EVALUATE COMMUNICATE EVOLVE

BENCHMARKING ASSESSMENT REPORT

COMMUNITY BENCHMARKING

Snaefellsnes Peninsula
Stykkisholmi, Iceland

Report Date: 25 February 2010

Benchmarking Data Collection Period: 1 January 2008 – 31 December 2008

GREEN GLOBE
earthcheck
science inside

OVERVIEW

This annual assessment of **Snaefellsnes Peninsula** was undertaken against Earthcheck benchmarking indicators and checklists developed for Green Globe and listed below. [1] They have been carefully selected to track performance in key areas of environmental and social performance impact. Their outcomes which are presented in this report are used by Earthcheck to evaluate whether the operation has reached the standards necessary to pass the benchmarking requirements, as stated in the Green Globe Benchmarking Policy. [2]

	earthcheck science inside	Indicator Measure (Benchmark)
1	Policy	Policy is produced and in place
2	Energy	Energy Consumption (MJ / Person Year) Total CO_2-e Produced (t / Person Year) Renewable Energy Used (%)[3]
3	Water	Potable Water Consumption (kL / Person Year) Recycled / Captured Water (%)[3] Water Savings Rating (Points)
4	Waste	Waste Sent to Landfill (m^3 / Person Year) Recycled / Reused / Composted Waste (%)[3] Waste Recycling Rating (Points)
5	Paper	Paper Products Rating (Points)
6	Cleaning	Cleaning Products Rating (Points)
7	Pesticides	Pesticide Products Rating (Points)
8	Sector Specific	Total CO_2-e Produced (t / Person Year) Nitrous Oxides Produced (kg / Person Year) Sulphur Dioxide Produced (kg / Person Year) Particulate Matter Produced (kg / Person Year)

[1] Refer to the Green Globe Sector Benchmarking Indicator (SBI) document for more information. For frequently asked questions (FAQs) about benchmarking or specific help, please log on to 'My EC3 Home' and visit your Earthcheck Benchmarking software.

[2] To meet the requirements stipulated in the Green Globe Company Standard, the benchmarks for all the submitted Earthcheck indicators need to be at, or better than, the Baseline level. Baseline and Best Practice performance levels are set with reference to the type of activity (registered sector/s) and appropriate national and international data which take into account social, geographical and climatic impacts.

First-time benchmarking operations that fail to meet the minimum requirements (Baseline performance or better) for up to two submitted Earthcheck indicators (with a third indicator within 10% of the Baseline level), will be permitted to pass benchmarking. The operation is however, given a maximum of 12 months to improve performance in at least one of the indicators to Baseline performance or better. If on the next submission this is not achieved without substantiated evidence that the situation was beyond the control of the operation (e.g., occurrence of a natural disaster), then the right to use the appropriate Green Globe logo will be withdrawn.

As a standard policy, all Earthcheck indicators are continuously reviewed, along with the performance levels which operators have to achieve in order to meet the requirements of the Company Standard. This review takes into account "business-as-usual" changes in practices and equipment, and is used to update where appropriate Baseline and Best Practice levels.

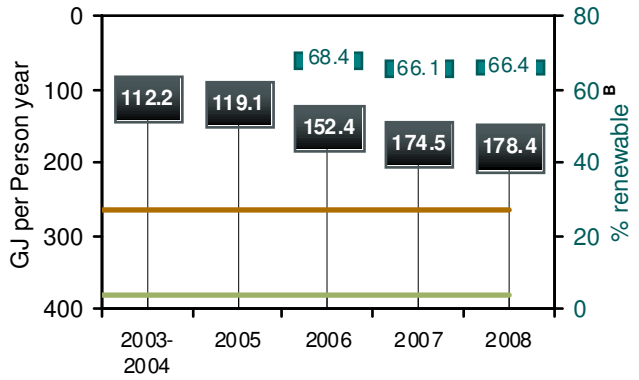
[3] These indicators are for guidance only and do not affect the overall benchmarking evaluation.

	Water Samples Passed (%)
	Habitat Conservation Area (%)
	Green Space (%)
	Accredited Operations (%)

1 Sustainability Policy ★

2 Energy Consumption

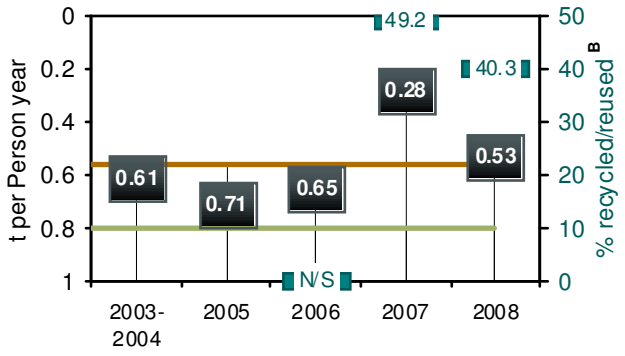
Energy consumed / Person year ★



Snaefellsnes consumed 178.4 GJ per Person Year for the year 2008 (1/01/08 - 31/12/08), which was 32.9% better than the Best Practice level.

4 Waste Sent to Landfill

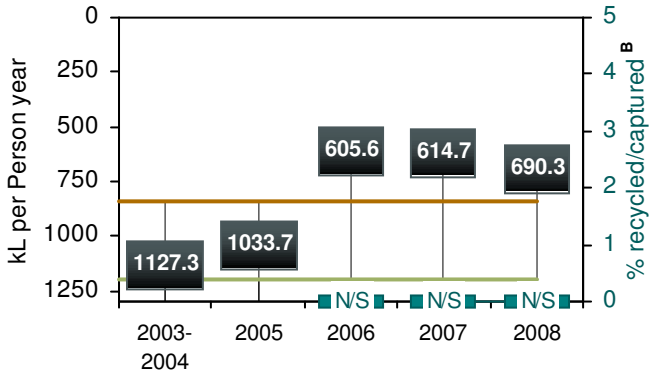
Waste landfilled / Person year ★



Snaefellsnes produced 0.53 t per Person Year for the year 2008 (1/01/08 - 31/12/08), which was 5.4% better than the Best Practice level.

3 Water Consumption [3]

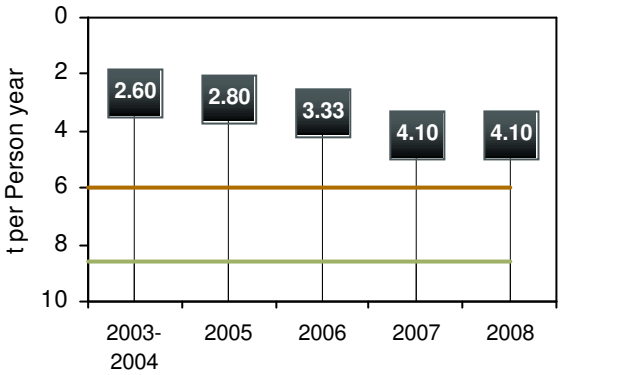
Water consumed / Person year ★



Snaefellsnes consumed 690.3 kL per Person Year for the year 2008 (1/01/08 - 31/12/08), which was 17.8% better than the Best Practice level.

5 Greenhouse Gas (CO_2) Production

Carbon dioxide (CO_2) produced / Person year ★



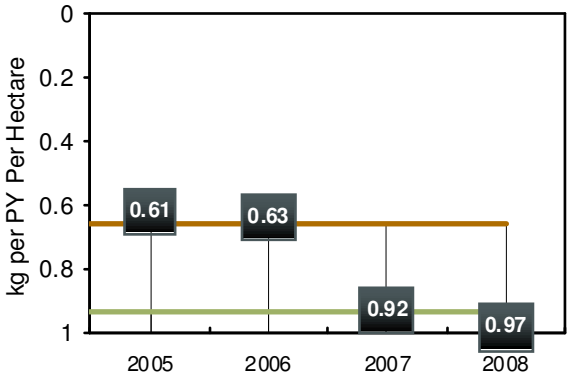
Snaefellsnes produced 4.1 t per Person Year for the year 2008 (1/01/08 - 31/12/08), which was 31% better than the Best Practice level.

Performance level:	*Baseline* ———	*Best Practice* ———	
Current result:	*Below Baseline* ✖	*At or above Baseline* ✓	*At or above Best Practice* ★

[3] Baseline, Best Practice, and Community consumption figures are based on that supplied by water utilities for primarily domestic and commercial/industrial use. Agricultural consumption (including forestry and fisheries) accounts in many countries for around 50-80% of a country's overall consumption of fresh water, but most of this is usually obtained by direct extraction from bore holes and waterways.

6 Air Quality [4]

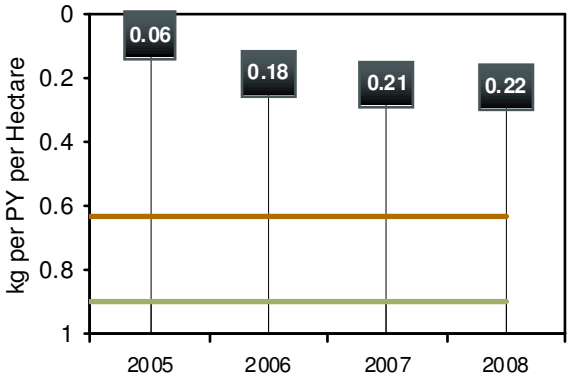
Nitrous oxides (NOx) produced / Person year / Area ✖



Snaefellsnes produced 0.97 kg per Person Year per Hectare for the year 2008 (1/01/08 - 31/12/08), which was 4.7% below the Baseline level.

7 Air Quality [4]

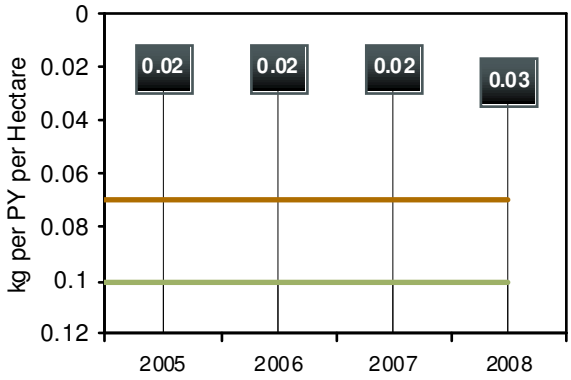
Sulphur dioxide (SO_2) produced / Person year / Area ★



Snaefellsnes produced 0.22 kg per Person Year per Hectare for the year 2008 (1/01/08 - 31/12/08), which was 65% better than the Best Practice level.

8 Air Quality [4]

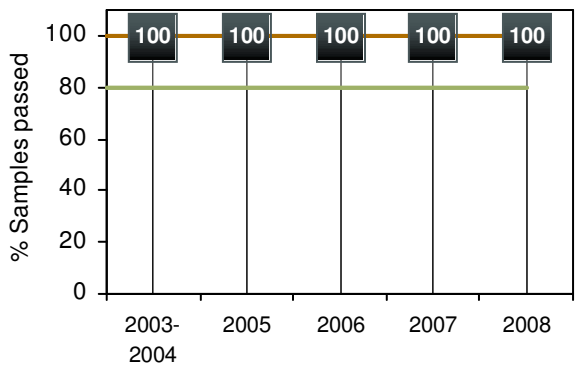
Particulate matter (PM10) produced / Person year / Area ★



Snaefellsnes produced 0.03 kg per Person Year per Hectare for the year 2008 (1/01/08 - 31/12/08), which was 64% better than the Best Practice level.

9 Waterways Quality

Water test passes / Water samples taken ★



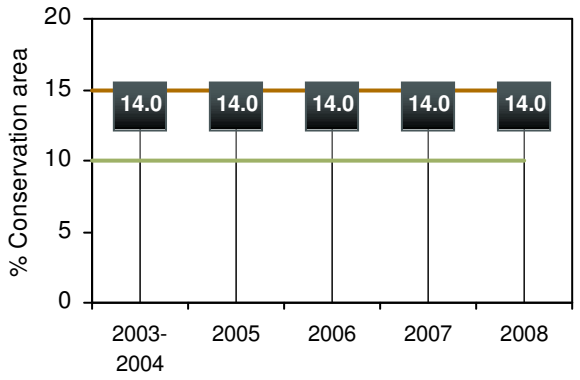
Waterways Quality for the year 2008 (1/01/08 - 31/12/08) was at the Best Practice level.

Performance level:	*Baseline* ———	*Best Practice* ———	
Current result:	*Below Baseline* ✖	*At or above Baseline* ✓	*At or above Best Practice* ★

[4] Baseline, Best Practice, and Community consumption figures are based on that supplied by water utilities for primarily domestic and commercial/industrial use. Agricultural consumption (including forestry and fisheries) accounts in many countries for around 50-80% of a country's overall consumption of fresh water, but most of this is usually obtained by direct extraction from bore holes and waterways.

10 Habitat Conservation (Biodiversity)

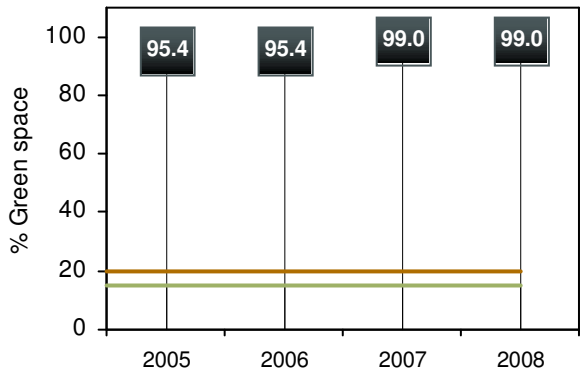
Habitat conservation area (ha) / Total community area (ha) ✓



Habitat Conservation (Biodiversity) for the year 2008 (1/01/08 - 31/12/08) was 40% better than the Baseline level.

11 Green Space

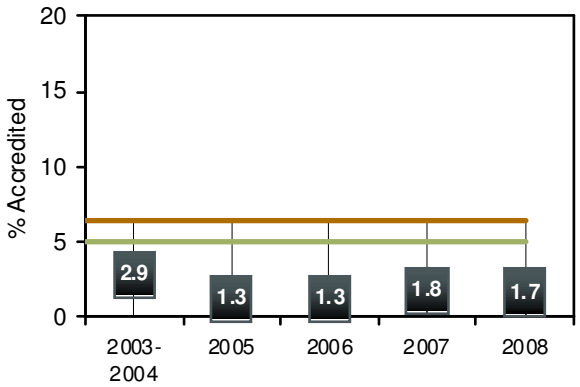
Green space area (ha) / Total community area (ha) ★



Green Space for the year 2008 (1/01/08- 31/12/08) was 79.5% better than the Best Practice level.

12 Travel & Tourism Accreditation

Environmental performance accredited operations / Total travel & tourism operations



Travel & Tourism Accreditation for the year 2008 (1/01/08 - 31/12/08) was 66% below the Baseline level.

It is recognised that in most regions around the world, travel and tourism has not, until very recently, had access to environmental accreditation programs, such as Green Globe, that are suitable for their business.

As a consequence this indicator's role is not to pass/fail a Community, but to encourage local travel and tourism operators, who are generally the main point of contact for visitors to the Community, to start taking part in, and promoting, environmentally aware programs.

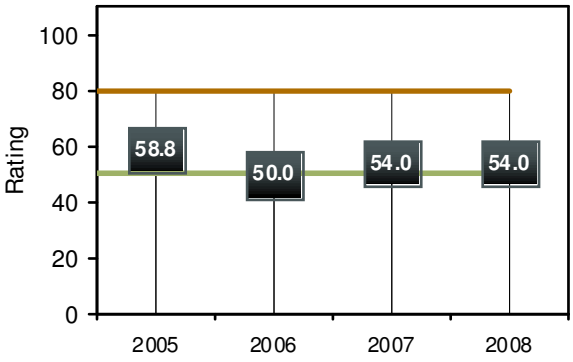
This will not only help support the Community's goals for a better environment, but also promote their own businesses.

Performance level:	*Baseline*	*Best Practice*	
Current result:	*Below Baseline* ✖	*At or above Baseline* ✓	*At or above Best Practice* ★

Lead Agency Performance

13 Water Saving [5]

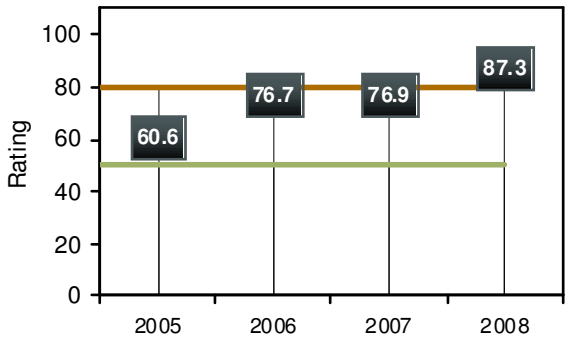
Checklist rating ✓



The Water Saving checklist rating for the year 2008 (1/01/08 - 31/12/08) was 4 points better than the Baseline level.

15 Paper Products [5]

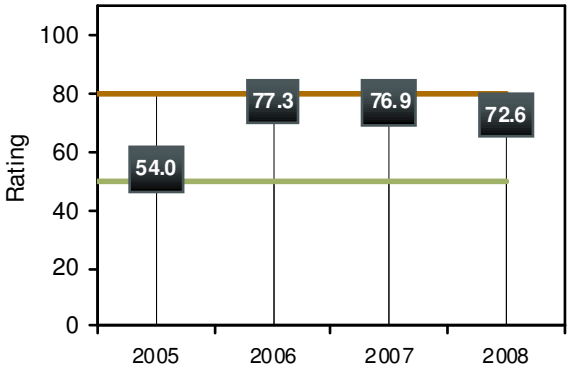
Checklist rating ★



The Paper Products checklist rating for the year 2008 (1/01/08 - 31/12/08) was 7.3 points better than the Best Practice level.

14 Waste Recycling [5]

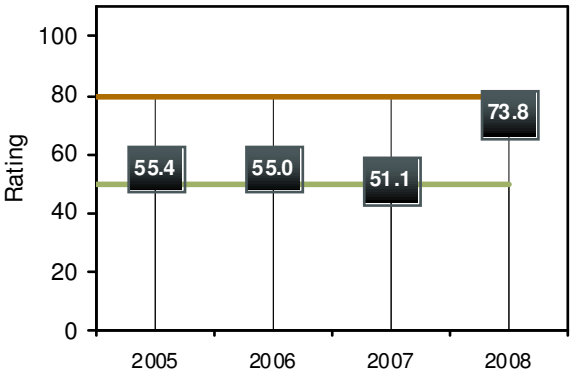
Checklist rating ✓



The Waste Recycling checklist rating for the year 2008 (1/01/08 - 31/12/08) was 22.6 points better than the Baseline Level.

16 Cleaning Products [5]

Checklist rating ✓



The Cleaning Products checklist rating for the year 2008 (1/01/08 - 31/12/08) was 23.8 points better than the Baseline level.

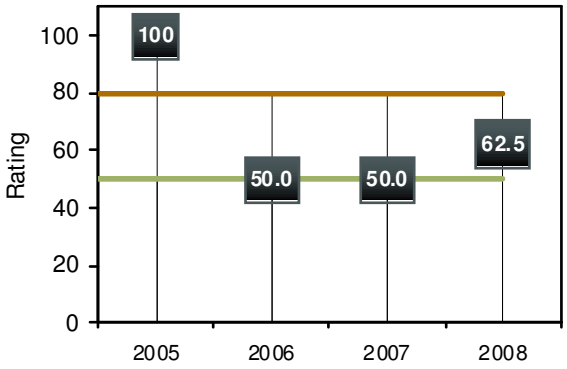
Performance level:	*Baseline*		*Best Practice*
Current result:	*Below Baseline* ✖	*At or above Baseline* ✓	*At or above Best Practice* ★

[5] Assessed for the Community's lead agency – the **Snaefellsnes Council**

Lead Agency Performance

17 Pesticide Products [6]

Checklist rating ✓



The Pesticide Products checklist rating for the year 2008 (1/01/08 - 31/12/08)
Was 12.5 points above the Baseline level.

Performance level:	*Baseline*	*Best Practice*	
Current result:	*Below Baseline* ✗	*At or above Baseline* ✓	*At or above Best Practice* ★

[6] Assessed for the Community's lead agency – the **Snaefellsnes Council**

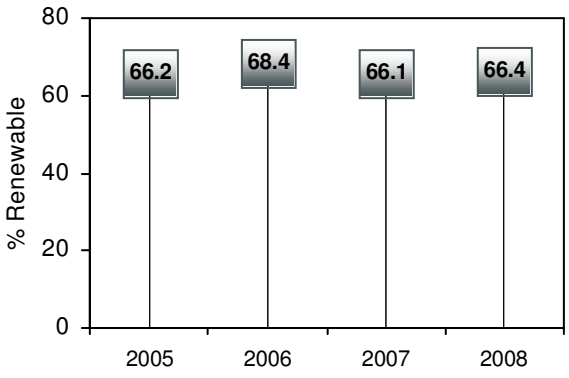
OPTIONAL BENCHMARKING INDICATORS

Snaefellsnes has also nominated optional Community Selected and Specified Indicators that they consider relevant to their specific locality. These indicators do not form part of the formal annual benchmarking exercise, however, their use reflects a commendable and very positive commitment by the lead agency to monitoring key factors that can impact on the community's environment.

Selected Indicators [7]

1 Renewable Energy Consumption

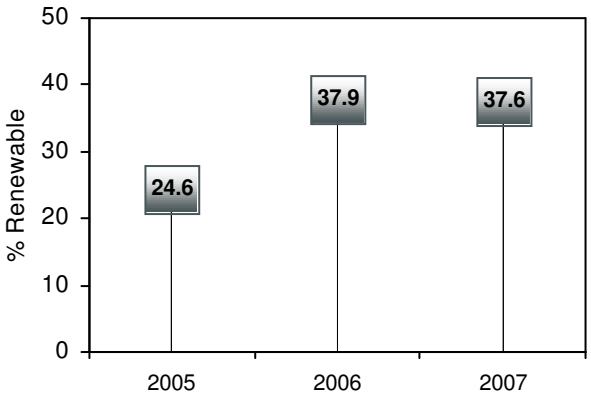
Renewable energy consumption (MJ) pa / Total energy consumption (MJ) pa



Specified Indicators [8]

2 Renewable Energy Production

Local renewable energy production (MJ) pa / Total energy consumption (MJ) pa



[12] Selected from a supplied list of Earthcheck indicators

[13] Indicators devised by the Community for local performance assessment

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

CONCLUSION AND RECOMMENDATIONS

Congratulations, **Snaefellsnes** has passed the requirements to continue to be recognised as a Green Globe Benchmarked Community and retains the right to display the Green Globe Benchmarked logo.

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, the following indicators, *Energy Consumption, Water Consumption, Waste Sent to Landfill, Greenhouse Gas (CO_2) Production, Air Quality (SO_2), Air Quality (PM10), Waterways Quality, Green Space* and *Paper Products,* are at or above the Best Practice level, which is an achievement to be very highly commended.

In addition, the use of optional Community Selected and Community Specified Indicators further demonstrates a very positive commitment to protecting the community's environment.

The following indicator for Air Quality (NOx) was 4.7% below baseline level. Within the next 12months it is recommended that **Snaefellsnes** make improvements to ensure that Air Quality (NOx) will meet baseline level for the next Benchmarking period.

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** has demonstrated to the environment, the assessors are confident that they can maintain or improve performance, where appropriate and practical, in all indicators. In line with Green Globe Policy this would enable Benchmarked status to be retained.

APPENDIX

BENCHMARK REVIEW

As standard policy, all Earthcheck indicators are reviewed annually, along with the performance levels which operators have to achieve in order to meet the benchmarking requirements. This review takes into account "business-as-usual" changes in practices and equipment, and is used to update where appropriate Baseline and Best Practice levels.

The Benchmark Review was undertaken in April 20089. The following benchmarks were revised as part of the review:

Iceland Community

Water Saving:

- Previous Baseline Level: 50 points
- Previous Best Practice Level: 75 points
- **Revised Baseline Level: 50 points**
- **Revised Best Practice Level: 80 points**

Waste Recycling:

- Previous Baseline Level: 50 points
- Previous Best Practice Level: 75 points
- **Revised Baseline Level: 50 points**
- **Revised Best Practice Level: 80 points**

Community Contributions:

- Previous Baseline Level: 50 points
- Previous Best Practice Level: 75 points
- **Revised Baseline Level: 50 points**
- **Revised Best Practice Level: 80 points**

Paper Products:

- Previous Baseline Level: 50 points
- Previous Best Practice Level: 75 points
- **Revised Baseline Level: 50 points**
- **Revised Best Practice Level: 80 points**

Cleaning Products:

- Previous Baseline Level: 50 points
- Previous Best Practice Level: 75 points
- **Revised Baseline Level: 50 points**
- **Revised Best Practice Level: 80 points**

Pesticide Products:

- Previous Baseline Level: 50 points
- Previous Best Practice Level: 75 points
- **Revised Baseline Level: 50 points**
- **Revised Best Practice Level: 80 points**

WATER SAVINGS

The Benchmarking Assessors sought clarification for *Water Savings* as no figure was submitted; the **Snaefellsnes Peninsula** advised that all the checklist indicators for *Water Savings* are Not Relevant. Based on the **Snaefellsnes Peninsula's** previous Benchmarking Assessment it was identified that *check for leaks* was relevant to the community. Based on this information the checklist has been re-calculated as per the previous Assessment providing **Snaefellsnes Peninsula** with a rating of 54 points. As the checklist has been based on the assumption of the previous assessment it is recommended that the *Water Savings* checklist is verified at time of Certification.

earthcheck
science inside

Benchmarks assessed by Earthcheck

Green Globe is managed by EC3 Global, a wholly owned subsidiary of the Sustainable Tourism Cooperative Research Centre (STCRC), which is the largest sustainable tourism research organisation in the world.

The CRC is an Australian Government Initiative.

SUSTAINABLE TOURISM CRC

An Australian Government Initiative

SUMMARY OF BENCHMARKING DATA

Activity Measure(s)						
Person Years	4266	PY		**Waterways Quality**		
Total Community Area	146,700	ha			Indicator	
				Supplied	100	
Energy Consumption				*Baseline*	*80*	*%*
	Indicator			*Best Practice*	*100*	*%*
Supplied	760 933	GJ		*% difference*	*0*	*at BL*
Calculated	178.4	GJ per PY				
Baseline	*380*	*GJ per PY*		**Habitat Conservation (Biodiversity)**		
Best Practice	*266*	*GJ per PY*			Indicator	
% difference	*32.9%*	*better than BP*		Supplied	14	%
				Baseline	*10*	*%*
Renewable	66.4	%		*Best Practice*	*15*	*%*
				% difference	*4*	*better than BL*
Water Consumption						
	Indicator			**Green Space**		
Supplied	2,944,797	kL			Indicator	
Calculated	690.3	kL per PY		Supplied	99.0	%
Baseline	*1200*	*kL per PY*		*Baseline*	*15*	
Best Practice	*840*	*kL per PY*		*Best Practice*	*19.5*	
% difference	*17.8%*	*better than BP*		*% difference*	*79.5*	*better than BP*
Recycled/captured	N/S	%		**Travel & Tourism Accreditation**		
					Indicator	
Waste Sent to Landfill				Supplied	1.7	%
	Indicator			*Baseline*	*5*	*%*
Supplied	7532.2	m^3		*Best Practice*	*6.5*	*%*
Converted	1,154.8	t (uncompacted)		*% difference*	*3.3*	*below BL*
Calculated	0.529	t per PY				
Baseline	*0.8*	*t per PY*		**Lead Agency Performance:**		
Best Practice	*0.56*	*t per PY*				
% difference	*5.4%*	*better than BP*		**Water Saving**		
					Checklist	
Recycled/reused	40.3	%		Supplied Rating	54	
				Baseline	*50*	
Carbon Dioxide (CO_2) Production				*Best Practice*	*80*	
	Indicator			*points difference*	*4.0*	*better than BL*
Total CO_2	17 667	t				
	4.1	t per PY		**Waste Recycling**		
Baseline	*8.6*	*t per PY*			Checklist	
Best Practice	*6*	*t per PY*		Supplied Rating	72.6	
% difference	*31*	*better than BP*		*Baseline*	*50*	
				Best Practice	*80*	
				points difference	*22.6*	*better than BL*

Air Quality - Nitrous Oxides (NOx) Produced				Paper Products		
	Indicator				Checklist	
Calculated	134,000	kg		Supplied Rating	87.3	
	0.974	kg per PY per ha		*Baseline*	*50*	
Baseline	*0.93*	*kg per PY per ha*		*Best Practice*	*80*	
Best Practice	*0.65*	*kg per PY per ha*		*points difference*	*7.3*	*better than BP*
% difference	*4.7*	*below BL*				
				Cleaning Products		
Air Quality - Sulphur Dioxide (SO_2) Produced					Checklist	
	Indicator			Supplied Rating	73.8	
Calculated	10,450	kg		*Baseline*	*50*	
	0.221	kg per PY per ha		*Best Practice*	*80*	
Baseline	*0.9*	*kg per PY per ha*		*points difference*	*23.8*	*better than BL*
Best Practice	*0.63*	*kg per PY per ha*				
% difference	*65*	*better than BP*		**Pesticide Products**		
					Checklist	
Air Quality - Particulate Matter (PM10) Produced				Supplied Rating	62.5	
	Indicator			*Baseline*	*50*	
Calculated	507,028	kg		*Best Practice*	*80*	
	0.025	kg per PY per ha		*points difference*	*12.5*	*Better than BL*
Baseline	*0.1*	*kg per PY per ha*				
Best Practice	*0.07*	*kg per PY per ha*				
% difference	*64.3*	*better than BP*				

Energy Consumption

Source	Quantity	Unit	Energy Consumption (MJ)	Total CO_2-e Produced (t)
Hydro - Grid	90 358 591	kWh (kilowatt hour)	325 290 927.6 MJ	0.0 t
Hydro	532 560	kWh (kilowatt hour)	1 917 216.0 MJ	0.0 t
Gasoline (automotive)	2 405 540	L (litre)	82 269 468.0 MJ	5429.8 t
Diesel	3 569 775	L (litre)	137 793 315.0 MJ	9604.2 t
Hydro	49 419 700	kWh (kilowatt hour)	177 910 920.0 MJ	0.0 t
Oil (fuel)	876 267	L (litre)	35 751 693.6 MJ	2631.3 t
		Totals:	**760 933 GJ**	**176 65.3 t**

N/S - Not submitted.

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 solid waste production (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., litres (L)). These are 300 kg/m^3 for uncompacted waste or 650 kg/m^3 for lightly compacted waste.

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).