



EARTHCHECK

BENCHMARKING ASSESSMENT REPORT

ACCOMMODATION - VACATION HOTEL BENCHMARKING

CENTARA KARON RESORT PHUKET
AMPHUR MUANG, PHUKET, THAILAND



REPORT DATE: 23 March 2011

Benchmarking Data Collection Period: 1 September 2009 – 31 August 2010

The planet deserves more than half measures

OVERVIEW

This annual assessment of **Centara Karon Resort Phuket** was undertaken against EarthCheck benchmarking indicators and checklists developed for EarthCheck 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 EarthCheck Benchmarking Policy. ²

| | | Indicator Measure (Benchmark) |
|----------|------------|---|
| 1 | Policy | Policy is produced and in place |
| 2 | Energy | Energy Consumption (MJ / Guest Night) Total CO ₂ -e Produced (t CO ₂ -e / Guest Night) Renewable Energy Used (%) ³ |
| 3 | Water | Potable Water Consumption (kL / Guest Night) Water Savings Rating (Points) Recycled / Captured Water (%) ³ |
| 4 | Waste | Waste Sent to Landfill (m ³ / Guest Night) Waste Recycling Rating (Points) Recycled / Reused / Composted Waste (%) ³ |
| 5 | Community | Community Commitment (%) Community Contributions Rating (Points) |
| 6 | Paper | Paper Products Rating (Points) |
| 7 | Cleaning | Cleaning Products Rating (Points) |
| 8 | Pesticides | Pesticide Products Rating (Points) |

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

² To meet the requirements stipulated in the EarthCheck 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 EarthCheck 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.

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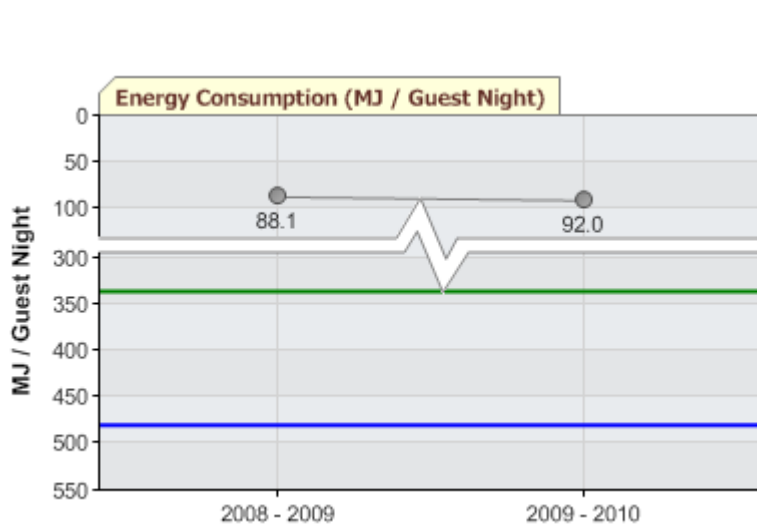
ACCOMMODATION - VACATION HOTEL PERFORMANCE BENCHMARKS

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

1. Policy ★

2. Energy

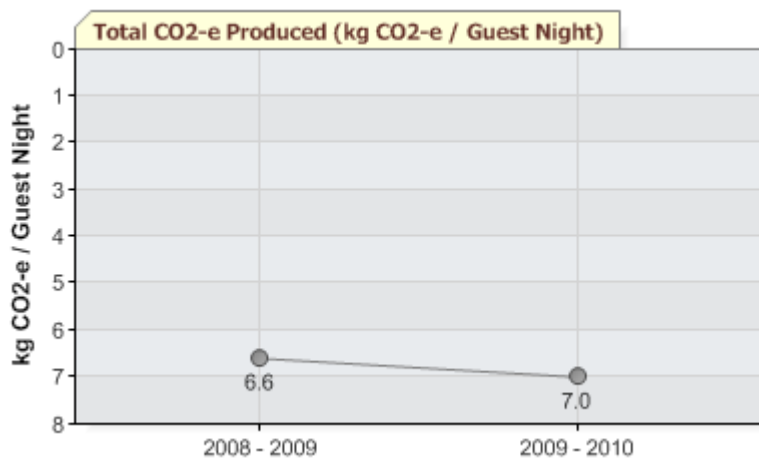
Energy Consumption (MJ / Guest Night) ★



Energy Consumption (MJ / Guest Night) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 92.0 MJ / Guest Night, which was 72.6% better than the Best Practice level.

| Source | Quantity | Unit | Energy Consumption (MJ) | Total CO ₂ -e Produced (t CO ₂ -e) |
|-------------------------|----------|---------------------|-------------------------|--|
| Liquefied Petroleum Gas | 29172 | L (litre) | 749720.4 MJ | 44.5 t CO ₂ -e |
| Gasoline (automotive) | 47416.1 | L (litre) | 1621630.6 MJ | 107.0 t CO ₂ -e |
| Diesel - Grid | 4646766 | kWh (kilowatt hour) | 16728357.6 MJ | 1295.5 t CO ₂ -e |
| | | Totals: | 19099708.6 MJ | 1447.1 t CO₂-e |

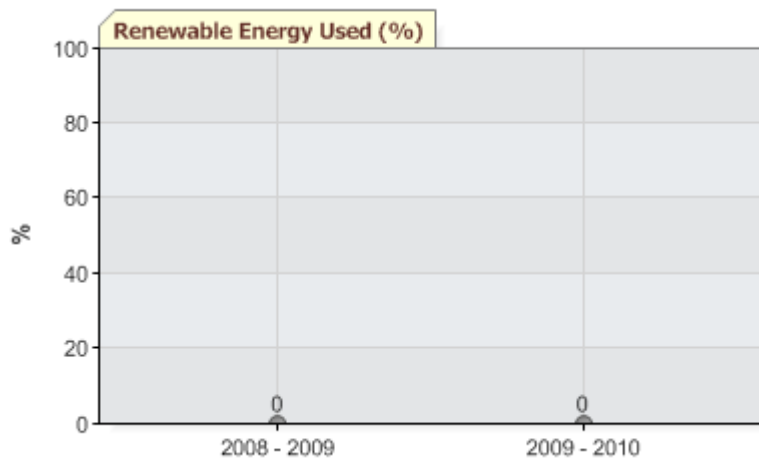
Total CO₂-e Produced (kg CO₂-e / Guest Night)



Centara Karon
Resort Phuket

Total CO₂-e Produced (kg CO₂-e / Guest Night) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 7.0 kg CO₂-e / Guest Night.

Renewable Energy Used (%)

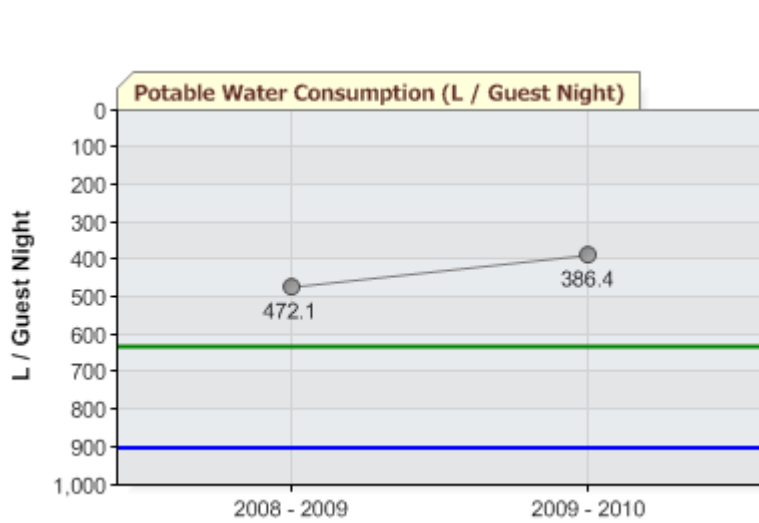


Centara Karon
Resort Phuket

Renewable Energy Used (%) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 0%.

3. Water

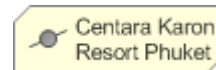
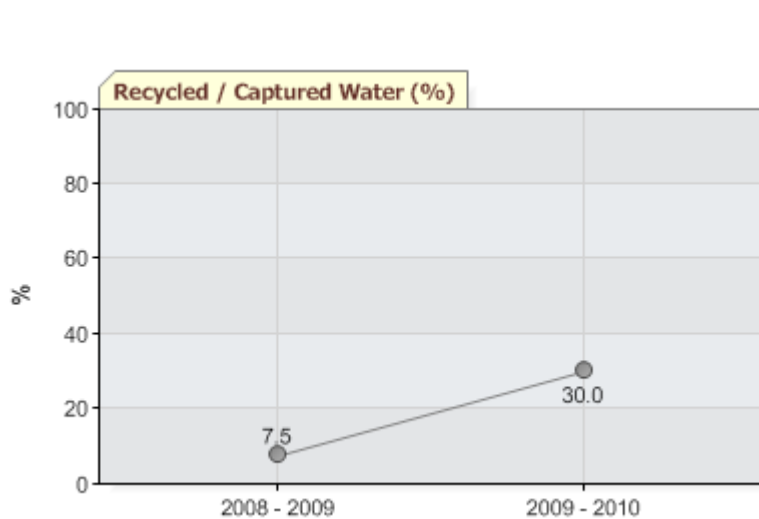
Potable Water Consumption (L / Guest Night) ★



Potable Water Consumption (L / Guest Night) for the year 2009 - 2010 (1 September 2009– 31 August 2010) was 386.4 L / Guest Night, which was 38.7% better than the Best Practice level.

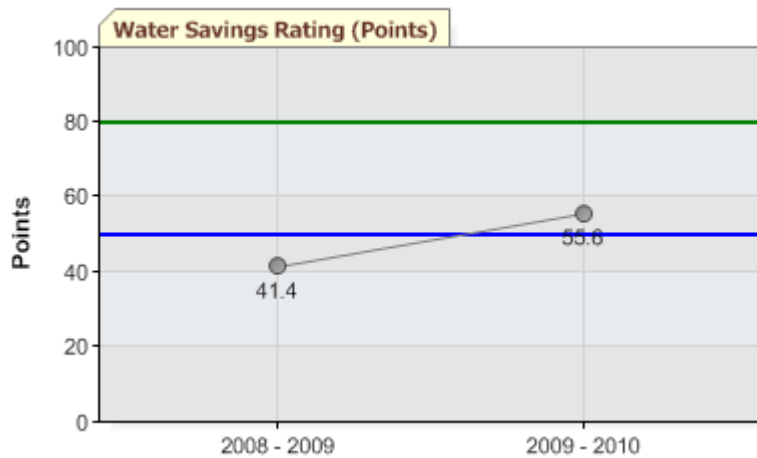
| Quantity | Unit | Potable Water Consumption (kL) |
|----------|-----------------|--------------------------------|
| 80183 | kilolitres (kL) | 80183.0 kL |
| | Totals: | 80183.0 kL |

Recycled / Captured Water (%)



Recycled / Captured Water (%) for the year 2009 - 2010 (1 September 2009– 31 August 2010) was 30.0%.

Water Savings Rating (Points) ✓

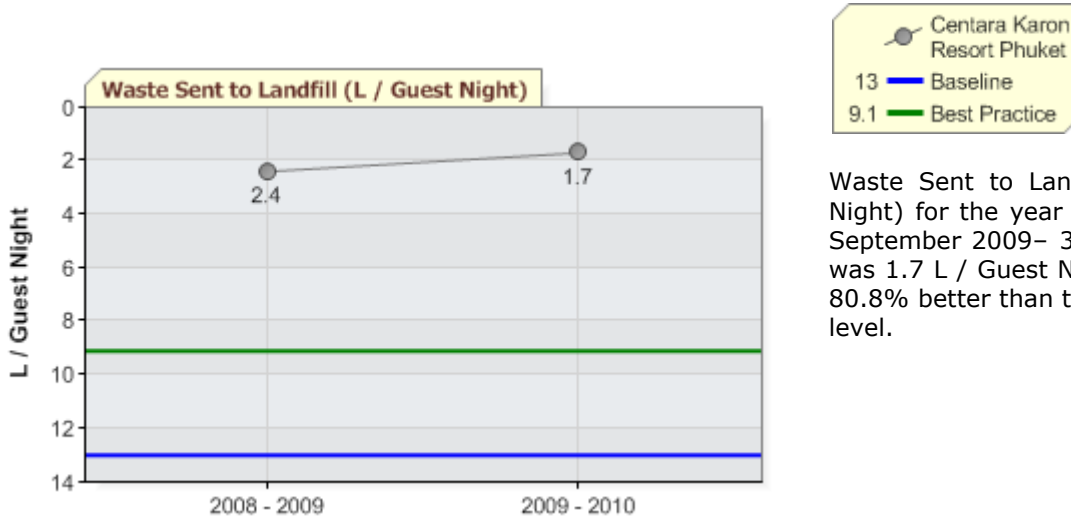


Water Savings Rating (Points) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 55.6 Points, which was 5.6 Points better than the Baseline level.

| Water Savings Measures | Frequency / Percentage Rating | Water Savings Rating (Points) |
|----------------------------------|-------------------------------|-------------------------------|
| Check for leaks | Every week | 100.0 Points |
| Low/dual flush toilets | 20-39% | 58.8 Points |
| Low flow tap fittings | 20-39% | 58.8 Points |
| Low flow shower fittings | 20-39% | 58.8 Points |
| Water sprinklers used after dark | 0% | 0.0 Points |
| Minimal irrigation landscaping | 1-19% | 54.0 Points |
| Use of recycle/grey/rain water | 20-39% | 58.8 Points |
| | Overall Rating: | 55.6 Points |

4. Waste

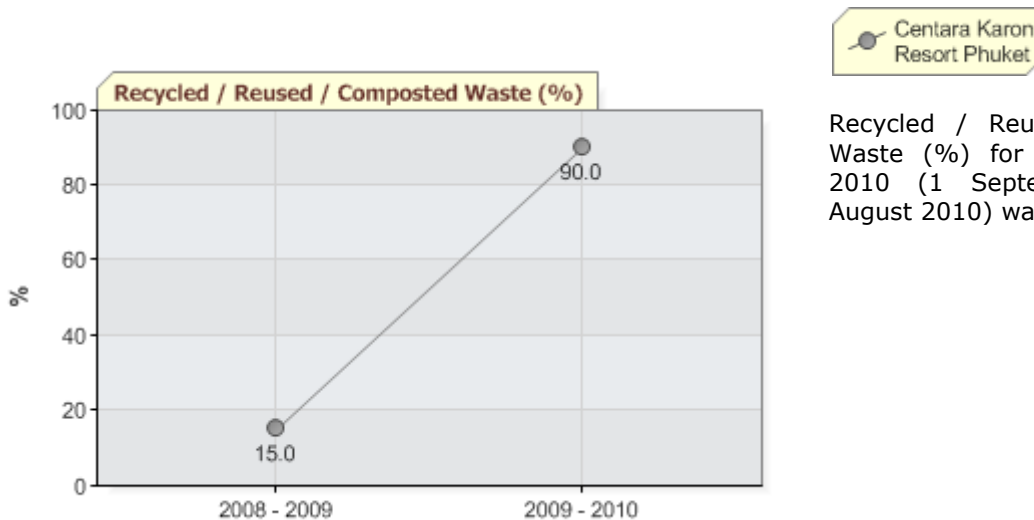
Waste Sent to Landfill (L / Guest Night) ★



Waste Sent to Landfill (L / Guest Night) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 1.7 L / Guest Night, which was 80.8% better than the Best Practice level.

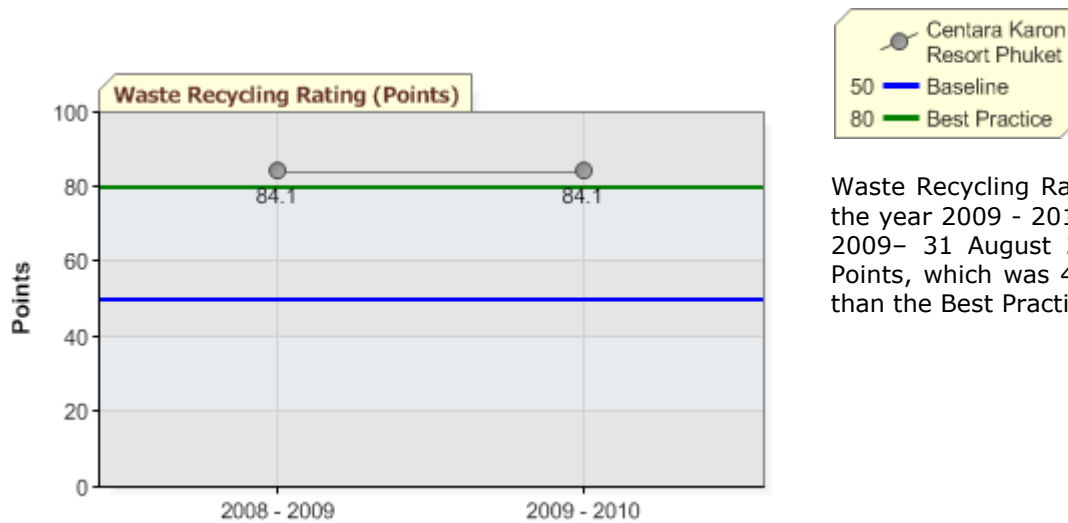
| Quantity | Unit | Waste Sent to Landfill (m ³) |
|----------|-------------------------|--|
| 108800 | kilograms (uncompacted) | 362.7 m ³ |
| | Totals: | 362.7 m³ |

Recycled / Reused / Composted Waste (%)



Recycled / Reused / Composted Waste (%) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 90.0%.

Waste Recycling Rating (Points) ★

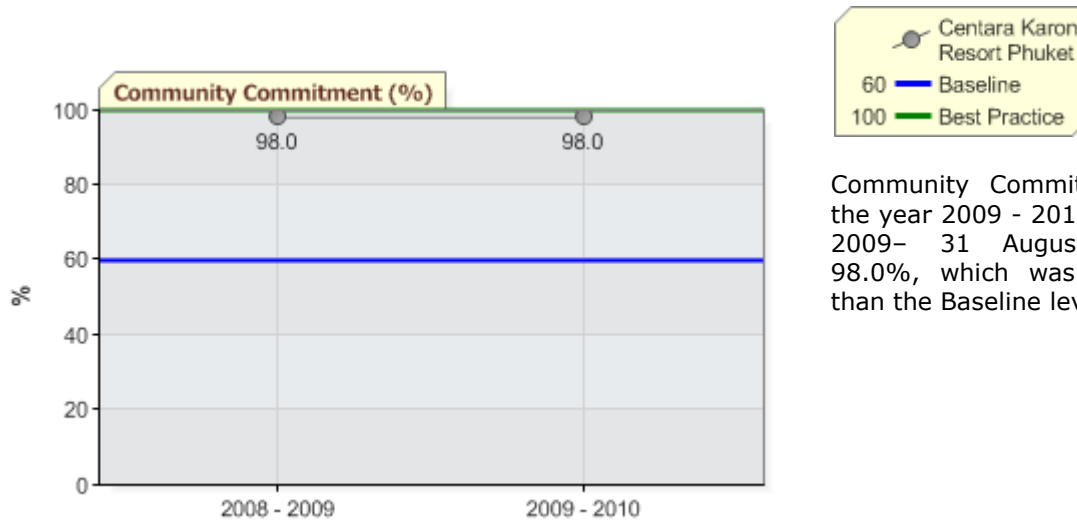


Waste Recycling Rating (Points) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 84.1 Points, which was 4.1 Points better than the Best Practice level.

| Waste Recycling Measures | Frequency / Percentage Rating | Waste Recycling Rating (Points) |
|-------------------------------|-------------------------------|---------------------------------|
| Glass | 80-99% | 88.9 Points |
| Paper/card | 80-99% | 88.9 Points |
| Iron & steel (ferrous metals) | 60-79% | 73.9 Points |
| Other metals (non-ferrous) | 60-79% | 73.9 Points |
| Plastics | 80-99% | 88.9 Points |
| Rubber | 60-79% | 73.9 Points |
| Green waste | 100% | 100.0 Points |
| | Overall Rating: | 84.1 Points |

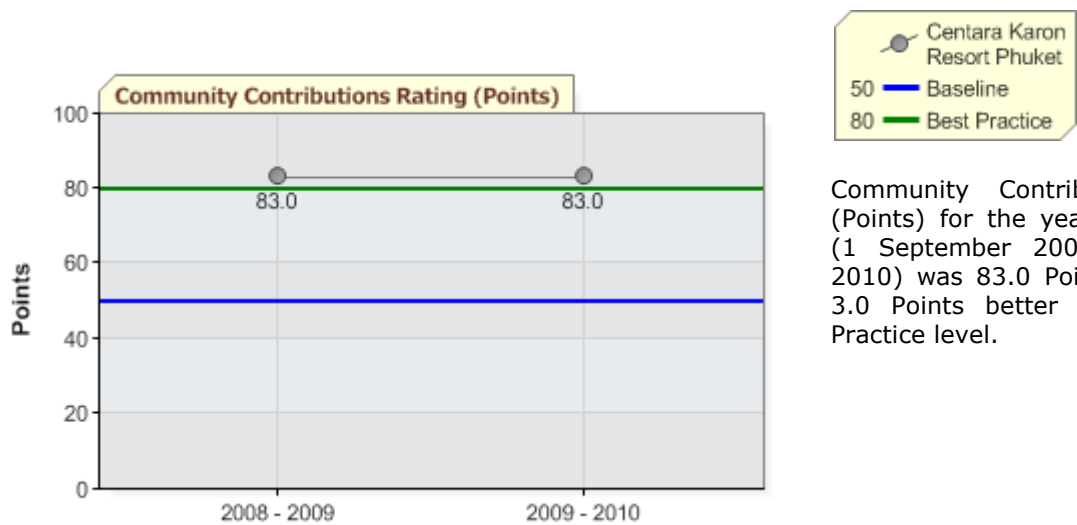
5. Community

Community Commitment (%) ✓



Community Commitment (%) for the year 2009 - 2010 (1 September 2009– 31 August 2010) was 98.0%, which was 38.0% better than the Baseline level.

Community Contributions Rating (Points) ★

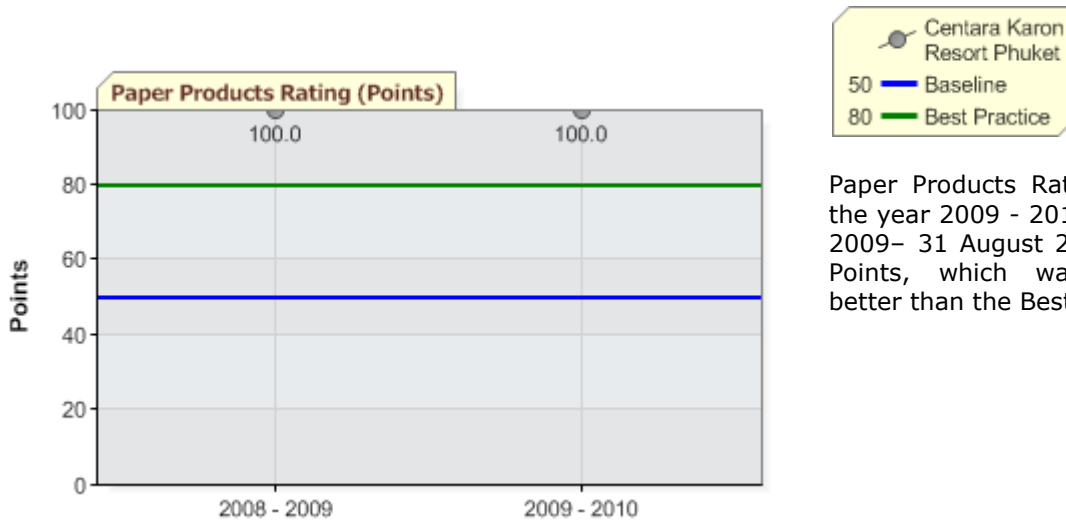


Community Contributions Rating (Points) for the year 2009 - 2010 (1 September 2009– 31 August 2010) was 83.0 Points, which was 3.0 Points better than the Best Practice level.

| Community Contributions Measures | Frequency / Percentage Rating | Community Contributions Rating (Points) |
|---|-------------------------------|---|
| Net income spent on sustainability programs | 0.1% - 1.9% | 54.0 Points |
| Perishable purchased goods that are of local origin | 80-99% | 88.9 Points |
| Service contracts given to local contractors | 100% | 100.0 Points |
| Staff received training on sustainability issues | 80-99% | 88.9 Points |
| | Overall Rating: | 83.0 Points |

6. Paper

Paper Products Rating (Points) ★

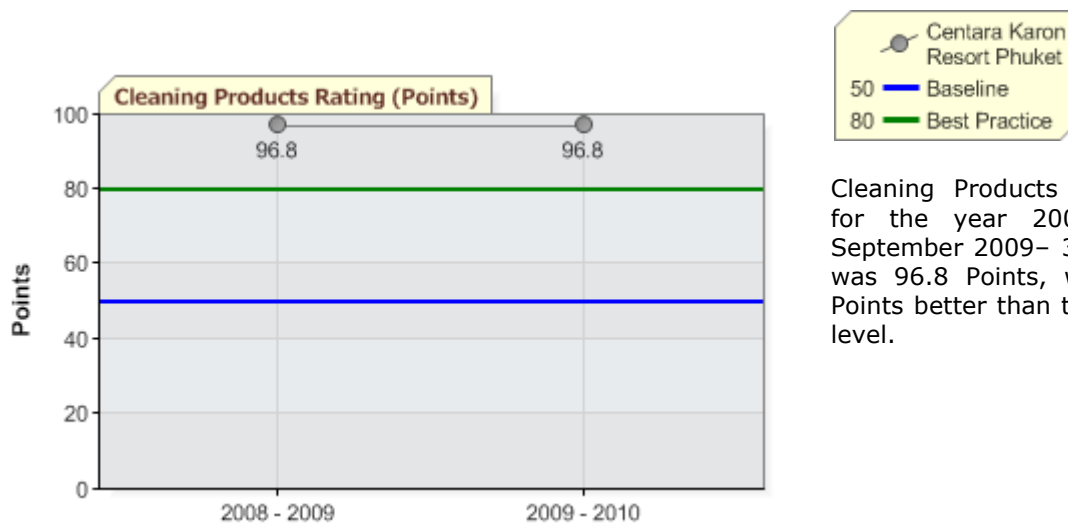


Paper Products Rating (Points) for the year 2009 - 2010 (1 September 2009– 31 August 2010) was 100.0 Points, which was 20.0 Points better than the Best Practice level.

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

7. Cleaning

Cleaning Products Rating (Points) ★

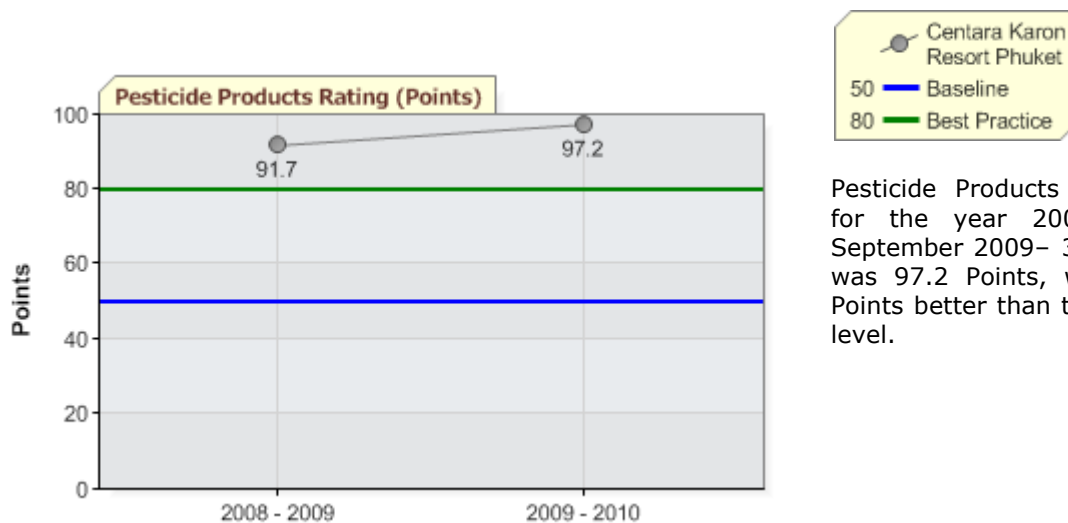


Cleaning Products Rating (Points) for the year 2009 - 2010 (1 September 2009– 31 August 2010) was 96.8 Points, which was 16.8 Points better than the Best Practice level.

| Cleaning Products Measures | Frequency / Percentage Rating | Cleaning Products Rating (Points) |
|----------------------------|-------------------------------|-----------------------------------|
| Hard floor cleaners | 80-99% | 88.9 Points |
| Carpet cleaners | 100% | 100.0 Points |
| Interior surface cleaners | 100% | 100.0 Points |
| External surface cleaners | 80-99% | 88.9 Points |
| Glass cleaners | 100% | 100.0 Points |
| Detergents | 100% | 100.0 Points |
| Personal hygiene | 100% | 100.0 Points |
| | Overall Rating: | 96.8 Points |

8. Pesticides

Pesticide Products Rating (Points) ★



Pesticide Products Rating (Points) for the year 2009 - 2010 (1 September 2009- 31 August 2010) was 97.2 Points, which was 17.2 Points better than the Best Practice level.

| Pesticide Products Measures | Frequency / Percentage Rating | Pesticide Products Rating (Points) |
|-----------------------------|-------------------------------|------------------------------------|
| Weed killers | 100% | 100.0 Points |
| Fungal killers | 100% | 100.0 Points |
| Rodent killers | 100% | 100.0 Points |
| Insect killers | 80-99% | 88.9 Points |
| | Overall Rating: | 97.2 Points |

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

CONCLUSION AND RECOMMENDATIONS

Congratulations, **Centara Karon Resort Phuket** has passed the requirements to be recognised as an EarthCheck Benchmarked Accommodation - Vacation Hotel.

In addition to having a Sustainability Policy in place, ten of the assessed EarthCheck indicators are at or above the Baseline level. From the benchmarking data provided, eight indicators, *Energy Consumption, Potable Water Consumption, Waste Sent to Landfill, Waste Recycling Rating, Community Contributions Rating, Paper Products Rating, Cleaning Products Rating* and *Pesticide Products Rating*, are at or above the Best Practice level, which is an achievement to be very highly commended.

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 **Centara Karon Resort Phuket** 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 EarthCheck Policy this would enable the **Centara Karon Resort Phuket** to continue to meet the benchmarking requirements of the EarthCheck program.

APPENDIX

BENCHMARKING POLICY

A member benchmarking for the 2nd time is permitted to fall below Baseline in one (1) EarthCheck™ indicator (excluding supplementary EarthCheck™ indicators) with a 2nd EarthCheck™ indicator permitted to be within 10% of the Baseline level. **A member benchmarking for the 3rd time is not permitted to fall below Baseline in any EarthCheck™ indicators (excluding supplementary EarthCheck™ indicators), however, one (1) EarthCheck™ indicator may be within 10% of the Baseline level.**

ACTIVITY MEASURE

The Benchmarking Assessors sought clarification regarding the activity measure *Guest Nights* as the submitted figure of 228 083 *Guest Nights* was greater than expected. The **Centara Karon Resort Phuket** advised:

"to Activity Measure (Guest nights), the figure of this year was correct. as we just find out that the figure of last year was incorrect, please see the detail below;"

*This Year: Activity Measure (Guest nights): 228,083
Last Year: 107,922 should be 203,292*

The Benchmarking Assessors enquired as to the methodology used to calculate the *Guest Nights* figure. The **Centara Karon Resort Phuket** replied:

"After recalculating the figures we came to the same amount of guest nights as last email, please see the calculation below."

*Calculation (Sep. 08 - Aug. 09) =(Total guests staying overnight) + (Total day guests / 3)
= 203,292 + 0 (we're not allow non-resident use of our hotel facilities)
= 203,292 (included child)*

*Calculation (Sep. 09 - Aug. 10 =(Total guests staying overnight) + (Total day guests / 3)
= 207,539 + 0 (we're not allow non-resident use of our hotel facilities)
= 207,539 (included child)*

Therefore the Benchmarking Assessors have updated the figure for the 2008 -2009 benchmarking period to 203 292 *Guest Nights*. The figure for the 2009-2010 benchmarking period has also been updated to 207 539 *Guest Nights*.

This figure has been used throughout the assessment.

ENERGY CONSUMPTION

The submitted sources for *Energy Consumption* were:

| Source | Quantity | Unit | Energy Consumption (MJ) | Total CO ₂ -e Produced (t CO ₂ -e) |
|-------------------------|--------------|---------------------|-------------------------|--|
| Liquefied Petroleum Gas | 29 172 | L (litre) | 749 720.4 MJ | 44.5 t CO ₂ -e |
| Diesel - Grid | 4 609 286.52 | kWh (kilowatt hour) | 16 593 431.5 MJ | 1 285.1 t CO ₂ -e |
| Gasoline (automotive) | 47 416.1 | L (litre) | 1 621 630.6 MJ | 107.0 t CO ₂ -e |
| | | Totals: | 18 964 782.5 MJ | 1 436.6 t CO₂-e |

These sources produced a total of 18 964 782.5 MJ which equated to 83.1 MJ per Guest Night. Total Carbon Dioxide (CO₂) produced was 1 436 630 kg which equated to 6.3 kg per Guest Night.

The Benchmarking Assessors reviewed the submitted verification documents for energy and have provided the following monthly breakdown of total *Energy Consumption*:

| Electricity | | |
|--------------|------------------|------------|
| Sep-09 | 346 752 | kWh |
| Sep-09 | 57 696 | kWh |
| Oct-09 | 70 176 | kWh |
| Oct-09 | 355 482 | kWh |
| Nov-09 | 45 240 | kWh |
| Nov-09 | 297 354.6 | kWh |
| Dec-09 | 306 815.4 | kWh |
| Dec-09 | 57 540 | kWh |
| Jan-10 | 342 792 | kWh |
| Jan-10 | 65 580 | kWh |
| Feb-10 | 335 610 | kWh |
| Feb-10 | 69 072 | kWh |
| Mar-10 | 374 544 | kWh |
| Mar-10 | 81 600 | kWh |
| Apr-10 | 62 136 | kWh |
| Apr-10 | 367 632 | kWh |
| May-10 | 44 280 | kWh |
| May-10 | 345 330 | kWh |
| Jun-10 | 50 880 | kWh |
| Jun-10 | 306 144 | kWh |
| Jul-10 | 257 850 | kWh |
| Jul-10 | 64 272 | kWh |
| Aug-10 | 277 920 | kWh |
| Aug-10 | 64 068 | kWh |
| Total | 4 646 766 | kWh |

As the figure submitted for Diesel - Grid did not match the figure calculated from the energy bills, the Benchmarking Assessors have revised the total *Energy Consumption* as per below:

| Source | Quantity | Unit | Energy Consumption (MJ) | Total CO ₂ -e Produced (t CO ₂ -e) |
|-------------------------|-----------|---------------------|-------------------------|--|
| Liquefied Petroleum Gas | 29 172 | L (litre) | 749 720.4 MJ | 44.5 t CO ₂ -e |
| Gasoline (automotive) | 47 416.1 | L (litre) | 1 621 630.6 MJ | 107.0 t CO ₂ -e |
| Diesel - Grid | 4 646 766 | kWh (kilowatt hour) | 16 728 357.6 MJ | 1 295.5 t CO ₂ -e |
| | | Totals: | 19 099 708.6 MJ | 1 447.1 t CO₂-e |

These sources produce a total of 19 099 708.6 MJ which equates to 92 MJ per Guest Night. Total Carbon Dioxide (CO₂) produced was 1 447 079.4 kg which equates to 7.0 kg per Guest Night.

As there were no renewable source of energy submitted the figure for percentage of energy from renewable sources was changed from 10 % to 0 %. Please refer to the energy table on page 2 for more information.

POTABLE WATER CONSUMPTION

The submitted figure for *Potable Water Consumption* was:

| Quantity | Unit | Potable Water Consumption (kL) |
|----------|----------------|--------------------------------|
| 75 035 | cubic metres | 75 035.0 kL |
| | Totals: | 75 035.0 kL |

This equated to 329 L per Guest Night.

The Benchmarking Assessors reviewed the submitted verification documents for water and have provided the following monthly breakdown of total *Potable Water Consumption*:

| Water | | |
|---------------|---------------|-----------|
| Sep-09 | 6 563 000 | L |
| Oct-09 | 6 192 000 | L |
| Nov-09 | 6 683 000 | L |
| Dec-09 | 5 261 000 | L |
| Jan-10 | 8 183 000 | L |
| Feb-10 | 8 024 000 | L |
| Mar-10 | 7 190 000 | L |
| Apr-10 | 7 796 000 | L |
| May-10 | 6 929 000 | L |
| Jun-10 | 8 688 000 | L |
| Jul-10 | 4 558 000 | L |
| Aug-10 | 4 116 000 | L |
| Total: | 80 183 000 | L |
| Total: | 80 183 | kL |

As the figure submitted for water consumption did not match the figure calculated from the water bills, the Benchmarking Assessors have revised the total *Potable Water Consumption* as per below:

| Quantity | Unit | Potable Water Consumption (kL) |
|----------|-----------------|--------------------------------|
| 80 183 | kilolitres (kL) | 80 183.0 kL |
| | Totals: | 80 183.0 kL |

This equates to 386.4 L per Guest Night.

WASTE SENT TO LANDFILL

The submitted value of 108 800 kg of waste (specified by the operator as uncompacted waste) has been converted into a volume by using the standard conversion of: 1 kg (uncompacted waste) = 0.00333333 m³ or 3.33333 L (i.e. 108 800 kg x 0.00333333 = 362.7m³ or 362 666.3 L). (If the waste is compacted, then the standard conversion is: 1 kg = 0.00153846 m³ or 1.53846 L).

This equates to 1.7 L per Guest Night.

COMMUNITY COMMITMENT

The Benchmarking Assessors sought clarification regarding *Community Commitment* as the initially submitted of 36.4% was significantly less than expected. The **Centara Karon Resort Phuket** advised:

"For Community Commitment figure, it was my fault to do the wrong calculated. The figure (re-calculated) is 98.02%."

Therefore the Benchmarking Assessors have updated *Community Commitment* to 98%. Resulting in:

Initial Rating: 36.4%
Revised Rating: 98%

VERIFICATION DOCUMENTATION

The following documents were received and checked by the Benchmarking Assessors.

| Required Documentation | Received | Checked |
|------------------------------------|----------|---------|
| Activity Measure Calculation | ✓ | ✓ |
| Energy Bills and/or Meter Readings | ✓ | ✓ |
| Water Bills and/or Meter Readings | ✓ | ✓ |

Assessor's Comments

Bills were not received for the energy sources LPG and Gasoline. Bills for these sources will need to be provided for the next benchmarking assessment.



EARTHCHECK

Benchmarks Assessed by EarthCheck

SUMMARY OF SUPPLIED BENCHMARKING DATA

Activity Measures

| | |
|-----------------|--------|
| Guest Nights | 207539 |
| Area Under Roof | 31646 |

Supplied Benchmarking Data

Energy

Energy Consumption (MJ / Guest Night)

| | |
|---------------|---|
| Supplied | 19099708.6 MJ |
| Calculated | 92.0 MJ / Guest Night |
| Baseline | 480 MJ / Guest Night |
| Best Practice | 336 MJ / Guest Night |
| Difference | 72.6% better than the Best Practice level |

Total CO₂-e Produced (kg CO₂-e / Guest Night)

| | |
|------------|---|
| Supplied | 1447079.4 kg CO ₂ -e |
| Calculated | 7.0 kg CO ₂ -e / Guest Night |

Renewable Energy Used (%)

| | |
|------------|----|
| Supplied | 0% |
| Calculated | 0% |

Water

Potable Water Consumption (L / Guest Night)

| | |
|---------------|---|
| Supplied | 80183000.0 L |
| Calculated | 386.4 L / Guest Night |
| Baseline | 900 L / Guest Night |
| Best Practice | 630 L / Guest Night |
| Difference | 38.7% better than the Best Practice level |

Water Savings Rating (Points)

| | |
|---------------|---|
| Supplied | 55.6 Points |
| Calculated | 55.6 Points |
| Baseline | 50 Points |
| Best Practice | 80 Points |
| Difference | 5.6 Points better than the Baseline level |

Recycled / Captured Water (%)

| | |
|------------|-------|
| Supplied | 30.0% |
| Calculated | 30.0% |

Waste

Waste Sent to Landfill (L / Guest Night)

| | |
|---------------|---|
| Supplied | 362666.3 L |
| Calculated | 1.7 L / Guest Night |
| Baseline | 13 L / Guest Night |
| Best Practice | 9.1 L / Guest Night |
| Difference | 80.8% better than the Best Practice level |

Waste Recycling Rating (Points)

| | |
|---------------|--|
| Supplied | 84.1 Points |
| Calculated | 84.1 Points |
| Baseline | 50 Points |
| Best Practice | 80 Points |
| Difference | 4.1 Points better than the Best Practice level |

Recycled / Reused / Composted Waste (%)

| | |
|------------|-------|
| Supplied | 90.0% |
| Calculated | 90.0% |

Community

Community Commitment (%)

| | |
|---------------|--------------------------------------|
| Supplied | 98.0% |
| Calculated | 98.0% |
| Baseline | 60 % |
| Best Practice | 100 % |
| Difference | 38.0% better than the Baseline level |

Community Contributions Rating (Points)

| | |
|---------------|--|
| Supplied | 83.0 Points |
| Calculated | 83.0 Points |
| Baseline | 50 Points |
| Best Practice | 80 Points |
| Difference | 3.0 Points better than the Best Practice level |

Paper

Paper 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 |

Cleaning

Cleaning Products Rating (Points)

| | |
|---------------|---|
| Supplied | 96.8 Points |
| Calculated | 96.8 Points |
| Baseline | 50 Points |
| Best Practice | 80 Points |
| Difference | 16.8 Points better than the Best Practice level |

Pesticides

Pesticide Products Rating (Points)

| | |
|---------------|---|
| Supplied | 97.2 Points |
| Calculated | 97.2 Points |
| Baseline | 50 Points |
| Best Practice | 80 Points |
| Difference | 17.2 Points better than the Best Practice 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).