The following sample calculations are provided as examples of how to apply the Framework in specific circumstances and are for guidance only. In particular the fuel consumption values are not based on real situations and should not be considered as reliable indications of likely fuel consumption in any particular circumstances.

1. Road Transport Operator Calculations: Calculating Central Paris Equipment Movers Fleet Emissions

Mr. Kane, the Director of Operations for Central Paris Equipment Movers (CPEM) has been asked by its largest client, the City of Paris, to calculate and report the emissions associated with CPEM's movement of equipment purchased by the City last year.

Step 1. Set the boundaries and goals

As a transport operator CPEM's emissions' focus will relate to the operation of vehicles and any additional logistics sites; although primarily scope 1 emissions, transport operators may also need to declare scope 2 emissions from the use of electricity and scope 3 for the WTT emissions linked to the fuels that they use. If they subcontract any operations then this should be considered as part of their scope 3.

Step 2. Calculate Scope 1 + 2

CPEM operates a fleet of 115 vehicles, including 54 electric vans, 30 diesel vans, 17 gasoline vans, 20 older, less efficient 7.5 t* diesel trucks, 6 newer, more efficient 12 t diesel trucks, and 2 older, less efficient 40 t/Class 8 trucks. CPEM does not operate any storage facilities or warehouses, nor do they subcontract any operations.

For its electric vehicles, electricity bills show that CPEM purchased 706,155 kWh of electricity. Mr. Kane reviewed his fuel receipts for the last year and determined that CPEM purchased the following amounts of fuel over the last year: 85,364 liters gasoline/ethanol 95/5 blend and 374,285 liters diesel-biodiesel blend 95/5.

Mr. Kane also estimates that 48% of his diesel fuel is used by the diesel vans, 34% by the 7.5 t diesel trucks, 16% by the 12 t trucks, and 2% by the 40 t trucks. CPEM also knows the tonnage of goods moved, the exact distance each truck traveled, and estimates an average load factor of 40%.

Data collected by the movers are tabulated for each vehicle type as follows.

Table 20. Central Paris Equipment Movers road fleet information

Vehicle Type	Fuel Type	# of Vehicles	Total Distance Per Vehicle Type (km)	Avg. Trips Taken Per Vehicle Per Year	Total Tonnage of Goods Per Year (t)
Electric Van	Electricity	54	2,567,837	476	16,738
Gasoline Van	Gasoline/Ethanol 95/5 Blend	17	845,364	278	4,366
Diesel Van	Diesel/Biodiesel Blend 95/5	30	1,474,285	385	11,845
7.5 t Diesel Truck		20	495,827	312	21,375
12 t Diesel Truck		6	174,364	204	6,865
40 t/Class 8 Truck		2	17,478	145	4,890

* xxt refers to gross vehicle weight of xx tonnes.

Total Scope 1 Emissions

Table 21. Gasoline/Diesel Vehicle CO_2e Calculation

To convert from	To	Multiply By	
Fuel Type	Liters Used	TTW Emissions Factor (kg CO_2e/liter fuel)	GHG Emissions (kg CO_2e)
Diesel/Biodiesel Blend	374,285	2.54	950,683
Gasoline/Ethanol Blend	85,364	2.30	196,337

Emission Intensity calculation

Table 22. Gasoline/Diesel Vehicle CO_2e Calculation

Vehicle Type:	Ave. km per trip	Ave. t per trip	Total tonne-km	km/l	Liters fuel used *	CO_2e /l	kg CO_2e	kg CO_2e/ tkm
Electric Van	100	0.65	668,852	n/a	n/a	n/a	67,085	0.10
Diesel Van	128	1.03	604,776	8.2	179,657	3.17	569,512	0.94
Gasoline Van	179	0.92	312,388	9.9	85,364	2.80	239,019	0.77
7.5 t Diesel Truck	79	3.43	679,378	3.9	127,257	3.17	403,404	0.59
12 t Diesel Truck	142	5.61	391,179	2.9	59,886	3.17	189,837	0.49
40 t/Class 8 Truck	60	16.86	117,886	2.3	7,486	3.17	23,730	0.20
Overall			**2,774,459**				**1,492,587**	**0.54**

* Liters fuel used is estimated using the share of each fuel indicated by the spend data.

Total Scope 2 Emissions

Table 23. Electric Vehicle CO_2e Calculation

Fuel Type	kWh Purchased	Emissions Factor (kg CO_2e/kWh)	GHG Emissions (kg CO_2e)
Electricity	706,155	0.095*	67,085

* Value provided by CPEM's electricity provider

Step 3. Calculate Scope 3 Emissions

Table 24. Gasoline/Diesel Vehicle CO_2e Calculation

Fuel Type	Liters Used	WTT Emissions Factor (kg CO_2e/liter fuel)	GHG Emissions (kg CO_2e)
Diesel/Biodiesel Blend	374,285	0.63	235,800
Gasoline/Ethanol Blend	85,364	0.50	42,682

Using emissions results

Reporting according to GLEC Declaration:

B2B report (for the client contract):

Total WTW GHG emissions: 1,492,587 kg CO_2e

WTW GHG emission intensity: 0.54 kg CO_2e/t-km

Input data type: 100% own, actual data*

Mode coverage: 100% road transport operations

Data verification statement: Data has not been independently verified by a third party

* i.e. no estimation, modeling or defaults

Public report (if this were also the total emissions of the warehouse for the year):

Total GHG emissions:

Scope 1: 1,147,021 kg CO_2e

Scope 2: 67,085 kg CO_2e

Scope 3: 278,482 kg CO_2e

WTW GHG emission intensity: 0.54 kg CO_2e/tkm

Input data type: 100% own, actual data*

Coverage: full coverage of logistics site for 12 months**

Mode coverage: 100% road transport operations

Data verification statement: Data has not been independently verified by a third party

* i.e. no estimation, modeling or defaults

**no exclusions