

# Climate Transition Risk Assessment Summary

## Tisza CCGT Environmental and Social Impact Assessment

## 1 Introduction and Context

This document presents a summary of selected findings from the Environmental and Social Impact Assessment (ESIA) prepared for the Tisza Combined Cycle Gas Turbine (CCGT) Project.

The ESIA is a comprehensive assessment undertaken to identify, evaluate and manage the potential environmental and social impacts associated with the construction and operation of the Project. It has been developed in accordance with Hungarian regulatory requirements and international standards, including the IFC Performance Standards and the Equator Principles, which are applied by the Project's international financing partners.

The purpose of the ESIA is to ensure that potential risks are identified at an early stage and that appropriate mitigation measures are put in place to avoid, minimise or manage adverse impacts. This summary focuses on the Climate Transition Risk Assessment, which examines how the Project may be affected by the transition to a low-carbon economy over its operational lifetime. The aim of this document is to provide a clear and accessible overview of the key findings for stakeholders and the public.

## 2 Purpose and Approach of the Assessment

The Climate Transition Risk Assessment was prepared to understand how wider economic, technological, regulatory and societal changes linked to climate policy could affect the long-term viability of the Tisza CCGT Project. In particular, the assessment considers whether the Project's design and operating strategy are resilient in a future energy system that is expected to become progressively lower in carbon intensity.

The assessment looks beyond the Project itself and examines the broader context in which it will operate. This includes Hungary's national climate and energy strategy, the European Union's greenhouse gas reduction targets, developments in electricity and gas markets, and changes in technology such as renewable energy, hydrogen and energy storage. The assessment also considers the potential financial implications for the operator and lenders, including the possibility that an asset could become less competitive or, in an extreme case, stranded in a future low-carbon economy.

The review distinguishes between physical climate risks and transition risks. Physical climate risks, such as extreme weather events and long-term climate trends, are addressed separately in the climate resilience chapter of the ESIA. The focus here is specifically on transition risks, meaning risks arising from policy changes, market developments, technological progress and reputational pressures associated with decarbonisation.

## 3 Project Context

The Project consists of a new 998 MW CCGT power plant made up of two high-efficiency 499 MW units. It is being constructed on the site of the former Tisza Power Plant and utilises existing infrastructure, including grid connection, cooling water systems and certain legacy facilities.

Construction of the Project commenced in January 2026, with the first unit expected to become operational in the third quarter of 2029. The planned operating life of the facility is at least 20 years.

The plant is designed to operate on natural gas and has the capability to accommodate hydrogen blending in the future. In addition, due to the size and configuration of the site, there is sufficient physical space available to accommodate potential future low-carbon technologies, which supports long-term adaptability of the asset.

## 4 National and European Policy Context

The transition assessment is anchored in the wider policy framework applicable to Hungary and the European Union. At EU level, the Union and its Member States are committed to reducing net greenhouse gas emissions by at least 55% by 2030 compared with 1990 levels, while also pursuing climate neutrality by 2050. These commitments are economy-wide and have a particularly strong relevance for the energy sector.

At the national level, Hungary's National Clean Development Strategy and National Energy and Climate Plan define the strategic direction of the energy transition. These policies aim to reduce emissions, expand renewable energy, improve energy efficiency, strengthen energy security and increase domestic electricity generation. Coal-based electricity generation is being phased out, while the role of renewable energy, nuclear generation and electrification is increasing.

Within this framework, natural gas is expected to remain part of the energy mix in the medium term, particularly where it supports the transition away from more carbon-intensive fuels and contributes to system flexibility and security of supply.

The assessment also considers the broader economic transition context in Hungary, which shows a gradual shift towards a more sustainable and resilient market economy, providing a supportive environment for the Project's long-term operation.

## 5 How the Assessment Was Carried Out

The assessment categorises transition risks into four main groups: market risks, technology risks, policy and legal risks, and reputation risks. Each risk is evaluated based on its potential impact on the Project and the extent to which it can be mitigated through design and operational measures.

Risks are classified as low, medium or high. A low rating indicates that a risk is limited or manageable, a medium rating indicates a more material impact that requires active management, and a high rating would indicate a significant threat to the Project's long-term viability. The assessment finds that most risks fall into the low category, with one key market-related risk assessed as medium.

## 6 Market Risks

The most significant transition risk relates to the Project's exposure to natural gas price volatility. As the plant relies on natural gas, fluctuations in fuel prices directly influence operating costs and financial performance. This risk is therefore assessed as medium.

Hungary's position as a net importer of natural gas contributes to this exposure. However, the assessment identifies several mitigating factors, including diversified import routes, regional market integration, strategic gas reserves and policy measures aimed at strengthening energy security. These factors help reduce vulnerability, although they do not eliminate price volatility.

Electricity price volatility and carbon pricing are assessed as low risks. The impact of carbon pricing is already reflected in long-term policy scenarios, and the Project's high efficiency and operational flexibility contribute to maintaining competitiveness under evolving market conditions.

## 7 Technology Risks

Technology-related risks are primarily associated with the potential for rapid advancement of renewable energy and storage technologies, which could affect the competitiveness of gas-fired generation. This risk is assessed as low, as national energy strategies foresee a continued role for flexible gas-fired capacity to support system stability and renewable integration.

The Project's design supports long-term adaptability through high efficiency and the capability to utilise alternative fuels such as hydrogen. These features position the asset to remain relevant within a changing energy system.

Air quality risks are also assessed as low. Emissions will be controlled through the application of Best Available Techniques and compliance with environmental permit requirements. Participation in the EU Emissions Trading System further incentivises emission reductions.

The potential growth of alternative fuels such as hydrogen is considered an opportunity rather than a risk, as increased availability of such fuels could support diversification and enhance long-term resilience.

Operational and maintenance risks are inherent to large-scale energy infrastructure but are considered low, as they can be effectively managed through appropriate operational practices and maintenance strategies.

## 8 Policy and Legal Risks

Policy and legal risks relate to potential changes in climate policy, energy regulation and societal expectations. These include energy security considerations, alignment with renewable energy targets, future regulatory requirements and potential community concerns.

The assessment concludes that these risks are low. While Hungary remains dependent on imported natural gas, ongoing diversification of supply sources and improvements in infrastructure contribute to energy system resilience. Although gas-fired generation does not directly contribute to renewable energy targets, the Project supports broader policy objectives by enabling the phase-out of coal, reducing the carbon intensity of electricity generation and providing reliable capacity that facilitates the integration of renewable energy sources.

Future decommissioning obligations are also considered manageable, with costs expected to remain proportionate relative to other large-scale generation technologies.

Community opposition is assessed as low. The Project is located on an existing industrial site with a long history of power generation and is situated at a relative distance from major population centres. Stakeholder engagement to

date indicates generally positive or neutral perceptions, with ongoing engagement expected to further support acceptance.

## 9 Reputation Risks

Reputation risks arise from the continued use of fossil fuels in electricity generation and from potential environmental impacts. While gas-fired generation is less carbon-intensive than coal, it still results in greenhouse gas emissions, which may attract public scrutiny.

This risk is assessed as low, as the Project forms part of the transition away from coal and contributes to a more efficient and flexible energy system. Clear communication of the Project's role within the energy transition and its future adaptability will be important in maintaining stakeholder confidence.

Potential impacts related to thermal discharge from cooling water are also assessed as low, given the characteristics of the receiving environment and the design of the cooling system.

## 10 Main Findings and Overall Conclusion

The assessment concludes that the Tisza CCGT Project is exposed to a manageable level of climate transition risk. The most significant risk relates to natural gas price volatility, which is assessed as medium, while all other identified risks are assessed as low.

The Project is considered to be broadly aligned with Hungary's energy transition pathway. Its high efficiency, operational flexibility and ability to adapt to future changes in fuel use and technology contribute to its long-term resilience.

The assessment does not indicate a significant risk of the Project becoming stranded within its expected operational lifetime. Instead, it identifies the Project as an important component of the transition away from more carbon-intensive energy sources and as a supporting element for the integration of renewable energy.