



IW Chamber of Commerce Business Expo

Carbon (CO₂e) Report 2024 Event.

Introduction

The Mission to Net Zero committee are dedicated to advancing environmental sustainability and achieving carbon neutrality on the Isle of Wight. At the recent Isle of Wight Chamber of Commerce Expo, we took the initiative to conduct a comprehensive carbon audit of the event, a project enthusiastically supported by the Chamber of Commerce.

By setting benchmarks of sustainability practices, we hope to inspire local businesses and the broader community to adopt greener practices and contribute to a more sustainable future for the Isle of Wight, as through our collaborative efforts, we can make significant strides towards reducing our environmental impact and foster a culture of sustainability on our beautiful island.

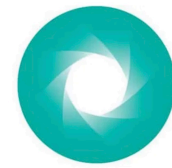
A large part of an event's CO₂e emissions typically come from travel emissions of infrastructure, exhibitors and attendees, therefore we began the audit by collecting relevant data from the exhibitors during the event, specifically their mode of transport and length of journey.

For visitor travel emissions we then compiled data from the council regarding population spread on the island to work out the average distance to the event and used government statistics to ascertain the likely mix of transport.

This initiative also aims to align the event with global best practices in environmental management by leveraging frameworks such as the Greenhouse Gas (GHG) Protocol.

Greenhouse Gas Protocol

The GHG Protocol is the most widely used international accounting tool for government and business leaders to understand, quantify, and manage greenhouse gas emissions. It divides emissions into three categories; Scope 1, Scope 2, and Scope 3, which together provide a comprehensive picture of an organisation's emissions.



GREENHOUSE
GAS PROTOCOL

Scope 1 Emissions

Direct Emissions

- **Definition:** Emissions from sources that are owned or controlled by the organisation.
- **Examples:**
 - Fuel combustion in company-owned vehicles.
 - On-site manufacturing processes.
 - Fugitive emissions from equipment leaks.

Scope 2 Emissions

Indirect Emissions from Purchased Energy

- **Definition:** Emissions from the generation of purchased electricity, steam, heating, and cooling consumed by the organisation.
- **Examples:**
 - Emissions from a power plant providing electricity to the organisation.

Scope 3 Emissions

Other Indirect Emissions

- **Definition:** Emissions that are the result of activities from assets not owned or controlled by the organisation but that the organisation indirectly impacts in its value chain.
- **Categories:**
 - Upstream activities (e.g., purchased goods and services, business travel, employee commuting, waste disposal).
 - Downstream activities (e.g., use of sold products, transportation and distribution of products, end-of-life treatment of sold products).

Importance in Carbon Audits

- **Scope 1 and 2:** Typically easier to measure and more directly under the control of the organisation.
- **Scope 3:** Often represents the largest share of an organisation's carbon footprint but can be more challenging to measure and influence due to its broader and more indirect nature.

These scopes are essential for organisations to understand and manage their total greenhouse gas emissions, develop effective carbon reduction strategies, and comply with reporting requirements.

Whilst an audit of the IW Chambers of Commerce themselves would involve Scope 1 and 2, as this report is solely focused on the event, all meaningful and measurable emissions fall under the Scope 3 category, although, for the sake of prudence, a 15% buffer has been added to the end result to account for all miscellaneous and IW Chamber of Commerce 'in-house' emissions associated with the event.

Scope 3 Emissions

Exhibitor Emissions

Petrol

	Class 1. (1.4 Litre)	Class 2. (1.4 - 2 Litre)	Class 3. (2+ litre)	Distance (Miles)	kgCO2e
kgCO2e / mile	0.226597	0.286757	0.438117		
Friends of Animals		1		1.6	0.4588112
Tapnell Farm			1	19.1	8.3680347
			1	7.2	3.1544424
HTP College	1			1	0.226597

	Class 1. (1.4 Litre)	Class 2. (1.4 - 2 Litre)	Class 3. (2+ litre)	Distance (Miles)	kgCO2e
	1			11.6	2.6285252
Fortis Energy	1			19.1	4.3280027
IW College	1			1	0.226597
Wildheart Trust		1		1	0.286757
	1			11.6	2.6285252
CO2e Factor	0.226597	0.286757	0.438117		
PC Consultants	1			7.1	1.6088387
Lloyds	1			60.3	13.6637991
		1		19.7	5.6491129
Red Funnel	1			11.9	2.6965043
BNI	1			7.1	1.6088387
S Network Group	1			1	0.226597
		1		10.6	3.0396242
County Press		1		7.1	2.0359747
Eldridges Legal		1		7.1	2.0359747
	1			7.1	1.6088387
Working towards Wellbeing		1		11.9	3.4124083
Bluetouch Paper		1		10.6	3.0396242
Hose Rhodes D	1			7.1	1.6088387
		1		1	0.286757
Southern Vectis					
Biscoes		1		1	0.286757

	Class 1. (1.4 Litre)	Class 2. (1.4 - 2 Litre)	Class 3. (2+ litre)	Distance (Miles)	kgCO2e
Dementia UK	1			7.2	1.6314984
	1			7.2	1.6314984
Powered Now	1			10.6	2.4019282
IW Observer			1	7.5	3.2858775
Good Skills Training	1			1	0.226597
CO2e Factor	0.226597	0.286757	0.438117		
Bembridge Power Boat	1			7.2	1.6314984
Sandham Office S	1			14.1	3.1950177
Alex Tana Coaching	1			1	0.226597
Top Mops		1		11.6	3.3263812
		1		7.5	2.1506775
Wight Computers	1			6.1	1.3822417
IW Lottery		1		7.9	2.2653803
Building 41	1			11.6	2.6285252
	1			11.6	2.6285252
	1			11.6	2.6285252
	1			7.2	1.6314984
Total					75.6807555
TOTAL (return journeys)					302.723022

Diesel

	Class 1 (1.7 litre)	Class 2 (1.7 - 2 litre)	Class 3. (2+Litre)	Distance (Miles)	kgCO2e
kgCO2e / mile	0.224196	0.269016	0.335696		
Go for Growth			1	7.5	2.51772
Fortis Energy			1	1	0.335696
Sandrock Construction		1		1.6	0.4304256
MedTec Design			1	7.5	2.51772
Lifeline		1		1	0.269016
PC Consultants			1	62.4	20.9474304
Lloyds		1		7.1	1.9100136
Red Funnel		1		18.7	5.0305992
Virus Interior	1			6.2	1.3900152
Mountbatten		1		7.1	1.9100136
Acorn Interiors			1	16.5	5.538984
Wild Wax Melts			1	7.1	2.3834416
Glanvilles Damant			1	7.1	2.3834416
IW Construction Training	1			1	0.224196
Ryde School	1			7.2	1.6142112
Youth Trust		1		19.1	5.1382056
Southern Vectis					

	Class 1 (1.7 litre)	Class 2 (1.7 - 2 litre)	Class 3. (2+Litre)	Distance (Miles)	kgCO2e
Biscoes Solicitors	1			11.6	2.6006736
CO2e Factor	0.224196	0.269016	0.335696		
Biscoes Solicitors 'ct		1		11.6	3.1205856
		1		7.1	2.3834416
Powered Now		1		3.4	0.9146544
IW Observer			1	7.1	2.3834416
		1		10.6	2.8515696
Ryde Town Council			1	1	0.335696
Bembridge Powerboat			1	7.2	2.4170112
Sandham Office Sol			1	6.1	2.0477456
IW Radio		1		8.2	2.2059312
Top Mops		1		11.9	3.2012904
Mingella			1	12.8	4.2969088
Wight Fibre			1	1	0.335696
Total					83.6357752
TOTAL (Return journeys)					334.5431008

Large Vehicles

	kgCO2e / mille	Distance	kgCO2e
Southern Vectis Bus	1.46	7.1	10.366
Wight Fiber	0.727	11.6	8.4332
Total			18.7992

Electric Vehicle / Hybrid

	Hybrid	EV	EV / Solar	Distance (Miles)	kgCO2e
CO2e Factor	0.151134	0.088186	0		
Go for Growth		1		62.5	5.511625
Silver Arch		1		5.3	0.4673858
BNI	1			47.7	7.2090918
Meridian 3	1			7.1	1.0730514
Vivus Interior		1		13	1.146418
Acorn Interiors	1			16.7	2.5239378
Emerald Elite	1			7.1	1.0730514
Powered Now			1	7.1	0
Vectis Hire	1			7.5	1.133505
WRS Systems			1	7.1	0
Wight Computers			1	1	0
Wight Lease Ltd		1		11.6	1.0229576
		1		11.6	1.0229576
Wight Fibre		1		1	0.088186

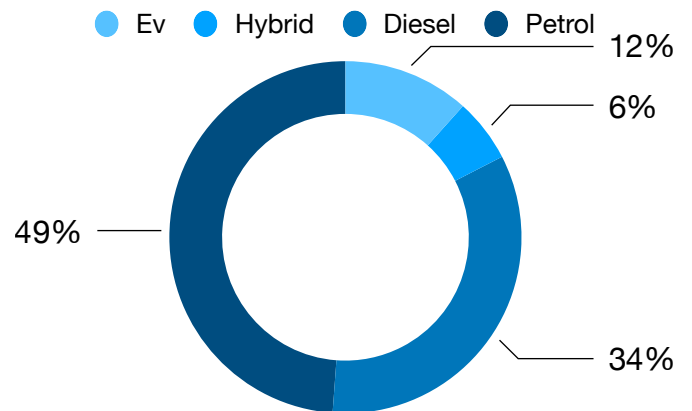
	Hybrid	EV	EV / Solar	Distance (Miles)	kgCO2e
IW Mission Zero		1		11.6	1.0229576
Total					23.295125
TOTAL (Total journeys)					93.1805
Total Hybrid					13.0126374
Total Ev					10.2824876

Travel Overview

	kgCO2e
Petrol	302.7
Diesel	334.5
Hybrid	52.0505496
Ev	41.1299504
Large Vehicles	18.8
TOTAL	749.1805

The Ev total is relatively high because of a trip from the mainland.

Breakdown of delegate vehicle types.



Visitor travel emissions

Average emissions of visitor vehicles using national statistics.

	kgCO2e / Mile	Volume of vehicles	% of Vehicles	CO2e contributions
Average Petrol	0.26379	19,243,306	57.528301438364	0.15175390636426
Average Diesel	0.27332	11,498,138	34.3739453524206	0.093950867437236
Average Hybrid	0.151134	1,929,291	5.76765937257989	0.008716894316154
Average Ev	0.088186	779,420	2.33009383663544	0.002054816550775
		33,450,155	99.99999999999999	0.256476484668426

With a lack of specific data available for the Isle of Wight we have made an estimate, referring to national statistics, of 75% of visitors coming by car.

	%	kgCO2e / Mile	CO2e contributions
Car	75	0.256	0.192
Bus	15	0.163	0.02445
Cycle / walk	10	0	0
Total			0.21645

The table below is a breakdown of the island's population and calculates the average distance of visitor travel to the event.

Parish	Population	% Population	Distance to Ryde (Miles)	Distance contribution
Arreton	1,037	0.738256944741076	7.9	0.058322298634545
Bembridge	3,561	2.53513305710991	7.2	0.182529580111914
Brading	2,167	1.54272208221207	6.5	0.100276935343785
Brighstone	1,584	1.1276750245611	16.7	0.188321729101704
Calbourne, Newtown, Porchfield	819	0.583059245653753	13.4	0.078129938917602
Chale	620	0.441387951532755	14.7	0.064884028875315
Chillerton, Gatcombe	426	0.303276237666054	10.5	0.031844004954935
Cowes	10,450	7.4395227314795	11.6	0.862984636851622
East Cowes	8,428	6.00002847664203	7.5	0.450002135748152
Fishbourne	738	0.525394045534151	3	0.015761821366024
Freshwater	5,646	4.01947802315151	19.1	0.767720302421938
Godshill	1,486	1.05790725157689	10.6	0.11213816866715
Gurnard	2,088	1.48648071419418	12	0.178377685703302
Havenstreet, Ashe	759	0.540344282602196	3.2	0.017291017043270
Lake	4,980	3.54534193327923	8	0.283627354662338
Nettlestone, Seaview	2,522	1.79545228026711	3.5	0.062840829809348
Newchurch	2,635	1.87589879401421	6	0.112553927640853
Newport, Carisbrooke	26,376	18.7774977574644	7.1	1.33320234077997
Niton, Whitwell	2,154	1.53346717355089	14.1	0.216218871470675
Northwood	2,279	1.62245667990831	10.1	0.163868124670739
Rookley	607	0.432133042871585	10	0.043213304287158
Ryde	24,096	17.1543291615053	1	0.171543291615053
Sandown	7,125	5.07240186237239	6.1	0.309416513604716
Shalfleet	1,627	1.15828741474805	12.8	0.14826078908775

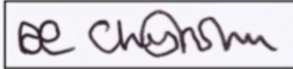
Parish	Population	% Population	Distance to Ryde (Miles)	Distance contribution
Shanklin	9,123	6.49481013198924	8.26	0.536471316902311
Shorwell	690	0.491222075092905	12.4	0.060911537311520
St Helens	1,242	0.884199735167229	5.3	0.046862585963863
Totland	2,960	2.10727151054348	19.3	0.406703401534892
Ventnor	5,567	3.96323665513363	11.9	0.471625161960902
Whippingham	850	0.60512864323039	6.2	0.037517975880284
Wootton	3,389	2.41268349636211	3.4	0.082031238876311
Wroxall	1,709	1.21666453091851	10	0.121666453091851
Yarmouth	726	0.516851052923839	16.5	0.085280423732433
Total	140466	100	315.86	7.80239972662423

Visitor travel emission overview.

	Volume	Average kgCO2e	Average distance (Miles)	kgCO2e
Visitors	500	0.21645	7.8	844.155

Results

	kgCO2e	tCO2e
Exhibitor Emissions	750	0.75
Visitor Emissions	845	0.845
TOTAL	1595	1.595



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cleanearthcollective

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