

Environmental Reporting - Protocol

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I. ENVIRONMENTAL REPORTING AT ACCOR

I.1. REPORTING GOALS AND CONTENT

Environmental reporting is intended to quantify key environmental indicators, and addresses twin goals:

1. **To measure the effectiveness of the ECO** (environmental) aspects of the **Earth Guest** social and environmental responsibility programme. In 2005, Accor set itself a series of result-based targets to be achieved by 2010. The environmental indicators used enable the Group to measure the improvements in its performance and the deployment of the initiatives introduced to achieve these results.
2. **To provide transparent communication** regarding the environmental footprint imposed by Accor operations, the actions implemented to reduce that footprint and the trend in the Group's environmental performance. As a listed French company, **this target complies with a legal obligation** (Article 116 of Law 2001-420 of 15 May 2001 enacted by Decree 2002-221).

The reporting protocol sets out the environmental indicators, data collection and consolidation methods, as well as the data checks applied. **This protocol must be applied by all those involved in the reporting process, regardless of whether they work in hotels, country management teams or central services teams, in order to guarantee that the values used for management and external communication are accurate and comprehensive.**

Accor uses 2 major categories of indicator:

- Water consumption, energy consumption and greenhouse gas emissions control indicators
- Environmental Charter and Environmental Management indicators

WARNING: For the purposes of environmental reporting, it may be necessary to estimate hotel water and/or energy consumption where data are unavailable or incorrect. These estimates will help to ensure that we do not underestimate the total amounts of water and energy used by the Group. Nevertheless, **the ratios used to monitor consumption trends** (e.g.: energy consumption per available room) **must be calculated only on the basis of actual data and must not include estimates.**

I.2. REPORTING PROCEDURES

I.2.1. Reporting period & scope of coverage

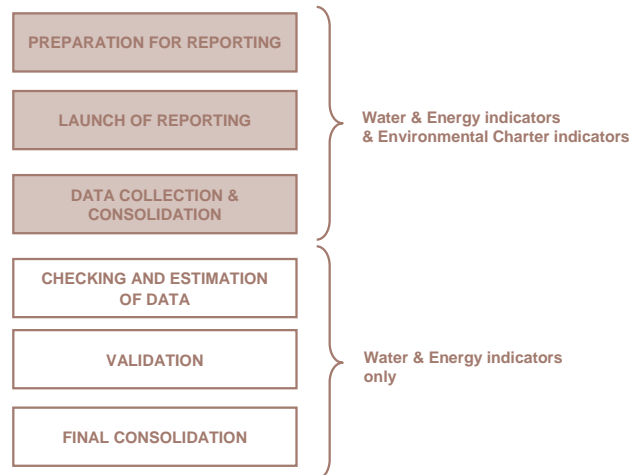
The data for the reporting period and scope of coverage are very specific to the water/energy consumption and Charter indicators, and are addressed in those sections devoted to each category of indicator.

The data for determining the scope covered by the reporting process originate in the **MEGA reference base**, which is the Group reference source for identifying which hotels fall within the scope and for the following hotel-related data (zone/country/region, brand, number of rooms operated, operating method, status, operational and publication management structure: Executive Chief Operating Officer (Pôle) / Chief Operating Officer (DGO) / Managing Director (DGR) / Director of Operations (DOP) and Publication unit.

The main body of this document applies to hotels. Lenôtre operations are addressed in appendix.

I.2.2. Overall reporting structure and responsibilities

The key stages for water/energy consumption and Charter reporting are as follows:



The Charter and water/energy consumption reporting processes involve **3 levels of contributor**:

- the Group Reporting Manager
- the Region/Country Reporting Managers
- the Hotel Reporting Managers

Their responsibilities are indicator-specific, and are addressed in the corresponding sections.

I.2.3. Reporting systems

Environmental Management System (OPEN)

OPEN is **the official system** used by Accor hotels for **environmental management**.

It has been designed to:

- achieve the twin goals of environmental reporting and management
- be as simple and effective as possible to use

The OPEN application contains 4 management modules:

- The Environmental Charter
- Water and energy consumption
- The "Plant for the planet" programme
- Waste management

OPEN can be accessed via the Group intranet

Access rights and system development are the responsibility of:

- the DDTS for the "Water & Energy" module
- the Sustainable Development Department for the other modules

II. WATER AND ENERGY INDICATORS

II.1. DEFINITIONS

II.1.1. Energy consumption

DEFINITION

This term refers to the total quantity of energy consumed annually by Accor hotels, regardless of the source of energy (electricity, heating fluids, district heating networks, etc.) and how it is used (rooms division, kitchens, etc.). The energy covered by this indicator is the final amount of energy consumed by the hotel. Transmission and distribution system losses are not included.

Total energy consumption is expressed in MWh. Fuel energy must be calculated on the basis of Net Calorific Value (NCV).

This indicator must be reported to the Group for each energy type.

Inclusion of energy from renewable sources

Green electricity and electricity from renewable sources are included in the total energy consumption figure.

Solar heating generated and consumed by those hotels fitted with thermal solar panels is not included in their total energy consumption figure.

Other exclusions

It excludes energy consumed as a result of using vehicles owned or leased by Accor, and that consumed during refurbishment works.

METHODOLOGY

MASS - ENERGY CONVERSION

Net Calorific Value (NCV) refers to the heat released as a result of burning natural gas or fuel oil. NCV varies relative to the water content and grade of the fuel used (Gross Calorific Value (GCV) is independent of water content). It is therefore strongly recommended that conversions use the specific NCV for the type of fuel used. The following NCVs may be used where actual values are missing.

NATURAL GAS = 47.7 MJ / kg

HEAVY FUEL OIL = 38.6 MJ / kg

DOMESTIC HEATING OIL = 41.4 MJ / kg

VOLUME - MASS CONVERSION

The process of monitoring gas energy consumption is based directly on the quantities (kg) of gas consumed. It is often the volume of gas used which is monitored at hotel level. Gas density is the basis for converting volume (m³) to quantity (kg).

Please note: Gas density varies according to pressure and temperature.

The following example applies to methane (which accounts for more than 90% of natural gas):

(P = 1.013 bar / T = - 161.6°C) Density = 1.813 kg/m³ (Boiling point)

(P = 1.013 bar / T = 0°C) Density = 0.73 kg/m³ ("Normal" conditions)

(P = 1.013 bar / T = 15°C) Density = 0.68 kg/m³ ("Standard" conditions)

(P = 1.013 bar / T = 21°C) Density = 0.55 kg/m³ (Specific volumes)

P= Pressure / T = Temperature

SAMPLE CALCULATION

The hotel consumes 6,000 m³ of natural gas (Pressure = 1.013 bar and Temperature = 15°C)

This corresponds to 4080 kg of gas (6000x0.68) or 194640 MJ (4080x47.7) or 700610 kWh (194640x3.6)

II.1.2. Water consumption

DEFINITION

This refers to the quantities of water consumed by hotels over the period of one year, regardless of use (kitchens, garden watering, etc.).

Water consumption **does not** include:

- water pumped by the hotel's own installations from underground or surface water courses
- water consumed as part of refurbishment works
- water resulting from the recycling of rainwater or wastewater

The reporting unit used is the cubic metre (m³)

II.2. REPORTING PROCEDURE

II.2.1. Period

Reporting is an annual process, and covers the period from 1 January to 31 December of the current financial year. An exception is done for Accor North America, with a reporting period from 1 December to 30 November.

II.2.2. Scope

The scope of reference covers all Accor owned and managed operating units at 31 December. Those hotels that have changed ownership structure or brand during the year are included on the basis of their ownership structure /brand at 31 December of the current year.

The following are included:

- The operations of subcontractors on hotel premises (housekeeping teams, gardeners, etc.)

The following are excluded:

- The Group's national and regional head offices
- Vehicle fleets leased by Accor
- Services offered by the hotel, but not managed by Accor (e.g.: shops, hair salon, etc.)
- Hotel refurbishment

II.2.3. Roles and responsibilities

Roles and responsibilities exist at 3 levels of the organisational structure: central, country/region and hotel.

WATER & ENERGY REPORTING MANAGER - CORPORATE

- Defines the Accor Water & Energy data reporting methods
- Provides overall management of Water & Energy reporting at Accor level
- Consolidates and checks data comprehensiveness and data values at Group level
- Calculates estimated data, where required

WATER & ENERGY REPORTING MANAGER - COUNTRY/REGION

- Manages Water & Energy reporting for his/her region/country
- Consolidates and checks orders of magnitude for zone data
- Forwards data to the Accor Water & Energy Reporting Manager within the deadlines set
- Checks the estimated data produced by the Accor Water & Energy Reporting Manager for the hotels in his/her zone

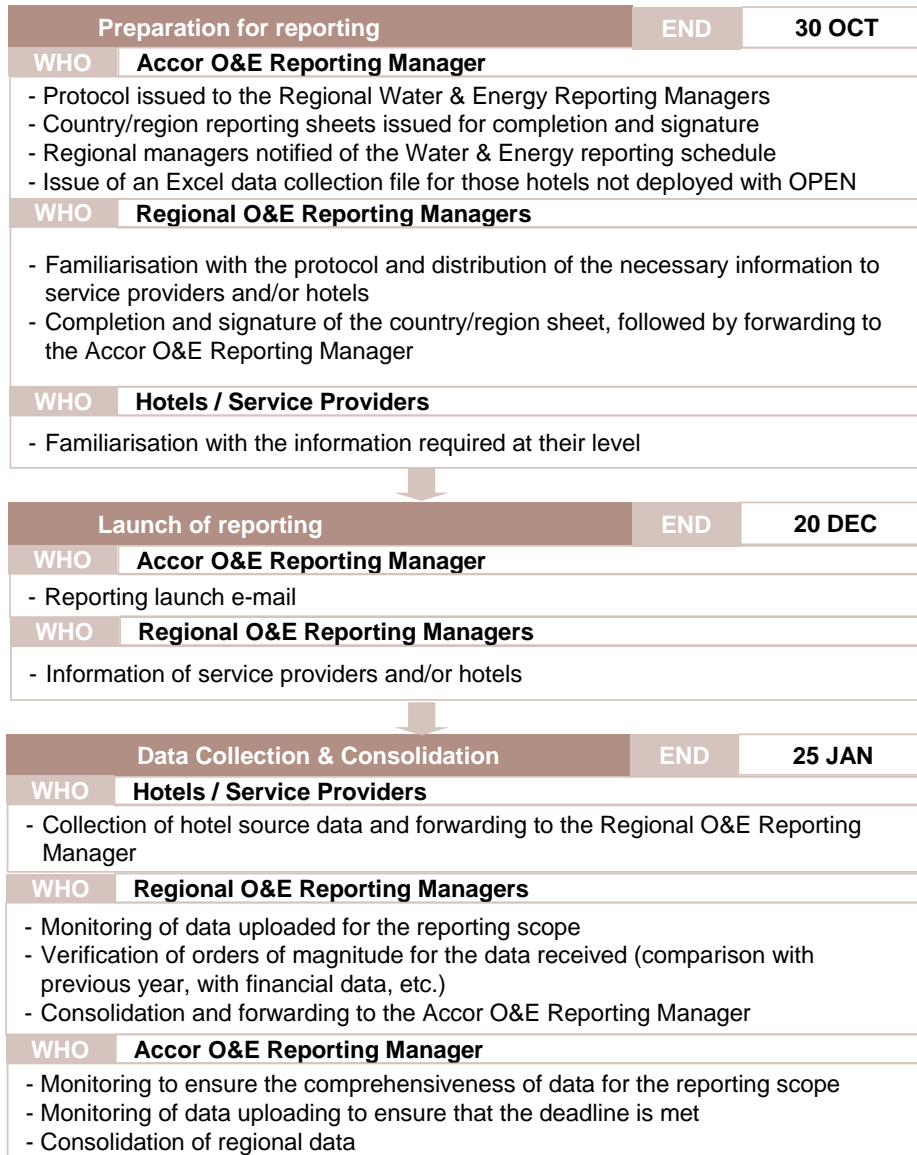
WATER & ENERGY REPORTING MANAGER - HOTEL

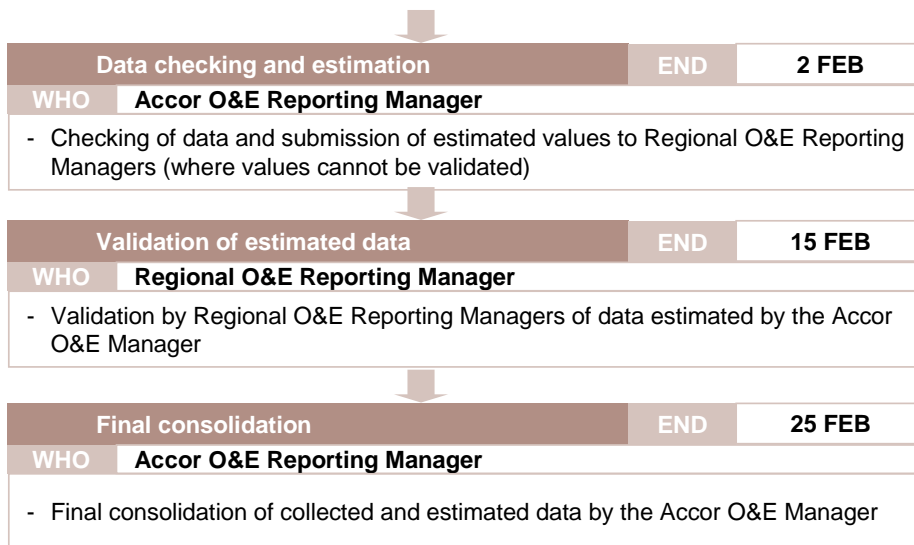
- Collects data for his/her hotel
- Checks the comprehensiveness of data for his/her hotel
- Forwards data to the Country/Regional Water & Energy Reporting Manager within the deadlines set

A “Country/Region Water & Energy Report” sheet sets out the reporting specifics for each region/country reporting entity in terms of water and energy reporting organisation, data collection, reporting system and data checking.

II.2.4. Structure and timetable

The reporting key stages and timetable are shown in the following diagram.



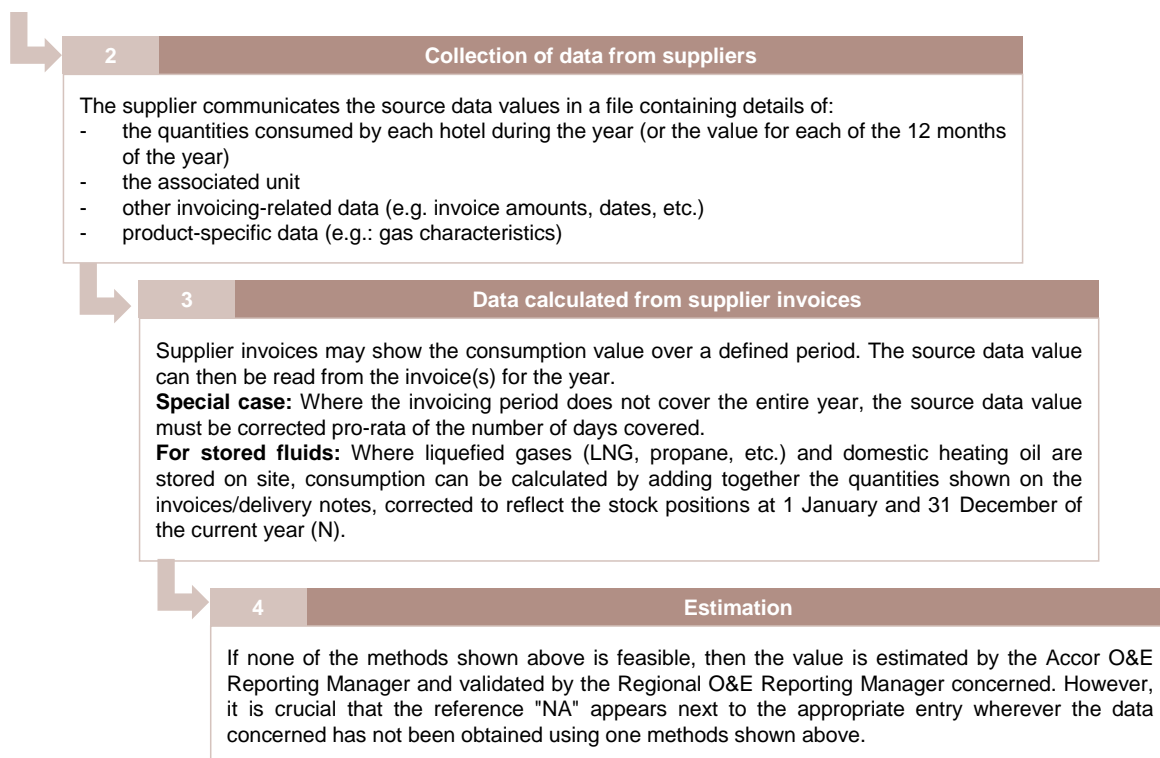


II.2.5. Data collection and checking

II.2.5.1. Data collection at hotel level

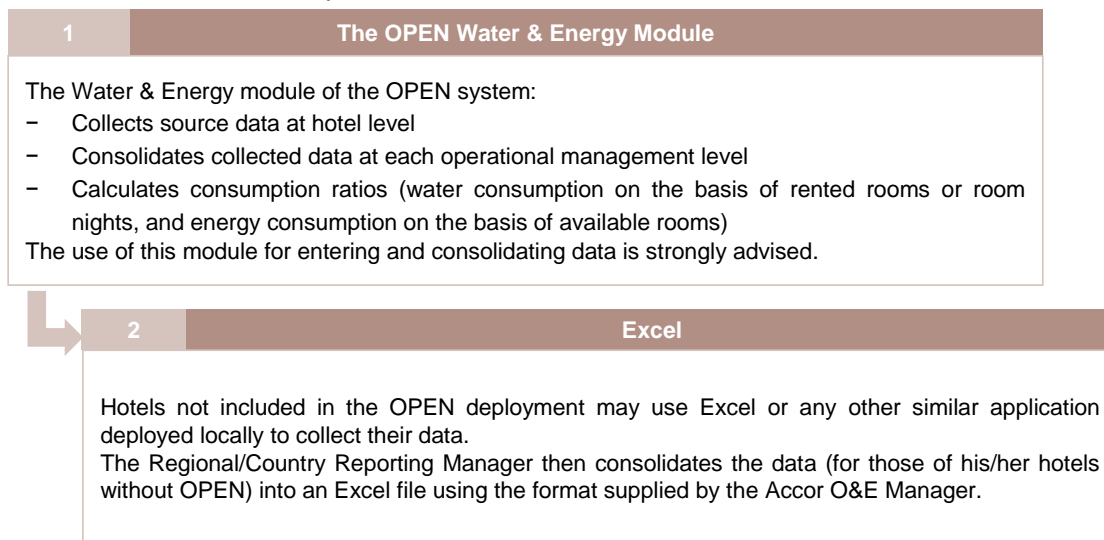
The data collection methods are listed in **descending order of preference**:

1	Meter readings
<p>Readings for all the hotel's supplies meters are entered into the hotel monitoring system in accordance with a regional timetable.</p> <p>Special case: where 2 hotels share the same water / energy meter: Based on the total water/energy consumption of both hotels, estimation of the quantity consumed by each hotel pro-rata of the following data: -Room nights or rented rooms (in order of preference) for water consumption -Available rooms for energy consumption.</p>	
1.1	Automated readings
<p>Where the appropriate meters are fitted, it is possible to use special systems (remote meter reading systems using telephone lines, building management systems (BMS), etc.) to automate the meter reading process and transfer the readings to information systems (databases). Where automated readings are used, the source data must be output from the reading system and transmitted automatically to OPEN or imported into the appropriate system.</p>	
1.2	Manual readings
<p>This involves the periodic reading of supplies meters and the calculation of consumption by comparing the readings for 31 December of the current year (N) with those for 1 January of the same year.</p>	



Hotel operations data (number of available rooms, number of rented rooms and number of room nights) are held in the **Datawarehouse¹ – Grand Back reporting** (the Group reference source for hotel operations data for a given financial year, including the number of available rooms and the number of rented rooms).

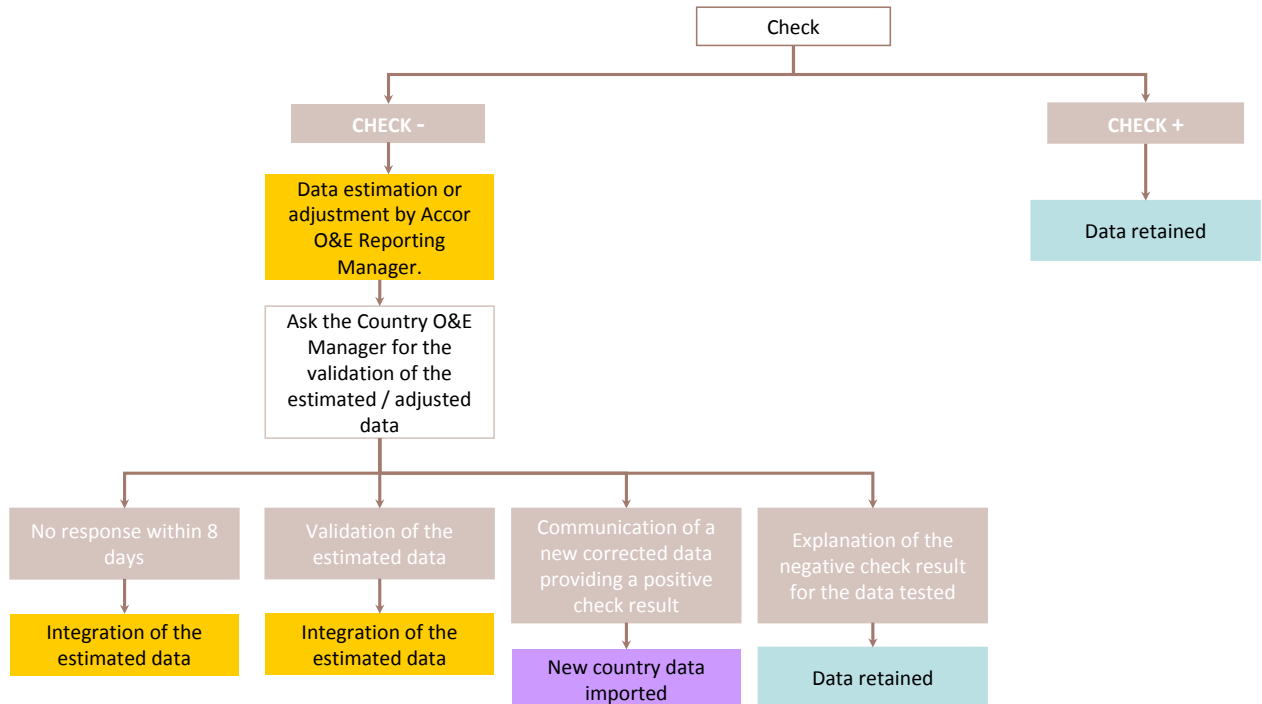
Water and energy consumption data are collected and consolidated using the systems described below, which are listed in order of preference.



¹ Financial information system management and data input processes are not covered or explained in this document. The entities concerned will be able to provide details in response to any request for further information.

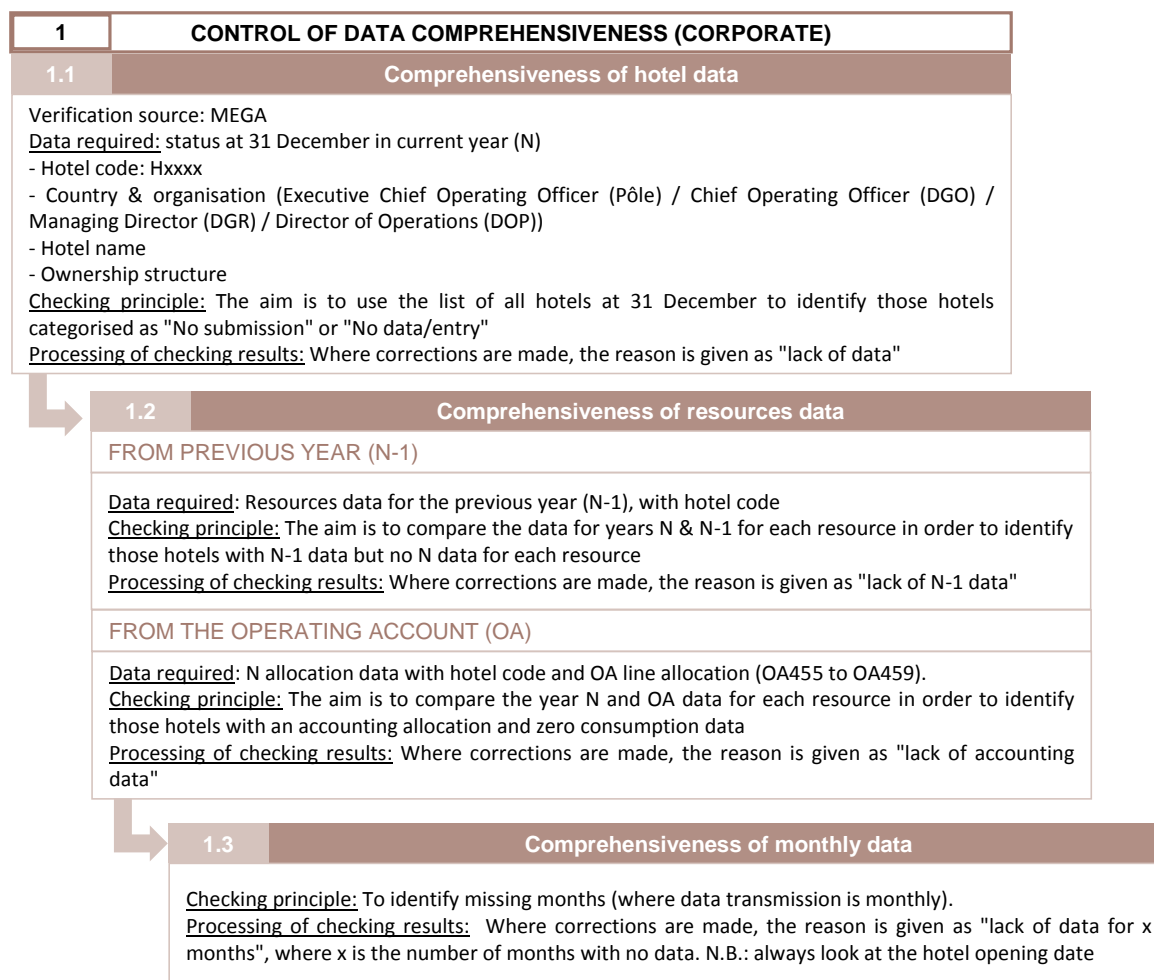
II.2.6. Internal verification of Water and Energy data

Data are subject to a series of checks to ensure that they are comprehensive and accurate. Central checks are applied by the Property Management Department. The actions to be taken by this department and by each country on completion of these checks are shown in the following diagram.



II.2.6.1. Checking data comprehensiveness

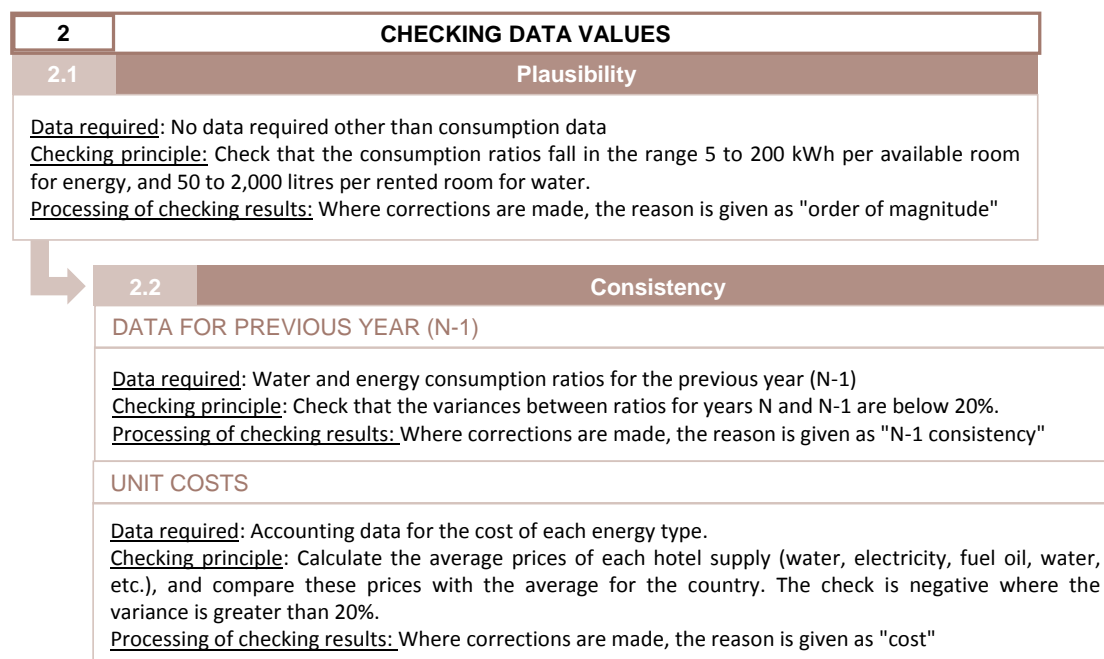
THE ACCOR PROPERTY MANAGEMENT DEPARTMENT: The systematic checks applied centrally are shown in the following diagram.



REGION/COUNTRY WATER AND ENERGY REPORTING MANAGERS: Monthly checking of data at country level to ensure that it is comprehensive is highly recommended.

II.2.6.2. Checking data values

THE ACCOR PROPERTY MANAGEMENT DEPARTMENT: The systematic checks applied centrally are shown in the following diagram.



REGION/COUNTRY WATER AND ENERGY REPORTING MANAGERS : Country-level application of the following data accuracy checks is highly recommended:

- Plausibility check
- Consistency check relative to data for the previous year (N-1)

II.2.7. Estimation/adjustment of missing/incorrect data

In the absence of data at hotel level or where data are identified as incorrect as a result of checking, the data value will be estimated or adjusted by the Accor Water & Energy Reporting Manager:

- Data is described as **adjusted** where the element of estimation applies to less than 20% of the total value (e.g.: one month's data is missing)
- Data is described as **estimated** in all other cases

There are two possible estimation methods. They can be applied either to annual data or monthly data.

1. For water and energy consumption by type (electricity, fuel oil, gas, etc.), estimation is based on historic data (previous year: N-1). These data are corrected pro-rata of occupancy statistics. For example, where water is concerned, any historic data (previous year: N-1) available is extrapolated pro-rata of the number of room nights. Any clarifications required will be appended to the consolidated data.
2. In the absence of historic data, water and energy consumption estimates will be based on data for comparable hotels (same brand, same region and similar size) pro-rata of occupancy data or averages for the brand, where the country has no comparable hotels against which to benchmark.

N.B. Hotels that have been the subject of partial closure (e.g. for refurbishment) during the year remain inside the scope of report publication. Their consumption data are then adjusted or estimated on the basis of historic data.

II.2.8. Validation of estimated data by Regional Managers

Data estimated by the Accor Energy & Water Reporting Manager are submitted to the Regional O&E Reporting Managers. The Regional O&E Managers must respond in writing **within 8 days** to say whether they approve these estimates or whether they wish to retain the original data. Their decision must be supported by explanation. In case there is no response within 8 days, the estimated data is considered as validated.

II.2.9. Percentage of data estimated

On completion of these actions, the Accor O&E Manager finalises the indicator values and indicates:

- The percentage of estimated data and the breakdown between the various reasons for estimation (“lack of data”, “lack of accounting data”, “order of magnitude”, etc.).
- The percentage of adjusted data and the breakdown between the various reasons for adjustment (“lack of data”, “lack of accounting data”, “order of magnitude”, etc.).

III. ENVIRONMENTAL CHARTER INDICATORS

III.1. DEFINITION

The Accor Hotels Environmental Charter sets out a list of 65 actions (cf. <http://www.accor.com/fr/developpement-durable/actions-transverses.html>) designed to deliver practical improvements to hotel environmental performance. The **Environmental Guide** (available via [accor.com](http://www.accor.com)) explains the environmental benefits of each action, its implementation and the criteria that must be met if the action is to be considered as correctly applied by the hotel.

The Environmental Charter indicators are used to track the percentage of hotels actually implementing each action as a function of the total number of hotels that could potentially implement that action.

Calculations

METHODOLOGY

All the indicators used to track an action defined in the charter are calculated in the same way:

$$\frac{\text{Number of hotels implementing the action [X]}}{\text{Number of hotels able to implement the action [X]}}$$

The result is expressed as a percentage.

III.2. REPORTING PROCEDURE

III.2.1. Period and scope

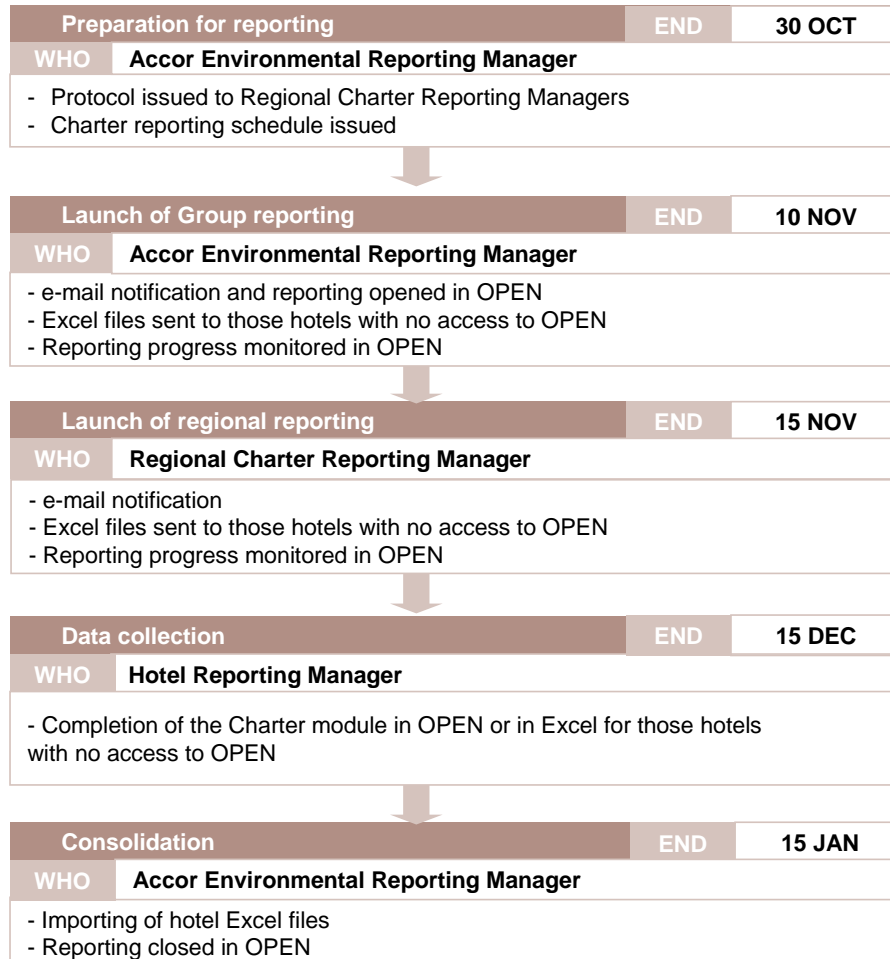
The consolidation scope for Environmental Charter indicators includes all owned, managed and franchised hotels.

The environmental charter results are consolidated at the end of November in the reporting year concerned.

III.2.2. Roles and responsibilities

Roles and responsibilities exist at 3 levels of the organisational structure: central, country/region and hotel.

III.2.3. Structure and timetable



III.2.4. Data collection and checking

Data are consolidated using the Environmental Charter module of the OPEN system. Only those hotels that cannot access the Accor intranet should use Excel files. These files are gathered on a regional basis and forwarded to the Group Environmental Reporting Manager. These files are then automatically imported into the OPEN system. The Environmental Charter data are therefore processed entirely within the OPEN system.

III.2.4.1. Internal verification of data

Prior to entering the relevant data, **the person responsible for collecting the data must check that the Charter actions have actually been implemented.** In making this check, he/she should refer to the "Validation" section of the Hotels Environmental Charter Guide.

The hotel general manager must check all the data entered, paying special attention to new actions.

III.2.4.2. External verification of data

The **hotel quality audits** cover the 8 Environmental Charter actions included in the Accor sustainable development targets for 2010:

- Use low energy lamps for permanent lighting
- Install water flow regulators on taps (in bedroom bathrooms)
- Install water flow regulators on showers
- Recycle paper/cardboard packaging
- Recycle waste paper, newspapers and magazines
- Recycle glass packaging
- Safe disposal of the hotel used batteries
- Safe disposal of low energy lighting tubes and bulbs

The internal audit process also makes the following check at hotel regional head office level: "The regional head office has identified those Hotels Environmental Charter actions to be implemented as a priority by the hotels in its region, assists hotels in implementing those actions and monitors the improvement in hotel results relative to these priority actions".

IV. APPENDIX 1 - CONSOLIDATED WATER AND ENERGY INDICATORS

This appendix refers to those water and energy indicators whose (Group-level) values are calculated centrally. Their definition is therefore less critical for hotel managers.

Analysing the year-on-year trend for some indicators requires the same hotels to be monitored over the period between the current reporting year “N” and a reference year “N-P” (where P = the number of years prior to the current year. e.g.: if N=2010 and P=3, then N-P=2007). The “scope of comparability” refers to the point at which the reporting scopes for years “N-P” and “N” intersect.

Hotels present in “N-P” may leave the “scope of comparability” for the following reasons: closure (total or partial) / disposal / change of ownership structure (e.g.: an owned hotel which becomes a managed hotel). Hotels that were not present in year N-P, but which have acquired and/or opened by year N are not included in the scope of comparability.

ADDITIONAL ENERGY-RELATED INDICATORS

Breakdown of energy consumption: This indicator refers to the percentage of total energy consumption represented by each type of energy. These percentages are effectively the ratios between the consumption value for each type of energy (electricity, natural gas, fuel oil, etc.) and the value for total energy consumption.

Energy consumption per available room: This is the ratio between total energy consumption (all consumption values added together) for all Group sites (excluding Accor Sea & Spa and Lenôtre) and the total number of available rooms (all rooms added together). Estimated consumption values are not used when calculating this ratio.

ADDITIONAL WATER-RELATED INDICATORS

Water consumption per rented room: This is the ratio between total water consumption (all consumption values added together) for all hotel sites (excluding Accor Sea & Spa and Lenôtre) and the total number of rooms rented during the year (all rooms added together). Estimated consumption values are not used when calculating this ratio. **N.B.:** the ratio monitored by the Group will eventually be calculated on the basis of room nights. The rented room ratio has been retained for this purpose, because it was the ratio used in 2005 when setting the Group’s 10% reduction target for the 2010 deadline.

THERMAL SOLAR ENERGY GENERATION

DEFINITION

This refers to the solar heating generated by owned, managed and franchised hotels fitted with solar panels used to heat the domestic hot water supply. This type of generation does not include photovoltaic solar energy.

The reporting unit used is the kilowatt hour (kWh).

METHODOLOGY

For each hotel, the term ‘solar energy generation’ refers to:

- the amount of thermal solar energy generated, as measured for the period between 1 January and 31 December of the year concerned. This on-site measurement requires the installation of meters specific to the solar heating installation. This solution is recommended by the Group, as it enables installation operation to be monitored
- an estimated level of generation, where accurate measurement of generation is not available. Where this is the case, the solar heating value is arrived at by multiplying the overall area of solar panels (in m²) by an average productivity figure of 500 kWh per m² per year

GREENHOUSE GAS EMISSIONS

DEFINITION

These are greenhouse gas emissions resulting from the consumption of energy by hotel operations. These emissions do not include those resulting from:

- leakage of refrigerant gases from hotel installations
- employee travel (including those using company/service vehicles)
- deliveries of products and services to hotels

The reporting unit used is the Tonne Equivalent CO₂ (t_{eq} CO₂)

METHODOLOGY

Direct greenhouse gas emissions are calculated on the basis of:

- hotel consumption of energy from fuel used on the premises (natural gas, fuel oil, etc.)
- the greenhouse gas emission factors for these fuels: these factors are those contained in the GHG Protocol (Stationary Combustion version 3[1].1). The greenhouse gas emission factors for CH₄ (methane) and N₂O (nitrous oxide) are taken from Group I of the IPCC report for 2007, and cover a time horizon of 100 years.

Indirect greenhouse gas emissions are calculated on the basis of:

- consumption of electricity and heat from district heating networks, broken down by country
- the greenhouse gas emission factors for national power generation and district heating networks set out in <http://www.ghgprotocol.org/> - *IEA, CO₂ Emissions from Fuel Combustion, 2009 edition*)

V. APPENDIX 2 - REPORTING FOR LENÔTRE

V.1. INDICATORS

The Lenôtre report incorporated into the overall Accor report includes **the following indicators**:

- Total energy consumption
- Breakdown of energy consumed
- Direct greenhouse gas emissions
- Indirect greenhouse gas emissions
- Total water consumption

The characteristics of these indicators are identical to those applied to hotels.

V.2. REPORTING PERIOD AND SCOPE

The reporting scope includes the following sites:

- The production facility (at Plaisir)
- The Restaurant Pré Catelan
- The Lenôtre shops in Paris

The reporting period runs from 1 January to 31 December of the year concerned.

V.3. STRUCTURE AND TIMETABLE

The key reporting stages are:

- Launch of reporting notified by the Accor Environmental Reporting Manager to the Lenôtre Sustainable Development Coordinator and issue of the Excel data collection file
Deadline: 30 Novembre
- Uploading and consolidation of data by the Lenôtre Sustainable Development Coordinator
Deadline: 30 January
- Data checked by the Accor Environmental Reporting Manager followed, if necessary, by discussion with the Lenôtre sustainable development coordinators
Deadline: 15 February