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# Energy consumption control

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## Objective and scope

This document describes the methodology applied by our company to measure and evaluate the energy consumption of each hotel to increase the ratio established by the Energy and Environmental Policy that manages all activities of NH Hotels.

It eventually establishes the mechanisms for a cost control of the different supplies (water, gas, electricity) and defines the reclamation process to the suppliers in case there is a problem with the invoicing.

## Summary

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## 1 General criteria

The Maintenance Department is very important in all aspects of the energy management and cost control, as they control that the equipment works correctly, detect possible breakdowns with the preventive maintenance and apply the improvements designed by NH Hotels and report about their evolution. The Maintenance Manager and the Hotel Manager are therefore responsible for the following:

- correct application of the energy consumption control measure without affecting the quality of the service to the guest (turning off the lights of some parts of the common area during the night, installing water savers, presence detectors, re-lamping, etc.)
- study of the impact in the hotel
- transmit the results to the person responsible of the Region Environmental and Energy Corporative Area.

They are also responsible to inform other employees in the hotel of these measures of energy efficiency implemented, the environmental plans of NH Hotels.

All Maintenance Managers will keep a file with all the information (or copy) of all contracts signed by the hotel or the Corporative Environmental and Energy department as well as all the invoices received.

The supplier can automatically receive the information from the meters or send a person to check them manually. This person can have a key to the room where the meters are or it can be necessary that a NH employee companied him to check the meters as well.

*Organization Department – Energy consumption control*



## 1.1 Environmental principles

### ***Responsible: Maintenance Department***

With the objective of saving water, energy, and controlling the CO2 emissions in mind, we will always apply the following principles

- The temperature in the common areas must always be controlled, 21°C in winter and 24°C in summer. The air conditioning and heating equipment's are the ones that require more energy, as increasing 1°C in heating or decreasing 1°C in air conditioning could cost up to a 10% more energy.
- Control water consumption with water savers where is necessary, and control the possible leakages of the system.
- Program the operation times of the equipment. In the case of the lights follow the established schedule and adjust the level of illumination depending on the zone, guaranteeing always minimum levels Indicated in the regulations and that apply to the use of every zone (work areas, desks, front office, etc.)

## 2 Operative

### 2.1 Daily meter reading notes and monthly sending of the readings

#### ***Responsible: Maintenance Manager***

It is highly recommended to revise and note daily what appears on the supply meters. This task will help us to detect and prevent possible problems that *Daily meters readings.xls* that each hotel will adapt to their own needs.

**Monthly, within 5 days near the end of the month**, we will send these notes to the Regional Environment and Energy department the consumption of the month for its revision on the tool **ENABLON**, available in the following link: <https://www3.enablon.com/NH-Hoteles/>.

A manual for users is available for access and manage the tool, see *Enablon User's* (In Related Documents sections).

The invoice data will complete as we are receiving the corresponding invoices.

### 2.2 Consumption analysis

#### ***Responsible: Maintenance Manager, Regional Environment and Engineering Responsible and Corporate Environment and Engineering Area***

We will control the consumption, taking into account the previous consumption rates of the hotel (accordingly to the occupation of the hotel) and previous years (relative to the season: Christmas, summer). We will always be careful to take into account the possible special cases such as high occupation, special dates, etc...

In the case we detect a problem with the meter readings, we will analyze the problem to detect its origin. If we detect any problem we will inform the Hotel Manager and the Regional Environment and Engineering Responsible for further analysis, implanting new corrective measures and/or making a claim to the supplier.



The monthly information of each hotel is consolidated to check that the consumption rate is correct, compare different hotels with similar characteristics and establish control measures and improvements in the energy control.

## 2.3 Claim to the supplier in case of incorrect invoicing

**Responsible: Regional Environment and Engineering Responsible**

***\*BU Italy: BU Environment and Engineering Responsible***

If there are no reasons for the differences in the energy consumption, the Regional Environment and Engineering Responsible will claim to the supplier the incorrect invoicing. He will keep the hotel and management of the claim and its state informed.

The charges of the water and energy consumption are billed usually to the hotel's bank account, therefore if there is a claim, the incorrectly charged amount will be returned after paying the original invoice (corrected invoice and returning the incorrect charge or discount in the following bill)

***\*BU Italy: Water and energy invoices received in Administration should be sent to the BU Environment and Engineering Responsible to control the amount and the consumptions are correct. In case of claim, the invoice payment is blocked until the deviation or discrepancy will be justified or until receive the corresponding credit invoices (the amendment invoice and the chargeback wrong, or the discount, will be reflected in the next invoice)***

## 3 Templates and file

Template or Document	Responsible	File period
All data (or copy) of the energy supplies contracts signed by the hotel or the Environmental and Engineering Corporate Department	Maintenance Manager/ Hotel Manager <b>*BU Italy: Maintenance Manager / Hotel Manager / BU Environment and Engineering Responsible</b>	Contracts for the current tax year, and as long as the contracts is valid <b>*BU Italy: 10 years (9 plus the current year)</b>
Energy supplies invoices copies		6 years (5 plus the current year)
Daily meters readings		3 years



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#### 4 Procedure validation

Version	Corporate Area	Approved by		Approval date
	Projects, Construction & Engineering (Process Owner)	Environment & Engineering Director SVP Projects, Construction & Engineering	Luis Ortega  Santiago López	October 2012
	Internal Audit	SVP Internal Audit		
	Operations	Operations Control Director		
	Resources	SVP Human Resources		
	Administration	VP Administration		
	Management Control	SVP Management Control		
	Management Committee			Steering Minutes 16/10/2012