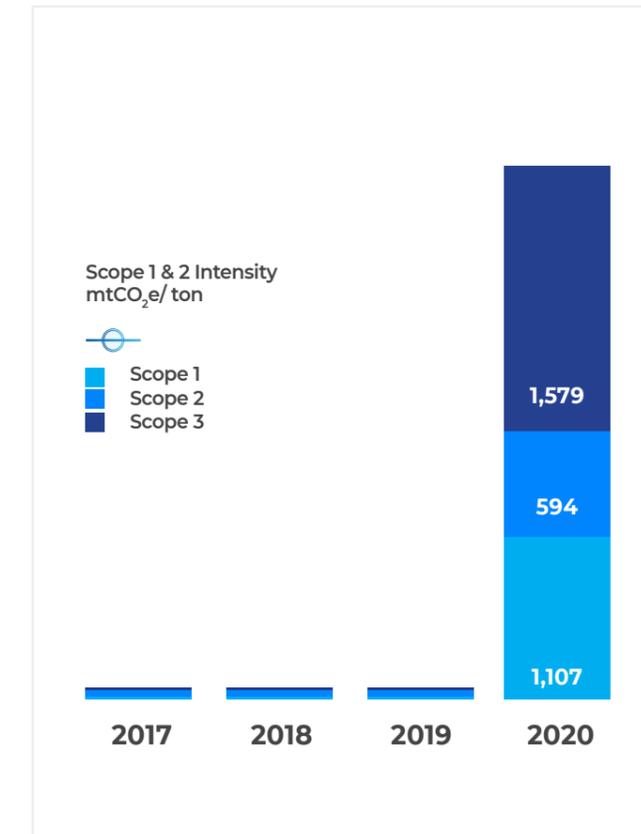
### PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions).

The emissions from paper consumption totaled 1.15 mtCO<sub>2</sub>e from the use of 1.25 tons of paper.



Total area (m <sup>2</sup> )	33,000
Number of employees	330
Carbon Footprint - Scope 1 mtCO <sub>2</sub> e	1,107.27
Carbon Footprint - Scope 2 mtCO <sub>2</sub> e	593.73
Carbon Footprint - Scope 3 mtCO <sub>2</sub> e	1,579.48
Carbon Footprint - Total mtCO <sub>2</sub> e	3,280.47
Production (ton)	47,666
Scope 1 & 2: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.036
Scope 1, 2 & 3: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.07
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	1,488



## USW'S EMISSIONS PER ACTIVITY OVER THE YEARS

### SCOPE 1 – DIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	-	-	-	NA
Fuel burning – Diesel	-	-	-	-
Fuel burning – Natural Gas	-	-	-	361.06
Refrigerant leakage	-	-	-	746.21
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	-	-	-	<b>1,107.27</b>

### SCOPE 2 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Purchased electricity	-	-	-	<b>593.73</b>

### SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	-	-	-	NA
Fuel burning – Diesel (WTT)	-	-	-	-
Fuel burning – Natural Gas (WTT)	-	-	-	46.95
Water usage & wastewater treatment	-	-	-	31.10
Solid waste disposal	-	-	-	39.52
Purchased goods	-	-	-	NA
Downstream transportation + (WTT)	-	-	-	NA
Fuel Burning – Business travel + (WTT)	-	-	-	0.99
Air Travel + (WTT)	-	-	-	NA
Exports	-	-	-	813.98
Paper consumption	-	-	-	1.15
Commuting + (WTT)	-	-	-	645.80
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	-	-	-	<b>1,579.48</b>

NA: Not available



## ISKRAEMECO SLOVENIA FACTORY GHG EMISSIONS

### DIESEL

Emissions resulting from diesel fuel burning on site fall under Scope 1 (direct emissions). Diesel fuel is used to operate mobile machinery and by the generators that supply most of our electricity demands. The factory consumed 7,211 liters of diesel annually, which resulted in 18.36 mtCO<sub>2</sub>e (Scope 1) and 4.40 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### PURCHASED ELECTRICITY

Purchased Electricity falls under Scope 2 (indirect emissions). The electricity consumption for the year 2020 was 4,365,657 kWh, which resulted in 1,052.12mtCO<sub>2</sub>e. Electricity consumption is the largest contributor to ISKRAEMECO SLOVENIA's emissions at around 49% of total emissions.

### OWNED VEHICLES

Emissions resulting from our owned vehicles fall under Scope 1 direct emissions. Those vehicles are used mainly for the transportation of products. The distance travelled by the factory's owned vehicles for the year 2020 was 7,655 km which resulted in 18.36 mtCO<sub>2</sub>e and 4.40 mtCO<sub>2</sub>e in WTT emissions (Scope 3).

### NATURAL GAS

Since it is directly used by our facility, the emissions resulting from the consumption of natural gas were accounted for under Scope 1. To capture the maximum climate impacts of fuel burning, the Well-to-Tank (WTT) emissions which fall under Scope 3 (indirect emissions) were included in the organization's emissions. The factory consumed 264,896 liters of diesel annually. Which resulted in 535.79 mtCO<sub>2</sub>e and 69.66 mtCO<sub>2</sub>e in WTT emissions.

### SOLID WASTE

Waste disposal emissions were accounted for under Scope 3 (indirect emissions). The emissions are associated with the transportation of the waste to recycling facilities. The waste generated for the year 2020 in ISKRAEMECO SLOVENIA was about 515.69 tons of waste that was sent to recycling facilities, which resulted in 10.99 mtCO<sub>2</sub>e.

### WATER & WASTEWATER TREATMENT

Water supply and wastewater treatment emissions are linked to the electricity consumed to supply and treat the water and fall under Scope 3 (indirect emissions). The factory's water consumption for the year 2020 was 131,000 m<sup>3</sup>, which resulted in 45.06 mtCO<sub>2</sub>e in water consumption and 69.56 mtCO<sub>2</sub>e in wastewater treatment emissions.

### PURCHASED GOODS

ISKRAEMECO SLOVENIA's purchased goods consist of cardboard and wood mainly. The resulting emissions fall under Scope 3. The factory has consumed about 298.4 tons of cardboard and 129.6 tons of wood in the year 2020 which resulted in 264.4 mtCO<sub>2</sub>e of indirect emissions.

### AIR TRAVEL

Aerial transportation emissions fall under Scope 3 (indirect emissions). The air flights in 2020 were equal to 54 international and 4 national flights which in total covered a distance of 244,800 passenger.km. This resulted in 44.51 mtCO<sub>2</sub>e in direct emissions and 4.87 mtCO<sub>2</sub>e in WTT emissions.

### PAPER CONSUMPTION

Paper consumption emissions fall under Scope 3 (indirect emissions). The emissions from paper consumption totaled 4.62 mtCO<sub>2</sub>e from the use of 5.03 tons of paper.



## ISKRAEMECO SLOVENIA'S EMISSIONS PER ACTIVITY OVER THE YEARS

### SCOPE 1 – DIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	40	49	40	18.36
Fuel burning – Diesel	-	-	-	18.36
Fuel burning – Natural Gas	834	645	549	535.79
Refrigerant leakage	NA	NA	NA	0
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	<b>874</b>	<b>694</b>	<b>589</b>	<b>572.51</b>

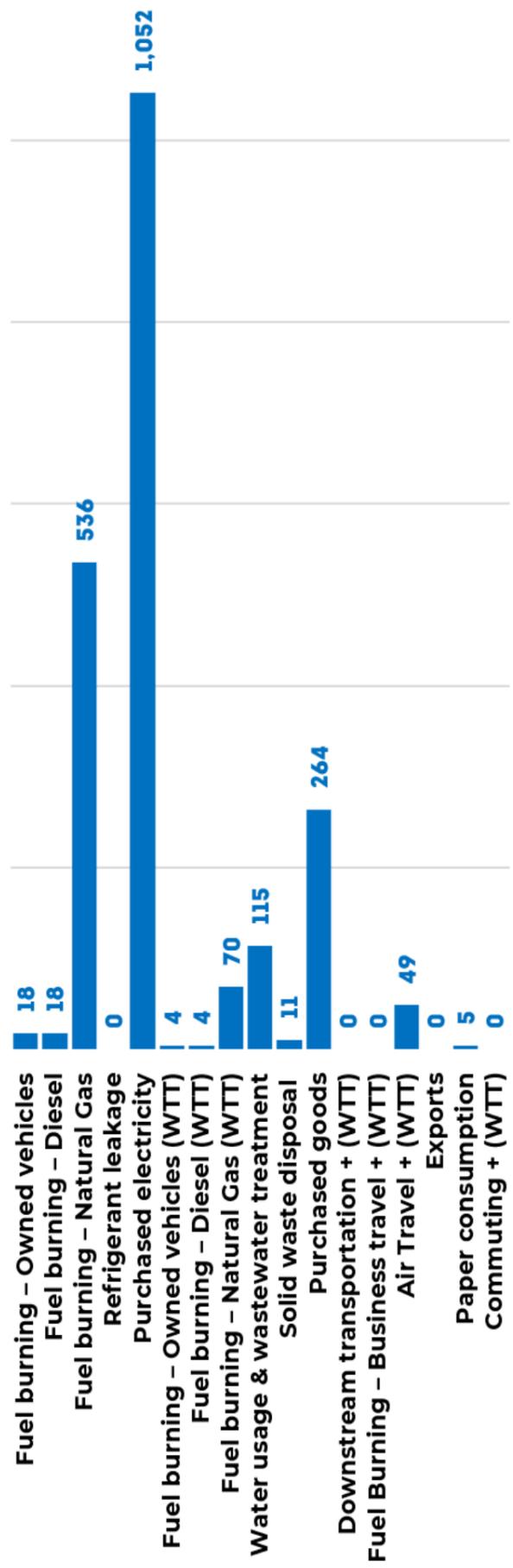
### SCOPE 2 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Purchased electricity	1,932	1,949	1,964	1,052.12

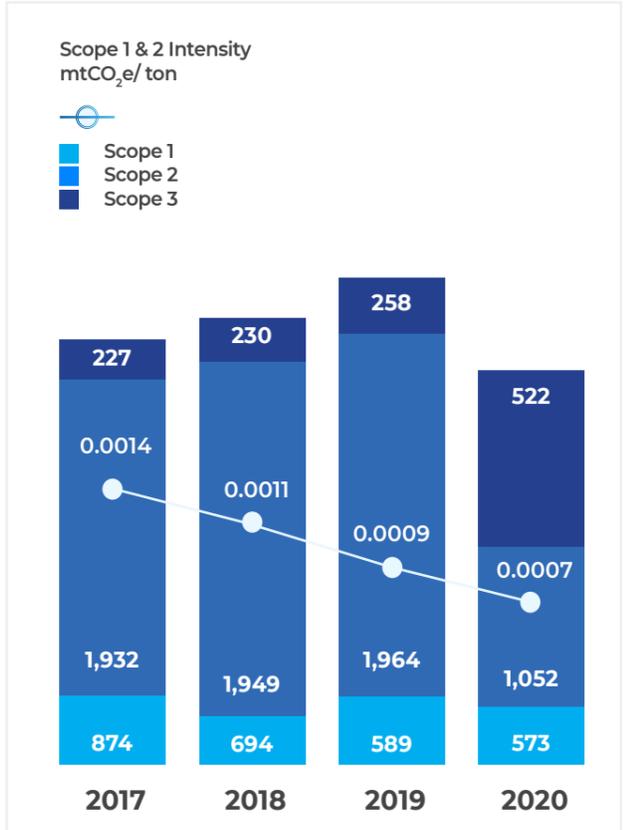
### SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	NA	NA	NA	4.40
Fuel burning – Diesel (WTT)	-	-	-	4.40
Fuel burning – Natural Gas (WTT)	NA	NA	NA	69.66
Water usage & wastewater treatment	NA	NA	NA	114.62
Solid waste disposal	9.9	11.1	17.3	10.99
Purchased goods	NA	NA	NA	264.40
Downstream transportation + (WTT)	NA	NA	NA	NA
Fuel Burning – Business travel + (WTT)	NA	NA	NA	NA
Air Travel + (WTT)	NA	NA	NA	49.38
Exports	NA	NA	NA	NA
Paper consumption	9.1	8.9	10.5	4.62
Commuting + (WTT)	NA	NA	NA	NA
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	<b>227</b>	<b>230</b>	<b>258</b>	<b>522.46</b>

NA: Not available

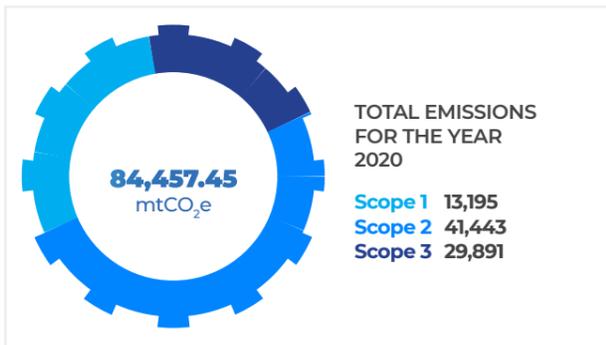
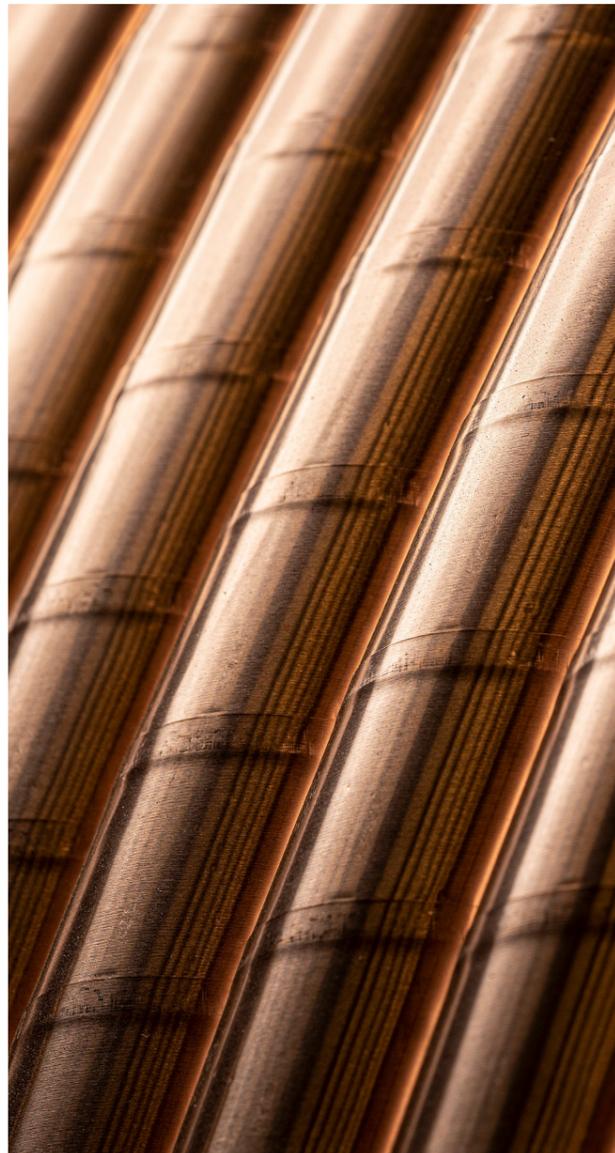


Total area (m <sup>2</sup> )	34,670
Number of employees	851
Carbon Footprint - Scope 1 mtCO <sub>2</sub> e	572.51
Carbon Footprint - Scope 2 mtCO <sub>2</sub> e	1,052.12
Carbon Footprint - Scope 3 mtCO <sub>2</sub> e	522.46
Carbon Footprint - Total mtCO <sub>2</sub> e	2,147.09
Production (ton)	2,420,000
Scope 1 & 2: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.0007
Scope 1, 2 & 3: Carbon Intensity (mtCO <sub>2</sub> e/ ton)	0.0014
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025
Scope 1 and 2 emissions to be reduced to	1,422

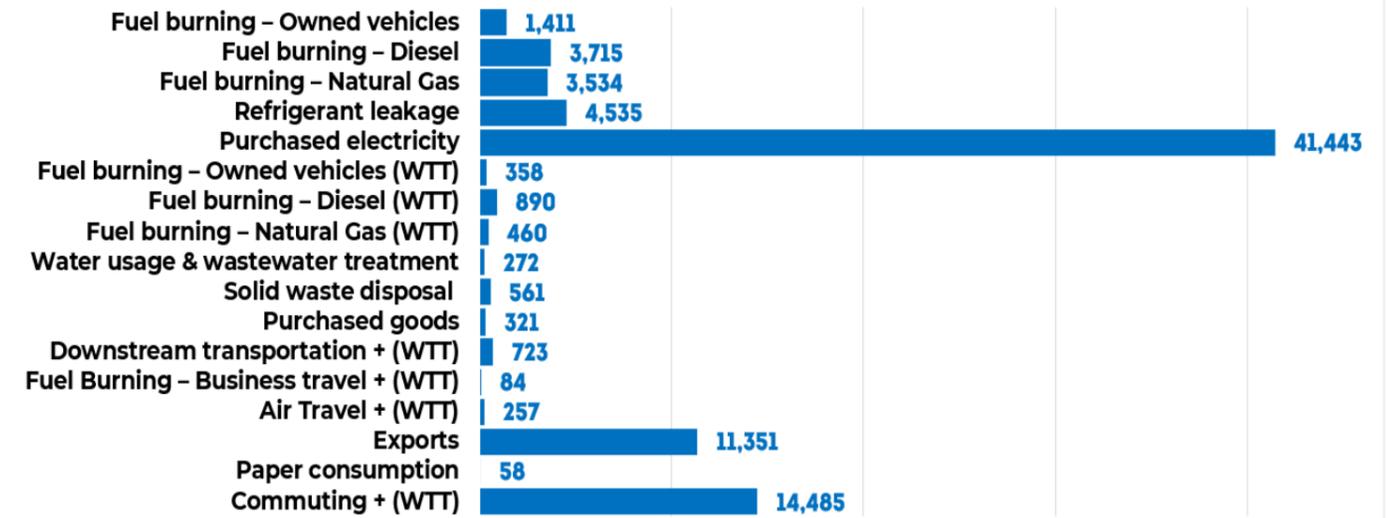


### 3.

## RESULTS SUMMARY



Total area (m <sup>2</sup> )	394,467.90
Number of employees	4,341
Carbon Footprint – Scope 1 mtCO <sub>2</sub> e	13,195.46
Carbon Footprint – Scope 2 mtCO <sub>2</sub> e	41,442.90
Carbon Footprint – Scope 3 mtCO <sub>2</sub> e	29,819.09
Carbon Footprint – Total mtCO <sub>2</sub> e	84,457.45
Revenue (EGP)	14,368,055,092
Scope 1 & 2: Carbon Intensity gCO <sub>2</sub> e/revenue	3.803
Scope 1, 2 & 3: Carbon Intensity gCO <sub>2</sub> e/revenue	5.878
Reduction Target (Below 2 degrees scenario (Scope 1 and 2))	12.5%
Target Year	2025



### EMISSIONS PER ACTIVITY OVER THE YEARS

SCOPE 1 – DIRECT EMISSIONS (mtCO <sub>2</sub> e)				
ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles	1,184.03	1,052.32	1,179.31	1,411.44
Fuel burning – Diesel	2,178.87	2,258.56	2,637.45	3,715
Fuel burning – Natural Gas	2,289.7	2,202.8	1,468.06	3,534
Refrigerant leakage	NA	NA	NA	4,535
<b>Total Scope 1 (mtCO<sub>2</sub>e)</b>	<b>5,652.1</b>	<b>5,515.3</b>	<b>5,285.1</b>	<b>13,195.46</b>

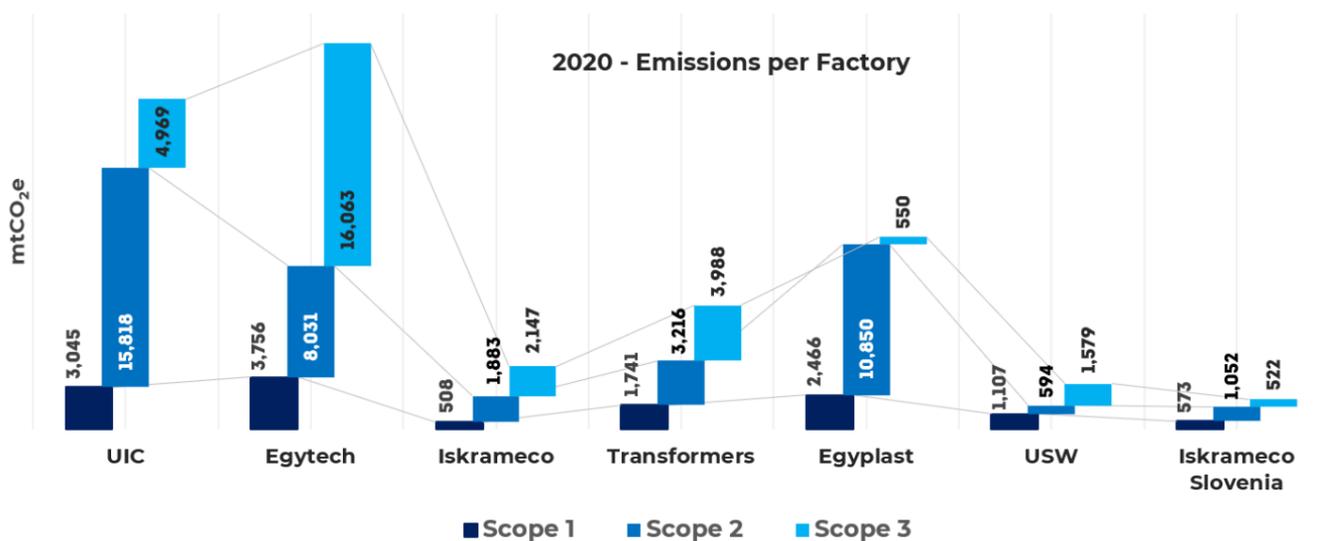
SCOPE 2 – INDIRECT EMISSIONS (mtCO <sub>2</sub> e)				
ACTIVITY	2017	2018	2019	2020
Purchased electricity	54,977	59,701	51,563	41,443

NA: Not available

**SCOPE 3 – INDIRECT EMISSIONS (mtCO<sub>2</sub>e)**

ACTIVITY	2017	2018	2019	2020
Fuel burning – Owned vehicles (WTT)	NA	NA	NA	358
Fuel burning – Diesel (WTT)	NA	NA	NA	890.18
Fuel burning – Natural Gas (WTT)	NA	NA	NA	459.55
Water usage & wastewater treatment	NA	NA	NA	271.52
Solid waste disposal	125.36	110.19	102.02	561
Purchased goods	NA	NA	NA	320.6
Downstream transportation + (WTT)	NA	NA	NA	722.6
Fuel Burning – Business travel + (WTT)	557.9	660.59	718.69	84.16
Air Travel + (WTT)	NA	NA	NA	257.13
Exports	NA	NA	NA	11,350.73
Paper consumption	96.21	44.87	115.18	57.85
Commuting + (WTT)	912.69	681.09	701.03	14,485.37
<b>Total Scope 3 (mtCO<sub>2</sub>e)</b>	<b>1,898</b>	<b>1,708</b>	<b>1,867</b>	<b>29,819.09</b>

NA: Not available



# 4.

## BASE YEAR (BY) & CARBON INTENSITY

A base year (BY) is a reference point in the past against which current emissions can be compared. The BY for Elsewedy Electric's carbon emissions is 2017, as this is the year when Elsewedy Electric first started calculating the emissions for its operations. In the following table, GHG emissions for the years 2017, 2018, 2019, and 2020 are compared.

Starting this year (2020) we have decided to expand our boundaries for more accurate calculations. This included Scope 1 and 3 emissions. We included the following additional activities in our calculations:

- ▶ Refrigerant leakage
- ▶ Well-to-Tank emissions for all fuel burning activities
- ▶ Water and wastewater treatment
- ▶ Purchased goods
- ▶ Downstream transportation
- ▶ Exports

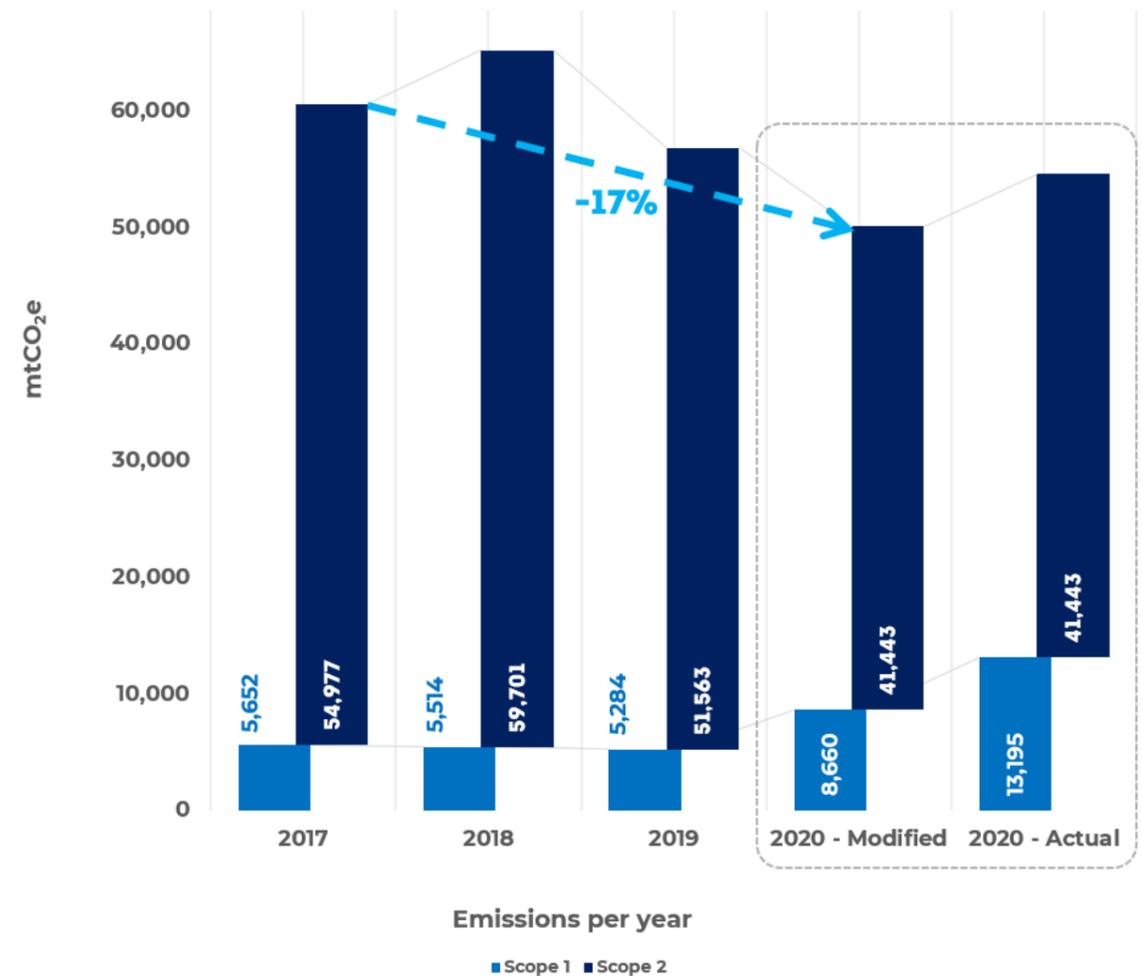
2020 emissions cannot be directly compared to base year (2017) emissions due to the difference in reporting boundaries and activities. Therefore, a modified emissions inventory has been used to measure our performance progress in 2020 as compared to 2017. This inventory excludes the aforementioned activities/facilities, so we can compare on a like with like basis.

Elsewedy Electric is expecting to include the emissions of more manufacturing facilities in its 2021 reporting cycle and we will be committing to continuously expand our reporting boundaries over the coming years to capture the true scale of our emissions.

Starting 2021, Elsewedy Electric will be changing its base year due to the difficulty of obtaining and maintaining reliable and verifiable data for the fixed target base year (2017). The new base year will also be convenient for Elsewedy Electric due to frequent mergers, acquisitions, and new lines of business where Elsewedy Electric is involved.

Scope	BY 2017	2018	2019	2020 Actual	2020 Modified*	Difference
Scope 1 – mtCO <sub>2</sub> e	5,652	5,515	5,285	13,195.46	8,660.45	+53%
Scope 2 – mtCO <sub>2</sub> e	54,977	59,701	51,563	41,442.90	41,442.90	-24%
Scope 1 + 2 – mtCO <sub>2</sub> e	60,629	65,215	56,847	54,638.36	50,103.35	-17%
Scope 3 – mtCO <sub>2</sub> e	1,899	1,708	1,867	29,819.09	12,724.48	-
Total – mtCO <sub>2</sub> e	62,529	66,923	58,714	84,457.45	62,827	-

ELSEWEDY ELECTRIC EMISSIONS PER YEAR (mtCO<sub>2</sub>e)



\* 2017 is considered the baseline year which all the following years are compared to. Scope 1 emissions resulting from refrigerants leakage were removed as it was not accounted for in the previous year. Scope 3 emissions resulting from the following activities were removed in order to compare the emissions accurately:

- Well-to-Tank emissions for all fuel burning activities
- Water and wastewater treatment
- Purchased goods
- Downstream transportation
- Exports

## 5.

# CARBON INTENSITY

### INTENSITY PER UNIT OF PRODUCT

A carbon intensity is the emission rate of a given pollutant relative to the intensity of a specific activity, or an industrial production process. An example of emission intensity is the ratio of GHG emissions produced to the unit of product of each factory. This would help in understanding and analyzing the performance of each factory when compared to the base year intensity.

2017				
Factory	Production	Production Unit	Scope 1 & 2 Emissions	Intensity (mtCO <sub>2</sub> e/unit of product)
UIC	17,495.50	Tons	14,954.00	0.855
EGYTECH	40,160.49	Tons	23,330.00	0.581
ISKRAEMECO	1,219,887.00	Electric meters	1,353.00	0.001
TRANSFORMERS	1,955.00	Transformers	1,276.00	0.653
EGYPLAST	82,674.00	Tons	13,496.00	0.163
USW	18,702.00	Tons	0.00	0.000
ISKRAEMECO SLOVENIA	1,977,000.00	Tons	2,806.00	0.0014

2018				
Factory	Production	Production Unit	Scope 1 & 2 Emissions	Intensity (mtCO <sub>2</sub> e/unit of product)
UIC	18,497.79	Tons	15,071.00	0.815
EGYTECH	36,011.82	Tons	22,514.00	0.625
ISKRAEMECO	1,180,214.00	Electric meters	1,674.00	0.001
TRANSFORMERS	1,547.00	Transformers	5,132.00	3.317
EGYPLAST	117,859.00	Tons	19,058.00	0.162
USW	22,299.00	Tons	0.00	0.000
ISKRAEMECO SLOVENIA	2,404,000.00	Tons	2,643.00	0.0011

2019				
Factory	Production	Production Unit	Scope 1 & 2 Emissions	Intensity (mtCO <sub>2</sub> e/unit of product)
UIC	20,107.19	Tons	13,340.00	0.663
EGYTECH	32,306.81	Tons	18,782.00	0.581
ISKRAEMECO	1,034,908.00	Electric meters	2,097.00	0.002
TRANSFORMERS	1,440.00	Transformers	5,225.00	3.628
EGYPLAST	104,635.00	Tons	15,623.00	0.149
USW	27,252.00	Tons	0.00	0.000
ISKRAEMECO SLOVENIA	2,741,000.00	Tons	2,553.00	0.0009

2020				
Factory	Production	Production Unit	Scope 1 & 2 Emissions	Intensity (mtCO <sub>2</sub> e/unit of product)
UIC	22,310.29	Tons	18,713.84	0.839
EGYTECH	28,276.82	Tons	10,603.08	0.375
ISKRAEMECO	1,280,159.00	Electric meters	2,069.30	0.002
TRANSFORMERS	2,229.00	Transformers	4,148.30	1.861
EGYPLAST	98,591.00	Tons	9,769.68	0.099
USW	47,666.00	Tons	954.79	0.020
ISKRAEMECO SLOVENIA	2,420,000.00	Tons	1,625.00	0.0007

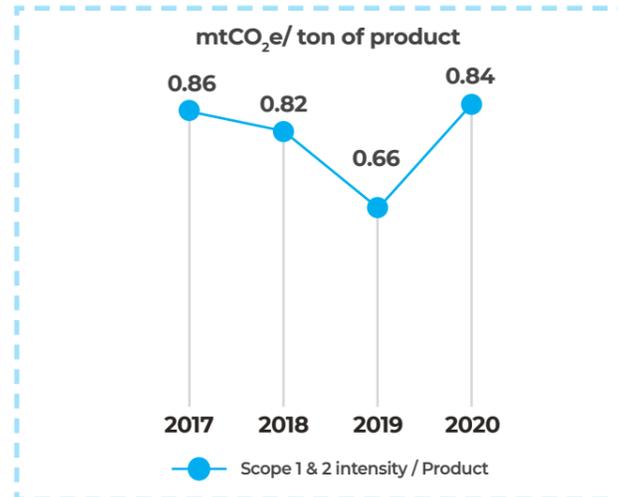
### SCOPE 1 & 2 CARBON INTENSITY (mtCO<sub>2</sub>e/ UNIT OF PRODUCT)

The following table and charts show the difference in emissions/ unit of product for the years 2017, 2018, 2019, and 2020\*:

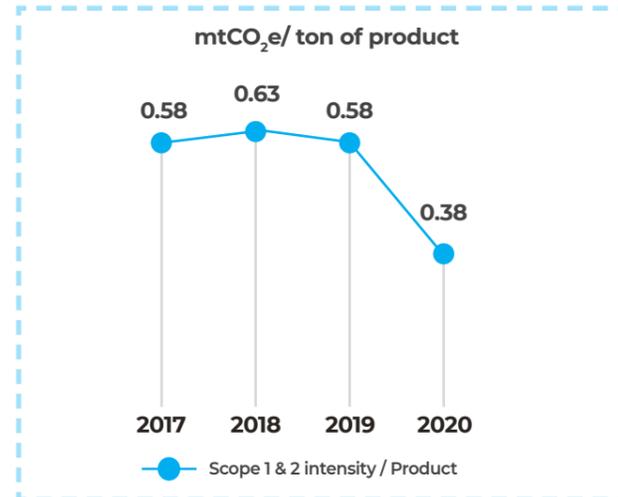
Factory	2017	2018	2019	2020*	Difference
UIC	0.8547	0.8147	0.6634	0.8388	-1.86%
EGYTECH	0.5809	0.6252	0.5814	0.3750	+7.62%
ISKRAEMECO	0.0011	0.0014	0.0020	0.0016	+45.45%
TRANSFORMERS	0.6527	3.3174	3.6285	1.8611	+185.12%
EGYPLAST	0.1632	0.1617	0.1493	0.0991	-39.28%
USW	-	-	-	0.0200	-
ISKRAEMECO SLOVENIA	0.0014	0.0011	0.0009	0.0007	-50%

(\*) Scope 1 emissions resulting from refrigerants leakage were removed as it was not accounted for in the previous year.

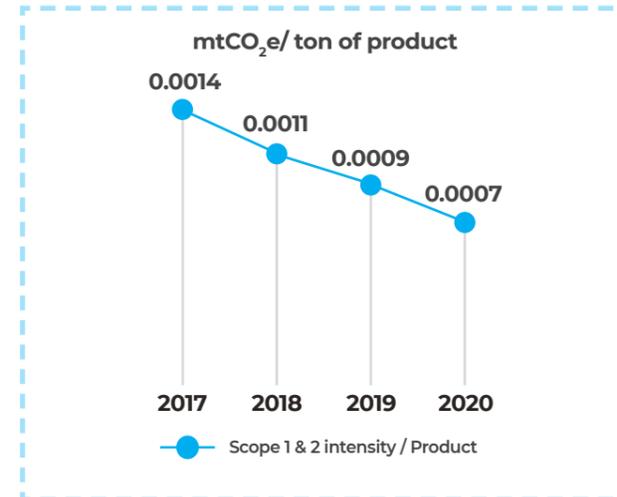
**UIC**



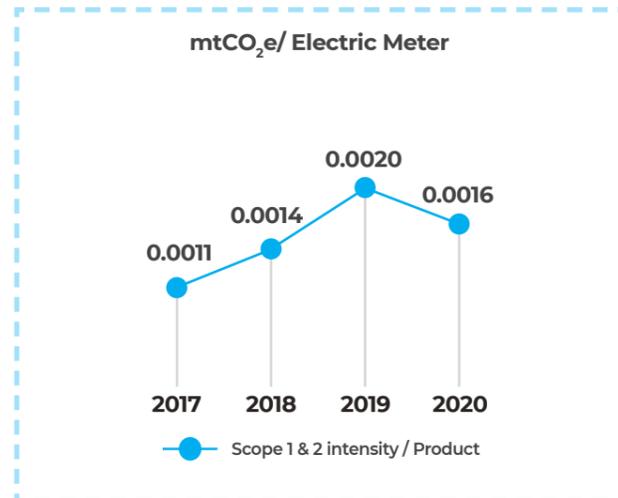
**EGYTECH**



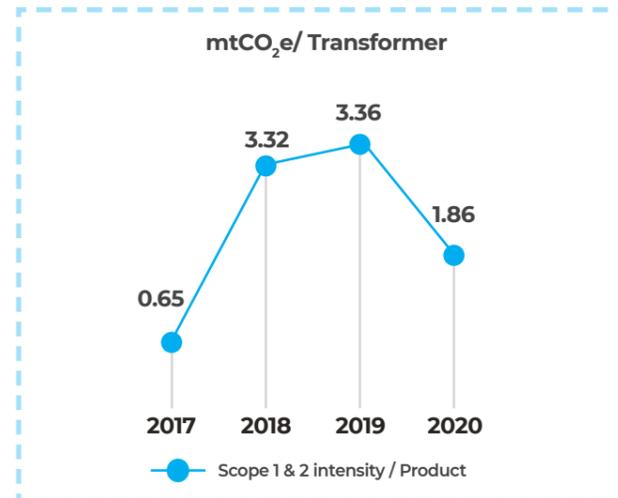
**ISKRAEMECO - SLOVENIA**



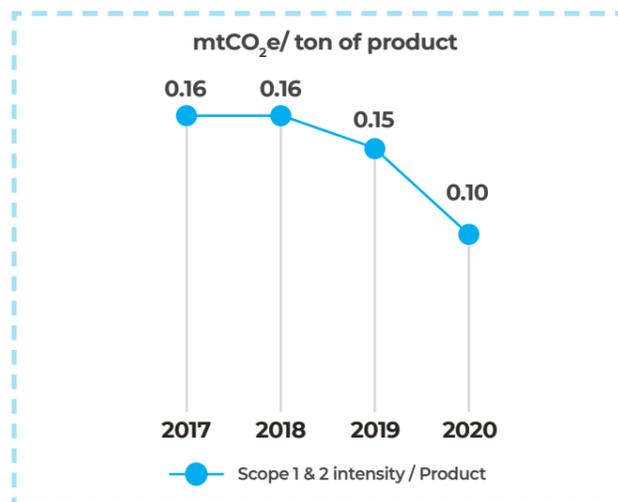
**ISKRAEMECO**



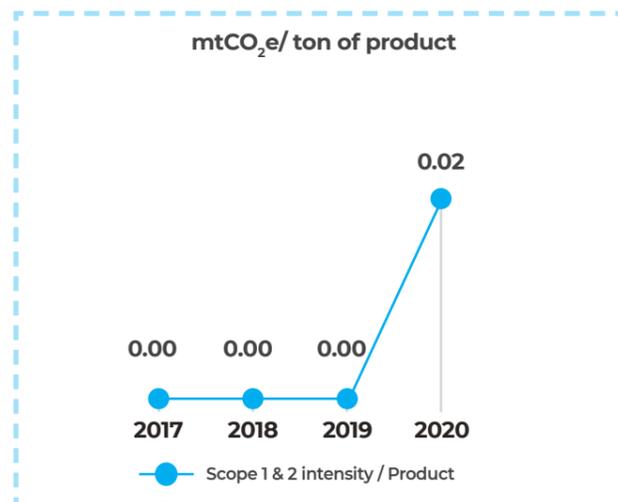
**TRANSFORMERS**



**EGYPLAST**



**USW**



**INTENSITY PER REVENUE FOR 2020**

Starting this year, Elsewedy Electric is introducing a new carbon intensity unit. This would help in understanding and analyzing the performance of each factory when compared to the base year intensity in the upcoming years.



6.

## SCIENCE-BASED TARGETS (SBTs)

In Paris (2015) we had a historic and unprecedented moment of international consensus. Nearly 200 countries signed up to an ambitious agreement to keep global warming well below 2°C above pre-industrial levels, pursuing efforts to hold it at no more than 1.5°C.

Science-based targets provide a clearly defined pathway for companies to reduce greenhouse gas (GHG) emissions, helping prevent the worst impacts of climate change and future-proof business growth. Targets are considered science-based if they are in line with what the latest climate science deems necessary to meet the goals of the Paris Agreement.

All GHG reduction targets of Elsewedy's Factories have been set in alignment with the Science-Based Targets initiative (SBTi). All targets are set in line with the Absolute Contraction Approach, of a 2°C future to be achieved by 2025.

### CLIMATE SCENARIO ALIGNED WITH A 2 DEGREE TEMPERATURE GOAL

Since this is widely seen as the accepted limitation of temperature growth, Elsewedy Electric will be committing to achieving the following absolute reduction targets by the year 2025.

Elsewedy Electric has already achieved 87% of the below target scenario. Further reduction could be achieved by reducing the emissions resulting from Scope 1 activities.

**20%**

▶ SCOPE 1 & 2 TARGET: 20% REDUCTION TO 2025

Scope	Base Year 2017	Reporting Year 2020*	Target Year 2025	% Reduction	Status
Scope 1 – mtCO <sub>2</sub> e	5,652	8,660	4,522	20%	0% Achieved
Scope 2 – mtCO <sub>2</sub> e	54,977	41,443	43,982	20%	Fully Achieved
Scope 1 + 2 – mtCO <sub>2</sub> e	60,629	50,103	48,503	20%	87% Achieved

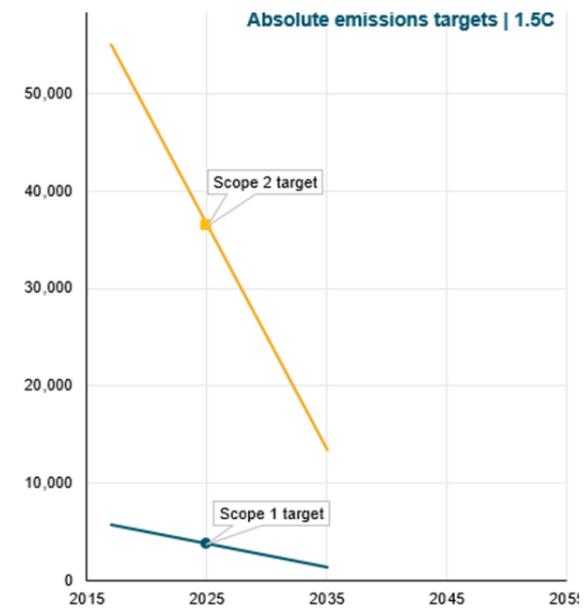
\* 2017 is considered the baseline year which all of the following years are compared to. Scope 1 emissions resulting from refrigerants leakage were removed as they were not accounted for in the previous year.

We have already achieved 87% of the 2025 Well below 2 Degrees Scenario (WB2DS) targets in 2020, and we are aiming to achieve 1.5-degree scenario targets.

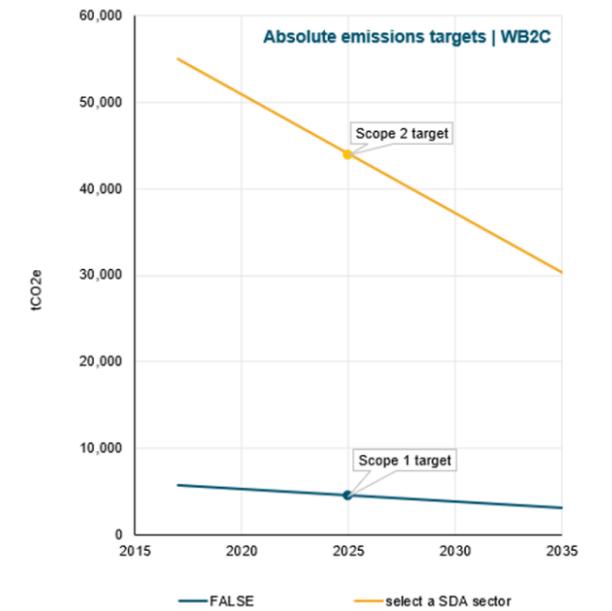
### CLIMATE SCENARIO ALIGNED WITH A 1.5 DEGREE TEMPERATURE GOAL

We want to make sure our activities and emissions contribute to, at most, a 1.5 degrees global increase in temperature. This is the safe limit of an increase in temperature from pre-industrial levels, defined by the Intergovernmental Panel on Climate Change (IPCC). This is the more ambitious emissions reduction scenario.

Scope	Base year 2017	Reporting Year 2020*	Target Year 2025	% Reduction	Status
Scope 1 – mtCO <sub>2</sub> e	5,652	8,660	3,753	33.6%	0% Achieved
Scope 2 – mtCO <sub>2</sub> e	54,977	41,443	36,505	33.6%	73% Achieved
Scope 1 + 2 – mtCO <sub>2</sub> e	60,629	50,103	40,258	33.6%	51% Achieved



\* 2017 is considered the baseline year which all the following years are compared to. Scope 1 emissions resulting from refrigerants leakage were removed as it was not accounted for in the previous year.



# 7.

## OUR CLIMATE STRATEGY AND DECARBONIZATION ROADMAP



Rapid action is required to tackle the global climate crisis. Acting upon the call, Elsewedy Electric has committed to net-zero emissions by 2050 in its recently published **2020-2023 Sustainability Strategy**, alongside setting interim targets and action plans to reach our net-zero goal.

We understand that net-zero has to start with our efforts in curbing our own direct emissions, followed by mitigation of all other indirect emissions produced along our value chain. Engaging with our suppliers is crucial to ensure transparency, strengthen partnerships for purpose and maintain win-win relationships while achieving a greener transition.

As a last resort, where we cannot cut further direct or indirect emissions, Elsewedy Electric shall compensate for the non-avoided emissions by investing in environmental and renewable energy projects in order to reduce future emissions and help balance our total carbon footprint.

We have defined our priority areas for action that will facilitate our journey to becoming a net-zero corporation in our Sustainability Strategy, as well as in our new **Climate** and **Water policies**.

We expect to have our action plans further refined as we begin implementing our new policies and recalibrate our science-based targets based on a group-level assessment of our GHG emissions in upcoming reports.

ACTION AREA	TARGET	STATUS AS OF YEAR 2020	STATUS AS OF TARGET
→ Sustainability and GHG Data Management	Conduct a group-wide comprehensive GHG emissions assessment of all operations and subsidiaries by 2023	In Progress 7 production facilities included representing 42.5% of total corporate revenues	100% coverage by total revenues
	Adopt 100% Digital Sustainability Management and GHG Accounting Systems by 2025	Planning Phase	100% digital data management tools
→ Energy	100% coverage by ISO 50001 for all sites by 2025	In Progress 2 sites are certified (UIC and Iskraemeco Slovenia factory)	100% of sites (by no.)
	100 % of the new buildings certified green	Planning Phase	Each new acquired/ built facility to be certified starting 2022
	Appoint a corporate energy manager by 2023	Will start in 2022	-
	Achieve a 20% of energy consumption from self-supply renewable energy systems by 2030	Planning Phase	20% share of renewable energy for self-supply compared to 2023*
	Reduce energy consumption by 20% for all office buildings and factories by 2030 via energy efficiency and energy management measures	In Progress Facilities are adopting and implementing energy management systems (2 are certified to ISO 50001)	20% reduction in absolute energy consumption in 2030 compared to 2023*
→ Water	Double our investments in renewable energy, climate and water projects by 2025	Clean revenues represent 31% of total corporate revenues	60% of total revenues
	Reduce water consumption by 40% for all office building and factories by 2030 via water efficiency and water management measures Achieve zero Wastewater across operations by 2030 through implementing wastewater reuse, and water recycling systems	In Progress Water treatment plants for irrigation purposes are planned for installation at our production facilities in 2021	40% reduction in absolute water consumption in 2030 compared to 2023* 0% wastewater by 2030
→ Transportation and Distribution	Electrify 50% of our operational fleet by 2030. This also includes greening our employees' modes of transportation by implementing an Employee Transport Policy that encourages low-carbon commuting modes	Planning Phase	- 50% of the operational fleet electrified - Employee Low-Carbon Transport Policy developed , adopted and implemented
→ Products and Materials	Embed Life Cycle Assessment as a standard procedure for 100% of the Group products by 2023	In progress Carbon neutral cables	Conduct LCA for 100% of our products starting 2023
	100% of our products to have EPDs/Green Labels by 2030	Planning Phase	-
→ Waste and Recycling	90% of sourced materials by volume are renewable, recycled or recyclable by 2030	Planning Phase	90% by volume of sourced materials by 2030
	Conduct a group-wide waste management audit by 2022, as well as develop and implement tailored waste management plans across all subsidiaries by 2023	Planning Phase	- A group-wide waste management audit conducted. - Tailored waste management plans developed, adopted and implemented across all subsidiaries
→ Corporate Sustainability Culture	Achieve by 2030	In Progress	100% diversion rates for non-hazardous waste by 2030
	Conduct communication campaigns to share best practices across the organization and to encourage employees to undertake sustainability practices in both their private and work lives	In Progress	Sustainability communication campaigns conducted
→ Corporate Sustainability Culture	Train 100% of employees and suppliers on ESG and sustainability topics by 2023	In Progress	100% of employees have been trained

(\* ) A target is set to cover 100% of our subsidiaries and facilities by 2023 in the GHG emissions assessment, which will include collection, monitoring, and management of all environmental metrics as well; hence, we consider 2023 to be our base year for targets scheduled for completion in years later than 2023.

## ELSEWEDY ELECTRIC CLIMATE MITIGATION PROJECTS

As a group operating in the energy sector, we understand the tremendous responsibility we have towards combatting climate change. Investing in renewable energy projects is critical to meet the ever-increasing demand and lessen the reliance on fossil fuels as a source for meeting this demand. Elsewedy Electric has been a key player in the region when it comes to renewables; we currently have several projects in operation and are aiming to optimize the scope and reach of our existing and potential climate mitigation projects.

Elsewedy Electric has established its subsidiary Elsewedy Energy in 2020, which acts as an extension to the group when it comes to contributing to climate protection through renewable energy projects.

As of the first half of 2020, Elsewedy Energy has managed to maintain a portfolio of 194 MW of operating assets split between 130 MW Solar PV Plants in Benban, Egypt, and 61 MW Wind Farms and 3 MW "mini-Hydro plant," both of which are in Greece.

Elsewedy Electric has mandated Elsewedy Energy to invest up to USD 400 million in the next 5 years focusing on opportunities in late-stage development or early stage of operations. Elsewedy Energy is currently looking at a pipeline of 1.5 GW with approximately 500 MW in advanced negotiation stages.

## ELSEWEDY ELECTRIC'S RENEWABLE ENERGY PROJECTS IN OPERATION DURING 2020

During 2020, Elsewedy Electric had 3 renewable energy projects operating across 3 countries resulting in avoided emissions that could have been produced if the same capacity of the generated power had been based on burning of fossil fuels.

### Egypt: Benban PV Solar Park

Elsewedy Electric, jointly with Électricité De France's EDF Renewables, has successfully developed, financed, and built its two solar PV power plants (each of 65 MWp) in Benban, Aswan, Egypt, which have commenced operations in August 2019, and continue to operate to date. The solar PV plants were developed as part of Egypt's Round II of the Renewable Energies Feed-in-Tariff (FIT) program for solar and wind energy projects launched by the Government of Egypt.

The project generates an estimated 290 GWh of electricity, powering more than 140,000 households, with a total estimate of CO<sub>2</sub>e emissions reduction of over 120,000 tons per year.

**140k**  
Households

▶ 140,000 HOUSEHOLDS CONNECTED

**130 MWp**

▶ 130 MWp CAPACITY

**79.11%**

▶ PERFORMANCE ROTATION

**2,497**  
MWh/MWp/Year

▶ 2,497 MWh/MWp/YEAR SPECIFIC YIELD

**46.8%**

▶ GROUND COVERAGE RATIO (GCR)

**162.331**  
GWh/Year

▶ 162.331 GWh/YEAR EXPECTED ANNUAL ENERGY YIELD

**120k**  
TONS

▶ 120,000 TONS OF CO<sub>2</sub> SAVED/ YEAR

**140M**  
USD

▶ USD 140 MILLION, PROJECT VALUE

### South Sudan: Solar PV in Juba

Elsewedy Electric has been contracted to build a hybrid solar PV project on 250,000 m<sup>2</sup> of land near Juba, the capital of South Sudan. The plant was scheduled to commence operation by the end of 2020.

The project consists of a 20 MWp solar PV plants, and a 35 MWh battery storage system, in addition to an in-house training center. Elsewedy Electric has been appointed to handle engineering, procurement, and installation of the project – a first for the region.

Financed by the African Export-Import Bank (AFREXIMBANK), the estimated annual 29 GWh of clean energy produced is expected to power over 58,000 households while avoiding a total estimate of 12,000 tons of CO<sub>2</sub>e per year.

### Greece: Elsewedy Electric 64MW of Wind and Hydro Assets

Elsewedy electric acquired three operating wind farms and two operating hydroelectric energy assets in Greece in June 2019, which are in operation to date. The five assets have an aggregate capacity of 64 MW, with three wind parks: "Aioliiki Kilindrias SA" (10MW), "Kallisti Energeiaki SA" (15MW), Aioliiki Aderes SA" (35.4 MW), and 2 Small Hydro Power Plants "Hydroelectriki Achaias SA" (2.6MW and 1.0MW) at Kerinitis river.

The assets generate enough energy to power approximately 34,000 homes with an equivalent avoided CO<sub>2</sub>e emissions of approximately 102,000 tons per year.

**34k**  
Households

▶ 34,000 HOUSEHOLDS

**64 MW**

▶ 64 MW CAPACITY

**102K**  
CO<sub>2</sub> Saved / Year

▶ 102K CO<sub>2</sub> SAVED / YEAR

### The annual avoided CO<sub>2</sub>e emissions as a result of our operating renewable energy projects are:

→ Egypt: Benban Solar PV Project	120,000 mtCO <sub>2</sub> e
→ Greece: Wind and Hydro Assets	102,000 mtCO <sub>2</sub> e
→ South Sudan: Solar PV Project	12,000 mtCO <sub>2</sub> e
→ Total avoided emissions per year	<b>234,000 mtCO<sub>2</sub>e</b>



A

QUALITY  
ASSURANCE  
STATEMENT



# A.1

## QUALITY ASSURANCE STATEMENT

To Elsewedy Electric Board of Directors',

We have been appointed by Elsewedy Electric to conduct GHG calculations pertaining to Elsewedy Electric's operational activities in Egypt for the period from 1<sup>st</sup> of January to the 31<sup>st</sup> of December 2020. The scope covered Elsewedy Electric's operations in 7 factories across Egypt and Slovenia; this included United Industries, Iskraemeco Slovenia and Egypt, Egytech Cables and Elsewedy Cables, United Steel Wires, Elsewedy for Plastic Industry (Egyplast) and Elsewedy Transformers Egypt.

### MASADER'S INDEPENDENCE AND QUALITY CONTROL

We adhere to integrity, objectivity, competence, due diligence, confidentiality, and professional behaviour. We maintain a quality control system that includes policies and procedures regarding compliance with ethical requirements, professional standards, and applicable laws and regulations.

### MASADER'S RESPONSIBILITY

In conducting the GHG calculations, we have adopted the Greenhouse Gas Protocol and ISO 14064-1:2018. Specification with guidance at the organization level for quantification and reporting of GHG emissions and removals.

It is our responsibility to express a conclusion about the quality and completeness of the primary data collected/provided by Elsewedy Electric.

We have performed the following quality assurance/quality control tasks:

- ▶ Several rounds of data requests were performed whenever the received information was not clear;
- ▶ All data presented in this report were provided by the reporting entity and revised and completed by our technical teams;
- ▶ For data outliers, meetings were held to investigate the accuracy of the data and new data was provided when requested;
- ▶ Any gaps, exclusions and/or assumptions have been clearly stated in the report.

## Conclusion

Based on the aforementioned procedures, nothing has come to our attention that would cause us to believe that Elsewedy Electric's raw data used in the GHG calculations have not been thoroughly collected, verified and truly represent the organization's resource consumption in 2020 related to all categories/aspects identified in this report. We do not assume and will not accept responsibility to anyone other than Elsewedy Electric for the provided assurance and conclusion.

**Dr. Abdelhamid Beshara**  
Founder & Chief Executive Officer  
Cairo, November 25th, 2021  
Masader, Environmental and Energy Services S.A.E



## About Us

Masader is an innovative interdisciplinary consulting, design, and engineering sustainability firm based in Cairo, aiming at leveraging positive impact across the MENA region and globally. It specializes in Resource Efficiency, Sustainable Management of Natural Resources, and Integrated Sustainability Solutions. Since 2015, Masader has led 100+ projects across the areas of energy, environment, climate change & carbon footprint, circular economy, green building (LEED), as well as corporate sustainability strategies, reporting, and certification.

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ELSEWEDY  

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ELECTRIC



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