

ESTO CERTIFICA QUE
PILOTO MPS ECOPETROL CAPTURA DE CARBONO BIOGENICO

HA LOGRADO UN
CERTIFICACIÓN EDGE ADVANCED

NÚMERO DE CERTIFICADO
LP9-COL-25102210251968



EDGE ADVANCED

Ejemplificación de logros en las siguientes áreas:

93%

Ahorros de energía

36%

Ahorros de agua

77%

Carbono menos incorporado en los materiales

0.55 tCO₂/Año

Emisiones CO₂ operacionales

6.6 tCO₂/Año

Ahorro de CO₂ durante el uso

PROPIEDAD O DESARROLLO DE
ECOPETROL

CERTIFICADO POR
CAMACOL

A handwritten signature in black ink, reading "Thomas Saunders", positioned above a horizontal line.

Thomas Saunders, Managing Director
FECHA DE EMISIÓN: 02-MAR-2026



WORLD BANK GROUP

THE WORLD BANK
IBRD · IDA

IFC

International
Finance Corporation

MIGA

Multilateral Investment
Guarantee Agency



CAMACOL
CÁMARA COLOMBIANA
DE LA CONSTRUCCIÓN



ESTO CERTIFICA QUE

PILOTO MPS ECOPETROL CAPTURA DE CARBONO BIOGENICO

teoremagerencia@gmail.com

150 Kilómetros al sur de Villavicencio

Puerto Gaitán , META 85282

Colombia

PROPIEDAD O DESARROLLO DE ECOPETROL

HA LOGRADO UN CERTIFICACIÓN EDGE ADVANCED

NÚMERO DE CERTIFICADO LP9-COL-25102210251968

FUE AUDITADO POR

Jairo Posada

Versión del software EDGE: v3.1.0

CERTIFICADO POR CAMACOL

Thomas Saunders, Managing Director



FECHA DE EMISIÓN 02-MAR-2026

MEDIDAS SELECCIONADAS

MEDIDAS DE ENERGÉTICA

Reducción de la proporción de vidrio en la fachada exterior
Techo reflectante
Paredes exteriores reflectantes
Aislamiento del techo
Aislamiento del suelo/losa de piso y entrepiso elevada
Aislamiento de paredes exteriores
Ventiladores de techo
Iluminación eficiente para áreas internas
Energía renovable en el emplazamiento

MEDIDAS RELATIVAS AL AGUA

Cabezales de ducha que ahorran agua

MATERIALES

Construcción de planta baja - Customized Material
Losas de piso y entrepiso - Customized Material
Acabado de piso - Wood | Laminated Wood
Construcción de cubierta - Customized Material
Paredes externas - Customized Material
Paredes internas - Customized Material
Marcos de ventana - Aluminio
Vidrios de ventana - Vidriado simple
Aislamiento de techo - Customized Material
Aislamiento de techo - Customized Material
Aislamiento de paredes - Customized Material
Aislamiento de paredes - Customized Material
Aislamiento de piso - Customized Material
Aislamiento de piso - Customized Material

www.edgebuildings.com

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La norma EDGE requiere eficiencias del 20 % en energía, agua y materiales en comparación con el parámetro de referencia local. Las eficiencias previstas no garantizan el desempeño operativo futuro. Los ahorros de energía pueden asociarse a la energía virtual para la comodidad según haya o no sistemas de calefacción y refrigeración. La energía virtual no genera ahorros en las facturas de servicios públicos.

El certificador emite este certificado sobre la base de la información proporcionada por el cliente y la auditoría del auditor, el cual está sujeto a los términos y condiciones del certificador. Escriba a edge@ifc.org si las medidas anteriores no son coherentes con su observación sobre el proyecto.



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Project Name: Piloto MPS ECOPEPETROL

Subproject Name: PILOTO MPS ECOPEPETROL CAPTURA DE CARBONO BIOGENICO

Project Details

Project Name Piloto MPS ECOPEPETROL	Address Line1 Campamento Caño Sur Mito 1
Number of Distinct Buildings 1	Address Line2 150 kilometros al sur de Villavicencio
Number of EDGE Subproject(s) associated 2	City Puerto Gaitan
Total Project Floor Area (m ²) 553.5	State/ Province META
Project Owner Name MPS Teorema SAS	Postal Code 85282
Project Owner Email teoremagerencia@gmail.com	Country Colombia
Project Owner Phone Mobile 57 - 3193253828	Project Number 1001434372
Share project name and basic information to potential investors or banks? Yes	Do you intend to certify? Yes
Is this Project created for Training Purpose? No	

Associated Subproject(s)

Total associated subprojects: 2

The complete list of Associated Subprojects is available in the last section of this document.

Subproject Details

Subproject Name PILOTO MPS ECOPEPETROL CAPTURA DE CARBONO BIOGENICO	Address Line1 teoremagerencia@gmail.com
Building Name PILOTO MPS-ECOPEPETROL	Address Line2 150 Kilómetros al sur de Villavicencio
Subproject Multiplier for the Project 1	City Puerto Gaitán
Certification Stage Post-Construction	State/ Province META
Status Certificate Issued	Postal Code 85282
Auditor Jairo Posada	Country Colombia
Certifier CAMACOL	Subproject Type New Building
File Number 25102210251968	

Location



Building Type

Primary Building Type
Hotel

Subtype
1-Star Hotel

Project Name: Piloto MPS ECOPETROL

Subproject Name: PILOTO MPS ECOPETROL CAPTURA DE CARBONO BIOGENICO

Building Data

Building Data		Operational Details	
Default	User Entry	Default	User Entry
Total No. of Rooms		Working Days (Days/Week)	
200	10	7.00	
No. of Floors Above Grade		Hours of Operation (Hrs/Day)	
5	2	14.00	10
No. of Floors Below Grade		Average Occupancy Rate (%)	
2	0	80.0	70
Floor-to-Floor Height (m)		Building Costs	
3.0	2.61	Cost of Construction (COP/m2)	
Aggregate Roof Area (m ²)		4,165,656.0	7,871,994
138	159.5	Estimated Sale Value (COP/m2)	
		5,915,231.5	9,446,393.411

Area and Loads Breakdown

Gross Internal Area (m²)
276.5

Default (m ²)	User Entry (m ²)	Default	User Entry
Guest Rooms 96.0	210.38	Area with Exterior Lighting (m ²) 1,200	0
Restaurants & Cafeteria 6.0	0	External Carparking Area (m ²) 225	0
Bars 2.0	0	Covered Carparking Area (m ²) -	
Lockers 2.0	0	Water End Uses	
Reception 6.0	0	Irrigated Area (m ²) 400	0
Lobby 4.0	25	Swimming Pool Type (m ²) Indoor Heated Pool and Outdoor Unheated Pool	None
Administrative Office 8.0	0	Swimming Pool (m ²) 20	
Tea & Coffee Shops 4.0	0	Car Washing No	No
Laundry 10.0	0	Washing Clothes Yes	No
Health Spa 10.0	14.22	Process Water No	No
Linen and Store 2.0	0	Dishwasher Yes	No
Kitchen 16.0	0	Pre Rinse Spray Valve Yes	No
Corridors 24.0	26.9		
Conference/Banquet 10.0	0		

Detailed Loads Input

Activities	Space Conditioning Type	EDGE Default Space Conditioning	Default Heating and Cooling Set-point Temperature	Occupancy (m ² /Person)	Plug Loads (W/m ²)	Process Loads (W/m ²)	Fresh Air Requirement (L/s-m ²)	Fresh Air Requirement (L/s/Person)	Fresh Air Requirement (ACH)	People Sensible Heat (W/Person)	People Latent Heat (W/Person)
Guest Rooms	Only Space Cooling	AC & HTG	C 24°C	24.6	0.25	3.26	0.2	5		100	70
Restaurants & Cafeteria	Select	AC & HTG	C 24°C & H 22°C								
Bars	Select	AC & HTG	C 24°C & H 22°C								
Lockers	Select	AC & HTG	C 24°C & H 22°C								
Reception	Select	AC & HTG	C 24°C & H 22°C								
Lobby	No Conditioning Provided	AC & HTG	C 24°C & H 22°C	138.25	0.75	0.53	0.036	5		100	70
Administrative Office	Select	AC & HTG	C 24°C & H 22°C								
Tea & Coffee Shops	Select	AC & HTG	C 24°C & H 22°C								
Laundry	Select	NON AC & NO HTG	C 24°C & H 22°C								
Health Spa	Only Space Cooling	AC & HTG	C 24°C	69.1	0.59	3.88	0.072	5		100	70
Linen and Store	Select	NON AC & NO HTG	C 24°C & H 22°C								
Kitchen	Select	NON AC & NO HTG	C 24°C & H 22°C								
Corridors	No Conditioning Required	AC & HTG	C 24°C & H 22°C	138.25	0	0.31	0	5		100	70
Conference/Banquet	Select	AC & HTG	C 24°C & H 22°C								

Project Name: Piloto MPS ECOPETROL

Subproject Name: PILOTO MPS ECOPETROL CAPTURA DE CARBONO BIOGENICO

Kitchen & Food Preparation

Kitchen	Pantry	Coffeehouse/Café	
Description	Default	User Selection	Unit
No. of Meals /day	1.00		Meals/Person/day
Total People having on site meal	50%		%
Food Prepared on Site	70%		%
People using pantry	10%		%
People using coffeehouse	10%		%
Energy per meal	1.60		kWh/meal

Project Name: Piloto MPS ECOPEPETROL

Subproject Name: PILOTO MPS ECOPEPETROL CAPTURA DE CARBONO BIOGENICO

Building Dimensions

Default Building Length (m)	User Entry (m)	Façade Area Exposed to Outside Air (%)
North 5.90	13.4	100
North East 5.90	0	100
East 5.90	11.9	100
South East 5.90	0	100
South 5.90	13.4	100
South West 5.90	0	100
West 5.90	11.9	100
North West 5.90	0	100

Project Name: Piloto MPS ECOPELROL

Subproject Name: PILOTO MPS ECOPELROL CAPTURA DE CARBONO BIOGENICO

Building HVAC System

Select Input Type

Simplified Inputs

Does the Building Design Include an AC system?

Yes

Does the Building Design Include a Space Heating System?

No

Does the Building Design Include Purchased Chilled Water and Heating Supply (District Cooling or Heating)?

None

Applicable Baseline

EDGE

Project Name: Piloto MPS ECOPETROL

Subproject Name: PILOTO MPS ECOPETROL CAPTURA DE CARBONO BIOGENICO

Fuel Usage

		Cost Input	
Default	User Entry	Default	User Entry
Hot Water Electricity	None	Electricity (COP/kWh) 244.32	
Space Heating Electricity	Electricity	Diesel (COP/Lt) 2,321.04	
Generator Diesel	Diesel	Natural Gas (COP/kg) 3,027.07	
% of Electricity Generation Using Diesel 5.00%	0	LPG (COP/kg) 3,027.07	
Fuel Used for Cooking Electricity	None	Coal (COP/kg) 329.8	
CO₂ Emissions Factor		Fuel Oil (COP/Lt) 1,242.9	
Default Electricity (kg of CO ₂ /kWh) 0.21	User Entry	Water (COP/KL) 2,239.60	
Diesel (kg of CO ₂ /kWh) 0.25		Conversion from USD (COP/USD) 4,072.00	
Natural Gas (kg of CO ₂ /kWh) 0.18			
LPG (kg of CO ₂ /kWh) 0.24			
Coal (kg of CO ₂ /kWh) 0.32			
Fuel Oil (kg of CO ₂ /kWh) 0.25			

Project Name: Piloto MPS ECOPELROL

Subproject Name: PILOTO MPS ECOPELROL CAPTURA DE CARBONO BIOGENICO

Climate Data

Default	User Entry	Default	User Entry
Elevation (m) 1,430	200	Latitude (degrees) 4	3.38
Rainfall (mm/year) 557		ASHRAE Climate Zone 1A	1A

Temperature (°C)

Default (Monthly Max.)	User Entry (Monthly Max.)	Default (Monthly Max.)	User Entry (Monthly Max.)
Jan 33.2	Jan	Jul 33.8	Jul
Feb 33.5	Feb	Aug 32.1	Aug
Mar 33.1	Mar	Sep 31.6	Sep
Apr 31.7	Apr	Oct 31.5	Oct
31.6		Nov 32.8	Nov
Jun 32.4	Jun	Dec 32.1	Dec
Default (Monthly Min.)	User Entry (Monthly Min.)	Default (Monthly Min.)	User Entry (Monthly Min.)
Jan 15.3	Jan	Jul 16.6	Jul
Feb 16.3	Feb	Aug 17.3	Aug
Mar 16.7	Mar	Sep 16.2	Sep
Apr 17.2	Apr	Oct 16.4	Oct
17.1		Nov 16.3	Nov
Jun 16.6	Jun	Dec 15.8	Dec

Project Name: Piloto MPS ECOPELROL

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Climate Data

Relative Humidity (%)

Default (Monthly Avg.)	User Entry (Monthly Avg.)	Default (Monthly Avg.)	User Entry (Monthly Avg.)
Jan 78.7%	Jan	Jul 76.6%	Jul
Feb 76.5%	Feb	Aug 74.3%	Aug
Mar 78.9%	Mar	Sep 78.6%	Sep
Apr 81.8%	Apr	Oct 79.2%	Oct
80.8%		Nov 82.0%	Nov
Jun 81.0%	Jun	Dec 80.5%	Dec

Wind Speed (m/sec)

Default (Monthly Avg.)	User Entry (Monthly Avg.)	Default (Monthly Avg.)	User Entry (Monthly Avg.)
Jan 1.9	Jan	Jul 1.9	Jul
Feb 1.9	Feb	Aug 2.2	Aug
Mar 1.7	Mar	Sep 2.0	Sep
Apr 1.7	Apr	Oct 1.9	Oct
1.6		Nov 1.8	Nov
Jun 1.7	Jun	Dec 1.8	Dec

Project Name: Piloto MPS ECOPETROL

Subproject Name: PILOTO MPS ECOPETROL CAPTURA DE CARBONO BIOGENICO

92.60% | 35.75% | 77.45%

Results

Final Energy Use (kWh/Year)	Improved Case EPI (kWh/m ² /year)
2,617	10.09
Final Water Use (m ³ /Year)	Total Building Construction Cost (Million COP)
222	2,176.6
Final Operational CO ₂ Emissions (tCO ₂ e/Year)	Incremental Cost (Million COP)
0.55	-
Final Embodied Carbon (tCO ₂ e/m ²)	% Increase in cost
0.1	0.00%
Final Utility Cost (COP/Year)	Payback in Years (Yrs.)
1,136,671	-
Subproject Floor Area (m ²)	Number of People Impacted (No./Year)
277	1,284
Energy Savings (MWh/Year)	Base Case - Refrigerant Global Warming Potential (tCO ₂ e/Year)
34.90	0.8
Water Savings (m ³ /Year)	Improved Case - Refrigerant Global Warming Potential (tCO ₂ e/Year)
123.90	0.8
Operational CO ₂ Savings (tCO ₂ /Year)	
6.6	
Embodied Carbon Savings (tCO ₂ e)	
128.40	
Utility Cost Savings in USD (USD/Year)	
1,906.9	
Utility Cost Savings in Local Currency (COP/Year)	
7,764,751.2	
Base Case EPI (kWh/m ² /year)	
136.33	

ENERGY SAVINGS

Energy Efficiency Measures 92.60%

EDGE ADVANCED
Meets EDGE Energy Standard

Net Carbon Emissions: 0.5 t CO₂e/Year

Energy Efficiency Measures 92.60%

- ✓ EEM01* Window-to-Wall Ratio: 11.97%
 Base Case Value: 60%
WWR (%): 11.97
- ✓ EEM02 Reflective Roof: Solar Reflectance Index 111
 Base Case Value: 45
SRI: 111.00
- ✓ EEM03 Reflective Exterior Walls: Solar Reflectance Index 98
 Base Case Value: 45
SRI: 98.00
- ✓ EEM04 External Shading Devices: Annual Average Shading Factor (AASF) 0.05
- ✓ EEM05*
 Base Case Value: 1.91 W/m²·K
U-Value (W/m²·K): 0.36
- ✓ EEM06* Insulation of Ground/Raised Floor Slab: U-Value 0.35 W/m²·K
 Base Case Value: 1.99 W/m²·K
U-Value (W/m²·K): 0.35
- EEM07 Green Roof
- ✓ EEM08* Insulation of Exterior Walls: U-Value 0.4 W/m²·K
 Base Case Value: 1.86 W/m²·K
U-Value (W/m²·K): 0.40
- ✓ EEM09* Efficiency of Glass: U-Value 5.7 W/m²·K, SHGC 0.8 and VT 0.88
 Base Case Value: 5.7 W/m²·K & SHGC 0.8 & VT 0.7
U-Value (W/m²·K): 5.7 VT (Factor): 0.88
SHGC: 0.8
- EEM10 Air Infiltration of Envelope: 50% Reduction
- EEM11 Natural Ventilation
- ✓ EEM12 Ceiling Fans
 Base Case: No ceiling fans
- ✓ EEM13* Cooling System Efficiency: COP (W/W) 3.8, Efficiency (%)
 NA, EER (Btu/hW) NA
 Base Case System: Packaged Terminal Heat Pump
 Base Case COP: 4.1
Select System: VRF Air Cooled, Cooling & Heating
COP (W/W): 4.47
- EEM14 Variable Speed Drives

Energy Efficiency Measures 92.60%

EEM15 Fresh Air Pre-conditioning System: Efficiency 65%	EEM25 Skylights																				
EEM18 Domestic Hot Water (DHW) System : Solar 50%, Heat Pump 50%, Boiler 0%, Instantaneous Water Heater 0%, District Hot Water System 0%	EEM26 Demand Control Ventilation for Parking Using CO Sensors																				
EEM19 Domestic Hot Water Preheating System	EEM30 Submeters for Heating and/or Cooling Systems																				
EEM20 Economizers	EEM31 Smart Meters for Energy																				
EEM21 Demand Control Ventilation Using CO ₂ Sensors	EEM32 Power Factor Corrections																				
✓ EEM22 Efficient Lighting for Internal Areas Base Case Value: 2.4 W/m ² Efficiency Type: Lighting Power Density	✓ EEM33 Onsite Renewable Energy: 81.75% of Annual Energy Use Base Case: No Onsite Renewable Energy																				
EEM23 Efficient Lighting for External Areas	<table border="1"> <thead> <tr> <th>Renewable Energy System Type</th> <th>Default Annual Energy Use (%)</th> <th>User Entry Annual Electricity Use (%)</th> <th>Annual Energy Use (kWh/Year)</th> </tr> </thead> <tbody> <tr> <td>Solar Photovoltaic</td> <td>25%</td> <td>81.75</td> <td>12,494</td> </tr> <tr> <td>Wind Turbine</td> <td>0%</td> <td>0</td> <td>-</td> </tr> <tr> <td>Biomass</td> <td>0%</td> <td>0</td> <td>-</td> </tr> <tr> <td>Other</td> <td>0%</td> <td>0</td> <td>-</td> </tr> </tbody> </table>	Renewable Energy System Type	Default Annual Energy Use (%)	User Entry Annual Electricity Use (%)	Annual Energy Use (kWh/Year)	Solar Photovoltaic	25%	81.75	12,494	Wind Turbine	0%	0	-	Biomass	0%	0	-	Other	0%	0	-
Renewable Energy System Type	Default Annual Energy Use (%)	User Entry Annual Electricity Use (%)	Annual Energy Use (kWh/Year)																		
Solar Photovoltaic	25%	81.75	12,494																		
Wind Turbine	0%	0	-																		
Biomass	0%	0	-																		
Other	0%	0	-																		
EEM24 Lighting Controls	EEM34 Other Energy Saving Measures																				
	EEM35 Offsite Renewable Energy Procurement: 100% of Annual Operational CO ₂																				
	EEM36 Carbon Offsets: 100% Annual Operational CO ₂																				
	EEM37 Low-Impact Refrigerants																				

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WATER SAVINGS

Water Efficiency Measures 35.75%

Meets EDGE Water Standard

Project Name: Piloto MPS ECOPELROL

Subproject Name: PILOTO MPS ECOPELROL CAPTURA DE CARBONO BIOGENICO

Water Efficiency Measures 35.75%

- ✓ WEM01* Water-efficient Showerheads: 5.83 L/min
 Base Case Value: 9.5 L/min
 Bath Type: Showerheads Flow Rate (L/min): 5.83 Hot Water Provision: No
- ✓ WEM02* Water-efficient Faucets for all Bathrooms: 4.07 L/min
 Base Case Value: 8.3 L/min
 Faucet Type: Faucets with Aerators Flow Rate (L/min): 4.07 Hot Water Provision: No
- ✓ WEM04* Efficient Water Closets for All Bathrooms: 3.8 L/flush
 Base Case Value: Single Flush, 8 L/flush
 Type Of Water Closet: Single Flush High Volume Flush (L/min): 3.8

WEM06 Water-efficient Bidet: 2 L/min

WEM07 Water-efficient Urinals: 2 L/flush
- ✓ WEM08* Water-efficient Faucets for Kitchen Sinks: 8.3 L/min
 Base Case Value: 8.3 L/min
 Hot Water Provision: No Flow Rate (L/min): 8.3

Project Name: Piloto MPS ECOPELROL

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Water Efficiency Measures 35.75%

WEM12 Swimming Pool Covers: 30% Area Covered

WEM13 Water-efficient Landscape Irrigation System: 4 L/m²/day

WEM14 Rainwater Harvesting System: 80 m² of Catchment Area

WEM15 Waste Water Treatment and Recycling System: 100% Treated

WEM16 Condensate Water Recovery: 100% Recovery

WEM17 Smart Meters for Water

Project Name: Piloto MPS ECOPEPETROL

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EMBODIED CARBON SAVINGS

Materials Efficiency Measures 77.45%

Meets EDGE Material Standard

Project Name: Piloto MPS ECOPETROL

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Materials Efficiency Measures 77.45%

Improved Case Selection	Building Material	Proportion %	Thickness (mm)	U-Value (W/m ² ·K)	Embodied Carbon(kg/m ²)
MEM01* Bottom Floor Construction Base Case Material: Concrete Slab In-situ Reinforced Conventional Slab Thickness : 100mm & Steel : 35kg/m ²	Type 1 Customized Material Customized Material Used: MPS Steel SLAB Panel with 25 mm fibercement boards (filled up)	100 %	109	0.35	78.81
MEM02* Intermediate Floor Construction Base Case Material: Concrete Slab In-situ Reinforced Conventional Slab Thickness : 300mm & Steel : 35kg/m ²	Type 1 Customized Material Customized Material Used: MPS Steel SLAB Panel with 25 mm fibercement boards (filled up)	100 %	109		61.3
MEM03* Floor Finish Base Case Material : Tiled Ceramic Tiles Thickness : 10mm	Type 1 Wood Laminated Wood	100 %	8		
MEM04* Roof Construction Base Case Material: Concrete Slab In-situ Trough Slab Thickness : 300mm & Steel : 35kg/m ²	Type 1 Customized Material Customized Material Used: MPS Steel SLAB Panel with 25 mm fibercement boards (filled up)	100 %	109	0.00	78.81
MEM05* Exterior Walls Base Case Material: Brick Wall Solid brick (0-25% voids) with external and internal plaster Thickness : 230mm	Type 1 Customized Material Customized Material Used: MPS Steel Wall Panel with 8 mm fibercement board both sides	100 %	100	0.40	38.69
MEM06* Interior Walls Base Case Material : Brick Wall Solid brick (0-25% voids) with external and internal plaster	Type 1 Customized Material Customized Material Used: MPS Steel Wall Panel with 8 mm fiberboard both sides	100 %	100		15.7

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Materials Efficiency Measures 77.45%

Improved Case Selection	Building Material	Proportion %	Thickness (mm)	U-Value (W/m ² .K)	Embodied Carbon(kg/m ²)
MEM07* Window Frames Base Case Material : Aluminium	Type 1 Aluminium	100 %			
MEM08* Window Glazing Base Case Material: Single Glazing Thickness : 8mm	Type 1 Single Glazing	100 %	8	5.70	
MEM09* Roof Insulation Base Case Material: X - No insulation Thickness : 0mm	Type 1 Customized Material Customized Material Used: Raw Rice Husk Infill (Biogenic Carbon Capture)	71.3 %	62		-40.57
	Type 2 Customized Material Customized Material Used: Close Cell polyethilen blanket insulation	28.7000000003 %	25		7.07
MEM10* Wall Insulation Base Case Material : X - No insulation Thickness : 0mm	Type 1 Customized Material Customized Material Used: Raw Rice Husk Infill (Biogenic Carbon Capture)	71.3 %	62		-55.79
	Type 2 Customized Material Customized Material Used: Close Cell polyethilen blanket insulation	28.7000000003 %	20		9.2
MEM11* Floor Insulation Base Case Material: X - No Insulation Thickness : 0mm	Type 1 Customized Material Customized Material Used: Raw Rice Husk Infill (Biogenic Carbon Capture)	71.3 %	62		-40.57
	Type 2 Customized Material Customized Material Used: Close Cell polyethilen blanket insulation	28.7000000003 %	25		7.07

WEM08	Low-Flow Faucets for Kitchen Sink	<ul style="list-style-type: none"> ✓ Date-stamped photographs of the faucet(s) or flow restrictor(s) taken during or after installation showing the make and model; or ✓ Purchase receipts for the faucet(s) or flow restrictor(s) showing the make and model. ✓ Existing building projects&nbsp; If some of the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
Energy Measures		Construction Audit Requirements
EEM01	Window to Wall Ratio	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ As-built façade drawings; or ✓ External and internal photographs of the building showing all the elevations Date-stamped photographs of the building interior and exterior showing all the elevations. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
EEM02	Reflective Paint/Tiles for Roof	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the roof(s) showing the claimed products on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
EEM03	Reflective Paint for External Walls	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the wall(s) showing the claimed products on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
EEM05	Insulation of Roof	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the roof(s) taken during construction at a point when any insulation materials claimed were visible on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
EEM06	Insulation of Ground/Exposed Slab	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and

EEM06	Insulation of Ground/Exposed Slab	<ul style="list-style-type: none"> ✓ Date-stamped photographs of the floor(s) taken during construction at a point when any insulation materials claimed were visible on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
EEM08	Insulation of External Wall	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the exterior wall(s) taken during construction at a point when any insulation materials claimed were visible on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
EEM09	Efficient Glass	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the glazing units installed; or ✓ Purchase receipts showing the brand and product installed. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
EEM12	Ceiling Fans	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the ceiling fan(s) taken during and after installation showing the make and model; or ✓ Purchase receipts for the ceiling fans showing the make and model. ✓ Existing building projects&nbsp; If some of the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
EEM13	Efficient Water Cooled Screw Chiller	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the space cooling equipment taken during or after installation showing the make and model; or ✓ Purchase receipts for the space cooling equipment showing the make and model; or ✓ Contract with the management company showing the efficiency of the space cooling system, if the system is under separate management or off-site. ✓ Existing building projects&nbsp; If some of the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
EEM22	Energy-Efficient Lighting for Internal Areas	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the documents to clearly reflect As-Built conditions; and

EEM22	Energy-Efficient Lighting for Internal Areas	<ul style="list-style-type: none"> ✓ Date-stamped photographs of the installed lighting; it is not necessary to take photos of every single installed lamp, but the auditor is responsible for checking and verifying a reasonable proportion; or <hr/> ✓ Purchase receipts for the lighting. <hr/> ✓ Existing building projects&nbsp; If some of the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.
EEM33	Onsite Renewable Energy System	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and <hr/> ✓ Photographs of the installed system; or <hr/> ✓ Purchase receipts and delivery notes of the system; or <hr/> ✓ Contract with the energy management company if the system is owned by a third party. <hr/> ✓ Existing building projects&nbsp; If some of the documents required above are not available, other evidence of construction details, such as existing building drawings or photographs can be submitted.

Material Measures

Construction Audit Requirements

MEM01	Bottom Floor Construction	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and <hr/> ✓ Date-stamped photographs of the floor slabs taken during construction showing the claimed products on site; or <hr/> ✓ Purchase receipts showing the installed products. <hr/> ✓ If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM02	Intermediate Floor Construction	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and <hr/> ✓ Date-stamped photographs of the floor slabs taken during construction showing the claimed products on site; or <hr/> ✓ Purchase receipts showing the installed products. <hr/> ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM03	Floor Finish	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and <hr/> ✓ Date-stamped photographs of the flooring during or after installation showing the claimed products on site; or <hr/> ✓ Purchase receipts showing the installed products.

MEM03	Floor Finish	<ul style="list-style-type: none"> ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM04	Roof Construction	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the roof(s) taken during construction showing the claimed products on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM05	Exterior Walls	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the floor slabs taken during construction showing the claimed products on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM06	Interior Walls	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Date-stamped photographs of the floor slabs taken during construction showing the claimed products on site; or ✓ Purchase receipts showing the installed products. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM07	Window Frames	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Manufacturer’s data sheets showing the make and model, material and U-value of the installed window frames; and ✓ Date-stamped photographs of the window frames during or after installation showing the make and model; or ✓ Purchase receipts showing the make and model of the installed window frames. ✓ This measure includes exterior glass doors. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM08	Window Glazing	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and

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MEM08	Window Glazing	<ul style="list-style-type: none"> ✓ Manufacturer's data sheets showing the make and model, U-value and SHGC of the installed glass; and ✓ Date-stamped photographs of the glazing during or after installation showing the make and model; or ✓ Purchase receipts showing the make and model of the installed windows/glass. ✓ ? This measure includes exterior glass doors. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM09	Roof Insulation	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Manufacturer's data sheets showing the brand and product name and insulating properties of the installed insulation; and ✓ Date-stamped photographs of the insulation during construction showing the product; or ✓ Purchase receipts showing the brand and product installed. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM10	Wall Insulation	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Manufacturer's data sheets showing the brand and product name and insulating properties of the installed insulation; and ✓ Date-stamped photographs of the insulation during construction showing the product; or ✓ Purchase receipts showing the brand and product installed. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.
MEM11	Floor Insulation	<ul style="list-style-type: none"> ✓ Documents from the design stage if not already submitted. Include any updates made to the design stage documents to clearly reflect as-built conditions; and ✓ Manufacturer's data sheets showing the brand and product name and insulating properties of the installed insulation; and ✓ Date-stamped photographs of the insulation during construction showing the product; or ✓ Purchase receipts showing the brand and product installed. ✓ Existing building projects&nbsp; If the documents required above are not available, other evidence of construction details, such as existing building drawings or photos taken during renovation can be submitted.

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Associated Subproject(s)

Sr No.	Associated Subproject Name	Country	City
1	Piloto construccion captura carbono Biogenico MPS-ECOPEPETROL	Colombia	Villavicencio
2	PILOTO MPS ECOPEPETROL CAPTURA DE CARBONO BIOGENICO	Colombia	Villavicencio