



Renewable Energy Sources Operator
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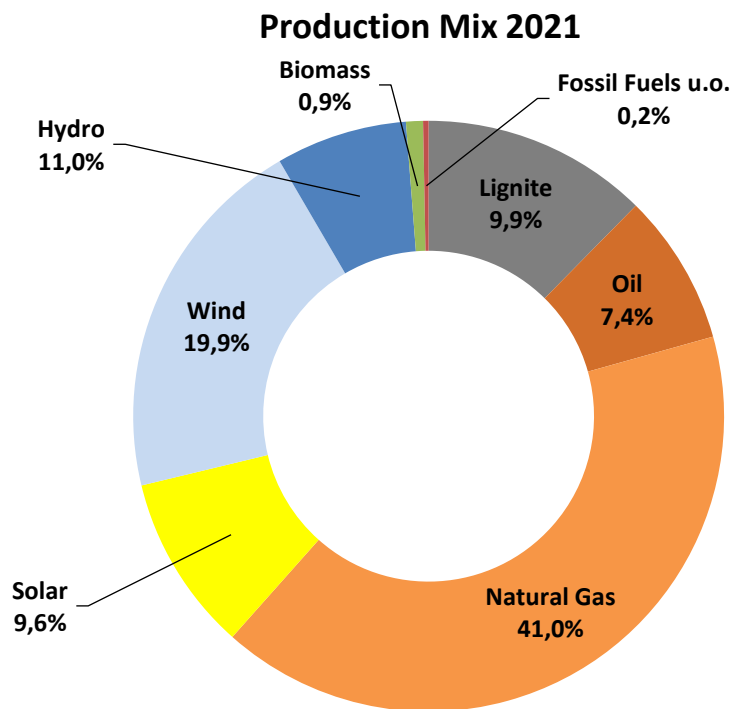
Residual Energy Mix 2021 (short version – results only)

September 2022

Department of Guarantees of origin and Energy Disclosure

Disclaimer

The basic principles for calculating the Residual Energy Mix – under the responsibility of DAPEEP according to the article 118 of 4001/2011 as applicable -, defined at the Renewable Energy Sources Operator and Guarantees of Origin Code, are in accordance with the methodology applied by the Association of Issuing Bodies (AIB) in order to calculate the European Attribute Mix (EAM) (Issuance Based Methodology, RE-DISS II). The methodology implementation details have been submitted and are to be approved by the Regulatory Authority for Energy (RAE). As a result the current results may be subjected to future changes by RAE's decision.

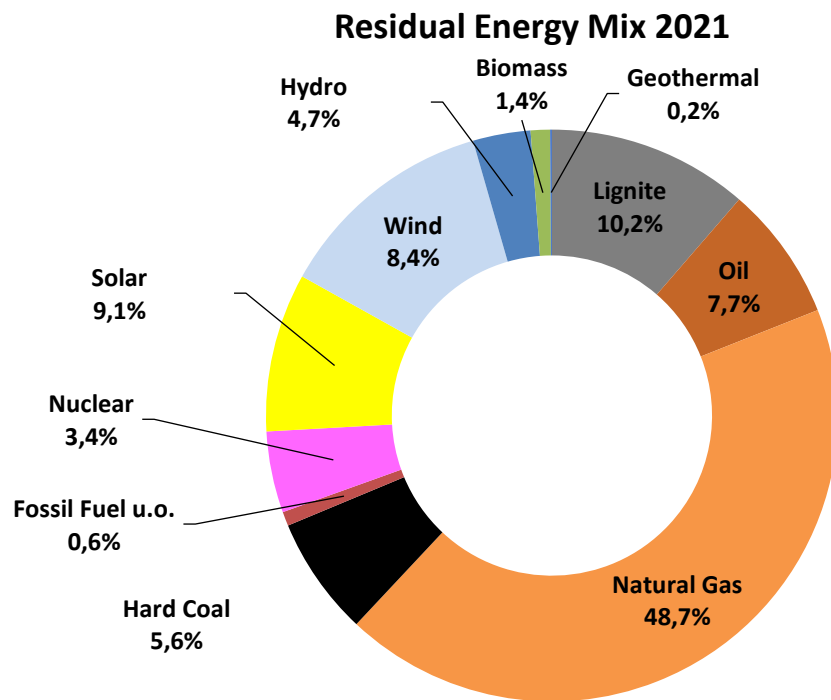


| 2021 | Lignite | Oil | Natural Gas ¹ | Fossil Fuels u.o. ² | Sum of Fossil Fuels | Solar | Wind | Hydro | Biomass | RES of u.o. ² | Sum of RES | Total | CO ₂ Emissions (gCO ₂ / kWh) |
|------------|---------|-------|--------------------------|--------------------------------|---------------------|-------|--------|--------|---------|--------------------------|---------------|---------------|--|
| % | 9,93% | 7,42% | 41,01% | 0,15% | 58,52% | 9,63% | 19,93% | 11,02% | 0,91% | 0,00% | 41,48% | 100,0% | 334,70 |
| TWh | 5,34 | 3,99 | 22,06 | 0,08 | 31,47 | 5,18 | 10,72 | 5,93 | 0,49 | 0,00 | 22,31 | 53,78 | |

¹Includes HE-CHP production using Natural Gas as fuel source.

²Unspecified origin. Electricity consumed to fill up the storage tank of pumped storage hydro power stations is included to Fossil Fuel of Unspecified Origin.

Figure 1: Production Mix 2021



| 2021 | Lignite | Hard Coal | Oil | Natural Gas ¹ | Fossil Fuel of u.o. ² | Sum of Fossil Fuels | Nuclear | Solar | Wind | Hydro | Biomass | Geothermal | RES of u.o. ² | Sum of RES | Total | CO ₂ Emissions (gCO ₂ /kWh) | R.W. ³ (mgRW/kWh) |
|------|---------|-----------|-------|--------------------------|----------------------------------|---------------------|---------|-------|-------|-------|---------|------------|--------------------------|---------------|----------------|---|------------------------------|
| % | 10,17% | 5,62% | 7,74% | 48,72% | 0,60% | 72,86% | 3,44% | 9,07% | 8,35% | 4,69% | 1,44% | 0,15% | 0,00% | 23,70% | 100,00% | 436,889 | 0,140 |
| TWh | 5,35 | 2,96 | 4,07 | 25,64 | 0,31 | 38,34 | 1,81 | 4,77 | 4,39 | 2,47 | 0,76 | 0,08 | 0,00 | 12,47 | 52,63 | | |

¹Includes HE-CHP production using Natural Gas as fuel source

²Unspecified origin

³Radioactive waste

Figure 2: Residual Energy Mix 2021

Table 1: Aggregated Energy Mix 2021 results

| 2021 | Production Mix (PM) | | Corrected with Imports | | Preliminary Residual Mix (REM) | | Final Residual Mix | |
|--------------------------------|----------------------------|----------------|-------------------------------|----------------|---------------------------------------|----------------|---------------------------|----------------|
| Lignite | 5,34 | 9,93% | 5,34 | 9,33% | 5,30 | 11,73% | 5,35 | 10,17% |
| Hard Coal | 0,00 | 0,00% | 1,09 | 1,91% | 1,09 | 2,40% | 2,96 | 5,62% |
| Oil | 3,99 | 7,42% | 4,01 | 7,00% | 3,97 | 8,80% | 4,07 | 7,74% |
| Natural Gas ¹ | 22,06 | 41,01% | 23,19 | 40,50% | 23,02 | 50,93% | 25,64 | 48,72% |
| Fossil Fuels u.o. ² | 0,08 | 0,15% | 0,08 | 0,15% | 0,08 | 0,18% | 0,31 | 0,60% |
| Sum of Fossil Fuels | 31,47 | 58,52% | 33,71 | 58,88% | 33,46 | 74,03% | 38,34 | 72,86% |
| Nuclear | 0,00 | 0,00% | 0,00 | 0,00% | 0,00 | 0,00% | 1,81 | 3,44% |
| Solar | 5,18 | 9,63% | 5,30 | 9,26% | 4,50 | 9,95% | 4,77 | 9,07% |
| Wind | 10,72 | 19,93% | 11,01 | 19,24% | 4,34 | 9,61% | 4,39 | 8,35% |
| Hydro | 5,93 | 11,02% | 6,60 | 11,52% | 2,28 | 5,05% | 2,47 | 4,69% |
| Biomass | 0,49 | 0,91% | 0,55 | 0,96% | 0,53 | 1,18% | 0,76 | 1,44% |
| Geothermal | 0,00 | 0,00% | 0,08 | 0,14% | 0,08 | 0,18% | 0,08 | 0,15% |
| RES u.o. ² | 0,00 | 0,00% | 0,00 | 0,00% | 0,00 | 0,00% | 0,00 | 0,00% |
| Sum of RES | 22,31 | 41,48% | 23,54 | 41,12% | 11,74 | 25,97% | 12,47 | 23,70% |
| Total | 53,78 | 100,00% | 57,25 | 100,00% | 45,19 | 100,00% | 52,63 | 100,00% |

¹Includes HE-CHP production using Natural Gas as fuel source

²Unspecified Origin