



Implementing the European Common Voluntary Certification Scheme, as back-bone along the whole deep renovation process



ALDREN & Hotel buildings





Final event 2020.09.29, Carlos Espigares, IVE

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IVE ALDREN Team









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GIA / 5361.3M²



Flamingo Oasis GIA / 23057M²



Les Dunes Comodoro GIA / 7151.3M²



Poseidon Playa GIA / 11193M²



GIA / 11050M²



Bayren spa GIA / 14048M²





Modules applied to each pilot



ALDREN MODULES:

M2.2_Energy rating

M2.3_Performance Verification

M2.4_TAIL

M2.5_Investment costs &Financial Valuation M2.6_Building Reno Passport

Les Dunes Comodoro

ALDREN MODULES: M2.2_Energy rating M2.4_TAIL M2.5_Investment costs M2.6.1_ RenoMap

Poseidon Playa

ALDREN MODULES: M2.2_Energy rating M2.3_Performance Verification M2.4_TAIL M2.5_Investment costs M2.6.1_RenoMap Dynastic



Bayren spa





Modules 2.2 and 2.3_energy rating and verification

Non Ren Primary Energy: 86%

Heating: increase of 83%

Cooling: 63%

Ventilation: natural forced by the AC system

Domestic hot water: increase of 52%

Lighting: 82.46%

PV Production: 56.5 kwhPE/m2y

Benidorm Centre

Non Ren Primary Energy: 42.5%

Heating: 84% Cooling: 30% Ventilation: natural forced by the AC system Domestic hot water: 100% Lighting: 11% PV Production: 55 kwhPE/m2y

Flamingo Oasis

Non Ren Primary Energy: 44.2%

Heating: 83%

Cooling: 33%

Ventilation: natural forced by the AC system

Domestic hot water: 60%

Lighting: 71%

PV Production: 5.77 kwhPE/m2y

Les Dunes Comodoro

Non Ren Primary Energy: 15%

Heating: 0%

Cooling: 0%

Ventilation: natural forced by the AC system

Domestic hot water: increase of 43%

Lighting: 0%

PV Production: 25.2 kwhPE/m2y

Poseidon Playa

Non Ren Primary Energy: 22.6%

Heating: increase of 100%

Cooling: 14%

Ventilation: natural forced by the AC system

Domestic hot water: 37%

Lighting: 72%

PV Production: 13.9 kwhPE/m2y

Dynastic

Non Ren Primary Energy: 27%

Heating: 2.5%

Cooling: increase of 9.5%

Ventilation: natural forced by the AC system

Domestic hot water: 49%

Lighting: 32%

PV Production: 138.1 kwhPE/m2y

Bayren spa





Modules 2.2 and 2.3_energy rating and verification



Standard energy labels





Modules 2.2 and 2.3_energy rating and verification



Flamingo Oasis



Les Dunes Comodoro



Poseidon Playa



Dynastic



Bayren spa





Module 2.4_TAIL implementation on 5 Hotels



Building location	Spain
Building type	Hotel_FLA
Date of renovation	
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	L
	Category
Thermal environment	
Acoustic environment	
Indoor air quality	
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Building location	A 1
	Spain
Building type	Hotel_RHB
Date of renovation	
	Category
Thermal environment	
Thermal environment Acoustic environment	
Thermal environment Acoustic environment Indoor air quality	

Building location	Spain
Building type	Hotel Dun
Date of renovation	
T	A L
	Category
Thermal environment	

Acoustic environment	
Indoor air quality	





Module 2.6.1_Renovation Roadmap

1a He Remore terrace HVAC installations (underfloor leasing) 2019 · 2020 potentially innediate 1a H.4.7 Material gas sepply replacing LDG 2019 · 2020 potentially innediate 1a H.4.7 Material gas boiler provides only DHV. Shet down 2019 · 2020 potentially innediate 1a H.4.7 Material gas boiler provides only DHV. Shet down 2019 · 2020 potentially innediate 1a L. LED lighting system replacement 2019 · 2020 potentially innediate 1a L. LED lighting system replacement 2019 · 2020 potentially innediate 1a L. LED lighting system replacement 2019 · 2020 potentially innediate 1a L. LED lighting system replacement 2019 · 2020 potentially innediate 1a C. Videors replacement to triple glazing in the GF 2019 · 2020 potentially innediate 1a Extender on inglates in tighters's transat on replaced rinaot 2019 · 2020 potentially innediate I S S S S S S S
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18 E10 Exerclope air tightness treatment on replaced windows 2019 · 2020 potentially inmediate
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1b H5 HYAC costrol / operation protocol 2023 · 2023 proposed to owner
1b 72 Vestilation control in the Restaurant 2023 · 2024 proposed to owner 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1<
L2 Lighting control / domotics 2024 · 2025 proposed to owner Image: Control - Control
1b L.1 LED lighting system replacement 2025 · 2026 proposed to owner 5 19 28 14 229 0 295 1900 A* 285910 1 1099.7%
1b r.5 Doeble glazing windows low emissive coating on ever 2025 - 2026 proposed to owner
1b OHW Emission-taps systems replacement 2026 - 2027 proposed to owner
1b 3 ^{MW} DHW : Thermal insulation of distribution actwork 2027 - 2028 proposed to owner
+
2 L6 Upgrade single glazing windows to double glazing on 2028 - 2029 proposed to owner
2 L. Apply to apgraded single glazing yindows low 2028 - 2029 proposed to owner
2 L10 Openings air tightness upgrade (Sika band or similar) 2026 · 2029 proposed to owner 4 19 28 14 183 2 248 32% 100% A• 57700 11 221.9%
2 APL2 Improve Elevator Motors and operation 2023 · 2030 proposed to owner
2 2030 - 2031 proposed to owner
+
3 APL sppliasces replacement: Kitches 2031 - 2032 proposed to owner
3 c.vr. avelope extensil thermal insulation (ETICS) / PUR 2002 - 2003 proposed to owner
3 1-1 HU rooms (variable speed Fas & CO2 sensors) 2003 - 2004 proposed to owner 6 20 11 14 159 6 209 43% 100% A- 795080 1 3058.0%
3 Sub Proposed to owner 2004 - 2035 proposed to owner
3 DHW, Un excepted natural gas pointer with Air/water neat 2005 - 2006 proposed to owner
3 1 PYs installation on terrace's roof 2036 · 2037 proposed to owner

EVALUATION

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Module 2.6.1_Renovation Roadmap_Most common ERAs





Module 2.5_Investment costs

PILOT	GIA STUDY TYPE	ENERGY SAVINGS		INVESTMENT	
	(m²)		NON PV (%)	PV (%)	€
Les Dunes Comodoro (Benidorm, Alicante)	7151.3	ACTUAL CONDITION	43	44.2	1,230,000
Flamingo Oasis (Benidorm, Alicante)	23057	ACTUAL CONDITION	31	42.5	1,740,000
Dynastic (Benidorm, Alicante)	11050	ACTUAL CONDITION	20	22.6	935,752
Benidorm Centre (Benidorm, Alicante)	5361	STANDARD CONDITION	72	86	878,680
Poseidon Playa (Benidorm, Alicante)	11193	STANDARD CONDITION	0	15	338,600
Bayren Spa (Gandía, Valencia)	14048	STANDARD CONDITION	3	27	267,500
AVERAGE	12143.4		28	39.5	898,422

Estimated Impact of ALDREN on HOSBEC's associated companies/buildings

	EP_i [GWh/y]	EP_sav %	EP_sav [GWh/y]	Investment (M€)	Investment Savings (M€/y)
VALENCIA 26 HOTEL BUILDINGS	30.36	48.90	14.84	24.17	1.15
ALICANTE 164 HOTEL BUILDINGS	258.04	46.71	120.52	127.20	9.36
CASTELLON 20 HOTEL BUILDINGS	20.66	54.18	11.2	15.42	0.87
AVERAGE		47.69	146.56	166.78	11.39

Conclusions

The ALDREN objectives are to achieve higher renovation rates and better renovation quality by overcoming market barriers and preparing the ground for investment. On that terms, several oportunities appear:

1_ EP standards should represent better the hotel tipology and its use of energy.

2_There is great potential in the Deep energy renovation market for hotel buildings existing stock.

3_To include Energy Renovation Actions during the renovation design process is a must to achieve appropriate energy efficiency levels.

4_To trigger the market, it is essential to increase awareness between companies and hotel owners.

every ending is a new beginning...

www.aldren.eu

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