QUALIVERDE Legislation for Green Buildings

SEPTEMBER 2013

Municipal Urban Planning Department **Rio de Janeiro City Hall**



Concession of benefits to green buildings in order to incentive and promote the adoption of sustainability practices

QUALIVERDE DECREE - qualifies projects that adopt sustainability initiatives

BENEFITS LAW - grants tax benefits to qualified projects

The QUALIVERDE qualification is optional and applied to new buildings and existing buildings projects; residential, commercial, institutional or mixed uses

Ability to choose which sustainability actions will be taken, allowing adaptation to the project

The project will be qualified by applying at least 70 points in sustainability actions proposed in Decree

For purposes of benefits it generates two classifications: QUALIVERDE (70 points) and TOTAL QUALIVERDE (100 points) Allows the monitoring of new technologies

Contemplate and systematizes the sustainability actions that are already required by law

The decree involves several practices and actions related to Water Management, Energy Efficiency, Thermal Performance and Design

Saving devices - Flow valves

Use of aerators and flow regulators valves - 2 POINTS

Saving devices - toilets

Use toilets with dual drive mechanism - 2 POINTS

Reuse wastewater system

Independent system of reusing wastewater - 1 POINT

Infiltration - permeable paving

Use of porous pavements in at least 40% of the area of the sidewalk - 2 Points

Increase permeable areas

Addition of 10% in the rate of permeation required by law or, in cases where there is no legislation on the topic, the permeation rate required shall be 30% - **5 points**



Solar water heating - Full System

Installation of a system with solar collector, thermal storage tank, auxiliary heating and accessories : 30% of all hot water demand - **5 POINTS** 50% of all hot water demand - **7 POINTS** 100% of all hot water demand - **10 POINTS**

Efficient artificial lighting

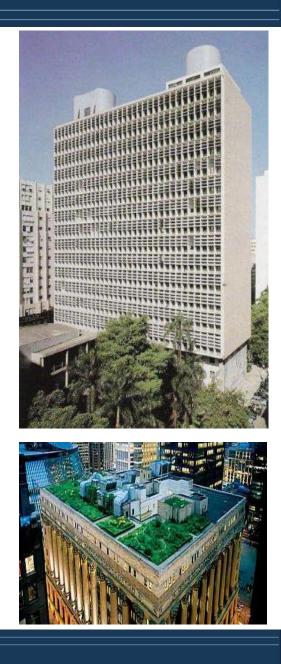
All common area lighting with LED bulbs - 4 POINTS

Efficient daylighting

Natural lighting in 50% of common areas - 5 POINTS

Alternative Energy Sources

Lighting areas with photovoltaic solar panels - 5 POINTS



Green Roof

Implementation of green roof on the ceiling of the top floor of the building - **5 points**

Solar and wind orientation

Presentation of insolation studies with solutions for heating or shading and use of existing natural ventilation - **5 points**

Use of Sustainable Materials

Use of adhesives, sealants and paints with low emissions of volatile organic compounds, and use of certified wood - **3 POINTS**

Reduction of Environmental Impacts on construction site

Submission of a Plan contemplating a set of measures to minimize impacts to the neighborhood during construction - **3 POINTS**



Selective collection compartment

Ventilated compartment with easy access on the ground floor - **1 POINT** Ventilated compartment with easy access on the floors - **2 POINTS**

Natural ventilation of bathrooms

Window facing the outside of the building in all bathrooms - **4 POINTS** Window facing the outside of the building in 50% of bathrooms - **2 POINTS**

Adaptation to the natural conditions of the land

Maintenance of existing vegetation and minimizing alteration of the terrain morphology - 2 POINTS

Façade system

Weather protection and shading systems - 4 POINTS

bonuses

Retrofit - **15 POINTS** Green building certification - **5 points** Use of innovative technologies - **1 POINT** for innovation

Objective:

Facilitate benefits for QUALIVERDE qualified projects

Tax Benefits Law

Being processed in City Council

