

## REPORT: Analysis Results obtained from Energy 21 questionnaire

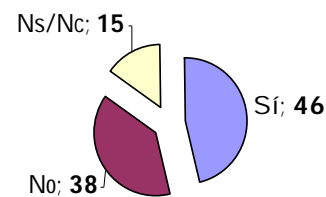
**1. Are the public services or institutions taking part in any comprehensive project to save or minimize the use of energy?**

Yes/no, if yes, which?

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real	1	
Almonte	1	
Aroche		1
Ayamonte	1	
Cartaya	1	
Isla Cristina		1
Lepe	1	
Moguer		
Palos de la Frontera		1
Punta Umbría	1	
Rosal de la Frontera		
Valverde del Camino		1

**Propuesta de ahorro o minimización energética:  
PROYECTOS INTEGRALES (%)**



**Remark:**

In the view of considering the municipalities involved in comprehensive projects to save or minimize energy (46%), a 38% are not involved in them

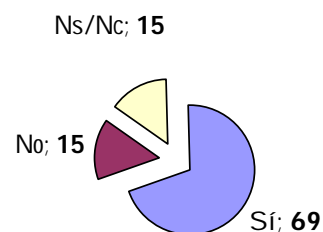
**Are the public services o centers been carrying out any specific measure to save or minimize energy?**

Yes/no, if yes, which?

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real	1	
Almonte	1	
Aroche		1
Ayamonte	1	
Cartaya	1	
Isla Cristina	1	
Lepe	1	
Moguer		
Palos de la Frontera	1	
Punta Umbría	1	

**Propuesta de ahorro o minimización energética:  
MEDIDAS CONCRETAS (%)**



Rosal de la Frontera		
Valverde del Camino	1	

**Remark:**

A high number of municipalities (69%) have carried out a specific measure to minimize the use of the energy. Therefore, these municipalities carry out concrete actions because it is the option demanding a short compromise.

**2. Is there any service or area in the town council with specific energy power?**

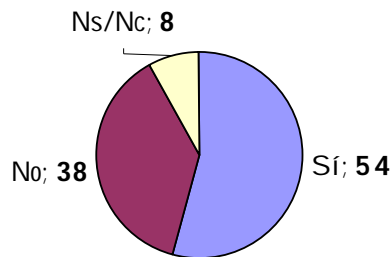
Yes/no, if yes: what is the staff involved?, matters to deal with: 1. Advice, 2. Public installation management, 3. Project performance and financial support, 4. Others, which?

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real	1	
Almonte	1	
Aroche		1
Ayamonte	1	
Cartaya	1	
Isla Cristina		1
Lepe	1	
Moguer		
Palos de la Frontera		1
Punta Umbria	1	
Rosal de la Frontera		
Valverde del Camino		1

Matters to deal with			
1	2	3	4
1	1	1	
1	1	1	1
	1		1
	1	1	
	1	1	
	1		

**Municipios con área/servicio de Energía (%)**



**Remark:**

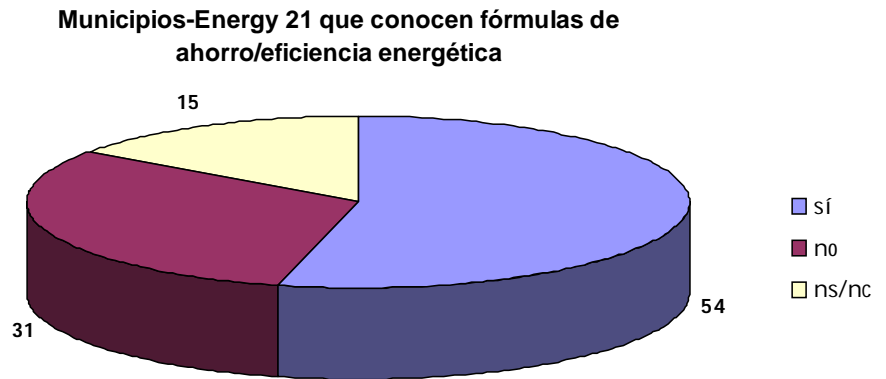
The majority of studied municipalities (54%) have available a service or area with environmental power. Although public installation management is a subject matter dealt with by the majority of these services or areas.

**3. Do you know any way of saving or energy efficiency systems?**

*Yes/no, if yes, which?*

**Data:**

	yes	no
Aljaraque	1	
Almonaster la Real		1
Almonte	1	
Aroche		1
Ayamonte		1
Cartaya	1	
Isla Cristina	1	
Lepe	1	
Moguer		
Palos de la Frontera		1
Punta Umbría	1	
Rosal de la Frontera		
Valverde del Camino	1	



**Remark:**

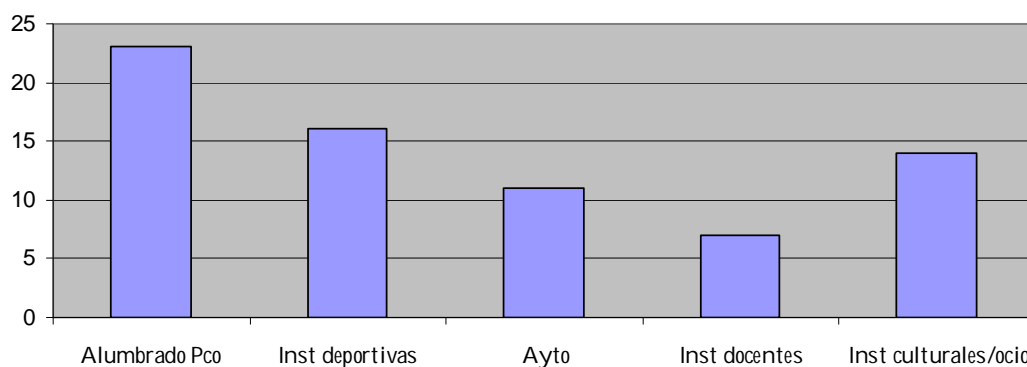
The majority of the municipalities have stated a change in the street lighting

**4. Identify the three installations, services or public buildings with a higher energy expense:**

**Data:**

	1	2	3
Aljaraque	Town council	Sports center and swimming pool	Street lightning
Almonaster la Real	Town council offices	Mosque	Schools
Almonte	Administrative building	Market	Town council building
Aroche	Football field)	Street lightning	Pumping station
Ayamonte	Street lightning		
Cartaya	Street lightning	Local theater	
Isla Cristina	Street lightning	Local theater	Town council
Lepe	Street lightning	Local pool	Sports center
Moguer		Schools	Town council
Palos de la Frontera	Street lightning	Water treatment station	Sports center
Punta Umbría	Street lightning	Fountain	Schools
Rosal de la Frontera	Public school	Street lightning	Football field and pool
Valverde del Camino	Two sports centers		

### Instalaciones responsables del gasto energético municipal



**Remark:**

Firstly, the street lightning, and secondly, the local sports centers are the most responsible installations involved in the energy expense.

**5. Budget assigned for the local electrical energy bill.**

**Data:**

	Funding
Aljaraque	2007: Street lightning 218.846,28; public buildings 75.504,88; Total expense 294.351,16
Almonaster la Real	66.000 euros
Almonte	1.530.000 euros (2008)
Aroche	
Ayamonte	
Cartaya	
Isla Cristina	494.734,02 euros (2007)
Lepe	500.000 euros
Moguer	
Palos de la Frontera	392199,5 euros
Punta Umbría	1 mill euros (without funding)
Rosal de la Frontera	
Valverde del Camino	278.000 euros

**Remark:**

The answers are not sufficiently significant in the scope of the study. Data obtained from the answers are short and very homogeneous.

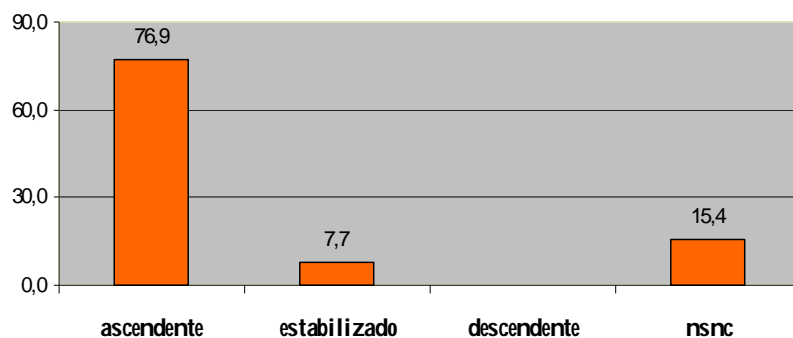
**6. What is the tendency on the electrical expense/consumption in the late three years?**

Upward/stable/downward/do not know

**Data:**

	1	2	3	
Aljaraque				1
Almonaster la Real				1
Almonte	1			
Aroche	1			
Ayamonte	1			
Cartaya	1			
Isla Cristina	1			
Lepe	1			
Moguer	1			

Tendencia del consumo eléctrico en los municipios (%)

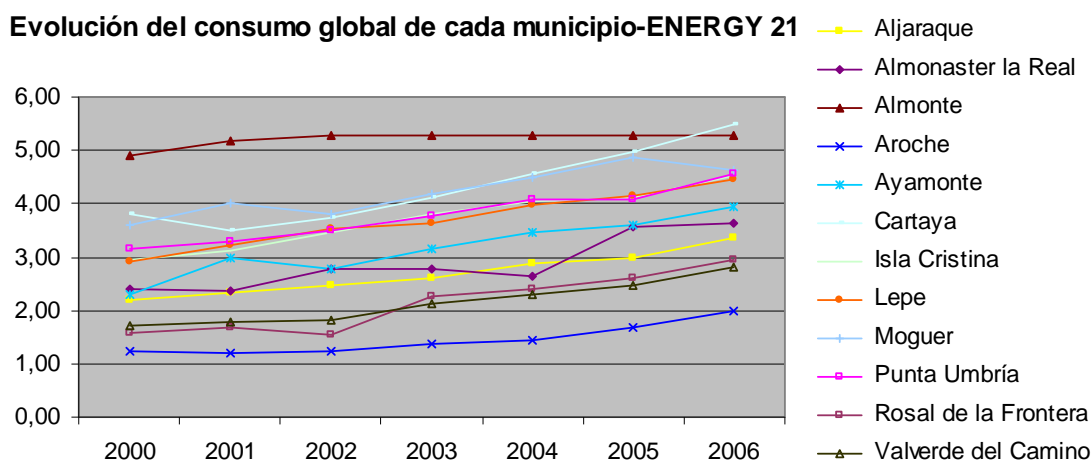


Palos de la Frontera	1			
Punta Umbría	1			
Rosal de la Frontera		1		
Valverde del Camino	1			

**Remark:**

The upward tendency is common on the majority of the municipalities. All the municipalities are aware of the increase of the electrical consumption.

To highlight this idea, the graphic bellow shows the consumption in the municipalities involved in the project, between years 2000-2006. The official statistic data show the conclusions from the technical staff.



Fuente: Observatorio Local de Empleo (<http://www.ole.uhu.es/banco/banco.html>)

**7. Do you know the regulation on energy matter?**

Yes/no, if yes, which?

**Data:**

	yes	no
Aljaraque	1	
Almonaster la Real		
Almonte	1	
Aroche		1
Ayamonte	1	
Cartaya	1	
Isla Cristina	1	
Lepe	1	
Moguer	1	
Palos de la Frontera		
Punta Umbría	1	
Rosal de la Frontera		1
Valverde del Camino		1

**Remark:**

The majority of the municipalities under study state that they know the regulation on energy. However, a high number of them (half of them, 48%) do not know the regulation and the subject matter, indeed.

**8. Is there any specific regulation on energy matter?**

Yes/no, if yes, which?

**Data:**

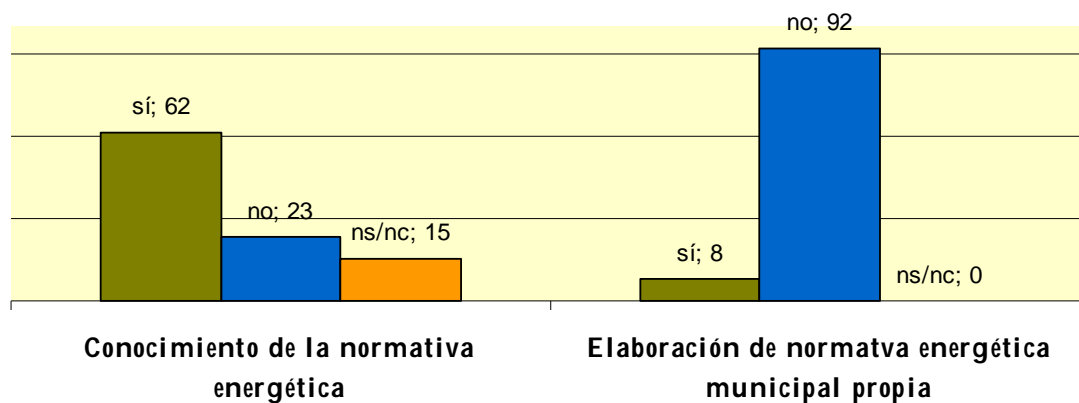
	yes	no
Aljaraque		1
Almonaster la Real		1
Almonte		1
Aroche		1
Ayamonte		1
Cartaya	1	
Isla Cristina		1
Lepe		1
Moguer		1
Palos de la Frontera		1
Punta Umbría		1
Rosal de la Frontera		1
Valverde del Camino		1

**Remark:**

The results from the above question are that only a municipality has prepared a local energy regulation. Cartaya municipality has prepared local regulation, although it is pending to be passed by the corporation.

The following graphic shows results from the late questions.

**Situación de la normativa energética (%)**



**9. Do the public services or centers take part in comprehensive projects for the sustainable town planning?**

Yes/no, if yes, which?

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real		1
Almonte		1
Aroche		1
Ayamonte		1
Cartaya	1	
Isla Cristina		1
Lepe		1
Moguer		1
Palos de la Frontera		1
Punta Umbría		1
Rosal de la Frontera		1
Valverde del Camino		1

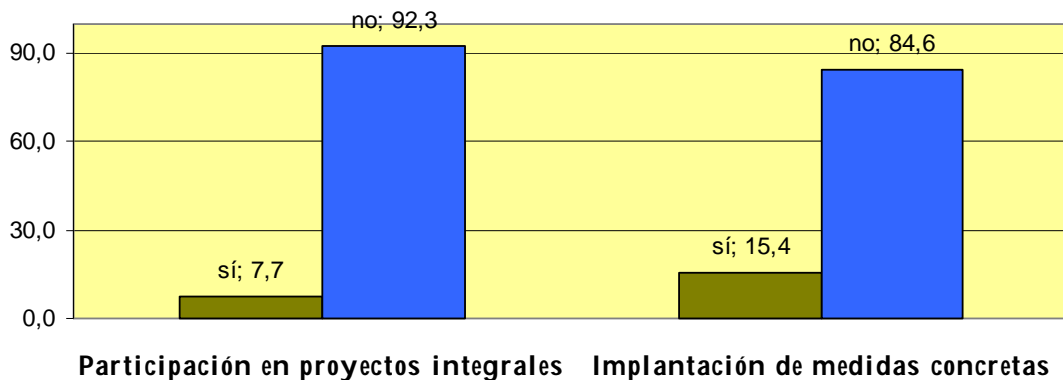
**Do they carried out any specific measure on sustainable town planning?**

Yes/no, if yes, which?

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real		1
Almonte		1
Aroche		1
Ayamonte		1
Cartaya		1
Isla Cristina		1
Lepe	1	
Moguer		1
Palos de la Frontera		1
Punta Umbría		1
Rosal de la Frontera		1
Valverde del Camino	1	

**Planificación y edificación sostenible**



**Remark:**

Almost the total number of the municipalities is not involved or prepares projects on town planning.

The scope of the area is clearly identified as a matter to be resolved and to improve and advance. As well as, this area has hardly made any efforts or actions, at the moment.

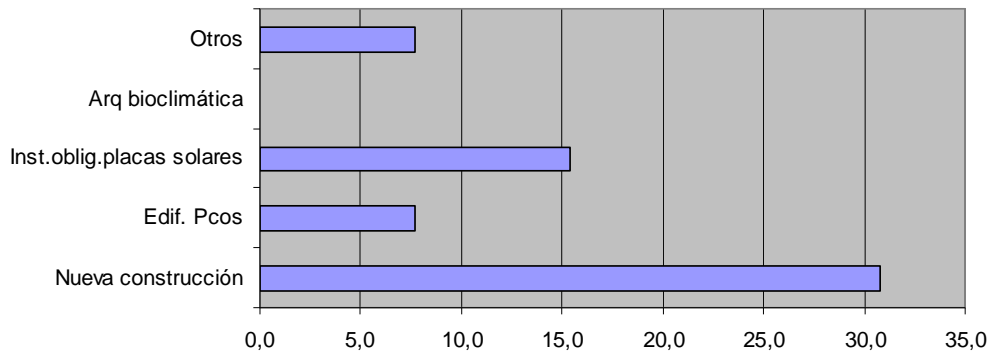
**10. Is the energy efficiency taken into account in the urban town planning?**

*Yes/no, if yes, What are the specific measures?; what is the way?; new building-system; public building-system; compulsory installation of solar panel-system; bioclimatic architecture-system; others, which?*

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real		1
Almonte		1
Aroche		1
Ayamonte	1	
Cartaya		1
Isla Cristina		1
Lepe	1	
Moguer	1	
Palos de la Frontera		1
Punta Umbría		1
Rosal de la Frontera		1
Valverde del Camino	1	

**Líneas de trabajo**

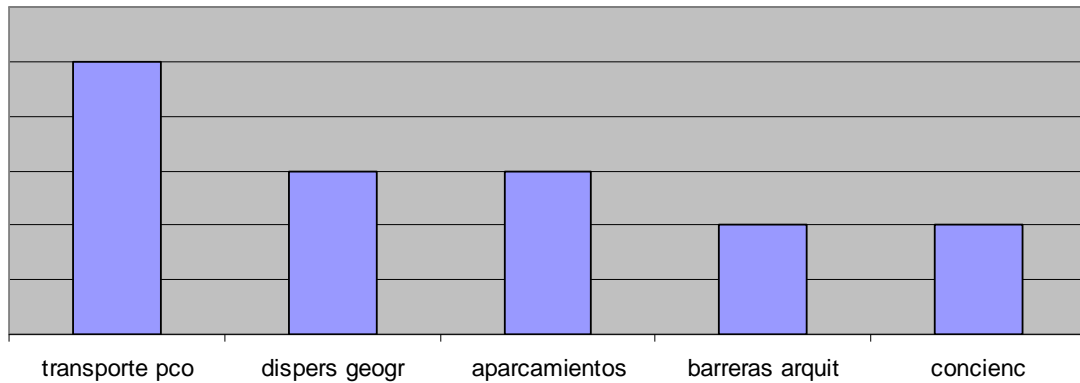


**Remark:**

The energy efficiency on the town planning is taken into account in the 69% of the municipalities. The new building sites have improved and introduced new improvements.

**11. What are the main problems related to mobility?**

## Problemas municipales relativos a movilidad



### **Remark:**

The lack of public services in quantity and quality is the most demanding factor by the municipalities regarding the mobility as a subject matter. The 33% of the municipalities consider that the improvement of this fact is essential. The following most important aspect are, in the 20% of them, the lack of communication between inhabitant groups and the lack of parking areas.

### **12. Has any sustainable mobility plan been defined?**

Yes/no

### **Data:**

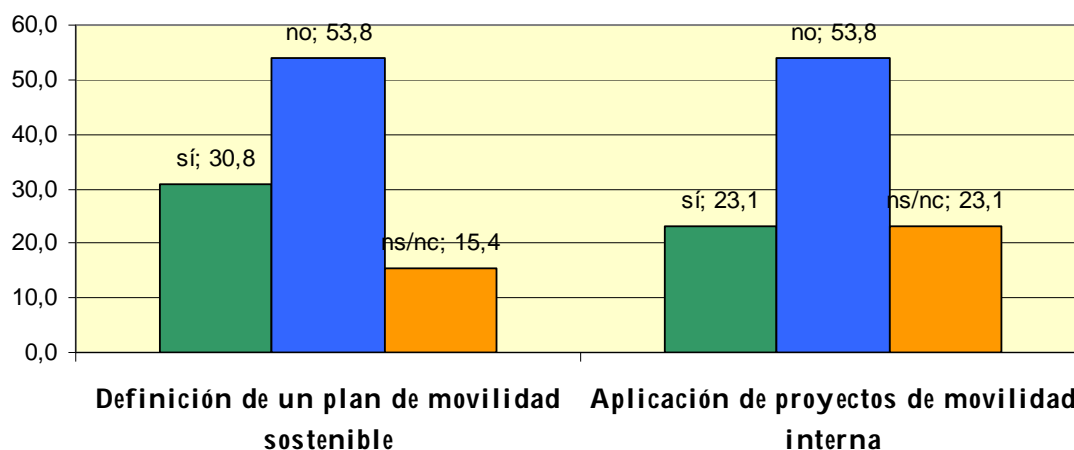
	yes	No
Aljaraque	1	
Almonaster la Real		1
Almonte		1
Aroche		1
Ayamonte	1	
Cartaya		1
Isla Cristina		1
Lepe	1	
Moguer		1
Palos de la Frontera		
Punta Umbría	1	
Rosal de la Frontera		
Valverde del Camino		1

### **13. Is being applied any project on sustainable mobility?**

Yes/no, if yes, which?

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real		1
Almonte		1
Aroche		1
Ayamonte		
Cartaya	1	
Isla Cristina	1	
Lepe		1
Moguer		1
Palos de la Frontera		
Punta Umbría	1	
Rosal de la Frontera		
Valverde del Camino		1



**Remark:**

ˆSustainable Mobility Plansˆ are the first projects undertaken by the municipalities worried by this matter, so there are more municipalities with this type of plans than municipalities applying specific projects.

**14. Are quantity and quality of public transport services suitable?**

Yes/no. Justify your answer.

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real		1
Almonte	1	
Aroche		1
Ayamonte		1
Cartaya	1	
Isla Cristina	1	
Lepe		1
Moguer		1
Palos de la Frontera		1
Punta Umbría		1

Rosal de la Frontera		
Valverde del Camino	1	

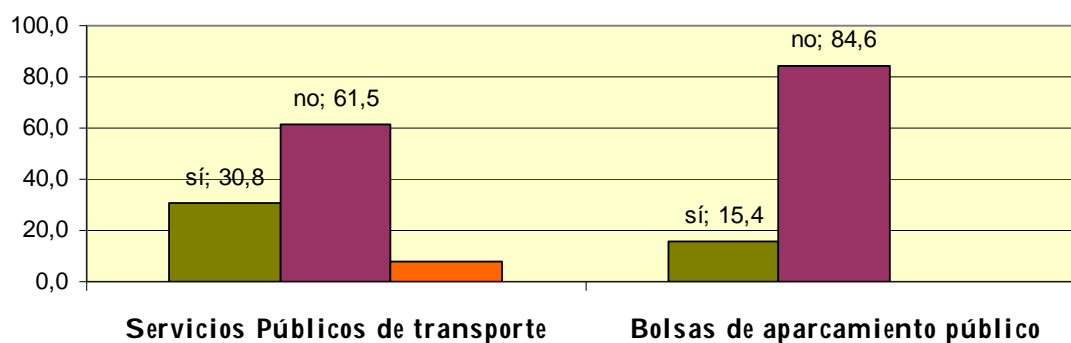
**15. Are conditions and quality of public parking areas suitable?**

Yes/no. Justify your answer.

**Data:**

	yes	no
Aljaraque		1
Almonaster la Real		1
Almonte		1
Aroche		1
Ayamonte		1
Cartaya	1	
Isla Cristina		1
Lepe		1
Moguer		1
Palos de la Frontera		1
Punta Umbría		1
Rosal de la Frontera	1	
Valverde del Camino		1

**Calidad y cantidad de variables básicas para la movilidad municipal**



**Remark:**

The existing public services and parking areas in the studied municipalities are considered short.

**16. Is there any project on renewable energy?**

Yes/no, if yes, which?

**Data:**

	yes	no
Aljaraque	1	
Almonaster la Real		
Almonte	1	
Aroche		1
Ayamonte	1	
Cartaya	1	
Isla Cristina	1	
Lepe	1	

Moguer		1
Palos de la Frontera		1
Punta Umbría	1	
Rosal de la Frontera		1
Valverde del Camino	1	

**Remark:**

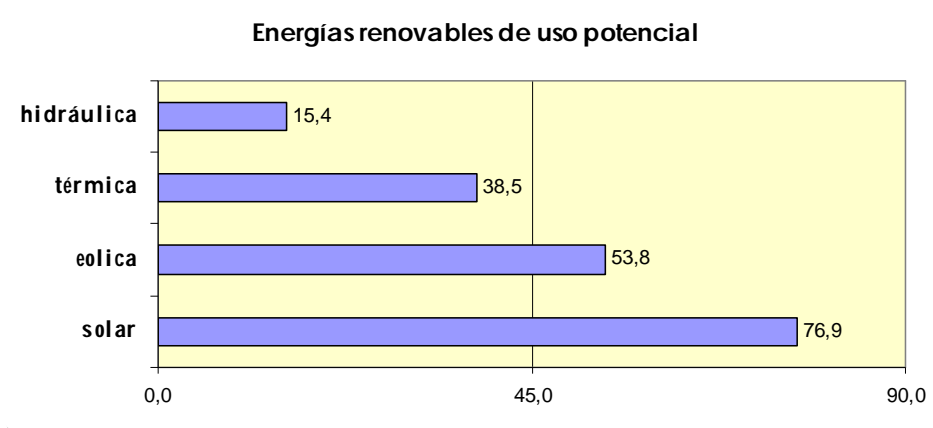
The 62 % of the municipalities have some project on renewable energy, so it is considered a high percent involved in this matter.

**17. Identify what type of renewable are potentially suitable in your municipality**

*Eolian energy, solar energy, thermal energy, water energy, others*

**Data:**

	Solar	eolian	thermal	water	others
Aljaraque	1		1	1	Alternative energy
Almonaster la Real	1				
Almonte		1			
Aroche	1	1			Forest biomass
Ayamonte	1	1			
Cartaya	1		1	1	Biomass
Isla Cristina	1	1			
Lepe	1	1	1		
Moguer		1			
Palos de la Frontera	1		1		
Punta Umbría		1	1		
Rosal de la Frontera	1				
Valverde del Camino	1				



**Remark:**

It is clearly considered by the municipalities involved in this project that the solar energy is one of the most important type of energy, regarding its potential in this zone, as well as the eolian energy.

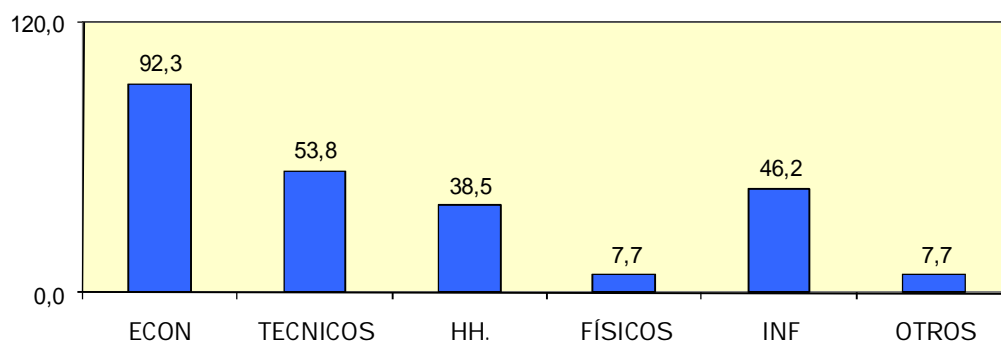
**18. Why are not renewable energy projects established in this municipality?**

*Lack of economical resources; lack of technical resources; lack of human resources; lack of physical/climate conditions, lack of information, others, which?*

**Data:**

	LACK OF RESOURCES ...					
	ECONOMICAL	TECHNICAL	HUMAN	PHYSICAL	INFORMATION	OTHERS
Aljaraque	1	1		1		
Almonaster la Real	1	1	1		1	
Almonte	1	1				
Aroche	1	1	1		1	1
Ayamonte	1	1	1			
Cartaya	1		1			
Isla Cristina	1				1	
Lepe	1	1			1	
Moguer	1					
Palos de la Frontera	1	1			1	
Punta Umbría	1		1			
Rosal de la Frontera						
Valverde del Camino	1				1	

### Dificultades para la implantación de energía renovable



#### **Remark:**

The lack of economical resources, technical resources and information are, by order of the most deciding factor, essential for the establishment of renewable energy projects in this zone.

#### **19. Do you know financial support to establish renewable energy projects?**

Yes/no, if yes, which?

#### **Data:**

	yes	no
Aljaraque	1	
Almonaster la Real		1
Almonte	1	
Aroche		1
Ayamonte	1	
Cartaya	1	
Isla Cristina	1	
Lepe	1	
Moguer	1	
Palos de la Frontera		1

Punta Umbría	1	
Rosal de la Frontera	1	
Valverde del Camino	1	

**Remark:**

The majority of the municipalities think that they know the existing financial lines. The most well-known economical source is the "Orden de Incentivos" offered by the Junta de Andalucía.

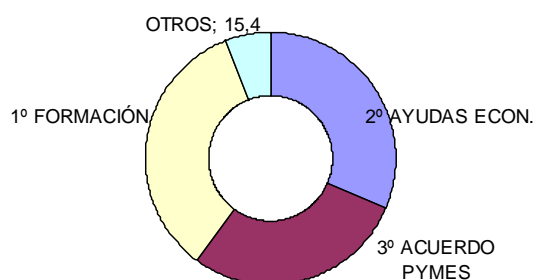
**20. How can the promotion of the use of the renewable energy and energy efficiency be promoted in the municipality?**

Economical support; agreement with small businesses and medium size companies; training courses; others, which?

**Data:**

	Economical support	Agreement with companies	Training	Others
Aljaraque	1	1	1	1
Almonaster la Real	1	1	1	
Almonte		1	1	
Aroche	1		1	
Ayamonte	1		1	
Cartaya		1	1	
Isla Cristina	1	1	1	
Lepe	1		1	1
Moguer	1	1	1	
Palos de la Frontera	1	1	1	
Punta Umbría	1	1		
Rosal de la Frontera	1	1	1	
Valverde del Camino	1	1	1	

**Vías de promoción de la energía renovable y eficiencia energética**



**Remark:**

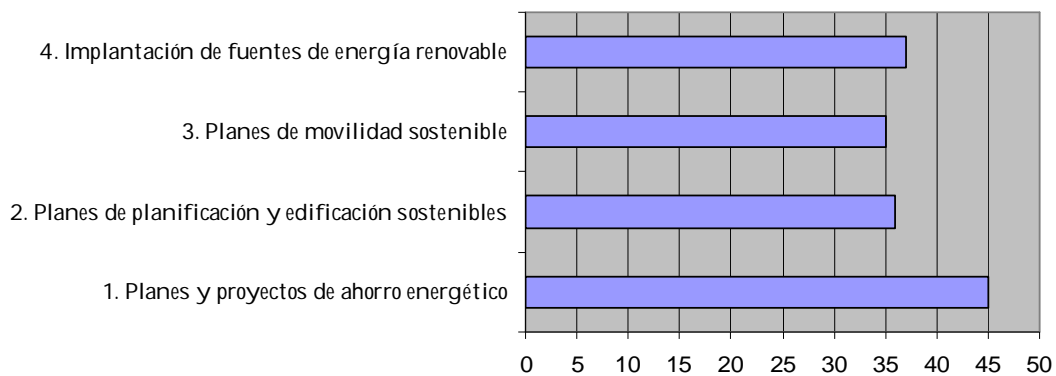
Almost all the municipalities (93%) think that it should be considered the training actions as the best working system to promote clean energy, followed by an increase of the economical support (85%) and the agreement with the small businesses and medium size companies (77%). The late fact is very important in order to identify the private sector as an important improvement tool.

**21. Assess the importance that the different policies highlighted bellow have in the local energy situation (5 very high-4 high-3 medium-2 low-1 very low):**

**Data:**

	1. Energy saving projects and plans	2. Sustainable building plans	3. Sustainable mobility plans	4. Renewable energy sources
Aljaraque	5	4	3	4
Almonaster la Real	1	2	1	2
Almonte	4	3	5	0
Aroche	4	3	3	4
Ayamonte	5	5	5	5
Cartaya	-	-	-	-
Isla Cristina	3	3	3	3
Lepe	5	0	4	4
Moguer	2	1	1	1
Palos de la Frontera	1	1	0	1
Punta Umbría	5	4	5	3
Rosal de la Frontera	5	5	2	5
Valverde del Camino	5	5	3	5

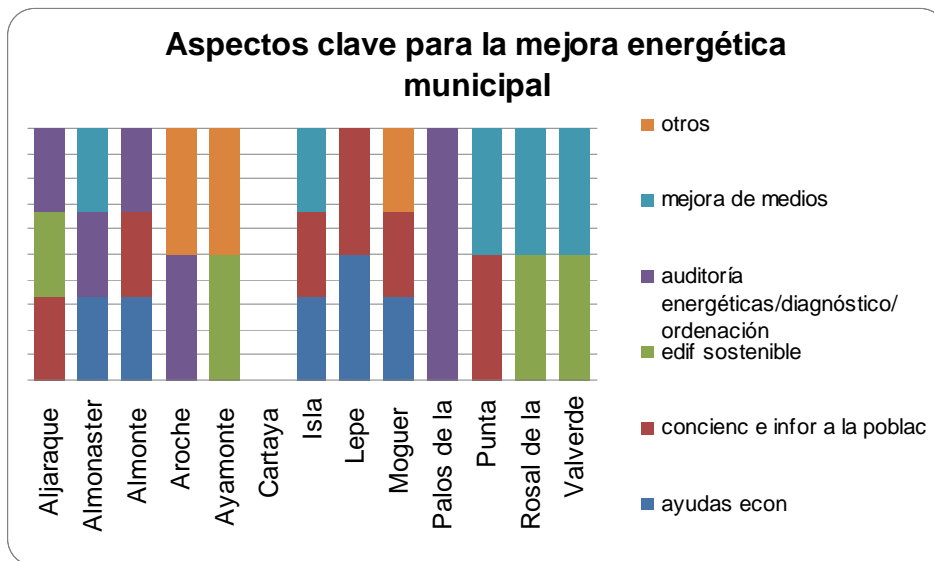
**Valoración concedida a las políticas energéticas**



**Remark:**

The municipalities involved in the project consider that all the highlighted policies are essential for the energy improvement. As well as, all of them stress the importance given by saving energy projects and plans.

**22. Comment three different key measures to improve the local energy systems:**



**Remark:**

The majority of the municipalities have in common the same key subject matters to improve the energy systems. By order of importance, they are: awareness and training, equal opportunities to get economical resources, energy audits and actions and sustainable town planning.