INTESA SANPAOLO

RULES FOR THE SETTING UP OF SUSTAINABLE BRANCHES
Summary

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INTRODUCTION

The Intesa Sanpaolo Group, on the basis of the principles of the Environmental and Energy Policy, is committed to minimize its ecological footprint and to implement strategic decisions and concrete actions to achieve this goal.

Among the areas where it is necessary to pay close attention there is the setting up (and subsequent management) of the real estates and in particular the branches. For a large service companies such as Intesa Sanpaolo, composed of a large number of sites, the impact due to consumption for heating, cooling, lighting, waste management, the choice of materials of furniture, is in fact very significant.

Therefore, specific rules were issued, of which this is a summary, that define the criteria for the creation of new branches and the renovation of existing ones.

Technical guidelines were also defined for the creation of subsidiaries so called “almost 0 energy ", a sort of symbolic branches that demonstrate how we can further limit the impact on the environment.

GENERAL RECOMMENDATIONS

Communication with customers in the field of environmental sustainability

It is important to publicize the principles of environmental sustainability within and outside the Bank. For this reason it is recommended for all branches the exhibition of the Group’s Environmental and Energy Policy. For the branches in the scope of application of the Environment and Energy Management System (SGAE) will be also installed media for the communication of environmental and energy certifications obtained from Intesa Sanpaolo.

Environmental certification of products and systems

Wherever possible, in accordance with criteria of cost-benefit analysis, products with certifications of their low environmental impact (such as, for example, Eco-Label, NF, SEI, EMAS) should be used.

Time of operation of technological systems and data logger[1]

To reduce energy consumption branch systems will be active only in the working days and at the working time. Exceptions may be made only in the following cases:

- presence of active services beyond normal business hours of the branch. In this case, the times may be prolonged and the systems must be structured in order to keep active only those areas that work overtime;;
- the characteristics of the building in relation to the climatic area can not maintain, at specific times of the year, an adequate environmental well-being. In this case the optimization of timetables can be implemented on the basis of the indications provided by an internal temperature probe interfaced to the datalogger branch placed in a place representative.

For a detailed monitoring and for the management optimization is necessary the use of datalogger, inserted on electrical panels, with the function to constantly monitor via web the electrical consumption and the internal temperatures of a local representative, as well as to provide the activation / deactivation of the systems at the times strictly necessary.

[1] The datalogger is an automatic data acquisition system and consists of one or more electronic sensors connected to a control unit that stores measurements of one or more parameters, carried out at intervals of time to be agreed upon. In this context measures the temperature of the room in which it is placed.

AREAS OF INTERVENTION

Building envelope

In any appropriate building, we need to increase the levels of insulation through the use of windows and doors with insulating transmittance comply with the most restrictive current regulations (national or local), following the criteria for obtaining any fiscal deductions.

Air-conditioning systems

In the case of restructuring of branches and environments already equipped with air conditioning, before considering the total makeover, the current efficiency level must be analyzed. If the test is positive, the intervention will be limited to the adjustment of the existing plant, the new lay-out and / or replacement of equipment and / or parts of the plant in poor condition or with poor energy efficiency.

Engineering solutions using the following systems should be avoided:

- only electric equipment for heating;
- water as the fluid for the condensation (eg. water cooling to lose). The use of evaporative cooling towers is admitted in the case of the maintenance of pre-existing solutions, or when it constitutes the only solution for the realization of the system.

CRITERIA FOR THE SELECTION OF THE TYPE OF HEATING AND REFRIGERATION

New branches

Considering the current levels of efficiency of the different technologies, including the climatic conditions and the type of thermal load of the branches, the following solutions, in descending order of preference, will be adopted:

Climatic zones D - E - F (ref. Italian law 412/93)

- hydronic systems with connection to the district heating network or central thermal power plant (both preferred) or autonomous boiler and chiller;
- hydronic heat pump (in case of unavailability or non-feasibility of the flue for the central thermal power plant);
- multi split VRV heat pumps can be installed in the case of spaces having areas less than 200 square meters (excluding basement).

The use of heat pump systems in climatic zones F and E as well as in locations with a number of degree days above 2,500 should be avoided.

Climatic zones A - B - C (ref. Italian law 412/93)

- hydronic systems with connection to the central thermal power plant (preferable) or independent power plant and refrigeration unit in the case of spaces to be set up with areas larger than 2,000 square meters (excluding basement);
- heat pumps, integrated or not with an independent heating in the case of spaces having areas not less than 200 square meters (excluding basement);
- multi split VRV heat pumps can be installed in the case of spaces with areas up to 200 square meters (excluding basement).

Existing branches

The replacement of existing equipment non-compliant and / or with performances lower than the minimum fixed by the regulations on the reduction of energy consumption must be planned. Such equipment should comply with the more restrictive regulations (national or local).

Traditional heating (climate zones EF)

The following solutions, in descending order of preference, will be adopted:

- connections to district heating or central heating; the use of the service of house heating system can be implemented by:
    - keeping of the existing system with radiators and new bypass authorized for air treatment unit (UTA);
    - the realization of a derivation from the primary circuit of central heating (point of delivery of district heating);
- independent thermal power plant.

In the case of an independent thermal power plant or adaptation of an existing one, heat generators will be of the condensing type with minimum return compliant with the most restrictive regulations (national or local). In the case of the maintenance of battery systems already sized for high temperature operation, if allowed by the provisions of the law on energy efficiency (national, regional, local), it is permissible to use sliding temperature boilers.

The boilers will be equipped with external probe for temperature regulation of the water flow temperature and suitable for sliding temperature operation.

It is to avoid the use of heat pumps (including those that act as reversible refrigerating units) in addition to the traditional heating system.

Heating with heat pump (climatic zones A-E)

The heat pumps shall have minimum performance comply with current most restrictive regulations.

Cooling

The connection to central refrigeration unit (eg shopping centers), where compatible with the opening hours of the branch, is to be preferred to the creation of autonomous power plants. In the other cases it is only permitted the use of high efficiency refrigeration systems (heat pump if the same machine also generates heating) using R410A or R134A as refrigerant.

PRIMARY AIR FOR THE RENEWAL OF HYGIENE

The primary air for the hygienic renewal should be treated with packaged units or air handling units with heat recovery.

CHARACTERISTICS OF THE PLANTS FOR SPECIFIC AREAS

Safe and Self Areas

It is not allowed to install in the Safe Area equipment and components for control and regulation that are not for the exclusive use of the area.

Self and Safe areas should be conditioned by the same plant of the branch, and then with the same switching times.

The Safe Area will be equipped with independent cooling system only if there are or are expected to be installed at least 3 ATM machines.

In the event that the Safe and Self areas are subject to high solar radiation in summer it is allowed the construction of a self-cooling system, set at 26° C throughout all the year or, in the case of frequent use of the Safe area by the staff, there will be a heat pump set at 20° C in winter and 27° C in summer. Wherever possible, the cooling system will be made with the local heat pump that heats the domestic hot water (DHW). The Safe area should be, if possible, kept under pressure towards the exterior through transit of air expelled from the branch.

It is not allowed the use of air power blades; in case an air power blade is necessary (following specific cost-benefit analysis of the designer), it should be powered only with hot water.

Technological Area (server and data rack transmission)

The heat load must be treated with local forced ventilation. In winter the air extracted will be fed back outside at a fair distance from the local (not less than 7/8 m), and the door will be equipped with nozzle transit.

Limited to local places to floors above ground subject to particular solar radiation the implementation of an autonomous system of cooling only, set at 26 ° C throughout the year will be assessed. Wherever possible, the cooling system will be made with the local heat pump that heats the DHW.

Toilet

For sanitary facilities, not significantly dispersants towards the outside is not necessary to provide heating (just the replacement of air from adjacent interior spaces); in particular sanitary facilities areas should not be heated in climatic zones A and B.

The heating via radiators of the condominium is preferred.

When significant dispersion in envisaged the following solutions must be provided:

- in case of direct expansion systems electric plates will be adopted, with thermostat and powered by its own electric line managed by the time programmer;
- in case of hydronic systems, a radiator circuit will be realized; in case of toilet with 3/4 toilet rooms, a ceiling box or a wall fan part of the general system of the branch, located outside the bathroom must be considered.

CONTROL SYSTEMS

In order to reduce energy consumption the systems will be managed by a dedicated time programmer part of the datalogger performance. Therefore all control systems, although having their own program schedule, must be prepared to accept an external control power stopping the system from the datalogger.

WATER SYSTEMS AND DOMESTIC HOT WATER (DHW)

WC must be equipped with cistern fitted with dual flush button. Furthermore the complex WC cassette must be of the type with low consumption of water so as to discharge a quantity of water not exceeding 4.5 liters for partial discharge and 6 liters for complete discharge.

When the water meters with pulse generator interfaced will be available, in order to control the consumption the connection to a datalogger will be envisaged.

The production of domestic hot water may take place in the following way:

- branches equipped with independent heating of power up to 35 kW thermal: use heating boiler with production of DHW;
- branches with areas up to 200 square meters (excluding underground) and without independent system: a boiler powered by electric power line will be used, operated by its programmable timer system;
- other branches: use of heat pump manufacturer DHW. It must be evaluated the best position of the equipment. In accordance with the distance to the block of the services, the favorite place will be that to allow the recovery of heat from the technological area or Safe-Self Area (avoiding direct installation in such spaces if any electrical panels or racks transmission data are there) and still allowing the use of free heat sources.

ELECTRICAL LIGHTING

The number and placement of luminaires and related lighting values in the various areas / rooms containing workplaces must ensure adequate visual comfort. Exclusively low consumption lamps (fluorescent lamps - compact / linear electronic ballast - and / or LED) having the lowest power should be used in accordance with the lighting project. The LEDs will be equipped with automatic regulation of the luminous flux on the basis of the natural lighting.

Desk light should not be provided, but if there are, their contribution will be considered in the overall system design.

In order to optimize the energy efficiency of lighting systems must also be predisposed:

- automatic shut-off devices (presence detectors) in rooms without permanent presence of people (archives, toilets, meeting rooms, passages of service);
- remotely controlled shut-down (by datalogger) according to standardized schedules, as well as retardants of the scheduled shutdown of internal lighting in the case of permanence outside the working hours of staff;
- for the self area (24-hour 24), the lighting power will be adjusted automatically during the day and turned on completely during the evening and night hours for safety reasons and to make visible the ATM.

WASTE

To ensure a proper waste management of waste is necessary to carry out the separate collection, if possible, with the use of the municipal service and with specific service for all waste provided by the company holding the contract "services to people". It is also mandatory to have a shredder for waste paper containing sensitive data.

Packaging used for office equipment, waste, maintenance, etc.. should not be accepted as a waste of the Bank.

OFFICE MACHINES

Supply of office equipment energy efficient and certified Energy Star, purchased through the Green purchasing procedures, as required by the Sustainability rules for the purchase of office machines.