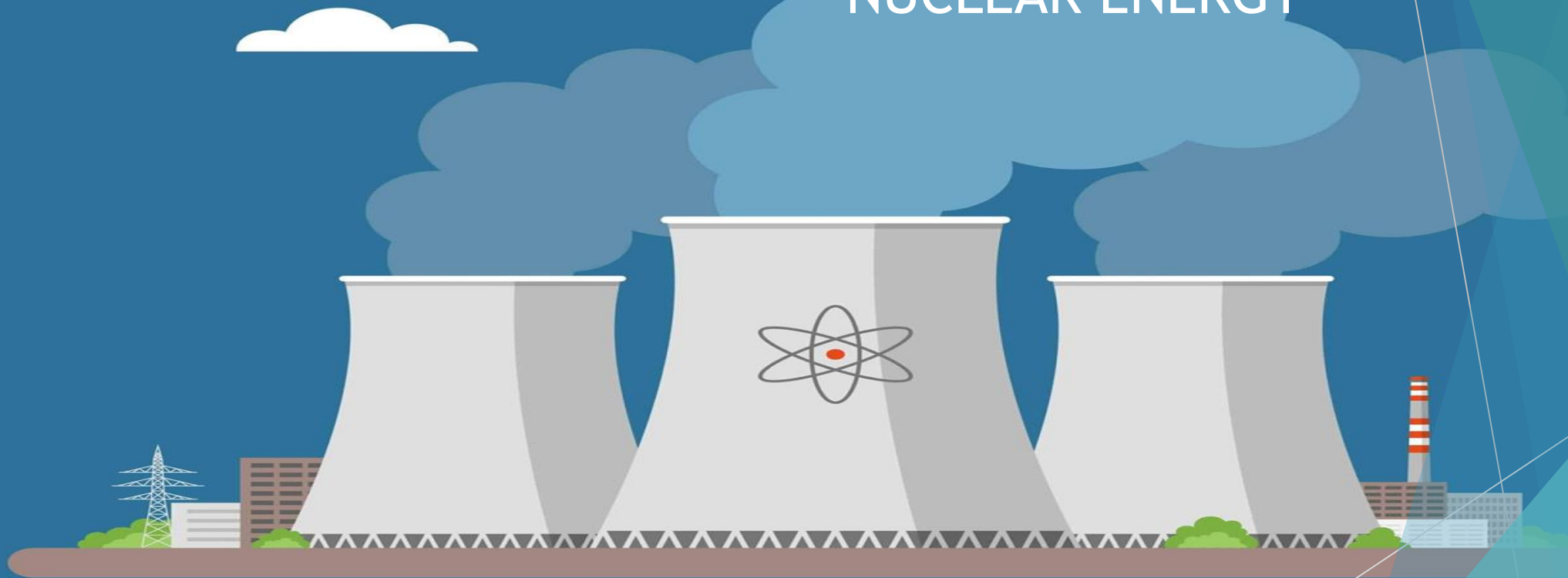




PORTUGAL AND NUCLEAR ENERGY

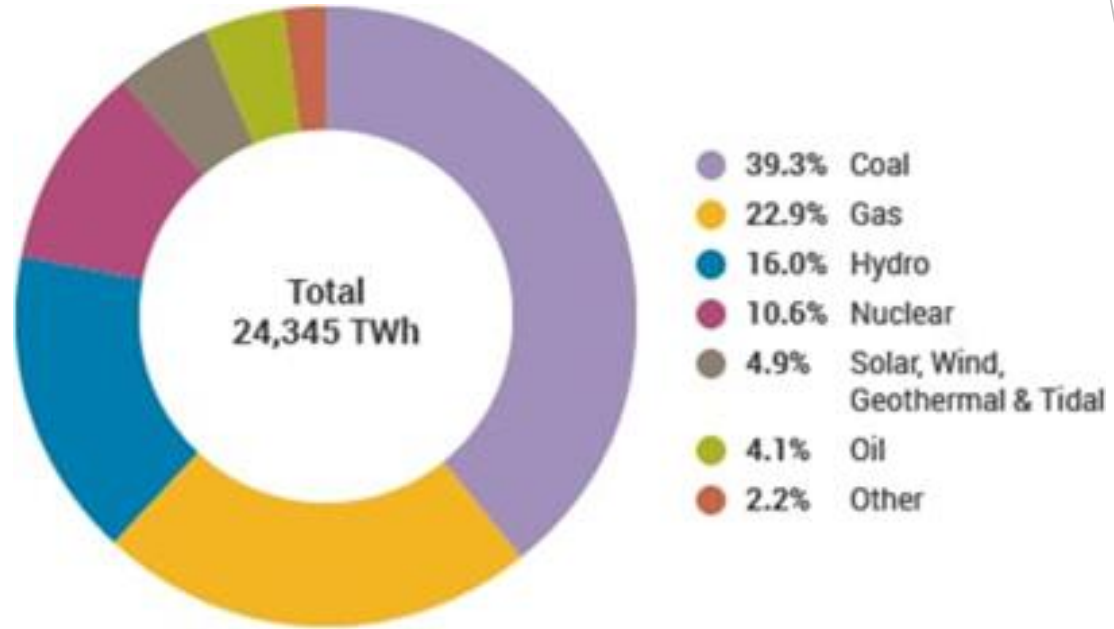


ERASMUS +



NUCLEAR ENERGY
Could the lights go off across Europe?

Nuclear energy



Pros and Cons

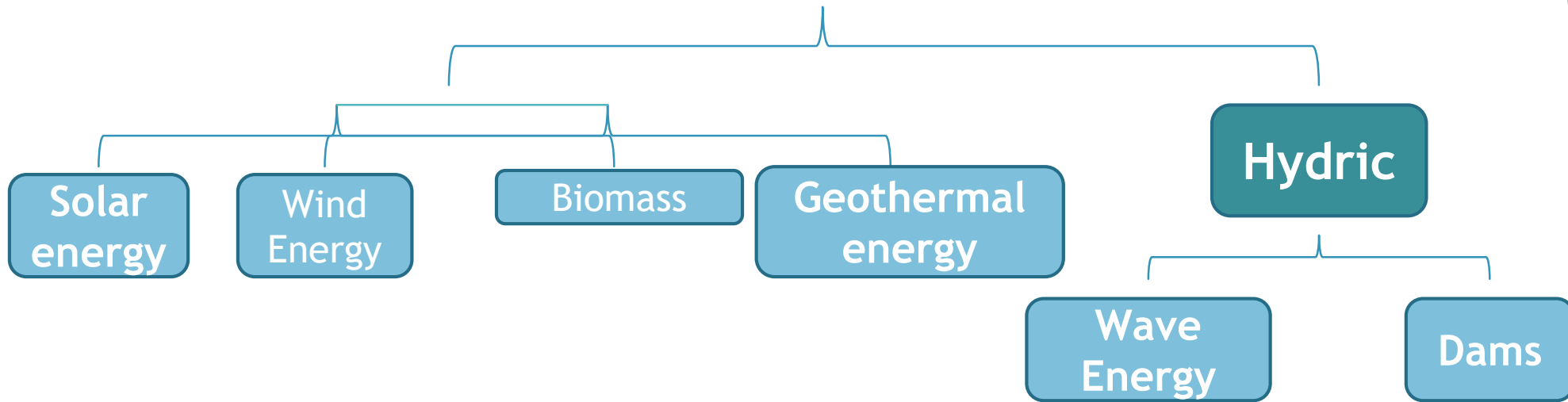
PROS	CONS
More profitable – very little amounts of uranium are enough to power an entire city.	Needs to be handled with extreme caution.
It doesn't contribute to the greenhouse effect.	The residues produced are highly toxic to the environment and they should be kept safe and isolated.
It doesn't depend on climatic factors (rain, wind, ...).	It's expensive.
Small construction area.	Risk of nuclear accident.

Nuclear energy in our country isn't viable:

- Economically
- Socially
- Environmentally



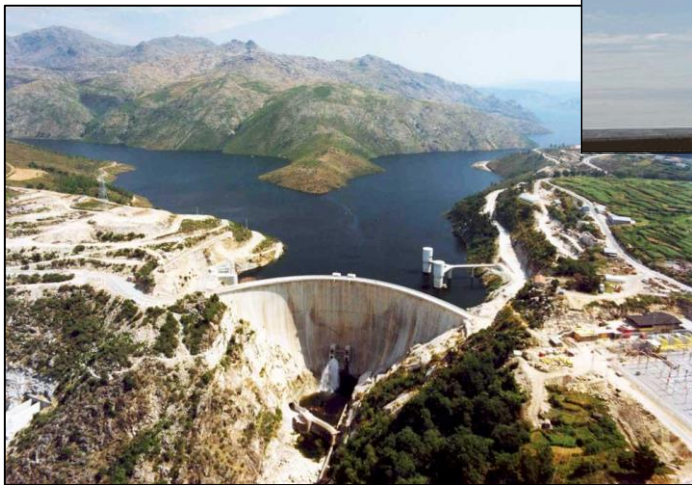
Portugal invested in



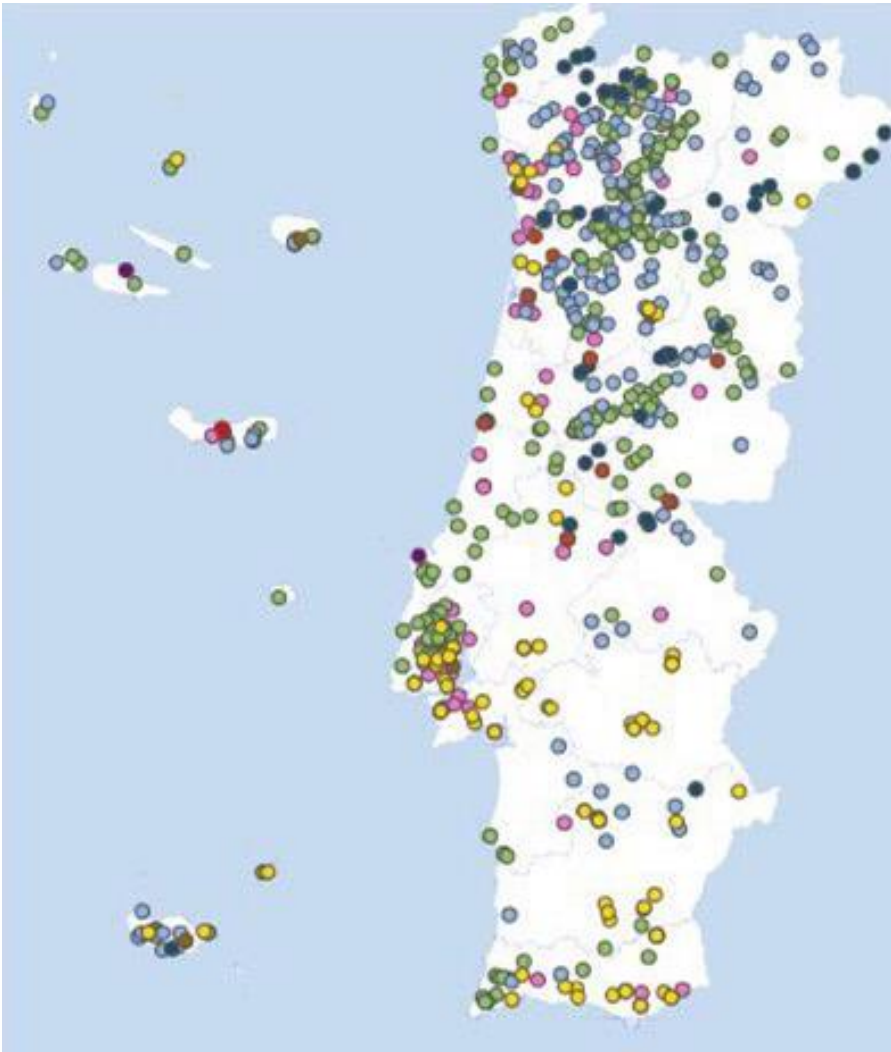
portal das
energias renováveis
em Arouca



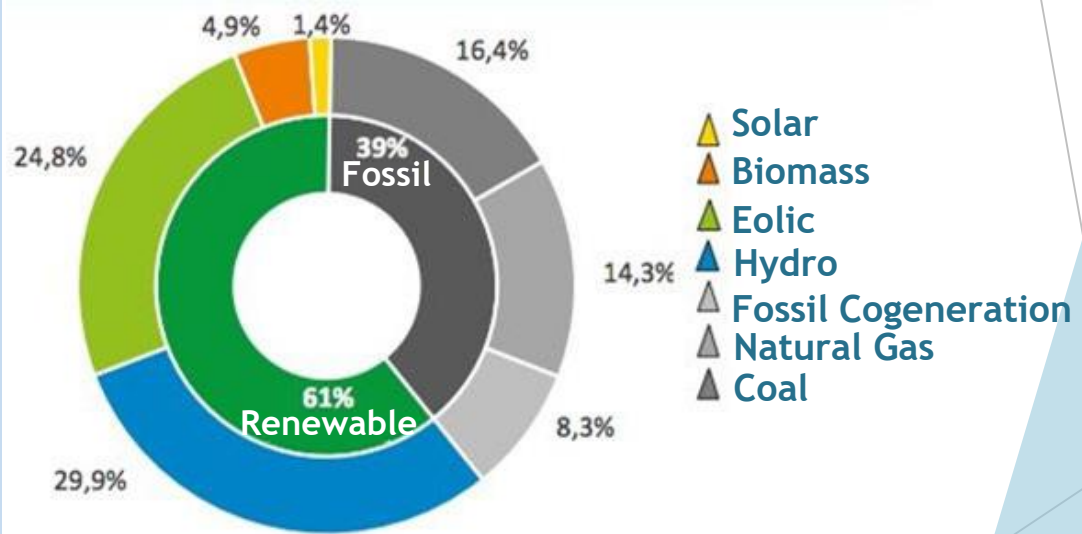
Alternatives



Main places of energy production in Portugal:



- Biogas
- Biomass
- Eolic
- Solar
- Hydro
- Tides/ Waves
- USR
- Geothermal



If we were to have a nuclear power plant:



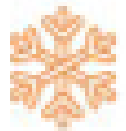
Safety



Transportation



Raw materials



Refrigeration



Safety



- To ensure the station safety, we would have to opt for low seismic risk sites. On the national territory Zones A and B represent the most dangerous areas to build a nuclear power plant.

Transportation



Connections with Spain
— High tension networks

- The construction of a power plant on sites covered by the national electricity transmission network of high tension would ensure the efficiency of the transportation of the generated electricity.



Raw materials



- Uranium is the main source of nuclear energy production and Portugal used to have several mines of extractive interest that could still be used.

 Uranium mines



Refrigeration



- Refrigeration is an important safety factor. In the 70's, most nuclear power plants were built near the coastal line so that it would be easy to cool it down, but recently, places near big rivers are preferred.

In the 70's, Ferrel (Peniche) was considered for the construction of a nuclear station. However, the popular opposition party stopped it.



Region of Trás-os Montes and Beira Alta
Near Rio Douro

Region of Alto Alentejo and Beira
Baixa
Near Rio Tejo

In IST there is a nuclear reactor used for educational purposes

Our opinion...



- ▶ Francisca Ramires
- ▶ Gabriela Lucas
- ▶ Leonardo Reis
- ▶ Izadora Ferreira
- ▶ Joana Tavares