



SPAIN

COUNTRY REPORT

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Generation of the Spanish Nuclear Power Plants

Electricity nuclear share: 17,6% (Decrease by 8,4%)

Installed Capacity in Spain is 90.026 MW: Nuclear share: 8,6%

During 2007, electricity consumption in Spain grew by 4%

Nuclear equipments

1 Research Centre for Energy, Environment and Technology

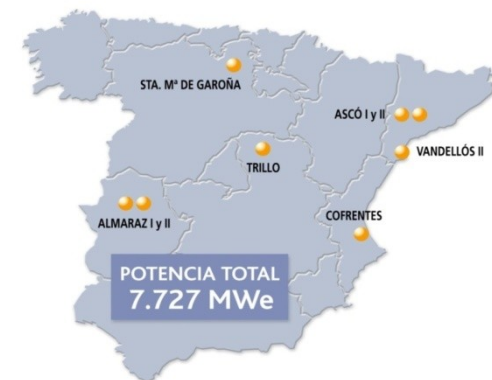
8 Nuclear Power Plants for electricity production

Reactor types

BWR (2 units) PWR- (6 units)

1 Nuclear Components Factory

1 Nuclear Fuel Factory



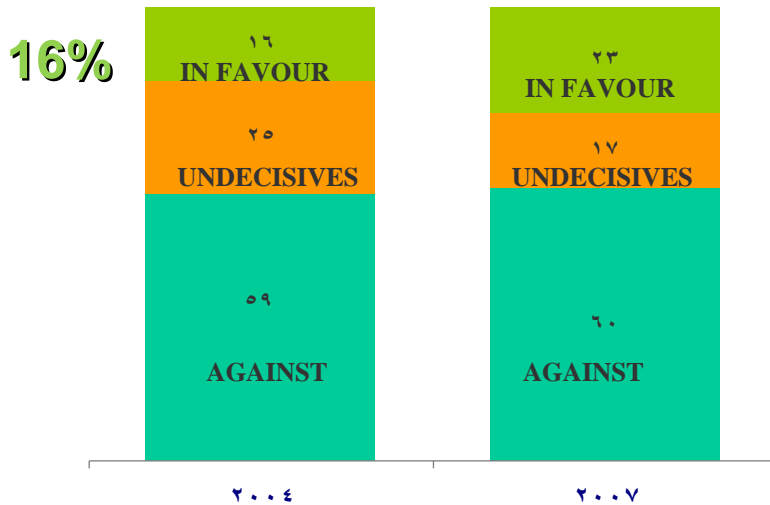


Public acceptance

Study Nov 07: 1.000 persons interviewed by phone call (16 minutes)
Results 2004 vs. 2007

¿What is your opinion about NPP?

Knowing nuclear share is 30% (2004) 20% (2007)
 ¿What is your opinion about NPP?



Energy policy

Uncertain future for nuclear power

- No nuclear power plants will be build in Spain in a short time
- Doubts over the official permission for life extensions in operating plants (Garoña)



Nuclear waste management policy



ENRESA.

State-run public enterprise in charge of radioactive waste management

Low and intermediate level activity wastes

Centralized storage in El Cabril (Córdoba) managed by ENRESA

Spent fuel

Proposal : **Centralized temporary storage** repository for 100 years (ENRESA proposed and Government has accepted) :

Information campaign to accept site location (Citizen against)

Today: Pools that have been filled can make reracking of its spent fuel pool or build an individual storage

Nuclear Research

CIEMAT (Research Centre for Energy, Environment and Technology)

Areas of Activity

• *Environment, Technology, Basic Research, Energy, Fusion by Magnetic Confinement*: Scientific use of the Stellerator “Heliac flexible TJ- II” device,
Safety and Decommissioning, Radiation Protection



Education

Increased number of students selecting nuclear specialities in Engineering High School

3 Masters in Nuclear Technology

CIEMAT + 2 Universities in Madrid (Science and Politechnical)

Short courses on nuclear technology

Training

- The industry is preparing for the future: Training on the job
Maintenance of an adequate number of capable engineers is the basis for the renaissance of nuclear energy
- Spanish Factories and Engineering Companies are making projects for other countries (China, Russia, Ukrania, Brasil, Mexico, Finland, France)
- Some Spanish Electricity Utilities are interested in constructing and operating nuclear power plants out of Spain



Actions

Several conferences in different High Schools (Madrid, Valencia, Oviedo, Tenerife, Canary Island)

- ✓ “Energy consumption and its influence in the life confort”
- ✓ “Radioactivity in benefit for the human being“
- ✓ “ Different sources of energy compared with nuclear energy”

Participation in courses

“**Food technology and Society**”

- ✓ “Nutritional value of irradiation preserved food compared with preservation with other technologies”
- ✓ “The use of radiation to improve food production and conservation”

“**Nuclear Technology and Society**” (Summer University- Madrid)

“A female point of view about nuclear energy”

New initiatives

Contact with different institutions

WOMEN IN SCIENCE, EUROPEAN PLATFORM OF WOMEN SCIENTISTS,
NUCLEAR YOUTH, SPANISH NUCLEAR SOCIETY

Contact with journalists



Best practices

ANNUAL MEETING OF THE SPANISH NUCLEAR SOCIETY

WiN Participation

Guest's Program

- **Round table “ NUCLEAR ENERGY AND CLIMATE CHANGE”**

Brief technical description on climate change follow by a summary of Al Gore's movie “An inconvenient Truth”

The journalist point of view: Continuous presence in the media of news on climate change and a lack of positive news about nuclear power as a possible measure to mitigate the effect of greenhouse gases

Examples of acting: A program with school children taking specific measures to save energy and protect the environment in daily life

Technical sessions

- **Paper about “WiN Global Meeting and WiN Spain Activities”**

Number of WIN members in Spain: 80

