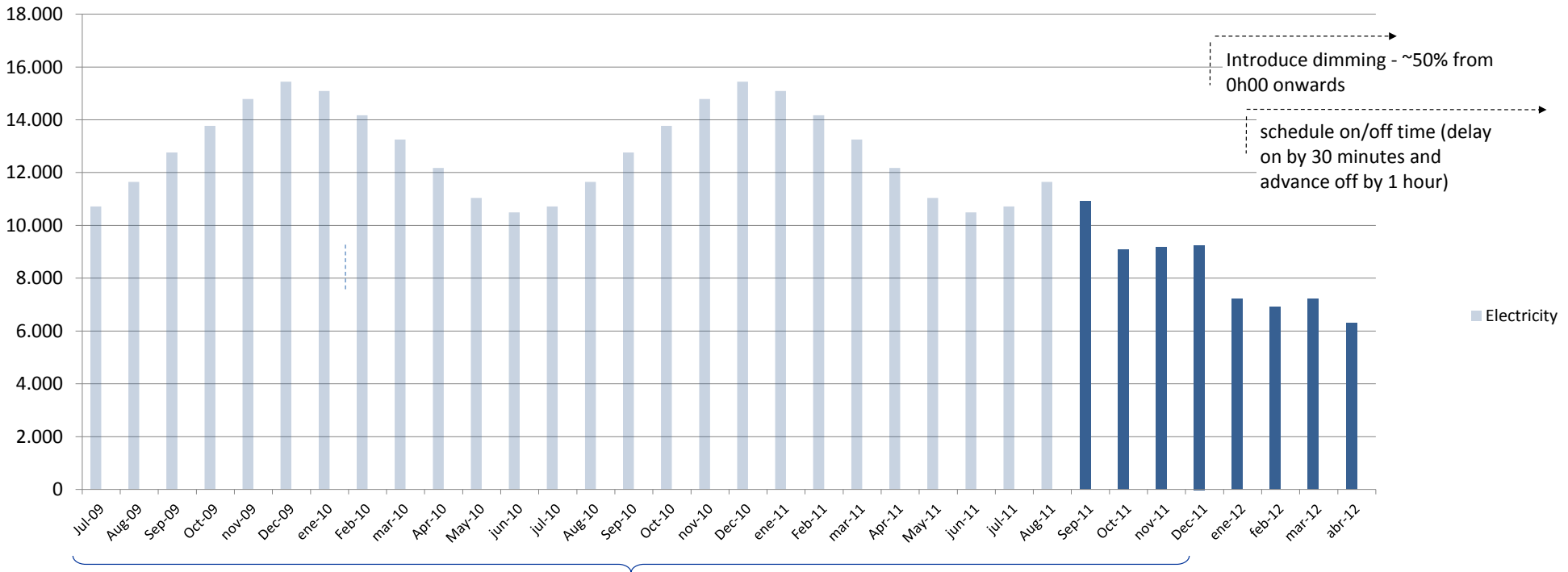


Pilot L2

Almada Street Lighting Area

Energy Consumption [kWh]



Estimations based upon operating lamp time according to night duration along the year

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Pilot L2

Almada Street Lighting Area



Energy consumption before measures

Number	Indicator	Symbol	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Baseline (months 1-12)	Unit
1	Primary energy consumption	Ep	28.948	31.449	34.448	37.171	39.924	41.690	40.760	38.270	35.782	32.869	29.822	28.343	419.476	kWhP/a
1a	Specific primary energy consumption	Ep'	55,78	60,60	66,37	71,62	76,92	80,33	78,53	73,74	68,94	63,33	57,46	54,61	808	kWhP/(lum-a)
2	Delivered electrical energy	EE,del	10.722	11.648	12.759	13.767	14.787	15.441	15.096	14.174	13.253	12.174	11.045	10.497	155.362	kWhdel/a
2a	Specific delivered electrical energy	EE,del'	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	299	kWhdel/(lum-a)
3	Delivered heating energy ¹	EH,del	0	0	0	0	0	0	0	0	0	0	0	0	0	kWhdel/a
3a	Specific delivered heating energy ¹	EH,del'	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0	kWhdel/(m ² -a)
4	Delivered cooling energy	EC,del	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4a	Specific delivered cooling energy	EC,del'	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	CO2 Emissions	mCO2	6.787	7.373	8.076	8.715	9.360	9.774	9.556	8.972	8.389	7.706	6.991	6.645	98.344	kg(CO2)/a
5a	Specific CO2 emissions	m CO2'	13,1	14	16	17	18	19	18	17	16	15	13	13	189	kg(CO2)/(m ² -a)
6	Relative reduction of CO2 emissions (with reference to the baseline)	SAVrel,CO2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	Relative energy savings in primary energy (with reference to the baseline)	SAVrel,Ep	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	Energy cost savings using actual local energy prices (with reference to the baseline)	SAV€	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8a	Relative energy cost savings using actual local energy prices (with reference to the baseline)	SAVrel,€	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Almada Street Lighting Area



Energy consumption after measures

Number	Indicator	Symbol	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Unit
1	Primary energy consumption	Ep	28.948	31.449	34.448	37.171	39.924	41.690	40.760	38.270	35.782	32.869	29.822	28.343	kWhdel/a
1a	Specific primary energy consumption	Ep'	55,78	60,60	66,37	71,62	76,92	80,33	78,53	73,74	68,94	63,33	57,46	54,61	kWhdel/(lum-a)
2	Delivered electrical energy	EE,del	10.722	11.648	12.759	13.767	14.787	15.441	15.096	14.174	13.253	12.174	11.045	10.497	kWhdel/a
2a	Specific delivered electrical energy	EE,del'	20,66	22,44	24,58	26,53	28,49	29,75	29,09	27,31	25,54	23,46	21,28	20,23	kWhdel/(lum-a)
3	Delivered heating energy ¹	EH,del	0	0	0	0	0	0	0	0	0	0	0	0	kWhdel/a
3a	Specific delivered heating energy ¹	EH,del'	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	kWhdel/(lum-a)
4	Delivered cooling energy	EC,del	-	-	-	-	-	-	-	-	-	-	-	-	kWhdel/a
4a	Specific delivered cooling energy	Ec,del'	-	-	-	-	-	-	-	-	-	-	-	-	kWhdel/(lum-a)
5	CO2 Emissions	mCO2	6.787	7.373	8.076	8.715	9.360	9.774	9.556	8.972	8.389	7.706	6.991	6.645	kg(CO2)/a
5a	Specific CO2 emissions	m CO2'	13	14	16	17	18	19	18	17	16	15	13	13	kg(CO2)/(lum-a)
6	Relative reduction of CO2 emissions (with reference to the baseline)	SAVrel,CO2	-	-	-	-	-	-	-	-	-	-	-	-	%
7	Relative energy savings in primary energy (with reference to the baseline)	SAVrel,Ep	-	-	-	-	-	-	-	-	-	-	-	-	%
8	Energy cost savings using actual local energy prices (with reference to the baseline) ²	SAVE	-	-	-	-	-	-	-	-	-	-	-	-	€/a
8a	Relative energy cost savings using actual local energy prices (with reference to the baseline) ²	SAVrel,€	-	-	-	-	-	-	-	-	-	-	-	-	%

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Almada Street Lighting Area



Energy consumption after measures

Number	Indicator	Symbol	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Unit
1	Primary energy consumption	Ep	28.948	31.449	29.490	24.514	24.769	24.975	19.517	18.680	19.479	17.028			kWhdel/a
1a	Specific primary energy consumption	Ep'	55,78	60,60	56,82	47,23	47,72	48,12	37,60	35,99	37,53	32,81			kWhdel/(lum-a)
2	Delivered electrical energy	EE,del	10.722	11.648	10.922	9.079	9.174	9.250	7.228	6.918	7.215	6.307			kWhdel/a
2a	Specific delivered electrical energy	EE,del'	20,66	22,44	21,05	17,49	17,68	17,82	13,93	13,33	13,90	12,15			kWhdel/(lum-a)
3	Delivered heating energy ¹	EH,del	0	0	0										kWhdel/a
3a	Specific delivered heating energy ¹	EH,del'	0,00	0,00	0,00										kWhdel/(lum-a)
4	Delivered cooling energy	EC,del	-	-	-										kWhdel/a
4a	Specific delivered cooling energy	Ec,del'	-	-	-										kWhdel/(lum-a)
5	CO2 Emissions	mCO2	6.787	7.373	6.914	5.747	5.807	5.855	4.576	4.379	4.567	3.992			kg(CO2)/a
5a	Specific CO2 emissions	m CO2'	13	14	13	11	11	11	9	8	9	8			kg(CO2)/Lum-a)
6	Relative reduction of CO2 emissions (with reference to the baseline)	SAVrel,CO2	-	-	-										%
7	Relative energy savings in primary energy (with reference to the baseline)	SAVrel,Ep	-	-	-										%
8	Energy cost savings using actual local energy prices (with reference to the baseline) ²	SAVE	-	-	-										€/a
8a	Relative energy cost savings using actual local energy prices (with reference to the baseline) ²	SAVrel,€	-	-	-										%

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Almada Street Lighting Area



Energy Savings

	Period	Electrical energy consumption	Specific electrical energy consumption	Savings
Baseline	July 2009 - June 2010	155.362 kWh _{del} /a	299 kWh _{del} /(lum·a)	-
Measures after implementation	September 2011 - December 2011 (extrapolated for a year)	83.329 kWh _{del} /a	161 kWh _{del} /(lum·a)	46%

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