

USE OF FOSSIL FUELS. LAST DECADE



Activity P8.



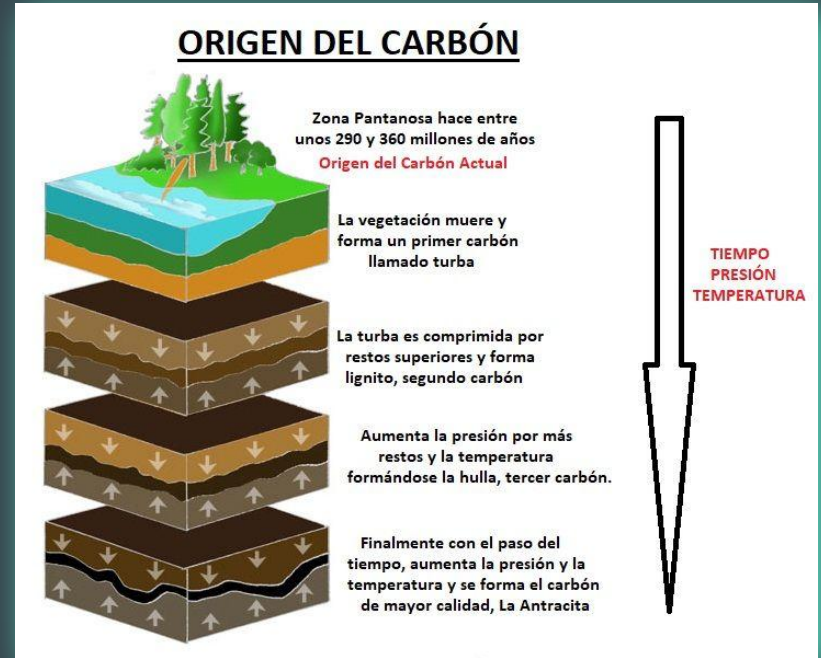
WHAT ARE THE FOSSIL FUELS?

According to EU, the fossil fuels are:

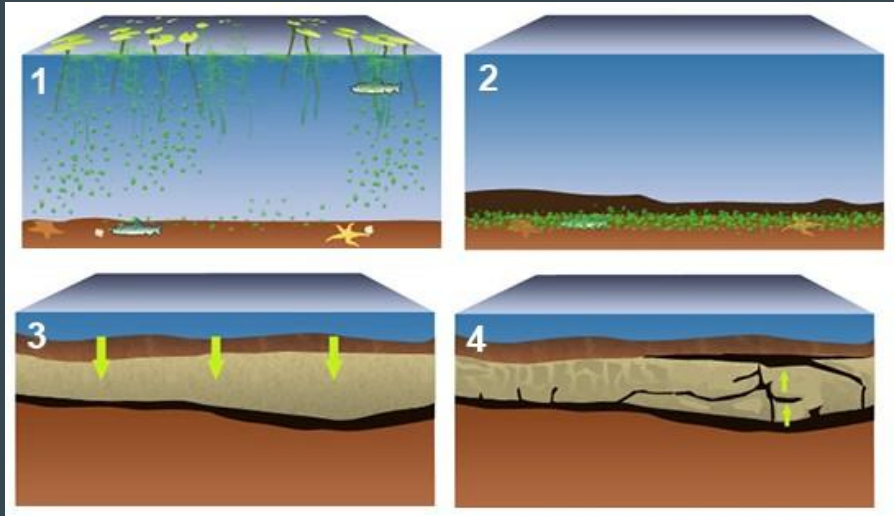
- *“**Solid fossil fuels**” includes Anthracite, Coking Coal, Other Bituminous Coal, Sub-bituminous Coal, Coke Oven Coke, Gas Coke, Lignite (Brown Coal), BKB, Peat, Peat Products, Patent Fuels, Coal Tar, Oil shale and oil sands.*
- *“**Crude oil & other hydrocarbons**” includes Crude oil, NGL (Natural Gas Liquids), Refinery feedstocks, Additives/Oxygenates (excluding liquid biofuels) and Other hydrocarbons.*
- *“**Petroleum products**” includes Refinery gas, Ethane, LPG, Motor gasoline, Aviation gasoline, Gasoline type jet fuel, Kerosene type jet fuel, Other kerosene, Naphtha, Gas/Diesel oil, Fuel oil, White spirit and SBP, Lubricants, Bitumen, Petroleum coke, Paraffin waxes and Other products.*
- *“**Gas**” includes Natural gas and Coke Oven Gas, Blast Furnace Gas, Gas Works Gas, Other recovered gases.*

COAL

- It's a fossil fuel that has been formed during thousand of years because of vegetal matter.
- When these layer compact with each other and heat up during the years the deposits transform into carbon.
- That is the most abundant in comparison with other fossil fuels.



PETROLEUM



- It's a liquid fossil fuel that is made of the microorganisms rests that are deposited on the sea bottom.
- After millions of years the deposits end up in the rocks where petroleum is trapped in certain spaces.
- It's extracted by exploitation platforms. Petroleum it's the most used fuel.

NATURAL GAS

- It's a very versatile fossil fuel, abundant and relatively clean if its comparison with carbon or petroleum.
- Like petroleum natural gas origin comes from the microorganisms deposited on the bottom of the sea.
- It's an energy resource relatively new and not very used.



DISADVANTAGES OF FOSSIL FUELS: PETROLEUM

1. Affect to people's health.
2. It's non-renewable source.
3. Possible leaks of hydrocarbon, produces environmental damage, water pollution and atmospheric pollution it's one of the biggest problems.
4. To move petroleum around the world the most common transport is by special boats and if one of this boats is damaged during its journey thousands of liters of this substance is going to be leaked on the sea and it will affect the wildlife.
5. Also it may be possible that this substance could be found in archaeological sites.

DISADVANTAGES OF FOSSIL FUELS: COAL

1. It's non-renewable source.
2. High pollution, the acid rain or temperature increase it produces.
3. Air pollution produced by coals burn represents a danger for humans health, specially for those who have respiratory diseases.



DISADVANTAGES OF FOSSIL FUELS: NATURAL GAS

- a. It's a non-renewable source.
- b. It's also volatile, it means that a lot of precaution is needed when you use it, due to the fact that with only a few energy an explosion can be caused (it's not used in cars).
- c. If gases are released, even it's considered one of the most clean fossil fuels, it's still a dangerous element that affects in the greenhouse effect. Carbon dioxide released it's also a problem because when it reaches the atmosphere global warming gets worse.
- d. Finally destructive built for natural gas extraction and channels built that are going to transport it destroy plenty of natural areas.

USE OF FOSSIL FUELS.

TRANSPORT

ELECTRICITY:
THERMAL POWER
STATION

FOSSIL FUELS

HEAT

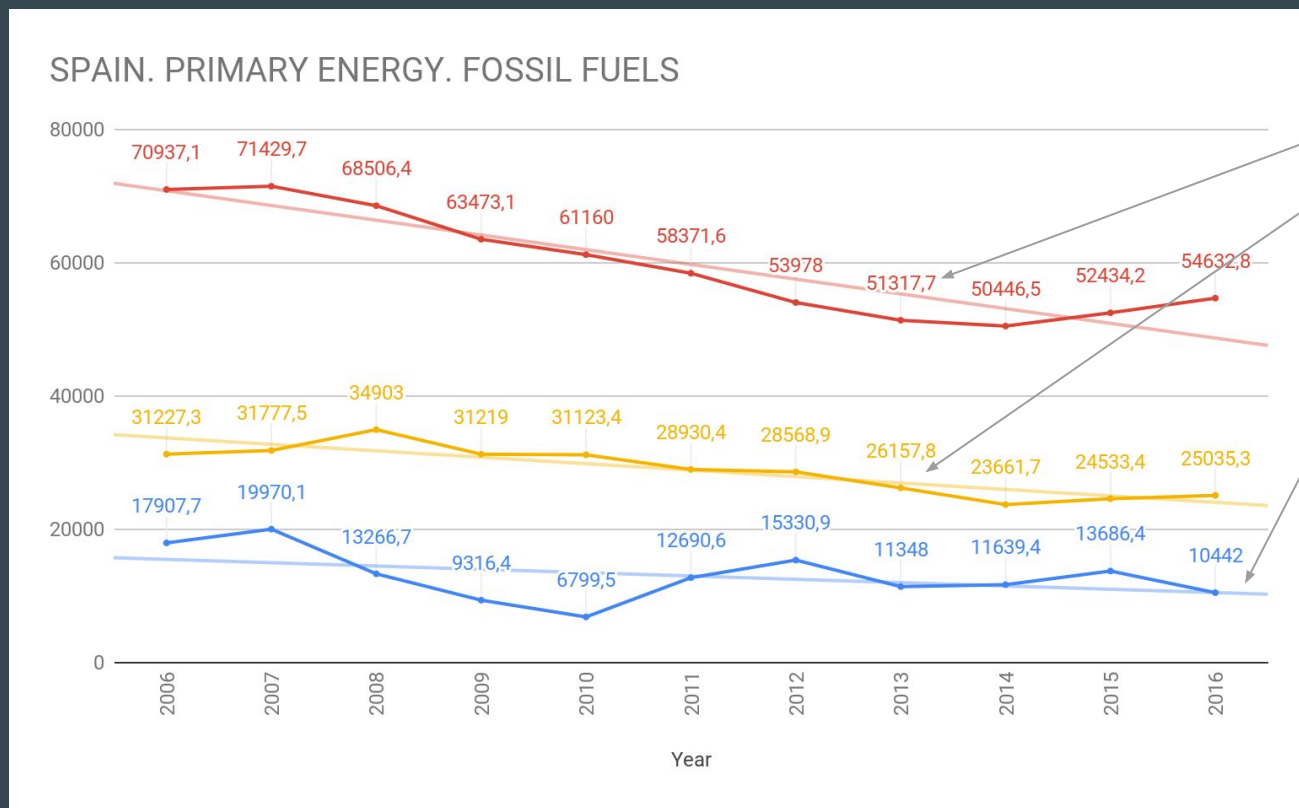
CHEMICAL
PRODUCTS

FOSSIL FUELS, SPAIN. DECADE 2006-2016.

Spain. Primary Energy. Fossil fuels						
	COAL		PETROLEUM		NATURAL GAS	
Year	ktoe	MWh	ktoe	MWh	ktoe	MWh
2006	17907,7	208266551	70937,1	824998473	31227,3	363173499
2007	19970,1	232252263	71429,7	830727411	31777,5	369572325
2008	13266,7	154291721	68506,4	796729432	34903	405921890
2009	9316,4	108349732	63473,1	738192153	31219	363076970
2010	6799,5	79078185	61160	711290800	31123,4	361965142
2011	12690,6	147591678	58371,6	678861708	28930,4	336460552
2012	15330,9	178298367	53978	627764140	28568,9	332256307
2013	11348	131977240	51317,7	596824851	26157,8	304215214
2014	11639,4	135366222	50446,5	586692795	23661,7	275185571
2015	13686,4	159172832	52434,2	609809746	24533,4	285323442
2016	10442	121440460	54632,8	635379464	25035,3	291160539

1 ktoe (kilotonne of oil equivalent) = 11630 MWh (megawatt hour of energy)

FOSSIL FUELS, SPAIN. DECADE 2006-2016.



Trend line

- PETROLEUM
- COAL
- NATURAL GAS

CONCLUSIONS

- As we can clearly see in the graphics, the use of fossil fuels (coal, petroleum and natural gas) in Spain has slowly decreased during the last decade. Despite of this lowering, the non-renewable energy fuels are still the most used ones in our country. This decrease has been carried out due to the policies and deals that have been agreed by the Spanish government; who has realized the damage they produce on people's health, the huge pollution and the negative effects on the climate change.

CONCLUSIONS

- In our point of view, there should be more severe measures to reduce in a quicker way the use of fossil fuels. In addition to boost the government and business to advance the development of renewable fuels, the ones that are the best sustainable way of supplying the energy demand as they respect the environment, they are safer for our health and they are unlimited.

CONCLUSIONS

- Talking about transport, a big progress has been made, more and more cars that use electricity to move are being built. These cars will mean a great change in our lives and they will definitely help the planet.
- In conclusion, the Spanish government has made agreements in order to make these solutions happen, which will help the country in an economical and ecological way.

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