2022 - Hitit Computer Services Corporate Carbon Footprint Report

Firm:	Hitit Computer Services
Address:	Resitpasa Mah. Katar Cad. No: 4/1 Ari Teknokent 2 Ic Kapi No: 601 34469 Maslak, Istanbul, Turkey

Goal:	Calculation of greenhouse gas emissions in the operation limits as carbondioxide equivalent.		
Scope:	-Direct Greenhouse Gas Emissions -Indirect Greenhouse Gas Emissions due to Energy Purchased -Other Indirect Greenhouse Gas Emissions	Organizational Boundaries:	Hitit Turkey Office Hitit Pakistan Office
		Reporting Boundaries:	Direct greenhouse gas emissions reported within the organization's boundaries and indirect greenhouse gas emissions as a result of the organization's activities.

System Boundary:	Control Method	Base Year:	2022
Industry:	Commercial	Report Year:	2022
Revenue in the reporting year (TL):	311,102,695.00	Reporting Period:	1 Year
Data Entry:	Annual	Reporting Frequency:	1 Year
Number of Employees:	337 (Turkey) 3 (Pakistan)		
Production Volume:	-		
Working days:	251	Area (m^2):	1128 (Turkey Offices) 90 (Pakistan Office)
Global Warming Potentials	IPCC 6th AR: CO_2: 1; CH_4: 27,9; N_2O: 273		

Carbon Footprint Results Information	
Category 1: Direct Greenhouse Gas Emissions	15.63 -ton CO_2e
Category 2: Indirect Greenhouse Gas Emissions due to Energy – Location Based	74.79 -ton CO_2e
Category 2: Indirect Greenhouse Gas Emissions due to Energy – Market Based	74.79 -ton CO_2e
Category 3: Greenhouse Gas Emissions due to Logistics and Transportation	539.16 -ton CO_2e
Category 4: Greenhouse Gas Emissions due to Usage of Raw Materials and Resources	208.96 -ton CO_2e
Category 5: Greenhouse Gas Emissions due to Usage and End of Life of the Products	95.13 -ton CO_2e
Total Emission:	**946.62 -ton CO_2e**

Declaration Status:	Internal
Intended use of the report:	Internal

About the Reporting Company

Hitit was founded in 1994 by two female entrepreneurs. The primary goal of the founders, who come from the aviation industry, and the mission of the company was to operate entirely with domestic capital, break free from external dependencies, and transform Turkey into a country that exports technology. Embracing this philosophy, Hitit specializes in providing next-generation airline and travel software solutions to companies in the airline and travel sectors, especially airline companies. The company offers software solutions under the Crane brand for various needs such as reservation, ticketing, check-in, passenger departure control, crew planning, loyalty management, revenue accounting, cost accounting, tariff planning, operation control, team planning, tour operator/charter management, comprehensive performance measurement, and cargo.

Producing 100% Turkish aviation solutions that enable millions of people to travel every year, Hitit has earned several awards, including Eastern Europe's Best Aviation Software Company, Europe's Leading Passenger Service System Provider, Best Airline Reporting System, Niche Technology Firm of the Year, "Turkey's Best Sectoral Software Company" in tourism, "Airline Software Organization of the Year," and "Aviation Technology Organization of the Year." Hitit, as of March 3, 2022, is listed on Borsa Istanbul with the ticker symbol HTTBT.

About Semtrio Eğitim ve Danışmanlık Hiz. A.Ş.

Semtrio is an international company that provides high-level consultancy services to corporations in the fields of Environmental and Corporate Sustainability, with offices in Istanbul and London. Established in 2016 to realize zero emission targets, Semtrio has the titles of Turkey's largest sustainability company and B Corp company with the highest score today. We offer innovative sustainability solutions by evaluating the needs of sectors and companies with our expert team members and high-level consultancy services.

As a responsible company, we are proud to be a participant in the United Nations Global Compact, the largest corporate sustainability initiative in the world. We bear the title of Climate Positive Business and we zero all the carbon emissions we produce with our carbon offset projects. As a GRI Community member, we prepare sustainability reports in GRI standards.

We highly value nature, corporate transparency, innovation, equality, and our customers. We contribute to green transformation by supporting the transition to Industry 5.0 with our climate-tech solutions in the fight against climate change. We aim to make the world a more livable place by preventing global warming from exceeding 1.5 degrees with the latest technology solutions we have developed using the experience of our sustainability experts.

We provide strategic guidance to our customers on their zero-carbon journey within the framework of scientific-based objectives (SBT) based on international standards. Our mission is to be a company that inspires the industry in the field of climate technologies worldwide.

Information on Personnel and Responsible Persons Involved in the Project			
Order	Name Surname	Title	Contact Information
1	Aras Kubilay	Greenhouse Gas Rep.	aras.kubilay@hititcs.com
2	Sevgi Karaman	Data Gathering Rep.	sevgi.karaman@hititcs.com
3	Güvenç Aksoy	Data Gathering Rep.	guvenc.aksoy@hititcs.com
4	Elif Nur Çetin	Climate Strategy Advisor	elifcetin@semtrio.com
5	Cennet Değirmen	Climate Strategy Advisor	cennetdegirmen@semtrio.com

GHG Quantification Methodology

Followed Standard:	GHG Protocol: Guidance and specifications for calculating and reporting greenhouse gas emissions and removals at the corporate level

Allocation:	No data allocation was made.
Units:	Data for Scope 1 and 2 were taken into account as “kg”, “m^3”, “L” or “kWh”. For this reason, consumption measurements recorded in different units are calculated using the density coefficients from DEFRA. Data for Scope 3 were taken into account as “kWh”, “L”, “m^3”, “ton”, “ton.km”, “km” and unit conversions are made for relevant emission factors.
Carbon Emission due to Burning of Biomass:	None
Methodology Procedure:	Presented in the Firm Greenhouse Gas Emission Determination and Evaluation Procedure.
Greenhouse Gas Emission Reduction Studies (Guided Activities)	-
Calculation Method:	Calculation methods have been selected that minimize uncertainty and provide accurate, consistent, and repeatable results in the calculation of corporate greenhouse gas emissions. Since National Inventory Data was used for Electricity Tier 2 calculation method was used; as activity data was considered with Emission Factors taken from IPCC and DEFRA for all other calculations, Tier 1 calculation was used.
Calculation Formula:	GHG Emission Amount (CO2e) = (Consumption Measurement) x (Emission Factor)
Prioritization Analysis-Purchased Goods and Services	The "cut-off rule" for Purchased Goods and Services is applied, and all purchases with a greenhouse gas emission share exceeding 1% and of high importance for the continuation of production are included in the inventory. Scope 3 Category 1 includes office purchases at relevant locations under the name of Purchased Goods and Services, and for Category 2 capital goods, asset lists are taken into account.
Quantification Change:	There was no change made to the calculation approach.
Reporting Method:	Reported in compliance with the GHG Protocol requirements.
Verification	-
Verification Result	-

Refrigerant Gas Leakage/Fugitive Ratios		
Type	Fugitive Ratio	Reference
AC	%1	IPCC (2006), Vol 3, Chapter 7, Table 7.9
Chiller / Cooling Systems	%2	IPCC (2006), Vol 3, Chapter 7, Table 7.9
Refrigerator / Water Cooler	%0,1	IPCC (2006), Vol 3, Chapter 7, Table 7.9
Fire Extinguisher	%4	IPCC Sixth Assessment Report, (AR 6th)
FM200 Automatic Gaseous Extinguisher Systems	%2	IPCC/TEAP Special Report: Safeguarding the Ozone Layer and the Global Climate System, Volume 9, Fire Protection

Emission Factors		
Stationary Combustion	IPCC 2006, Volume2, Chapter 2, Table 2.3 - Default Emission Factors for Stationary Combustion in Manufacturing Industries and Construction	$EF\ (as\ 'kWh'\ ) = \frac{Fuel's\ default\ content\ as \frac{kg}{Tj}}{277777{,}78\ kWh/TJ}$
Mobile Combustion – On Road	IPCC 2006, Volume2, Chapter 3, Table 3.2.1 - Road Transport Default CO_2 Emission Factors and Uncertainty Ranges &Table 3.2.2 - Road Transport N_2O and CH_4 Default Emission	$EF\ (as\ 'kg')$ $= \frac{(Fuel's\ Default\ EF\ as\ \frac{kg}{Tj}) \times (NCV\ as\ \frac{Tj}{Gg})}{1000000 kg/Gg}$

	Factors and Uncertainty Ranges & IPCC 2006, Volume2, Chapter 3	
CO2 Equivalent	$CO2\,e = (CO2 \times GWP(CO2)) + (CH4 \times GWP(CH4)) + (N2O \times (GWP(N2O))$	
EF for Electricity	Electricity (Turkey): 0,440 kg CO2e/kWh	National Inventory, 2021
Refrigerant Gas	IPCC 6th AR 2023	
Fire Extinguisher	CO_2 Leakage Ratio: IPCC Sixth Assessment Report, (AR 6th)	
Capital Assets	DEFRA 2023, Material Use	
Well-to-tank (WTT)	DEFRA 2023, WTT-Fuels	
Electricity WTT and Transmission & Distribution	EPDK, 2022, National Average Loss Ratio DEFRA 2023, Transmission and distribution, WTT- UK & overseas electricity	
Goods Transportation	DEFRA 2023, Freighting goods	
Waste Transportation	DEFRA 2023, Freighting goods	
Employee Commuting	https://theicct.org/sites/default/files/publications/EU-LCV-CO2-2030_ICCTupdate_20190123.pdf *EF: 0,209 kgCO2e/km*	
Business Travel, Flights	DEFRA 2023, Business travel- air, Co2nnectorPro software	
Water Consumption	DEFRA 2023, Water Supply	
Water Treatment	DEFRA 2023, Water Treatment	
Waste	DEFRA 2023, Waste Disposal	
Net Calorific Value	IPCC 2006 Vol 2, Chapter 1 Table 1.2	

Uncertainty Tracking Table	
Type	Uncertainty %
Natural Gas	3.0
Diesel	7.0
LPG	7.0
Propane	7.0
Petrol	7.0
Gas Leakage	7.0
Fire Extinguishers	7.0
Electricity	3.5
Raw Material Transportation	7.0
Waste Transportation	7.0
Personnel Transportation	7.0
Work Travel	7.0
Raw Material Usage	7.0
Capital Assets	7.0
Packaging Usage	7.0
Waste	7.0
Water Supply	7.0
Wastewater Treatment	7.0
Catering Services	7.0
Produce End of Life	7.0
Electricity Transmission and Distribution	7.0
Electricity WTT-Production	7.0
Electricity WTT- Transmission and Distribution	7.0
WTT-Natural Gas	7.0
WTT-LPG	7.0
WTT-Propane	7.0
WTT-Diesel	7.0
WTT-Petrol	7.0
Uncertainty ratios were taken from the firm's own meters and from the ones mentioned in the GHG protocol. Uncertainty values for Electricity and Natural Gas were taken as the maximum values from the Measurement and Measuring Instruments Inspection Regulation. Confidence Interval except the Electricity and Natural Gas was taken as 93%, and uncertainty value was taken as 7%.	

Uncertainty Calculations		
Confidence Interval:	% 93	Reference: IPCC, Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories
Uncertainty Methodology:	GHG Uncertainty Tool	
Calculated Uncertainty:	Hitit Computer Services	4,99%
Confidence Level:	Reasonable Assurance Limit	

Table 1: Hitit Computer Services 2022 Reporting Year – Greenhouse Gas Inventory List

Hitit Computer Services GHG Protocol 2022		Greenhouse Gas Inventory List			
			First Publish Date	04/12/2023	
			Rev.Number/ Date:	v.00	
Scope	**Emission Type**	**Emission Source**	**Reference of Activity Data**	**Reference for Emission Factor**	
Scope 1: Direct GHG Emissions	Stationary Combustion	Natural Gas	Activity Data	IPCC, 2006	CO2, CH4, N2O
	Mobile Combustion - On Road	Fuel Oil	Purchase Bills	IPCC, 2006	CO2, CH4, N2O
	Fugitive Emissions	Refrigerant Gas Leaks	Inventory List	IPCC, 2006	CO2 eq
	Fugitive Emissions	Fire Extinguishing Gas Leaks	Inventory List	IPCC, 2006	CO2 eq
Scope 2 Electricity Indirect GHG Emissions	Purchased Electricity		Activity Data	Turkish Ministry of Energy and Natural Resources, 2021	CO2 eq
	Purchased Heat and Cooling		Activity Data	IPCC, 2006	CO2 eq
Scope 3 Other Indirect GHG Emissions	Purchased goods and services		Purchase Bills	DEFRA, 2023 / US EPA - USEEIO 2022 / European Environment Agency, 2020	CO2 eq
	Capital Goods		Purchase Bills	DEFRA, 2023	CO2 eq
	Fuel and energy related activities not included in Scope 1 or Scope 2		Activity Data	DEFRA, 2023	CO2 eq
			Activity Data	DEFRA, 2023	CO2 eq
	Upstream transportation and distribution		Inventory List	DEFRA, 2023	CO2 eq
	Employee commuting		Rotaban Service Data	DEFRA, 2023	CO2 eq
	Business travel		Travel Agency Data	DEFRA, 2023	CO2 eq
	Downstream transportation and distribution		Inventory List	DEFRA, 2023	CO2 eq
	Waste generated in operations		Waste Declaration Forms	DEFRA, 2023	CO2 eq
	Water Supply and Wastewater Treatment		Activity Data	DEFRA, 2023	CO2 eq
	Use of sold products		Activity Data	Turkish Ministry of Energy and Natural Resources, 2021	CO2 eq

Table 2: Hitit Computer Services 2022 Reporting Year – Greenhouse Gas Results

Location	Scope	Emission Source	Activity Data	Unit	Emission Factors	Unit of EF	EF CO2	Ton Co2	EF CH4	Ton CH4	EF N2O	Ton N2O	Carbon Footprint Ton-CO2e
Turkey	Stationary Combustion	Natural Gas	1.426,41	M3	1,94	kgCO2e/M3	56,10	2,76	0,00100	0,00005	0,00010	0,000005	2,76
Turkey	Mobile Combustion (On Road)	Motor Gasoline -Uncontrolled	1.153,39	LT	2,31	kgCO2e/LT	69,30	2,60	0,03	0,0012	0,0032	0,0001	2,67
Turkey	Fugitive Emissions	R-410A	0,000038	KG	2.255,50	kgCO2e/KG	-	0,00009	-	-	-	-	0,00009
Turkey	Fugitive Emissions	R-407C	0,02	KG	1.907,93	kgCO2e/KG	-	0,04	-	-	-	-	0,04
Turkey	Fugitive Emissions	CO2-carbondioxide	0,20	KG	1,00	kgCO2e/KG	-	0,00020	-	-	-	-	0,0002
Turkey	Purchased Electricity	Electricity (Turkey) - Market Based	4.278,15	kWh	0,44	kgCO2e/kWh	-	1,88	-	-	-	-	1,88
Turkey	Purchased Electricity	Electricity (Turkey) – Location Based	4.278,15	kWh	0,44	kgCO2e/kWh	-	1,88	-	-	-	-	1,88
Turkey	Purchased Electricity	Electricity (Turkey) - Market Based	87.734,00	kWh	0,44	kgCO2e/kWh	-	38,60	-	-	-	-	38,60
Turkey	Purchased Electricity	Electricity (Turkey) - Location Based	87.734,00	kWh	0,44	kgCO2e/kWh	-	38,60	-	-	-	-	38,60
Turkey	Heat and Steam	Specific to Company	123.762,77	kWh	0,20	kgCO2e/kWh	-	0,02	-	0,0001	-	0,0001	25,02
Turkey	Heat and Steam	Specific to Company	2.046,60	kWh	0,27	kgCO2e/kWh	-	0,0004	-	0,000002	-	0,000002	0,55
Turkey	Purchased Goods and Services	Ofis Satın Alımları	3.949,14	USD	0,03	kgCO2e/USD	0,03	0,14	-	-	-	-	0,14
Turkey	Purchased Goods and Services	Ofis Satın Alımları (kağıt)	451,71	USD	0,39	kgCO2e/USD	0,39	0,18	-	-	-	-	0,18
Turkey	Purchased Goods and Services	Bulut Hizmeti - Belçika	72.083,83	kWh	0,17	kgCO2e/kWh	0,17	12,04	-	-	-	-	12,04
Turkey	Purchased Goods and Services	Bulut Hizmeti - Almanya	76.942,55	kWh	0,31	kgCO2e/kWh	0,31	24,16	-	-	-	-	24,16
Turkey	Purchased Goods and Services	Veri Merkezi Hizmeti	22.898,80	kWh	0,44	kgCO2e/kWh	0,44	10,08	-	-	-	-	10,08
Turkey	Purchased Goods and Services	Veri Merkezi Hizmeti	350.000,00	kWh	0,44	kgCO2e/kWh	0,44	154,00	-	-	-	-	154,00
Turkey	Capital Goods	Elektronik Ürün	314,04	KG	24,87	kgCO2e/KG	24,87	7,81	-	-	-	-	7,81
Turkey	Capital Goods	Elektronik Ürün	8,27	KG	24,87	kgCO2e/KG	24,87	0,21	-	-	-	-	0,21
Turkey	Other Business Rules	WTT - Elektrik Üretim	92.012,15	kWh	0,05	kgCO2e/kWh	0,05	4,22	-	-	-	-	4,22
Turkey	Other Business Rules	WTT - İletim&Dağıtım	92.012,15	kWh	0,004	kgCO2e/kWh	0,004	0,37	-	-	-	-	0,37
Turkey	Other Business Rules	Elektrik T&D	92.012,15	kWh	0,06	kgCO2e/kWh	0,06	5,13	-	-	-	-	5,13
Turkey	Other Business Rules	WTT - Doğalgaz	14.318,37	M3	0,34	kgCO2e/M3	0,34	4,82	-	-	-	-	4,82
Turkey	Other Business Rules	WTT - Motorin	206,44	LT	0,61	kgCO2e/LT	0,61	0,13	-	-	-	-	0,13
Turkey	Other Business Rules	WTT - Benzin	1.153,39	LT	0,58	kgCO2e/LT	0,58	0,67	-	-	-	-	0,67
Turkey	Upstream Transportation and Distribution	Vans - Average - Unknown	287,90	km	0,23	kgCO2e/ton.km	-	0,07	-	-	-	-	0,07
Turkey	Upstream Transportation and Distribution	Vans - Average - Unknown	4,42	ton.km	0,61	kgCO2e/ton.km	-	0,0027	-	-	-	-	0,0027

Location	Scope	Emission Source	Activity Data	Unit	Emission Factors	Unit of EF	EF CO2	Ton Co2	EF CH4	Ton CH4	EF N2O	Ton N2O	Carbon Footprint Ton-CO2e
Turkey	Downstream Transportation and Distribution	Vans - Average - Unknown	20,33	ton.km	0,58	kgCO2e/ton.km	0,58	0,01	-	-	-	-	0,01
Turkey	Downstream Transportation and Distribution	Vans - Average - Unknown	0,93	ton.km	0,58	kgCO2e/ton.km	0,58	0,0005	-	-	-	-	0,0005
Turkey	Downstream Transportation and Distribution	Vans - Average - Unknown	2,34	ton.km	0,58	kgCO2e/ton.km	0,58	0,0013	-	-	-	-	0,001
Turkey	Employee Commuting	Employee Services (ICCT)	19.396,00	km	0,21	kgCO2e/km	0,21	4,05	-	-	-	-	4,05
Turkey	Business Travel	Business Travel (airway)	575.149,73	km	0,19	kgCO2e/km	-	106,93	-	-	-	-	106,93
Turkey	Business Travel	Business Travel (airway)	1.638.440,09	km	0,26	kgCO2e/km	-	428,09	-	-	-	-	428,09
Turkey	Water Supply	Water Supply	1.775,54	M3	0,18	kgCO2e/M3	-	0,31	-	-	-	-	0,31
Turkey	Water Supply	Water Supply	51,00	M3	0,18	kgCO2e/M3	-	0,01	-	-	-	-	0,01
Turkey	Water Treatment	Waste Water Treatment	1.597,99	M3	0,20	kgCO2e/M3	-	0,32	-	-	-	-	0,32
Turkey	Water Treatment	Waste Water Treatment	45,90	M3	0,20	kgCO2e/M3	-	0,01	-	-	-	-	0,01
Turkey	Waste Disposal	Paper (Mixed)	1.954,60	KG	0,02	kgCO2e/KG	0,02	0,04	-	-	-	-	0,04
Turkey	Waste Disposal	Plastic (Mixed)	89,87	KG	0,02	kgCO2e/KG	0,02	0,0019	-	-	-	-	0,00
Turkey	Waste Disposal	Batteries	224,67	KG	0,02	kgCO2e/KG	0,02	0,0048	-	-	-	-	0,00
Turkey	Use of Sold Products	Yazılım Kullanımı	216.000,00	kWh	0,44	kgCO2e/kWh	0,44	95,04	-	-	-	-	95,04
Pakistan	Fugitive Emissions	R-410A	4,50	KG	2.255,50	kgCO2e/KG	-	10,15	-	-	-	-	10,15
Pakistan	Electricity	Specific to Company – Market Based	19.845,95	kWh	0,44	kgCO2e/kWh	-	8,73	-	-	-	-	8,73
Pakistan	Electricity	Specific to Company – Location Based	19.845,95	kWh	0,44	kgCO2e/kWh	-	8,73	-	-	-	-	8,73
Pakistan	Other Business Rules	Elektrik T&D	19.845,95	kWh	0,06	kgCO2e/kWh	0,06	1,11	-	-	-	-	1,11
Pakistan	Other Business Rules	WTT - Elektrik Üretim	19.845,95	kWh	0,05	kgCO2e/kWh	0,05	0,91	-	-	-	-	0,91
Pakistan	Other Business Rules	WTT - İletim&Dağıtım	19.845,95	kWh	0,00	kgCO2e/kWh	0,004	0,08	-	-	-	-	0,08
Pakistan	Water Supply	Water Supply	15,13	M3	0,18	kgCO2e/M3	-	0,04	-	-	-	-	0,04
Pakistan	Water Treatment	Waste Water Treatment	193,62	M3	0,20	kgCO2e/M3	-	0,04	-	-	-	-	0,04
												Total:	**951,42**

Table 3: Hitit Computer Services 2022 Reporting Year – Greenhouse Gas Emission Sources Uncertainty Tracking Calculations

Location	Scope	Emission Source	Activity Data	Unit	Uncertainty, Activity Data %	EF	Uncertainty, EF %	CO2 kg	CO2 ton	Common Uncertainty	Auxiliary Variable 1	Auxiliary Variable 2
Turkey	Stationary Combustion	Natural Gas	1.426,41	M3	7,00	1,94	7,00	2.764,90	2,76	9,90	27,37	749,26
Turkey	Mobile Combustion (On Road)	Motor Gasoline -Uncontrolled	1.153,39	LT	7,00	2,31	7,00	2.669,94	2,67	9,90	26,43	698,67
Turkey	Fugitive Emissions	R-410A	0,00	KG	7,00	2.255,50	7,00	0,09	0,00	9,90	0,00	0,00
Turkey	Fugitive Emissions	R-407C	0,02	KG	7,00	1.907,93	7,00	41,97	0,04	9,90	0,42	0,17
Turkey	Fugitive Emissions	CO2-carbondioxide	0,20	KG	7,00	1,00	7,00	0,20	0,00	9,90	0,00	0,00
Turkey	Purchased Electricity	Electricity (Turkey)	4.278,15	kWh	3,50	0,44	7,00	1.882,39	1,88	7,80	14,68	215,58
Turkey	Purchased Electricity	Electricity (Turkey)	87.734,00	kWh	3,50	0,44	7,00	38.602,96	38,60	7,80	301,10	90.663,07
Turkey	Heat and Steam	Specific to Company	123.762,77	kWh	7,00	0,20	7,00	25.019,76	25,02	9,90	247,70	61.353,11
Turkey	Heat and Steam	Specific to Company	2.046,60	kWh	7,00	0,27	7,00	547,77	0,55	9,90	5,42	29,41
Turkey	Purchased Goods and Services	Ofis Satın Alımları	3.949,14	USD	7,00	0,03	7,00	135,06	0,14	9,90	1,34	1,79
Turkey	Purchased Goods and Services	Ofis Satın Alımları (kağıt)	451,71	USD	7,00	0,39	7,00	178,22	0,18	9,90	1,76	3,11
Turkey	Purchased Goods and Services	Bulut Hizmeti - Belçika	72.083,83	kWh	7,00	0,17	7,00	12.038,00	12,04	9,90	119,18	14.202,97
Turkey	Purchased Goods and Services	Bulut Hizmeti - Almanya	76.942,55	kWh	7,00	0,31	7,00	24.159,96	24,16	9,90	239,18	57.208,80
Turkey	Purchased Goods and Services	Veri Merkezi Hizmeti	22.898,80	kWh	7,00	0,44	7,00	10.075,47	10,08	9,90	99,75	9.949,50
Turkey	Purchased Goods and Services	Veri Merkezi Hizmeti	350.000,00	kWh	7,00	0,44	7,00	154.000,00	154,00	9,90	1.524,60	2.324.405,16
Turkey	Capital Goods	Elektronik Ürün	314,04	KG	7,00	24,87	7,00	7.808,76	7,81	9,90	77,31	5.976,32
Turkey	Capital Goods	Elektronik Ürün	8,27	KG	7,00	24,87	7,00	205,64	0,21	9,90	2,04	4,14
Turkey	Other Business Rules	WTT - Elektrik Üretim	92.012,15	kWh	7,00	0,05	7,00	4.223,36	4,22	9,90	41,81	1.748,18
Turkey	Other Business Rules	WTT - İletim&Dağıtım	92.012,15	kWh	7,00	0,00	7,00	365,29	0,37	9,90	3,62	13,08
Turkey	Other Business Rules	Elektrik T&D	92.012,15	kWh	7,00	0,06	7,00	5.125,44	5,13	9,90	50,74	2.574,74
Turkey	Other Business Rules	WTT - Doğalgaz	14.318,37	M3	7,00	0,34	7,00	4.819,56	4,82	9,90	47,71	2.276,59
Turkey	Other Business Rules	WTT - Motorin	206,44	LT	7,00	0,61	7,00	126,14	0,13	9,90	1,25	1,56
Turkey	Other Business Rules	WTT - Benzin	1.153,39	LT	7,00	0,58	7,00	670,05	0,67	9,90	6,63	44,00
Turkey	Upstream Transportation and Distribution	Vans - Average - Unknown	287,90	km	7,00	0,23	7,00	66,32	0,07	9,90	0,66	0,43
Turkey	Upstream Transportation and Distribution	Vans - Average - Unknown	4,42	ton.km	7,00	0,61	7,00	2,68	0,00	9,90	0,03	0,00
Turkey	Downstream Transportation and Distribution	Vans - Average - Unknown	20,33	ton.km	7,00	0,58	7,00	11,69	0,01	9,90	0,12	0,01
Turkey	Downstream Transportation and Distribution	Vans - Average - Unknown	0,93	ton.km	7,00	0,58	7,00	0,54	0,00	9,90	0,01	0,00
Turkey	Downstream Transportation and Distribution	Vans - Average - Unknown	2,34	ton.km	7,00	0,58	7,00	1,34	0,00	9,90	0,01	0,00
Turkey	Employee Commuting	Employee Services (ICCT)	19.396,00	km	7,00	0,21	7,00	4.053,76	4,05	9,90	40,13	1.610,60
Turkey	Business Travel	Business Travel (airway)	575.149,73	km	7,00	0,19	7,00	106.930,19	106,93	9,90	1.058,61	1.120.652,81
Turkey	Business Travel	Business Travel (airway)	1.638.440,09	km	7,00	0,26	7,00	428.092,65	428,09	9,90	4.238,12	17.961.637,91
Turkey	Water Supply	Water Supply	1.775,54	M3	7,00	0,18	7,00	313,70	0,31	9,90	3,11	9,65
Turkey	Water Supply	Water Supply	51,00	M3	7,00	0,18	7,00	9,01	0,01	9,90	0,09	0,01
Turkey	Water Treatment	Waste Water Treatment	1.597,99	M3	7,00	0,20	7,00	321,71	0,32	9,90	3,18	10,14
Turkey	Water Treatment	Waste Water Treatment	45,90	M3	7,00	0,20	7,00	9,24	0,01	9,90	0,09	0,01
Turkey	Waste Disposal	Paper (Mixed)	1.954,60	KG	7,00	0,02	7,00	41,60	0,04	9,90	0,41	0,17
Turkey	Waste Disposal	Plastic (Mixed)	89,87	KG	7,00	0,02	7,00	1,91	0,00	9,90	0,02	0,00
Turkey	Waste Disposal	Batteries	224,67	KG	7,00	0,02	7,00	4,78	0,00	9,90	0,05	0,00
Turkey	Use of Sold Products	Yazılım Kullanımı	216.000,00	kWh	7,00	0,44	7,00	95.040,00	95,04	9,90	940,90	885.285,28

Location	Scope	Emission Source	Activity Data	Unit	Uncertainty, Activity Data %	EF	Uncertainty, EF %	CO2 kg	CO2 ton	Common Uncertainty	Auxiliary Variable 1	Auxiliary Variable 2
Pakistan	Fugitive Emissions	R-410A	4,50	KG	7,00	2.255,50	7,00	10.149,75	10,15	9,90	100,48	10.096,74
Pakistan	Electricity	Specific to Company	19.845,95	kWh	3,50	0,44	7,00	8.732,22	8,73	7,80	68,11	4.639,15
Pakistan	Other Business Rules	Elektrik T&D	19.845,95	kWh	7,00	0,06	7,00	1.105,50	1,11	9,90	10,94	119,78
Pakistan	Other Business Rules	WTT - Elektrik Üretim	19.845,95	kWh	7,00	0,05	7,00	910,93	0,91	9,90	9,02	81,33
Pakistan	Other Business Rules	WTT - İletim&Dağıtım	19.845,95	kWh	7,00	0,00	7,00	78,79	0,08	9,90	0,78	0,61
Pakistan	Water Supply	Water Supply	215,13	M3	7,00	0,18	7,00	38,01	0,04	9,90	0,38	0,14
Pakistan	Water Treatment	Waste Water Treatment	193,62	M3	7,00	0,20	7,00	38,98	0,04	9,90	0,39	0,15
										Cumulative Uncertainty:		**4,99**

Fuel Density Unit Conversions		
General Use Fossil Fuels	Density – kg/m^3	Density – liters/ton
Airplane Fuel	729.93	1,370.00
Airplane Turbine Fuel	800.00	1,250.00
Coal (Domestic)	850.00	1,176.00
Diesel	843.17	1,186.00
Diesel (Average Biodiesel Mix)	846.17	1,181.80
Fuel-oil	983.28	1,017.00
Gas Oil	853.97	1,171.00
LPG	529.75	1,887.69
Natural Gas	0.80	1,255,833.57
Other Petrol Gas	366.30	2,730.00
Petrol	735.00	1,348.00
Petrol (biopetrol mix)	744.17	1,343.79
Propane	514.93	1,942.00
Other Fuels		
Biodiesel	890.00	1,124.00
Biogas	1.15	869,565.00
Biomethane	0.73	1,379,355.67
CNG	175.00	5,714.00
Waste Gas	1.30	769,231.00
LNG	452.49	2,210.00
Gases		
Methane (CH4)	0.72	1,397,112.11
Carbon dioxide (CO2)	1.96	509,290.00

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