The Spanish Planning Process

In Spain, urban planning activities have been the responsibility, since 1997, of the Spanish Regional Governments called “Autonomous Communities” (AC). There are 17 AC in Spain. Each AC is responsible for the development and approval of the laws concerning land use. For example, in the AC of Madrid, the Land Use law (2001) brought important changes to the previous situation: with the only exception of specifically protected land, all land can be used for urban purposes. Within each AC, urban planning is developed at local level by the Town Councils, although it must be approved by the Government of the AC in order to come into effect.

Urban Planning Description

The Urban Planning process is a hierarchical one, with different plans concerning regional and local scales. There are no regional-scale Urban Development plans; this means that the Town Councils are responsible for urban planning. The General Urban Distribution Plan (GUDP, see box below) is the main tool for urban planning in Spain. Once developed and approved by the Town Council, the proposal must receive the final approval by the Government of the AC, in order to come into effect. In particular, positive reports must be issued by the Departments of Territorial Policies and Environment (in relation to this, the Law on Environmental Impact of 2002 must be respected, with special emphasis on acoustic impact and sewage disposal).

The following boxes summarize the regional and local level plans:

**Autonomous Community (Regional government) level Urban Plans**

1. Regional Plan of Territorial Strategy
2. Coordinated Programmes of Territorial Action
3. Declarations of Regions of special interest within the Autonomous Community
4. Regional scale Projects

Not all Autonomous Communities have yet completed this hierarchical set of plans. For instance, in the case of Madrid’s AC, they are waiting for the approval of the new Law on Land use, which is expected in the second half of 2006.

**Town Council level Urban Plans**

1. General Urban Distribution Plan (GUDP) → Main responsible for Urban planning
2. Distribution Plans → Transform land for development into urban land, as foreseen by the GUDP
3. Urban development Planning → Distributes and manages the main aspects established in the GUDP:
   a. Partial plans. They define the transformation of land for development into urban land (general systems, roads, green areas, profitable, productive use…, within the limits established by the GUDP.
   b. Special plans. More open content, they can have different objectives (e.g. regeneration of old historical quarters, transformation of degraded areas…)
   c. Detailed studies. They define specific characteristics (alignments, slopes) of a consolidated urban area.
   d. Catalogue of Protected Goods and Spaces. They define the buildings or building complexes to be protected, as well as the protection degree (environmental, structural or total).

Other planning tools (not normative):
1. Urbanization Project → Distribution of pavements and road, green spaces conditioning, parking areas, services and urban infrastructures.
2. Urban land Delimitation Plan
3. Catalogues
The following diagram summarizes the process of urban planning as well as the influence of Energy Savings and/or Renewable Energy Sources (ES and/or RES) policies set up by regional and local authorities, which may be relevant to BIPV in Spain.

**National Technical Building Code**
- All new buildings and retrofitted buildings must incorporate Solar thermal systems for Hot Water provision, with specific “Solar fraction” coverage (dependent on the type of system and regional location of the building).
- Specific buildings (commercial, hotels and hospitals) with minimum characteristics (dependent on system type) must incorporate Photovoltaic system, with size dependent on the building type and regional location.

**Regional ES and/or RES plans**
May include planning requirements to increase energy efficiency of buildings and/or the use of Renewable Energy Sources

**Municipal bylaw**
May include planning requirement to increase energy efficiency of buildings and/or the use of Renewable Energy Sources

**Town Council**
**Role:**
- To develop the different plans (see box above), most important of which is the General Urban Distribution Plan (GUDP: main responsible for urban planning)
- To approve (temporarily, definite approval depends on the Regional Government) the GUDP.
- To give construction work permits to Developers and/or Housing Associations.

 **Subcontractors:**
Architecture/Engineering offices

**Developers and/or Housing Associations**
**Role:**
- To apply for construction work permits to the Town Council authorities.
- To construct buildings and related infrastructures, according to the GUDP issued by the Town Council.

 **Subcontractors:**
Architects, Engineering offices, building companies, …

**Autonomous Community**
**Role:**
- To approve the GUDP, based amongst others on the approval by the Departments of Territorial Policies and Environment (Law on Environmental impact)

**Policies**
**Stakeholders**
National, Regional and Local Legislation Concerning Renewable Energies

The main national legislation is the Spanish Technical Building Code (TBC). The new TBC (issued in March 2006) aims at improving safety and habitability of buildings by means of, amongst others, a rational use of energy through limiting energy demand, increasing the efficiency of thermal and lighting systems and the use of active solar technologies (solar thermal and photovoltaics). It is applicable to new buildings, as well as refurbished ones over 1000 m² surface where more than 25% of the enclosure is affected.

Solar thermal technology is compulsory in all buildings.
PV technology is compulsory only in certain buildings, depending on their use and minimum size:
- Commercial, large supermarkets: 5,000 m² surface.
- Commercial, multi-stores: 3,000 m² surface.
- Commercial, big stores: 10,000 m² surface.
- Showgrounds (for trade fairs): 10,000 m².
- Office buildings: 4,000 m² surface.
- Hotels and guesthouses: 100 beds.
- Hospitals and clinics: 100 beds.

PV system minimum size depends on the building use and location (Spanish territory is divided into 5 zones according to their solar resource), with 6.3 kWp and 54.7 kWp being the lower and upper limits, respectively.
Note: Exceptions, duly justified, are allowed (e.g. not enough solar access, historical protection degree of the building, use of other RES or alternative solutions leading to the same energy or CO₂ savings benefits).

Regional legislation depends on the Regional governments (Autonomous Communities). For example, in the case of Madrid’s AC, the Energy Plan 2004-2012 aims at doubling the energy contribution from Renewable Energy Sources (up to 3.4% of total energy demand) and a 10% reduction of CO₂ emissions. Amongst the actions foreseen related to Photovoltaics, the promotion of PV systems in domestic and services sectors, and the support of municipal bylaws are mentioned.

In September 2005, there were more than 30 municipal bylaws concerning solar technologies, most of them only dealing with Solar thermal. The region of Catalonia is by far the most active in this field, followed by Madrid and Valencia.