



EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

COMMUNITY BENCHMARKING

SNAEFELLSNES PENINSULA
STYKKISHOLMI, ICELAND



REPORT DATE: 3 September 2013

Benchmarking Data Collection Period: 1 January 2012 – 31 December 2012

The planet deserves more than half measures

OVERVIEW

This annual assessment of the **Snaefellsnes Peninsula** was undertaken against EarthCheck benchmarking indicators and checklists developed for EarthCheck and listed below¹. They have been carefully selected to track performance in key areas of environmental and social performance impact. The lead agency responsible for collection, collation and authorisation of the information required by the indicators was the **Snaefellsnes Council of Executives**.

	Indicator Measure (Benchmark)
1 Policy	Policy is produced and in place ²
2 Energy	Energy Consumption (GJ / Person Year) ³
	Green Power (%) ³
	Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO ₂ -e / Person Year) ³
	Indirect Emissions (Scope 3) (t CO ₂ -e / Person Year) ³
3 Water	Potable Water Consumption (kL / Person Year) ³
	Recycled / Captured Water (%) ⁴
4 Waste	Waste Sent to Landfill (t / Person Year) ³
	Recycled / Reused / Composted Waste (%) ⁴
5 Sector Specific	Nitrous Oxides Produced (kg / Person Year / Hectare) ⁵
	Sulphur Dioxide Produced (kg / Person Year / Hectare) ⁵
	Particulate Matter Produced (kg / Person Year / Hectare) ⁵
	Water Samples Passed (%) ²
	Habitat Conservation Area (%) ²
	Green Space (%) ²
6	Accredited Operations (%) ²
	Lead Agency Performance
	Water Savings Rating ⁶
	Waste Recycling Rating ⁶
	Paper Products Rating ⁶
Cleaning Products Rating ⁶	
Pesticide Products Rating ⁶	

¹ Please refer to the relevant EarthCheck Sector Benchmarking Indicator (SBI) document for more details. For frequently asked questions (FAQs) about benchmarking or specific help, please log on to 'My EarthCheck'

² Produced by the lead agency after consultation with the community and consensus

³ Person year is equivalent to 365 person days. EarthCheck Communities must also allow for both resident and transient (tourist) populations in indicators assessed on a per person year basis. Tourist activity is classified into an "overnight stay" or "day tripper". An overnight stay is counted the same as a permanent resident, that is, 1 person day. A day tripper is counted as 0.333 person day

⁴ These indicators are for guidance only and do not affect the overall benchmarking evaluation

⁵ Primary assessed impacts on air quality are emissions due to electricity consumption, vehicular transport, industrial processes and mining. The levels are calculated on a per unit area basis using total emissions and total bounded area of the Community, including waterways. The data is then normalized against the average number of person years per area of the country

⁶ Assessed for the lead agency only

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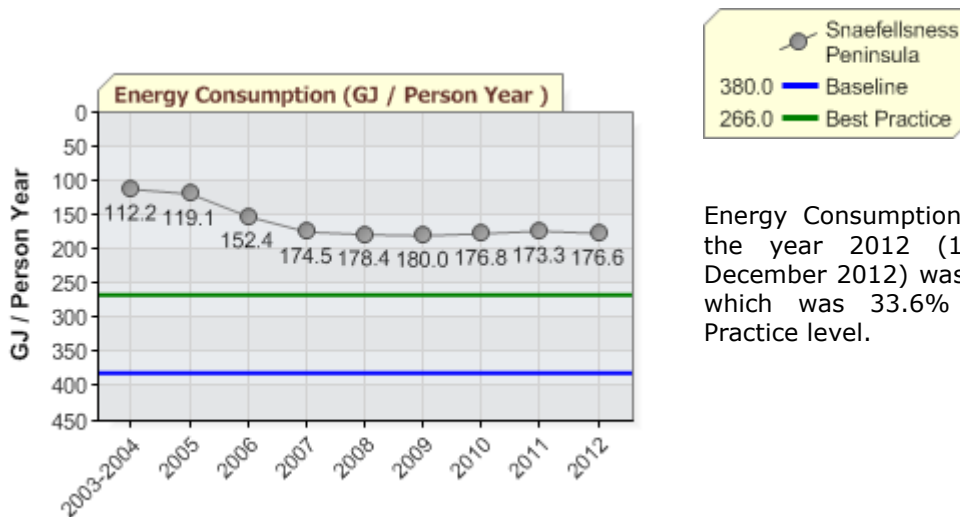
COMMUNITY PERFORMANCE BENCHMARKS

Current performance: Below Baseline ✖ At or above Baseline ✔ At or above Best Practice ★

1. Policy ★

2. Energy

Energy Consumption (GJ / Person Year) ★

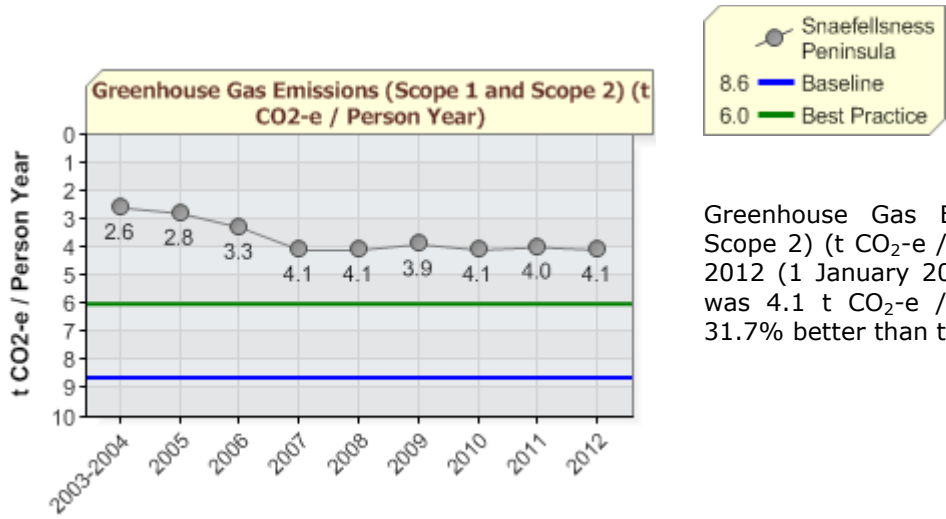


Energy Consumption (MJ / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 176.6 GJ / Person Year, which was 33.6% better than the Best Practice level.

Green Power (%)

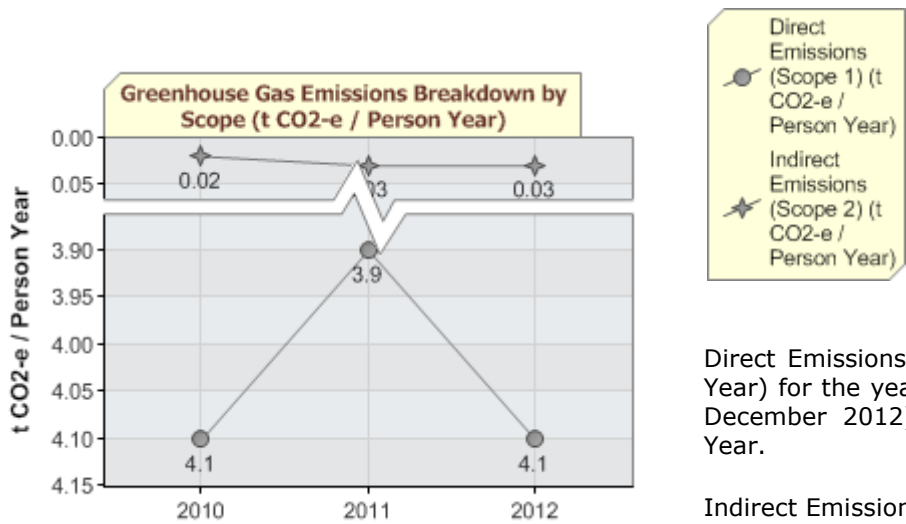
N/A

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) ★



Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 4.1 t CO₂-e / Person Year, which was 31.7% better than the Best Practice level.

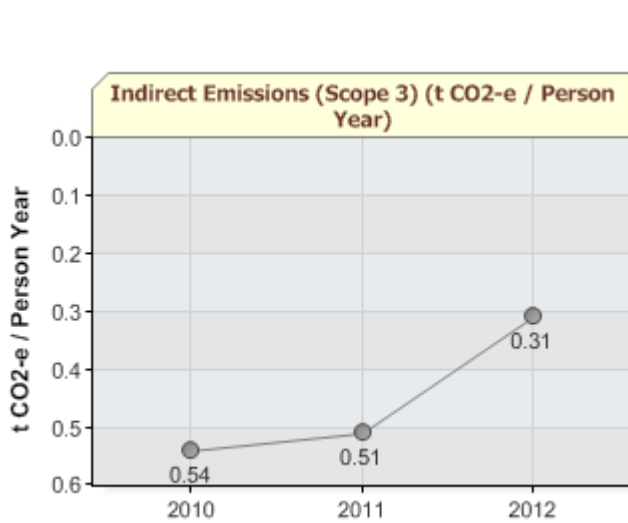
Greenhouse Gas Emissions Breakdown by Scope (t CO₂-e / Person Year)



Direct Emissions (Scope 1) (t CO₂-e / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 4.1 t CO₂-e / Person Year.

Indirect Emissions (Scope 2) (t CO₂-e / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 0.0 t CO₂-e / Person Year.

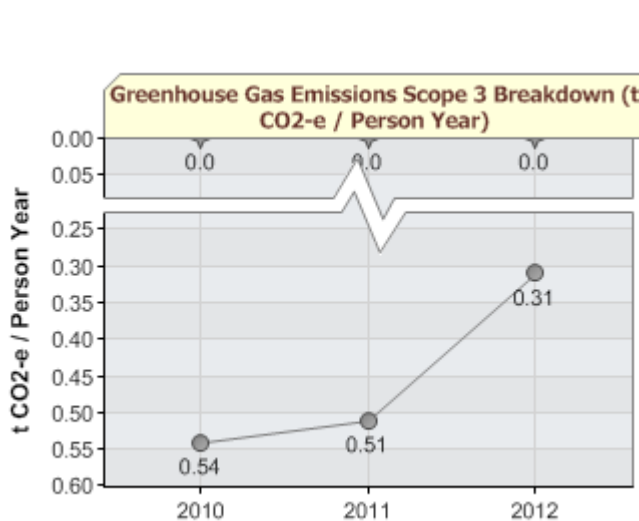
Indirect Emissions (Scope 3) (t CO₂-e / Person Year)



Snæfellsnes Peninsula

Indirect Emissions (Scope 3) (t CO₂-e / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 0.31 t CO₂-e / Person Year.

Greenhouse Gas Emissions Scope 3 Breakdown (t CO₂-e / Person Year)



Waste Indirect Emissions (Scope 3) (kg CO₂-e / Person Year)

Transport Indirect Emissions (Scope 3) (kg CO₂-e / Person Year)

Transport Indirect Emissions (Scope 3) (kg CO₂-e / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) not measured as no data entered.

Waste Indirect Emissions (Scope 3) (kg CO₂-e / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 0.31 t CO₂-e / Person Year.

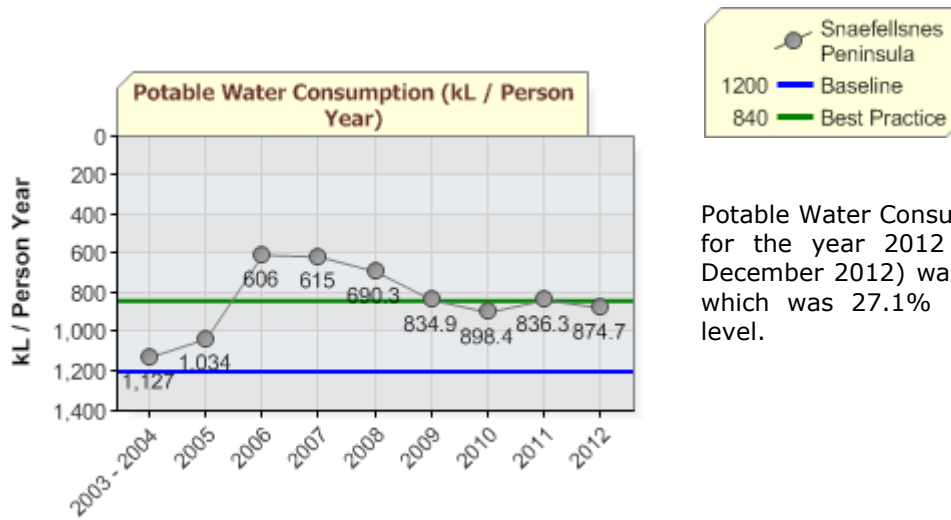
Direct Emissions (Scope 1)								
Stationary Fuel Combustion								
Type	Quantity	Unit	Energy Consumption (MJ)	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)	
Heavy fuel oil	103988	litres (L)	3784784.7	292.9	0.8	0.7	294.4	
subtotal			3784784.7	292.9	0.8	0.7	294.4	
Mobile Fuel Combustion (road)								
Motor gasoline	2144116	litres (L)	69841984.3	4840.0	36.7	173.2	5049.9	
Diesel	3579174	litres (L)	130203191.8	9648.1	10.7	157.4	9816.1	
subtotal			200045176.1	14488.1	47.3	330.6	14866.1	
Mobile Fuel Combustion (water)								
Heavy fuel oil	819166	litres (L)	29814660.6	2307.7	4.4	18.5	2330.5	
subtotal			29814660.6	2307.7	4.4	18.5	2330.5	
TOTAL			233644621.4	17088.7	52.5	349.8	17491.0	
Indirect Emissions (Scope 2)								
Purchased Electricity								
Quantity	Unit	% Green Power	Provider	Energy Consumption (MJ)	CO ₂ Emission Estimate (t CO ₂ -e)	CH ₄ Emission Estimate (t CO ₂ -e)	N ₂ O Emission Estimate (t CO ₂ -e)	Total Emission Estimate (t CO ₂ -e)
95734904	Kilowatt hour (kWh)	N/A*	Iceland	344645654.4	95.7	0.1	0.3	96.1
228362	Kilowatt hour (kWh)	N/A*	Iceland	822103.2	0.2	-	-	0.2
50802348	Kilowatt hour (kWh)	N/A*	Iceland	182888452.8	50.8	-	0.2	51.0
subtotal				528356210.4	146.8	0.1	0.5	147.4
TOTAL				528356210.4	146.8	0.1	0.5	147.4
Greenhouse Gas Emissions (Scope 1 and Scope 2)								
GRAND TOTAL				762000831.8	17235.5	52.6	350.3	17638.4

*A Green Power Agreement is unavailable for purchased as the standard grid supply is from close to 100% renewable energy sources.

Indirect Emissions (Scope 3)									
Waste Sent to Landfill									
Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Source	CO₂ Emission Estimate (t CO₂-e)	CH₄ Emission Estimate (t CO₂-e)	N₂O Emission Estimate (t CO₂-e)	Total Emission Estimate (t CO₂-e)
1352	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown	Other Operation	International	-	1352.0	-	1352.0
subtotal						-	1352.0	-	1352.0
TOTAL						-	1352.0	-	1352.0

3. Water

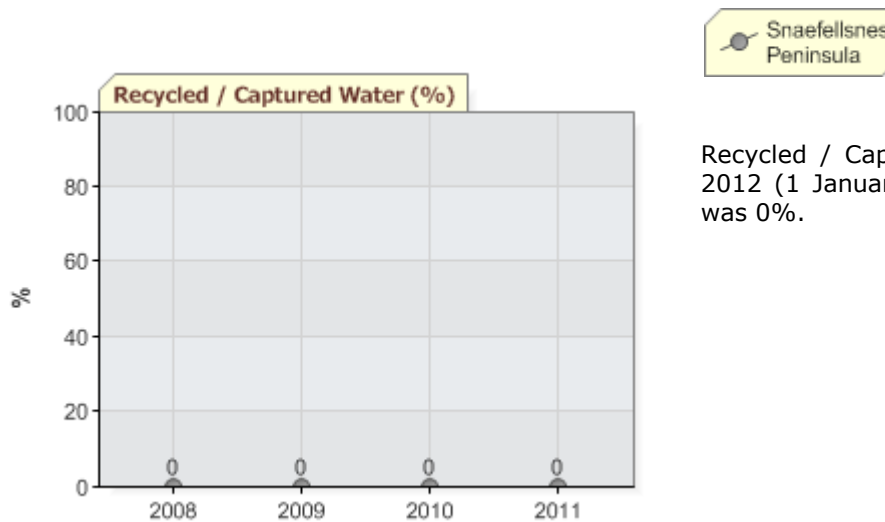
Potable Water Consumption (kL / Person Year) ✓



Potable Water Consumption (kL / Person Year) for the year 2012 (1 January 2012 - 31 December 2012) was 874.7 kL / Person Year, which was 27.1% better than the Baseline level.

Quantity	Unit	Potable Water Consumption (kL)
3774201	kilolitres (kL)	3774201.0 kL
	Totals:	3774201.0 kL

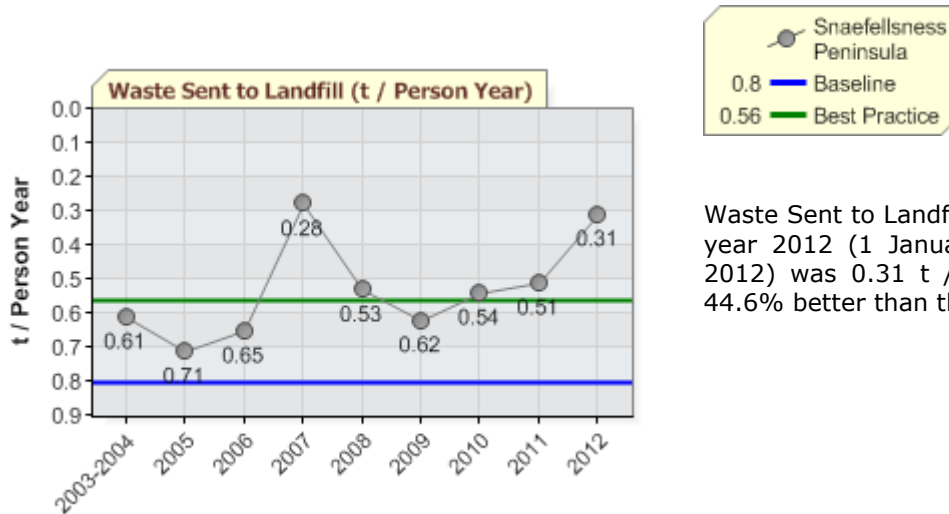
Recycled / Captured Water (%)



Recycled / Captured Water (%) for the year 2012 (1 January 2012 - 31 December 2012) was 0%.

4. Waste

Waste Sent to Landfill (t / Person Year) ★



Waste Sent to Landfill (t / Person Year) for the year 2012 (1 January 2012 - 31 December 2012) was 0.31 t / Person Year, which was 44.6% better than the Best Practice level.

Quantity	Unit	Type of Landfill	Type of Waste	Type of Operation	Waste Sent to Landfill (t)
1352	tonnes (uncompacted)	Covered and/or managed waste treatment facility	Unknown	Other Operation	1352 t
				Totals:	1352 t

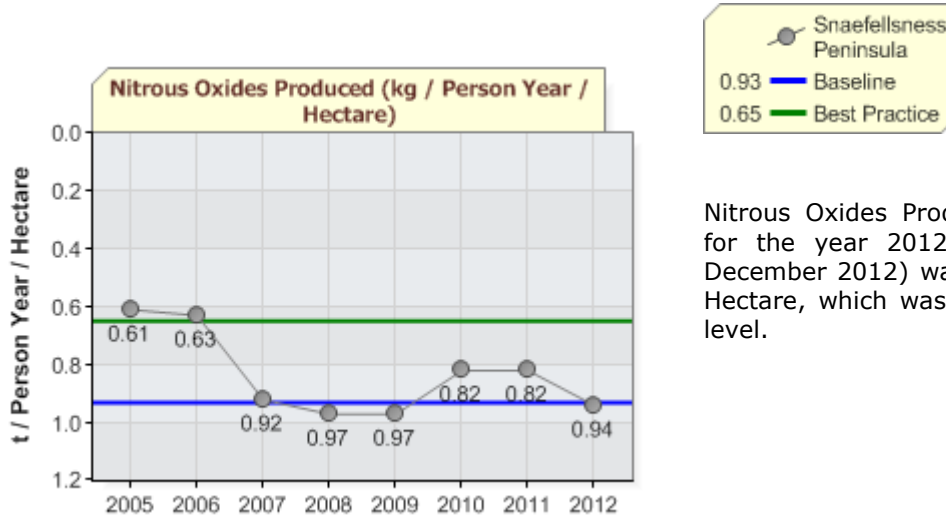
Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2012 (1 January 2012 - 31 December 2012) was 44.5%.

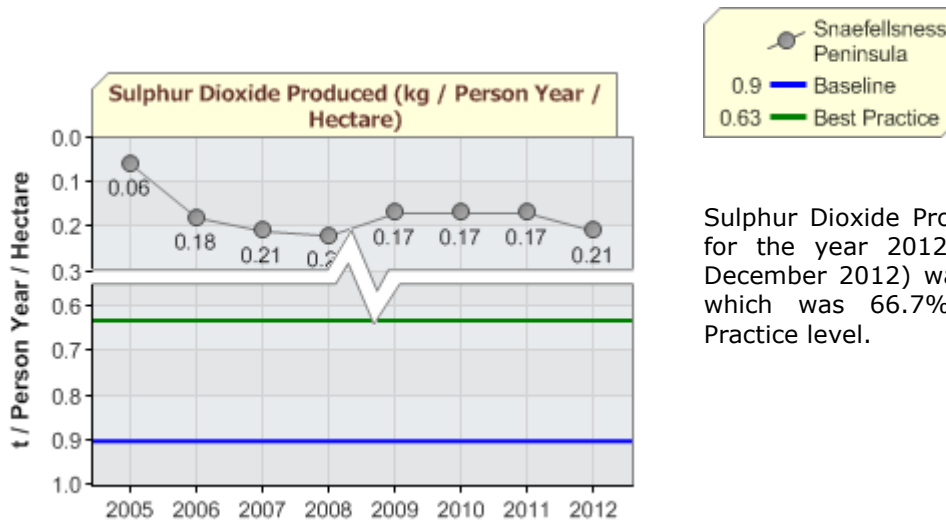
5. Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare) ✘



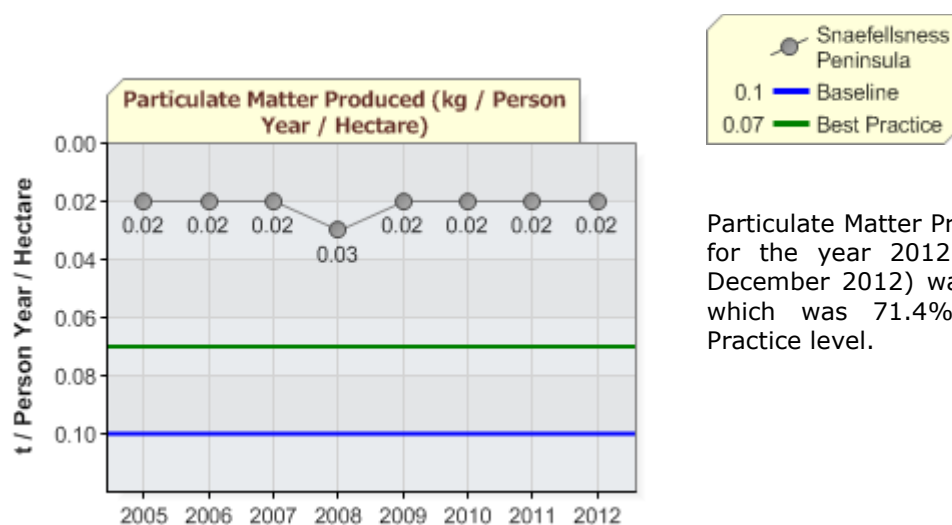
Nitrous Oxides Produced (kg / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 0.94 kg / Person Year / Hectare, which was 1.1% below the Baseline level.

Sulphur Dioxide Produced (kg / Person Year / Hectare) ★



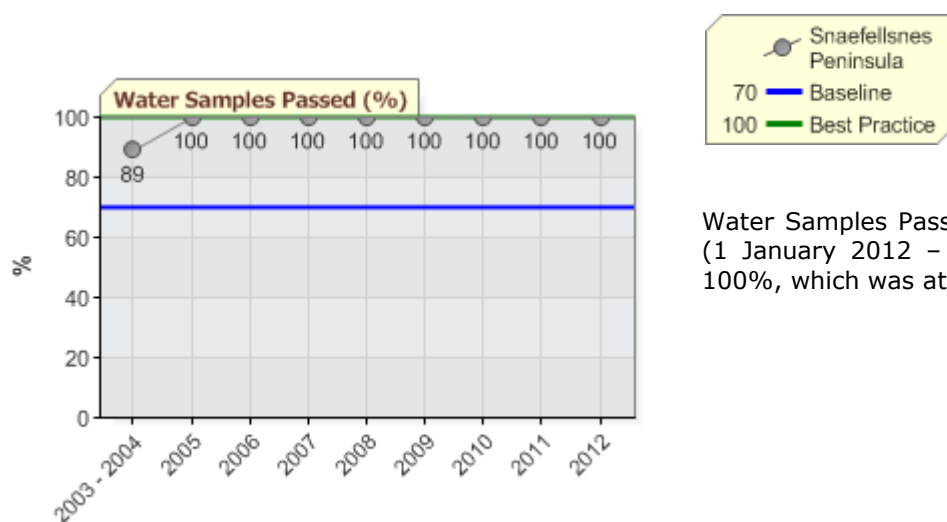
Sulphur Dioxide Produced (kg / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 0.21 kg / Person Year, which was 66.7% better than the Best Practice level.

Particulate Matter Produced (kg / Person Year / Hectare) ★



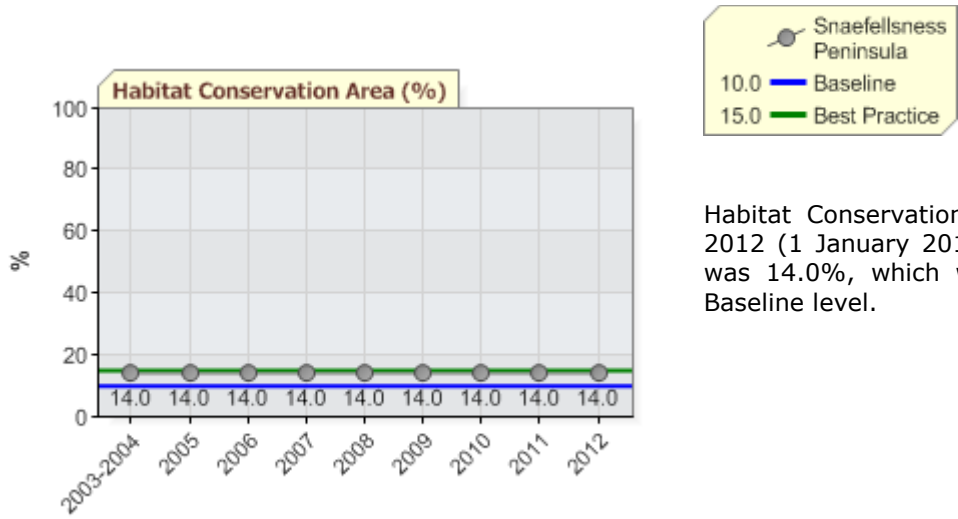
Particulate Matter Produced (kg / Person Year) for the year 2012 (1 January 2012 – 31 December 2012) was 0.02 kg / Person Year, which was 71.4% better than the Best Practice level.

Water Samples Passed (%) ★



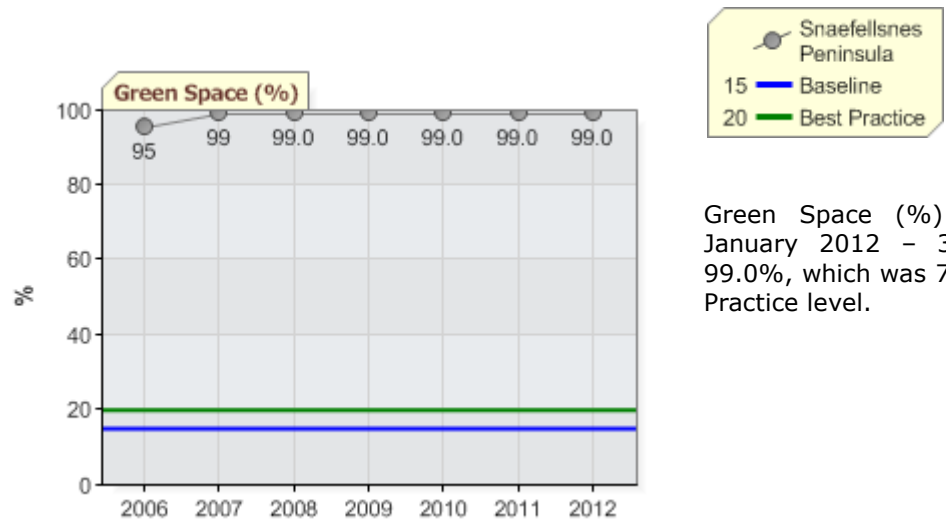
Water Samples Passed (%) for the year 2012 (1 January 2012 – 31 December 2012) was 100%, which was at the Best Practice level.

Habitat Conservation Area (%) ✓



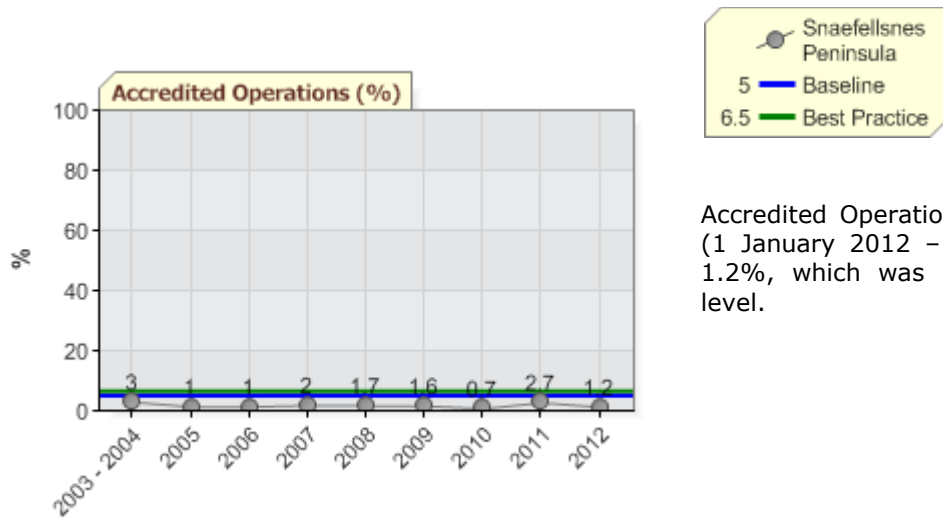
Habitat Conservation Area (%) for the year 2012 (1 January 2012 - 31 December 2012) was 14.0%, which was 4% better than the Baseline level.

Green Space (%) ★



Green Space (%) for the year 2012 (1 January 2012 - 31 December 2012) was 99.0%, which was 79.0% better than the Best Practice level.

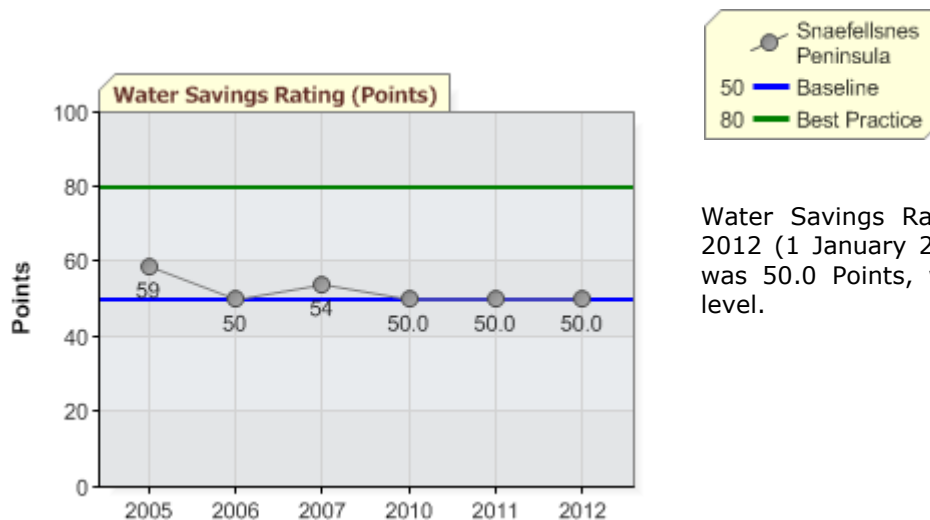
Accredited Operations (%) ✕



Accredited Operations (%) for the year 2012 (1 January 2012 - 31 December 2012) was 1.2%, which was 3.8% below the Baseline level.

1. Lead Agency Performance

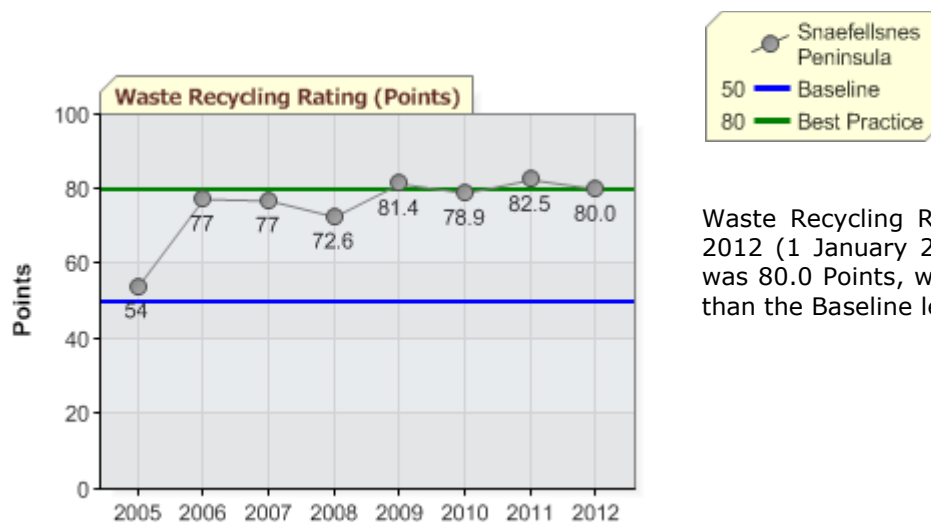
Water Savings Rating (Points) ✓



Water Savings Rating (Points) for the year 2012 (1 January 2012 – 31 December 2012) was 50.0 Points, which was at the Baseline level.

Water Savings Measures	Frequency / Percentage Rating	Water Savings Rating (Points)
Check for leaks	Relevant / Not Available	50.0 Points
Low/dual flush toilets	Relevant / Not Available	50.0 Points
Low flow tap fittings	Relevant / Not Available	50.0 Points
Low flow shower fittings	Relevant / Not Available	50.0 Points
Water sprinklers used after dark	Relevant / Not Available	50.0 Points
Minimal irrigation landscaping	Relevant / Not Available	50.0 Points
Use of recycle/grey/rain water	Relevant / Not Available	50.0 Points
	Overall Rating:	50.0 Points

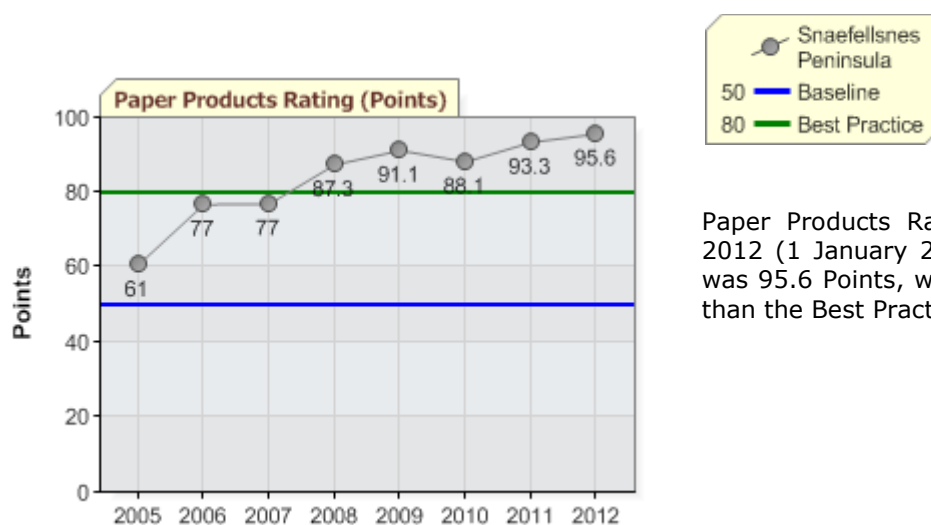
Waste Recycling Rating (Points) ✓



Waste Recycling Rating (Points) for the year 2012 (1 January 2012 – 31 December 2012) was 80.0 Points, which was 30.0 Points better than the Baseline level.

Waste Recycling Measures	Frequency / Percentage Rating	Waste Recycling Rating (Points)
Glass	80-99%	88.9 Points
Paper/card	40-59%	65.1 Points
Iron & steel (ferrous metals)	80-99%	88.9 Points
Other metals (non-ferrous)	80-99%	88.9 Points
Plastics	80-99%	88.9 Points
Rubber	40-59%	65.1 Points
Green waste	60-79%	73.9 Points
	Overall Rating:	80.0 Points

Paper Products Rating (Points) ★



Paper Products Rating (Points) for the year 2012 (1 January 2012 – 31 December 2012) was 95.6 Points, which was 15.6 Points better than the Best Practice level.

Paper Products Measures	Frequency / Percentage Rating	Paper Products Rating (Points)
Office paper	100%	100.0 Points
Serviettes	80-99%	88.9 Points
Tissues	100%	100.0 Points
Toilet tissue	80-99%	88.9 Points
Paper towels	100%	100.0 Points
	Overall Rating:	95.6 Points

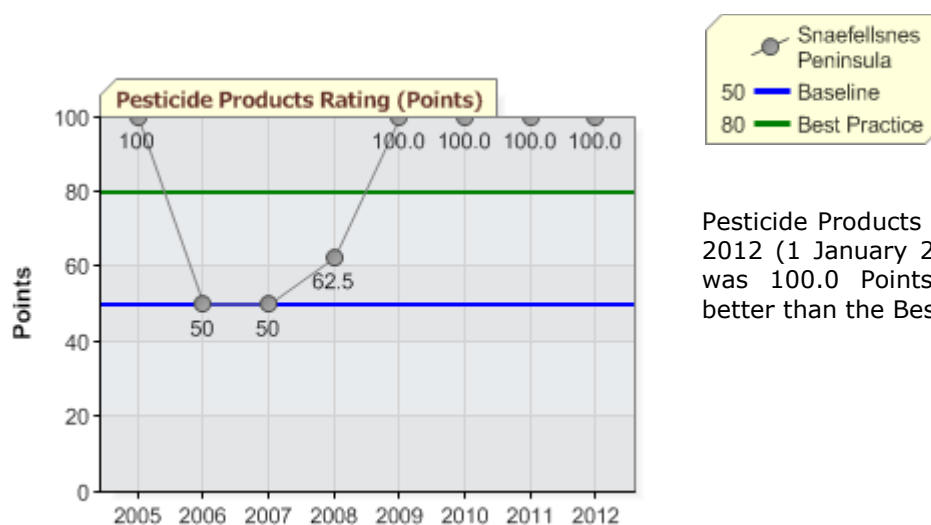
Cleaning Products Rating (Points) ✓



Cleaning Products Rating (Points) for the year 2012 (1 January 2012 – 31 December 2012) was 64.5 Points, which was 14.5 Points better than the Baseline level.

Cleaning Products Measures	Frequency / Percentage Rating	Cleaning Products Rating (Points)
Hard floor cleaners	0%	0.0 Points
Carpet cleaners	0%	0.0 Points
Interior surface cleaners	80-99%	88.9 Points
External surface cleaners	Not Relevant / Not Available	100.0 Points
Glass cleaners	100%	100.0 Points
Detergents	60-79%	73.9 Points
Personal hygiene	80-99%	88.9 Points
	Overall Rating:	64.5 Points

Pesticide Products Rating (Points) ★



Pesticide Products Rating (Points) for the year 2012 (1 January 2012 – 31 December 2012) was 100.0 Points, which was 20.0 Points better than the Best Practice level.

Pesticide Products Measures	Frequency / Percentage Rating	Pesticide Products Rating (Points)
Weed killers	Not Relevant / Not Available	100.0 Points
Fungal killers	Not Relevant / Not Available	100.0 Points
Rodent killers	Not Relevant / Not Available	100.0 Points
Insect killers	Not Relevant / Not Available	100.0 Points
	Overall Rating:	100.0 Points

OPTIONAL BENCHMARKING INDICATORS

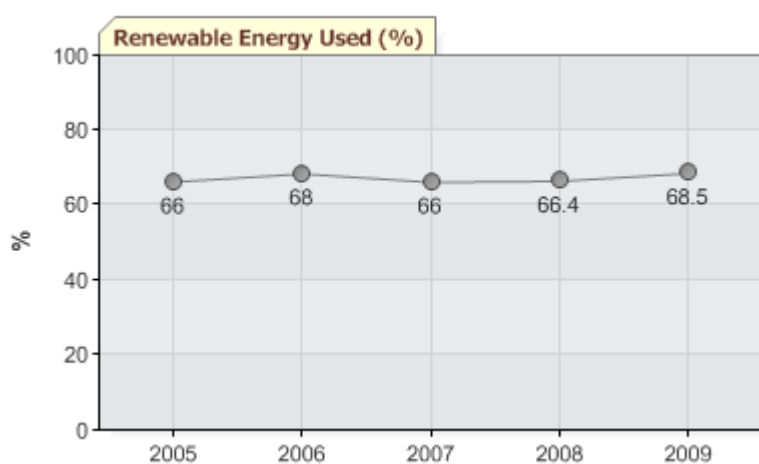
The information captured in the optional indicators was for *Renewable local energy production (MJ) pa / Total energy consumption (MJ) pa* however as this information is recorded below on the 'Renewable Energy %' this indicator has been removed.

HISTORIC BENCHMARKING INDICATORS

1. Renewable Energy

Renewable Energy % is no longer a supplementary indicator; it is included here for historical reference.

Renewable Energy Used (%)



The supplied data has been compiled by **Snaefellsnes Peninsula** in the prescribed manner, authorised by a senior executive of the company and submitted for an annual assessment.

CONCLUSION AND RECOMMENDATIONS

Congratulations, **Snaefellsnes Peninsula** has met the requirements to be recognised as an EarthCheck Benchmarked Community.

In addition to having a Sustainability Policy in place, fourteen of the assessed EarthCheck indicators are at or above the Baseline level. From the benchmarking data provided, nine indicators, *Energy Consumption, Greenhouse Gas Emissions, Waste Sent to Landfill, Sulphur Dioxide Produced, Particulate Matter Produced, Water Samples Passed, Green Space, Paper Products Rating, and Pesticide Products Rating*, are at or above the Best Practice level, which is an achievement to be highly commended.

The two indicators that fell below the Baseline level were *Nitrous Oxides Produced and Accredited Operations*.

The value for Nitrous Oxides Produced was 1.1% below the Baseline Level. The **Snaefellsnes Peninsula** is encouraged to make improvements to ensure that Air Quality (SO_x) will meet the Baseline level for the next Benchmarking Period.

The value for Accredited Operations was 3.8% below the Baseline Level. The **Snaefellsnes Peninsula** is encouraged to promote environmental accreditation to hotels, restaurants and other business within the community.

The **Snaefellsnes Peninsula** is encouraged to continue to make improvements in the above indicators and to ensure that any indicators below baseline are addressed in the organisation's risk assessment and long term sustainability approach.

Improvements in all the EarthCheck indicators will not only help the environment, but can also help reduce operational costs. Due to the positive commitment that **Snaefellsnes Peninsula** has demonstrated to the environment, the assessors are confident that they can maintain or improve performance, where appropriate and practical, in all indicators. In particular over the next 12 months, the **Snaefellsnes Peninsula** is encouraged to ensure that Habitat Conservation Area and Accredited Operations are at Baseline performance or better. In line with EarthCheck Policy this would enable the **Snaefellsnes Peninsula** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

SUBMISSION COMMENTS

A 'Benchmarking Comments Document' was provided at time of submission, outlining all data and figures for the Benchmarking Period.

ENERGY CONSUMPTION

The Benchmarking Assessors revised the % *Green Power* from 100% to 0%, as a 'Green Power Agreement' is unavailable for purchase in Iceland.

The **Snaefellsnes Peninsula** provided the following table as part of the 'Benchmarking Comments Document';

The input data to EarthCheck Energy Calculator is presented in table 3. The formulas for the CO₂ emissions were derived directly from Earth Check's Energy Calculator.

Energy Consumption in Snaefellsnes 2012					
Energy Source	Units Energy Supplied in	Quantity of Energy used	% Renewable	Energy (MJ)	CO ₂ (tonnes)
Power Station Provided Grid Electricity					
Hydro	kWh	95.734.904	100	344.645.654	0
Sub Total - Power Grid Sources				344.645.654	0
Other Sector Energy Sources Used					
Hydro	kWh	228.362	100	822.103	0
Gasoline (automotive)	L (litre)	2.144.116	0	69.841.984	5.050
Diesel	L (litre)	3.579.174	0	130.203.192	9.816
Hydro	kWh	50.802.348	100	182.888.453	0
Oil (fuel) (for ships)	L (litre)	819.166	0	29.814.661	2.331
Oil (stationary)	L (litre)	103.988	0	3.784.785	294
Sub Total - Other Sources				417.355.178	17.491
Grand Total - All Sources				762.000.832	17.491
Renewable Energy Consumption/Total Energy Consumption				0,6934	

Table 3. Energy Consumption in Snaefellsnes 2012. The calculation of CO₂ emissions is received from the EarthCheck benchmarking software.

This table demonstrates that 100% of electricity sourced from the grid is from Hyrdo power, which is consistent with members across Iceland as close to 100% of electricity supplied to the grid is from renewable sources. This has been taken into consideration with the Baseline and Best Practice levels for *Energy Consumption* in Iceland and the **Snaefellsnes Peninsula** has not been penalized in anyway.

AIR QUALITY

The Benchmarking Assessors have calculated Air Quality based on the submitted energy sources;

2012

Nitrous Oxides Produced: 130 669 kg
 Sulphur Dioxide Produced: 10 416 kg
 Particulate Matter Produced: 476 013 kg

RECYCLED / CAPTURED WATER (SUPPLEMENTARY)

The Benchmarking Assessors updated the *Recycled / Captured Water* as no figure was initially submitted.

The **Snaefellsnes Peninsula** advised the following in the 'Benchmarking Comments Document':

"Measurements or estimations for recycled/captured water are not relevant for Icelandic circumstances where clean water is an abundant resource in nearly all communities. Picture 1 shows average precipitation in Iceland."

The Benchmarking Assessors have revised the *Recycled / Captured Water* to 0%.

WATER SAVINGS RATING

The Benchmarking Assessors revised the *Water Savings Rating*, based on the 'Benchmarking Comments Document' provided, as all *Water Savings Measures* were initially submitted as "Not Relevant / Not Available".

The **Snaefellsnes Peninsula** advised:

The EarthCheck water saving checklist is only to a limited extent applicable to communities, and thus left out at this time by defining it as "Not Relevant / Not Available".

Table 6 explains more thoroughly why these factors are "Not Relevant/ Not Available".

Water Savings Measures	Relevant / Not Relevant
Check for leaks	The municipalities have not yet had the finances to start checking for leaks but organized leak search is a future project on the Action Plan.
Low/dual flush toilets	Since the water usage for the Snaefellsnes Peninsula is the total amount of water used by every inhabitant, municipal institutions, state run institution and privately run organizations this information is not relevant. The community cannot directly affect these factors but in its own institutions.
Low flow tap fittings	Since the water usage for the Snaefellsnes Peninsula is the total amount of water used by every inhabitant, municipal institutions, state run institution and privately run organizations this information is not relevant. The community cannot directly affect these factors but in its own institutions.
Low flow shower fittings	Since the water usage for the Snaefellsnes Peninsula is the total amount of water used by every inhabitant, municipal institutions, state run institution and privately run organizations this information is not relevant. The community cannot directly affect these factors but in its own institutions.
Water sprinklers used after dark	Water sprinklers are rarely used in the municipalities as rain is frequent in Snaefellsnes Peninsula. Sprinklers are never used after dark – so the information is not relevant.
Minimal irrigation landscaping	Not relevant in Iceland where clean water is an abundant resource in nearly all communities.
Use of recycle/grey/rain water	Not relevant in Iceland where clean water is an abundant resource in nearly all communities.

Table 6. Explanations regarding water savings in EarthCheck benchmarking software.

This checklist forms part of the indicators that are relevant to the lead agency **Snaefellsnes Council of Executives**, and as the Water Savings Measures are relevant to all lead authorities, the benchmarking assessors have revised all Water Savings Measures to 'Relevant / Not Available'.

The *Water Savings Rating* has been revised as per below;

- Check for leaks: Relevant / Not Available
- Low/dual flush toilets: Relevant / Not Available
- Low flow tap fittings: Relevant / Not Available
- Low flow shower fittings: Relevant / Not Available
- Water sprinklers used after dark: Relevant / Not Available
- Minimal irrigation landscaping: Relevant / Not Available
- Use of recycle/grey/rain water: Relevant / Not Available

This gives an overall *Water Savings Rating* of 50 points.



EARTHCHECK

Benchmarks Assessed by EarthCheck

SUMMARY OF SUPPLIED BENCHMARKING DATA

Activity Measures

Person Years	4315
Total Community Area	147900

Supplied Benchmarking Data

Energy

Energy Consumption (GJ / Person Year)

Supplied	762000 GJ
Calculated	176.6 GJ / Person Year
Baseline	380 GJ / Person Year
Best Practice	266 GJ / Person Year
Difference	33.6% better than the Best Practice level

Green Power (%)

Supplied	N/A
Calculated	N/A

Greenhouse Gas Emissions (Scope 1 and Scope 2) (t CO₂-e / Person Year)

Supplied	17491.0 t CO ₂ -e
Calculated	4.1 t CO ₂ -e / Person Year
Baseline	8.6 t CO ₂ -e / Person Year
Best Practice	6.0 t CO ₂ -e / Person Year
Difference	31.7% better than the Best Practice Level.

Direct Emissions (Scope 1) (t CO₂-e / Person Year)

Supplied	17491.0 t CO ₂ -e
Calculated	4.1 t CO ₂ -e / Person Year

Indirect Emissions (Scope 2) (t CO₂-e / Person Year)

Supplied	129.45 t CO ₂ -e
Calculated	0.03 t CO ₂ -e / Person Year

Indirect Emissions (Scope 3) (t CO₂-e / Person Year)

Supplied	1352 t CO ₂ -e
Calculated	0.31 t CO ₂ -e / Person Year

Transport Indirect Emissions (Scope 3) (t CO₂-e / Person Year)

Supplied	0.0 t CO ₂ -e
Calculated	0.0 t CO ₂ -e / Person Year

Waste Indirect Emissions (Scope 3) (t CO₂-e / Person Year)

Supplied	1352 t CO ₂ -e
Calculated	0.31 t CO ₂ -e / Person Year

Water

Potable Water Consumption (kL / Person Year)

Supplied	3774201.0 kL
Calculated	874.7 kL / Person Year
Baseline	1200 kL / Person Year
Best Practice	840 kL / Person Year
Difference	27.1% better than the Baseline level

Recycled / Captured Water (%)

Supplied	0%
Calculated	0%

Water Savings Rating (Points)

Supplied	50.0 Points
Calculated	50.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	at the Baseline level

Waste

Waste Sent to Landfill (t / Person Year)

Supplied	1352 t
Calculated	0.31 t / Person Year
Baseline	0.8 t / Person Year
Best Practice	0.56 t / Person Year
Difference	44.6% better than the Best Practice level

Recycled / Reused / Composted Waste (%)

Supplied	44.5%
Calculated	44.5%

Waste Recycling Rating (Points)

Supplied	80.0 Points
Calculated	80.0 Points

Baseline	50 Points
Best Practice	80 Points
Difference	30.0 Points better than the Baseline level

Paper

Paper Products Rating (Points)

Supplied	95.6 Points
Calculated	95.6 Points
Baseline	50 Points
Best Practice	80 Points
Difference	15.6 Points better than the Best Practice level

Cleaning

Cleaning Products Rating (Points)

Supplied	64.5 Points
Calculated	64.5 Points
Baseline	50 Points
Best Practice	80 Points
Difference	14.5 Points better than the Baseline level

Pesticides

Pesticide Products Rating (Points)

Supplied	100.0 Points
Calculated	100.0 Points
Baseline	50 Points
Best Practice	80 Points
Difference	20.0 Points better than the Best Practice level

Sector Specific

Nitrous Oxides Produced (kg / Person Year / Hectare)

Supplied	130669 kg
Calculated	0.94 kg / Person Year / Hectare
Baseline	0.93 kg / Person Year / Hectare
Best Practice	0.65 kg / Person Year / Hectare
Difference	1.1% below the Baseline Level

Sulphur Dioxide Produced (kg / Person Year / Hectare)

Supplied	10416 kg
Calculated	0.21 kg / Person Year / Hectare
Baseline	0.9 kg / Person Year / Hectare
Best Practice	0.63 kg / Person Year / Hectare
Difference	66.7% better than the Best Practice Level

Particulate Matter Produced (kg / Person Year / Hectare)

Supplied	476013 kg
Calculated	0.02 kg / Person Year / Hectare

Baseline	0.1 kg / Person Year / Hectare
Best Practice	0.07 kg / Person Year / Hectare
Difference	71.4% better than the Baseline Level

Water Samples Passed (%)

Supplied	100%
Calculated	100%
Baseline	70 %
Best Practice	100 %
Difference	at the Best Practice level

Habitat Conservation Area (%)

Supplied	14.0%
Calculated	14.0%
Baseline	10 %
Best Practice	15 %
Difference	4% better than the Baseline level

Green Space (%)

Supplied	99.0%
Calculated	99.0%
Baseline	15 %
Best Practice	20 %
Difference	79.0% better than the Best Practice level

Accredited Operations (%)

Supplied	1.2%
Calculated	1.2%
Baseline	5 %
Best Practice	6.5 %
Difference	3.8% below the Baseline level

DETERMINATION OF BASELINE AND BEST PRACTICE LEVELS

General

The values for the Baseline and Best Practice levels for each indicator are derived from extensive worldwide research into available and appropriate case studies, industry surveys, engineering design handbooks, energy, water and waste audits, and climatic and geographic conditions.

National and regional data for per capita energy use, greenhouse gas and other emissions, wastes to landfill and water consumption, where available provide background data for normalisation of the expected performance values for per customer or employee, and/or overall performance of an enterprise being benchmarked. They are used to gauge the regional or national situation and environmental performances that an enterprise is based in, and hence what are reasonable levels to expect the enterprise to achieve.

A benchmarking result at, or above, the Baseline level demonstrates to all stakeholders that the enterprise is achieving above average performance. A result below the Baseline level indicates that an enterprise can and should carry out actions that will make beneficial improvements in performance.

Consideration of Climate

A major determinant of energy consumption in some sectors, primarily those centred on buildings such as accommodation, visitor centres and administration offices will be the dominant climatic conditions in which the enterprise is located. In general, to maintain the same level of indoor comfort, enterprises operating in hot or cold climates will consume more energy than those in temperate climates.

Similarly, it is recognised that in certain sectors a major determinant of potable water consumption will be the climate in which an enterprise is located, in particular those with large grounds and/or significant water-based facilities or activities. That is, enterprises located in hot climates are more likely to consume more potable water than equivalent ones located in cooler climates. Factors that are likely to lead to a higher level of potable water consumption, for example in the accommodation sector, include increased evaporation rates of swimming pools, personal bathing and irrigation demands of grounds. In consideration of this factor, Baseline and Best Practice levels can vary in relation to country location.

Waste Sent to Landfill

The benchmark indicator used for Waste Sent to Landfill is given in litres as waste bins are usually calibrated by volume, and it has been found that the majority of operations do not have access to the weight of material disposed of. However, if a weight is supplied, standard factors are used to convert from weight (e.g., kilograms (kg)) to volume (e.g., cubic metres (m³) or litres (L)). These are: 1 kg (uncompacted waste) = 0.00333333 m³ or 3.33333 L and 1 kg (compacted waste) = 0.00153846 m³ or 1.53846 L.

Operations should make note of the level of compaction when submitting data for assessment by EarthCheck.

Review of Performance Levels

The Baseline and Best Practice performance levels for EarthCheck indicators are continuously reviewed and are likely to change over time. This review by a team of international experts, takes into account "business-as-usual" changes in practices, equipment and facilities, as well as regulations and general improvement trends in performance and procedures. This review is used to update the levels of Baseline and Best Practice, and provides useful feedback to the user of the indicators.

The list below summarises the basic generic rules used to determine Baseline and Best Practice levels for EarthCheck indicators.

- If relevant enterprise sector specific case studies are not available for a type of activity in a designated region, then national averages will be used to ascertain the Baseline level. In this case, the Best Practice level will be set at a minimum of 30% better performance than the Baseline.
- If case study or national data are not available for a specific indicator, then the first enterprise that benchmarks will have its results set as 15% better than Baseline (i.e., half way between Baseline and Best Practice).