Simulated Zero Emission Bus Certificate

Customer: Pe	elican Bus and Co	ach			DYNAMOMETER SETTINGS			
Customer Address: Wa	Wakefield Europort, Alofts lane, Wakefield		Telematics Capability	Yes	Test Weight	N/A	kg	
Test Purpose: Ze	ro Emission Bus	Testing	Maximum Speed (km/h)	80 km/h	F° N/A		N	
Vehicle Manufacturer: Yu	utong		Seated Capacity	.70	F¹ N/A N		N/kmh	
Vehicle Model Name: U1	11DD (385kWh)		Passenger Capacity	84	F ² N/A N/kmh ²		N/kmh²	
Powertrain Technology Ba	attery Electric		Declared Unladen Weight (kg)	13600	Equivalent test passengers N/A pass		passengers	
Powetrain Configuration Dis	rect Drive		Gross Weight (kg)	19200	Measured Unladen Weight N/A kg		kg	
Zero Emission Heating Electric Cooling and Heating A/C		GVW Check	OK	Number of conseultve tests completed	N/A	Tests		
	Battery Specifics	tion	Charging and Refuelling C	apability	Hydrogen Spe	cification		
Battery Manufactur	rer	CATL	Plug Type	CCS2	Fuel Cell Manufacturer		N/A	
Battery Chemistry	y	LFP	Max Charge Capability (kW)	Up to 150kW	Fuel Cell Power Rating (kW) N		N/A	
Battery Installed Capacit	ty (kWh)	385	Charger Compatibility	DC	Hydrogen Storage Capacity (kg) N		N/A	
Battery Usable Capacity	y (kWh)*	339	Charge time from 20-80% SOC**	1.5 Hours	Hydrogen Storage Pressure (bar)	N/A	

* Recommended manufacturer	guideline, subject to warranty	** Based on manufacturer estimate

Declared fuel, properties and source plus carbon conversion factors								
Well-to-Tank Factor:	Electricity	72.65	g CO2e / MJ	Fuel Provider	UK market standard	WTT evidence	DBEIS Conversion 2022	
Well-to-Tank Factor:	Hydrogen	N/A	g CO2e / MJ	Capacity of Tanker (kg)	N/A	Fuel Type / Pathway	UK Grid Electricity	
Energy Density	Hydrogen	N/A	MJ/kg	Transport Distance of Hydrogen (km)	N/A	Energy Source	UK Grid	

Er	nissions	s and Ene	rgy cons	umption	results froi	n approved	d test faci	lity - Averd	ige 4 tests	
Test Phase	HC (g/km)	CO (g/km)	NOx (g/km)	PM (g/km)	CO ₂ (g/km)	CH ₄ (g/km)*	N₂O (g/km)*	Total Energy Consumption (kWh)	Vehicle Energy Consumption (kWh/km)	Grid Electrical Energy Consumption (kWh/ 100km)
Outer Urban	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.53	0.72	78.67
Inner Urban	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.12	0.87	94.57
Rural	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.43	0.61	66,30
LBC Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.65	i 0.77 i	83.70
UK BUS Average	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11.08	0.69	75.00

Zer	o Emiss	ions (Z.E.) Range: Energy const	umption a	nd charging efficiency	
Test Charger Used	N/A	Total measured energy consumed on vehicle (kWh)1	N/A	Max ZE Range at 100% SOC (km)	491
Hydrogen Energy Over Test (kWh)	N/A	Measured grid energy during charging (kWh)	N/A	Max ZE Range at 80% SOC (km)	393
Hydrogen Delivered to Vehicle (kg)	N/A	Grid-to-Wheel efficiency (%) ²	92%	Test Distance Travelled (km)	N/A

¹Total measured energy may include energy used during the 23 minute warmup, this is needed for charge efficiency calculation.

² Grid to Wheel efficiency represents the total energy losses between the grid and the wheels of the bus.

Calculo	ated tota	Data Generated by (On behalf of Test facility):	Date:			
Test Phase	Fuel Energy (MJ /km)	Fuel WTT*GHG Emissions (g CO₂e / km)	Electrical Energy (MJ / km)	Electricity WTT* GHG Emissions (g CO₂e / km)]	
Outer Urban	N/A	N/A	2.83	205.75	Data Approved by:	Date;
Inner Urban	N/A	N/A	3.40	247.33		
Rural	N/A	N/A	2.39	173.41		
LBC Average	N/A	N/A	3.01	218.90		
UK BUS Average	N/A	N/A	2.70	196.16	7	

4	ero Emis:	sion ans ceu	ificate Summary			
Test Vehicle			Average Euro VI Diesel Eq	uivalent		
Greenhouse Gas Emissions: Well-to-Wheel	196.2	g CO2e / km	Average Diesel GHG Emissions Equivalent	1271	g CO2e / km	
WTW CO2 per passenger km (@ Max Pass Capacity)	2.3	g CO2e/pass km	WTW CO2 per passenger km (@ Max Pass Capacity)	15.1	g CO2e/pass k	
	Overa	l Zero Emissio	n Bus Performance			
WTW GHG saving	1075.1	g CO2e / km	Maximum Theoretical Zero Emission Rang	e (km)	491.0	
% WTW GHG saving	85%	g CO2e / km	Vehicle Energy Consumption (kWh/ km) 0.69			
Approved as Zero Emission Bus? (50%			YES	7	0.03	

^{*} WTT : Well-to-Tank

^{***} WTW : Well-to Wheel

Heating Requirement	Cell	Lower Saloon	Upper Saloon
	10	17	17
Average Temperatures across testing (°C)	N/A	N/A	N/A
Certificate Approved by:	Griffen 7.	1/1/1/1	^
	In	- Comper	
	Target Temperatures ±2 (°C): Average Temperatures across testing (°C) Certificate Approved by: Tim	Target Temperatures ±2 (°C): 10 Average Temperatures across testing (°C) N/A Certificate Approved by: Tim Griffen	Target Temperatures ±2 (°C): 10 17 Average Temperatures across testing (°C) N/A N/A Certificate Approved by: Tim Griffen Mm (MM)

^{**} TTW : Tank-to-Wheel