



TRANSMISSION SYSTEM OPERATOR'S ANNUAL REPORT

RIGA – 2025



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TRANSMISSION SYSTEM OPERATOR'S ANNUAL REPORT

This report was prepared in accordance with Cabinet Regulation 322 of the Republic of Latvia 'Regulations regarding the annual statement of a transmission system operator' of 25 April 2006, the Information Report on the Long-Term Energy Strategy 2030 of Latvia and the National Energy and Climate Plan 2021–2030 (NECP) prepared and updated by the Ministry of Climate and Energy of the Republic of Latvia. The TSO annual statement includes and supports the development trends of the 2050 Energy Strategy of Latvia, published on 25 March 2025.



1. PREVIOUS-YEAR DEMAND FOR ELECTRIC ENERGY AND CAPACITY IN LATVIA

1.1. The weekly electric power consumption (net) in 2023 and 2024

The total annual electric power consumption, without power losses, was 6,979,836 MWh. System consumption rose 2% compared to 2023.

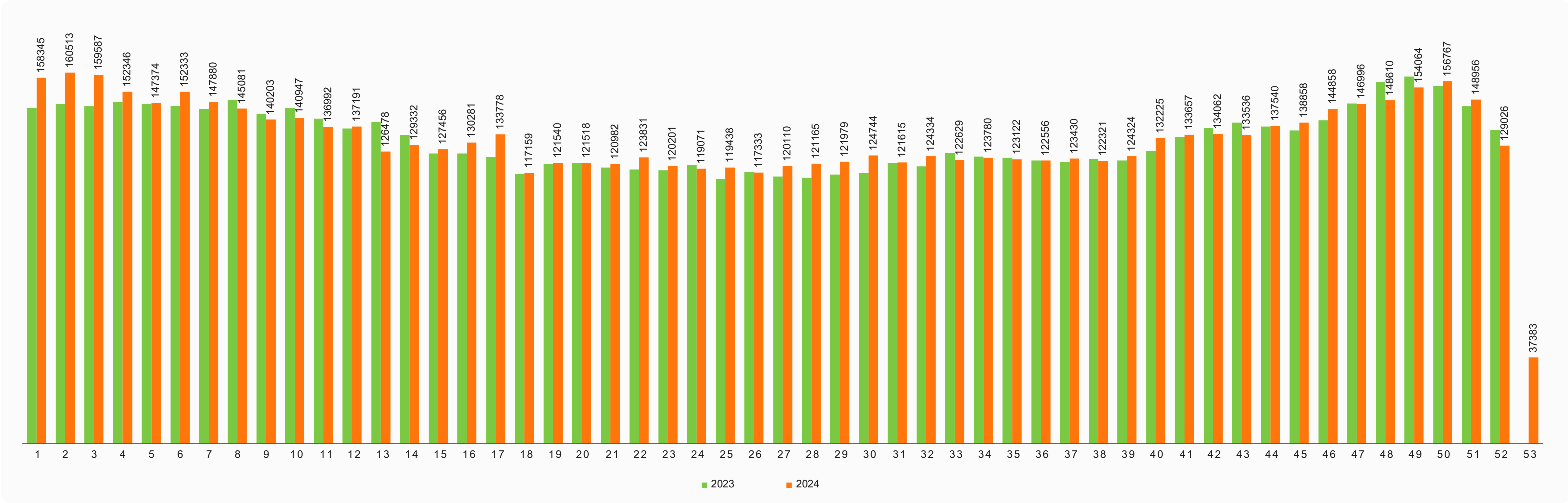


Figure 1. Weekly electric power consumption in Latvia (net), MWh

1.2. Maximum load in winter and minimum load in summer (control measurement data)

| | | | |
|-----------|------------|----------------|-------|
| Min load: | 459 MWh/h | 25 June 2024 | 05:00 |
| Max load: | 1243 MWh/h | 8 January 2024 | 11:00 |

1.3. System consumption according to 24-hour control measurements

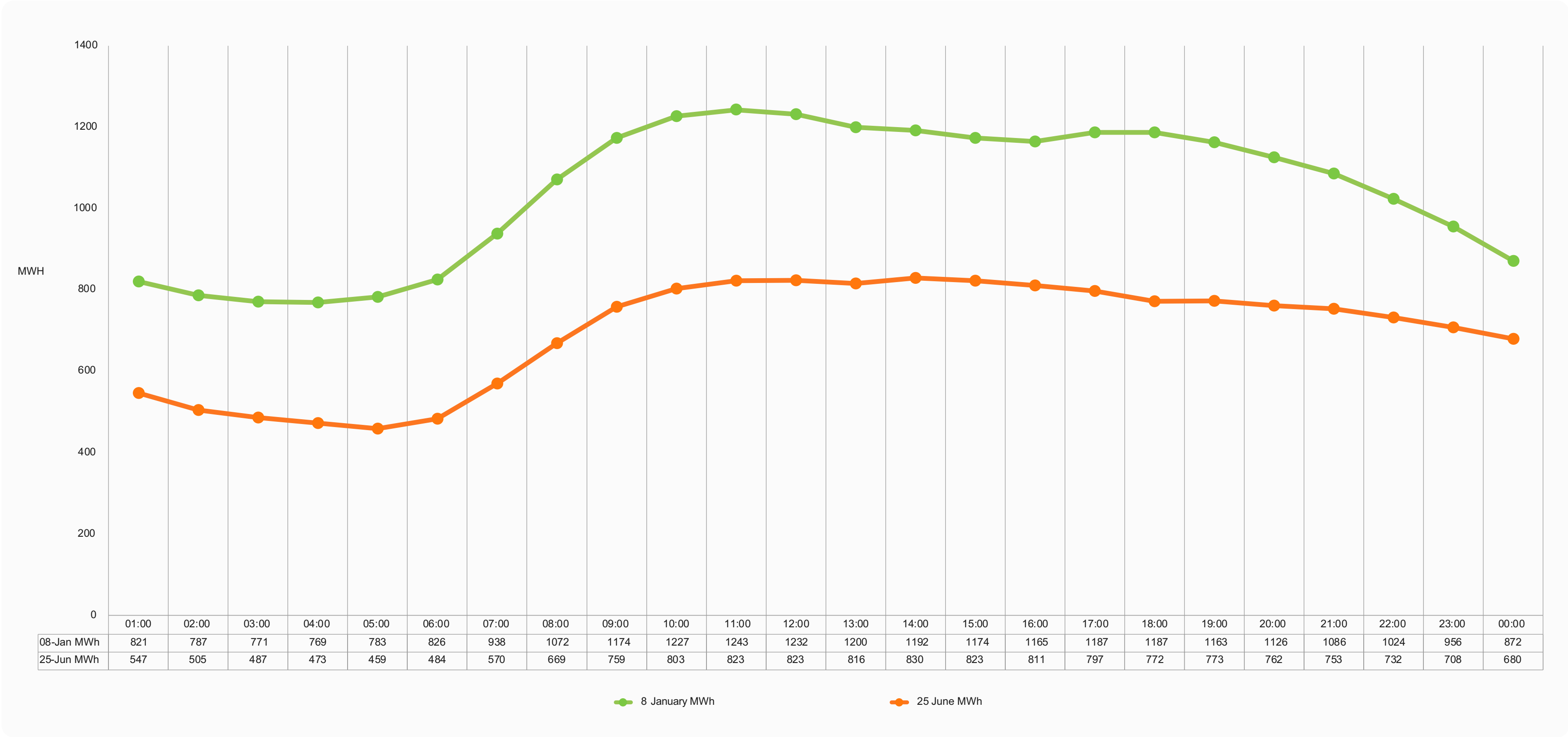


Figure 2. 24h electric power consumption

2. ELECTRIC POWER AND CAPACITY CONSUMPTION FORECAST FOR COMING YEARS (MINIMUM FORECAST PERIOD: 10 YEARS)

The maximum consumption in the electricity system is calculated (normalized) based on the predicted national GDP growth in Latvia provided by the Ministry of Economics of the Republic of Latvia¹, assuming an average standard outdoor ambient temperature in winter (December through February) at -3.5 °C (Table 1). As the outdoor ambient temperature changes, so does maximum consumption. The electricity system consumption forecast is based on the results of a KPMG study on consumption development trends² and historical actual consumption data for 2024, with consumption planned for three economic development scenarios in Latvia: Conservative development scenario (Scenario A), Baseline scenario (Scenario B) and Optimistic development scenario (Scenario EU2030). Information from electricity system users, distribution system operators, as well as consumption growth data for the planned development of electric vehicles and future consumption technologies (Power to X (P2X) and hydrogen) was used for the development scenarios (see Figure 3). The results of the KPMG consumption development study can be found on the AST website.

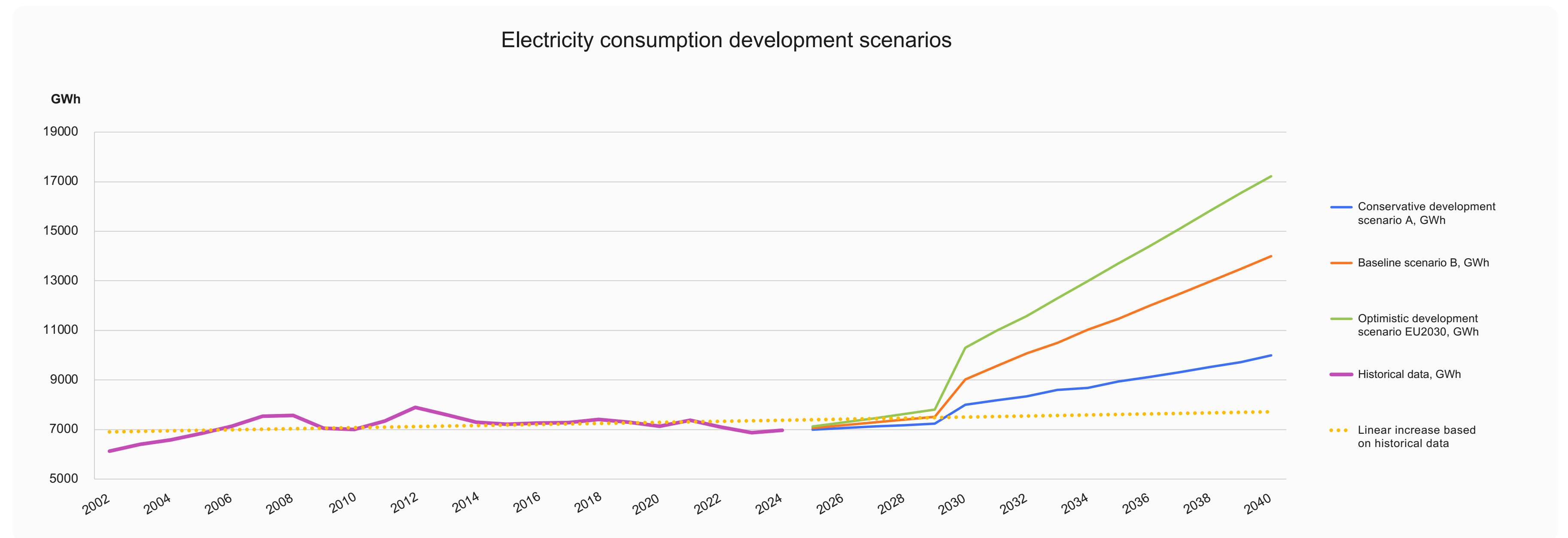


Figure 3. Electricity consumption growth forecast to 2040

¹ <https://prognozes.em.gov.lv/lv/ekonomikas-izaugsmes-scenarijs>

² <https://www.ast.lv/lv/events/petijums-latvija-sagaidams-straujaks-elektroenerģijas-paterina-pieaugums>

| Year | Conservative development scenario (A) | | Baseline development scenario (B) | | Optimistic development scenario (EU2030) | | Maximum load, Baseline scenario (B) MW |
|------|---------------------------------------|----------------------------------|-----------------------------------|----------------------------------|--|----------------------------------|--|
| | Consumption | Hydrogen facility consumption | Consumption | Hydrogen facility consumption | Consumption | Hydrogen facility consumption | |
| | GWh | GWh | GWh | GWh | GWh | GWh | |
| 2025 | 6996 | 0 | 7063 | 0 | 7120 | 0 | 1283 |
| 2026 | 7059 | 0 | 7174 | 0 | 7289 | 0 | 1327 |
| 2027 | 7119 | 0 | 7283 | 0 | 7458 | 0 | 1389 |
| 2028 | 7180 | 0 | 7395 | 0 | 7633 | 0 | 1415 |
| 2029 | 7243 | 0 | 7510 | 0 | 7813 | 0 | 1473 |
| 2030 | 7306 | 700 | 7627 | 1400 | 7997 | 2300 | 1562 |
| 2031 | 7372 | 800 | 7750 | 1800 | 8188 | 2800 | 1637 |
| 2032 | 7440 | 900 | 7876 | 2200 | 8385 | 3200 | 1672 |
| 2033 | 7508 | 1100 | 8004 | 2500 | 8588 | 3700 | 1750 |
| 2034 | 7577 | 1100 | 8135 | 2900 | 8795 | 4200 | 1837 |
| 2035 | 7646 | 1300 | 8268 | 3200 | 9007 | 4700 | 1912 |

3. GENERATION CAPACITY DEVELOPMENT IN LATVIA

The planned development of generation capacity in line with the different development scenarios is shown in Figure 4. The figure shows separately large-capacity baseload power plants and distributed, low-capacity gas cogeneration and renewable energy source (RES) power plants. The figure also separately shows the Battery Energy Storage Systems (BESS) that include an 80 MW/160 MWh battery energy storage system for the TSO needs (provision of regulation and balancing services), and the development of merchant-owned private BESS that will participate in the free electric market.

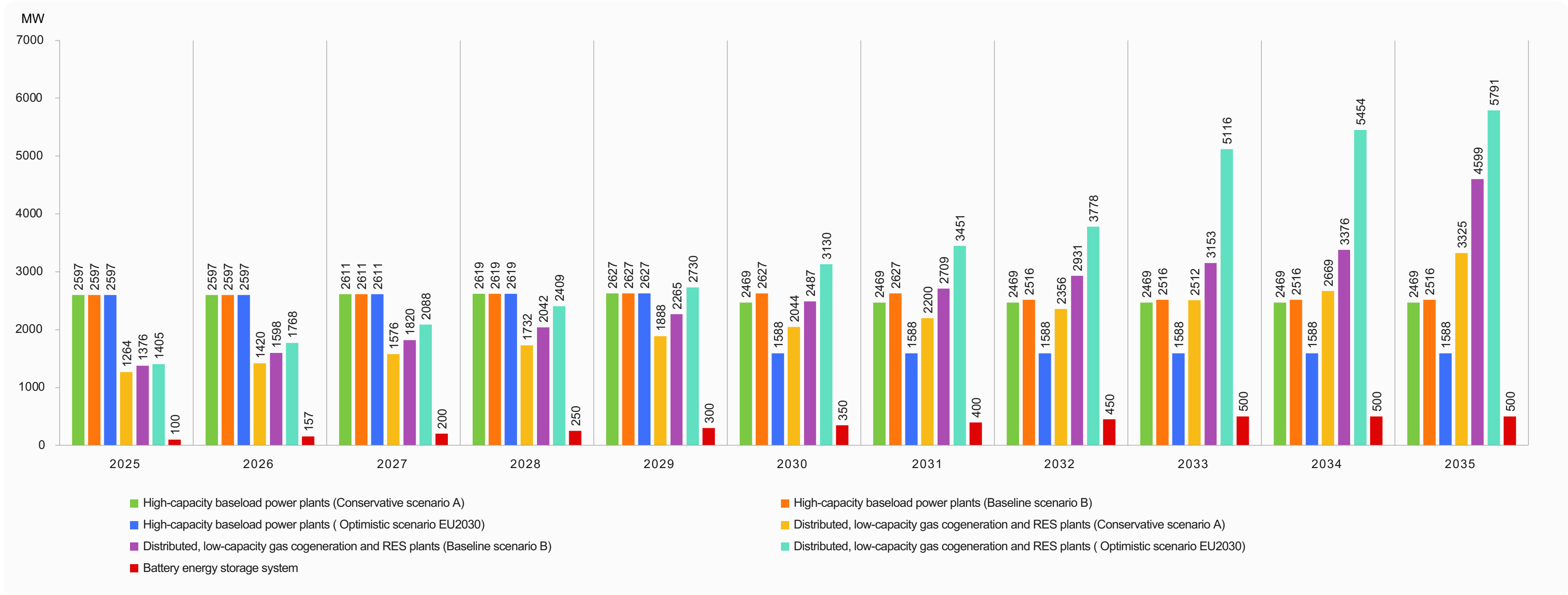


Figure 4. Development of power generation capacity, by scenario (gross)

4. ASSESSMENT OF POWER SUPPLY AND CONSUMPTION ADEQUACY DURING THE REPORTING PERIOD AND FORECAST FOR FUTURE YEARS (MINIMUM FORECAST PERIOD: 10 YEARS)

4.1. Electricity consumption during the year and possible sources for its coverage

The electric power and capacity adequacy forecast, as well as the forecast for electricity consumption were developed for three long-term scenarios, all of which include the Baltic States synchronous operation with continental Europe, which successfully began on 9 February 2025.

Detailed description of the scenarios:

- **Conservative development scenario A:** The electricity system load forecast is based on the information about the development of load and electricity consumption provided by Latvia's distribution system operators and other electricity system participants, including information from electricity system users, which includes those developing the introduction of electric vehicles and installation of new P2X or hydrogen equipment. In the Conservative scenario, system load and consumption grow more slowly. The generation capacity development prediction is based on the opinion of AST experts, considering information about the development plans of electricity system and RES producers. In the Conservative scenario, natural gas power plants are allowed to operate under free electricity market conditions, mostly only working in

cogeneration mode during winter. In the Conservative scenario, the development of wind, biomass, biogas plants, small natural gas cogeneration plants, and solar power plants is planned assuming that the plans of development of each generation source in Latvia are affected by changes in the State support mechanism. The development of offshore wind farms is slow, and TSO assumes that by 2035 offshore wind farm projects will be realized with installed capacity of 500 MW in Latvia. Due to the slow development of the electricity system and the development of new generation capacity in the Conservative scenario, Riga CHP-2 remains in operation to ensure balancing capacity for the entire period in question, while its annual electric power output is reduced. It is assumed in the scenario that Riga CHP-1 is to be shut down from 2030 and not contribute to balancing capacity.

- **Baseline scenario B:** The electricity system load forecast is planned based on the Latvian GDP growth forecast issued by the Ministry of Economics of Latvia, information provided by system participants involved in the energy sector, including information from the electricity system users that introduce electric vehicles and install new P2X or hydrogen production equipment, as well as information about load and electric power consumption trends provided by Latvian distribution system operators. In the Baseline scenario, the growth of consumption is moderate.

The generation capacity development forecast considers power plants that, according to information provided by electricity system participants as well as information about development plans from solar and wind power producers associations, are planned to be commissioned or shut down. As part of the Baseline scenario (B), the output of the Daugava HPPs is based on the average annual output of these power plants, while generation at Riga's two CHPs is planned under the conditions of the free electricity market and the State support provided to high-capacity gas cogeneration plants. Considering the contract concluded by Latvenergo to equip Riga CHP-1 with a cooling system³, the power plant will continue to operate in condensing mode throughout the evaluation period. The development of wind, biomass, biogas, and solar power plants is planned based on interest in the rates of development of generation sources in Latvia in the last three years, and moderate, stable long-term economic development rates of the country. The development of offshore wind farms is progressing moderately and successfully; TSO assumes that offshore wind farm projects, including ELWIND, which is planned to be fully implemented by 2035, will have a capacity of 1000 MW. No development of small natural-gas cogeneration plants is planned and, due to an increase in the price of natural gas and the gas emissions quota policy, the number of small natural-gas cogeneration plants will decrease.

- **Optimistic development scenario EU2030:** The generation capacity development forecast and the increase in electricity system load are based on the Latvian GDP growth forecast issued by the Ministry of Economics of Latvia, information from energy sector system participants, including information from electricity system users introducing electric vehicles and installing new P2X or hydrogen equipment, taking into account the desired generation and load development rates for meeting the European Union's 2050 targets, based on the Latvian Energy Strategy 2050 and the National Energy and Climate Plan 2021–2030 prepared and updated by the Ministry of Climate and Energy of the Republic of Latvia. Compared to Scenarios A and B, the Optimistic scenario is expected to involve faster growth in electric power consumption due to more interest in the purchase of electric vehicles and in electric mobility, replacing existing combustion-engine vehicles. This assumption is made based on the assistance mechanisms for the purchase of electric vehicles adopted by the Latvian government. Furthermore, the Optimistic scenario foresees faster development of hydrogen, electrolysis, and P2X technologies, which will contribute to a more rapid rise in Latvia's electricity consumption after 2030. In this scenario, in addition to the power generation development rates envisaged in Scenarios A and B, future power plants whose commissioning is considered possible according to the information

³ <https://www.eis.gov.lv/EKEIS/Supplier/Procurement/94919>

available to TSO are also taken into account, mainly planning the development of solar and wind power plants based on the information provided by the corresponding associations and the technical requirements issued to power generators. In this scenario, with the inclusion of government assistance and the development of power transmission system infrastructure in the forecast, the development of wind, solar, biomass, and biogas power plants is expected to accelerate, and RES will be able to replace the capacity of Riga CHP-1 and Riga CHP-2, resulting in a transition away from fossil fuels to RES in Latvia. It is assumed as part of this scenario that starting from 2030, Riga CHP-1 and Riga CHP-2 will not be able to compete with RES due to the cancellation of the State support mechanism, thus no longer generating power and not participating in covering maximum loads. The development of offshore wind farms will go faster, and TSO assumes that offshore wind farm projects progress more successfully with more relaxed government rules for the development of wind farm projects. It is assumed that there will be an offshore wind farm project (e.g., ELWIND) fully implemented by 2033, meaning 1000 MW of installed capacity for Latvia.

Note: The power output of power plants is shown as a net value, considering the planned annual maintenance schedules of the power plants.

Assumptions and explanations for the tables:

1) The average multi-year net output of the Daugava cascade hydro power plants (Daugava HPP) is assumed at 2900 GWh per year, based on statistical data.

2) Since February 2025, when the electricity systems of the Baltic States synchronized with the electricity system of continental Europe, the frequency and balancing power reserves (primary, secondary, and tertiary) that the Latvian electricity system needs to maintain are referred to as balancing power reserves.

3) The power reserve necessary to ensure the reliability of the Latvian electricity system was assumed based on the planned load and generation development scenarios, as well as in conjunction with the TSOs of Estonia and Lithuania.

4) The regulation reserve of the electricity system is estimated to be 6% of system maximum load and 10% of the installed capacity of wind power plants, assuming a maximum-load day in winter.

5) For monthly power adequacy evaluation, it is necessary to consider the water inflow to the Daugava HPP. According to the Conservative scenario (A), the lowest average water inflow in January since 2000 was in 2003 (150 m³/s, corresponding to 270 MW of maximum hourly capacity to cover electricity demand). In the Baseline scenario (B), the average water inflow in January is assumed at 200 m³/s, which is equivalent to approximately 350 MW. In the Optimistic scenario (EU2030), the water inflow at Daugava HPP is assumed to be 230 m³/s, equivalent to about 400 MW. For covering the minimum load in June, the same water inflow values are assumed, according to the respective scenario.

6) The capacity table shows the installed capacities of the power plants including their auxiliary consumption capacity (gross capacity), while the other tables show the capacities excluding their auxiliary consumption capacity (net capacity). Gross capacity is the total capacity produced by the main and auxiliary generators of all the power units of a power plant. Net capacity is the gross capacity of a power plant minus the capacity required to power the auxiliary equipment of that power plant and the capacity losses in transformers.

7) The installed and net capacity of wind and solar power plants in the Conservative (A), Baseline (B), and Optimistic (EU2030) scenarios is based on a forecast of the development of large-capacity wind farms provided by

the Ministry of Economics of Latvia, technical requirements for RES development issued by AS 'Augstsprieguma tīkls' and AS 'Sadales tīkls', information from wind and solar associations, as well as the Latvian National Energy and Climate Plan 2030 approved and updated by the Ministry of Climate and Energy of the Republic of Latvia.

8) In the Conservative (A), Baseline (B), and Optimistic (EU2030) scenarios, the net capacity of biomass and biogas power plants is shown on the basis of the technical requirements issued by AS 'Augstsprieguma tīkls' and AS 'Sadales tīkls' as well as the Latvian 2030 National Energy and Climate Plan approved and updated by the Ministry of Climate and Energy of the Republic of Latvia.

9) In the electric power balancing tables for the Conservative (A) and Baseline (B) scenarios, the power output of Riga CHP-1 and Riga CHP-2 is estimated according to the electricity market conditions in the Latvian bidding zone. In the Optimistic scenario (EU2030), the power output of Riga CHP-2 and Riga CHP-1 is estimated to be the maximum possible until 2029: that is, regardless of the market conditions in the Latvian electricity bidding zone, they will produce the maximum possible amount of power annually.

10) The daily power demand tables show the output of Latvian power plants broken down by hours, not including the potential electricity system power reserve (Assumption 3). Power reserves for electricity demand in Latvia will be provided by procuring the necessary reserve from Latvian or Baltic electricity system participants, under competitive conditions.

11) In the Conservative scenario (A), it is assumed that Riga CHP-2 can only operate in cogeneration mode if its maximum net power reaches 803 MW. In the Baseline scenario (B) and the Optimistic scenario (EU2030), the

maximum net capacity of Riga CHP-2 can be as high as 850 MW, if the plant can operate in condensing mode. Due to the heat carrier cooling system planned to be installed at Riga CHP-1 by 2025, it will be able to operate in condensing mode at least until the end of the forecasting period, as part of the Baseline scenario (B).

12) In 2025, Latvia's TSO plans to install BESS for a total of 80 MW/160 MWh, to provide primary (FCR, Frequency Containment Reserve), secondary (aFRR, Automatic Frequency Restoration Reserve), and tertiary (mFRR, Manual Frequency Restoration Reserve) frequency regulation. AST estimates show that the total necessary number of reserves could reach 288 MW, including FCR at ~11 MW, aFRR at ~32 MW, and mFRR at up to 245 MW. The BESS is only intended to provide TSO reserves for synchronization mode until the balancing market in the Baltics can provide sufficient balancing capacity. The amount of energy coming from BESS is not shown in the electric power generation tables.

4.2. International electric power trading amounts, comparing 2024 with 2023/2022

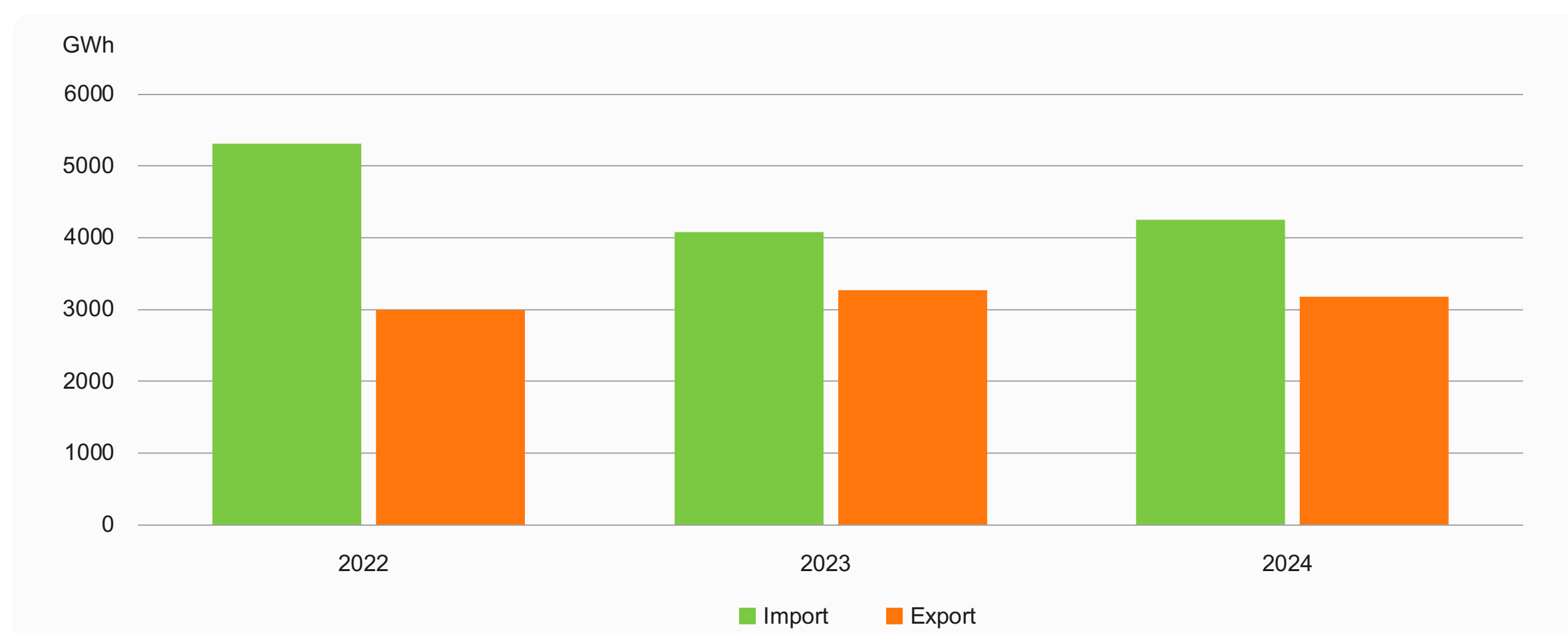


Table 2

| | Electric power exchange | | |
|---------------|-------------------------|---------------|---------------|
| | in 2022 (MWh) | in 2023 (MWh) | in 2024 (MWh) |
| Import | 5,308,232 | 4,075,231 | 4,247,941 |
| Export | 2,996,705 | 3,271,037 | 3,173,622 |

Table 2 shows that power export tended to grow over the last three years. In 2023, export rose 9% compared to 2022, while in 2024, export remained roughly at the same level, with export falling 3% year-on-year. Electricity import also tends to decrease as new RES connect to the transmission network, with import ranging between 4 and 5.3 TWh in 2022 to 2024. In 2024, the difference between exports and imports was -1 TWh.

4.3. TSO assessment for periods in which capacity was not enough to meet demand, with proposals for providing power in future years (power development opportunities in specific locations, consumption management measures, construction of new system facilities)

Being the institution in charge of the electricity system and reliability of power supply as part of the electricity market in Latvia, Latvia's TSO works together with Baltic Sea region countries following the principles of the Nord Pool electricity market, ensures the fulfilment of market transactions in Latvia's trading area and the continuous balancing of power between consumption and generation in Latvia, and monitors and publishes available cross-border capacities for trading with the electricity systems of neighboring countries. Since the revision and updating of the European Union legislation Fit-for-55 energy package proposals, which requires that the development of generation and power adequacy at the national level must be a focus in areas with RES potential to stimulate reductions in the emissions of CO₂ and other greenhouse gases and to facilitate the development of more efficient, competitive power plants, the adequacy of baseload capacity within a single country is not an unambiguous indicator of the generation adequacy; instead, it must be viewed in combination with available throughput for transporting electricity to/from the country or region. In normal operating modes, Latvia's electricity system has sufficient cross-border capacity with the electricity systems of neighboring countries to transmit the forecasted power import or export. In previous years, there were no situations in Latvia in which it was necessary to disconnect electricity consumers or a region due to insufficient generating capacity or insufficient

cross-border capacity with the electricity systems of neighboring countries. Previously, working synchronously with the united power system of Russia and Belarus, Latvia's TSO was able to provide the transmission of the required capacity (consumption) in the Latvian electricity system in all modes, regardless of the generating units operating in Latvia.

An analysis of the provision of power adequacy in the coming years using the Conservative scenario (A) capacity (MW) provision analysis table (Annex 1, Table 2) shows that the generating capacities are sufficient to cover maximum loads, to provide an overall power reserve, and to meet the system regulation and reliability requirements for winter months in 2025–2033. The electricity deficit to arise starting in 2033–2034 ranges from 23 to 36 MW. Latvia's electricity system is almost self-sufficient, with sufficient power adequacy of 98–134%. The Conservative scenario (A) envisages a relatively slower development of RES in the Latvian electricity system, slower economic growth, and the participation of existing cogeneration power plants (Riga CHP-1 until 2029 and Riga CHP-2 in cogeneration mode for the whole period) to cover the electricity balance. TSO analyses the forecast if the electric power produced by Riga CHP-2 and Riga CHP-1 is to be lower than the historical average. Riga CHP-1 (until 2029) and Riga CHP-2 will remain in operation to contribute to covering the maximum load, although the amount of power generated will be relatively small. In the Conservative scenario (A), based on generation development trends, the power surplus will be 8 to 34% by 2033. It is planned that as of 2035, 495 MW of the total net wind power plant capacity will be covered by offshore wind farms whose actual development rates are currently difficult to forecast given that no wind power plant has been installed in the territorial waters of the Baltic States. Due to the slower pace of offshore wind power plant development, it is planned as part of the Conservative scenario (A) that offshore wind

farm operation could start no earlier than 2035 (with a minimum wind farm construction period of approximately 4–6 years, including studies and issuance of government permits), at which time the planned ELWIND offshore wind farm project could be partially implemented or another wind farm project with an installed capacity of up to 500 MW would be completed in its place. During the whole planned period (2025–2035), the power adequacy will be close to 100%, indicating that the generating capacity is enough to cover electric power consumption during peak hours. The Conservative scenario (A) indicates that it is very important not to lose/reduce the existing baseload generation capacity (Daugava HPP, Riga CHP-1, and Riga CHP-2) to ensure electric power balancing in Latvia's electricity system. During the Conservative scenario (A), electric power generation is planned with the assumption that Riga CHP-1 and Riga CHP-2 operate under free electricity market conditions and, given the conditions of free competition, can produce only a part of their maximum possible output. In the Conservative scenario (A), it is assumed that starting from 2030, Riga CHP-1 will no longer be competitive with RES generation, which is why Riga CHP-1 could be shut down. The electric power balancing table (Annex 1, Table 5) shows that the electric power deficit in Latvia's electricity system according to the Conservative scenario (A) ranges from about 588 GWh to 1586 GWh, which could be imported via interconnections from neighboring countries in order to balance the electric power in the system. In the Conservative scenario (A), the power deficit could start falling in 2035 due to the development of offshore wind farms.

The Baseline scenario (B) capacity (MW) analysis table (Annex 1, Table 3) shows that Latvia's electricity system's ability to cover its maximum load during the planned period is questionable. The system export during the entire period ranges approximately from 1 to 34%. It is important not to lose/reduce the existing base-

load generation capacity (Daugava HPP, Riga CHP-1, and Riga CHP-2). In the Baseline scenario (B), it is assumed that the development of offshore wind farms could start gradually from 2035. This assumption is based on ELWIND or another wind farm project being able to be fully implemented from 2035, with the planned installed capacity of the offshore wind farm of 1000 MW. The electric power balancing table (Annex 1, Table 6) shows that in the Baseline scenario (B), the supply of electric power will not be sufficient between 2025 and 2034 (75–97%), while in 2035, with the implementation of ELWIND or another offshore wind farm, the electricity power supply will reach 100%. Before 2035, Latvia will import electricity from the neighboring countries to cover its power balance, and the cross-border capacities with neighboring countries will be sufficient to cover Latvia's power balance. In the Baseline scenario (B), it is assumed that Riga CHP-2 and Riga CHP-1 will be operated under free electricity market conditions.

In the Optimistic scenario (EU2030), the power adequacy (MW) analysis table (Annex 1, Table 4) shows that Latvia's electricity system will be able to cover its maximum load until 2029 (116 to 126%). Assuming that Riga CHP-1 and Riga CHP-2 will no longer be competitive with RES in Latvia and in the Baltic region in 2030, the electricity deficit between 2030 and 2035 will range from 35 to 17% (617 to 349 MW). In this scenario, it is assumed that due to the rapid development of RES, Riga CHP-1 and Riga CHP-2 gas power plants will be shut down in 2030, as RES will be able to replace them, and Latvia will be able to cover the electricity deficit with import from the electricity systems of neighboring countries. The scenario shows that it is important not to lose/reduce the existing baseload generation capacity (Daugava HPP, Riga CHP-1, and Riga CHP-2). The existence of power surplus in Latvia until 2029 indicates that there is a possibility to export capacity to the neighboring countries in order to help these countries cover

maximum loads in their electricity systems. As part of the Optimistic scenario (EU 2030), it is assumed that offshore wind farm development could gradually start from 2033, and offshore wind farm capacity could reach 1000 MW, with ELWIND project implementation. The power adequacy table (Annex 1, Table 7) shows that in the Optimistic scenario (EU2030), the supply of electric power will be sufficient between 2025 and 2029 (166–167%). It is assumed in the Optimistic scenario (EU2030) that starting from 2030, Riga CHP-1 and Riga CHP-2 will be no longer competitive with RES capacities in the region, and these plants will have to be shut down or modernized to renewable energy source (e.g., hydrogen) plants. In the EU2030 Optimistic scenario, it is also assumed that the output of gas power plants is not based on the principles of the electricity market, and in order to ensure the reliability and stability of the Latvian electricity system and supply of electricity in Latvia, they can generate the maximum amount of power, taking into account the annual maintenance schedule of the power plants. Within the Optimistic scenario (EU2030), the need for regulation reserve will rise as the share of onshore wind farms in the Latvian electricity system will increase even more rapidly. Cross-border capacity will be sufficient to export and import electricity from/to the neighboring countries.

The overall reserve of the Latvian electricity system is not included in the analysis of the coverage of daily maximum load in winter. The output of the Daugava HPPs is adjusted and optimized as part of covering daily maximum and minimum loads to minimize possible import and export, while assessing the ability of the Latvian electricity system to balance hourly consumption with the output of power. For the daily adequacy assessment, the output of solar and wind power plants was modelled according to the climate time series developed by ENTSO-E (*PECD 4.1 – Pan-European Climate Database*) for three-year time intervals (2019–2021). For the Conservative scenario (A), it can be concluded that in 2025–2035,

the Latvian electricity system will be able to cover the daily load, and there will be no need to import capacity to cover the daily maximum load (Annex 1, Table 8–10). In the Baseline scenario (B), the Latvian TSO will be able to cover the full daily maximum load from 2025 to 2035 (Annex 1, Table 11–13). It will be possible to cover 100% of the daily load, because the mentioned tables do not include the necessary reserve capacity as it is currently not known exactly which plants will participate in the power reserve market and offer a reserve service. In the Baseline scenario (B), it will be possible, if necessary, to export capacity to the neighboring countries to help them cover their maximum loads during winter months, as the capacities of interconnections enable the export/import of surplus capacity. In the Optimistic scenario (EU 2030), Latvia's TSO will be able to cover full daily load in 2025 (Annex 1, Table 14). Meanwhile, in 2030 (Annex 1, Table 15) and 2035 (Annex 1, Table 16), assuming that Riga CHP-1 and Riga CHP-2 are shut down, there will be a relatively large power deficit during the day. This scenario shows that with an extensive development of RES and offshore wind farms; it is necessary to keep in operation flexible gas power plants capable of providing the power balance in Latvia and covering loads during the hours when solar and wind power plants do not generate power or generate it in limited quantities. In covering maximum loads in winter, the main factors affecting this are the inflow of water at the Daugava HPPs and the wind and solar power plant generation curves.

As part of covering minimum daily loads during summer, the Conservative scenario (A) foresees the shutdown of Riga CHP-1 in 2025 (Annex 1, Table 17), with electricity balance mainly covered by RES power plants: biomass and biogas, wind power plants, Daugava HPPs, small HPPs, solar power plants, and distributed natural gas cogeneration plants, while electricity system regulation is provided by Riga CHP-2. The minimum output of Riga

CHP-2 is assumed to be 170 MW, with which it can provide sufficient power during the day. As part of the Conservative scenario (A), as of 2030, biomass and biogas power plants, small HPPs, wind and solar power plants, Daugava HPPs, small natural gas cogeneration plants operate as baseline power plants, while regulation is provided by Riga CHP-2 (Annex 1, Table 18). The minimum output of Riga CHP-2 is assumed to be 170 MW, with which it can ensure the power adequacy during the day. In this scenario, forced export of electricity to the electricity systems of neighboring countries is scheduled between 06:00 and 08:00, within a range of 19 to 43 MW. In 2035, the Riga CHP-1 baseline power plant is shut down, and balancing power is performed by RES plants, while system balancing is the task of Riga CHP-2. The minimum output of a single power unit of Riga CHP-2 is 170 MW. The electricity system of Latvia will export 350 MWh of power per day (Annex 1, Table 19). As part of covering minimum daily loads during summer, the Baseline scenario (B) foresees the shutdown of Riga CHP-1 in 2025 (Annex 1, Table 20), with power balance mainly covered by RES plants: biomass and biogas, wind power plants, Daugava HPPs, small HPPs, solar power plants, and distributed natural gas cogeneration plants, while electricity system regulation is provided by Riga CHP-2. The minimum output of Riga CHP-2 is assumed to be 170 MW. No forced export to the electricity systems of neighboring countries is planned. As part of the Baseline scenario (B), as of 2030, biomass and biogas power plants, small HPPs, wind and solar power plants, Daugava HPPs, small natural gas cogeneration plants operate as baseline power plants, while regulation is provided by Riga CHP-2 (Annex 1, Table 21). The minimum output of Riga CHP-2 is assumed to be 170 MW, which can provide power balance during the day. There is electricity export to the electricity systems of neighboring countries in the amount of 13 to 81 MW,

with the total amount of electricity at 263 MWh. In 2035 (Annex 1, Table 22), the baseload power plants will remain unchanged, except that due to the development of RES power plants, power balancing can be mainly covered by RES, while Riga CHP-2 will function as a baseload generation plant with a minimum output of 170 MW. In 2035, electricity exports will increase from 33 MW to 237 MW, for a total of 1,432 MWh of electricity. In order to cover the minimum daily load, the Optimistic scenario (EU 2030), which foresees the faster development and use of RES, plans that in 2025, daily power balance will be covered by RES (biomass and biogas, wind power plants, Daugava HPPs, small HPPs, solar power plants, and small natural gas cogeneration plants), with Riga CHP-2 operating as a baseload generation plant at a minimum power output of 170 MW (Annex 1, Table 23). No electricity export is expected, with the operating mode in balance. As part of the Optimistic scenario (EU2030), as of 2030, biomass and biogas power plants, small HPPs, wind and solar power plants, Daugava HPPs, small natural gas cogeneration plants operate as baseline power plants, while Riga CHP-2 operates as a baseload generation plant at a minimum capacity output of 170 MW (Annex 1, Table 24). 21–116 MW of electricity will be exported per day, with total daily power exported at 531 MWh. As of 2035, the baseload power plants will remain unchanged (Annex 1, Table 25): these will be RES power plants, but due to high gas and CO₂ prices, the high-capacity gas power plants Riga CHP-1 and Riga CHP-2 will be shut down, as a result, the Latvian electricity system will be able to cover its load between 06:00 and 13:00 in summer, exporting 1079 MWh, and during the remaining hours of the day importing power at a planned rate of 22 to 600 MW, with 6488 MWh in total. The power export is covered during daytime when power is generated by solar plants.

Increasing RES power generation creates problems in covering daily minimum and maximum loads. At minimum load, providing the electricity system regulation service requires the operation of fast gas power plants (minimum output), which then cover the daily load maximum during evening hours (no solar or wind power). Thus, to ensure the reliability, stability, and balancing of the power system, it is necessary to export the RES power to neighboring electricity systems at minimum load, while at maximum load, RES capacity is insufficient and additional fast regulating gas power plants need to be kept in operation to provide the regulation service.

With RES development, there will be more need for a fast regulated power reserve that can regulate power balance according to the demand of the daily load schedule. In order to obtain a fast regulated power reserve, TSO may procure this service from already existing power plants in Latvia, from power producers in neighboring countries, or provide this service via an installed BESS system, for which based on a market test prepared by Baltic TSOs, Cabinet Decision 674 was adopted on 24 September 2021⁴ in Latvia. BESS in Latvia will be installed at the substations Rēzekne and Tume. Table 3 shows information about the power reserves (MW) necessary and available in 2024.

Table 3

| Month | Maximum required power reserve MW | Available power reserve | |
|-----------|--------------------------------------|-------------------------|--|
| | | Latvia MW | Inter TSO agreement for a period of up to 12 h MW |
| January | 442 | 100 | 342 |
| February | 442 | 100 | 342 |
| March | 442 | 100 | 342 |
| April | 442 | 100 | 342 |
| May | 442 | 100 | 342 |
| June | 442 | 100 | 342 |
| July | 442 | 100 | 342 |
| August | 442 | 100 | 342 |
| September | 442 | 100 | 342 |
| October | 442 | 100 | 342 |
| November | 442 | 100 | 342 |
| December | 442 | 100 | 342 |

⁴ <https://www.vestnesis.lv/op/2021/187.3>

4.4. Transmission system operator's conclusions regarding power generation capacity and the availability of electric power to ensure the supply of all users in Latvia

The power adequacy table (Annex 1, Table 2) shows that, in the Conservative scenario (A), Latvia's electricity system self-sufficiency will be around 108–134% between 2025 and 2032. In 2033 and 2034, electricity self-sufficiency will drop to 98%, with only a negligible electricity deficit expected. Latvia's electricity system will remain very close to covering maximum load, and it will be possible to obtain the necessary small capacity imports from the electricity systems of neighbouring countries. Electric power self-sufficiency will range between 82% and 99% (Annex 1, Table 5).

In the Conservative scenario (A), a generating capacity deficit appears in 2032, resulting from the shutdown of Riga CHP-1 with a capacity of up to 158 MW. In this scenario, there are no plans to close the large gas power plants in Riga before 2029.

In the Baseline scenario (B), between 2025 and 2035, capacity will be provided at a level exceeding 100% (Annex 1, Table 3). However, in this scenario, the sufficiency of generating capacity throughout the evaluation period remains questionable. The supply of electric power between 2025 and 2035 is projected to be between 75% and 100% (Annex 1, Table 6). The deficit in electrical energy will be covered by imports through interconnections with neighbouring countries.

The Optimistic scenario (EU 2030), which assumes economic conditions favourable for the development of RES generation, shows that power adequacy will fluctuate between 116% and 126% until 2029. After the closure of Riga CHP-1 and Riga CHP-2 in 2030, a significant ener-

gy deficit will emerge. Between 2030 and 2035, Latvia's power adequacy will range from 65% to 83% (Annex 1, Table 4). In this scenario, assuming the shutdown of Riga CHP-1 and Riga CHP-2, Latvia will face a significant power deficit ranging from approximately 300 to 700 MW. Once the ELWIND project is implemented in 2033, Latvia's power balance will improve to about 83%.

During 2025–2029, the power generation level will reach 166–167%, indicating that Latvia's electricity system will be able to cover domestic power consumption and help balance the electricity systems of neighbouring countries (Annex 1, Table 7). Under maximum generation mode, Latvia's electricity system will be capable of exporting electricity to neighbouring countries. The electricity deficit in Latvia's system will arise between 2030 and 2035, at around 19–40%, due to the closure of the large-capacity gas power plants in Riga.

4.5. Development of the transmission system in Latvia, considering RES development and necessary connections to the transmission network

There are no plans for the development and commissioning of new fossil fuel power plants in Latvia until 2035, and, according to AS "Augstsprieguma tīkls" available information available, there have been no decisions made for the implementation of large-capacity power plant projects in the Baltic States. At the same time, with the provision of information about potential large-capacity power plant projects in Latvia, the Ministry of Economics and the Ministry of Climate and Energy of the Republic of Latvia pointed out that the updated National Energy and Climate Plan (NECP) and the Energy Development Strategy of Latvia set targets for the

development of wind energy until 2033–2035, expecting at least 1000 MW of new offshore wind energy power plants installed in Latvia. Currently, as already mentioned, there is huge interest from RES producers for connecting to the transmission network in Latvia, which requires TSO to plan the strengthening, modernization, and development of its network. The number of technical requirements issued by AST for connections to the transmission network is evaluated at more than 6 GW, which exceeds the current maximum load of the Latvian electricity system by approximately five times. Therefore, TSO must also plan the development of its transmission network, so that RES produced electricity can be transmitted to Latvian consumers, while surplus power can be exported to the neighboring countries. The development of the joint Latvia–Estonia offshore wind farm project ELWIND also is ongoing, based on the memorandum of understanding signed on 18 September 2020 by the Ministries of Estonia and Latvia responsible for the energy sector. The developer of the ELWIND project in Estonia (KIK investment center) and the Investment and Development Agency of Latvia (LIAA) have started an environmental impact assessment of potential wind farm areas, with European co-financing. Given the level of offshore wind farm technology, it is planned that the installed capacity of the joint Estonia–Latvia wind farm could be more than 2000 MW (1000 MW in Latvia and 1000 MW in Estonia). Taking into account the development of the ELWIND project and the development trends of other RES projects in Latvia and Estonia, the transmission system operators of the two countries (AS Augstsprieguma tīkls and AS Elering, respectively) continue their work on the fourth electricity interconnection development between Latvia and Estonia, which is planned to be constructed in the Baltic Sea as an offshore HVAC solution, to increase the transmission capacity between Latvia and Estonia. The fourth Estonia–Latvia interconnection project is included in the ENTSO-E Ten-Year Network Development Plan 2024

together with strengthening infrastructure projects. The project is also included in the list of Europe's Projects of Common Interest / Projects of Mutual Interest (PCI/PMI), which is the main precondition for future EU co-financing from CEF (Connecting Europe Facility) funds, to be allocated to the construction of the transmission infrastructure. The ELWIND offshore wind farm project is scheduled to be completed until 2033–2035, while the fourth Estonia–Latvia interconnection is planned to be completed by 2035. Currently, AST and Elering have started the technological and cost-benefit analysis studies to select the best interconnection technical scenario from a feasibility point of view. It is planned to start the sea environmental impact assessment in 2026, with CEF co-financing, for which AST and Elering applied under the CEF-2025 call. In relation to the implementation of ELWIND and other RES projects in Latvia, especially in the Kurzeme region, it is necessary to reinforce the internal and external transmission network of Latvia, including the reconstruction of the existing interconnection between Latvia and Lithuania Grobiņa (LV)–Darbenai (LT), and the construction of a new internal transmission line between Ventspils and Brocēni and a new interconnection between Latvia and Lithuania Brocēni–Varduva. It is also evaluated that the existing transmission infrastructure will stimulate the construction of other wind farms in the region, as the building of network infrastructure can enable other potential wind farms to connect in the same region. In 2024, the TSOs of Latvia and Lithuania (AST and Litgrid, respectively) carried out a feasibility study of the necessity to develop the Latvian-Lithuanian power transmission network in the context of the rapidly growing interest in RES and significant interest in hydrogen facility development, for which the technical requirements have already been issued, with the conclusion that the implementation of the Ventspils–Brocēni–Varduva and Grobiņa–Darbenai projects are essential from a network development perspective in the near future, by 2032. Based on this, in autumn 2024, AST started

the environmental impact assessment process for the Ventspils–Brocēni–Varduva line in the territory of Latvia, prepared all the necessary procedures with the public and competent authorities, and after the procurement procedures were completed in May 2025, a contract was signed with the environmental consultant ELLE (Estonian Latvian Lithuanian Environments) for the preparation of the Environmental Impact Assessment (EIA) and Right of Way studies for the Ventspils–Brocēni–Varduva line. The EIA study is funded by Europe’s RePowerEU Recovery and Resilience Facility fund and is to be completed by May 2026. The completion of the Ventspils–Brocēni–Varduva project itself is planned by 2032. Both these projects (the fourth interconnection between Estonia and Latvia and Ventspils–Brocēni–Varduva) are included in Latvian and European development documents, making it possible for them to apply for European co-financing from CEF funds in the future.

Given Latvia’s offshore wind power potential, estimated at 15 GW, it is important in the development of large-capacity offshore wind farms to develop interconnections with neighboring countries in order to contribute to the EU’s goal of integrating the electricity market and ensuring system reliability and stability, and to foster the use of RES in the region. Therefore, Latvia must continue to develop interconnections not only with the Baltic States, but also with other EU countries.

AST continues the development of the high-voltage direct-current (HVDC) interconnection project with Sweden. The expected implementation timeline of the project is 2040. The Latvia–Sweden power interconnection (LaSGo link: Latvia–Sweden–Gotland) is an electricity transmission infrastructure project essential not only for Latvia and Sweden, but also for the whole Baltic Sea region, especially after the Baltic States’ synchronization with the electricity system of continental Europe, especially in the context of rising risks of power transmission

cable sabotage cases and rising a large share of RES. Taking into account the planned Baltic Offshore Grid Initiative (BOGI), the expected increase in power consumption, the development of the electricity market, and the achievement of the n-1 reliability criterion, it will be necessary in the long-term to reinforce the transmission network and construct new interconnections between Baltic Sea region countries. Latvia is currently the only Baltic State that does not have electricity interconnections with the Nordic countries or the continental European electricity system. The Latvia–Sweden interconnection is planned to be developed in an HVDC offshore cable solution. In 2024, AST prepared the dynamic stability, technological solution and an economic study with cost-benefit analysis, which demonstrated the project’s viability and benefits not only for Latvia and the Baltic States, but also for Sweden. The Swedish TSO Svenska Kraftnät (SvK) was informed of the study results and agreed to continue working on the development of the project, with its inclusion in the European development documents. Sweden still does not give a clear answer regarding the possibility of developing this project in the long-term, citing the need to reinforce the internal transmission network of Sweden, which is currently a priority for SvK. However, in the long-term (by 2040), the project has high benefits, and it will require several studies, with cooperation between the TSOs, and support from the energy ministries in both countries. One of the options for implementing the project is a hybrid solution that would make it possible to connect offshore wind farms to the transmission network in the future, in line with the goals of the Offshore Network Development Plan, developed by ENTSO-E in 2024 and the Baltic Offshore Grid Initiative. The interconnection capacity between Latvia and Sweden is planned at up to 700 MW. The project has a high probability of receiving EU co-funding for more detailed project studies and for a full cost-benefit analysis for future project implementation.

On 9 May 2023, taking into account the dramatic growth of RES in the Baltic States and the possibility to export produced RES energy to deficit countries, the Baltic TSOs (Elering, AST, and Litgrid) signed a multilateral letter of intent with German TSO 50Hertz, with the goal of establishing a power transmission interconnection between the Baltic States and Germany through the Baltic Sea, in order to increase cooperation and take common steps towards energy independence in EU Member States. The project is very ambitious and challenging, and could be implemented on a regional level, because none of the Baltic TSOs would be capable of implementing a project of this scale on their own. Two project alternatives are currently being studied:

- Baltic WindConnector, which envisages the construction of a power transmission interconnection between Germany, Estonia, and Latvia in the Baltic Sea, with a ~800 km long transmission cable;
- BalticHub, which involves the construction of an electricity transmission interconnection between Germany, Lithuania, and Latvia, with a ~600 km long cable leading up to the border between Latvia and Lithuania.

Both projects are included in ENTSO-E Ten Years Network Development Plan to prepare project cost-benefit analyses, and are currently in the initial assessment phase, which requires a lot of studies. In 2025, Litgrid, AST, and 50Hertz started a financial study of BalticHub, to understand the possible options for project financing (see Figure 5). Once both projects are fully evaluated and studied, Latvia will decide and participate in one of the Baltic–German projects in the future, based on the results of the evaluation. The development of the Baltic-German project would play an important role in the context of the increasing share of RES and high-capacity hydrogen users in the whole Baltic Sea region. In the long term, it will be necessary to reinforce the transmission network and develop new interconnections between

Baltic Sea region countries to contribute to accomplishing the EU’s common goals for a single and integrated electricity system.



Figure 5. Potential transmission network development project Baltic Hub

The development of large-capacity offshore wind farm projects by 2030–2035 is planned among the Baltic States, Estonia, and Lithuania, as well as other Baltic Sea countries, and there is a notable trend for the development of offshore wind farms in the next decade. Therefore, the power transmission system operators in the Baltic Sea region, including AST, continue to work on the development of Baltic Sea region offshore transmission infrastructure (Baltic Offshore Grid Initiative, BOGI), currently not only in the context of developing offshore wind farms, but also in the context of protecting this infrastructure as critical regional infrastructure. The BOGI initiative aims to develop common planning principles for the Baltic Sea transmission grid, and to conduct studies that will form a vision for the development and construction of a common Baltic Sea transmission network and enable it to be included in the European ten-year power

transmission network development plan, as well as other European and national planning and development documents. The goals and tasks of the BOGI group also envisage closer cooperation with government institutions in charge of energy in the future, for the implementation of development projects.

In 2025, the BOGI group prepared a position paper regarding the implementation of the offshore transmission network, which includes current and potential offshore interconnections and internal transmission network projects. According to the Baltic Energy Market Interconnection Plan (BEMIP) study, the Baltic Sea offshore wind potential exceeds 90 GW, and the total annual power production could be as high as 325 TWh. In Latvia, potential development projects (i.e. the LaSGo project, the fourth Estonia–Latvia interconnection, as well as the Baltic-German interconnection projects and other potential long-term projects in the Baltic Sea region, see Figure 6) have been identified as part of the BOGI initiative. Some of the projects could be implemented in a common solution, and more detailed technical and economic solutions must be researched in the nearest future. As part of BOGI, TSOs have agreed to coordinate the development of offshore infrastructure and pursue the achievement of the goals set by the member states, demonstrating the unity of TSOs and their willingness to work together to move towards the decarbonization of the European Union and to reduce dependence on imported electricity. The ministries responsible for the energy sector in the EU member states of the Baltic Sea region are aware of the TSO initiative and are ready to support the development of infrastructure in this region.

The EU has adopted the Clean Energy Package (CEP) strategy (COM/2015/080⁵), which envisages the gen-

eration of a certain quantity of electricity using RES by 2030, setting targets for 2050. This means that cooperation between the TSOs of neighboring countries is needed to ensure the effective and economic development of the transmission network and construction of connection points. EU Member States have developed and expanded their national energy and climate plans (NEKP⁶) that include the long-term development of wind power, which is why the work on building cooperation must begin immediately. The goal of the initiative is to facilitate the construction of interconnections at the same time, which will ensure the transmission of the power produced by wind power plants to consumption centers and the construction of new interconnections.

In January 2024, ENTSO-E developed and approved the first European Offshore Network Development Plan (ONDP) in line with European legislation, which considers the goals and trends of the development of offshore wind farms in all EU countries. ONDP focuses on the development of the offshore infrastructure of the member states, which will be further developed, assessed, and considered in transmission network long-term planning. Similarly to Europe's Ten-Year Network Development Plan, ONDP is prepared once every two years, and in the future, it will be included in the European ten-year development plan, while the development of onshore and offshore infrastructure will be jointly coordinated as part of the European ten-year plan document, with Latvian projects following the Baltic Sea regional investment plan.



Figure 6. Potential transmission network development projects in Latvia

4.6. Transmission system operator conclusions regarding power generation capacity and the availability of electric power in the European Union and at regional level

In 2024, the power generation adequacy at regional level was assessed by ENTSO-E, and AST, as a full member of ENTSO-E and the government institution in charge of ensuring the power adequacy, contributed to the drafting of the report by providing input data about Latvia's electricity system. The European Resource Adequacy Assessment 2024 (ERAA 2024) involved the

market modelling as a single market model of 36 countries. The ERAA assessment was prepared for four target years: 2026, 2028, 2030, and 2035. Each target year represents a different time and simulation scenario, and these are not linked to other scenarios. The ERAA assessment of power adequacy was divided into two stages using Monte Carlo mathematical analysis. First, an economic viability assessment (EVA) of capacity resources was prepared, solving the problem of optimum long-term generation development and planning. During the second stage, the power adequacy was evaluated for 30 different climate-year scenarios for 4 target years, to better identify those scenarios where problems with electric power supply to consumers could happen. A full version of the European Resource Adequacy Assessment report is available in English on the ENTSO-E website⁷.

ERAA 2024 showed that in accordance with the development scenarios and the methodology used, many fossil power plants will become uneconomical by 2030, due to the large RES capacity installed. Figure 7 shows the planned increase of solar and wind capacity between 2026 and 2035, resulting in almost 1000 GW of additional RES capacity installed, in accordance with European TSO forecasts. There is still a risk that the amount of fossil fuel power plants shut down due to economic reasons may create a risk of insufficient capacity due to inadequate flexibility of the system.

⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2015:80:FIN>

⁶ <https://www.kem.gov.lv/lv/nacionalais-energetikas-un-klimata-plans-2021-2030-gadam>

⁷ <https://www.entsoe.eu/outlooks/eraa/2023/eraa-downloads/>

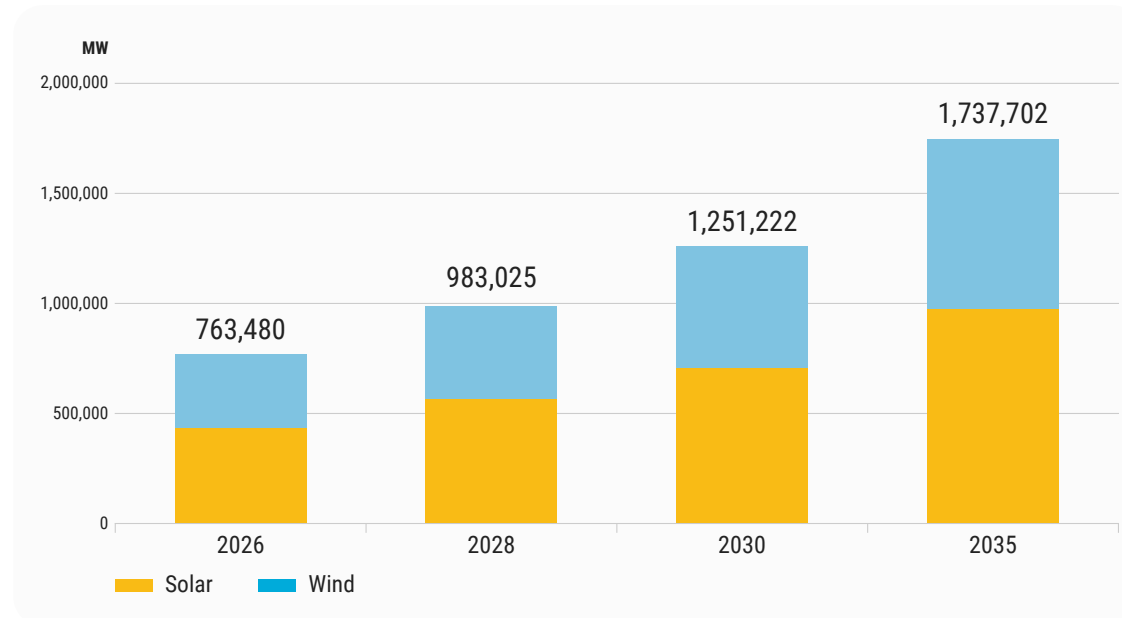


Figure 7. LOLE values for 2026, 2028, 2030, and 2035

The results of the EVA showed that a significant number of fossil fuel power plants in Europe, totaling some 65 GW, are at risk of shutting down due to economic reasons. Meanwhile, for the later target years 2030 and 2035, the system will need additional new generation capacity that can be regulated, such as closed-cycle gas turbines or high-capacity batteries. ERAA simulations showed that an additional 70 GW of gas power plants are necessary to connect to the system by 2035 to cover the electricity consumption at hours with less RES generation. But even in this scenario, gas plants struggle to cover their own costs, as the operating time of many plants does not exceed 500 maximum-capacity hours. The reason for this is the cost-cutting approach to modelling. The profit maximization approach will be used in future versions of the ERAA, capable of better representing the potential situation in the future.

The results of the evaluation of the Latvian electricity system show that 140 MW of natural gas power plant capacity could be shut down or stopped across all target years. In Estonia, this risk affects 860 MW of oil shale power plant capacity, and only for 2026, indicating that this capacity will be needed in the future, despite the low economic viability of these plants in the coming years. In Lithuania 90 MW of gas power plants were identified as being at risk in the coming years, although this capacity will be necessary in the long term. EVA is an as-

essment of economic sustainability whose results show the capacity installed in power plants that is becoming unprofitable and cannot remain in place long-term given the expected economic conditions. The EVA analysis did not identify any need for developing new generation technology in the Baltic States for any of the simulated time intervals.

The power adequacy is evaluated using the Loss of Load Expectation (LOLE) value calculated for every price zone. It is described by the expected number of hours of insufficient power generation (capacity). European Union guidelines set different LOLE values for different countries, within a range of 3 to 9 hours per year. The permitted value for Latvia is 3 hours per year, while it is higher in Estonia and Lithuania, at 9 and 8 hours per year respectively, where the value is based on internal studies in these countries (see Figure 8). The figures show that LOLE probability in Latvia is only present in the 2035 scenario, and is only 0.3 hours per year, in line with European Union guidelines. In Estonia, the annual LOLE value reaches 3 hours in 2026. In 2028, Estonia's LOLE rises to a maximum level due to insufficient generation and increased consumption; however, as the amount of RES rises, LOLE will fall by 2030 and 2035. LOLE in Lithuania is 8.9 to 19.2 hours per year. The value peak is in 2026 and then falls as the number of renewable power plants increases.

ERAA 2024 showed that, in accordance with the development scenarios and methodology used, a large number of fossil-fuel power plants will become uneconomical by 2030 due to the significant increase in RES capacity. Figure 7 illustrates the planned increase in solar and wind capacity between 2026 and 2035, resulting in nearly 1,000 GW of additional RES capacity installed, in line with European TSO forecasts. However, there remains a risk that the shutdown of fossil-fuel power plants for economic reasons may lead to insufficient capacity due to the system's inadequate flexibility.

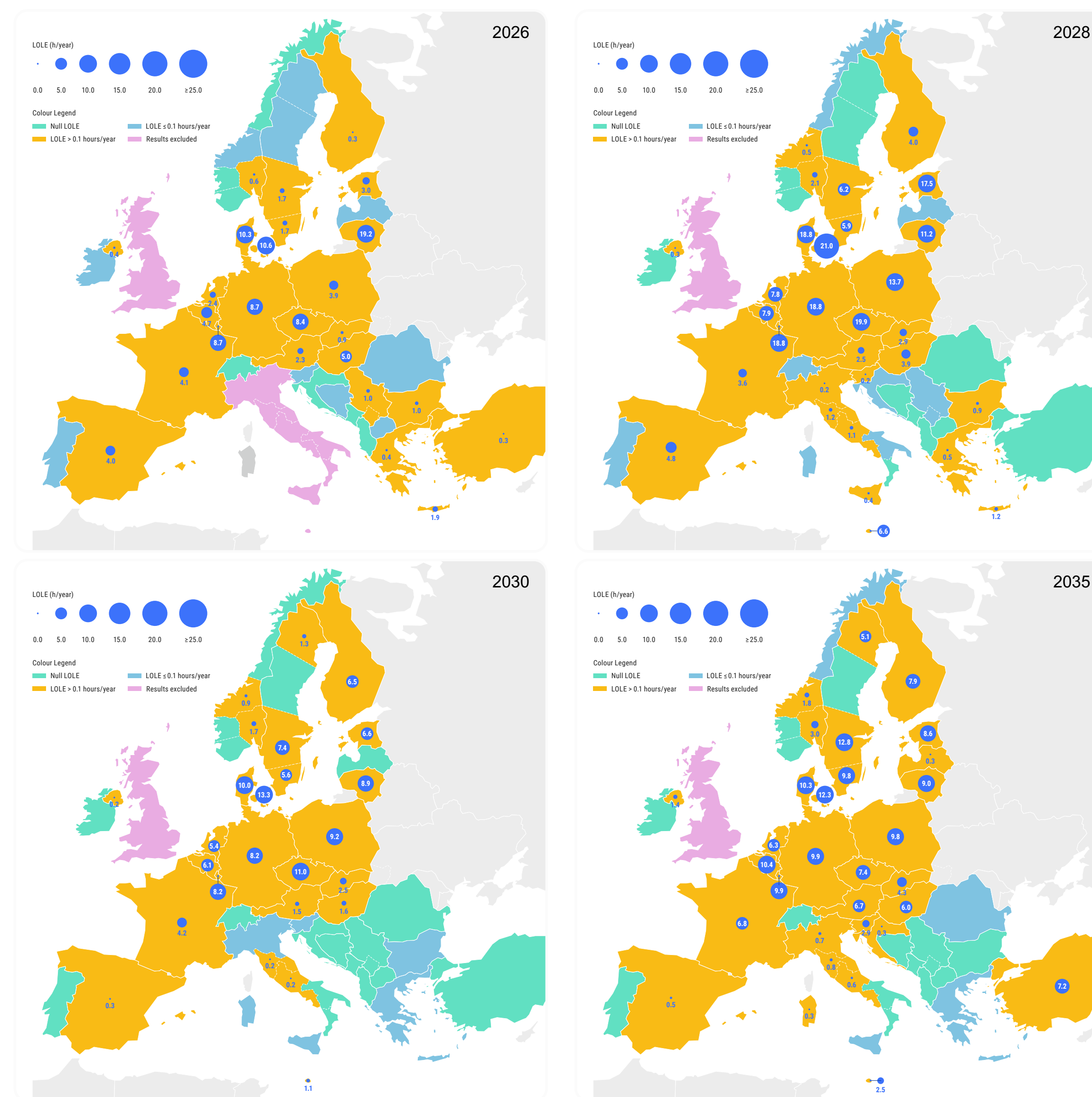


Figure 8. LOLE values for 2026, 2028, 2030, and 2035

5. TRANSMISSION SYSTEM ADEQUACY WITH DEMAND AND MAINTENANCE QUALITY

5.1. TSO's conclusions regarding the transmission system adequacy for the tasks of electricity transmission and its ability to ensure the uninterrupted functioning of the power system in the event of an outage in one of the system facilities, as well as the measures (individual measures and joint measures with other transmission system operators) for the reliable operation of the transmission systems in the coming years (minimum forecast period: 10 years)

On 8 February 2025, at 9:09, the Baltic power systems disconnected (desynchronized) from the IPS/UPS (Integrated Power System / Unified Power System) of Russia and Belarus and BRELL ring, and on 9 February 2025, at 14:05, the Baltic States power systems successfully synchronized with the electricity system of continental Europe. The project of synchronizing the Baltic States with continental Europe and desynchronizing it from the IPS/UPS system was an approximately 20-year project, and it was a top-priority project for Latvia and the Baltic States. In 2018, the common Baltic States, Poland and European Commission political decision was made to synchronize the Baltic States in December 2025, and in 2023, following the war that started in Ukraine in 2022,

the Baltic TSOs prepared accelerated synchronization studies to identify the best time for accelerated synchronization, from a reliability and stability perspective. In 2023, a political decision to start synchronization in February 2025 was made, by which time most of the synchronization projects would be completed. The construction and implementation of the energy infrastructure necessary for the synchronization was prepared in 2 phases: the first phase included the reinforcement of the Baltic transmission network and increasing the power system management and control functions, and the second phase included the construction of additional Baltics-Europe interconnections and infrastructure for the provision of reliable and stable operation of the Baltic States in synchronous operation with continental Europe. As part of the first phase of the synchronization, additional projects were implemented to increase the cross-border transmission capacity between Latvia and Estonia in order to reinforce the Baltic transmission network, with reconstruction of the 330 kV Valmiera (Latvia)–Tartu (Estonia) interconnection, completed in July 2023 and commissioned in November 2023. In June 2024, the reinforcement of the 330 kV Latvia–Estonia interconnection Valmiera (Latvia)–Tsirguliina (Estonia) was completed and energized and officially commissioned in November 2024. The work on the extension of the cross-border transmission capacity between Latvia and Estonia was fully completed in December 2024 with the completion of the reconstruction of Estonia's internal 330 kV transmission line Tsirguliina–Vīru, eliminating limitations present in the internal transmission system of Estonia. The situation in the future may be affected by

the demand for RES power producer connections, which will have an impact on the reinforcement of the Estonia–Latvia cross-border.

The Latvia–Lithuania cross-border is currently sufficient for electricity trading and does not create any additional problems for transporting electricity in normal operation conditions. However, in the long-term period, the Latvia–Lithuania cross-border capacity will have to be reinforced to ensure the large number of connection applications from RES producers and hydrogen consumers, so that the RES generation can be transferred to electricity consumers in Latvia and Lithuania, including high-capacity hydrogen users. In January 2024, in order to determine if there is a need for reinforcement of the Latvia–Lithuania cross-border, given the development of RES and hydrogen users in the two countries, AST and Litgrid completed a technical study of both power systems, including network and market modelling and concluded that in the short-term the network strengthening with reconstruction of the Grobiņa (LV)–Darbenai (LT) interconnection and the construction of a new Brocēni (LV)–Varduva (LT) interconnection are essential. In November 2024, given the need to increase the transmission capacity between Latvia and Lithuania, AST started an environmental impact assessment for the interconnection Ventspils–Brocēni–Varduva in the territory of Latvia.

Following the desynchronization from the Russian united electricity system on 8 February 2025, the 330 kV interconnection Rēzekne–Velikoretskaya between Latvia and Russia was disconnected and the wires of the line at the

respective Russia–Latvia border section were cut out and removed, leaving the part of the line in Latvia under safe voltage to prevent the materials of the line from being stolen. With this, Latvia's participation in the BRELL ring was ended and will not be resumed in the future, while the existing 330 kV line in Latvia will be used for the connection of new RES producers or high-capacity hydrogen users in the future.

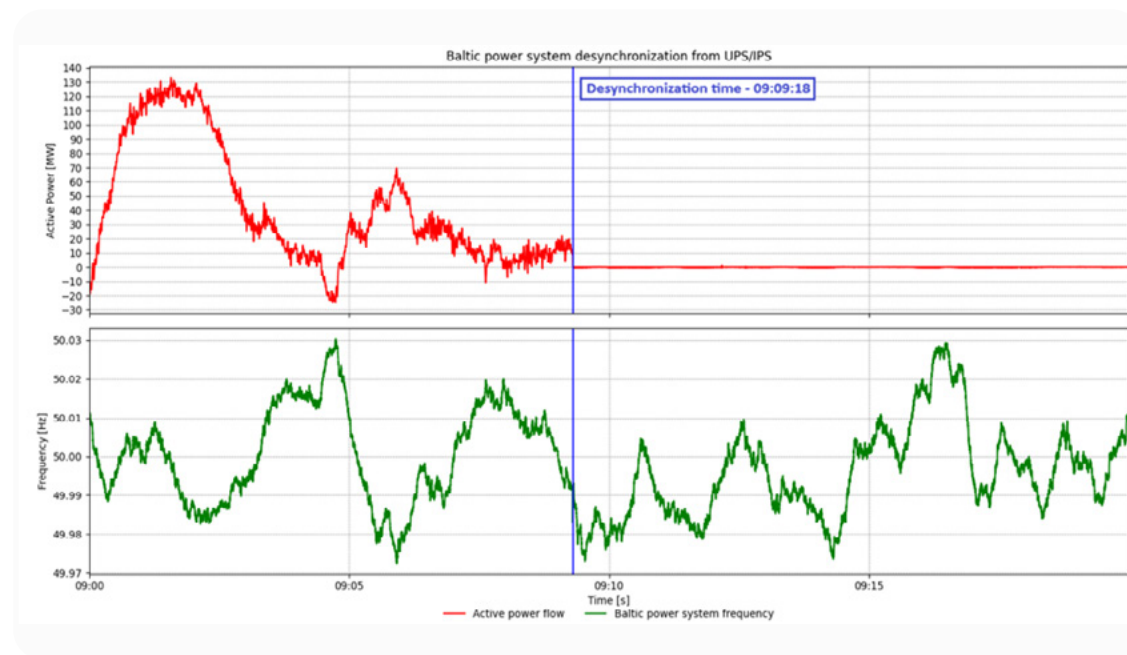


Co-funded by
the European Union

Considering Latvian and Baltic RES producer and high-capacity hydrogen user development trends, developing the cross-border transmission capacity with Estonia and Lithuania will still not be sufficient, and the development of Latvia's interconnections with other European countries is essential, with the construction of new interconnections with Sweden and Germany being critical goals.

5.2. Information about planned system interconnections and internal transmission system infrastructure projects of strategic importance (minimum forecast period: 10 years)

On 8 February 2025, at 9:09, the Baltic States desynchronized from Russia's unified power system (Figure 9)



On 9 February, at 14:05, the Baltic States synchronised with the continental Europe power system via interconnection LitPol link between Poland and Lithuania

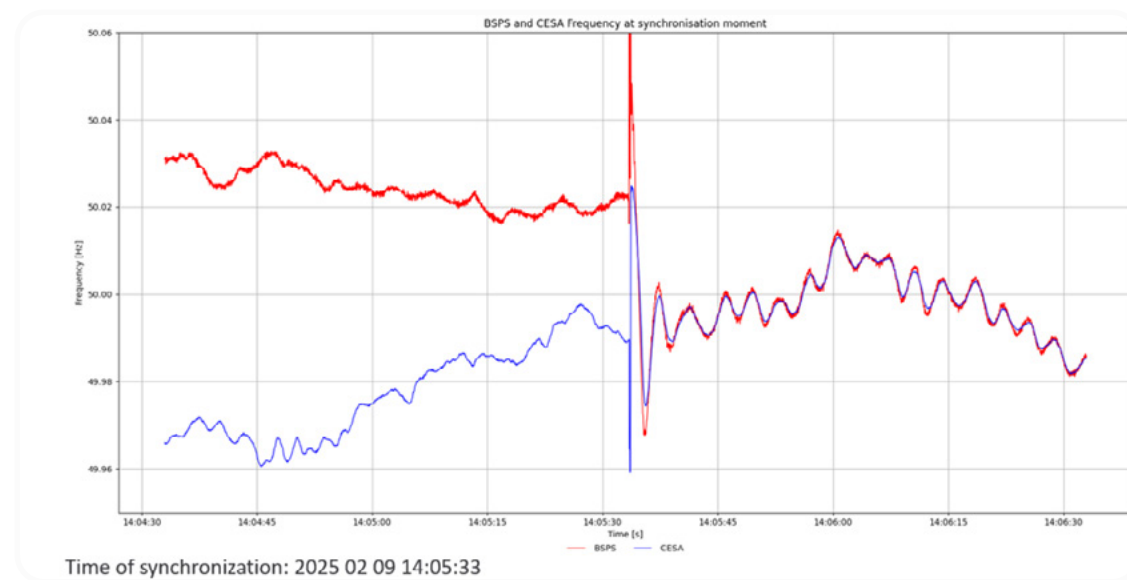


Figure 9. Desynchronization from IPS/UPS and synchronization with continental Europe

On 8 February 2025, at 9:09, the Baltic States desynchronized from IPS/UPS power system, and on 9 February, at 14:05, the Baltic States synchronized with the electricity systems of continental Europe via the LitPol Link interconnection between Poland and Lithuania (see Figure 9). The historic moment of synchronization was attended by the presidents of the Baltic States and Poland together with the president of the European Commission, Ursula von der Leyen, as Europe's support for the synchronization, financial as well as political, was invaluable (see Figure 10).

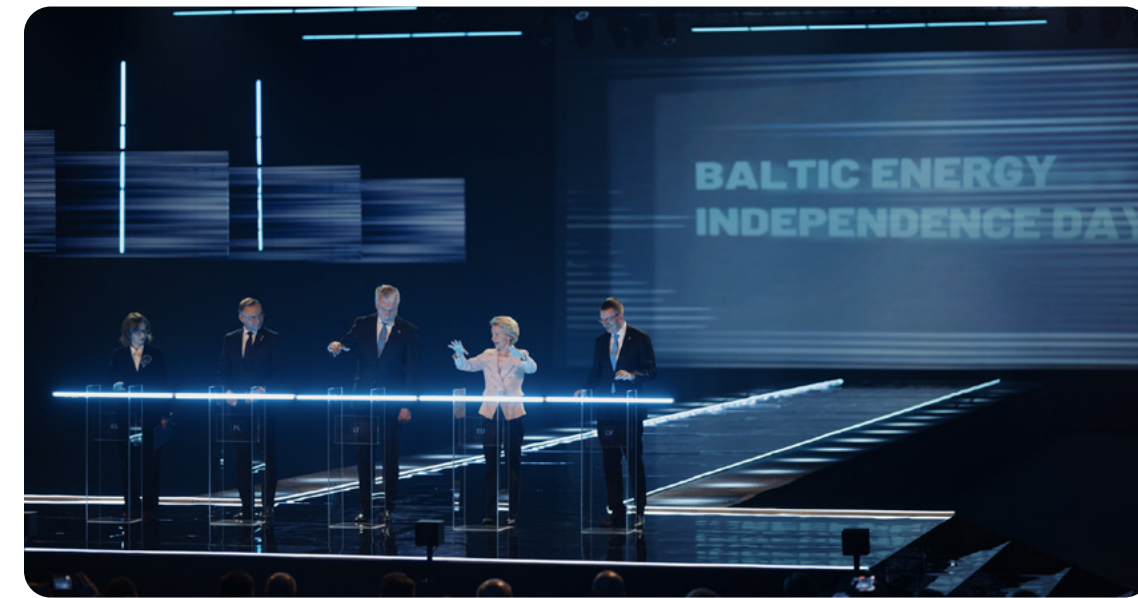


Figure 10. Opening ceremony of Synchronization with continental Europe

Originally, the synchronization with continental Europe was planned for the end of 2025, but with political decisions in 2023, it was decided to synchronize Baltic power systems with continental Europe in February 2025, with completion of strategic importance projects needed for the synchronization, to provide reliable and stable operation of the electricity system. The remaining projects necessary for synchronization will be completed by the end of 2025. The Baltic synchronization with continental Europe and the desynchronization from IPS/UPS system was done with co-financing from the Connecting Europe Facility (CEF), and the synchronization project was divided into two phases, where the first phase was related to the reinforcement of the internal Baltic transmission net-

work, and the second phase, to the construction of the Harmony Link interconnection between Lithuania and Poland, as well as other measures to provide the reliability, stability, and frequency regulation for the electricity systems of the Baltic States (Figure 11). The Harmony Link interconnection between Lithuania and Poland will be implemented by 2030–2032 in a high-voltage alternating current (HVAC) onshore solution, as decided in 2024.

As part of the first phase of the synchronization project, the existing Estonia–Latvia interconnection Valmiera–Tartu was reconstructed in Latvia in 2023, and the existing Latvia–Estonia interconnection Valmiera–Tsiguliina was reconstructed in 2024, and one synchronous condenser was constructed in Ventspils in 2025. Also in 2025, it is planned to complete and commission a frequency stability assessment system (FSAS). Transmission network remote control and power management systems were modernized by installing phasor measurement units (PMU) and a wide area monitoring system (WAMS) at all major objects, as well as it is planned to complete the installation of the automatic generation control (AGC) facility. All mentioned projects were implemented with 75% European CEF co-financing and are included as requirements in the ENTSO-E list of technical catalogues of measures.

The second phase of the Baltic synchronization project, also with 75% European co-financing, includes the construction of a new interconnection between Poland and Lithuania (Harmony Link), the development of the infrastructure necessary to connect the interconnection to the transmission network, the strengthening of the transmission network in Lithuania and Poland, the installation of synchronous condensers in the Baltic States, the installation of battery energy storage systems (BESS) in Latvia, and the installation of frequency regulation equipment and IT infrastructure. In January 2025, as part of

the second phase of the synchronization project, AST constructed and commissioned a synchronous condenser in Grobiņa, while the last synchronous condenser in Līksna was completed in September 2025; the synchronous condenser was connected to the transmission network, and commissioning tests were begun in July 2025. In February 2025, as part of the second phase of the synchronization project, AST installed a SCADA load frequency controller (LFC) system and in December 2024, upgraded the system protection automatics and under frequency load shedding automatics in Latvia. By September 2025, as part of the second phase of the synchronization project, AST plans to complete the modernization of the instrument transformers and metering system and in October 2025, the commissioning of two battery energy storage systems (BESS) in Rēzekne and Tume is also planned to be completed. The total of 80MW/160MWh of BESS will be installed in two substations in Latvia: one 20 MW/40 MWh BESS at the Tume substation and another 60 MW/120 MWh BESS at the Rēzekne substation, and now reconstruction of both substations for connecting the BESS to the transmission network is also ongoing. The contract with the constructor Rolls-Royce Solutions GmbH ('Rolls-Royce') was signed on 16 February 2024. The equipment for the Rēzekne and Tume BESS projects was delivered, and installation works were completed, and the commissioning tests began in June 2025. The projects are expected to be fully completed in October 2025. The BESS installation is necessary due to Latvia's and the Baltic power systems synchronization with continental Europe, and AST will have the possibility to provide frequency regulation and balancing power reserves to ensure the reliable and stable operation of the system, and to provide frequency regulation and restoration reserves, which are not yet a well-developed product in the Baltics, and there is a significant risk that the availability of such reserves will be insufficient, causing a significant increase

in AST's costs. Thus, on 24 September 2021, in order to eliminate the risk to the implementation of the synchronization project, Cabinet Decision No. 674⁸ allowed AST to acquire, develop, manage, and operate battery energy storage systems to guarantee the availability of necessary reserves during the implementation of the synchronization project and until such reserves can be acquired at a reasonable price on the market.

The infrastructure implemented as part of the synchronization project is considered as critical infrastructure, and its outages could trigger irreversible processes from a reliability and stability point of view, and this infrastructure should be protected by TSO. In 2024, witnessing the damages to the energy infrastructure in Ukraine, as well as the numerous instances of damage to energy and other coastal infrastructure in the Baltic Sea, including power cable sabotages, caused by the irresponsible actions of third parties, the TSOs of the Baltic States and Poland, with the support of their ministries responsible for the energy sector, started activities for the protection of critical synchronization infrastructure, developing a methodology to protect the existing critical synchronization infrastructure and identifying future projects before the implementation to protect that infrastructure. The implementation of these projects is expected by 2029, and for this purpose, the TSOs of the Baltic States plan to obtain European co-financing from European structural funds.

As part of the project to protect critical synchronization infrastructure, AST plans to implement the following projects:

- 330/15 kV reserve transformer for connecting synchronous condensers.
- Two 330 kV autotransformers.
- Mobile pylons.
- Video surveillance and video analytics systems.

- Upgrading of security systems.
- Access control systems.
- Measures to improve physical security (double fences, etc.);
- Measures to protect critical infrastructure.
- Drone detection systems; drones for conducting site inspections.
- Shelters for personnel.

In addition to the above-mentioned projects to protect critical synchronization infrastructure, there are other projects planned under protecting and reserving existing infrastructure, such as the procurement and operation of mobile substations.

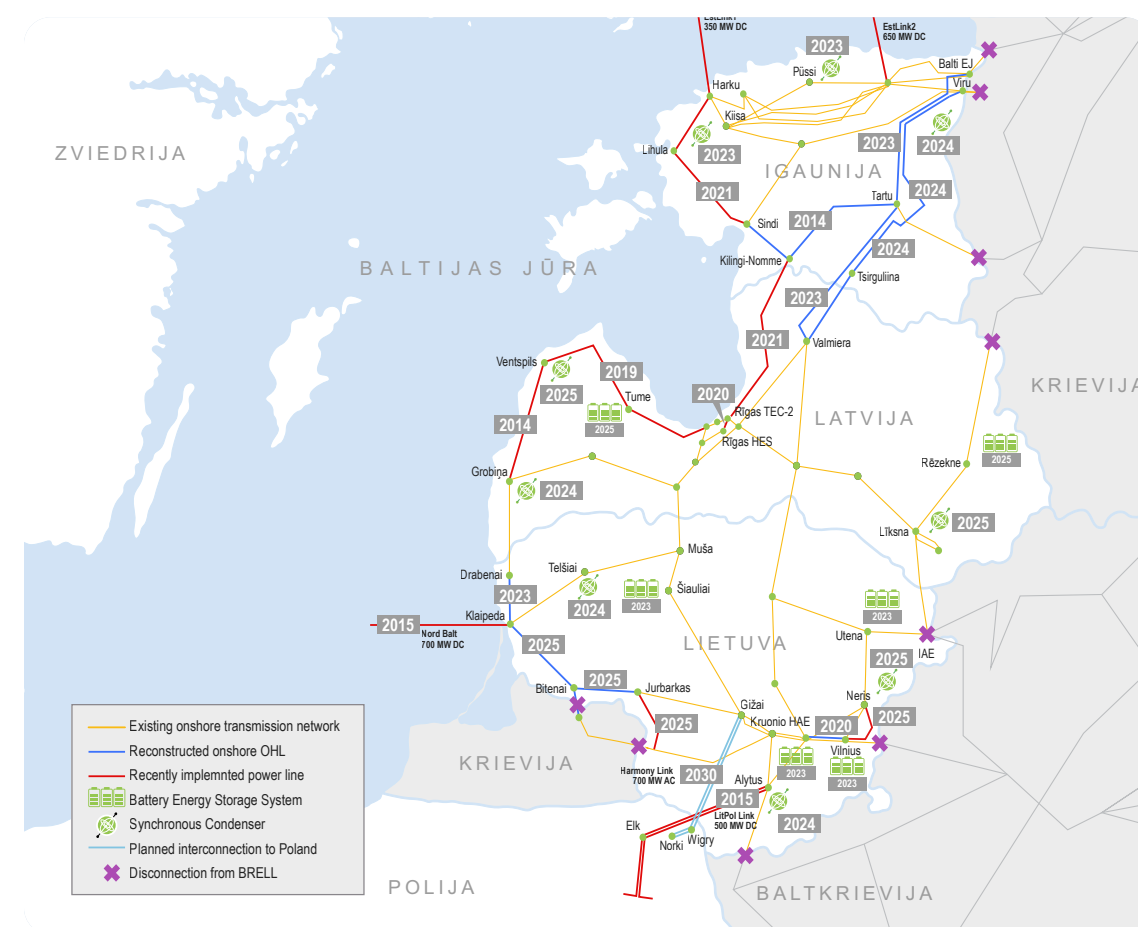


Figure 11. Baltic States synchronization project, with planned investments.

AST, in cooperation with the Estonian TSO, is developing the fourth Estonia–Latvia electricity interconnection (4 EE-LV interconnection) project as well as the reinforcing internal transmission network necessary for the reliable and stable operation of the 4 EE-LV interconnections. In 2024, AST and Elering decided that the project

would be implemented in an alternating current (HVAC) solution and selected the 4 EE-LV interconnection development scenario (see Figure 12), necessary to study and analyze for further decisions. In May 2025, AST and Elering started technological and cost-benefit analysis studies for future development decisions and project moving forward. The technological study is expected to identify the best-suited technology solutions for the interconnection, considering the voltage, length, width, etc. of the cable, while the cost-benefit analysis will show the economic benefits of the project, which will be one of the prerequisites for further decisions of both TSOs. The studies are expected to be finalized in 2026. Elering has started the sea environmental impact assessment process in Estonia, while in Latvia the sea environmental impact assessment for the 4 EE-LV interconnection is planned to start in 2026, according to Latvian legislation. European co-funding is planned to be attracted for the sea EIA process in Latvia and Estonia. The construction part of the project is expected to be completed by 2035.



Figure 12. Fourth Latvia–Estonia interconnection project

To enable the reliable and stable operation of the 4 EE-LV interconnections, it is necessary to develop the internal 330 kV network reinforcement project from Ventspils–Brocēni and further interconnection to Lithuania from Brocēni to the Varduva substation (see Figure 13). The project is expected to be completed by 2032. In November 2024, AST started an environmental impact assessment for this project in the territory of Latvia, informing the public and the municipalities affected by the projects. Based on the results of the public discussions, the EIA program was issued on 10 January 2025 by the Environmental State Bureau (ESB; since 1 February 2025: Energy and Environment Agency, EEA). In May 2025, AST signed a contract with the environmental consultant ELLE (Estonia, Latvia, Lithuania Environment) for the preparation of the Ventspils–Brocēni–Varduva EIA and right of way studies in the territory of Latvia. The European funding for the Ventspils–Brocēni–Varduva for the EIA process has been received from the Recovery and Resilience Facility RePowerEU funds. The EIA is expected to be completed by May 2026, at which point the design and the construction of the line will follow.

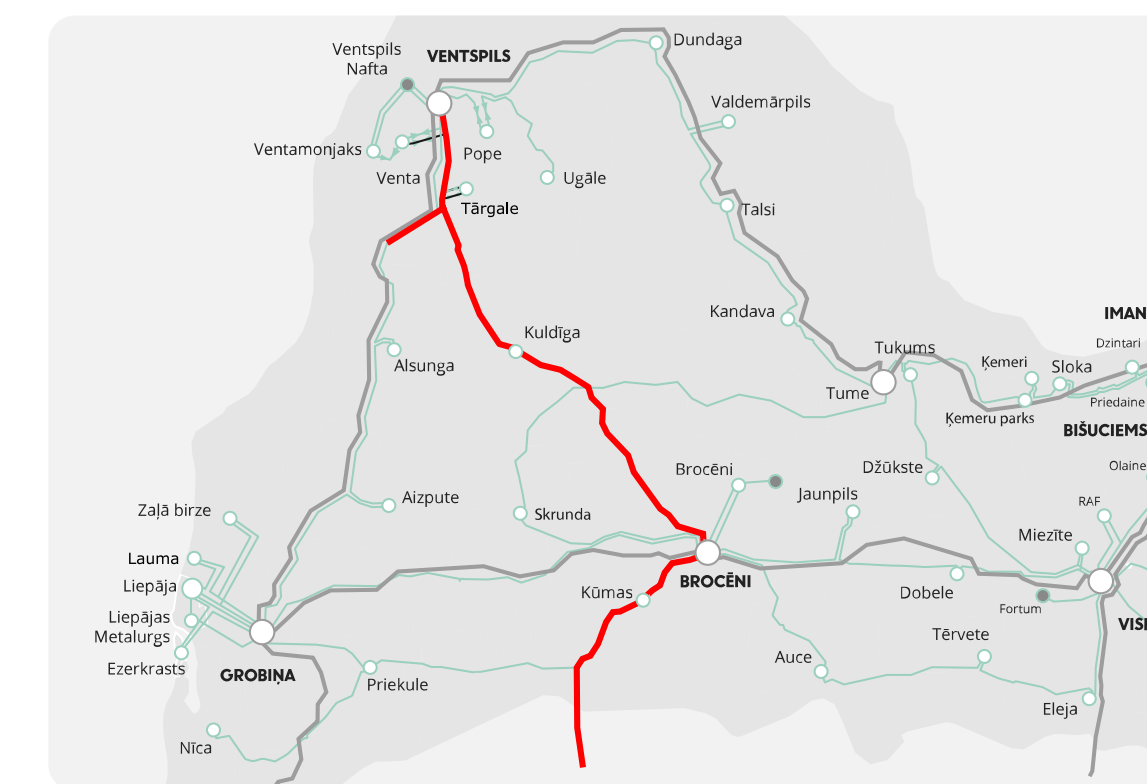


Figure 13. Ventspils–Brocēni–Varduva internal transmission network reinforcement project in Latvia

⁸ <https://www.vestnesis.lv/op/2021/187.3>

As mentioned in Chapter 4.5, AST is also working on the development of Latvia–Sweden and Baltics–Germany transmission interconnection projects. The completion of both long-term development projects is expected around 2040; thus, before the decisions are made, AST, together with the involved TSOs, will have to prepare a series of studies and assessments in order to make further decisions on the projects.

5.3. TSO’s conclusions on the reliability and adequacy of electricity transmission system to provide all consumers secure power supply in the previous year and in future years (minimum forecast period: 10 years)

The implementation of the projects described in Chapter 5.2 of this assessment will ensure the reliable operation of the transmission network, compliance with the increasing electricity consumption, possibilities to connect new power plants, stable operation of the power plants and electricity transit through Latvia and the Baltic States, as well as will promote the interconnection of the Baltic States with the European electricity transmission networks.

The 330 kV and 110 kV transmission network is planned to be reconstructed, modernized, and developed in accordance with the National Electric Power Transmission System Development Plan prepared by AST and approved by the Public Utilities Commission (PUC) and published on the AST and PUC websites. In addition to the development of the 330 kV transmission network, it is necessary to develop the 110 kV transmission network, especially in areas where the N-1 reliability criterion cannot be achieved. The planned reconstruction of 110 kV substations and planned replacement of aged transformers is planned in the 110 kV network.

5.4. Power generation capacities greater than 1 MW as of 1 September 2025

| No | Plant name | Installed capacity (MW) |
|--|--|-------------------------|
| Natural gas cogeneration power plants – 48 MW | | |
| 1 | Small natural gas cogeneration plants (from Sadales tīkls) | 33.1 |
| 2 | SIA “Juglas jauda” | 14.9 |
| Biomass, biogas power plants – 158.82 MW | | |
| 1 | Biomass and biogas plants (from Sadales tīkls) | 135 |
| 2 | SIA “Gren Latvija” | 23.82 |
| Wind power plants – 130.3 MW | | |
| 1 | Wind power plants (from Sadales tīkls) | 50.8 |
| 2 | SIA WINERGY | 20.7 |
| 3 | SIA TCK | 58.8 |
| Hydro power plants – 29.67 MW | | |
| 1 | Small hydro power plants (from Sadales tīkls) | 29.67 |
| Solar power plants – 836.7 MW | | |
| 1 | Distributed solar power plants (from Sadales tīkls) | 644.7 |
| 2 | SIA “SP Venta” Rūtiņi | 60 |
| 3 | SIA “SP Venta” Nīzere | 60 |
| 4 | SIA “SP Venta” Vārme | 72 |
| Latvenergo power plants – 2600 MW | | |
| 1 | Ķegums HPP | 248 |
| 2 | Rīga HPP | 402 |
| 3 | Pļaviņas HPP | 908 |
| 4 | Rīga CHPP-1 | 158 |
| 5 | Rīga CHPP-2 | 832/881 |
| 6 | Aiviekste HPP | 1.47 |
| 7 | Ainaži WPP | 1 |
| TOTAL – 3803.5 MW | | |

6. KEY CONCLUSIONS AND RECOMMENDATIONS OF THE TRANSMISSION SYSTEM OPERATOR

- A significant increase in RES electricity generation is expected in Latvia and in the whole Baltic Sea region, which will require further development of RES connections to the transmission network. Long-term reinforcement of the transmission network will be necessary to ensure the reliability and stability of the transmission system, as well as more involvement of balancing capacity and the development of balancing markets in the whole Baltic Sea region.
- In the scenarios with continuous operation of Riga CHP-1 and Riga CHP-2, the results of the power adequacy assessment prepared by ENTSO-E show no significant risks to the adequacy of power supply sources in Latvia until 2035. To prevent the reduction of reliability and stability of Latvia's electricity system during the next decade, it is important to ensure the availability of controllable baseload power plants in Latvia that can participate in the provision of balancing services and cover Latvia's maximum load as needed.
- Interconnections, reinforcement of the transmission network, and closer integration of the Baltic electricity system into the European electricity market will play a critical role to meet the increasing demand for electricity and growing RES operations. This includes increasing cross-border interconnection capacity with Estonia and Lithuania, and, for example, evaluation of the potential for an offshore interconnection between Latvia and Germany or Sweden.
- In order to further promote the development of RES in Latvia and to connect as many RES as possible to the power transmission network, thus reducing carbon dioxide emissions and moving towards the goal of a climate-neutral energy system, the development of power consumption technologies in Latvia and connection of these technologies to the transmission network is necessary: namely, the electrification of the economic, transport, and industrial sectors, as well as the development of BESS technology.
- The development of hydrogen and other P2X technologies can significantly increase consumption of Latvia's electricity system in the future. In line with this development, investments will be needed to reinforce the power transmission network, to provide the reliability and stability of the electricity system of Latvia.

A. Daugulis
AS "Augstsprieguma tīkls"
Member of Management Board



ANNEX 1

INSTALLED CAPACITIES OF POWER PLANTS (GROSS), MW

The assumptions and explanations (1) to 12) are in accordance with Chapter 4.1.

Table 1

| | | | Year | | | | | | | | | | |
|--|---------------------------------------|-------|-------------|-------------|-------------|-------------|-------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| High-capacity baseload power plants ⁶⁾ | 1 | | 2644 | 2644 | 2644 | 2658 | 2666 | 1588/2469 | 1588/2469 | 1588/2469 | 1588/2469 | 1588/2469 | 1588/2469 |
| Including: | | | | | | | | | | | | | |
| | Daugava HPP | 1.1 | 1558 | 1558 | 1558 | 1572 | 1580 | 1588 | 1588 | 1588 | 1588 | 1588 | 1588 |
| | Riga CHPP-1 ¹¹⁾ | 1.2 | 158 | 158 | 158 | 158 | 158 | 158/0 | 158/0 | 158/0 | 158/0 | 158/0 | 158/0 |
| | Riga CHPP-2 ¹¹⁾ | 1.3 | 881 | 881 | 881 | 881 | 881 | 881/0 | 881/0 | 881/0 | 881/0 | 881/0 | 881/0 |
| Distributed, low-capacity gas cogeneration and RES power plants (Conservative scenario A) | 2 | | 1263 | 1419 | 1575 | 1731 | 1887 | 2043 | 2199 | 2355 | 2511 | 2668 | 3324 |
| Including: | | | | | | | | | | | | | |
| | Natural gas cogeneration power plants | 2.1 | 45 | 42 | 39 | 36 | 33 | 30 | 27 | 24 | 21 | 18 | 15 |
| | Hydro power plants | 2.2 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | Wind power plants ⁷⁾ | 2.3 | 187 | 240 | 294 | 348 | 402 | 455 | 509 | 563 | 617 | 670 | 1224 |
| | Onshore | 2.3.1 | 187 | 240 | 294 | 348 | 402 | 455 | 509 | 563 | 617 | 670 | 724 |
| | Offshore | 2.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 500 |
| | Biomass power plants ⁸⁾ | 2.4 | 95 | 97 | 98 | 100 | 101 | 103 | 104 | 106 | 107 | 108 | 110 |
| | Biogas power plants ⁸⁾ | 2.5 | 56 | 57 | 57 | 58 | 59 | 60 | 60 | 61 | 62 | 63 | 64 |
| | Solar power plants | 2.6 | 850 | 953 | 1056 | 1159 | 1262 | 1366 | 1469 | 1572 | 1675 | 1778 | 1881 |
| Distributed, low-capacity gas cogeneration and RES power plants (Baseline scenario B) | 3 | | 1375 | 1597 | 1819 | 2041 | 2264 | 2486 | 2708 | 2930 | 3152 | 3375 | 4598 |
| Including: | | | | | | | | | | | | | |
| | Natural gas cogeneration power plants | 3.1 | 45 | 40 | 36 | 31 | 26 | 21 | 16 | 12 | 7 | 4 | 0 |
| | Hydro power plants | 3.2 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | Wind power plants ⁷⁾ | 3.3 | 198 | 263 | 328 | 392 | 457 | 522 | 587 | 652 | 717 | 781 | 1846 |
| | Onshore | 3.3.1 | 198 | 263 | 328 | 392 | 457 | 522 | 587 | 652 | 717 | 781 | 846 |
| | Offshore | 3.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1000 |
| | Biomass power plants ⁸⁾ | 3.4 | 96 | 98 | 100 | 102 | 104 | 106 | 108 | 110 | 112 | 114 | 116 |
| | Biogas power plants ⁸⁾ | 3.5 | 56 | 58 | 59 | 60 | 62 | 63 | 64 | 66 | 67 | 68 | 70 |
| | Solar power plants | 3.6 | 950 | 1109 | 1267 | 1426 | 1585 | 1743 | 1902 | 2061 | 2219 | 2378 | 2537 |

INSTALLED CAPACITIES OF POWER PLANTS (GROSS), MW

| | | | Year | | | | | | | | | | |
|---|--|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Distributed, low-capacity gas cogeneration and RES power plants (Optimistic scenario EU2030) | | 4 | 1404 | 1767 | 2087 | 2408 | 2729 | 3129 | 3450 | 3777 | 5115 | 5453 | 5790 |
| Including: | Natural gas cogeneration power plants | 4.1 | 41 | 35 | 28 | 21 | 14 | 7 | 0 | 0 | 0 | 0 | 0 |
| | Hydro power plants | 4.2 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| | Wind power plants ⁷⁾ | 4.3 | 178 | 300 | 380 | 460 | 540 | 700 | 780 | 860 | 1950 | 2040 | 2130 |
| | Onshore | 4.3.1 | 178 | 300 | 380 | 460 | 540 | 700 | 780 | 860 | 950 | 1040 | 1130 |
| | Offshore | 4.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1000 | 1000 | 1000 |
| | Biomass power plants ⁸⁾ | 4.4 | 97 | 100 | 103 | 106 | 110 | 113 | 116 | 119 | 122 | 125 | 128 |
| | Biogas power plants ⁸⁾ | 4.5 | 57 | 60 | 62 | 65 | 67 | 70 | 72 | 75 | 77 | 79 | 82 |
| | Solar power plants | 4.6 | 1000 | 1242 | 1484 | 1726 | 1968 | 2210 | 2452 | 2694 | 2936 | 3178 | 3420 |
| Battery energy storage system (BESS) | | 5 | 100 | 157 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 500 | 500 |
| | Independent merchant battery energy storage system | 5.1 | 20 | 77 | 120 | 160 | 220 | 270 | 330 | 370 | 420 | 420 | 420 |
| | Battery energy storage system for TSO reserve and balancing service provision ¹²⁾ | 5.2 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |

LATVIAN ELECTRICITY SYSTEM BALANCE DURING WINTER PEAK; CONSERVATIVE SCENARIO A, MW (NET)

Table 2

| | | | Year | | | | | | | | | | |
|---|------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Maximum load | 1 | | 1263 | 1280 | 1299 | 1318 | 1349 | 1409 | 1437 | 1455 | 1496 | 1528 | 1562 |
| High-capacity baseload power plants | 2 | | 2506 | 2506 | 2520 | 2528 | 2536 | 2383 | 2383 | 2383 | 2383 | 2383 | 2383 |
| Including: | | Daugava HPP | 2.1 | 1550 | 1550 | 1564 | 1572 | 1580 | 1580 | 1580 | 1580 | 1580 | 1580 |
| | | Riga CHPP-1 | 2.2 | 153 | 153 | 153 | 153 | 153 | 0 | 0 | 0 | 0 | 0 |
| | | Riga CHPP-2 | 2.3 | 803 | 803 | 803 | 803 | 803 | 803 | 803 | 803 | 803 | 803 |
| Distributed, low-capacity gas cogeneration and RES power plants | 3 | | 1157 | 1302 | 1448 | 1593 | 1738 | 1883 | 2029 | 2174 | 2319 | 2464 | 3105 |
| Including: | | Natural gas cogeneration power plants | 3.1 | 41 | 38 | 36 | 33 | 30 | 27 | 25 | 22 | 19 | 16 |
| | | Hydro power plants | 3.2 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Including: | | Wind power plants | 3.3 | 185 | 238 | 291 | 344 | 398 | 451 | 504 | 557 | 610 | 664 |
| | | Onshore | 3.3.1 | 185 | 238 | 291 | 344 | 398 | 451 | 504 | 557 | 610 | 664 |
| | | Offshore | 3.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 495 |
| | | Biomass power plants | 3.4 | 87 | 88 | 89 | 91 | 92 | 93 | 95 | 96 | 97 | 99 |
| | | Biogas power plants | 3.5 | 51 | 51 | 52 | 53 | 54 | 54 | 55 | 56 | 56 | 57 |
| | | Solar power plants | 3.6 | 765 | 858 | 951 | 1043 | 1136 | 1229 | 1322 | 1415 | 1507 | 1600 |
| Capacity available for supplying peak loads and providing reserves | 4 | | 1476 | 1655 | 1720 | 1792 | 1873 | 1783 | 1855 | 1927 | 1499 | 1530 | 1672 |
| Including: | | Daugava HPP ⁵⁾ | 4.1 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 |
| | | Riga CHPP-1 | 4.2 | 153 | 153 | 153 | 153 | 153 | 0 | 0 | 0 | 0 | 0 |
| | | Riga CHPP-2 | 4.3 | 803 | 803 | 803 | 803 | 803 | 803 | 803 | 803 | 803 | 803 |
| | | Natural gas cogeneration power plants | 4.4 | 29 | 27 | 25 | 23 | 21 | 19 | 17 | 15 | 13 | 10 |
| | | Hydro power plants | 4.5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | Wind power plants | 4.6 | 48 | 62 | 76 | 90 | 103 | 117 | 131 | 145 | 159 | 173 |
| | | Biomass and Biogas power plants | 4.7 | 96 | 98 | 99 | 100 | 102 | 103 | 105 | 106 | 108 | 109 |
| | | Solar power plants | 4.8 | 71 | 80 | 88 | 97 | 115 | 114 | 123 | 132 | 140 | 157 |
| | | Battery energy storage system ¹²⁾ | 4.9 | 100 | 157 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 500 |
| Total reserve necessary for Latvia ³⁾ | 5 | | 164 | 195 | 203 | 212 | 220 | 242 | 247 | 260 | 276 | 288 | 300 |
| Capacity surplus (+), deficit (-) | 6=4-1-5 | | 99 | 258 | 318 | 387 | 453 | 307 | 371 | 437 | -23 | -36 | 59 |
| Self-sufficiency | 7=(4-5)/1 | | 108% | 120% | 124% | 129% | 134% | 122% | 126% | 130% | 98% | 98% | 104% |

LATVIAN ELECTRICITY SYSTEM CAPACITY BALANCE DURING WINTER PEAK; BASELINE SCENARIO B, MW (NET)

Table 3

| | | | Year | | | | | | | | | | |
|---|------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Maximum load | 1 | | 1283 | 1327 | 1389 | 1415 | 1473 | 1562 | 1637 | 1672 | 1750 | 1837 | 1912 |
| High-capacity baseload power plants | 2 | | 2506 | 2506 | 2520 | 2528 | 2536 | 2383 | 2383 | 2383 | 2383 | 2383 | 2383 |
| Including: | | Daugava HPP | 2.1 | 1550 | 1550 | 1564 | 1572 | 1580 | 1580 | 1580 | 1580 | 1580 | 1580 |
| | | Riga CHPP-1 | 2.2 | 153 | 153 | 153 | 153 | 153 | 153 | 153 | 153 | 153 | 153 |
| | | Riga CHPP-2 | 2.3 | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 |
| Distributed, low-capacity gas cogeneration and RES power plants | 3 | | 1259 | 1465 | 1670 | 1876 | 2082 | 2287 | 2493 | 2699 | 2904 | 3111 | 4308 |
| Including: | | Natural gas cogeneration power plants | 3.1 | 41 | 37 | 32 | 28 | 24 | 19 | 15 | 11 | 6 | 3 |
| | | Hydro power plants | 3.2 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Including: | | Wind power plants | 3.3 | 196 | 260 | 324 | 388 | 453 | 517 | 581 | 645 | 709 | 774 |
| | | Onshore | 3.3.1 | 196 | 260 | 324 | 388 | 453 | 517 | 581 | 645 | 709 | 774 |
| | | Offshore | 3.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 990 |
| | | Biomass power plants | 3.4 | 87 | 89 | 91 | 93 | 95 | 96 | 98 | 100 | 102 | 104 |
| | | Biogas power plants | 3.5 | 51 | 52 | 54 | 55 | 56 | 57 | 58 | 60 | 61 | 62 |
| | | Solar power plants | 3.6 | 855 | 998 | 1141 | 1283 | 1426 | 1569 | 1712 | 1855 | 1997 | 2140 |
| Capacity available for supplying peak loads and providing reserves | 4 | | 1615 | 1802 | 1875 | 1955 | 2035 | 2116 | 2196 | 2276 | 1856 | 1886 | 2174 |
| Including: | | Daugava HPP ⁵⁾ | 4.1 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 | 350 |
| | | Riga CHPP-1 | 4.2 | 153 | 153 | 153 | 153 | 153 | 153 | 153 | 153 | 153 | 153 |
| | | Riga CHPP-2 | 4.3 | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 |
| | | Natural gas cogeneration power plants | 4.4 | 29 | 27 | 25 | 23 | 21 | 19 | 17 | 15 | 13 | 10 |
| | | Hydro power plants | 4.5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | Wind power plants | 4.6 | 51 | 68 | 84 | 101 | 118 | 134 | 151 | 168 | 184 | 201 |
| | | Biomass and Biogas power plants | 4.7 | 97 | 99 | 101 | 103 | 105 | 108 | 110 | 112 | 114 | 116 |
| | | Solar power plants | 4.8 | 80 | 93 | 106 | 119 | 133 | 146 | 159 | 172 | 186 | 199 |
| | | Battery energy storage system ¹²⁾ | 4.9 | 100 | 157 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 500 |
| Total reserve necessary for Latvia ³⁾ | 5 | | 164 | 195 | 203 | 212 | 220 | 242 | 247 | 260 | 276 | 288 | 300 |
| Capacity surplus (+), deficit (-) | 6=4-1-5 | | 218 | 358 | 383 | 454 | 492 | 487 | 511 | 569 | 80 | 12 | 211 |
| Self-sufficiency | 7=(4-5)/1 | | 117% | 127% | 128% | 132% | 133% | 131% | 131% | 134% | 105% | 101% | 111% |

LATVIAN ELECTRICITY SYSTEM POWER BALANCE DURING WINTER PEAK; OPTIMISTIC SCENARIO EU2030, MW (NET)

Table 4

| | | | Year | | | | | | | | | | |
|--|------------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Maximum load | 1 | | 1331 | 1401 | 1475 | 1549 | 1640 | 1763 | 1856 | 1931 | 2038 | 2143 | 2243 |
| High-capacity baseload power plants | 2 | | 2506 | 2506 | 2520 | 2528 | 2536 | 2383 | 2383 | 2383 | 2383 | 2383 | 2383 |
| Including: | | Daugava HPP | 2.1 | 1550 | 1550 | 1564 | 1572 | 1580 | 1580 | 1580 | 1580 | 1580 | 1580 |
| | | Riga CHPP-1 | 2.2 | 153 | 153 | 153 | 153 | 153 | 0 | 0 | 0 | 0 | 0 |
| | | Riga CHPP-2 | 2.3 | 850 | 850 | 850 | 850 | 850 | 0 | 0 | 0 | 0 | 0 |
| Distributed, low-capacity gas cogeneration and RES power plants | 3 | | 1283 | 1620 | 1916 | 2212 | 2508 | 2883 | 3178 | 3480 | 4783 | 5094 | 5406 |
| Including: | | Natural gas cogeneration power plants | 3.1 | 38 | 31 | 25 | 19 | 13 | 6 | 0 | 0 | 0 | 0 |
| | | Hydro power plants | 3.2 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Including: | | Wind power plants | 3.3 | 176 | 297 | 376 | 455 | 535 | 693 | 772 | 851 | 1931 | 2020 |
| | | Onshore | 3.3.1 | 176 | 297 | 376 | 455 | 535 | 693 | 772 | 851 | 941 | 1030 |
| | | Offshore | 3.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 990 | 990 | 990 |
| | | Biomass power plants | 3.4 | 88 | 91 | 94 | 97 | 100 | 102 | 105 | 108 | 111 | 114 |
| | | Biogas power plants | 3.5 | 52 | 54 | 57 | 59 | 61 | 63 | 66 | 68 | 70 | 72 |
| | | Solar power plants | 3.6 | 900 | 1118 | 1336 | 1553 | 1771 | 1989 | 2207 | 2425 | 2642 | 2860 |
| Capacity available for supplying peaks and providing reserves | 4 | | 1659 | 1865 | 1948 | 2038 | 2128 | 1213 | 1305 | 1397 | 1714 | 1758 | 1802 |
| Including: | | Daugava HPP ⁵⁾ | 4.1 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| | | Riga CHPP-1 | 4.2 | 153 | 153 | 153 | 153 | 153 | 0 | 0 | 0 | 0 | 0 |
| | | Riga CHPP-2 | 4.3 | 850 | 850 | 850 | 850 | 850 | 0 | 0 | 0 | 0 | 0 |
| | | Natural gas cogeneration power plants | 4.4 | 29 | 27 | 25 | 23 | 21 | 0 | 0 | 0 | 0 | 0 |
| | | Hydro power plants | 4.5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | Wind power plants | 4.6 | 40 | 67 | 85 | 103 | 121 | 157 | 175 | 192 | 436 | 456 |
| | | Biomass and Biogas power plants | 4.7 | 98 | 102 | 105 | 109 | 112 | 116 | 120 | 123 | 127 | 130 |
| | | Solar power plants | 4.8 | 84 | 104 | 124 | 144 | 165 | 185 | 205 | 225 | 246 | 266 |
| | | Battery energy storage system ¹²⁾ | 4.9 | 100 | 157 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 500 |
| Total reserve necessary for Latvia ³⁾ | 5 | | 164 | 195 | 203 | 212 | 220 | 242 | 247 | 260 | 276 | 288 | 300 |
| Capacity surplus (+), deficit (-) | 6=4-1-5 | | 214 | 348 | 370 | 402 | 418 | -617 | -598 | -570 | -349 | -423 | -492 |
| Self-sufficiency | 7=(4-5)/1 | | 116% | 125% | 125% | 126% | 126% | 65% | 68% | 71% | 83% | 80% | 78% |

POSSIBLE ELECTRICITY BALANCE FOR CONSERVATIVE SCENARIO A (BY YEAR), GWH

Table 5

Conservative Scenario A

| | | | Year | | | | | | | | | | |
|--|------------------|---------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Electricity demand | 1 | | 6996 | 7059 | 7119 | 7180 | 7243 | 8006 | 8172 | 8340 | 8608 | 8677 | 8946 |
| High-capacity baseload power plants | 2 | | 4319 | 4319 | 4319 | 4319 | 4319 | 4035 | 4035 | 4035 | 4035 | 4035 | 4035 |
| Including: | | | | | | | | | | | | | |
| | | Daugava HPP ¹⁾ | 2.1 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 |
| | | Riga CHPP-1 ⁹⁾ | 2.2 | 284 | 284 | 284 | 284 | 284 | 0 | 0 | 0 | 0 | 0 |
| | | Riga CHPP-2 ⁹⁾ | 2.3 | 1255 | 1255 | 1255 | 1255 | 1255 | 1255 | 1255 | 1255 | 1255 | 1255 |
| Distributed, low-capacity gas cogeneration and RES power plants | 3 | | 1685 | 1848 | 2011 | 2173 | 2336 | 2499 | 2661 | 2824 | 2987 | 3150 | 4797 |
| Including: | | | | | | | | | | | | | |
| | | Natural gas cogeneration power plants | 3.1 | 82 | 77 | 71 | 66 | 60 | 55 | 49 | 44 | 38 | 33 |
| | | Hydro power plants | 3.2 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| | | Wind power plants | 3.3 | 370 | 476 | 583 | 689 | 795 | 902 | 1008 | 1114 | 1221 | 1327 |
| | | Onshore | 3.3.1 | 370 | 476 | 583 | 689 | 795 | 902 | 1008 | 1114 | 1221 | 1327 |
| | | Offshore | 3.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1485 |
| | | Biomass power plants | 3.4 | 434 | 440 | 447 | 453 | 460 | 467 | 473 | 480 | 486 | 493 |
| | | Biogas power plants | 3.5 | 304 | 308 | 313 | 317 | 321 | 325 | 330 | 334 | 338 | 342 |
| | | Solar power plants | 3.6 | 421 | 472 | 523 | 574 | 625 | 676 | 727 | 778 | 829 | 880 |
| Possible export/import | 4=(2+3)-1 | | -992 | -893 | -789 | -688 | -588 | -1472 | -1476 | -1481 | -1586 | -1492 | -114 |
| Power adequacy | 5=(2+3)/1 | | 86% | 87% | 89% | 90% | 92% | 82% | 82% | 82% | 82% | 83% | 99% |

POSSIBLE ELECTRIC POWER BALANCE FOR BASELINE SCENARIO B (BY YEAR), GWH

Table 6

Baseline Scenario B

| | | | Year | | | | | | | | | | |
|--|------------------|---------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Electricity demand | 1 | | 7063 | 7174 | 7283 | 7395 | 7510 | 9027 | 9550 | 10076 | 10504 | 11035 | 11468 |
| High-capacity baseload power plants | 2 | | 4575 | 4575 | 4575 | 4575 | 4575 | 4575 | 4575 | 4575 | 4575 | 4575 | 4575 |
| Including: | | | | | | | | | | | | | |
| | | Daugava HPP ¹⁾ | 2.1 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 |
| | | Riga CHPP-1 ⁹⁾ | 2.2 | 541 | 541 | 541 | 541 | 541 | 541 | 541 | 541 | 541 | 541 |
| | | Riga CHPP-2 ⁹⁾ | 2.3 | 1254 | 1254 | 1254 | 1254 | 1254 | 1254 | 1254 | 1254 | 1254 | 1254 |
| Distributed, low-capacity gas cogeneration and RES power plants | 3 | | 1952 | 2150 | 2348 | 2545 | 2743 | 2941 | 3138 | 3336 | 3533 | 3741 | 6914 |
| Including: | | | | | | | | | | | | | |
| | | Natural gas cogeneration power plants | 3.1 | 247 | 221 | 194 | 168 | 142 | 116 | 89 | 63 | 37 | 21 |
| | | Hydro power plants | 3.2 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 | 74 |
| | | Wind power plants | 3.3 | 392 | 520 | 649 | 777 | 905 | 1034 | 1162 | 1290 | 1419 | 1547 |
| | | Onshore | 3.3.1 | 392 | 520 | 649 | 777 | 905 | 1034 | 1162 | 1290 | 1419 | 1547 |
| | | Offshore | 3.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2970 |
| | | Biomass power plants | 3.4 | 436 | 445 | 454 | 464 | 473 | 482 | 491 | 500 | 509 | 518 |
| | | Biogas power plants | 3.5 | 333 | 341 | 349 | 357 | 364 | 372 | 380 | 388 | 396 | 404 |
| | | Solar power plants | 3.6 | 470 | 549 | 627 | 706 | 784 | 863 | 941 | 1020 | 1099 | 1177 |
| Possible export/import | 4=(2+3)-1 | | -536 | -449 | -360 | -275 | -192 | -1512 | -1837 | -2165 | -2396 | -2719 | 21 |
| Power adequacy | 5=(2+3)/1 | | 92% | 94% | 95% | 96% | 97% | 83% | 81% | 79% | 77% | 75% | 100% |

POSSIBLE ELECTRIC POWER BALANCE FOR OPTIMISTIC SCENARIO EU2030 (BY YEAR), GWH

Table 7

Optimistic Scenario EU2030

| | | | Year | | | | | | | | | | |
|--|------------------|---------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 |
| Electricity demand | 1 | | 7120 | 7289 | 7458 | 7633 | 7813 | 10297 | 10988 | 11585 | 12288 | 12995 | 13707 |
| High-capacity baseload power plants | 2 | | 9846 | 9846 | 9846 | 9846 | 9846 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 |
| Including: | | | | | | | | | | | | | |
| | | Daugava HPP ¹⁾ | 2.1 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 | 2780 |
| | | Riga CHPP-1 ⁹⁾ | 2.2 | 1114 | 1114 | 1114 | 1114 | 1114 | 0 | 0 | 0 | 0 | 0 |
| | | Riga CHPP-2 ⁹⁾ | 2.3 | 5952 | 5952 | 5952 | 5952 | 5952 | 0 | 0 | 0 | 0 | 0 |
| Distributed, low-capacity gas cogeneration and RES power plants | 3 | | 1975 | 2329 | 2600 | 2870 | 3141 | 3570 | 3840 | 4148 | 7447 | 7775 | 8103 |
| Including: | | | | | | | | | | | | | |
| | | Natural gas cogeneration power plants | 3.1 | 226 | 188 | 151 | 113 | 75 | 38 | 0 | 0 | 0 | 0 |
| | | Hydro power plants | 3.2 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 | 77 |
| | | Wind power plants | 3.3 | 352 | 594 | 752 | 911 | 1069 | 1386 | 1545 | 1703 | 4851 | 5030 |
| | | Onshore | 3.3.1 | 352 | 594 | 752 | 911 | 1069 | 1386 | 1545 | 1703 | 1881 | 2059 |
| | | Offshore | 3.3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2970 | 2970 |
| | | Biomass power plants | 3.4 | 486 | 501 | 517 | 532 | 548 | 563 | 579 | 594 | 610 | 625 |
| | | Biogas power plants | 3.5 | 339 | 354 | 368 | 383 | 397 | 412 | 426 | 441 | 455 | 469 |
| | | Solar power plants | 3.6 | 495 | 615 | 735 | 854 | 974 | 1094 | 1214 | 1334 | 1453 | 1573 |
| Possible export/import | 4=(2+3)-1 | | 4701 | 4886 | 4987 | 5083 | 5174 | -3947 | -4368 | -4657 | -2061 | -2440 | -2824 |
| Power adequacy | 5=(2+3)/1 | | 166% | 167% | 167% | 167% | 166% | 62% | 60% | 60% | 83% | 81% | 79% |

ELECTRICITY DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BY HOUR, SCENARIO A (MAXIMUM LOAD), MW

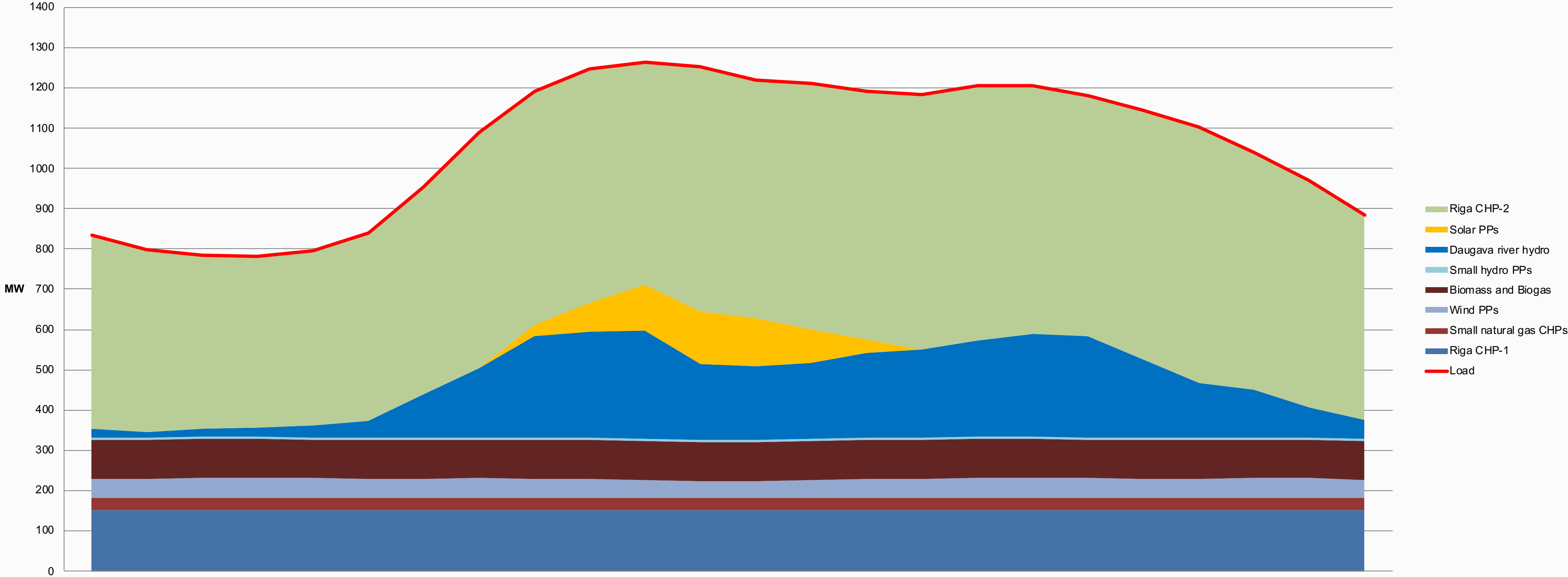
Table 8

January 2025 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 153 | 480 | 96 | 29 | 6 | 48 | 0 | 23 | 0 | 834 |
| 02:00 | 153 | 454 | 96 | 29 | 6 | 49 | 0 | 13 | 0 | 800 |
| 03:00 | 153 | 431 | 96 | 29 | 6 | 51 | 0 | 19 | 0 | 784 |
| 04:00 | 153 | 424 | 96 | 29 | 6 | 50 | 0 | 23 | 0 | 781 |
| 05:00 | 153 | 433 | 96 | 29 | 6 | 49 | 0 | 30 | 0 | 795 |
| 06:00 | 153 | 467 | 96 | 29 | 6 | 47 | 0 | 42 | 0 | 839 |
| 07:00 | 153 | 514 | 96 | 29 | 6 | 48 | 0 | 108 | 0 | 953 |
| 08:00 | 153 | 586 | 96 | 29 | 6 | 49 | 0 | 171 | 0 | 1089 |
| 09:00 | 153 | 582 | 96 | 29 | 6 | 49 | 26 | 253 | 0 | 1192 |
| 10:00 | 153 | 581 | 96 | 29 | 6 | 49 | 71 | 262 | 0 | 1247 |
| 11:00 | 153 | 553 | 96 | 29 | 6 | 44 | 112 | 270 | 0 | 1263 |
| 12:00 | 153 | 606 | 96 | 29 | 6 | 43 | 131 | 188 | 0 | 1251 |
| 13:00 | 153 | 590 | 96 | 29 | 6 | 43 | 122 | 181 | 0 | 1219 |
| 14:00 | 153 | 611 | 96 | 29 | 6 | 45 | 84 | 188 | 0 | 1211 |
| 15:00 | 153 | 616 | 96 | 29 | 6 | 47 | 34 | 211 | 0 | 1192 |
| 16:00 | 153 | 634 | 96 | 29 | 6 | 49 | 0 | 217 | 0 | 1183 |
| 17:00 | 153 | 634 | 96 | 29 | 6 | 50 | 0 | 239 | 0 | 1206 |
| 18:00 | 153 | 618 | 96 | 29 | 6 | 50 | 0 | 255 | 0 | 1206 |
| 19:00 | 153 | 598 | 96 | 29 | 6 | 49 | 0 | 251 | 0 | 1182 |
| 20:00 | 153 | 618 | 96 | 29 | 6 | 48 | 0 | 195 | 0 | 1144 |
| 21:00 | 153 | 637 | 96 | 29 | 6 | 48 | 0 | 134 | 0 | 1103 |
| 22:00 | 153 | 590 | 96 | 29 | 6 | 49 | 0 | 118 | 0 | 1041 |
| 23:00 | 153 | 564 | 96 | 29 | 6 | 49 | 0 | 74 | 0 | 971 |
| 00:00 | 153 | 511 | 96 | 29 | 6 | 45 | 0 | 46 | 0 | 886 |
| Electricity generated, MWh | 3660 | 13333 | 2309 | 692 | 137 | 1148 | 581 | 3513 | 0 | 25373 |

ELECTRICITY DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BY HOUR, SCENARIO A (MAXIMUM LOAD), MW

January 2025 (weekday, Wednesday of the third week of the month, at maximum load)



ELECTRICITY DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BY HOUR, SCENARIO A (MAXIMUM LOAD), MW

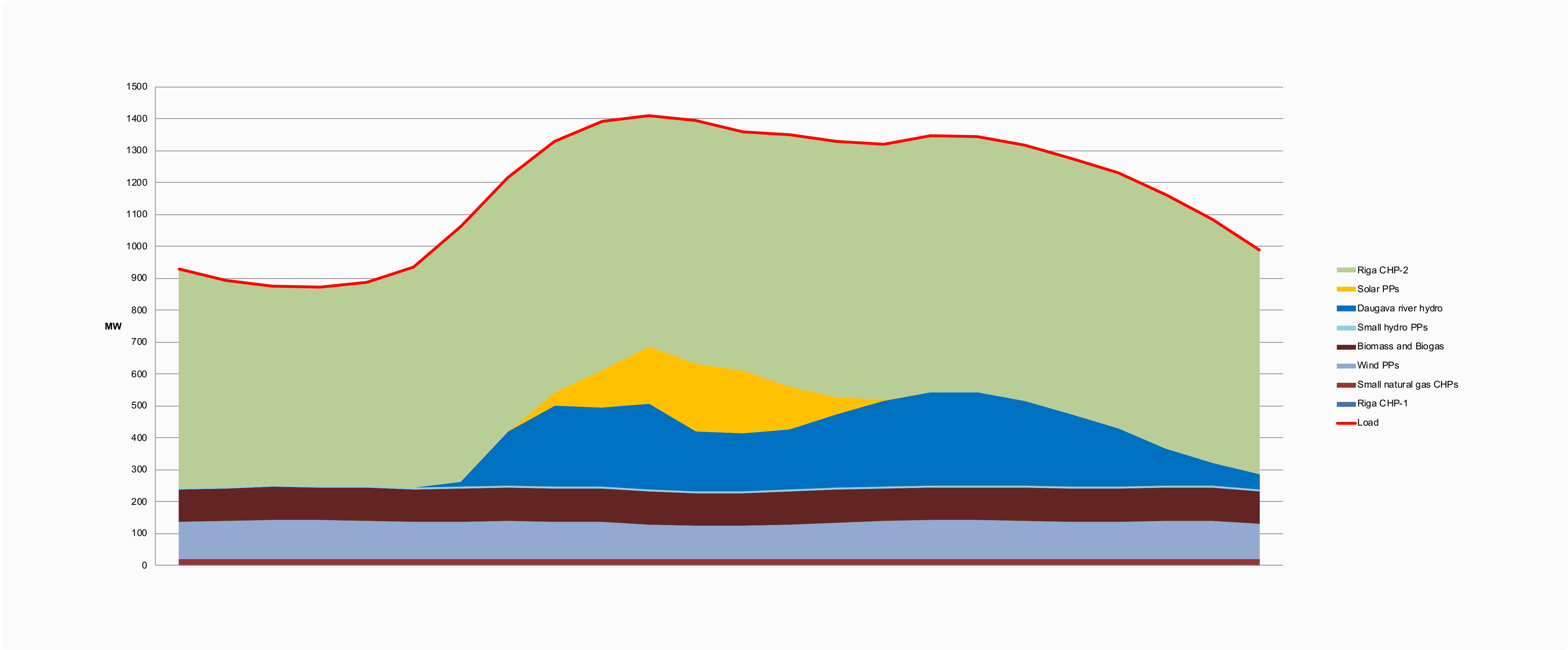
Table 9

January 2030 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 0 | 686 | 103 | 19 | 6 | 116 | 0 | 0 | 0 | 930 |
| 02:00 | 0 | 645 | 103 | 19 | 6 | 119 | 0 | 0 | 0 | 892 |
| 03:00 | 0 | 623 | 103 | 19 | 6 | 124 | 0 | 0 | 0 | 874 |
| 04:00 | 0 | 621 | 103 | 19 | 6 | 123 | 0 | 0 | 0 | 872 |
| 05:00 | 0 | 639 | 103 | 19 | 6 | 120 | 0 | 0 | 0 | 887 |
| 06:00 | 0 | 692 | 103 | 19 | 6 | 116 | 0 | 0 | 0 | 936 |
| 07:00 | 0 | 802 | 103 | 19 | 6 | 117 | 0 | 16 | 0 | 1063 |
| 08:00 | 0 | 796 | 103 | 19 | 6 | 120 | 0 | 171 | 0 | 1215 |
| 09:00 | 0 | 789 | 103 | 19 | 6 | 118 | 42 | 253 | 0 | 1330 |
| 10:00 | 0 | 781 | 103 | 19 | 6 | 118 | 115 | 249 | 0 | 1391 |
| 11:00 | 0 | 723 | 103 | 19 | 6 | 108 | 180 | 270 | 0 | 1409 |
| 12:00 | 0 | 765 | 103 | 19 | 6 | 105 | 210 | 188 | 0 | 1396 |
| 13:00 | 0 | 751 | 103 | 19 | 6 | 104 | 196 | 181 | 0 | 1360 |
| 14:00 | 0 | 791 | 103 | 19 | 6 | 109 | 135 | 188 | 0 | 1351 |
| 15:00 | 0 | 803 | 103 | 19 | 6 | 115 | 55 | 229 | 0 | 1330 |
| 16:00 | 0 | 803 | 103 | 19 | 6 | 119 | 1 | 269 | 0 | 1320 |
| 17:00 | 0 | 803 | 103 | 19 | 6 | 122 | 0 | 293 | 0 | 1346 |
| 18:00 | 0 | 803 | 103 | 19 | 6 | 122 | 0 | 292 | 0 | 1345 |
| 19:00 | 0 | 803 | 103 | 19 | 6 | 120 | 0 | 267 | 0 | 1318 |
| 20:00 | 0 | 803 | 103 | 19 | 6 | 118 | 0 | 227 | 0 | 1276 |
| 21:00 | 0 | 803 | 103 | 19 | 6 | 118 | 0 | 182 | 0 | 1231 |
| 22:00 | 0 | 795 | 103 | 19 | 6 | 120 | 0 | 118 | 0 | 1161 |
| 23:00 | 0 | 761 | 103 | 19 | 6 | 120 | 0 | 74 | 0 | 1084 |
| 00:00 | 0 | 704 | 103 | 19 | 6 | 110 | 0 | 46 | 0 | 988 |
| Electricity generated, MWh | 0 | 17984 | 2479 | 461 | 137 | 2800 | 933 | 3513 | 0 | 28306 |

ELECTRICITY DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BY HOUR, SCENARIO A (MAXIMUM LOAD), MW

January 2030 (weekday, Wednesday of the third week of the month, at maximum load)



ELECTRICITY DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BY HOUR, SCENARIO A (MAXIMUM LOAD), MW

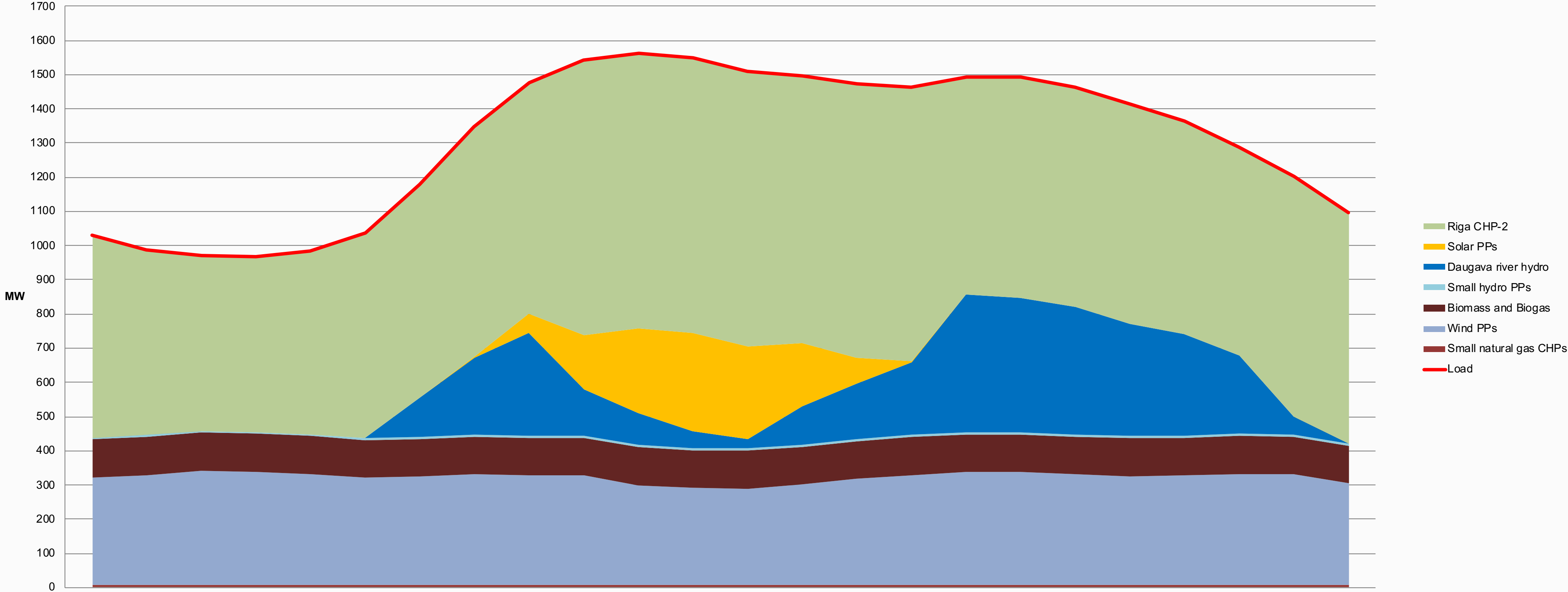
Table 10

January 2035 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 0 | 593 | 110 | 10 | 6 | 313 | 0 | 0 | 0 | 1031 |
| 02:00 | 0 | 543 | 110 | 10 | 6 | 320 | 0 | 0 | 0 | 989 |
| 03:00 | 0 | 511 | 110 | 10 | 6 | 332 | 0 | 0 | 0 | 969 |
| 04:00 | 0 | 511 | 110 | 10 | 6 | 329 | 0 | 0 | 0 | 966 |
| 05:00 | 0 | 535 | 110 | 10 | 6 | 323 | 0 | 0 | 0 | 983 |
| 06:00 | 0 | 600 | 110 | 10 | 6 | 311 | 0 | 0 | 0 | 1037 |
| 07:00 | 0 | 623 | 110 | 10 | 6 | 315 | 0 | 115 | 0 | 1179 |
| 08:00 | 0 | 673 | 110 | 10 | 6 | 322 | 0 | 226 | 0 | 1347 |
| 09:00 | 0 | 673 | 110 | 10 | 6 | 318 | 58 | 300 | 0 | 1475 |
| 10:00 | 0 | 803 | 110 | 10 | 6 | 318 | 158 | 137 | 0 | 1542 |
| 11:00 | 0 | 803 | 110 | 10 | 6 | 290 | 248 | 95 | 0 | 1562 |
| 12:00 | 0 | 803 | 110 | 10 | 6 | 281 | 289 | 49 | 0 | 1548 |
| 13:00 | 0 | 803 | 110 | 10 | 6 | 281 | 269 | 29 | 0 | 1508 |
| 14:00 | 0 | 782 | 110 | 10 | 6 | 293 | 186 | 112 | 0 | 1497 |
| 15:00 | 0 | 803 | 110 | 10 | 6 | 308 | 76 | 161 | 0 | 1475 |
| 16:00 | 0 | 803 | 110 | 10 | 6 | 320 | 1 | 214 | 0 | 1463 |
| 17:00 | 0 | 635 | 110 | 10 | 6 | 328 | 0 | 403 | 0 | 1492 |
| 18:00 | 0 | 645 | 110 | 10 | 6 | 328 | 0 | 393 | 0 | 1492 |
| 19:00 | 0 | 641 | 110 | 10 | 6 | 322 | 0 | 373 | 0 | 1461 |
| 20:00 | 0 | 644 | 110 | 10 | 6 | 317 | 0 | 328 | 0 | 1415 |
| 21:00 | 0 | 624 | 110 | 10 | 6 | 317 | 0 | 297 | 0 | 1364 |
| 22:00 | 0 | 608 | 110 | 10 | 6 | 323 | 0 | 230 | 0 | 1287 |
| 23:00 | 0 | 702 | 110 | 10 | 6 | 322 | 0 | 51 | 0 | 1201 |
| 00:00 | 0 | 675 | 110 | 10 | 6 | 294 | 0 | 0 | 0 | 1095 |
| Electricity generated, MWh | 0 | 16038 | 2648 | 231 | 137 | 7527 | 1285 | 3513 | 0 | 31379 |

ELECTRICITY DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BY HOUR, SCENARIO A (MAXIMUM LOAD), MW

January 2035 (weekday, Wednesday of the third week of the month, at maximum load)



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BASELINE SCENARIO B (MAXIMUM LOAD), MW

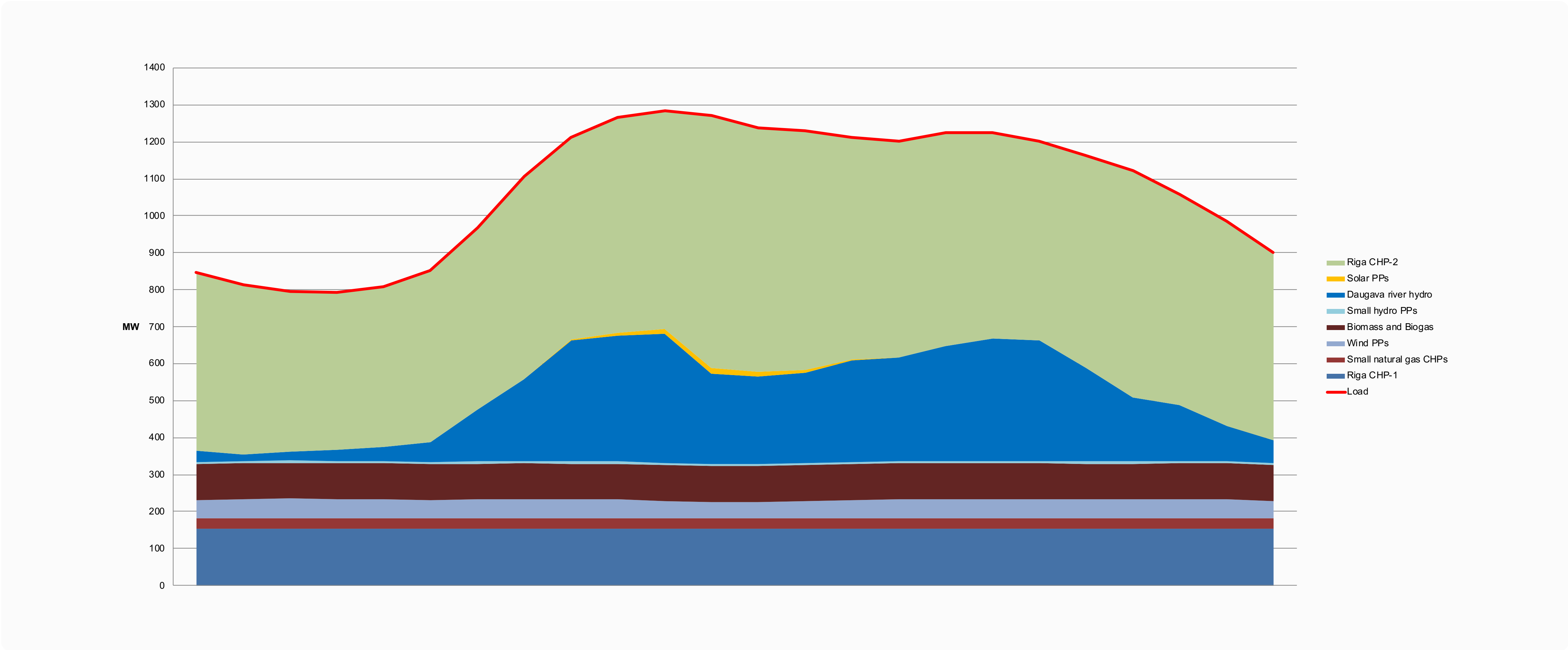
Table 11

January 2025 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 153 | 483 | 97 | 29 | 6 | 51 | 0 | 30 | 0 | 847 |
| 02:00 | 153 | 460 | 97 | 29 | 6 | 52 | 0 | 17 | 0 | 812 |
| 03:00 | 153 | 435 | 97 | 29 | 6 | 54 | 0 | 24 | 0 | 796 |
| 04:00 | 153 | 426 | 97 | 29 | 6 | 53 | 0 | 30 | 0 | 794 |
| 05:00 | 153 | 433 | 97 | 29 | 6 | 52 | 0 | 39 | 0 | 808 |
| 06:00 | 153 | 464 | 97 | 29 | 6 | 50 | 0 | 54 | 0 | 852 |
| 07:00 | 153 | 494 | 97 | 29 | 6 | 51 | 0 | 140 | 0 | 968 |
| 08:00 | 153 | 549 | 97 | 29 | 6 | 52 | 0 | 222 | 0 | 1107 |
| 09:00 | 153 | 546 | 97 | 29 | 6 | 51 | 3 | 328 | 0 | 1211 |
| 10:00 | 153 | 584 | 97 | 29 | 6 | 51 | 7 | 340 | 0 | 1267 |
| 11:00 | 153 | 591 | 97 | 29 | 6 | 47 | 12 | 350 | 0 | 1283 |
| 12:00 | 153 | 684 | 97 | 29 | 6 | 45 | 14 | 244 | 0 | 1271 |
| 13:00 | 153 | 662 | 97 | 29 | 6 | 45 | 13 | 235 | 0 | 1239 |
| 14:00 | 153 | 647 | 97 | 29 | 6 | 47 | 9 | 244 | 0 | 1230 |
| 15:00 | 153 | 600 | 97 | 29 | 6 | 50 | 4 | 274 | 0 | 1211 |
| 16:00 | 153 | 585 | 97 | 29 | 6 | 52 | 0 | 282 | 0 | 1202 |
| 17:00 | 153 | 579 | 97 | 29 | 6 | 53 | 0 | 310 | 0 | 1226 |
| 18:00 | 153 | 558 | 97 | 29 | 6 | 53 | 0 | 331 | 0 | 1225 |
| 19:00 | 153 | 539 | 97 | 29 | 6 | 52 | 0 | 326 | 0 | 1201 |
| 20:00 | 153 | 575 | 97 | 29 | 6 | 51 | 0 | 253 | 0 | 1162 |
| 21:00 | 153 | 612 | 97 | 29 | 6 | 51 | 0 | 174 | 0 | 1121 |
| 22:00 | 153 | 569 | 97 | 29 | 6 | 52 | 0 | 152 | 0 | 1057 |
| 23:00 | 153 | 554 | 97 | 29 | 6 | 52 | 0 | 96 | 0 | 987 |
| 00:00 | 153 | 508 | 97 | 29 | 6 | 48 | 0 | 60 | 0 | 900 |
| Electricity generated, MWh | 3660 | 13132 | 2326 | 692 | 137 | 1217 | 60 | 4554 | 0 | 25778 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BASELINE SCENARIO B (MAXIMUM LOAD), MW

January 2025 (weekday, Wednesday of the third week of the month, at maximum load)



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BASELINE SCENARIO B (MAXIMUM LOAD), MW

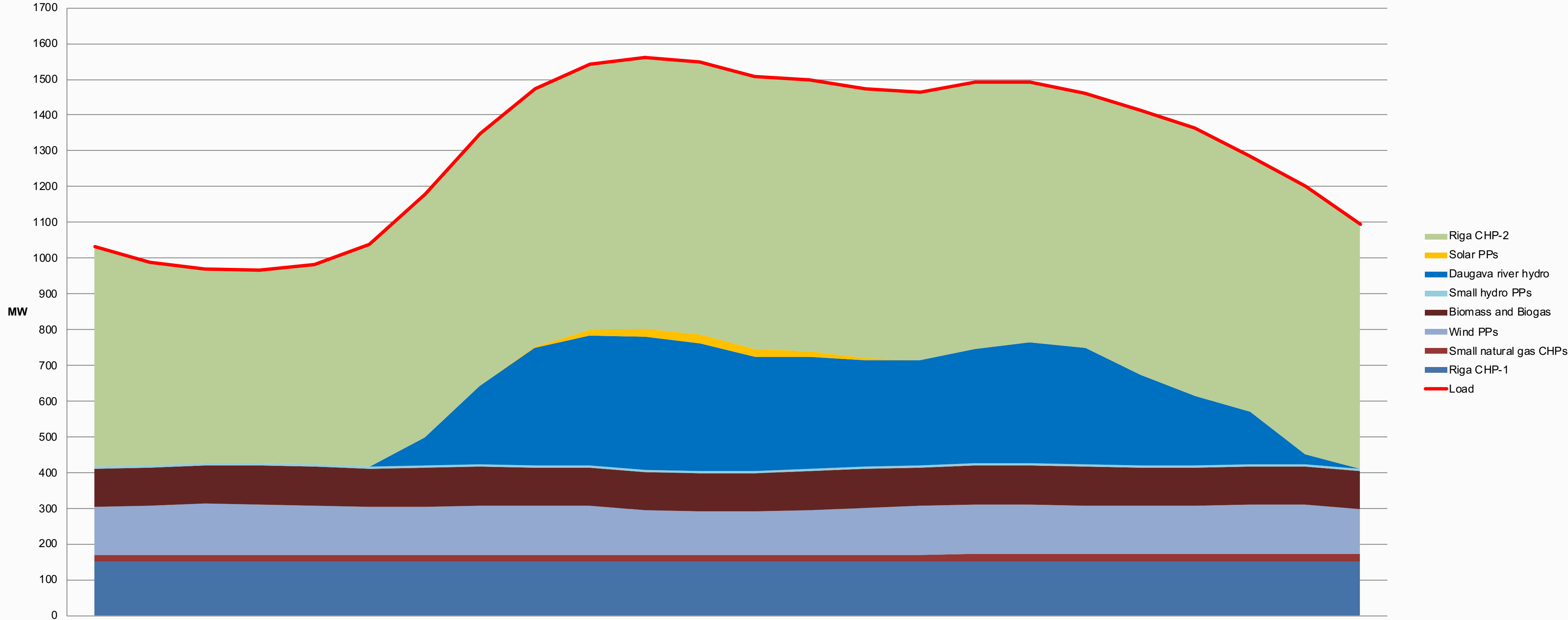
Table 12

January 2030 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 153 | 613 | 108 | 19 | 6 | 133 | 0 | 0 | 0 | 1031 |
| 02:00 | 153 | 567 | 108 | 19 | 6 | 136 | 0 | 0 | 0 | 989 |
| 03:00 | 153 | 543 | 108 | 19 | 6 | 142 | 0 | 0 | 0 | 969 |
| 04:00 | 153 | 541 | 108 | 19 | 6 | 140 | 0 | 0 | 0 | 966 |
| 05:00 | 153 | 561 | 108 | 19 | 6 | 138 | 0 | 0 | 0 | 983 |
| 06:00 | 153 | 620 | 108 | 19 | 6 | 133 | 0 | 0 | 0 | 1037 |
| 07:00 | 153 | 679 | 108 | 19 | 6 | 134 | 0 | 80 | 0 | 1179 |
| 08:00 | 153 | 703 | 108 | 19 | 6 | 137 | 0 | 222 | 0 | 1347 |
| 09:00 | 153 | 721 | 108 | 19 | 6 | 136 | 5 | 328 | 0 | 1474 |
| 10:00 | 153 | 743 | 108 | 19 | 6 | 136 | 14 | 364 | 0 | 1542 |
| 11:00 | 153 | 759 | 108 | 19 | 6 | 124 | 21 | 373 | 0 | 1562 |
| 12:00 | 153 | 762 | 108 | 19 | 6 | 120 | 25 | 356 | 0 | 1547 |
| 13:00 | 153 | 762 | 108 | 19 | 6 | 120 | 23 | 318 | 0 | 1508 |
| 14:00 | 153 | 758 | 108 | 19 | 6 | 125 | 16 | 314 | 0 | 1497 |
| 15:00 | 153 | 752 | 108 | 19 | 6 | 132 | 7 | 299 | 0 | 1474 |
| 16:00 | 153 | 749 | 108 | 19 | 6 | 137 | 0 | 293 | 0 | 1463 |
| 17:00 | 153 | 746 | 108 | 19 | 6 | 140 | 0 | 320 | 0 | 1492 |
| 18:00 | 153 | 727 | 108 | 19 | 6 | 140 | 0 | 339 | 0 | 1491 |
| 19:00 | 153 | 713 | 108 | 19 | 6 | 137 | 0 | 326 | 0 | 1461 |
| 20:00 | 153 | 742 | 108 | 19 | 6 | 135 | 0 | 253 | 0 | 1415 |
| 21:00 | 153 | 749 | 108 | 19 | 6 | 135 | 0 | 194 | 0 | 1364 |
| 22:00 | 153 | 716 | 108 | 19 | 6 | 138 | 0 | 147 | 0 | 1287 |
| 23:00 | 153 | 748 | 108 | 19 | 6 | 137 | 0 | 30 | 0 | 1201 |
| 00:00 | 153 | 684 | 108 | 19 | 6 | 126 | 0 | 0 | 0 | 1095 |
| Electricity generated, MWh | 3664 | 16657 | 2581 | 461 | 137 | 3210 | 111 | 4554 | 0 | 31375 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BASELINE SCENARIO B (MAXIMUM LOAD), MW

January 2030 (weekday, Wednesday of the third week of the month, at maximum load)



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BASELINE SCENARIO B (MAXIMUM LOAD), MW

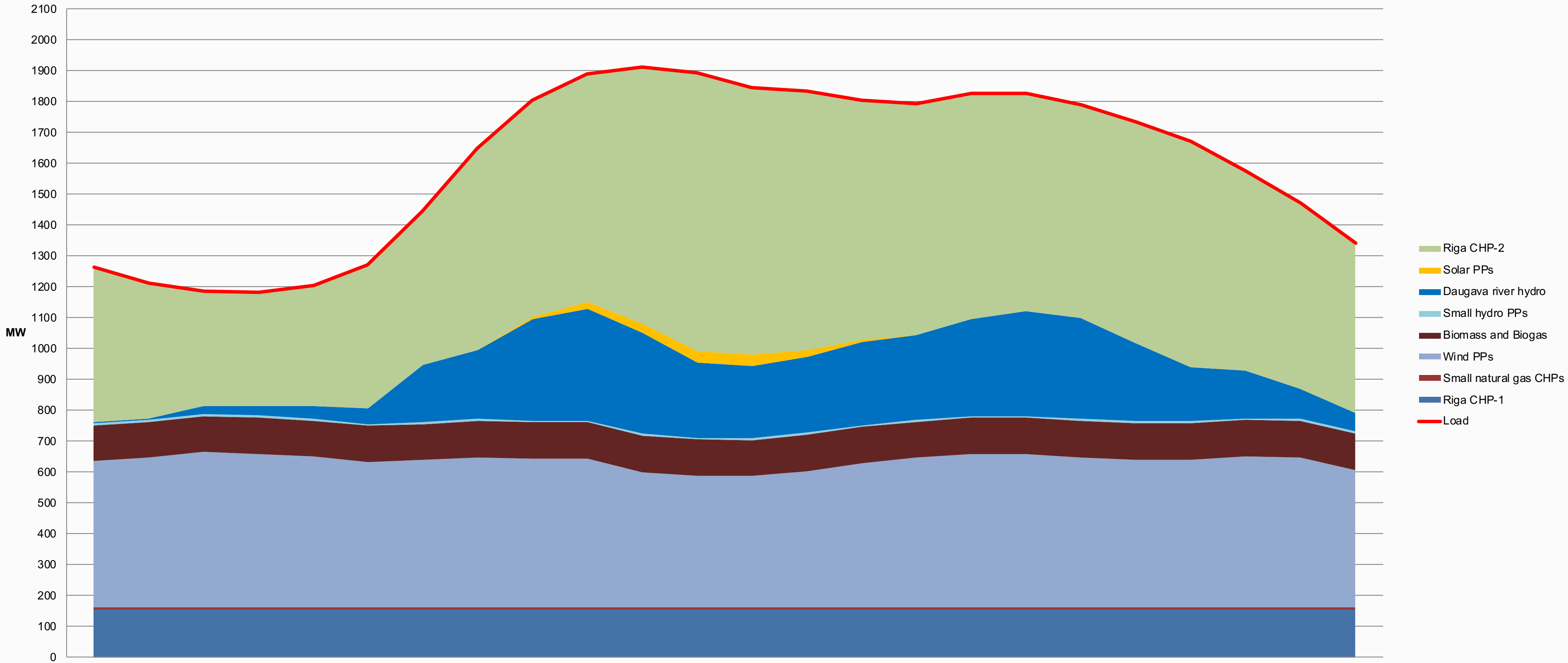
Table 13

January 2035 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 153 | 500 | 118 | 10 | 6 | 472 | 0 | 4 | 0 | 1262 |
| 02:00 | 153 | 439 | 118 | 10 | 6 | 483 | 0 | 3 | 0 | 1211 |
| 03:00 | 153 | 375 | 118 | 10 | 6 | 501 | 0 | 24 | 0 | 1187 |
| 04:00 | 153 | 370 | 118 | 10 | 6 | 497 | 0 | 30 | 0 | 1183 |
| 05:00 | 153 | 392 | 118 | 10 | 6 | 487 | 0 | 39 | 0 | 1204 |
| 06:00 | 153 | 464 | 118 | 10 | 6 | 470 | 0 | 50 | 0 | 1270 |
| 07:00 | 153 | 498 | 118 | 10 | 6 | 475 | 0 | 184 | 0 | 1443 |
| 08:00 | 153 | 656 | 118 | 10 | 6 | 485 | 0 | 222 | 0 | 1649 |
| 09:00 | 153 | 705 | 118 | 10 | 6 | 480 | 7 | 328 | 0 | 1805 |
| 10:00 | 153 | 738 | 118 | 10 | 6 | 480 | 20 | 364 | 0 | 1887 |
| 11:00 | 153 | 831 | 118 | 10 | 6 | 438 | 31 | 326 | 0 | 1912 |
| 12:00 | 153 | 904 | 118 | 10 | 6 | 424 | 36 | 244 | 0 | 1895 |
| 13:00 | 153 | 868 | 118 | 10 | 6 | 423 | 34 | 235 | 0 | 1846 |
| 14:00 | 153 | 839 | 118 | 10 | 6 | 441 | 23 | 244 | 0 | 1833 |
| 15:00 | 153 | 776 | 118 | 10 | 6 | 465 | 10 | 269 | 0 | 1805 |
| 16:00 | 153 | 749 | 118 | 10 | 6 | 483 | 0 | 274 | 0 | 1791 |
| 17:00 | 153 | 730 | 118 | 10 | 6 | 495 | 0 | 315 | 0 | 1826 |
| 18:00 | 153 | 707 | 118 | 10 | 6 | 494 | 0 | 339 | 0 | 1826 |
| 19:00 | 153 | 692 | 118 | 10 | 6 | 486 | 0 | 326 | 0 | 1789 |
| 20:00 | 153 | 715 | 118 | 10 | 6 | 478 | 0 | 253 | 0 | 1732 |
| 21:00 | 153 | 732 | 118 | 10 | 6 | 479 | 0 | 174 | 0 | 1670 |
| 22:00 | 153 | 649 | 118 | 10 | 6 | 488 | 0 | 152 | 0 | 1575 |
| 23:00 | 153 | 602 | 118 | 10 | 6 | 486 | 0 | 96 | 0 | 1470 |
| 00:00 | 153 | 550 | 118 | 10 | 6 | 444 | 0 | 60 | 0 | 1341 |
| Electricity generated, MWh | 3660 | 15483 | 2835 | 231 | 137 | 11353 | 161 | 4554 | 0 | 38414 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, BASELINE SCENARIO B (MAXIMUM LOAD), MW

January 2035 (weekday, Wednesday of the third week of the month, at maximum load)



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MAXIMUM LOAD), MW

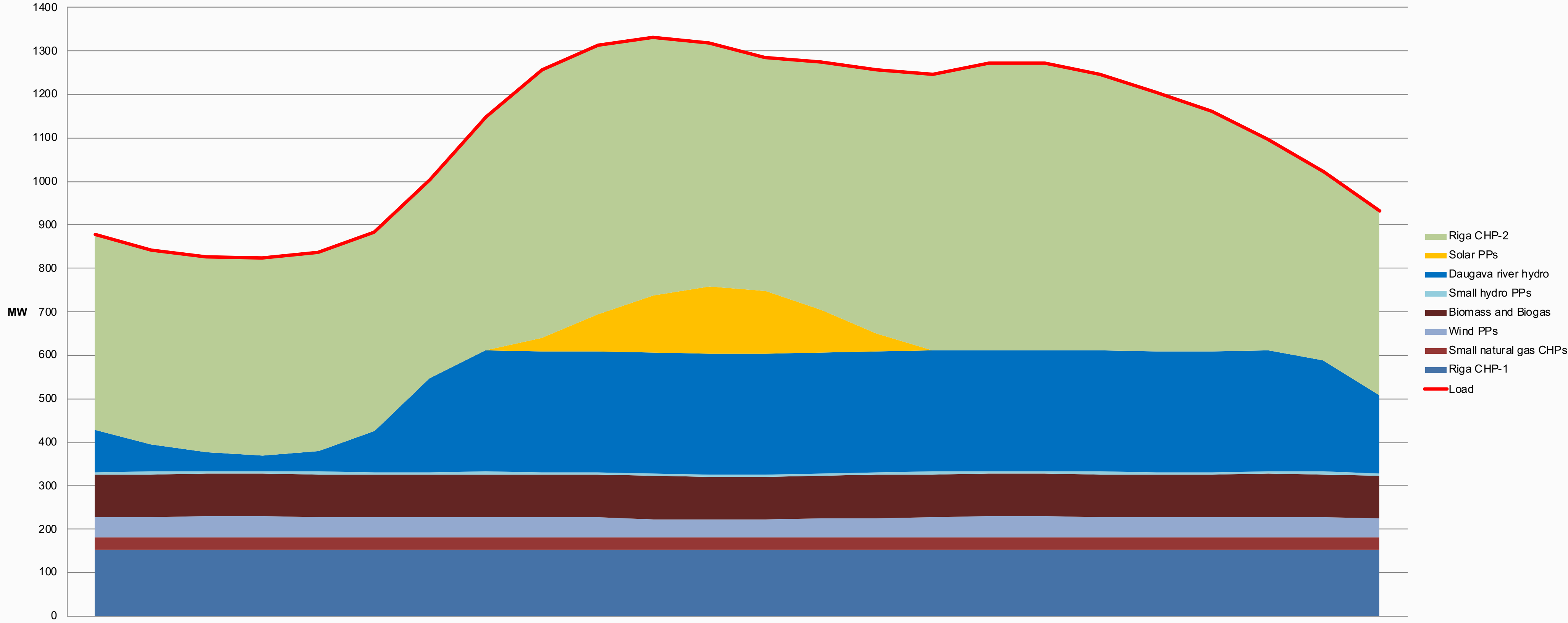
Table 14

January 2025 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 153 | 451 | 98 | 29 | 6 | 45 | 0 | 97 | 0 | 879 |
| 02:00 | 153 | 448 | 98 | 29 | 6 | 47 | 0 | 63 | 0 | 843 |
| 03:00 | 153 | 450 | 98 | 29 | 6 | 48 | 0 | 42 | 0 | 826 |
| 04:00 | 153 | 453 | 98 | 29 | 6 | 48 | 0 | 37 | 0 | 823 |
| 05:00 | 153 | 459 | 98 | 29 | 6 | 47 | 0 | 47 | 0 | 838 |
| 06:00 | 153 | 457 | 98 | 29 | 6 | 45 | 0 | 96 | 0 | 884 |
| 07:00 | 153 | 457 | 98 | 29 | 6 | 46 | 0 | 216 | 0 | 1005 |
| 08:00 | 153 | 537 | 98 | 29 | 6 | 47 | 0 | 278 | 0 | 1148 |
| 09:00 | 153 | 616 | 98 | 29 | 6 | 46 | 31 | 278 | 0 | 1257 |
| 10:00 | 153 | 620 | 98 | 29 | 6 | 46 | 84 | 278 | 0 | 1314 |
| 11:00 | 153 | 594 | 98 | 29 | 6 | 42 | 132 | 278 | 0 | 1331 |
| 12:00 | 153 | 561 | 98 | 29 | 6 | 41 | 154 | 278 | 0 | 1319 |
| 13:00 | 153 | 538 | 98 | 29 | 6 | 41 | 143 | 278 | 0 | 1285 |
| 14:00 | 153 | 571 | 98 | 29 | 6 | 43 | 99 | 278 | 0 | 1276 |
| 15:00 | 153 | 608 | 98 | 29 | 6 | 45 | 40 | 278 | 0 | 1256 |
| 16:00 | 153 | 637 | 98 | 29 | 6 | 47 | 0 | 278 | 0 | 1247 |
| 17:00 | 153 | 660 | 98 | 29 | 6 | 48 | 0 | 278 | 0 | 1271 |
| 18:00 | 153 | 660 | 98 | 29 | 6 | 48 | 0 | 278 | 0 | 1271 |
| 19:00 | 153 | 635 | 98 | 29 | 6 | 47 | 0 | 278 | 0 | 1245 |
| 20:00 | 153 | 596 | 98 | 29 | 6 | 46 | 0 | 278 | 0 | 1206 |
| 21:00 | 153 | 553 | 98 | 29 | 6 | 46 | 0 | 278 | 0 | 1163 |
| 22:00 | 153 | 485 | 98 | 29 | 6 | 47 | 0 | 279 | 0 | 1097 |
| 23:00 | 153 | 436 | 98 | 29 | 6 | 47 | 0 | 255 | 0 | 1024 |
| 00:00 | 153 | 425 | 98 | 29 | 6 | 43 | 0 | 180 | 0 | 933 |
| Electricity generated, MWh | 3660 | 12907 | 2360 | 692 | 137 | 1095 | 683 | 5204 | 0 | 26738 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MAXIMUM LOAD), MW

January 2025 (weekday, Wednesday of the third week of the month, at maximum load)



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MAXIMUM LOAD), MW

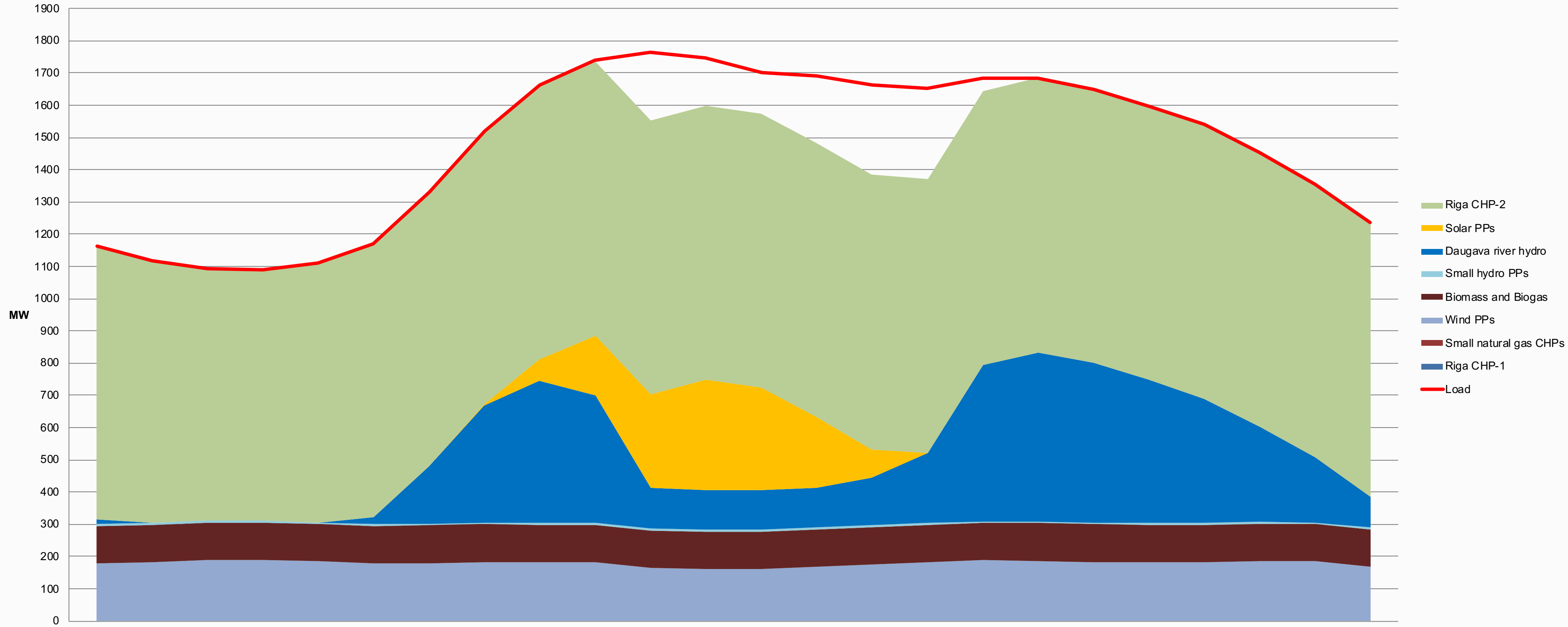
Table 15

January 2030 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------|--------------|
| 01:00 | 0 | 850 | 116 | 0 | 6 | 179 | 0 | 13 | 0 | 1164 |
| 02:00 | 0 | 812 | 116 | 0 | 6 | 183 | 0 | 0 | 0 | 1116 |
| 03:00 | 0 | 782 | 116 | 0 | 6 | 190 | 0 | 0 | 0 | 1094 |
| 04:00 | 0 | 781 | 116 | 0 | 6 | 188 | 0 | 0 | 0 | 1091 |
| 05:00 | 0 | 804 | 116 | 0 | 6 | 185 | 0 | 0 | 0 | 1110 |
| 06:00 | 0 | 850 | 116 | 0 | 6 | 178 | 0 | 21 | 0 | 1171 |
| 07:00 | 0 | 850 | 116 | 0 | 6 | 180 | 0 | 179 | 0 | 1331 |
| 08:00 | 0 | 850 | 116 | 0 | 6 | 184 | 0 | 364 | 0 | 1520 |
| 09:00 | 0 | 850 | 116 | 0 | 6 | 182 | 68 | 441 | 0 | 1665 |
| 10:00 | 0 | 850 | 116 | 0 | 6 | 182 | 186 | 396 | 0 | 1740 |
| 11:00 | 0 | 850 | 116 | 0 | 6 | 166 | 291 | 125 | 0 | 1763 |
| 12:00 | 0 | 850 | 116 | 0 | 6 | 161 | 340 | 125 | 0 | 1747 |
| 13:00 | 0 | 850 | 116 | 0 | 6 | 161 | 316 | 125 | 0 | 1702 |
| 14:00 | 0 | 850 | 116 | 0 | 6 | 167 | 218 | 125 | 0 | 1690 |
| 15:00 | 0 | 850 | 116 | 0 | 6 | 176 | 89 | 146 | 0 | 1665 |
| 16:00 | 0 | 850 | 116 | 0 | 6 | 183 | 1 | 217 | 0 | 1652 |
| 17:00 | 0 | 850 | 116 | 0 | 6 | 188 | 0 | 485 | 0 | 1684 |
| 18:00 | 0 | 850 | 116 | 0 | 6 | 187 | 0 | 525 | 0 | 1684 |
| 19:00 | 0 | 850 | 116 | 0 | 6 | 184 | 0 | 494 | 0 | 1650 |
| 20:00 | 0 | 850 | 116 | 0 | 6 | 181 | 0 | 444 | 0 | 1597 |
| 21:00 | 0 | 850 | 116 | 0 | 6 | 182 | 0 | 387 | 0 | 1540 |
| 22:00 | 0 | 850 | 116 | 0 | 6 | 185 | 0 | 296 | 0 | 1453 |
| 23:00 | 0 | 850 | 116 | 0 | 6 | 184 | 0 | 200 | 0 | 1356 |
| 00:00 | 0 | 850 | 116 | 0 | 6 | 168 | 0 | 96 | 0 | 1236 |
| Electricity generated, MWh | 0 | 20179 | 2784 | 0 | 137 | 4305 | 1510 | 5204 | 0 | 35422 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MAXIMUM LOAD), MW

January 2030 (weekday, Wednesday of the third week of the month, at maximum load)



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MAXIMUM LOAD), MW

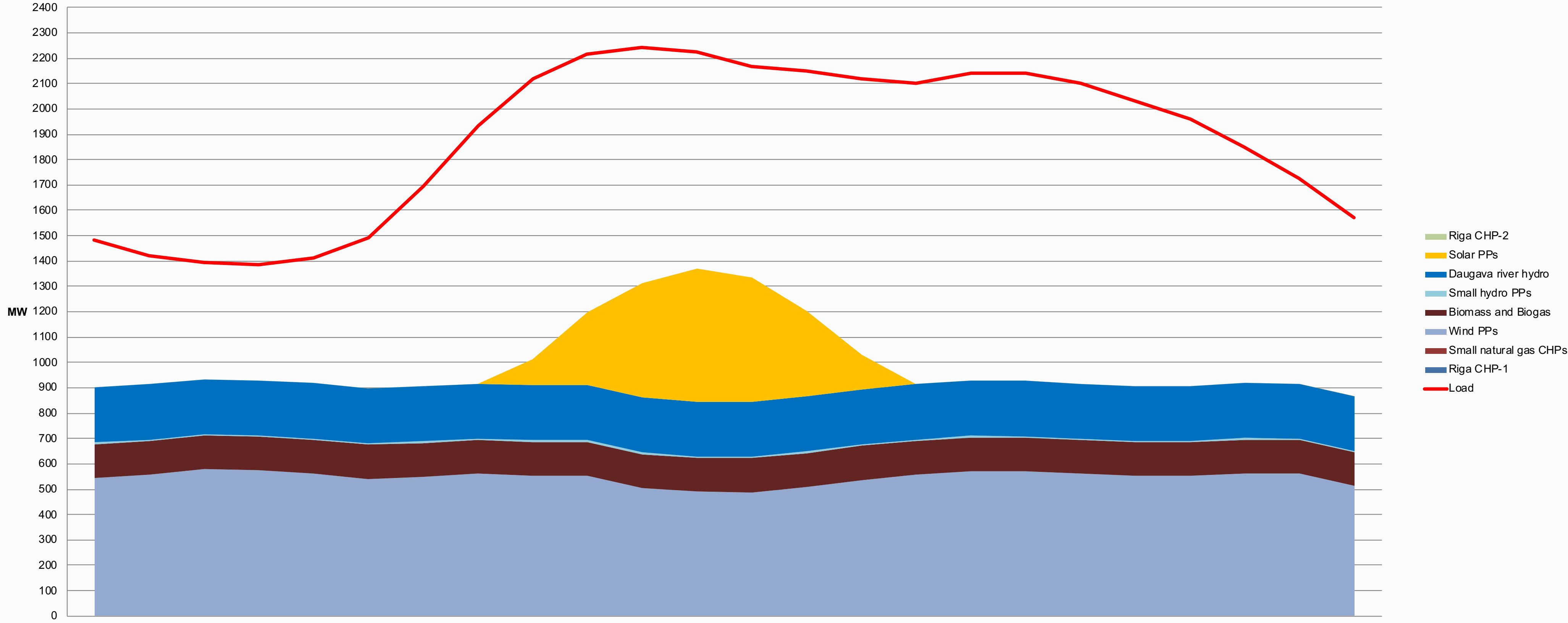
Table 16

January 2035 (weekday, Wednesday of the third week of the month, at maximum load)

| Hour | Riga CHPP-1 | Riga CHPP-2 ¹¹⁾ | Biomass and biogas | Natural gas cogeneration power plants | Small hydropower plants | Wind power plants | Solar power plants | Daugava HPP ¹⁰⁾ | Import | Load |
|-----------------------------------|-------------|----------------------------|--------------------|---------------------------------------|-------------------------|-------------------|--------------------|----------------------------|--------------|--------------|
| 01:00 | 0 | 0 | 134 | 0 | 6 | 544 | 0 | 217 | 252 | 1481 |
| 02:00 | 0 | 0 | 134 | 0 | 6 | 557 | 0 | 217 | 191 | 1420 |
| 03:00 | 0 | 0 | 134 | 0 | 6 | 578 | 0 | 217 | 142 | 1392 |
| 04:00 | 0 | 0 | 134 | 0 | 6 | 573 | 0 | 217 | 140 | 1388 |
| 05:00 | 0 | 0 | 134 | 0 | 6 | 561 | 0 | 217 | 164 | 1412 |
| 06:00 | 0 | 0 | 134 | 0 | 6 | 542 | 0 | 217 | 252 | 1490 |
| 07:00 | 0 | 0 | 134 | 0 | 6 | 548 | 0 | 217 | 422 | 1693 |
| 08:00 | 0 | 0 | 134 | 0 | 6 | 560 | 1 | 217 | 612 | 1935 |
| 09:00 | 0 | 0 | 134 | 0 | 6 | 553 | 105 | 217 | 658 | 2118 |
| 10:00 | 0 | 0 | 134 | 0 | 6 | 553 | 287 | 217 | 553 | 2214 |
| 11:00 | 0 | 0 | 134 | 0 | 6 | 505 | 451 | 217 | 439 | 2243 |
| 12:00 | 0 | 0 | 134 | 0 | 6 | 489 | 526 | 217 | 365 | 2223 |
| 13:00 | 0 | 0 | 134 | 0 | 6 | 489 | 490 | 217 | 356 | 2166 |
| 14:00 | 0 | 0 | 134 | 0 | 6 | 509 | 337 | 217 | 489 | 2151 |
| 15:00 | 0 | 0 | 134 | 0 | 6 | 537 | 138 | 217 | 637 | 2118 |
| 16:00 | 0 | 0 | 134 | 0 | 6 | 557 | 1 | 217 | 755 | 2102 |
| 17:00 | 0 | 0 | 134 | 0 | 6 | 571 | 0 | 217 | 783 | 2143 |
| 18:00 | 0 | 0 | 134 | 0 | 6 | 570 | 0 | 217 | 765 | 2142 |
| 19:00 | 0 | 0 | 134 | 0 | 6 | 560 | 0 | 217 | 750 | 2099 |
| 20:00 | 0 | 0 | 134 | 0 | 6 | 552 | 0 | 217 | 705 | 2032 |
| 21:00 | 0 | 0 | 134 | 0 | 6 | 552 | 0 | 216 | 668 | 1960 |
| 22:00 | 0 | 0 | 134 | 0 | 6 | 563 | 0 | 216 | 578 | 1848 |
| 23:00 | 0 | 0 | 134 | 0 | 6 | 561 | 0 | 216 | 469 | 1725 |
| 00:00 | 0 | 0 | 134 | 0 | 6 | 512 | 0 | 216 | 400 | 1573 |
| Electricity generated, MWh | 0 | 0 | 3208 | 0 | 137 | 13099 | 2336 | 5204 | 11544 | 45070 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MAXIMUM LOAD), MW

January 2035 (weekday, Wednesday of the third week of the month, at maximum load)



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO A (MINIMUM LOAD), MW

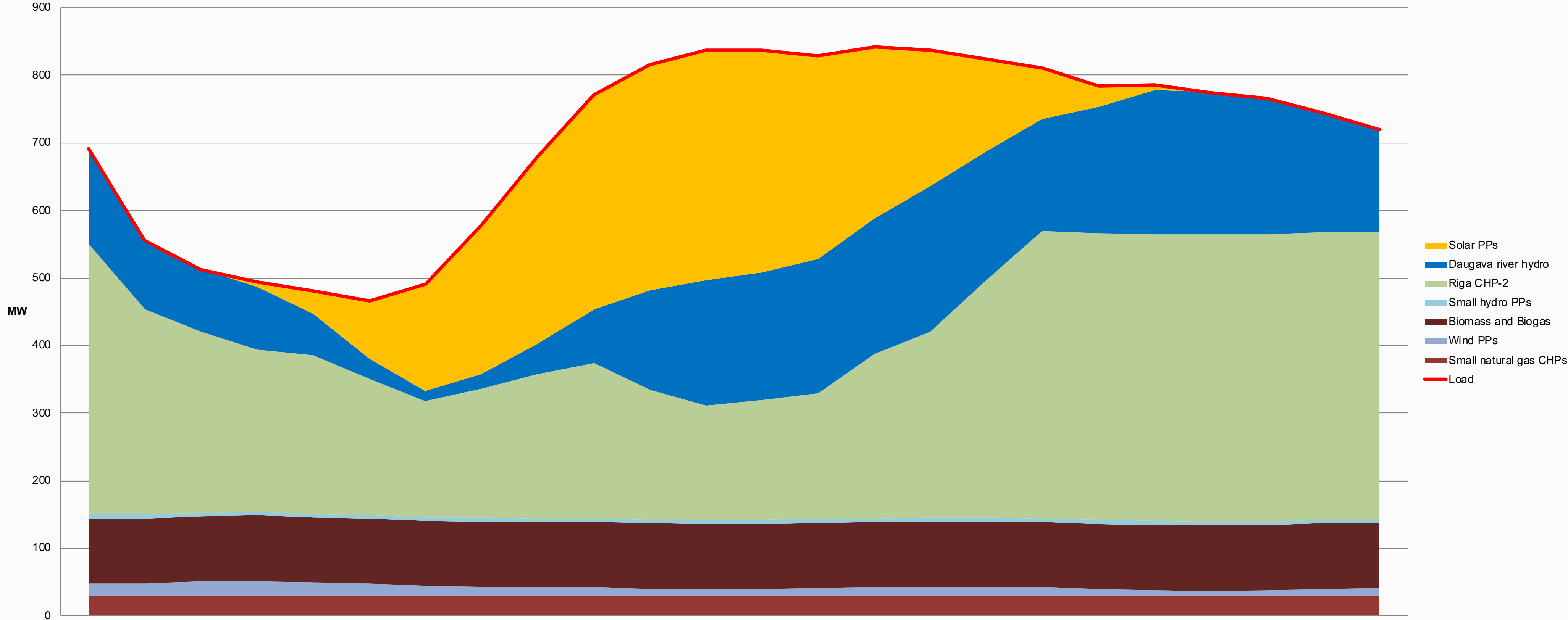
Table 17

June 2025 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|----------|
| 00:00 | 0 | 96 | 29 | 6 | 19 | 0 | 400 | 140 | 691 | 0 |
| 01:00 | 0 | 96 | 29 | 6 | 19 | 0 | 304 | 102 | 556 | 0 |
| 02:00 | 0 | 96 | 29 | 6 | 22 | 0 | 268 | 93 | 513 | 0 |
| 03:00 | 0 | 96 | 29 | 6 | 23 | 9 | 240 | 92 | 495 | 0 |
| 04:00 | 0 | 96 | 29 | 6 | 20 | 35 | 235 | 60 | 481 | 0 |
| 05:00 | 0 | 96 | 29 | 6 | 18 | 85 | 202 | 30 | 466 | 0 |
| 06:00 | 0 | 96 | 29 | 6 | 15 | 158 | 172 | 15 | 492 | 0 |
| 07:00 | 0 | 96 | 29 | 6 | 14 | 222 | 190 | 22 | 579 | 0 |
| 08:00 | 0 | 96 | 29 | 6 | 13 | 278 | 213 | 45 | 680 | 0 |
| 09:00 | 0 | 96 | 29 | 6 | 14 | 317 | 229 | 81 | 771 | 0 |
| 10:00 | 0 | 96 | 29 | 6 | 11 | 335 | 192 | 147 | 816 | 0 |
| 11:00 | 0 | 96 | 29 | 6 | 11 | 340 | 170 | 185 | 836 | 0 |
| 12:00 | 0 | 96 | 29 | 6 | 11 | 329 | 178 | 188 | 837 | 0 |
| 13:00 | 0 | 96 | 29 | 6 | 12 | 300 | 186 | 200 | 829 | 0 |
| 14:00 | 0 | 96 | 29 | 6 | 14 | 256 | 243 | 200 | 843 | 0 |
| 15:00 | 0 | 96 | 29 | 6 | 14 | 201 | 275 | 215 | 836 | 0 |
| 16:00 | 0 | 96 | 29 | 6 | 14 | 137 | 351 | 191 | 824 | 0 |
| 17:00 | 0 | 96 | 29 | 6 | 14 | 75 | 425 | 166 | 810 | 0 |
| 18:00 | 0 | 96 | 29 | 6 | 11 | 30 | 425 | 187 | 784 | 0 |
| 19:00 | 0 | 96 | 29 | 6 | 9 | 6 | 425 | 214 | 785 | 0 |
| 20:00 | 0 | 96 | 29 | 6 | 8 | 0 | 425 | 210 | 774 | 0 |
| 21:00 | 0 | 96 | 29 | 6 | 9 | 0 | 425 | 201 | 766 | 0 |
| 22:00 | 0 | 96 | 29 | 6 | 12 | 0 | 425 | 177 | 744 | 0 |
| 23:00 | 0 | 96 | 29 | 6 | 12 | 0 | 425 | 152 | 720 | 0 |
| Electricity generated, MWh | 0 | 2309 | 692 | 134 | 340 | 3114 | 7023 | 3313 | 16927 | 0 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO A (MINIMUM LOAD), MW

June 2025 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO A (MINIMUM LOAD), MW

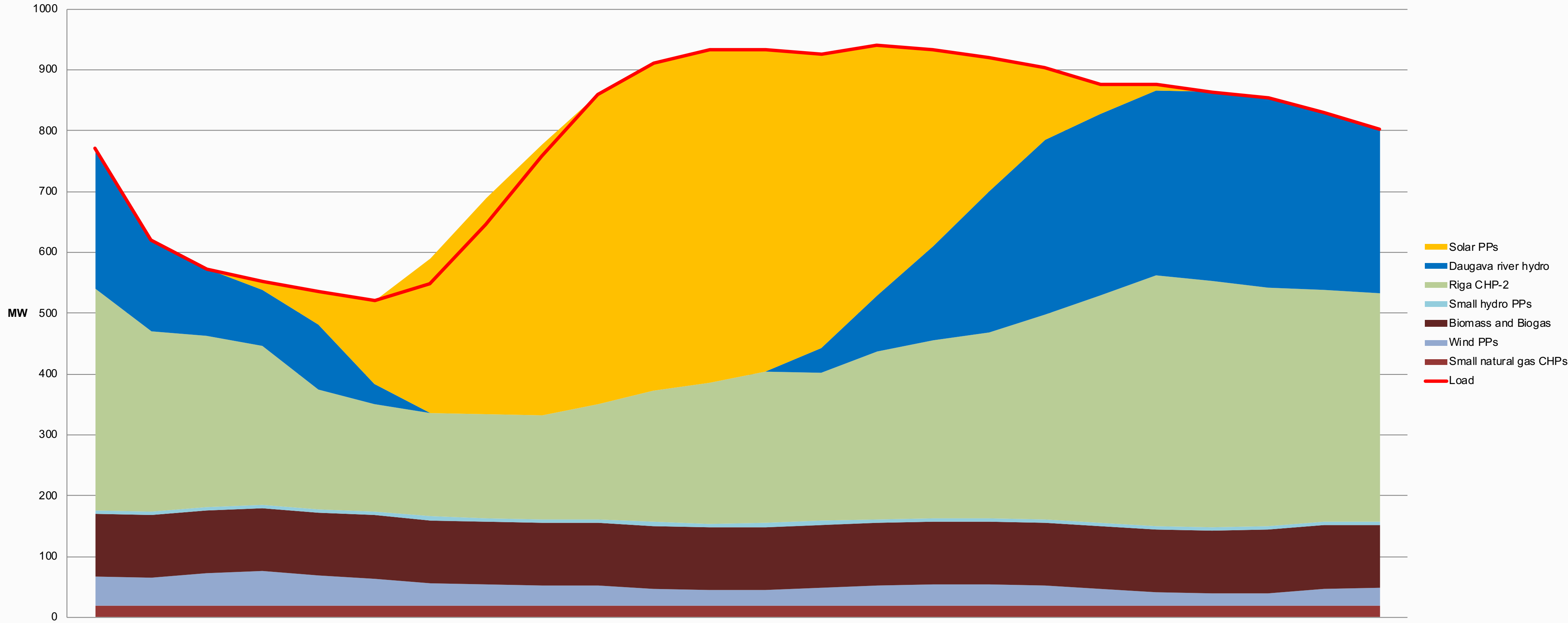
Table 18

June 2030 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|------------|
| 00:00 | 0 | 103 | 19 | 6 | 47 | 0 | 365 | 230 | 770 | 0 |
| 01:00 | 0 | 103 | 19 | 6 | 46 | 0 | 296 | 150 | 620 | 0 |
| 02:00 | 0 | 103 | 19 | 6 | 53 | 0 | 281 | 110 | 573 | 0 |
| 03:00 | 0 | 103 | 19 | 6 | 56 | 14 | 262 | 92 | 552 | 0 |
| 04:00 | 0 | 103 | 19 | 6 | 50 | 55 | 197 | 106 | 536 | 0 |
| 05:00 | 0 | 103 | 19 | 6 | 45 | 137 | 177 | 33 | 520 | 0 |
| 06:00 | 0 | 103 | 19 | 6 | 37 | 255 | 170 | 0 | 548 | 42 |
| 07:00 | 0 | 103 | 19 | 6 | 35 | 356 | 170 | 0 | 646 | 43 |
| 08:00 | 0 | 103 | 19 | 6 | 33 | 447 | 170 | 0 | 759 | 19 |
| 09:00 | 0 | 103 | 19 | 6 | 33 | 509 | 189 | 0 | 860 | 0 |
| 10:00 | 0 | 103 | 19 | 6 | 28 | 539 | 216 | 0 | 911 | 0 |
| 11:00 | 0 | 103 | 19 | 6 | 26 | 547 | 232 | 0 | 933 | 0 |
| 12:00 | 0 | 103 | 19 | 6 | 26 | 529 | 250 | 0 | 933 | 0 |
| 13:00 | 0 | 103 | 19 | 6 | 30 | 482 | 243 | 41 | 925 | 0 |
| 14:00 | 0 | 103 | 19 | 6 | 33 | 411 | 276 | 92 | 940 | 0 |
| 15:00 | 0 | 103 | 19 | 6 | 35 | 323 | 291 | 155 | 933 | 0 |
| 16:00 | 0 | 103 | 19 | 6 | 35 | 219 | 304 | 233 | 919 | 0 |
| 17:00 | 0 | 103 | 19 | 6 | 33 | 120 | 337 | 286 | 904 | 0 |
| 18:00 | 0 | 103 | 19 | 6 | 27 | 49 | 374 | 297 | 875 | 0 |
| 19:00 | 0 | 103 | 19 | 6 | 22 | 10 | 411 | 305 | 876 | 0 |
| 20:00 | 0 | 103 | 19 | 6 | 20 | 0 | 405 | 310 | 863 | 0 |
| 21:00 | 0 | 103 | 19 | 6 | 21 | 0 | 393 | 312 | 854 | 0 |
| 22:00 | 0 | 103 | 19 | 6 | 28 | 0 | 382 | 292 | 830 | 0 |
| 23:00 | 0 | 103 | 19 | 6 | 29 | 0 | 375 | 270 | 803 | 0 |
| Electricity generated, MWh | 0 | 2479 | 461 | 137 | 828 | 5002 | 6766 | 3313 | 18883 | 104 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO A (MINIMUM LOAD), MW

June 2030 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO A (MINIMUM LOAD), MW

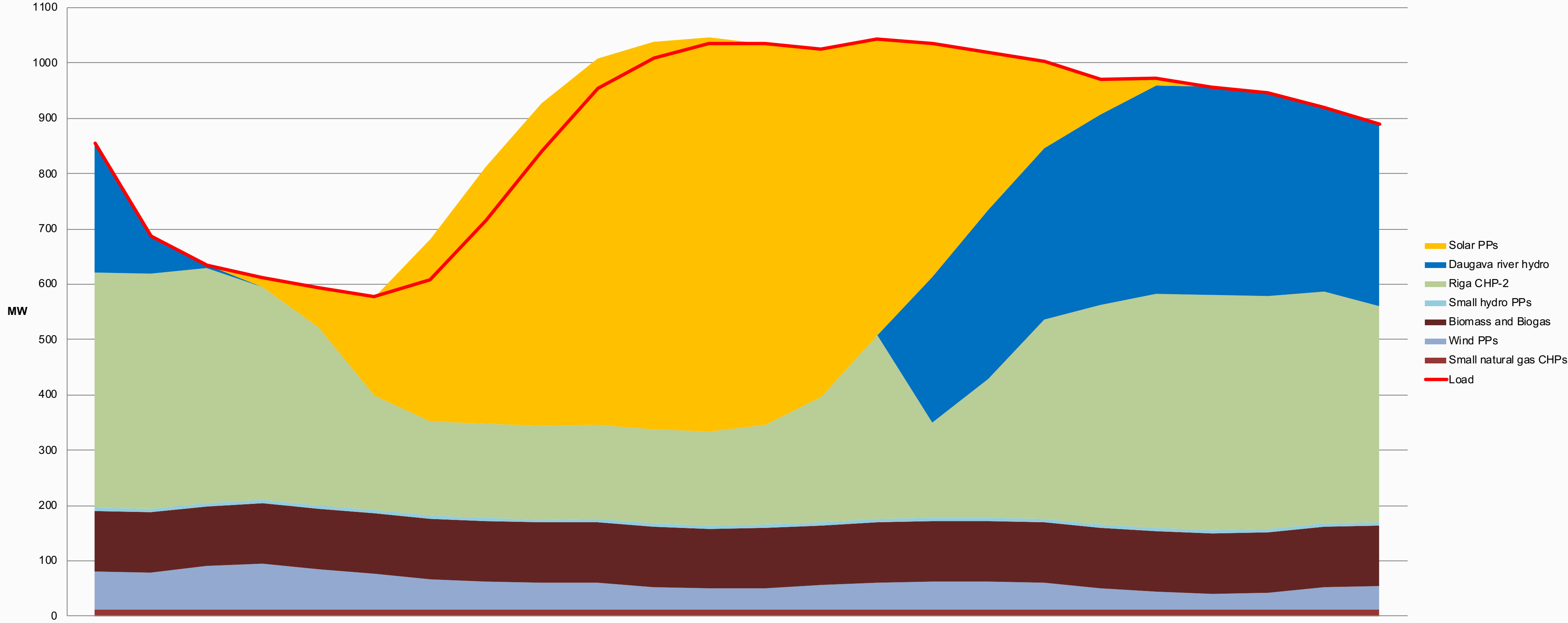
Table 19

June 2035 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|------------|
| 00:00 | 0 | 109 | 12 | 6 | 69 | 0 | 425 | 233 | 854 | 0 |
| 01:00 | 0 | 109 | 12 | 6 | 68 | 0 | 425 | 68 | 687 | 0 |
| 02:00 | 0 | 109 | 12 | 6 | 78 | 0 | 425 | 5 | 635 | 0 |
| 03:00 | 0 | 109 | 12 | 6 | 83 | 18 | 385 | 0 | 612 | 0 |
| 04:00 | 0 | 109 | 12 | 6 | 73 | 72 | 323 | 0 | 594 | 0 |
| 05:00 | 0 | 109 | 12 | 6 | 66 | 178 | 207 | 0 | 577 | 0 |
| 06:00 | 0 | 109 | 12 | 6 | 55 | 331 | 170 | 0 | 608 | 75 |
| 07:00 | 0 | 109 | 12 | 6 | 51 | 464 | 170 | 0 | 716 | 95 |
| 08:00 | 0 | 109 | 12 | 6 | 48 | 582 | 170 | 0 | 841 | 85 |
| 09:00 | 0 | 109 | 12 | 6 | 49 | 663 | 170 | 0 | 953 | 55 |
| 10:00 | 0 | 109 | 12 | 6 | 41 | 702 | 170 | 0 | 1010 | 29 |
| 11:00 | 0 | 109 | 12 | 6 | 38 | 712 | 170 | 0 | 1034 | 12 |
| 12:00 | 0 | 109 | 12 | 6 | 39 | 689 | 181 | 0 | 1035 | 0 |
| 13:00 | 0 | 109 | 12 | 6 | 44 | 628 | 227 | 0 | 1025 | 0 |
| 14:00 | 0 | 109 | 12 | 6 | 49 | 535 | 333 | 0 | 1042 | 0 |
| 15:00 | 0 | 109 | 12 | 6 | 52 | 421 | 171 | 264 | 1034 | 0 |
| 16:00 | 0 | 109 | 12 | 6 | 52 | 286 | 252 | 304 | 1019 | 0 |
| 17:00 | 0 | 109 | 12 | 6 | 49 | 156 | 361 | 310 | 1002 | 0 |
| 18:00 | 0 | 109 | 12 | 6 | 39 | 64 | 396 | 345 | 970 | 0 |
| 19:00 | 0 | 109 | 12 | 6 | 33 | 13 | 425 | 375 | 971 | 0 |
| 20:00 | 0 | 109 | 12 | 6 | 29 | 0 | 425 | 376 | 957 | 0 |
| 21:00 | 0 | 109 | 12 | 6 | 31 | 0 | 421 | 369 | 947 | 0 |
| 22:00 | 0 | 109 | 12 | 6 | 42 | 0 | 418 | 334 | 920 | 0 |
| 23:00 | 0 | 109 | 12 | 6 | 43 | 0 | 391 | 330 | 890 | 0 |
| Electricity generated, MWh | 0 | 2614 | 277 | 137 | 1219 | 6513 | 7210 | 3313 | 20933 | 350 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO A (MINIMUM LOAD), MW

June 2035 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO B (MINIMUM LOAD), MW

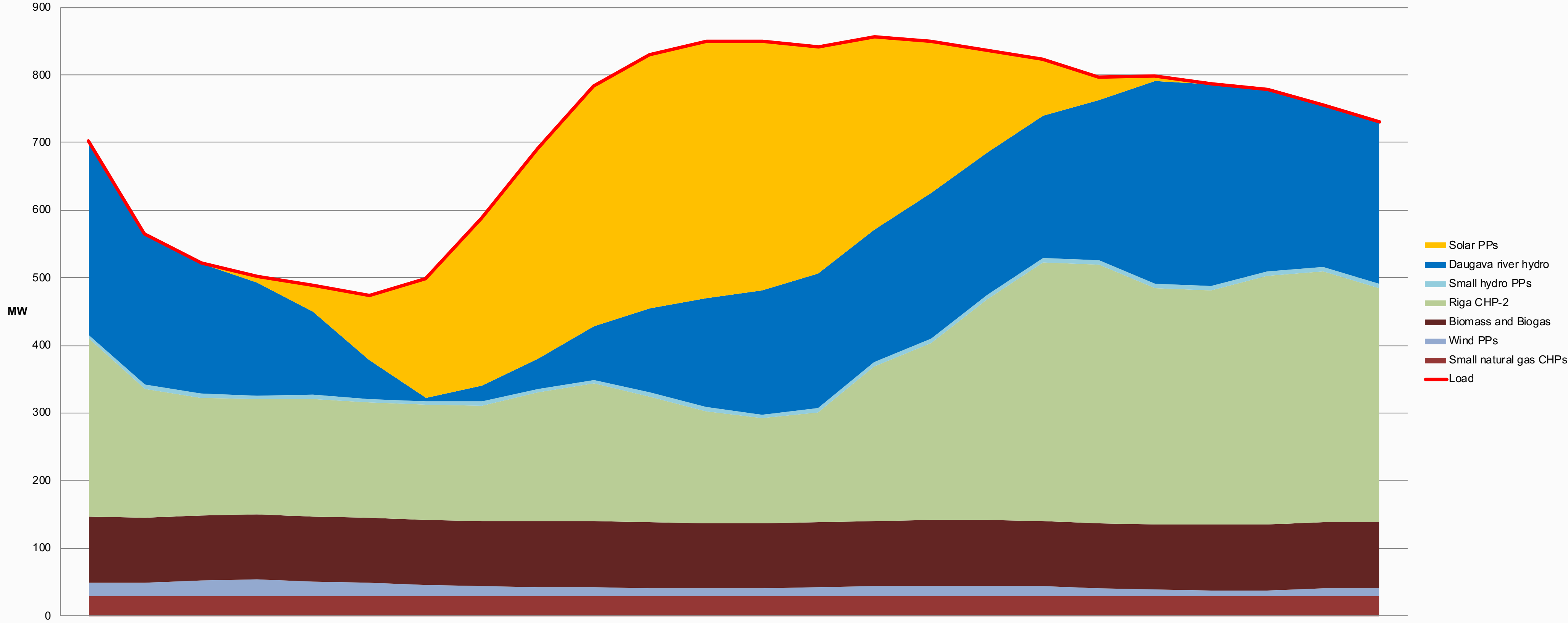
Table 20

June 2025 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|----------|
| 00:00 | 0 | 97 | 29 | 6 | 20 | 0 | 263 | 287 | 702 | 0 |
| 01:00 | 0 | 97 | 29 | 6 | 20 | 0 | 190 | 223 | 565 | 0 |
| 02:00 | 0 | 97 | 29 | 6 | 23 | 0 | 174 | 193 | 521 | 0 |
| 03:00 | 0 | 97 | 29 | 6 | 24 | 10 | 170 | 167 | 503 | 0 |
| 04:00 | 0 | 97 | 29 | 6 | 22 | 39 | 174 | 123 | 488 | 0 |
| 05:00 | 0 | 97 | 29 | 6 | 19 | 95 | 170 | 58 | 474 | 0 |
| 06:00 | 0 | 97 | 29 | 6 | 16 | 177 | 170 | 5 | 499 | 0 |
| 07:00 | 0 | 97 | 29 | 6 | 15 | 248 | 170 | 24 | 588 | 0 |
| 08:00 | 0 | 97 | 29 | 6 | 14 | 311 | 190 | 44 | 691 | 0 |
| 09:00 | 0 | 97 | 29 | 6 | 14 | 354 | 203 | 80 | 783 | 0 |
| 10:00 | 0 | 97 | 29 | 6 | 12 | 375 | 187 | 124 | 829 | 0 |
| 11:00 | 0 | 97 | 29 | 6 | 11 | 380 | 165 | 161 | 850 | 0 |
| 12:00 | 0 | 97 | 29 | 6 | 11 | 368 | 155 | 184 | 850 | 0 |
| 13:00 | 0 | 97 | 29 | 6 | 13 | 336 | 163 | 199 | 842 | 0 |
| 14:00 | 0 | 97 | 29 | 6 | 14 | 286 | 228 | 196 | 856 | 0 |
| 15:00 | 0 | 97 | 29 | 6 | 15 | 225 | 263 | 215 | 850 | 0 |
| 16:00 | 0 | 97 | 29 | 6 | 15 | 153 | 327 | 211 | 837 | 0 |
| 17:00 | 0 | 97 | 29 | 6 | 14 | 83 | 383 | 211 | 823 | 0 |
| 18:00 | 0 | 97 | 29 | 6 | 12 | 34 | 382 | 238 | 797 | 0 |
| 19:00 | 0 | 97 | 29 | 6 | 10 | 7 | 349 | 300 | 798 | 0 |
| 20:00 | 0 | 97 | 29 | 6 | 9 | 0 | 347 | 299 | 786 | 0 |
| 21:00 | 0 | 97 | 29 | 6 | 9 | 0 | 369 | 269 | 778 | 0 |
| 22:00 | 0 | 97 | 29 | 6 | 12 | 0 | 371 | 241 | 756 | 0 |
| 23:00 | 0 | 97 | 29 | 6 | 13 | 0 | 347 | 240 | 731 | 0 |
| Electricity generated, MWh | 0 | 2326 | 692 | 137 | 360 | 3480 | 5911 | 4292 | 17197 | 0 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO B (MINIMUM LOAD), MW

June 2025 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO B (MINIMUM LOAD), MW

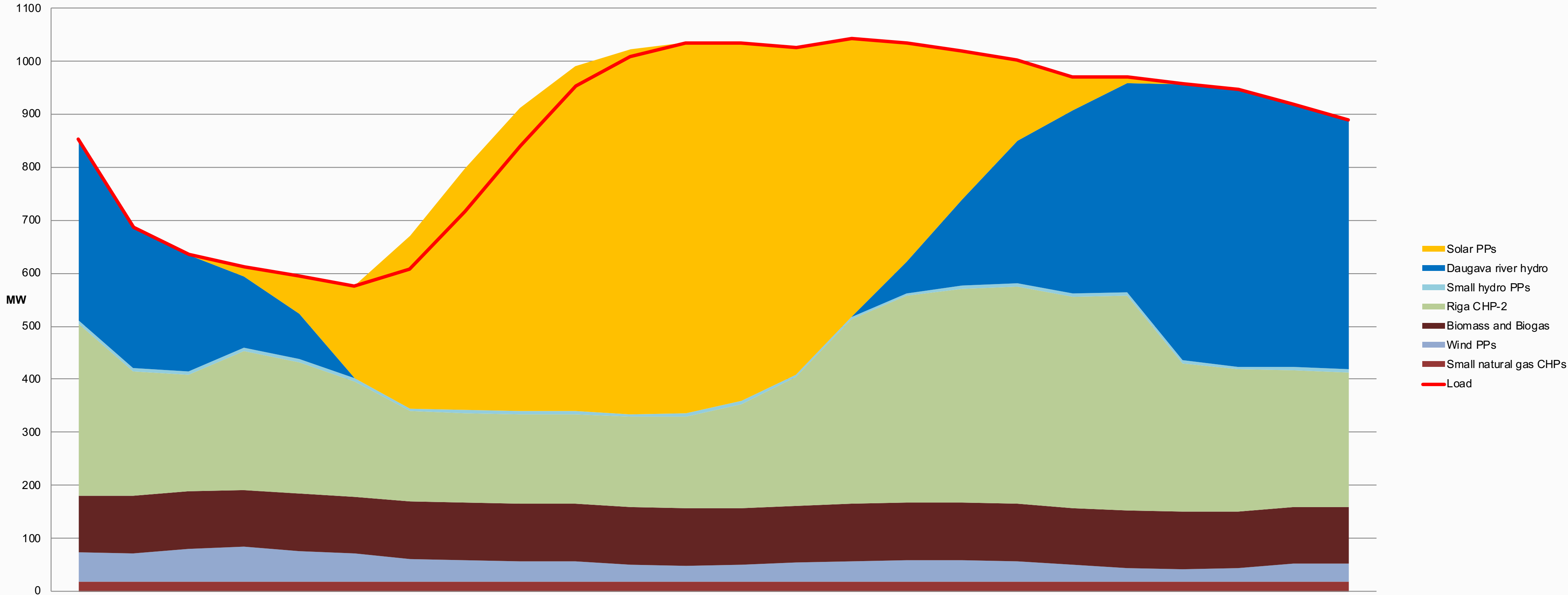
Table 21

June 2030 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|------------|
| 00:00 | 0 | 108 | 19 | 6 | 54 | 0 | 323 | 344 | 854 | 0 |
| 01:00 | 0 | 108 | 19 | 6 | 53 | 0 | 236 | 266 | 687 | 0 |
| 02:00 | 0 | 108 | 19 | 6 | 61 | 0 | 221 | 220 | 635 | 0 |
| 03:00 | 0 | 108 | 19 | 6 | 65 | 18 | 263 | 134 | 612 | 0 |
| 04:00 | 0 | 108 | 19 | 6 | 57 | 71 | 249 | 85 | 594 | 0 |
| 05:00 | 0 | 108 | 19 | 6 | 51 | 175 | 218 | 0 | 577 | 0 |
| 06:00 | 0 | 108 | 19 | 6 | 43 | 325 | 170 | 0 | 608 | 62 |
| 07:00 | 0 | 108 | 19 | 6 | 40 | 455 | 170 | 0 | 716 | 81 |
| 08:00 | 0 | 108 | 19 | 6 | 38 | 570 | 170 | 0 | 841 | 70 |
| 09:00 | 0 | 108 | 19 | 6 | 38 | 650 | 170 | 0 | 953 | 37 |
| 10:00 | 0 | 108 | 19 | 6 | 32 | 688 | 170 | 0 | 1009 | 13 |
| 11:00 | 0 | 108 | 19 | 6 | 30 | 698 | 174 | 0 | 1034 | 0 |
| 12:00 | 0 | 108 | 19 | 6 | 30 | 676 | 196 | 0 | 1035 | 0 |
| 13:00 | 0 | 108 | 19 | 6 | 34 | 616 | 242 | 0 | 1025 | 0 |
| 14:00 | 0 | 108 | 19 | 6 | 38 | 524 | 347 | 0 | 1042 | 0 |
| 15:00 | 0 | 108 | 19 | 6 | 40 | 413 | 390 | 59 | 1034 | 0 |
| 16:00 | 0 | 108 | 19 | 6 | 40 | 280 | 403 | 163 | 1019 | 0 |
| 17:00 | 0 | 108 | 19 | 6 | 38 | 153 | 410 | 268 | 1002 | 0 |
| 18:00 | 0 | 108 | 19 | 6 | 31 | 62 | 398 | 347 | 970 | 0 |
| 19:00 | 0 | 108 | 19 | 6 | 25 | 13 | 407 | 394 | 971 | 0 |
| 20:00 | 0 | 108 | 19 | 6 | 23 | 0 | 280 | 521 | 957 | 0 |
| 21:00 | 0 | 108 | 19 | 6 | 24 | 0 | 268 | 523 | 947 | 0 |
| 22:00 | 0 | 108 | 19 | 6 | 32 | 0 | 258 | 497 | 920 | 0 |
| 23:00 | 0 | 108 | 19 | 6 | 33 | 0 | 253 | 471 | 890 | 0 |
| Electricity generated, MWh | 0 | 2581 | 461 | 137 | 950 | 6386 | 6387 | 4292 | 20930 | 263 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO B (MINIMUM LOAD), MW

June 2030 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO B (MINIMUM LOAD), MW

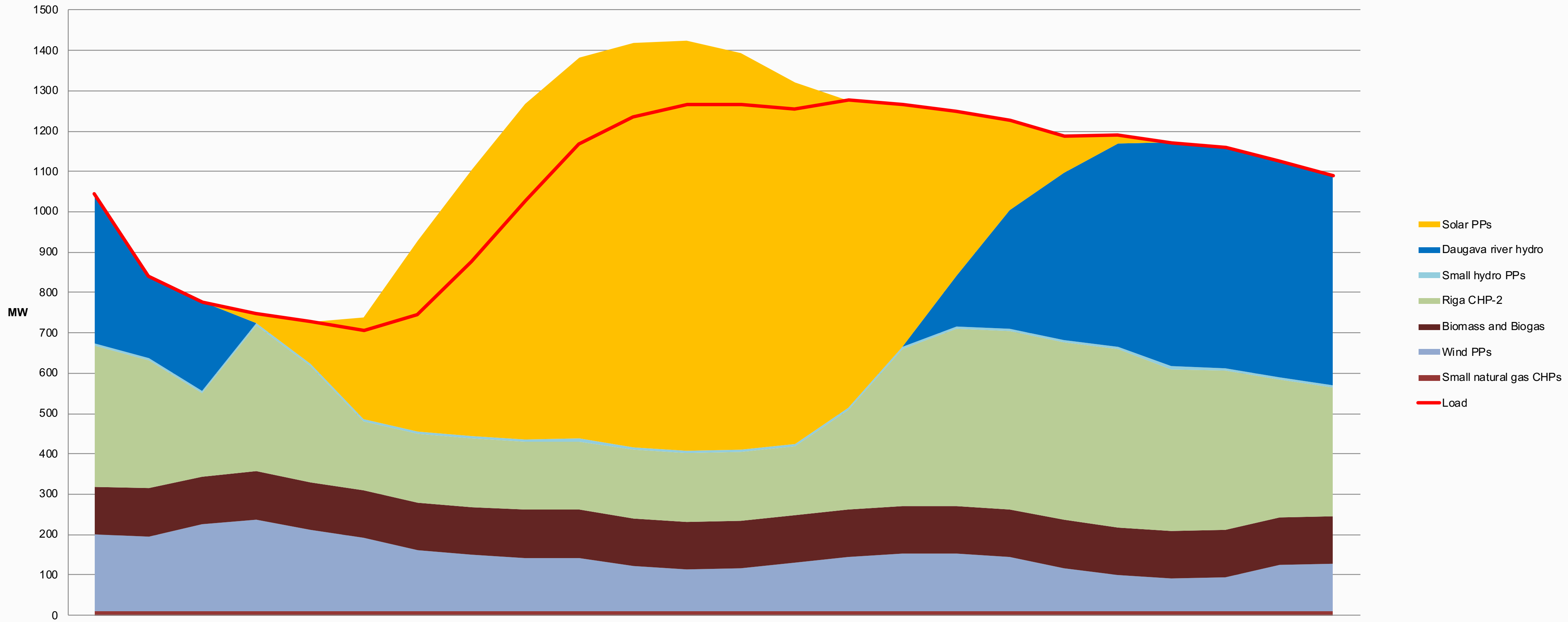
Table 22

June 2035 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|-------------|
| 00:00 | 0 | 118 | 10 | 6 | 191 | 0 | 350 | 371 | 1045 | 0 |
| 01:00 | 0 | 118 | 10 | 6 | 187 | 0 | 318 | 203 | 842 | 0 |
| 02:00 | 0 | 118 | 10 | 6 | 216 | 0 | 207 | 220 | 777 | 0 |
| 03:00 | 0 | 118 | 10 | 6 | 228 | 26 | 362 | 0 | 749 | 0 |
| 04:00 | 0 | 118 | 10 | 6 | 201 | 103 | 290 | 0 | 728 | 0 |
| 05:00 | 0 | 118 | 10 | 6 | 182 | 254 | 170 | 0 | 706 | 33 |
| 06:00 | 0 | 118 | 10 | 6 | 151 | 473 | 170 | 0 | 744 | 183 |
| 07:00 | 0 | 118 | 10 | 6 | 141 | 662 | 170 | 0 | 877 | 229 |
| 08:00 | 0 | 118 | 10 | 6 | 133 | 830 | 170 | 0 | 1029 | 237 |
| 09:00 | 0 | 118 | 10 | 6 | 134 | 946 | 170 | 0 | 1167 | 216 |
| 10:00 | 0 | 118 | 10 | 6 | 113 | 1001 | 170 | 0 | 1236 | 182 |
| 11:00 | 0 | 118 | 10 | 6 | 105 | 1016 | 170 | 0 | 1266 | 158 |
| 12:00 | 0 | 118 | 10 | 6 | 107 | 983 | 170 | 0 | 1267 | 127 |
| 13:00 | 0 | 118 | 10 | 6 | 121 | 896 | 170 | 0 | 1255 | 66 |
| 14:00 | 0 | 118 | 10 | 6 | 135 | 763 | 245 | 0 | 1276 | 0 |
| 15:00 | 0 | 118 | 10 | 6 | 143 | 600 | 390 | 0 | 1266 | 0 |
| 16:00 | 0 | 118 | 10 | 6 | 142 | 408 | 441 | 124 | 1248 | 0 |
| 17:00 | 0 | 118 | 10 | 6 | 135 | 222 | 441 | 295 | 1226 | 0 |
| 18:00 | 0 | 118 | 10 | 6 | 108 | 91 | 441 | 414 | 1188 | 0 |
| 19:00 | 0 | 118 | 10 | 6 | 90 | 19 | 441 | 506 | 1189 | 0 |
| 20:00 | 0 | 118 | 10 | 6 | 81 | 0 | 402 | 555 | 1171 | 0 |
| 21:00 | 0 | 118 | 10 | 6 | 85 | 0 | 395 | 546 | 1159 | 0 |
| 22:00 | 0 | 118 | 10 | 6 | 114 | 0 | 341 | 538 | 1127 | 0 |
| 23:00 | 0 | 118 | 10 | 6 | 118 | 0 | 319 | 520 | 1089 | 0 |
| Electricity generated, MWh | 0 | 2835 | 231 | 137 | 3359 | 9292 | 6913 | 4292 | 25626 | 1432 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO B (MINIMUM LOAD), MW

June 2035 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MINIMUM LOAD), MW

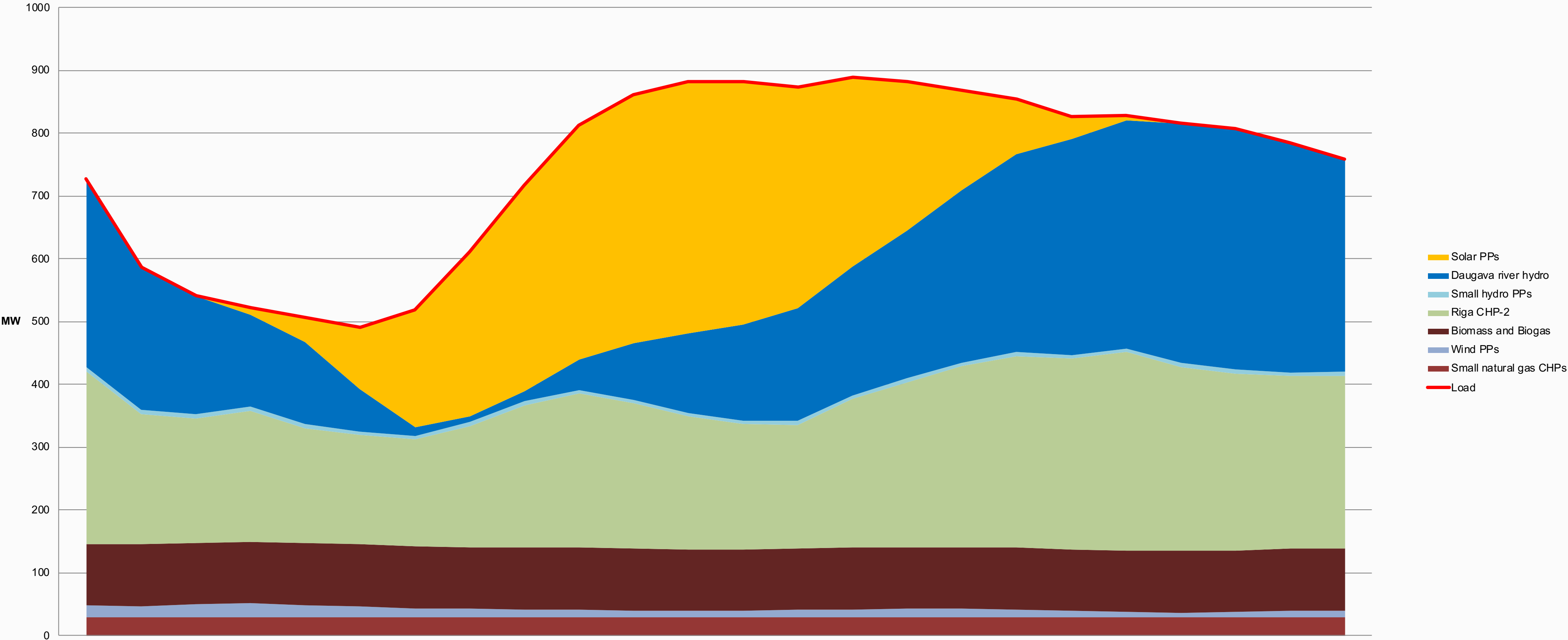
Table 23

June 2025 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|----------|
| 00:00 | 0 | 98 | 29 | 6 | 18 | 0 | 275 | 301 | 728 | 0 |
| 01:00 | 0 | 98 | 29 | 6 | 18 | 0 | 208 | 227 | 586 | 0 |
| 02:00 | 0 | 98 | 29 | 6 | 21 | 0 | 198 | 189 | 541 | 0 |
| 03:00 | 0 | 98 | 29 | 6 | 22 | 10 | 209 | 147 | 521 | 0 |
| 04:00 | 0 | 98 | 29 | 6 | 19 | 41 | 184 | 130 | 506 | 0 |
| 05:00 | 0 | 98 | 29 | 6 | 18 | 100 | 174 | 67 | 491 | 0 |
| 06:00 | 0 | 98 | 29 | 6 | 15 | 186 | 170 | 14 | 518 | 0 |
| 07:00 | 0 | 98 | 29 | 6 | 14 | 261 | 193 | 10 | 610 | 0 |
| 08:00 | 0 | 98 | 29 | 6 | 13 | 327 | 227 | 17 | 717 | 0 |
| 09:00 | 0 | 98 | 29 | 6 | 13 | 373 | 246 | 48 | 812 | 0 |
| 10:00 | 0 | 98 | 29 | 6 | 11 | 395 | 231 | 91 | 860 | 0 |
| 11:00 | 0 | 98 | 29 | 6 | 10 | 400 | 211 | 127 | 881 | 0 |
| 12:00 | 0 | 98 | 29 | 6 | 10 | 388 | 199 | 152 | 882 | 0 |
| 13:00 | 0 | 98 | 29 | 6 | 12 | 353 | 197 | 179 | 873 | 0 |
| 14:00 | 0 | 98 | 29 | 6 | 13 | 301 | 237 | 205 | 888 | 0 |
| 15:00 | 0 | 98 | 29 | 6 | 14 | 237 | 263 | 235 | 881 | 0 |
| 16:00 | 0 | 98 | 29 | 6 | 14 | 161 | 287 | 274 | 869 | 0 |
| 17:00 | 0 | 98 | 29 | 6 | 13 | 88 | 305 | 315 | 854 | 0 |
| 18:00 | 0 | 98 | 29 | 6 | 10 | 36 | 303 | 345 | 827 | 0 |
| 19:00 | 0 | 98 | 29 | 6 | 9 | 7 | 315 | 364 | 828 | 0 |
| 20:00 | 0 | 98 | 29 | 6 | 8 | 0 | 293 | 382 | 815 | 0 |
| 21:00 | 0 | 98 | 29 | 6 | 8 | 0 | 282 | 384 | 807 | 0 |
| 22:00 | 0 | 98 | 29 | 6 | 11 | 0 | 275 | 366 | 784 | 0 |
| 23:00 | 0 | 98 | 29 | 6 | 11 | 0 | 275 | 339 | 758 | 0 |
| Electricity generated, MWh | 0 | 2360 | 692 | 137 | 324 | 3663 | 5754 | 4908 | 17837 | 0 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MINIMUM LOAD), MW

June 2025 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MINIMUM LOAD), MW

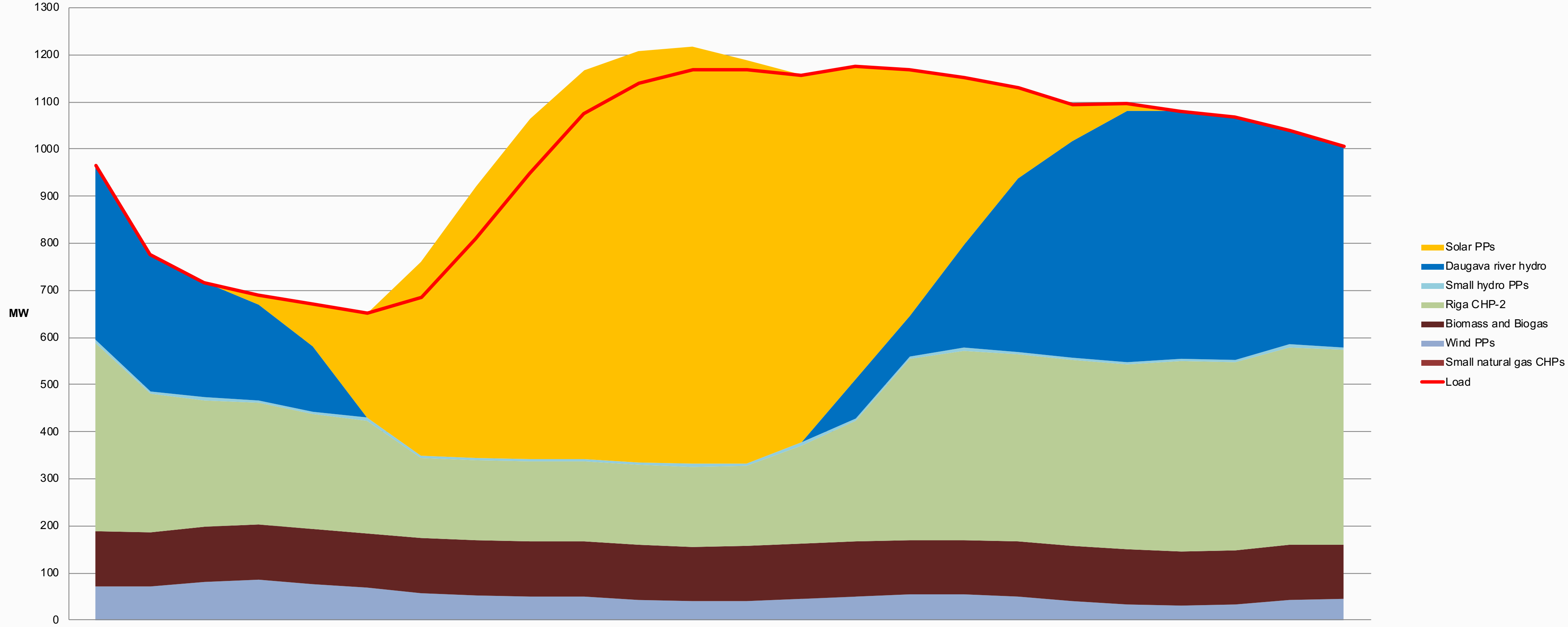
Table 24

June 2030 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|------------|
| 00:00 | 0 | 116 | 0 | 6 | 73 | 0 | 401 | 369 | 964 | 0 |
| 01:00 | 0 | 116 | 0 | 6 | 71 | 0 | 293 | 290 | 776 | 0 |
| 02:00 | 0 | 116 | 0 | 6 | 82 | 0 | 269 | 244 | 716 | 0 |
| 03:00 | 0 | 116 | 0 | 6 | 87 | 22 | 258 | 202 | 691 | 0 |
| 04:00 | 0 | 116 | 0 | 6 | 76 | 90 | 245 | 138 | 671 | 0 |
| 05:00 | 0 | 116 | 0 | 6 | 69 | 221 | 239 | 0 | 651 | 0 |
| 06:00 | 0 | 116 | 0 | 6 | 57 | 412 | 170 | 0 | 686 | 75 |
| 07:00 | 0 | 116 | 0 | 6 | 53 | 577 | 170 | 0 | 808 | 113 |
| 08:00 | 0 | 116 | 0 | 6 | 51 | 723 | 170 | 0 | 949 | 116 |
| 09:00 | 0 | 116 | 0 | 6 | 51 | 824 | 170 | 0 | 1076 | 91 |
| 10:00 | 0 | 116 | 0 | 6 | 43 | 872 | 170 | 0 | 1140 | 67 |
| 11:00 | 0 | 116 | 0 | 6 | 40 | 885 | 170 | 0 | 1167 | 49 |
| 12:00 | 0 | 116 | 0 | 6 | 41 | 857 | 170 | 0 | 1168 | 21 |
| 13:00 | 0 | 116 | 0 | 6 | 46 | 781 | 209 | 0 | 1157 | 0 |
| 14:00 | 0 | 116 | 0 | 6 | 51 | 665 | 255 | 84 | 1177 | 0 |
| 15:00 | 0 | 116 | 0 | 6 | 54 | 523 | 385 | 84 | 1168 | 0 |
| 16:00 | 0 | 116 | 0 | 6 | 54 | 355 | 402 | 218 | 1151 | 0 |
| 17:00 | 0 | 116 | 0 | 6 | 51 | 194 | 397 | 367 | 1131 | 0 |
| 18:00 | 0 | 116 | 0 | 6 | 41 | 79 | 394 | 459 | 1095 | 0 |
| 19:00 | 0 | 116 | 0 | 6 | 34 | 16 | 392 | 532 | 1097 | 0 |
| 20:00 | 0 | 116 | 0 | 6 | 31 | 0 | 403 | 525 | 1080 | 0 |
| 21:00 | 0 | 116 | 0 | 6 | 32 | 0 | 399 | 516 | 1069 | 0 |
| 22:00 | 0 | 116 | 0 | 6 | 43 | 0 | 420 | 454 | 1039 | 0 |
| 23:00 | 0 | 116 | 0 | 6 | 45 | 0 | 412 | 426 | 1004 | 0 |
| Electricity generated, MWh | 0 | 2784 | 0 | 137 | 1274 | 8096 | 6963 | 4908 | 23630 | 531 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MINIMUM LOAD), MW

June 2030 – minimum monthly load



POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MINIMUM LOAD), MW

Table 25

June 2035 – minimum monthly load

| | Riga CHPP-1 | Biomass and biogas | Natural gas cogeneration plant | Small hydropower plants | Wind power plants | Solar power plants | Riga CHPP-2 ¹¹⁾ | Daugava HPP ¹⁰⁾ | Load | Import/Export |
|-----------------------------------|-------------|--------------------|--------------------------------|-------------------------|-------------------|--------------------|----------------------------|----------------------------|--------------|---------------|
| 00:00 | 0 | 134 | 0 | 6 | 221 | 0 | 0 | 391 | 1227 | -476 |
| 01:00 | 0 | 134 | 0 | 6 | 215 | 0 | 0 | 306 | 987 | -327 |
| 02:00 | 0 | 134 | 0 | 6 | 249 | 0 | 0 | 244 | 912 | -279 |
| 03:00 | 0 | 134 | 0 | 6 | 263 | 34 | 0 | 200 | 879 | -242 |
| 04:00 | 0 | 134 | 0 | 6 | 232 | 139 | 0 | 150 | 854 | -193 |
| 05:00 | 0 | 134 | 0 | 6 | 210 | 343 | 0 | 115 | 828 | -22 |
| 06:00 | 0 | 134 | 0 | 6 | 174 | 638 | 0 | 0 | 873 | 1 |
| 07:00 | 0 | 134 | 0 | 6 | 162 | 892 | 0 | 0 | 1028 | 165 |
| 08:00 | 0 | 134 | 0 | 6 | 154 | 1119 | 0 | 0 | 1208 | 204 |
| 09:00 | 0 | 134 | 0 | 6 | 154 | 1275 | 0 | 0 | 1369 | 200 |
| 10:00 | 0 | 134 | 0 | 6 | 131 | 1350 | 0 | 0 | 1450 | 170 |
| 11:00 | 0 | 134 | 0 | 6 | 121 | 1370 | 0 | 0 | 1485 | 144 |
| 12:00 | 0 | 134 | 0 | 6 | 123 | 1325 | 0 | 0 | 1486 | 102 |
| 13:00 | 0 | 134 | 0 | 6 | 140 | 1208 | 0 | 0 | 1472 | 15 |
| 14:00 | 0 | 134 | 0 | 6 | 155 | 1029 | 0 | 0 | 1497 | -174 |
| 15:00 | 0 | 134 | 0 | 6 | 165 | 810 | 0 | 0 | 1486 | -372 |
| 16:00 | 0 | 134 | 0 | 6 | 164 | 550 | 0 | 11 | 1464 | -600 |
| 17:00 | 0 | 134 | 0 | 6 | 155 | 300 | 0 | 258 | 1439 | -586 |
| 18:00 | 0 | 134 | 0 | 6 | 125 | 122 | 0 | 410 | 1393 | -597 |
| 19:00 | 0 | 134 | 0 | 6 | 104 | 25 | 0 | 571 | 1395 | -556 |
| 20:00 | 0 | 134 | 0 | 6 | 93 | 0 | 0 | 599 | 1374 | -543 |
| 21:00 | 0 | 134 | 0 | 6 | 98 | 0 | 0 | 598 | 1360 | -524 |
| 22:00 | 0 | 134 | 0 | 6 | 132 | 0 | 0 | 546 | 1322 | -504 |
| 23:00 | 0 | 134 | 0 | 6 | 136 | 0 | 0 | 509 | 1278 | -494 |
| Electricity generated, MWh | 0 | 3208 | 0 | 137 | 3876 | 12528 | 0 | 4908 | 30067 | -5487 |

POWER DEMAND AND POSSIBLE SOURCES FOR IT COVERING, SCENARIO EU2030 (MINIMUM LOAD), MW

June 2035 – minimum monthly load

