Summer Outlook 2026

Winter Outlook 2025-2026 Review

Country Comments

entsoe

ENTSO-E Mission Statement

ENTSO-E, the European Network of Transmission System Operators for Electricity, **is the association of the European transmission system operators** (TSOs). The **40 member TSOs, representing 36 countries**, are responsible for the secure and coordinated operation of Europe's electricity system, the **largest interconnected electrical grid in the world**.

Before ENTSO-E was established in 2009, there was a long history of cooperation among European transmission operators, dating back to the creation of the electrical synchronous areas and interconnections which were established in the 1950s.

In its present form, ENTSO-E was founded to fulfil the common mission of the European TSO community: to power our society. At its core, European consumers rely upon a secure and efficient electricity system. Our electricity transmission grid, and its secure operation, is the backbone of the power system, thereby supporting the vitality of our society. ENTSO-E was created **to ensure the efficiency and security of the pan-European interconnected power system** across all time frames within the internal energy market and its extension to the interconnected countries.

ENTSO-E is working to secure a carbon-neutral future. The transition is a shared political objective throughout the continent and necessitates a much more electrified economy where sustainable, efficient and secure electricity becomes even more important. **Our Vision: "a power system for a carbon-neutral Europe"*** shows that this is within our reach, but additional work is necessary to make it a reality.

In its Strategic Roadmap presented in 2024, ENTSO-E has organised its activities around two interlinked pillars, reflecting this dual role:

- "Prepare for the future" to organise a power system for a carbon-neutral Europe; and
- "Manage the present" to ensure a secure and efficient power system for Europe.

ENTSO-E is ready to meet the ambitions of Net Zero, the challenges of today and those of the future for the benefit of consumers, by working together with all stakeholders and policymakers.

* https://vision.entsoe.eu/

Contents

Introduction

This document includes individual country reviews on the supply security situation in their system during the last season. The reviews are accompanied by country comments on the expected adequacy situation or specific operational conditions during the coming season.

The aim of the retrospective reviews is to present the most important events that occurred during the previous season and compare them to the previous Seasonal Outlook study results. Important or unusual events or conditions in the power system and the remedial actions taken by the transmission system operators (TSOs) are also mentioned.

Comments on the expected adequacy situation and additional information are presented to provide more background information about the particular power systems, which might not always be represented in pan-European adequacy models.

Countries only provided comments or reviews if there was relevant information to be reported.

Albania

Summer Outlook 2026

No adequacy issues are expected in Summer 2026 for Albania.

Winter Review 2025-2026

No adequacy issues are expected for Winter 2025-2026.

Austria

Summer Outlook 2026

No adequacy issues are expected in Summer 2026 for Austria.

Winter Review 2025-2026

The winter season of 2025/26 was characterised by prolonged Dunkelflauten, which significantly challenged Austria's electricity system. Low wind speeds and weak solar irradiation, also due to persistent fog conditions in eastern Austria, led to only minor contributions from wind and photovoltaic generation over large parts of the winter. At the same time, hydropower output was constrained by the substantial share of snow precipitation instead of rain due to persistently cold and dry conditions. Against the backdrop of cold and dryness, run-of-river hydropower generation fell to historically low levels.
The months of November and December 2025 demonstrated that situations previously considered as rather unlikely can indeed occur: The simultaneous complete outage of several key gas-fired power plants combined with outages of pumped-storage hydropower resulted in an unplanned shortfall of more than 1,300 MW flexible capacity in Austria.
In January 2026, daily generation reached a record minimum of just 27,7 GWh. This combination brought the Austrian power system repeatedly closer to its operational limits. High electricity demand could only be covered through a combination of elevated electricity imports, increased utilisation of gas-fired power plants, and intensive use of pumped-storage hydropower. In February, continued scarcity of domestic generation made electricity imports from neighbouring countries necessary to ensure system stability.

Overall, the winter 2025/26 highlighted how the system can be stressed during extended periods of low renewable generation and underlined again the importance of flexible dispatchable capacities, storage, and cross-border integration for security of supply. System flexibility remains crucial to maintain security of supply.

Belgium

Summer Outlook 2026

Incompressibility risk is expected to be lower than in 2025. This can be explained by the following:

- No nuclear production between April and November.
- Higher availability of pump storage units compared to 2025.
- Load forecasts indicate a slight increase compared to 2025.

Our internal probabilistic analysis points out that the situation is less tense than last summer.

Export offers a limited mitigation measure as we observe a correlation of high RES production with our neighbouring countries. These situations can pose a real threat to the regional system as excess production cannot be absorbed.

This type of event has been observed during Easter Monday (6th April) where we observed low demand (bank holiday) and higher solar production compared to DA forecast. This led to record-high imbalance price in Belgium (-15000 €/MWh).

Flexibility and the ability of the system to absorb deviations from a perfect foresight situation become a structural need to ensure smooth operational security.

Winter Review 2025-2026

The winter 2025-2026 confirmed the expected trend with higher gas-fired unit production and more import to compensate for partial nuclear phase out decreasing the total capacity from 4 to 2 GW.

Between November and April, nuclear still produced about 20% of the national electricity consumption.

The imports level increased compared to last winter with on average more than 2000 MW.

No adequacy issues were recorded during the past season.

Bosnia and Herzegovina

Summer Outlook 2026

No adequacy issues are expected for upcoming Summer 2026.

Winter Review 2025-2026

No adequacy issues occurred for Winter 2025-2026. Maximum load was recorded on December 31 at 18:00h and was 7.8% higher than maximum load for Winter 2024-2025 at the same time. Maximum load on January was 2096 MW and was recorded on January 21 at 14:00h.

Bulgaria

Summer Outlook 2026

Based on system loads from recent years and established consumption trends, no new summer peak demand levels are expected, except in the case of extreme weather conditions. Typically, the Bulgarian power system reaches its highest electricity consumption during the winter season under normal operating conditions.

In this context, scheduled annual maintenance of transmission network elements was carried out during the summer period, in accordance with the approved maintenance schedule.

Due to the continued integration of photovoltaic generation capacity, summer PV generation levels in 2026 are expected to exceed those recorded in previous years. This development increases operational uncertainty in planning and real-time system management, resulting in higher reserve requirements.

The wide-scale deployment of battery energy storage systems further enhances system flexibility and partially mitigates the operational challenges associated with high PV penetration, particularly during peak summer hours.

Market-based assessments of capacity and electricity balances indicate that coal-fired power plants remain under significant market pressure, primarily due to high carbon emission allowance costs. These conditions continue to complicate the balancing of generation and demand, while financial difficulties persist for domestic condensing coal-fired plants due to reduced utilization under unfavorable market conditions.

No adequacy or downward regulation issues are expected for the summer 2026 period.

Winter Review 2025-2026

The winter 2025–2026 review confirmed that the Bulgarian power system operated stably with no adequacy or major grid-stability issues identified.

While peak demand was expected to remain within normal seasonal levels at around 6.2 GW, severe winter conditions led to a higher-than-expected absolute peak load, with the net absolute maximum exceeding 7.0 GW. Despite this deviation, the system successfully met demand without major operational difficulties.

Although hydro reserves were below average at approximately 53% at the beginning of November 2025, seasonal inflows during January and February provided adequate support to the system.

The system continued to rely on electricity imports during peak demand hours, particularly when renewable generation was low. While this reliance, combined with potential unplanned outages, represented a structural risk, no supply shortages occurred during the winter. Localized outages in mountainous areas due to heavy snowfall were observed but did not impact the overall system's stability.

System flexibility was significantly supported by the increased deployment of battery energy storage systems (around 1.00 GW), which helped to cover peak demand and reduce pressure on hydro resources. Overall, the winter period concluded with stable operation and manageable risks.

Croatia

Summer Outlook 2026

No adequacy issues are expected for Summer 2026.

Winter Review 2025-2026

No adequacy issues occurred during Winter 2025-2026. Peak demand of 3264 MW was on 21st January 2026. Total electricity consumption in period from November 2025 till March 2026 was around 8160 GWh. Comparing winter 2024-2025 peak demand increased around 7% and total electricity consumption also increased around 2%. Higher domestic generation was recorded in hydro (around 11%) and thermal (around 16%) power plants, but generation of wind power plants decreased (around 12%). Electricity import was lower around 16%.

Cyprus

Summer Outlook 2026

As there are no interconnections to rely upon in case of emergency due to Cyprus being an isolated island, there is a probability that adequacy issues could arise through the coinciding of unplanned outages and unfavourable weather conditions.

According to the TSO's Short-Term Adequacy Assessment Study (covering July to September 2026), there is a potential risk of adequacy shortfalls during specific time intervals, particularly during evening peak hours, amounting to approximately 5 hours in total. The estimated power deficit in meeting demand is around 30-40 MW. It should be noted that these results are based on the data and assumptions used in the Study and therefore constitute estimates. As such, they may vary, depending on actual system conditions during operation (e.g. actual demand levels, availability of generation units, etc.).

Winter Review 2025-2026

In real terms, system adequacy was marginal, especially during evening peak hours (17:00–21:00), when there was no contribution from renewable energy sources (RES). In many cases, the adequacy of replacement reserves was also low due to planned and unplanned outages of conventional generators. Despite these, there was no need for load shedding to safeguard the System and meet balance load requirement.

Czech Republic

Summer Outlook 2026

No adequacy issues are expected.

Winter Review 2025-2026

No adequacy issues were observed and resources were available. Demand decrease, observed in recent years, has stabilized (slight increase from previous year). Sufficient ancillary services were available.

Denmark

Summer Outlook 2026

The main focus throughout the summer will be on the planned outages for key lines, especially in East Denmark. However, these are not expected to cause any operational challenges or impact system adequacy.

The ENS observed in Denmark does not raise concerns from a system operations perspective, as it is negligible in magnitude and results from a coincidental overlap of random outages on two interconnectors during a period with extensive planned outages.

The model outcome should be interpreted as a probabilistic risk assessment, indicating only a very low likelihood of stressed adequacy conditions.

Winter Review 2025-2026

Despite a very cold winter, there have been no adequacy issues.

Estonia

Summer Outlook 2026

No adequacy issues are expected for Summer 2026.

Winter Review 2025-2026

Winter 2025–2026 in Estonia was rather cold (especially in January–February) and was characterized by stable snow cover across most of the country. Despite higher demand, no adequacy issues were detected.

The most significant incident occurred on the morning of January 20, when the electricity interconnections between Estonia and Finland, EstLink 1 and EstLink 2 (total capacity 1016 MW, operating at full import at the time), were disconnected. There was no threat to the security of Estonia's electricity supply. The disconnection was triggered by the protection systems of the EstLink interconnectors, which responded to abnormal oscillations in the power system.

Finland

Summer Outlook 2026

During the last few summers, there has been significantly reduced transmission capacity due to outages and maintenance. There will also be limitations during the upcoming summer months, but these mainly affect export capacity, resulting in an enhanced adequacy situation in Finland compared to previous summers.

As usual, the nuclear power plants will undergo their annual maintenance in the spring and autumn. However, for the first time Finland's largest unit, with a capacity of 1600 MW, will undergo its maintenance in autumn instead of spring. It will coincide with the maintenance of other nuclear units, causing concern for adequacy in case of unfavourable weather conditions in September and October.

Winter Review 2025-2026

Past winter had varying weather conditions, starting with warm December, followed by cold and windy first half of January, and culminating in an exceptional period from mid-January to mid-February with low temperatures across the country and very little wind power production, partly due to icing.

Despite the challenging conditions, adequacy situation remained sufficient thanks to reliable domestic power production and increased transmission capacity from northern Sweden due to commissioning of Aurora Line in November 2025. There were no long-lasting unplanned outages in thermal power plants or transmission lines.

Past winter had also record-breaking numbers in both consumption and demand. The last record for the highest demand in Finland had been recorded ten years ago and it was surpassed by over 400 MW on 8 th of January at 17:00 – 17:15 EET with a demand of 15 553 MW. Two days later, the production record was broken, with the new record being 15 475 MW. The previous record was over 1000 MW lower, recorded in 2024.

France

Summer Outlook 2026

No adequacy issues are expected for Summer 2026. France benefits from a nuclear fleet that has returned to pre-corrosion-crisis production levels, close to those observed in 2019. Fleet availability stands at around 76–77%. Solar generation surged to 32.9 TWh (+32.7%) in 2025, supported by continued capacity expansion reaching 30.4 GW by end-2025. Low-carbon electricity now accounts for more than 95% of the French production mix. These fundamentals position France as a net exporter, with French spot prices among the most competitive in Europe.

However, this abundance of low-carbon generation comes with increasing operational challenges, particularly in spring. The combination of low demand and high solar output generates periods of oversupply that are difficult to absorb, resulting in a record 513 hours of negative prices in 2025 — more than 50% of which were concentrated in May and June. Simultaneous curtailment of renewable capacities when short-term market prices go down below a threshold or restart of large volumes of generation creates frequency risks and may require costly balancing interventions.

To address these tensions, several legislative and regulatory changes were introduced in 2025 and 2026 to limit the occurrence of negative spot prices, and to increase the contribution of renewable energy sources to balancing mechanism. Among them, starting mid-April 2026, renewable generation facilities of installed capacity over 10 MW and covered by government support schemes are incentivized to adjust their production in response to negative spot prices, whereas those covered by premium support scheme are concerned regardless capacity threshold. Moreover, the DDADUE Act made the participation in the balancing mechanism mandatory for all installations above 10 MW from 1 January 2026. These regulatory changes are expected to help balance the system during periods of excess generation, with the effects becoming visible in the coming months.

Winter Review 2025-2026

No adequacy issues were recorded during Winter 2025-2026.

For the year 2026, weather-contingencies-adjusted electricity demand remained stable at 451 TWh (+0.4% vs. 2024). After the significant demand drops seen during the energy crisis in 2022–2023, the downward trend has stopped, but there has been no real rebound either, unlike what happened after the 2008–2009 economic crisis or the Covid period. Thus, demand remains around 6% below the 2014–2019 pre-crisis average.

- Nuclear generation increased for the third consecutive year since the historic low of 2022, reaching 373.0 TWh (+3% compared to 2024). This confirms the full recovery of the French nuclear fleet's availability to pre-crisis levels. The progressive commissioning of the

Flamanville 3 reactor (1.6 GW, connected to the grid in December 2024) continued throughout 2025.

- Hydro production declined significantly after the exceptional 2024 level, returning to 62.4 TWh, close to the 2015–2024-decade average (61.4 TWh), reflecting lower precipitation in 2025.
- Wind and solar output continued to grow. Onshore wind reached 43.9 TWh (+2.5%), while offshore wind production rose sharply to 5.7 TWh (+43%), supported by the progressive commissioning of the Yeu-Noirmoutier offshore wind farm and the full operationality of the Saint-Brieuc and Fécamp parks. Solar generation surged to 32.9 TWh (+32.7%), driven by 5.9 GW of new capacity installed in 2025 and more favourable conditions compared to the exceptionally low sunshine recorded in 2024.
- Fossil fuel generation fell to a record low of 18.7 TWh, with gas, coal and oil together accounting for less than 4% of total generation.
- France's net export balance reached a new historic high of 92.3 TWh, exceeding the already record level of 2024 (89 TWh), underpinned by abundant, competitive and low-carbon generation. Notably, curtailment of solar and wind output during negative price episodes doubled year-on-year to approximately 3 TWh, reflecting the growing share of low-carbon generation and the increasing frequency of negative spot prices.

Germany

Summer Outlook 2026

Non-market resources

Based on the knowledge at the time of data collection, the German non-market resources contain:

- Capacity reserve: Since 1 October 2024 and until 30 September 2026, a total contracted capacity of 1.2 GW of power plants is available for unforeseeable demand balancing events. These power plants must be available within 12 hours and can also partially be used to resolve grid congestion. The call for proposals for the period after 30 September 2026 is currently open.

- Grid reserve: This is used to resolve congestion and contains different types of power plants in Southern and Western Germany. It comprises a total capacity of 8.9 GW. Secondary to capacity reserve, they can also maintain generation adequacy.

- Special network equipment power plants: They are fast-starting gas-fired power plants with an overall capacity of 1.2 GW, primarily intended to restore grid stability after a disturbance in the transmission grid. Secondary to grid reserve, they can also maintain generation adequacy.

Parts of the above-mentioned non-market resources primarily have a different purpose than coping with resource adequacy risks, such as congestion management. Therefore, non-market resources may already partly be exhausted for their primary purpose and unavailable for resource adequacy purposes.

In accordance with the German coal phase-out legislation, Germany has transferred a first power plant unit (Jänschwalde A) into the state of “extended decommissioning (zeitlich gestreckter Stilllegungsbetrieb)” since the beginning of 2026. The capacity of 465 MW can be activated 10 days in advance, if the supply situation should make it necessary. Operationally, the block thus plays no role within the framework of the enumerated non-market resources and would require an activation e.g. motivated by the Seasonal Outlook. At the end of 2027 and 2029, further units will follow into the “extended decommissioning” state.

Load

The forecasted gross electricity consumption for 2026 in Germany was estimated to be 521 TWh (net electricity consumption – excluding power plant self-consumption: 499 TWh). This represents a slight increase compared to the 517 TWh from 2025, as reported (at the time of data collection) in preliminary publications by the German Association of Energy and Water Industries (BDEW). The annual net peak demand in 2026 is 82 GW. For the summer period (1 June to 4 October) it is 76 GW. The load can therefore be classified as relatively moderate, so that no critical load-driven aggravation of the resource adequacy situation is seen. The continuing unstable economic situation and the resulting lower increase in new consumers (e.g. heat pumps and electric vehicles) are seen as one of the causes.

Additional remarks on the German data collection

The pumped-storage power plants (PSPs) of the “Kraftwerksgruppe Obere Ill-Lünersee” (turbine capacity: 2.2 GW; pumping capacity: 1.4 GW), which are installed in Austria but assigned to the German control block, remain in the German dataset. For the same reason, the pumped-storage power plant Kühtai and storage power plant Silz (total turbine capacity: 0.8 GW; total pumping capacity: 0.25 GW) are also included in the German dataset.

Remarks on Summer Outlook 2026 scenarios and results

Traces of ENS are visible for Eastern Denmark. The affected hours show two complete forced outages of Danish tie-lines including the HVDC tie-line to Germany. Therefore, we don’t expect any significant effects on the German adequacy situation.

Based on the Summer Outlook results, the analysis of excess energy controllability indicates that interventions by the transmission system operators (TSOs) may be required due to potentially insufficient market-based curtailment. However, experience from recent public holidays shows that situations with generation surplus were consistently resolved by the electricity market. The German TSOs will monitor the resource adequacy situation through short-term resource adequacy processes.

Winter Review 2025-2026

The past winter of 2025/26 was evaluated as uncritical by the national winter monitoring and the pan-European winter seasonal outlook. No severe resource adequacy related situations occurred in the operational short term adequacy assessment processes, respectively, in real-time operation.
Throughout the winter, periods with low infeeds from solar and wind were observed, which, in some cases, coincided with periods of high demand in the morning or evening hours, which led to low remaining capacity margins respectively high net imports and auction prices above average.

Gas reserves were sufficient to ensure adequate electricity generation at all times. Gas storage facilities entered the winter with a significantly lower filling level than in the previous year (76% versus 98%). Net withdrawals over the winter were lower than in the previous year, resulting in storage levels of around 23% by 8 April 2026, compared to about 29% one year earlier.

Great Britain

Summer Outlook 2026

- NESO published its 2026 Summer Outlook Report on 14 April, detailing our assessment of the electricity security of supply outlook and operational expectations for the April to October period.

- Security of Supply: We expect there to be a sufficient supply to meet demand – and reserve requirements – at all times this summer. We also expect to be able to support exports to neighbouring markets if required. We continue to assess margins against a range of possible scenarios and are working closely with strategic partners to assess and monitor risks to the energy system for the summer.

- Managing Low Demand: We are confident we have the tools in place to reliability operate the system. We expect an increase in the number of everyday actions required to balance supply, demand and system needs. There may be periods when we need to use our full range of standard operational tools, including issuing a national Negative Reserve Active Power Margin (NRAPM) notice. NRAPM notices, although rare, are part of our standard toolset for managing the system.

- Electricity Markets: Prices indicate that Great Britain is likely to be a net importer of electricity this summer. We would expect a typical pattern of electricity interconnector imports under both high gas price and low gas price scenarios. NESO will continue to work closely with our neighbouring Transmission System Operators (TSOs), coordinating support and ensuring interconnectors remain mutually beneficial for flexibility and adequacy.

Winter Review 2025-2026

No additional comments were provided

Greece

Summer Outlook 2026

For the upcoming Summer, there is no scheduled maintenance of generation units during high demand period (20th June to 20th August). The possibility of extension of scheduled unit maintenances within high demand period is low.

The new thermal (gas) unit with installed capacity of 850MW continues its commissioning operation.

The lignite phase out program is ongoing and old lignite units are expected to decommit after Summer period.

IPTO is in continuous contact with the Gas Transmission System Operator to be able to initiate the switch fuel procedure in some bi-fuel units (gas to oil) in case of emergency. The operation with alternative fuel is limited to a few days and is only considered as an urgent countermeasure in case of lack of gas supply and not a continuous operation mode.

Water reservoir levels are normal and higher than the previous years.

There is no scheduled maintenance or capacity limitations on any of the interconnection lines for the upcoming high demand period.

The renovation and equipment replacement program, aimed at enhancing resilience, has made significant progress.

Consumption during the upcoming Summer is expected to be higher than previous years due to the worsening environmental conditions.

In addition, due to the worsening environmental conditions, extended large scale fires in all Greek territory during Summer period occur increasingly the last years, resulting in many cases, in outages of parts of the Transmission System.

The expected generation, the increase of RES installed capacity, and import capacity are sufficient to cover Greek energy needs under normal conditions and any adequacy issues are not expected, given that Gas supplies will be continuous and redundant to cover domestic demand.

The first BESS installations are expected to enter the Greek Electricity Market within the next months, facilitating the increase of RES share in Greek Energy Mix, providing valuable regulation reserves and energy reserve to cover peak demand.

However, Greek system will be highly depended on import transfers during high demand periods in combination with low-RES generation, in order not to face any adequacy issues in high demand peaks.

On the contrary, due to the high penetration of RES, both in the Transmission System and the Distribution Network, during low demand days (weekends and bank holidays), it is likely that there will be RES production restraints for Balancing purposes and thus the control of the Distribution Network RES is of utmost importance.

Regarding Crete Island, the DC connection line between mainland Greece Transmission System and Crete Island Transmission System is in operation from the end of 2025. Thermal units on Crete Island are scheduled to be decommitted or put on emergency reserve till October 2026.

Winter Review 2025-2026

In context, last Winter was mild and rainy while the average consumption decreased by 2,1% in comparison with Winter 2025.

There were normal snowfall and extended rainfall resulting in normal water reservoir levels (higher than expected).

There were no exceptional incidents.

No adequacy issues recorded.

Hungary

Summer Outlook 2026

Based on previous years' system loads and observed typical trends, we might reach a new historical peak load for the summer period, but we do not expect an all-time high value, except in extreme weather conditions. Besides we predict that the previous PV output peak will be exceeded in the coming summer months mostly due to the ever-increasing level of PV integration. The continuously growing PV generation can also cause higher uncertainty in operational planning periods and real time system operation as well, which causes a higher level of reserve requirement. However, in recent years, no major conventional power plants have been added to the Hungarian power-plant park and import is still almost constantly required. The utilisation of conventional power plants can be overall lower than in the previous summer since particular market situations such as negative Clean Spark Spread (CSS) can make it economically unprofitable for some of the power plants to operate. Besides two units of our nuclear power plant will separately undergo obligatory maintenance during this summer, but the level of maintenance of the Hungarian power plants is overall a bit lower than previous years and they are carefully distributed in time. In addition, network developments are made continuously to manage higher voltage levels as well as to improve operational security. As a result of our continuously improving reserve procurement methodology, the amount of balancing capacity expected to be available is sufficient to secure the estimated reserve requirement and to guarantee the system adequacy.

Altogether, the Hungarian power system is expected to be safe during this summer period. However, it is important to note that a possible natural gas crisis could have unforeseen effects. In addition, extreme weather conditions such as long-term heatwaves, as well as high water temperatures and low water levels in major rivers can also be a risk in the following summer period.

Winter Review 2025-2026

Compared to the previous year, a higher load was observed in the winter period 2025-2026 due to prolonged, particularly cold weather and the market conditions. The maximum load (8182 MW) was reached on 13th January 2026, which is significantly exceeds the previous historical peak load. The industrial PV output approached the current record several times, but due to weather conditions, it didn’t surpass it during the period under review.

On several occasions significant upward and downward regulation was necessary, it once even reached a value in February, that is among the top 10 highest downward regulation. The utilisation of conventional power plants was overall slightly higher than in the previous winter, while the level of maintenance was average and carefully distributed in time. During the winter period the amount of balancing capacity was sufficient to secure the occurring reserve requirement.

On a few occasions, the Hungarian system entered the Alert state, but these have all been withdrawn within a few hours. Even though we have faced some difficulties due to weather conditions among other things, last winter passed without any major adequacy issues.

Ireland

Summer Outlook 2026

The outlook for this summer is improved due to increased solar generation. In addition, 1,400 MW of non-market generation is also available. We expect tight generation margins at times during the summer period during periods of low renewables and low interconnector imports, with the highest adequacy risk predicted in mid-August. There is a low probability of the system entering the Emergency state due to insufficient generation being available to meet demand.

Winter Review 2025-2026

There were no system alerts in Ireland during Winter 2025-2026. Overall, the winter was mild leading to lower than expected peak demand. While the dispatchable generation margin in Ireland was sometimes negative over the period, there was strong imports from Great Britain and Northern Ireland coupled with high renewable generation output. In addition, non-market generation though not run supported the system averting 8 System Alerts that would have otherwise occurred.

Italy

Summer Outlook 2026

Upward adequacy assessment

Given that the power system conditions are similar to those observed during the previous summer, imports from neighbouring countries are expected to be necessary under severe conditions to restore adequacy margins and cover consumption during critical hours reflecting a comparable level of need.

Analyses estimate that the risk for adequacy is within standard levels.

Critical situations could occur in case of one or more events such as high demand due to a heatwave, low imports from neighboring countries (or even export conditions), a higher-than-usual rate of unplanned outages of generation units.

Postponement and/or cancellation of maintenance activities could be used as countermeasures, along with demand response measures and additional market interventions, to help restore margins or at least mitigate the risk.

Furthermore, improved regional coordination processes, including regional weekly adequacy assessments (STA project) and the Critical Grid Situation process, will support the definition of appropriate and efficient countermeasures should the risk of encountering critical situations be detected in the short term.

Over time, the Capacity Market mechanism has contributed to enhancing adequacy margins. However, if this mechanism does not continue in the future, a decline in thermal capacity could be expected, with potential consequences for adequacy.

In Sicily, internal analyses also suggest that critical situations might arise in the event of a loss of thermal available capacity due to extremely high sea temperatures and the tripping of generation units or interconnection lines. The situation will be closely monitored and managed with appropriate countermeasures.

Generation capacity in Italy
Renewable generation capacity has increased by approximately 6.1 GW compared to the beginning of summer 2025.
Thermal power capacity remains consistent with that of summer 2025, due to the concurrent decommissioning of existing power plants and the commissioning of new ones.

Currently the total amount of installed renewable (wind, solar and hydro generation) is around 79 GW, exceeding thermal capacity, that stands at 62 GW.

Downward regulation assessment
The most challenging weeks for downward regulation are expected to be the central weeks of August, as well as the beginning and end of the summer period (June and September). To ensure system security, Terna may adopt enhanced coordination with neighbouring TSOs and implement special remedial actions, such as the curtailment of inflexible generation. Additional special actions, such as the application of allocation constraints on transmission capacity, could be planned in cooperation with neighbouring TSOs.

Winter Review 2025-2026

During last winter, electricity demand increased by about 1.7% compared to the same period last year. However, an increase in consumption was registered with respect to the previous year, with an increased demand of around 2,0 % (without considering the effect of temperature).

As far as the peak power demand is concerned, winter 2025/2026 saw a 2.3 % increase with respect to winter 2024/2025.

Compared with last winter, coal production decreased, while solar photovoltaic power generation played a key role in covering demand, partly due to the increased solar PV installed capacity in operation.

Export from Italy North border during the whole winter period increased by 15% compared to the values of last year.

Latvia

Summer Outlook 2026

No adequacy issues are expected for upcoming Summer 2026 – new solar and onshore wind power parks come in the system (DSO and TSO).

Winter Review 2025-2026

No adequacy issues occurred for Winter 2025-2026.

Lithuania

Summer Outlook 2026

At the beginning of this summer season net generating capacity in Lithuania will be 8571 MW. Most noticeable changes can be seen in renewable energy sources generation. Wind net generating capacity has increased by 16% and solar by 40%, compared to last year summer season. These numbers will be rising through summer and all the way to the end of the year, due to the rapid growth of solar power and additions of new wind parks. Starting August 8th till the August 10th Lithuania PP G-9 (444 MW) and starting September 28th till the October 10th Lithuania PP G-8 (287 MW) units will be under maintenance. A planned outage of DC cross-zonal link between Lithuania and Sweden is going to take place between September 9th to 15th (capacity will be reduced from 700 MW to 0 MW).
To ensure isolated operation in 2025, if necessary, Litgrid has production availability reserve of 1280 MW.
No adequacy or downward regulation issues are expected for the coming season.

Winter Review 2025-2026

In winter 2025/2026, national consumption was 12,8% higher than in winter 2024/2025. Maximum total load (2633 MW) was reached on 2nd of February 2026.
The winter balance portfolio consisted of 61% local generation and 39% imports from neighboring countries. Largest import provider this winter was Sweden. Litgrid has imported from Sweden 3% less electricity than in previous winter season. Main reason why local generation this winter season stayed high was growth of renewable energy sources. Solar generation increased by 31% compared with last year's winter with solar generating capacity increasing by 55% (by 1163 MW), while wind generation increased by 22% with wind capacity by 42% (by 780 MW).
Imports contributed significantly to adequacy in Lithuania. No adequacy issues were experienced.

Luxembourg

Summer Outlook 2026

No adequacy issues are expected for Summer 2026.

Winter Review 2025-2026

No adequacy issues occurred in Winter 2025-2026.

Malta

Summer Outlook 2026

No adequacy issues are expected in Malta for the summer 2026, with the additional 175 MW and 60 MW of non-market resources in the form of emergency gasoil-fired back-up plants and leased emergency plant, respectively, available for dispatch at any time to meet local demand and/or abrupt scenarios which may arise.

Prepare for future increase in demand and maintain N-1 redundancy, Malta is nearing the completion of the second interconnector, which is scheduled to be ready in 2027.

Winter Review 2025-2026

No adequacy issues occurred in Winter 2025-2026.

Moldova

Summer Outlook 2026

Due to ongoing constraints in natural gas supply, the MGRES power plant continues to operate only one generating unit, with an average output of approximately 80–120 MWh per hour. At the same time, a significant number of photovoltaic power plants have been commissioned in Moldova, contributing positively to covering daytime electricity demand, particularly during periods of high solar irradiation. This increased share of renewable generation is expected to reduce reliance on imports during daylight hours.

On the same time at the level of renewable integration of around 1GW there is a noticeable excess of electricity during afternoon hours (reaching 300MW), thus increasing the security of supply trough pure renewables integration (specifically PV) will require adjustment with integration of a significant amount of storage facilities. A new development trend is arising on installing BESS as part of PV power plants. The expectations are for around 100MW/200MWh of new BESS for the upcoming summer.

However, in the short term, during evening peak hours and in periods of low solar generation (e.g., cloudy weather conditions), Moldova will continue to rely on electricity imports to ensure system adequacy.

Cross-border capacity for UA–MD control block remains a key factor. The Net Transfer Capacity for block is calculated on a monthly basis, with Moldova accounting for approximately 15% of the total capacity. The available import capability is highly dependent on planned outages, including those in neighboring TSO, which may significantly impact the actual available capacity.

In addition, imports via the RO–MD interconnection remain essential for security of supply. Nevertheless, potential limitations in cross-border capacity, combined with uncertainties related to regional system conditions, may still pose challenges in fully covering demand during peak periods.

Further integration of domestic generation, including renewable and flexible resources, will be crucial to enhancing system resilience and reducing dependency on external supply. In parallel with reinforcing the interconnection for more NTC on MD-RO border, installing BESS becomes crucial for harnessing the already installed renewable capacity as well as new ones.

Winter Review 2025-2026

Due to difficulties in natural gas supply, the gas power plant MGRES, which had previously covered most of Moldova's electricity needs, operated with only one unit, generating approximately 80–120 MWh.

During the Winter 2025–2026 period, electricity purchases from MGRES were not available, which created significant challenges in covering Moldova’s demand of up to 600 MW during peak hours. This deficit was addressed primarily through imports via the RO–MD and UA–MD interconnections (when available from the UA side).

The granted NTC on the RO–MD direction is around 300 MW. However, in the UAMD control block, capacity reallocation became possible following the launch of intraday capacity allocation. If the block’s total

technical limit is not fully utilized, the unused portion can be reassigned during intraday allocation sessions to increase commercial capacity on specific borders. For example, this allowed the MD–RO import capacity to increase from around 300 MW up to around 600 MW.

Currently, Moldova heavily relies on this capacity reallocation mechanism to ensure the ability to import the required electricity, which can reach approximately 600 MW during peak demand. At the same time, a large part of the domestic generation fleet consists of inflexible sources, such as demand-side CHPs and renewable energy sources (RES), which limits the system's flexibility in balancing supply and demand.

Montenegro

Summer Outlook 2026

No adequacy issues are expected for Summer 2026

Winter Review 2025-2026

No adequacy issues occurred in Winter 2025-2026.

Netherlands

Summer Outlook 2026

No adequacy issues are expected for Summer 2026

Winter Review 2025-2026

No adequacy issues were observed during the winter of 2025–2026.
Due to high electricity exports combined with cold months, gas stocks in the Netherlands have fallen to critically low levels. Also, the gas market suffering from the current situation in the Middle East. We are monitoring the situation daily. So far, no adequacy issues have arisen.

Northern Ireland

Summer Outlook 2026

We expect sufficient margins to meet consumer demand throughout the summer period in normal operating conditions.

Winter Review 2025-2026

Dispatchable generation margins were tight over the early Winter 2025/26 period due to the prolonged forced outage of a large generator, which returned in late December 2025. Plant subject to Annual Run Hour Limitations (ARHL) were permitted to operate above their annual limits to maintain system security. Subsequently these run hour limits were accordingly reset in January 2026, and with all large generation available, normal operating conditions resumed with sufficient margins throughout the rest of the winter period.

There was one local system alert issued in Northern Ireland over the Winter 2025/26 period. This alert 00:07 31/10/2025 – 20:30 01/11/2025, was issued as the system was operating outside the normal operating constraints.

Overall, the winter was mild leading to lower than expected demand peaks. Daily and weekly engagements between EirGrid (Ireland), SONI (Northern Ireland), National Grid (Great Britain) and other TSOs in the region were highly effective in leveraging the benefits of interconnection.

North Macedonia

Summer Outlook 2026

No adequacy issues are expected for Summer 2026.

Winter Review 2025-2026

No adequacy issues occurred in Winter 2025-2026.

Norway

Summer Outlook 2026

No adequacy issues are expected during the spring and summer of 2026. Even if the hydrological balance (reservoir levels, snowpack, and soil moisture) remains low, available water resources combined with import capacities should be sufficient to meet demand during the spring shortage period. Seasonal demand is also lower in spring and summer compared with the winter.
Provided there are no long-lasting outages on interconnectors combined with major generation failures in the coming weeks, the supply situation is expected to remain stable. However, it should be noted that the increased reserves requirements reduce the generating capacity available in the day-ahead market across all seasons.
Looking ahead, a wet and rainy summer will be important to restore the hydrological balance before the next winter.

Winter Review 2025-2026

No adequacy issues were observed during the winter of 2025–2026. January and February were cold, and although peak demand reached a new record, it remained below the levels previously feared. Inflows were low, and the hydrological balance was significantly below normal—particularly in southern Norway.
Compared with previous years, Norway imported more power from neighbouring countries, indicating high water values in the hydro reservoirs. Elevated fossil fuel prices may also have contributed to increased water values.

Poland

Summer Outlook 2026

Input data

For the Summer Outlook 2026, PSE provided energy limitations concerning lignite availability, which is especially targeted at one of the lignite power plants (capacity of around 1000 MW). This is the result of depleted lignite stocks and the upcoming closure of the power plant. These constraints limit the available capacity and amount of possible generation for this power plant significantly. For the two remaining lignite power plants, lignite supply restrictions shall not impact the available generation capacity, while the total possible generation of these plants might be slightly limited.

As for the previous outlooks, to avoid providing an incorrect picture of the situation with the possible level of Polish import/export, PSE provided an estimate of allocation constraints for the analysed period. It is however to be recalled that the actual allocation constraints are calculated daily, with the best available up-to-date information, and might differ from the estimated values provided for Summer Outlook 2026.

Adequacy situation / downward regulation

No upward adequacy issues are expected during the coming summer. However, due to ongoing RES development observed, PSE expects downward regulation problems on days with high RES generation - PV in particular. Compared with the previous season, the situation has worsened and the non-market curtailment of RES has a daily operational challenge. For example, between March and April 2026, on 53 out of 61 days, due to insufficient level of RES self-curtailment, PSE had to take actions to maintain downward reserves at a safe level. It is worth mentioning that curtailment of the part of utility scale PV is challenge as most capacity is connected to the 110 kV & medium voltage networks and sometimes disconnection might be performed only manually.

Detailed downward analysis is performed by PSE over the week ahead and operational planning horizon. Once a balance problem has been identified and the market fails to resolve it, PSE has the following remedies at its disposal:

1. Centrally dispatched unit reduction (temporarily below technical minimum, power plant or unit)
2. Pumped-storage PP manual activation (if no market contracts)
3. Non-centrally dispatched unit reduction order (below thermal production required programme)
4. Non-market curtailment of RES
5. Emergency exchange (export) as the last resort

Winter Review 2025-2026

Since the beginning of 2026, Poland has been under the impact of a long-lasting cold spell with very low temperatures. On 9 January, a new peak load was recorded for the first time last winter, and this record was broken on 3 February again.

Portugal

Summer Outlook 2026

No adequacy issues are expected for Summer 2026.

Winter Review 2025-2026

No adequacy issues occurred in Winter 2025-2026.

Romania

Summer Outlook 2026

The adequacy for Summer 2026 could be significantly affected by geopolitical uncertainty; current global tensions make fuel supplies and energy prices difficult to predict, which rise the risk of sudden supply shortages; Furthermore, the effects of drought can raise the risk of lower reservoir water levels and directly impact hydropower generation.

Winter Review 2025-2026

No adequacy issues were recorded during the past winter. It was very helpful to keep the coal generation in operation by the approval of European Commission. Also, this generation ensured some real energy support provided for Moldavian and Ukrainian power systems

Serbia

Summer Outlook 2026

For the upcoming summer season, no adequacy issues are expected under normal operating conditions. The transmission system is planned to operate reliably, with all critical maintenance activities scheduled and coordinated to ensure system security. Available thermal, hydro, and renewable generation capacities, supported by interconnections, are expected to provide a stable and sufficient supply, even during periods of high demand and elevated temperatures. The transmission grid is expected to remain fully available, with no significant operational or adequacy challenges anticipated.

Winter Review 2025-2026

For the winter season, no adequacy issues occurred under normal operating conditions. The transmission system operated at full capacity, with all planned maintenance activities on the 400 kV and 220 kV networks completed before the winter period. Although hydro reservoir levels were slightly below expected values, the available thermal, hydro, and wind generation capacities, supported by interconnections, ensured a stable and adequate supply even during periods of lower temperatures. By the end of 2025, two new wind power plants with a total installed capacity of around 220 MW were commissioned, further increasing the share of wind generation in the national generation mix. The transmission grid was fully available, with no capacity limitations on interconnections, and no operational or adequacy challenges arose during Winter 2025–2026.

Slovakia

Summer Outlook 2026

No adequacy issues are expected for Summer period 2026.

Winter Review 2025-2026

No adequacy issues were observed during Winter period 2025/2026.

Slovenia

Summer Outlook 2026

We do not anticipate any specific issues in meeting electricity supply demand during the upcoming summer.

Winter Review 2025-2026

The winter period passed without any major specificities and without significant system adequacy challenges. Generation from the Nuclear Power Plant Krško and Unit 6 of the Šoštanj Thermal Power Plant (TEŠ6) was available throughout the entire winter, ensuring stable baseload and sufficient domestic generation capacity.

One noteworthy event occurred on 20 February 2026, when the Cirkovce 400 kV substation temporarily lost all 400 kV connections due to heavy wet snow precipitation. Despite this disturbance, the power system remained stable and the N-1 security criterion was maintained. Only a limited part of demand was briefly disconnected, with a total interrupted load of approximately 110 MW. The affected customers were reconnected within a short time, and no wider system impacts were observed.

Spain

Summer Outlook 2026

No adequacy issues are expected for the summer 2026.

High renewables production is foreseen. In addition, the level of hydro reserves (82% at the beginning of April) is significantly higher than the mean reference value of the last ten years.

Winter Review 2025-2026

No adequacy issues were recorded during the winter 2025-2026.

During the winter period (November 2025 to March 2026), Spanish Peninsular electrical demand increased by almost 3% with respect to the previous winter, despite the season being generally mild in temperature terms. Total load over the period was close to pre-pandemic levels.

In addition, a maximum peak load of 41.6 GW was recorded on the 7th of January, the highest demand observed since the episode of the snowstorm that took place in January 2021.

RES production rose significantly compared with the previous winter. In January, wind production reached the highest monthly generation ever recorded. PV and hydro were also up in the winter period.

Regarding hydro reserves, reservoir's capacity increased from 50% at the beginning of November to 83% at the end of winter, due to the wet conditions experienced specially in December and January.

Sweden

Summer Outlook 2026

During maintenance outages at power generation facilities, the availability of electricity is reduced, along with the stabilizing properties they provide. Maintenance work is also carried out in the electricity grid during the summer.

For the summer of 2026, operational reliability is expected to be maintained. However, east–west power flows in the transmission network will continue to require limitations on transit flows to avoid risks to the security of supply for electricity consumers. There will be periods with simultaneous outages at the nuclear power plants Ringhals and Forsmark, that may lead to higher electricity prices, but the assessment is that operational reliability can still be maintained.

Winter Review 2025-2026

The winter of 2025/2026 began with mild weather for the season, but around the turn of the year temperatures across the country dropped. According to the Swedish Meteorological and Hydrological Institute, most parts of the country had a lower average temperature during the winter than the normal period 1991–2020. The storm Johannes hit the country shortly after Christmas and caused outages in the regional and local grids, but did not create any disturbances in the transmission network.

The peak load hour occurred on January 12, between 08:00 and 09:00. At that time, the measured consumption reached 24,800 MWh/h (the peak load was 22,500 MWh/h the previous winter). This winter's peak consumption was relatively low compared to recent winters, despite the cold weather. This was in line with Svenska kraftnät's forecast ahead of the winter, which had been adjusted based on the ability of consumers in Sweden to adapt their electricity use to weather and price conditions.

The Strategic Reserve, procured during this winter, was neither placed on standby nor activated at any time. In previous winters, Svenska kraftnät procured a capacity reserve, but that agreement expired after the preceding winter.

Switzerland

Summer Outlook 2026

No adequacy issues are expected for Summer 2026.

Winter Review 2025-2026

Despite stratus in the Mittelland between the last 10 days of December 2025 and the second half of January 2026 as well as a very cold beginning of the year 2026, the average temperatures in the north of the Alps were above the average of the Reference Period 1991-2020. The temperatures in December and January were strongly above the multiannual average in the mountains and clearly above the average of the whole country in February. After two months with little rain and little snow, Western Switzerland, the Valais and the north side of the Alps received large quantities of fresh snow in February. However, the long-lasting period of low precipitation led to a reservoir level approximately 300 GWh below the all-time median at the end of March.

Regarding the analysis on curtailment of renewable generation, it is important to mention Article 19c(4) of the Swiss Electricity Supply Ordinance (*StromVV*)[1]. It stipulates that the distribution system operator may curtail a maximum of 3% of the annual energy production at the connection point.

[1] *SR 734.71 - Stromversorgungsverordnung vom 14. März 2008 (StromVV) | Fedlex*

Ukraine

Summer Outlook 2026

Notwithstanding Russia’s massive missile warfare against Ukraine’s energy infrastructure since 2022, the power system has demonstrated resilience and is currently capable of ensuring reliable operation during the summer of 2026. The only risks to reliable power supply for the upcoming summer are primarily associated with the continuation of missile strikes targeting transmission and distribution systems as well as power generation facilities. Such attacks may result in prolonged emergency repairs of generating and network equipment and a reduced ability to import electricity from power systems neighboring the IPS of Ukraine. In a worst-case scenario, load-shedding measures may be applied to temporarily reduce electricity consumption.

Winter Review 2025-2026

No significant adequacy issues were foreseen for the upcoming winter of 2025–2026. However, the continuous barbaric attacks by Russia on Ukraine's energy infrastructure, which began in 2022, already have caused temporary outages in electricity generation as well as in transmission and distribution systems, leading to load shedding. Despite these devastating circumstances, the Ukrainian power system is expected to remain adequately robust. Thanks to the Ukrainian Armed Forces and the dedicated efforts of Ukrainian power engineers, the system continues to meet demand. With its integration into the Continental European Power System, Ukraine's grid demonstrates strong resilience and is likely to face adequacy challenges only as a result of unlawful missile strikes by Russia.