

Project Details

Project Name : Plaza Logistica Esteban Echeverria 1	Address Line1 : Pedro B. Palacios 100
Number of Distinct Buildings : 3	Address Line2 :
Number of EDGE Subproject(s) : 3 associated	City : Esteban Echeverria
Total Project Floor Area : 45,168.93 m ²	State/ Province : Buenos Aires
Project Owner Name : Emiliano Giana	Postal Code : B1805DYC
Project Owner Email : eg@plazalogistica.com.ar	Country : Argentina
Project Owner Phone : Office 0054-1152361010	Project Number : 1000122208
Share with investor(s) or bank(s)? : Yes	

Associated Subproject(s):

Plaza Logistica Esteban Echeverria 1, Plaza Logistica Esteban Echeverria 1- Vestuario, Plaza Logistica Esteban Echeverria 1- Comedor

Subproject Details

Subproject Name : Plaza Logistica Esteban Echeverria 1- Comedor	Address Line1 : Pedro B. Palacios 100
Retail Store Name : Plaza Logistica Esteban Echeverria 1- Comedor	Address Line2 :
Subproject Multiplier for the : 1 Project	City : Esteban Echeverria
Certification Stage : Preliminary	State/ Province : Buenos Aires
Status : Under Review	Postal Code : B1805DYC
Auditor : gustavo goldman	Country : Argentina
Certifier : Green Business Certification Inc. (GBCI)	Subproject Type : New Building

Location Data

Country : Argentina
City : Buenos Aires



Basic Parameters

Type of Retail : Warehouse	No Landscaped Area	m ²
Site Area : 218.2 m ²		
Car Parking : None	Yes Food Court	

Building Data

Floors Above Ground : 1 no.
 Floors Below Ground : 0 no.
 Floor to Floor Height : 2.6 m
 Gross Internal Area : 218.2 m²

	Default	User Entry
Gross Internal Area :		218
Office Spaces :	11	58.46 m ²
Receiving And Shipping :	23	0.0001 m ²
Package Disassembly :	7	0.0001 m ²
Package Assembly :	7	0.0001 m ²
Rack Storage :	103	0.0001 m ²
Controlled Storage :	7	0.0001 m ²
Bulk Storage :	34	0.0001 m ²
Inventory Control :	2	0.0001 m ²
Dispatcher :	5	0.0001 m ²
Mechanical & Electrical Room :	8	7.57 m ²
Food Court :	11	152.17 m ²

Building Orientation

	Default	User Entry	Building Lengths	
			Default	User Entry
Floor Plan Depth*** :	-	24.24 m	North	-
Main Orientation*** :	Northwest		South	-
			East	-
			West	-
			Northeast	9.0 9
			Northwest	24.2 24.24
			Southeast	24.2 24.24
			Southwest	9.0 9

*** These parameters will be used to estimate building dimensions. If the exact details of the dimensions and orientation are available, then complete the User Entry fields in the Building Lengths section. The orientation of the building will have a direct effect on energy consumption.

Building Systems

Does the building design include an AC system? : Yes
 Does the building design include a space heating system? : Yes

Key Assumptions for the Base Case

	Default	User Entry
Fuel Used for Electric Generator :	Diesel	Diesel
Fuel Used for Hot Water Generation :	Electricity	Electricity
Fuel Used for Cooking :	Electricity	Electricity
Fuel Used for Space Heating :	Electricity	Electricity
% of Electricity Generation Using Diesel :	5.00%	% Ave. Yrly
Cost of Electricity :	0.058	\$/kWh
Cost of Diesel Fuel :	3.05	\$/L
Cost of Natural Gas :	0.53	\$/L
Cost of Water :	0.10	\$/kL
CO ₂ Emissions from Electricity Generation :	493.01	g/kWh
Window to Wall Ratio :	10.00%	%
Solar Reflectivity for Paint - Wall :	30.00%	%
Solar Reflectivity for Paint - Roof :	30.00%	%
Roof U-value :	1.99	W/m ² .K
Wall U-value :	1.86	W/m ² .K
Glass U-value :	5.75	W/m ² .K
Glass SHGC :	0.50	Factor
Cooling System :	ASHRAE 90.1.2007	ASHRAE 90.1.2007
AC System Efficiency :	2.66	COP
Heating System :	ASHRAE 90.1.2007	ASHRAE 90.1.2007
Heating System Efficiency :	2.66	Eff.

Monthly Average Outdoor Temperature (deg.C)

	Default	User Entry
Jan :	24.5	
Feb :	23.4	
Mar :	21.3	
Apr :	17.6	
May :	14.4	
Jun :	11.2	
Jul :	11.0	
Aug :	12.3	
Sep :	14.4	
Oct :	17.2	
Nov :	20.3	
Dec :	23.0	
Latitude :	34.60	Deg
Average Annual Rainfall :	950.00	mm

RESULTS

Final Energy Use : 2,071.44 kWh/Month

Operational CO₂ Savings : 5.04 tCO₂/Year

Final Water Use : 95.16 m³/Month

Embodied Energy Savings : 6,133.22 MJ/m²

Base Case Utility Cost : 281.59 \$/Month

Incremental Cost : 39,483.46 \$

Utility Cost Reduction : 83.00 \$/Month

Payback in Years : 39.64 Yrs.

Energy Savings : 10.65 MWh/Year

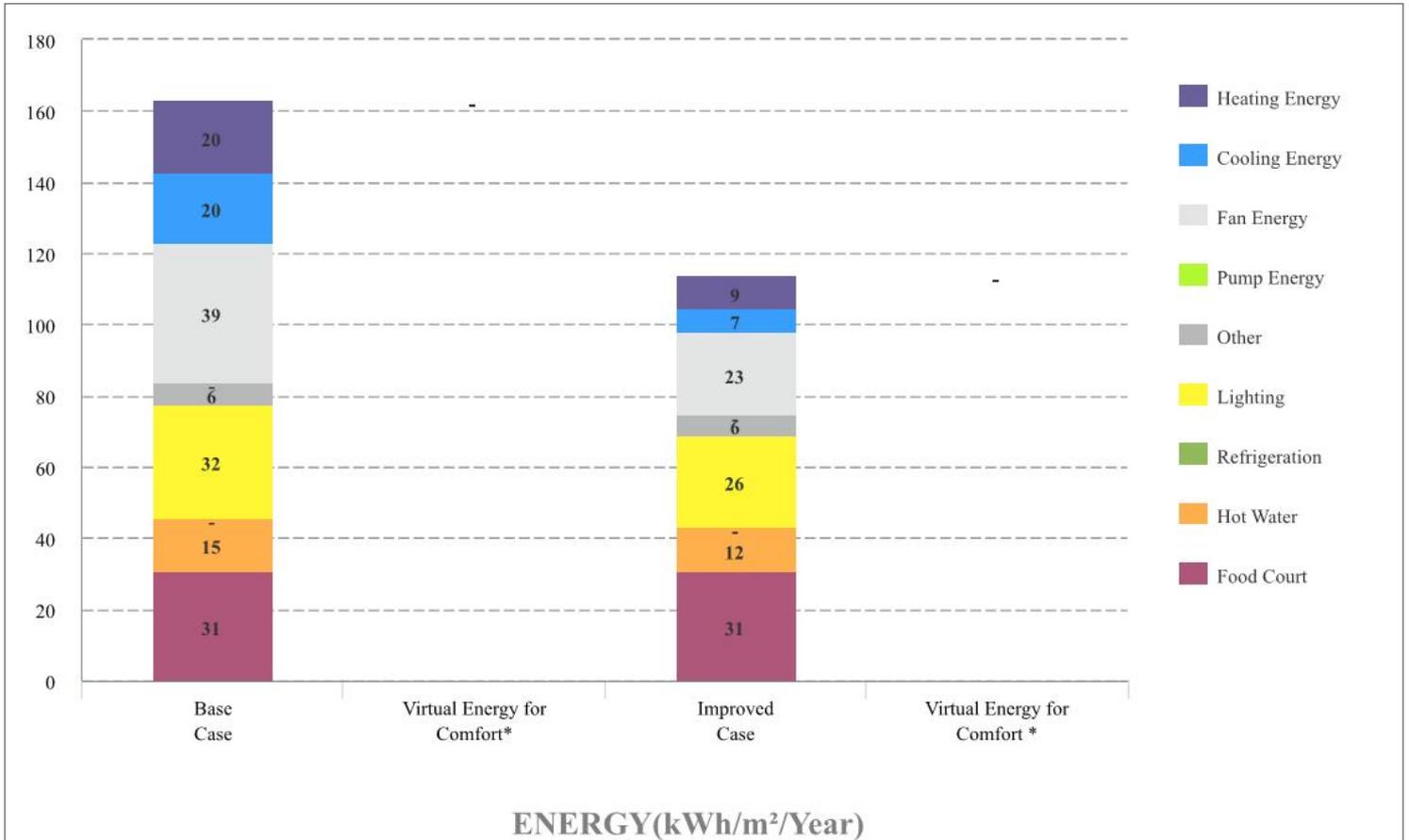
Water Savings : 298.31 m³/Year

Embodied Energy in Materials : 1338.27 GJ Savings

Aggregate Floor Space : 218.20 Including Multiplier

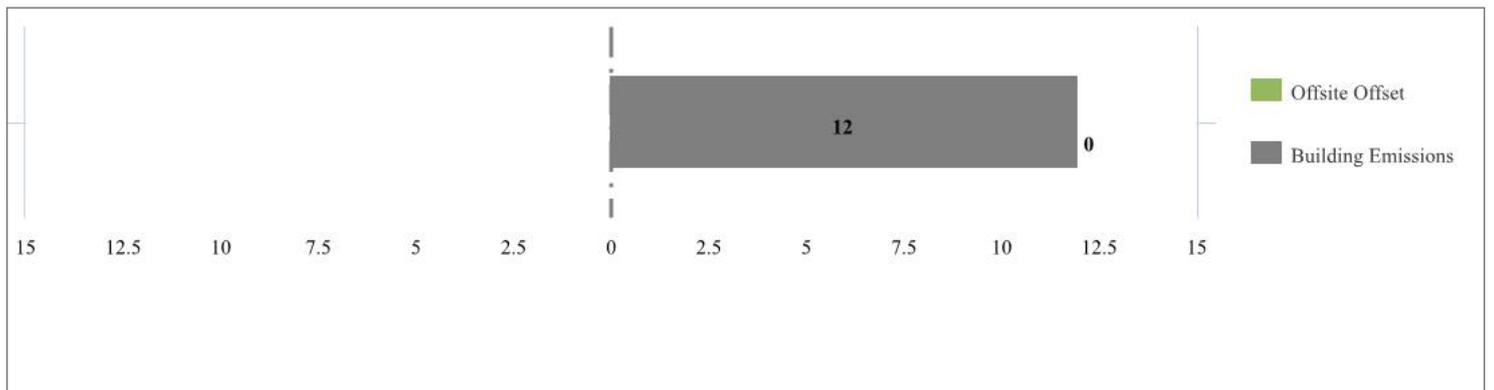
Energy Efficiency Measures 30.00%

Meets EDGE energy standard



* Virtual energy is the amount of energy that will be required based on the assumption that the retail will eventually install air conditioning or heating.

CARBON EMISSIONS: 11.75 tCO₂/Year



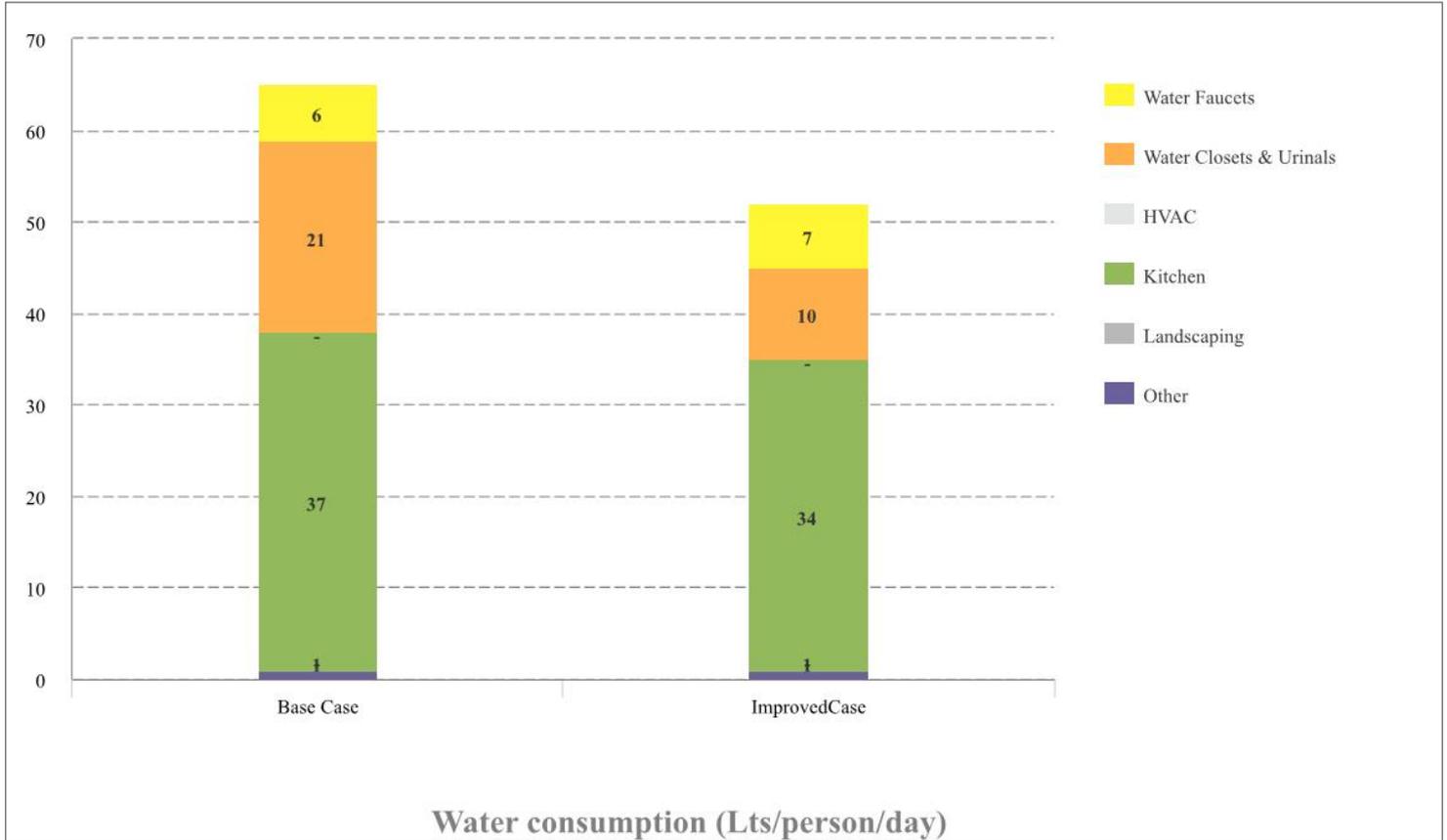
Yes	RTE01	Reduced Window to Wall Ratio - WWR of 5.29%	North	
			South	
			East	
			West	
			Northeast	9.06
			Northwest	1.47
			Southeast	0.69
			Southwest	5.53
Yes	RTE02	Reflective Paint/Tiles for Roof - Solar Reflectivity (albedo) of 0.6	SR	0.60
No	RTE03	Reflective Paint for External Walls - Solar Reflectivity (albedo) of 0.7	SR	0.60
No	RTE04	External Shading Devices - Annual Average Shading Factor (AASF) of 1	AASF	
Yes	RTE05	Insulation of Roof : U-value of 0.48	W/m ² .K	0.48
Yes	RTE06	Insulation of External Walls : U-value of 1.09	W/m ² .K	1.09
No	RTE07	Low-E Coated Glass : U-value of 3 W/m ² .K and SHGC of 0.45	W/m ² .K	
			SHGC	
No	RTE08	Natural Ventilation with Operable Windows for Corridors, Atrium, and Common Areas		
No	RTE09	Air Economizers During Favorable Outdoor Conditions		
Yes	RTE10	Variable Refrigerant Flow (VRF) Cooling System - COP of 3.62	COP	3.62
No	RTE11	Air Conditioning with Air Cooled Screw Chiller - COP of 3.63	COP	
No	RTE12	Air Conditioning with Water Cooled Chiller - COP of 4.95	COP	
No	RTE13	Ground Source Heat Pump - COP of 5.2	COP	
No	RTE14	Absorption Chiller Powered by Waste Heat - COP of 0.7	COP	
No	RTE15	Recovery of Waste Heat from the Generator for Space Heating		
No	RTE16	Variable Speed Drives on the Fans of Cooling Towers		
No	RTE17	Variable Frequency Drives in AHUs		
No	RTE18	Variable Speed Drives Pumps		
No	RTE19	Sensible Heat Recovery from Exhaust Air - Efficiency of 60%	Efficiency	

No	RTE20	CO2 Sensor/Demand-Controlled Ventilation for Fresh Air Intake			
No	RTE21	High-Efficiency Condensing Boiler for Space Heating - Efficiency of 90%	Efficiency		
No	RTE22	High-Efficiency Boiler for Water Heating - Efficiency of 90%	Efficiency		95.00
Yes	RTE23	Energy-Saving Light Bulbs - Sales Area			
Yes	RTE24	Energy-Saving Light Bulbs - Corridors and Common Areas			
No	RTE25	Energy-Saving Light Bulbs - External Spaces			
Yes	RTE26	Occupancy Sensors in Bathrooms			
No	RTE27	Higher Efficiency Refrigerated Cases			
No	RTE28	Solar Hot Water Collectors - 50% of Hot Water Demand	% Hot Water Collector Area (m ²)		0.0
No	RTE29	Solar Photovoltaics - 25% of Total Energy Demand	% of Annual Electricity Use Capacity (kWp)		0.0
No	RTE30	Skylight(s) to Provide Daylight to 50% of Top Floor Area	% Daylit Area SHGC U-value [K·m ² /W]		
No	RTE31	Other Renewable Energy for Electricity Generation	Source Type % of Annual Electricity Use	Biomass	
No	RTE32	Offsite Renewable Energy Procurement - Equal to 100% of total Operational CO2	% Annual Operational CO2 kWh/Year		-
No	RTE33	Carbon Offset - 100% of Total CO2	% Annual Operational CO2 tCO2/Year		-

Water Efficiency Measures 20.49%

WATER SAVINGS

Meets EDGE Water Standard

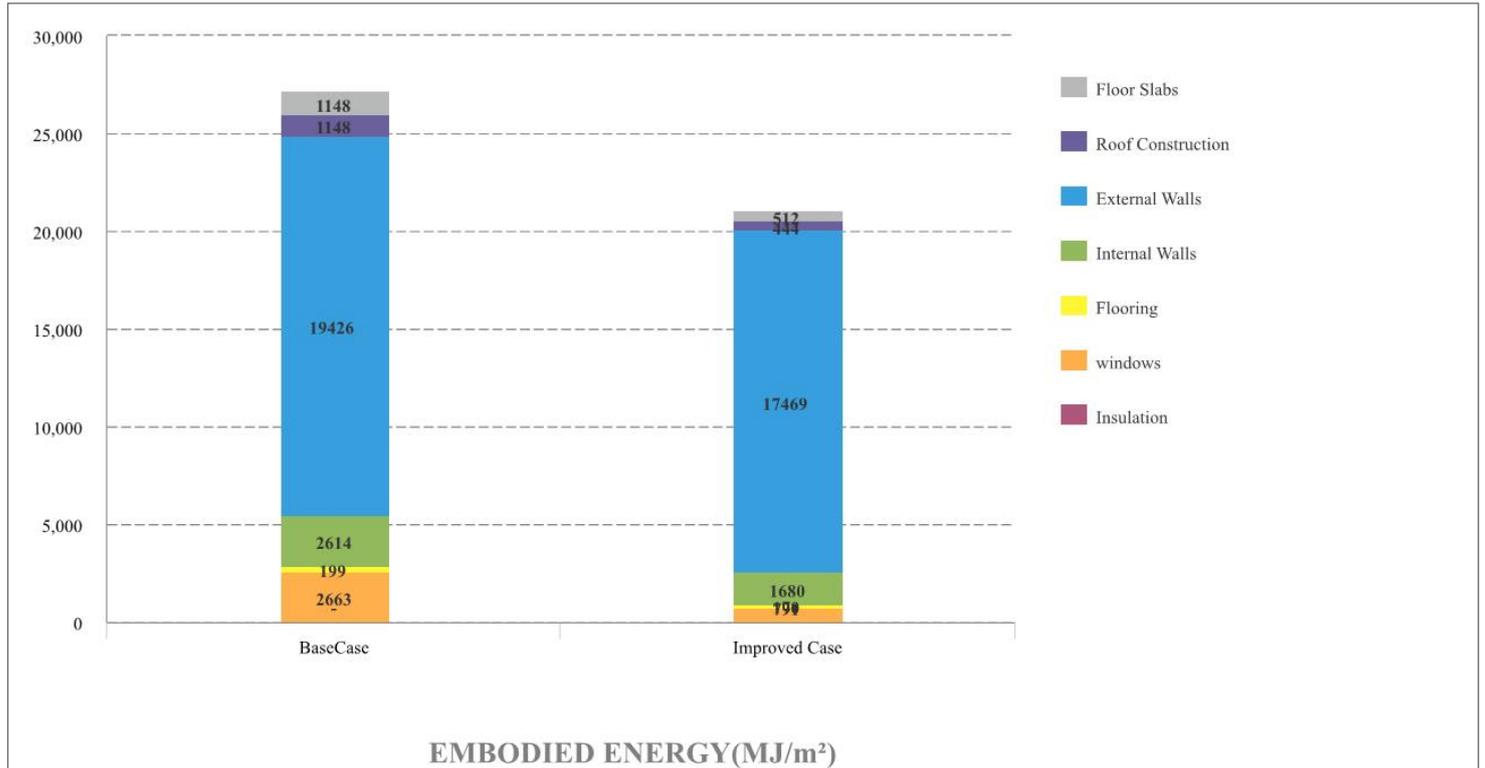


Yes	RTW01	Dual Flush for Water Closets in All Bathrooms - 6 L/first flush and 3 L/second flush	1st - L/flush	6
No		Single Flush/Flush Valve	2nd - L/flush	3
Yes	RTW02	Water-Efficient Urinals in All Bathrooms - 0.6 L/flush	L/flush	0.6
Yes	RTW03	Aerators & Auto Shut-off Faucets in All Bathrooms - 7 L/min	L/min	7
Yes	RTW04	Water-Efficient Kitchen Faucets - 4 L/min	L/min	4
No	RTW05	Water-Efficient Dishwashers - 2 L/Rack		
No	RTW06	Pre-Rinse Valve for Rinsing Operation - 6 L/min		
No	RTW07	Water-Efficient Landscaping - 3 L/m ² /day	L/m ² /day	
No	RTW08	Condensate Water Recovery		
No	RTW09	Rainwater Harvesting System - 50% of Roof Area Used for Rainwater Collection	% of Roof Area Used	
No	RTW10	Grey Water Treatment and Recycling System		
No	RTW11	Black Water Treatment and Recycling System		

Materials Efficiency Measures 22.55%

Embodied Energy Savings

Meets EDGE Material Standard



EMBODIED ENERGY(MJ/m²)

RTM01	Floor Slabs		Proportion %	Thickness	Steel Rebar
	In-Situ Reinforced Concrete Slab	In-Situ Reinforced Concrete Slab		120 mm	20 kg/m²
	350 mm				
	Steel : 35 kg/m²				
RTM02	Roof Construction				
	In-Situ Reinforced Concrete Slab	Type 1 Steel (Zinc or Galvanised Iron) Sheets on Steel Rafters	100 %	mm	kg/m²
	350 mm				
	Steel : 35 kg/m²				
RTM03	External Walls				
	Common Brick Wall with Internal & External Plaster	Type 1 Cored (with Holes) Bricks with Internal & External Plaster	100 %	330 mm	
	200 mm				

		Proportion %	Thickness
RTM04 Internal Walls			
Common Brick Wall with Plaster on Both Sides 100 mm	Type 1 Cored (with Holes) Bricks with Plaster on Both Sides	100 %	120 mm
RTM05 Flooring			
Ceramic Tile	Type 1 Vinyl Flooring	85 %	
	Type 2 Ceramic Tile	15 %	
RTM06 Window Frames			
Aluminium Single Glazing	Type 1 Steel	100 %	Single Glazing
RTM07 Wall Insulation			
No Insulation U : ~ 1.86 W/m ² k	Air Gap <100mm Wide		30 mm
RTM08 Roof Insulation			
No Insulation U : ~ 1.99 W/m ² k	Glass Wool		80 mm

EDGE Certification Checklist

Building Type	Certification Stage	Subproject Name
Retail	Preliminary	Plaza Logistica Esteban Echeverria 1- Comedor
Energy Measures		Preliminary Audit Requirements
RTE01	Reduced Window to Wall Ratio	<ul style="list-style-type: none"> > Calculation of “Glazing Area” and “Gross Exterior Wall Area” for each façade of the building and the average building area weighted WWR using the WWR calculator > All façade elevation drawings showing glazing dimensions and general building dimensions.
RTE02	Reflective Paint/Tiles for Roof	<ul style="list-style-type: none"> > Building design drawings showing the roof material and roof finish. > Roof specification with solar reflectivity of the roof surface indicated. > Bill of quantities with the roof finish clearly marked.
RTE05	Insulation of Roof	<ul style="list-style-type: none"> > A roof construction detail drawing showing the type and thickness of insulation material. Ideally the roof detail drawing should be annotated with the U Value of the roof. > Calculations of U value either using the formula or U value calculators. > Manufacturer’s data sheet of specified insulation material for the roof.
RTE06	Insulation of External Walls	<ul style="list-style-type: none"> > External walls construction detail drawing showing the type and thickness of the insulation material. Ideally the external walls detail drawing should be annotated with the U Value of the external walls. > Calculations of U value either using the formula or U value calculators. > Manufacturer’s data sheet of specified insulation material for the external walls.
RTE10	Variable Refrigerant Volume (VRV) Cooling System	<ul style="list-style-type: none"> > Manufacturer’s data sheets for the VRV cooling system specifying COP information. > For systems including more than one chiller unit, the design team must provide the average COP calculation. > Mechanical drawings showing the location of the external and internal units.
RTE23	Energy Saving Light Bulbs- Sales Area	<ul style="list-style-type: none"> > Lighting schedule listing type and number of bulbs specified. > Electrical layout drawings showing the location and type of all installed bulbs.
RTE24	Energy Saving Light Bulbs- Corridors and Common Areas	<ul style="list-style-type: none"> > Lighting schedule listing type and number of bulbs specified. > Electrical layout drawings showing the location and type of all installed bulbs.
RTE26	Occupancy Sensors in Bathrooms	<ul style="list-style-type: none"> > Electrical layout drawings showing the location of the occupancy sensors. > Specification of the sensors from manufacturer.
Water Measures		Preliminary Audit Requirements
RTW01	Dual Flush for Water Closets in Bathrooms	<ul style="list-style-type: none"> > Plumbing drawings/specifications including make, model, and flush volumes of water closet(s). > Manufacturer’s data sheet for water closet(s) with information on the flush volume of the main and reduced flushes.
RTW02	Water-Efficient Urinals in all Bathrooms	<ul style="list-style-type: none"> > Plumbing drawings/specifications including make, model, and flush volume of the urinal(s). > Manufacturer’s data sheet for urinal(s) with information on the flush volume.
RTW03	Aerators for Faucets/ Auto Shut-Off Faucet	<ul style="list-style-type: none"> > Plumbing drawings/specifications including make, model, auto shut-off mechanism and flow rate of the washbasin faucet(s) > Manufacturer’s data sheet for faucet(s)/flow aerator(s) confirming the flow rate at 3 bar.
RTW04	Water-Efficient Faucets for Kitchen Sinks	<ul style="list-style-type: none"> > Plumbing drawings/specifications including make, model, and flow rate of kitchen(s) faucet(s) or flow restrictor(s). > Manufacturer’s data sheet for faucet(s)/flow restrictor(s) confirming the flow rate at 3 bar.
Material Measures		Preliminary Audit Requirements
RTM01	Floor Slabs	<ul style="list-style-type: none"> > Floor sections showing build-up of the floor; or > Manufacturer’s data sheet for specified building material if applicable; or > Bill of quantities with the floor slab specification clearly highlighted.
RTM02	Roof Construction	<ul style="list-style-type: none"> > A section drawing of roof showing the materials and thicknesses; or > Manufacturer’s data sheet for specified building material; or > Bill of quantities with the materials used for roof construction clearly highlighted.

RTM03	External Walls	<ul style="list-style-type: none"> > Façade drawings clearly marking the external wall specification selected; and > Drawings of the external wall sections; or > Manufacturer's data sheet for specified building material; or > Bill of quantities with the materials used for the external wall clearly highlighted.
RTM04	Internal Walls	<ul style="list-style-type: none"> > Drawings of the internal wall sections; or > Manufacturer's data sheet for building materials used for internal wall specifications if available; or > Bill of quantities with the materials used for the internal wall clearly highlighted.
RTM05	Flooring	<ul style="list-style-type: none"> > Drawings clearly marking the flooring specification selected; or > Manufacturer's data sheet for building materials used for floor specifications; or > Bill of quantities with the materials used for the flooring clearly highlighted.
RTM06	Window Frames	<ul style="list-style-type: none"> > Façade drawings clearly marking the window frame(s) specification; or > Manufacturer's data sheet for glazing specified; or > Bill of quantities with the windows/window frames clearly highlighted.
RTM07	Wall Insulation	<ul style="list-style-type: none"> > Drawings clearly marking the insulation specification selected; or > Manufacturer's data sheet for insulation specified; or > Bill of quantities with the insulation materials clearly highlighted.
RTM08	Roof Insulation	<ul style="list-style-type: none"> > Drawings clearly marking the insulation specification selected; or > Manufacturer's data sheet for insulation specified; or > Bill of quantities with the insulation materials clearly highlighted.