

Technology PV < 10 kW

Installation No.	1
Country	Spain
Place of installation	Milagro
Installation type	1 Sun follower
Size (kW)	5
Total investment	49.300 €
Annual output-electricity (kWh)	About 8.575.
Indicator 1 (Energy rate)	Er = 5,74 €/kWh
Indicator 2 (Power rate)	Pr = 9.860 €/kW

BUDGET BREAKDOWN

Concept	Amount (%)
Engineering	2,46
Structure and fundations	8,21
Generador system	61,79
Converter system	7,74
Monitoring and control system	12,28
Assembly and connection	3,59
Others	3,93
TOTAL	100

Technology PV 10-40 kW

Installation No.	2
Country	Spain
Place of installation	Milagro
Installation type	1 Sun follower
Size (kW)	11
Total investment	106.568 €
Annual output-electricity (kWh)	About 18.865
Indicator 1 (Energy rate)	Er = 5,64 €/kWh
Indicator 2 (Power rate)	Pr = 9.688 €/kW

BUDGET

Concept	Amount (%)
Engineering	2,46
Structure and foundations	8,21
Generador system	61,79
Converter system	7,74
Monitoring and control system	12,28
Assembly and connection	3,59
Others	3,93
TOTAL	100

Installation No.	3
Country	Spain
Place of installation	Milagro
Installation type	2 Sun follower
Size (kW)	22
Total investment	208.082 €
Annual output-electricity (kWh)	About 37.730
Indicator 1 (Energy rate)	Er = 5,51 €/kWh
Indicator 2 (Power rate)	Pr = 9.458 €/kW

BUDGET

Concept	Amount (%)
Engineering	2,46
Structure and foundations	8,21
Generador system	61,79
Converter system	7,74
Monitoring and control system	12,28
Assembly and connection	3,59
Others	3,93
TOTAL	100

Installation No.	4
Country	Spain
Place of installation	Olite
Installation type	3 Solar follower

Size (kW) 36,4
 Total investment 263.872 €
 Annual output-electricity (kWh) About 62.608

Indicator 1 (Energy rate) Er = 4,21 €/kWh
 Indicator 2 (Power rate) Pr =7.249 €/kW

BUDGET

Concept	Amount (%)
Engineering	2,26
Structure and foundations	20,80
Generator system	59,67
Converter system	5,67
Monitoring and control system	2,45
Assembly and connection	5,16
Others	3,96
TOTAL	100

RES-e Regions WP4 Benchmarking of technologies

Technology	PV <10 kW						
	1	2	4	3	5	6	7
Installation No.							
Country	Spain	Spain	Spain	Spain	Spain	Spain	Spain
Place of installation	Tudela (Navarra)	Tudela (Navarra)	Tudela (Navarra)	Tudela (Navarra)	Tudela (Navarra)	Tudela (Navarra)	Tudela (Navarra)
Size (kW)	5.000	5.000	5.000	5.000	5.000	5.000	5.000
Size (kWp)	6.300	6.300	6.300	6.300	6.300	6.300	6.300
Size (m2)	54	54	54	54	54	54	54
	A1	B12	C4	E12	F2	G5	J8
Total investment (€)	46.620 + IVA	46.620 + IVA	46.620 + IVA	46.620 + IVA	46.620 + IVA	46.620 + IVA	46.620 + IVA
Annual output-electricity (kWh)	11.642	11.526	11.451	11.371	11.292	11.454	11.571

indicator 1
 indicator 2
 indicator 3
 indicator 4
 indicator 5