

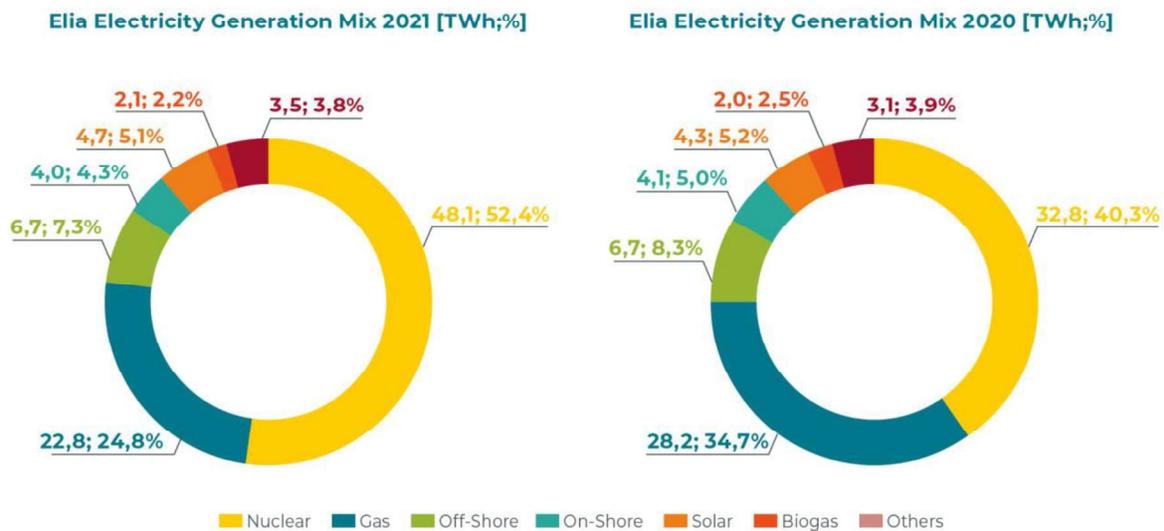


Belgium's 2021 electricity mix: record number of exports due to slight increase in production of renewable energy and a stable nuclear fleet

Facts and figures

- The production of wind and solar energy increased slightly in 2021 (2%), setting new records, while offshore wind production remained stable;
- 21 May: records broken with regard to wind and solar generation (6420 MW);
- High amounts of nuclear power generation (representing 52.4% of the Belgian electricity mix) caused gas-fired generation to decrease and exports to increase;
- Record-breaking exports increased by 59% in comparison with 2020;
- Cross-border trading increased for the fifth year in a row;
- Consumption levels gradually returned to normal;
- Average monthly price per MWh on the day-ahead market reached historic highs.

Electricity mix for 2021 and 2020



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Share occupied by renewables continued to grow

Wind and solar generation increased slightly in 2021, hitting 15.2 TWh (compared with 15 TWh in 2020), mainly due to an increase in installed onshore (11%) and solar (17%) generation. Offshore wind generation remained stable compared to 2020, which was as expected since no change was made to its production capacity.

New renewable energy record set on 21 May

The total amount of solar and wind energy generated in Belgium hit a new all-time high of 6420 MW on 21 May 2021. Having half of Belgium's consumption needs covered by these energy sources is still quite rare, even though instances like this have increased in number over the last few years. In 2021, such instances occurred 2% of the time.

Production (Wind + PV) / Total Load > 50%

| Year | Frequency [h/year] | Frequency [%] | Max (Wind + PV) [MW] | Date of Max (Wind + PV) |
|------|--------------------|---------------|----------------------|-------------------------|
| 2018 | 0 | 0,0% | 4138 | 11/09/2018 |
| 2019 | 8 | 0,1% | 4594 | 08/06/2019 |
| 2020 | 119 | 1,4% | 5824 | 11/05/2020 |
| 2021 | 168 | 2,0% | 6420 | 21/05/2021 |

New records set for annual generation figures

Although no **monthly** wind and solar power generation records were set in 2021, new **annual** records were set.

The total amount of solar energy generated in 2021 rose to reach 4,642 GWh, representing an increase of 9% when compared with 2020.

| Solar (GWh) | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | Total | yearly increase |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----------------|
| 2013 | 33 | 81 | 167 | 293 | 290 | 328 | 389 | 325 | 235 | 149 | 56 | 67 | 2413 | |
| 2014 | 67 | 109 | 295 | 341 | 368 | 404 | 357 | 313 | 269 | 166 | 96 | 36 | 2821 | 16,9% |
| 2015 | 65 | 131 | 232 | 390 | 412 | 459 | 388 | 379 | 264 | 162 | 82 | 66 | 3030 | 7,4% |
| 2016 | 73 | 135 | 236 | 325 | 411 | 332 | 407 | 380 | 309 | 171 | 82 | 64 | 2925 | -3,5% |
| 2017 | 80 | 94 | 257 | 338 | 412 | 432 | 397 | 335 | 262 | 164 | 84 | 33 | 2888 | -1,3% |
| 2018 | 54 | 195 | 228 | 364 | 517 | 464 | 555 | 422 | 344 | 242 | 111 | 57 | 3553 | 23,0% |
| 2019 | 60 | 191 | 244 | 414 | 451 | 504 | 477 | 444 | 358 | 196 | 118 | 71 | 3528 | -0,7% |
| 2020 | 81 | 138 | 386 | 581 | 683 | 578 | 548 | 495 | 397 | 180 | 126 | 66 | 4259 | 20,7% |
| 2021 | 86 | 214 | 445 | 596 | 630 | 655 | 597 | 517 | 475 | 274 | 125 | 59 | 4673 | 9,7% |

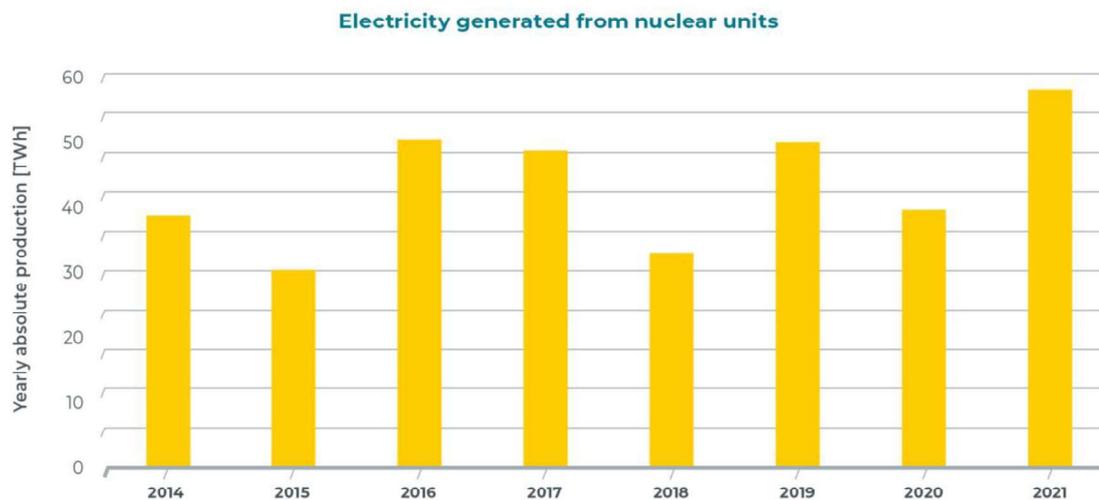


The total amount of offshore wind power generated in 2021 also rose when compared with 2020, but the increase was small (0.4%), since no change was made to its installed capacity in 2021.

| Offshore (GWh) | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | Total | yearly increase |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-----------------|
| 2013 | 65 | 66 | 63 | 66 | 102 | 124 | 75 | 55 | 102 | 165 | 159 | 195 | 1237 | |
| 2014 | 237 | 260 | 160 | 121 | 146 | 82 | 134 | 195 | 82 | 239 | 184 | 312 | 2152 | 74,0% |
| 2015 | 280 | 194 | 233 | 148 | 194 | 167 | 204 | 138 | 185 | 125 | 331 | 372 | 2571 | 19,5% |
| 2016 | 332 | 256 | 212 | 181 | 159 | 143 | 156 | 177 | 131 | 169 | 246 | 182 | 2344 | -8,8% |
| 2017 | 197 | 240 | 268 | 130 | 166 | 209 | 199 | 159 | 184 | 376 | 291 | 369 | 2788 | 18,9% |
| 2018 | 364 | 320 | 274 | 201 | 169 | 196 | 131 | 200 | 281 | 331 | 393 | 452 | 3312 | 18,8% |
| 2019 | 412 | 307 | 448 | 247 | 252 | 312 | 243 | 393 | 454 | 518 | 445 | 616 | 4647 | 40,3% |
| 2020 | 628 | 803 | 702 | 340 | 419 | 361 | 370 | 357 | 437 | 881 | 639 | 793 | 6730 | 44,8% |
| 2021 | 736 | 815 | 609 | 486 | 461 | 213 | 405 | 532 | 328 | 808 | 591 | 770 | 6754 | 0,4% |

High availability of the nuclear fleet

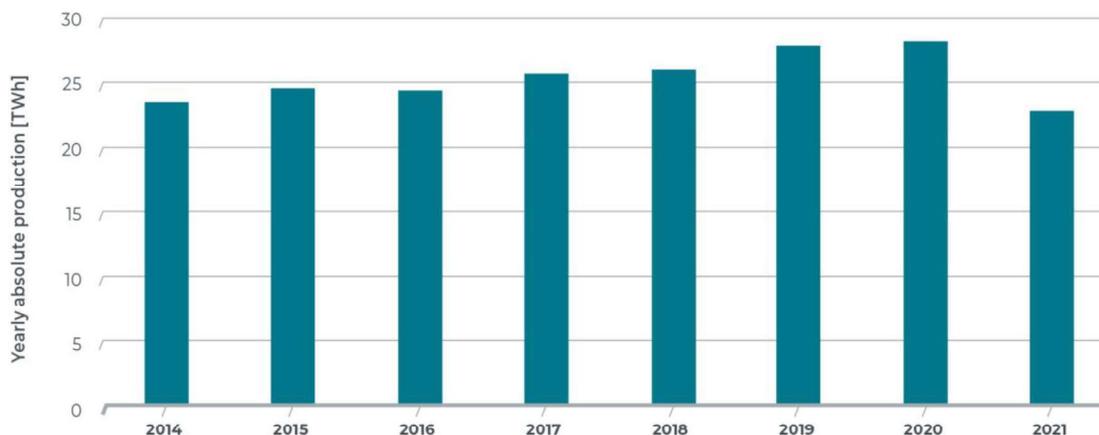
The availability of nuclear energy was high in 2021, since it accounted for 52.4% of the electricity mix for the year. This represented an increase of 47% when compared with 2020, resulting in a reduced use of gas-fired units and higher exports.



Gas: 24,8% of the electricity mix

The high availability of the nuclear fleet tends to result in the reduced use of gas-fired power stations, but in 2021 this trend was probably intensified by high gas prices.

Electricity generated from gas units

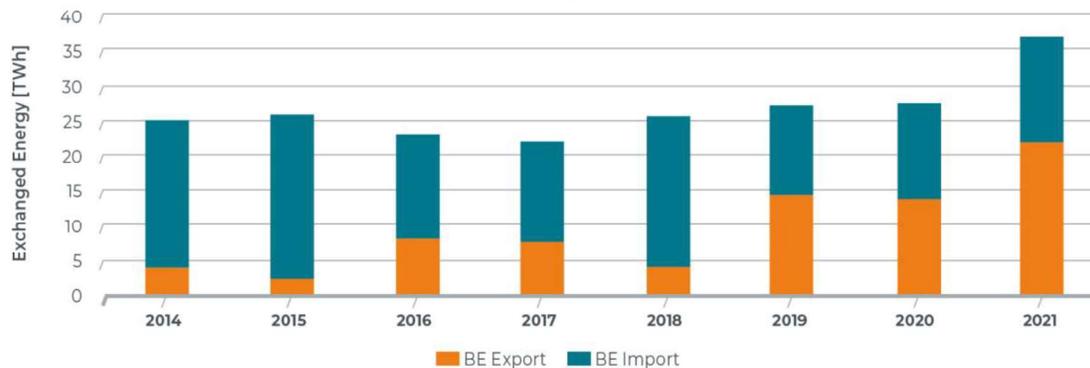


Increases in cross-border trading and a new exports record reached

Cross-border trading in electricity changed for the third year in a row, with Belgium shifting from being a net importer to being a net exporter (with its net exports reaching 6.6 TWh in 2021). When combined with traditional power plant generation, a rise in renewable energy generation capacity meant that Belgium produced a surplus in electricity that it was able to export to its neighbours. This led to new record in annual exports being met: 21,7 TWh of electricity were exported. When compared with exports in 2020 (which reached 13,7 TWh), this represents an increase of 59%.

The total amount of TWh traded internationally (the total amount of Belgium's cross-border trading amounted to 36.7 TWh in 2021) has been rising continuously over the past five years. One possible explanation for this lies in the commissioning of two new interconnectors: Nemo Link (2018) and ALEGrO (2020). Another possible explanation lies in the increase in intermittent renewable generation across Europe, which causes the need for energy exchanges with other countries to rise. The increase in energy exchanges is likely to keep growing in future as the grid is reinforced.

Belgium - Cross-border electricity exchanges



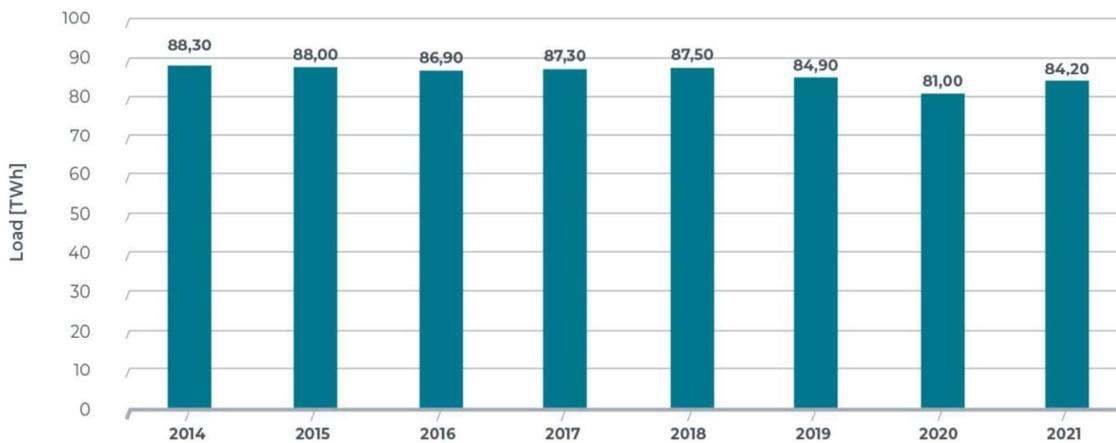
Consumption patterns gradually returned to normal

The consumption of electricity in 2021 (which amounted to 84.2 TWh) returned to normal levels and was even slightly below the baseline. It should be noted that the total consumption of electricity is influenced by economic activity and weather conditions. For example, during the summer, hot weather drives consumption levels up, while in winter, the opposite occurs.

Weekly average Total Load Elia



Total Load Elia



The average price of electricity rose sharply

A new record low in terms of price was reached in 2020 (€31.9/MWh as the annual average for the day-ahead market) due to the pandemic (low load). In 2021, the opposite occurred - exceptionally high prices were reached (€98.2/MWh), mainly due to high gas prices. Today, gas-fired power stations are used in Belgium and in many other European countries, causing electricity prices to reach record highs.

Monthly average day-ahead prices on gross market [€/MWh]

| Month | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-----------|------|------|------|------|------|-------|
| January | 32,6 | 72,6 | 36,8 | 60,5 | 37,9 | 57,5 |
| February | 25,4 | 47,6 | 47,4 | 47,6 | 28,4 | 48,6 |
| March | 27,1 | 34,5 | 50,7 | 37,6 | 24,0 | 46,6 |
| April | 25,4 | 37,3 | 37,8 | 37,9 | 14,7 | 57,0 |
| May | 25,4 | 37,2 | 44,5 | 38,0 | 15,4 | 55,6 |
| June | 30,7 | 32,7 | 50,0 | 27,5 | 25,6 | 74,4 |
| July | 31,3 | 33,6 | 52,9 | 37,7 | 29,8 | 77,4 |
| August | 28,9 | 31,8 | 60,7 | 33,7 | 35,5 | 79,5 |
| September | 37,7 | 37,2 | 68,8 | 33,6 | 44,2 | 64,4 |
| October | 57,2 | 49,0 | 76,0 | 37,6 | 39,4 | 165,2 |
| November | 62,3 | 66,6 | 77,8 | 44,4 | 39,9 | 202,2 |
| December | 55,0 | 55,1 | 59,7 | 36,4 | 47,4 | 245,4 |
| | 36,6 | 44,6 | 55,2 | 39,4 | 31,9 | 98,2 |

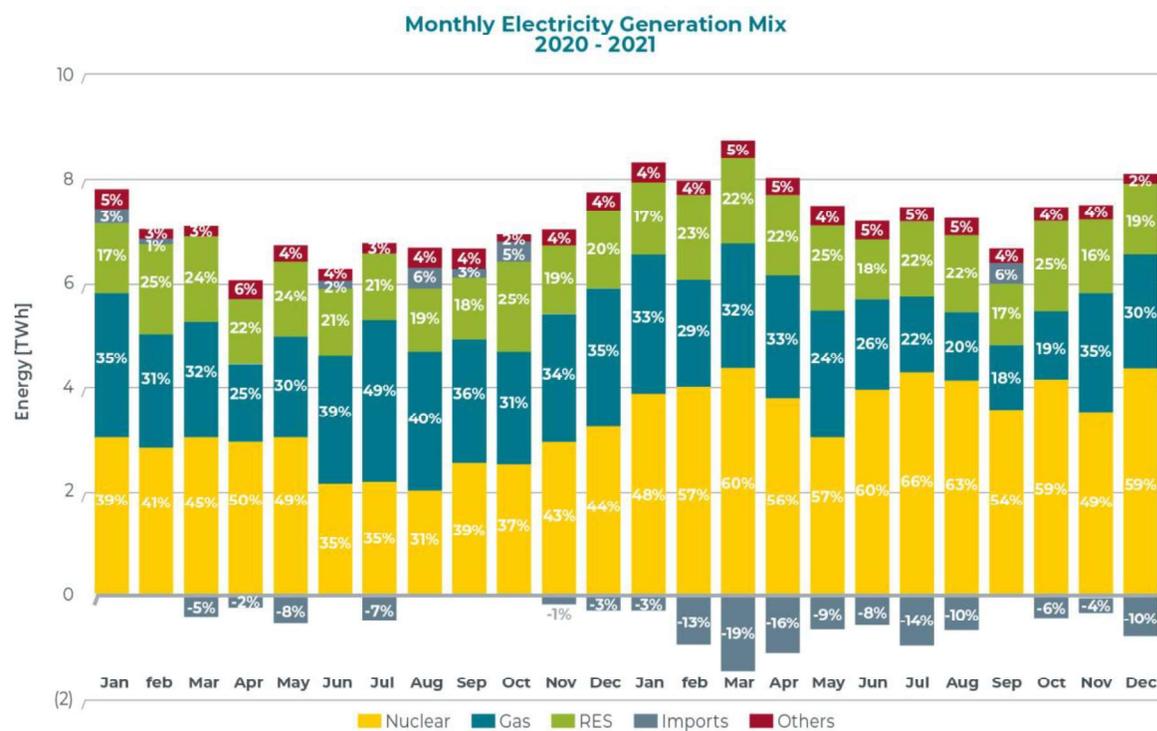


Annexes

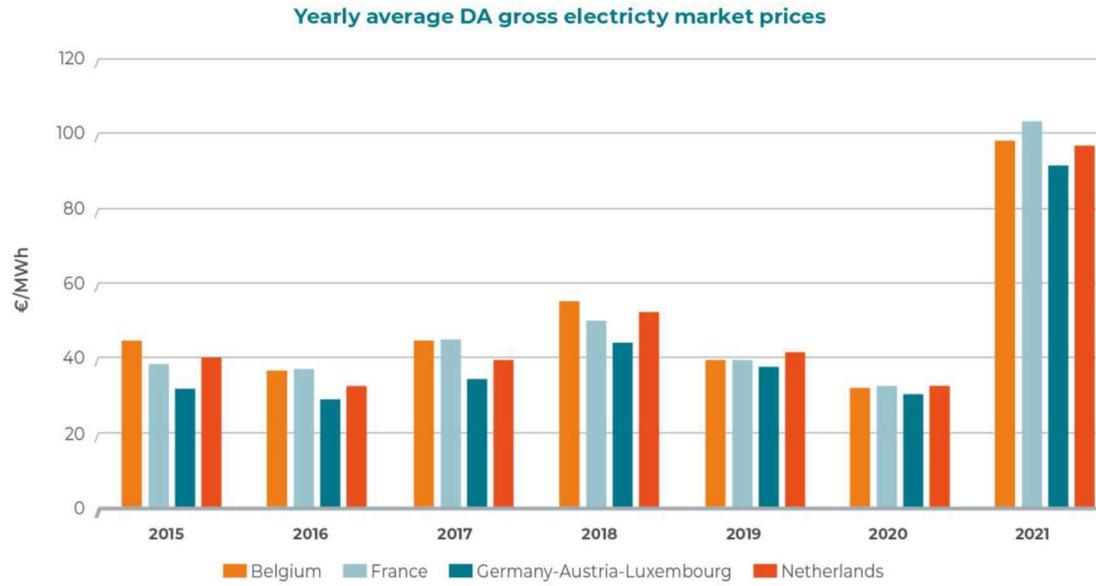
Onshore Wind

| Offshore (GWh) | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | Total | yearly increase |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------|-----------------|
| 2013 | 152 | 148 | 152 | 156 | 142 | 133 | 80 | 59 | 87 | 208 | 192 | 301 | 1810 | |
| 2014 | 306 | 333 | 139 | 99 | 161 | 74 | 94 | 143 | 69 | 201 | 191 | 303 | 2113 | 16,7% |
| 2015 | 303 | 201 | 231 | 149 | 181 | 136 | 162 | 116 | 170 | 93 | 322 | 379 | 2443 | 15,6% |
| 2016 | 325 | 302 | 224 | 180 | 141 | 117 | 131 | 156 | 127 | 135 | 220 | 181 | 2239 | -8,4% |
| 2017 | 173 | 251 | 304 | 145 | 145 | 201 | 195 | 150 | 197 | 311 | 238 | 332 | 2642 | 18,0% |
| 2018 | 403 | 277 | 317 | 226 | 158 | 157 | 146 | 185 | 193 | 237 | 296 | 367 | 2962 | 12,1% |
| 2019 | 318 | 288 | 460 | 209 | 179 | 198 | 161 | 210 | 248 | 316 | 277 | 499 | 3363 | 13,5% |
| 2020 | 444 | 629 | 439 | 227 | 244 | 195 | 204 | 203 | 185 | 494 | 394 | 433 | 4091 | 21,6% |
| 2021 | 388 | 439 | 396 | 292 | 426 | 146 | 252 | 255 | 187 | 489 | 277 | 426 | 3973 | -2,9% |

Electricity mix in 2021 (broken down by month)



Yearly average day-ahead market prices in neighbouring countries



About Elia Group

One of Europe's top five TSOs

Elia Group is a key player in electricity transmission. We ensure that production and consumption are balanced around the clock, supplying 30 million end users with electricity. Through our subsidiaries in Belgium (Elia) and northeastern Germany (50Hertz), we operate 19,276 km of high-voltage connections, meaning that we are one of Europe's top 5 transmission system operators. With a reliability level of 99.99%, we provide society with a robust power grid, which is important for socioeconomic prosperity. We also aspire to be a catalyst for a successful energy transition, helping to establish a reliable, sustainable and affordable energy system.

We are making the energy transition happen

By expanding international high-voltage connections and incorporating ever-increasing amounts of renewable energy into our grid, we are promoting both the integration of the European energy market and the decarbonisation of society. We also continuously optimise our operational systems and develop new market products so that new technologies and market parties can access our grid, thus further facilitating the energy transition.

In the interest of society

As a key player in the energy system, Elia Group is committed to working in the interest of society. We are responding to the rapid increase in renewable energy by constantly adapting our transmission grid. We also ensure that investments are made on time and within budget, with a maximum focus on safety. In carrying out our projects, we manage stakeholders proactively by establishing two-way communication channels between all relevant parties very early on in the development process. We also offer our expertise to different players across the sector in order to build the energy system of the future.

International focus

In addition to our activities as a transmission system operator, we provide various consulting services to international customers through our third subsidiary, Elia Grid International (EGI). Elia (in Belgium) is also part of the Nemo Link consortium, which operates the first subsea electrical interconnector between Belgium and the UK.

The legal entity Elia Group is a listed company whose core shareholder is the municipal holding company Publi-T.

More information: eliagroup.eu



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