

# Advancing Energy Security

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Mobilizing Private Finance for  
Natural Gas Independence



Energy Independence  
Council

The private financial sector plays a central role in achieving a future-proof and competitive German and European economy. The targeted and accelerated financing of natural gas independence is a decisive milestone in this respect.

This executive summary of the report on *Security-oriented Energy Policy* for actors in the financial sector focuses on the urgent economic and financial policy necessity of mobilising private capital worth 526 billion euros to reduce Germany's dependence on natural gas.<sup>1</sup>

We present six respective measures. They seek to improve the integration of the real and financial economy through a consistent and streamlined regulatory framework and enable access to capital for all relevant actors (in particular private homeowners, businesses and municipal utilities) through credit guarantees, special purpose vehicles (SPV's) or interest rate benefits – despite poor creditworthiness and high base interest rates.

<sup>1</sup> For all references and sources not explicitly cited in the text, please refer to the full report *Security-oriented Energy Policy* (Fachrat Energieunabhängigkeit, 2024).



You can find the full report here.

## Natural gas dependence is a substantial financial risk

The energy crisis has highlighted the high financial risks associated with relying on fossil fuels such as natural gas. **The energy crisis cost Germany 424 billion euros**, 264 billion euros in funds set aside for aid packages and 160 billion euros due to a lower economic output in Germany (Goldthau and Tagliapietra, 2022; Holtemöller et al., 2022). As a result, businesses such as Uniper and many citizens were threatened with insolvency. The cumulation of these risks on a micro-level would also negatively affect the financial stability on the macro-level. The European and German economy came under pressure.

### These financial risks will persist in the long term.

After the Russian gas shortage, increasing liquefied natural gas (LNG) import capacities ensured short-term supply security in order to cushion the economic and social impact. However, this merely shifted energy dependencies from a regional reliance on Russia to a global reliance on volatile LNG markets. The share of LNG in total EU gas imports has doubled over the last two years – including from the USA and Qatar. The EU is now 42 % dependent on LNG imports (European Commission, 2024).

**With the report "Security-oriented energy policy – a financing strategy for Germany's independence from natural gas", the Energy Independence Council shows that these risks can be reduced effectively and rapidly in Germany.** Strong cooperation between the financial sector, businesses and politics can reduce Germany's dependence on natural gas by up to 78 % – by mobilising and redirecting capital flows for investments totalling 526 billion euros, primarily for electricity-based heat generation in buildings and industry. Although Germany is at the centre of the report, recommendations can inspire action on the EU level and in other member states.

**The purpose of this summary for financial actors is to initiate a comprehensive dialogue on the economic opportunities and concrete measures for accelerating the independence from natural gas through private capital investments.** To this end, we outline capital requirements for relevant sectors and present six specific recommendations for action. The diversity of the financial sector – banks, insurance companies and investment funds – is addressed.

## Investing in Germany's independence from natural gas

The German and European economies are facing a **new geopolitical reality**. In the long term, **businesses and financial markets cannot rely on the stable availability of natural gas**. Relations with the USA do not guarantee any reliability given the 2024 election year. According to the OECD, IEA and ECB **geopolitical tensions e.g. due to the Middle East conflict** are a key threat to the global economic outlook and financial market stability. Together with supply-side uncertainties and increasing demand-side pressure from Asia, this could lead to **considerable price volatility on the energy markets** (OECD, 2023; European Central Bank, 2024; IEA, 2024). Investments in natural gas independence are therefore a key prerequisite for economic and financial market stability in the EU.

### Key findings for financial actors

- Redirecting capital flows into electricity-based heat generation for buildings (mainly building stock, 480 billion euros in total) and industry (mainly process heat, 44 billion euros in total) can **reduce dependence on natural gas by up to 78 %**.
- In industry, **83 % of natural gas can be replaced with 30 billion euros invested in electrification plants**. German businesses generally have a good credit rating. By focussing on the food and tobacco industry, paper industry, cement and lime industry and basic chemicals, **businesses can cut industrial natural gas consumption by more than 50 % with investments of just 9.5 billion euros**. In most cases, this does not require an extensive expansion of the infrastructure, such as hydrogen networks.
- Investments bear low technological risks relying on available and proven technologies that are **already competitive with natural gas in many cases**. In the chemical industry, for temperatures up to 500° C, and in the food and tobacco industry, electricity-based heating is already competitive under current market conditions (Umweltbundesamt, 2023). Pioneering companies such as Heinz-Glas, Currenta and Kabel Paper show the feasibility of investments.
- For residential buildings, **private homeowners and housing companies need 259 billion euros in capital** for the conversion of decentralised heating from natural gas and oil to e.g. heat pumps or connecting buildings to district heating networks, as well as **120 billion euros** for energy-efficient renovation.
- The investments required for the expansion and transition of district heating networks to renewable generation totals **103 billion euros** and primarily affects **municipal utilities and energy providers**.

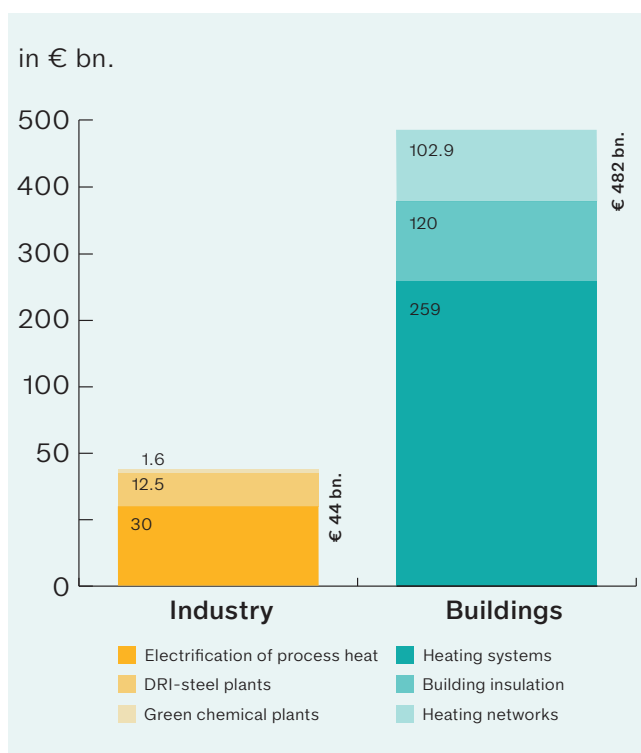


Figure 1: Investment needs for natural gas-free industry and buildings by technology.

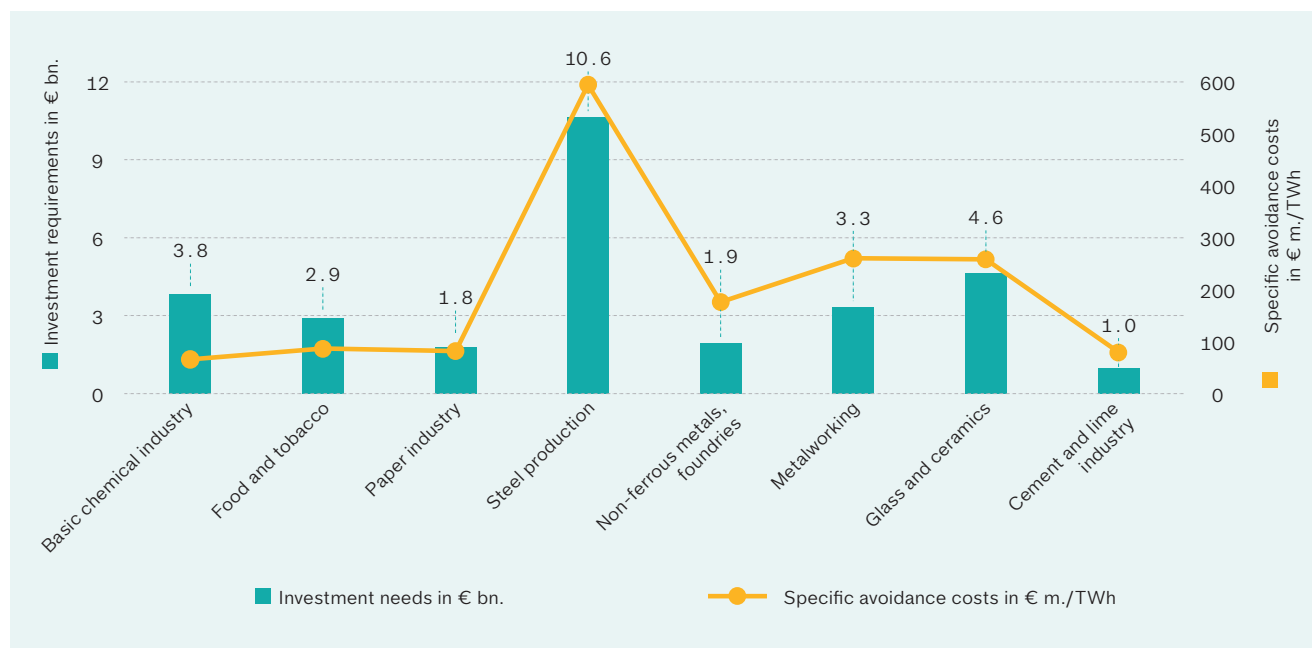


Figure 2: Investments needs and specific avoidance costs for electrification of process heat generation by industry sector.

## Five levers for mobilizing private finance

**1. Clear and ambitious standards:** Banks and investors can support businesses in identifying transition risks, minimising them in the medium term and eliminating them in the long term. Financing instruments should be based on standardised and binding targets and ongoing impact analyses.

**2. Supportive regulation:** A consistent and forward-looking regulatory framework creates a reliable basis for planning and expectations on the part of the economy and increases the flow of capital into natural gas independence.

**3. Improvement of credit conditions:** Private, municipal or cooperative housing companies bundle large numbers of flats [114 units per institutional owner compared to 1.4 residential units for private owners] and can therefore generate high investment and scaling dynamics. However, they face the challenge of a low return on investment, primarily due to rising construction and interest costs.

**4. Capital for homeowners with poor credit ratings:** Private homeowners will bear a large share of the investment, totalling 309 billion euros, as they own 81.5 % of all residential units. However, 15–30 % of private homeowners face problems accessing capital (DENEFF, 2023).

**5. Securing access to credit for municipal utilities:** Municipal utilities face a twofold challenge for their investments. On the one hand, investment needs are highly concentrated on few actors with 103 million euros on average per heating network operator. On the other hand, future revenue structures negatively impact creditworthiness. The 77 largest municipal utilities lose 25–50 % of their revenue when shutting down their natural gas business. At the same time, infrastructure investments such as heating networks are only profitable in the long term.

## Recommendations to mobilize private finance

The following measures are a selection of the ten recommendations **for Germany's independence from natural gas** in the report *Security-orientated energy policy* by the Energy Independence Council. The aim is to activate the financial sector – in coordination with the real economy and politics – to consistently fulfil its role as a facilitator of the transition to natural gas independence. Three recommendations (sectoral transition plans, amendments to the EU taxonomy, expansion

of the Corporate Sustainability Reporting Directive) **strengthen the transmission loop between the real economy and the financial sector**, while three further measures (Heating-for-All programme, special purpose vehicles for heating-contracting services, Green Targeted Long-Term Refinancing Operations) **improve access to capital via credit guarantees, special purpose vehicles or base interest rate benefits**.

### Strengthening the transmission loop between businesses and the financial sector

#### 1. Harmonisation of transition plans: a common terminology for the financial sector and businesses

**We recommend a shared effort between the financial sector, businesses and public policy to develop sector-specific standards for transition plans.** Binding targets and standardised transition pathways of businesses along uniform and therefore comparable assessment criteria enable the financial sector to look ahead and build capacity on upcoming structural changes in the economy. **There is currently a significant divergence in reporting obligations and assessment approaches**, which is characterised by different and incompatible regulatory requirements such as the Corporate Sustainability Reporting Directive (CSRD), the Minimum Requirements for Risk Management (MaRisk) and the conditionalities of public funding programmes such as Carbon Contracts for Difference. **The financial sector lacks standardized metrics and norms for identifying and assessing sectoral transition risks.** This makes it difficult for private and public investors to adequately assess risks and prevents targeted support for the restructuring of business models.

**Establishing sector-specific transition plans and harmonizing the existing regulatory framework can ensure consistency and reduce complexity.** A coordinated approach not only minimises bureaucratic hurdles but also ensures a reliable framework for the impact-oriented management of capital flows and their ongoing evaluation.

#### 2. Redefining the EU Taxonomy

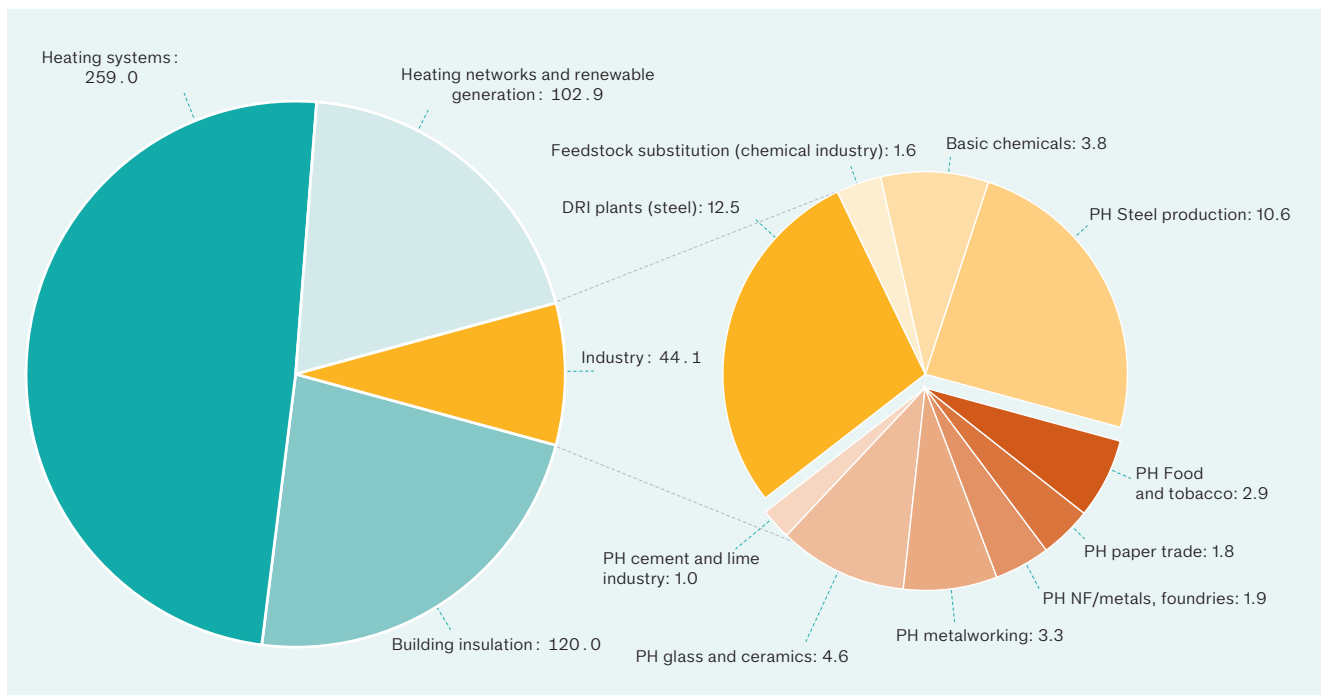
**We recommend that the financial sector and its associations advocate for the consistent development of the transformative nature of the EU taxonomy.** The categorisation of natural gas as a transition technology in contrast to the advice of the Platform on Sustainable Finance must be adjusted within a clearly defined timeline. This necessary change to the EU taxonomy would allow **all sectors that contribute significantly to reducing natural gas consumption, in particular investments in electrification, to be counted as taxonomy-aligned**.

**Furthermore, one third of necessary industrial transition investments replacing natural gas are not considered taxonomy-eligible and therefore cannot be attributed towards the Green Asset Ratio (GAR).** For the remaining two thirds, taxonomy alignment depends on the threshold values of the technical screening criteria being reached. This is problematic, as electrification for the substitution of fossil process heat is in most cases the most effective investment for low-carbon production.

**To support investments in German and European natural gas independence and to further develop the EU taxonomy into a transition instrument for natural gas independence**, the following amendments are necessary in future revisions of the technical screening criteria:

- **The inclusion of additional sectors in the delegated acts relevant for natural gas independence.**  
This includes the following economic activities in particular: The manufacture of paper and paper products; food products, beverages and tobacco products; glass and glass products, non-ferrous metals and foundries, as well as the processing of stone and earth and metalworking.
- **The inclusion of electrification activities in the EU taxonomy and an extension of the scope of low-carbon activities** to include the production of electrification equipment and machinery.
- **Investments (CapEx) in the electrification of processes previously powered by fossil fuels should be included in the list of eligible economic activities** – regardless of the CO<sub>2</sub> intensity that the company achieves after the investment and thus regardless of the company's electricity mix.

- **Examine whether energy services are adequately recognised in the EU taxonomy.** Energy services can make a significant contribution to the scaling of renewable heating technologies (see Recommendation 5). In contrast to activities related to the transport sector, leasing models are not explicitly listed in the relevant eligible activities. It should be examined whether leasing models for heating systems could be accounted under the EU taxonomy. This includes clarifying whether energy services are already sufficiently included in the economic activities relevant to natural gas in the EU taxonomy.



**Figure 3:** Taxonomy eligibility and alignment for the required investments (in € bn.) for natural gas-free industry and buildings. PH= process heat; turquoise = taxonomy-aligned (91 %), yellow = taxonomy-eligible, alignment depending on threshold values (7 %), red = not eligible (3 %).

### 3. Expanding the scope of the Corporate Sustainability Reporting Directive (CSRD) and including small businesses into the Green Asset Ratio (GAR)

**We recommend that investments in natural gas-free technologies can be fully attributed towards banks' GAR under the EU taxonomy.**

Currently, only companies that fall under the scope of the CSRD are included in the calculation of the GAR. This puts financial institutions that specialise in lending to small and medium-sized enterprises (SMEs) and smaller projects at a disadvantage, especially those that are not capital market-oriented and are therefore not covered by the CSRD.

In order to compensate for this distortion of competition, taxonomy-aligned investments and loans to companies that are outside the scope of the CSRD should nevertheless be allowed to be accounted for by banks in calculating the GAR. This measure would not only provide a positive incentive for voluntary sustainability reporting among SMEs, for example by enabling them to improve their credit rating, but would also increase the availability and quality of data for banks, insurance companies and investment funds in the context of the necessary evaluation of their climate risks. A precondition to this **recommendation is the removal of natural gas as a transition technology within a clearly defined timeline** (see Recommendation 2).

**In the medium term, we recommend to expand the scope of application of the CSRD to non-capital market-oriented SMEs.** As a prerequisite, simplified reporting standards for SMEs should be created as part of the implementation of sectoral transition plans and the harmonisation of pending legal regulations (see Recommendation 1) to ensure practicability. Furthermore, in future revisions of the CSRD, environmental target-related criteria such as the CO<sub>2</sub>-emissions of businesses should be used as a criterion defining the scope of the CSRD instead of company size and turnover. This will ensure the consistency with political targets, particularly for CO<sub>2</sub>-intensive businesses, and at the same time reduce the corresponding risks in the portfolios of financial actors.

## Making investments attractive

### 4. Heating-for-All programme to ensure everyone has access to private capital

We recommend the implementation of a state-backed default guarantee to enable banks to grant loans to vulnerable households with low incomes and poor creditworthiness.

Current data shows that at least 1.5 million private homeowners have difficulties financing the replacement of their heating system (Schumacher, Nissen and Braungardt, 2022). Further estimates suggest that 15–30 % of owners have limited access to the necessary capital (DENEFF, 2023). To ensure that sufficient investments are made, banks need to be enabled to grant loans even with high credit risks and poor credit ratings through adequate risk protection.

Financial associations and businesses should advocate for governments to develop default guarantees for investments in heating systems and energy-efficient renovations. These guarantees should take effect if homeowners do not meet the creditworthiness criteria of established credit programmes such as the preferential loans by the German promotional bank (KfW) or conventional bank loans. Activating the guarantee would enable these homeowners to cover all necessary costs that go beyond the state subsidy of 30–70 % through the Federal Subsidy for Efficient Buildings (BEG). The loans would be combined with existing BEG funding programmes.

In the event of a loan default, the public sector would reimburse the banks e. g. via KfW, including a guaranteed interest rate. Such a default would be recognised if insolvency could be proven, or enforcement could not be carried out successfully. To prevent potential misuse, the loan amount should be paid directly by the financing bank to the company carrying out the energy-related measure.

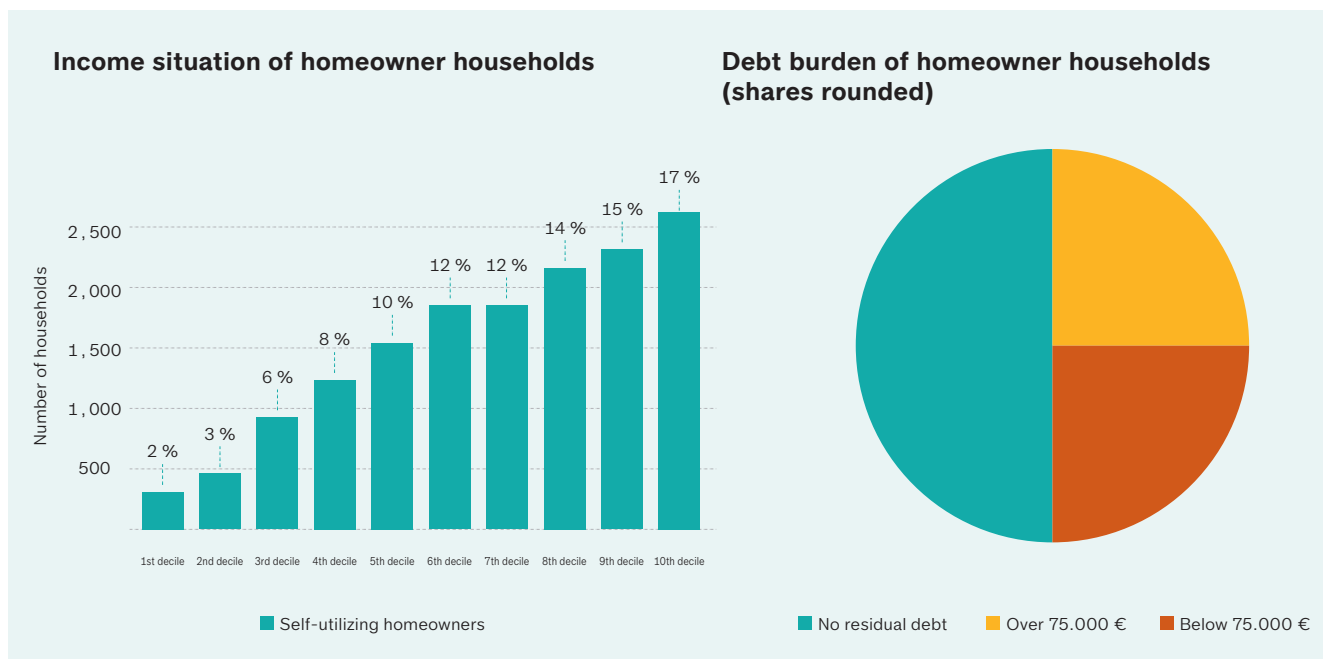


Figure 4: Income situation of owner-occupied households (left) and debt burden of owner-occupied households (right).

## 5. Special purpose vehicles (SPVs) for heating-contracting services to bundle smaller investments

We recommend the promotion of regional SPVs that enable municipal utilities to offer energy services despite high capital intensity. This financing instrument can support municipal utilities in improving their creditworthiness and developing new business models.

The lack of sustainable business models for municipal utilities poses a significant challenge for covering the high investment needs associated with the expansion and modernisation of heating networks and the installation of large heat pumps. These investments totalling 103 billion euros will only be profitable in the long term. At the same time, many business models of municipal utilities are under stress, with a reduction in revenue of 25–50 % due to phasing out their gas business.

Energy services can provide municipal utilities with new streams of revenue, which also help to improve their creditworthiness. The energy contracting market has grown steadily in recent years: it had a market volume of nearly 10 billion euros in Germany in 2023 and continues to offer high market potential (BfEE, 2024).

To scale up heating services, we recommend state support for regional SPVs. Possible forms of support include default guarantees, preferential loans, or direct investments. The SPVs would acquire products such as heat pumps and lease them in bundles to the municipal utilities as energy service providers. Economies of scale, high credit volumes and state subsidies could enable favourable credit terms.

Transferring the purchase of heating systems to SPVs would protect the municipal utilities' balance sheets from additional liabilities and reduce the cost of credit financing.

## 6. Green Targeted Long Term Refinancing Operations (TLTROs)

In addition to preceding policy measures, we recommend utilising monetary policy to effectively promote investments in natural gas independence, based on the design of Colesanti Senni et al. (2023).

Through a temporary programme for green TLTROs, the European Central Bank (ECB) could help to correct structural deficits in the capital markets, which, due to different market sizes and historical path dependencies, lead to distortions towards existing markets and disadvantage green investments. At the same time, the ECB would support EU policy objectives in line with its secondary mandate. This programme would continue until the transition risks are adequately accounted for by market regulators and rating agencies.

The raise in interest rates has significantly worsened the financing conditions for investments. For example, refinancing costs for renewable energy projects have risen from 16 % to up to 34 % of total costs (Schmidt et al., 2019). For many housing companies, modernisation investments are no longer profitable under these conditions. This not only inhibits investment in Germany's and Europe's independence from natural gas, but also creates risks for the long-term stability of the financial markets, particularly due to the continued high level of investment in high-risk fossil fuel economic activities.

The introduction of a temporary programme for green TLTROs would differentiate the interest rate that banks pay for their refinancing according to the volume of taxonomy-aligned assets and loans in the bank's portfolio. Banks with a high proportion of taxonomy-aligned assets and loans would receive interest rate advantages. Passing on these advantages to businesses, municipal utilities and homeowners creates incentives for investments in natural gas-free technologies and measures.

To ensure that this assessment does not favour investments in natural gas-based technologies, it needs to be accompanied by an amendment of the EU taxonomy (Recommendation 2) to exclude investments in natural gas technologies in the future. Although a temporary programme for green TLTROs would promote green investments overall and thus have a positive impact on measures such as energy-efficient renovation and electrification, without transitioning natural gas out of the taxonomy, the incentive to invest in natural gas-based technologies would increase as well.

## Call to Action

Protection against future economic and energy price shocks is a challenge for society as a whole. It requires **prioritisation of investments in natural gas independence**. This can only succeed if the financial sector actively embraces its role and pushes for the mobilisation of the necessary investments worth 526 billion euros. Insurance companies, banks and their associations must collaborate with political decision-makers and industry to establish a robust financing framework for natural gas independence.

### The following actions are decisive:

1. Promote platforms and projects that develop **harmonised and clear standards for sectoral transition plans** and enable a **future-oriented risk assessment** of businesses (Recommendation 1).
2. Advocate for a **consistent development of European financial regulation** (EU taxonomy, Corporate Sustainability Reporting Directive) within a clear timeline that **reassesses the risks of natural gas-based technologies** and gives more **consideration to small banks and SMEs** (Recommendations 2 and 3).
  - a) This also directly addresses the regulator itself. By **providing a coherent regulatory framework** that fosters the **standardized transparency on these risks** it is possible to actively tackle the risk of another expensive bank rescue operation.
3. Work with governments and public banks to develop **solutions for default guarantees** to make heating transition investments accessible to private homeowners with poor credit ratings (Recommendation 4).
4. Implement measures such as regional special purpose vehicles together with municipal actors and governments to secure private **funding for the energy transition** locally and **improve access to capital for municipal utilities** (Recommendation 5).
5. Support the ECB and financial market supervisory authorities in their efforts to integrate long-term **transition risks into creditworthiness and risk assessments** (Recommendation 6).

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## Imprint

### **A publication of the Energy Independence Council**

#### **Spokesperson and members of the council and their expertise**

- Jonathan Barth (Spokesperson), economic policy, ZOE Institute for Future-fit Economies
- Dr. Caroline Herkströter, banking supervision and investment law, DLA Piper
- Kristina Jeromin, sustainable finance, Sustainable Finance Advisory Board of the German Federal Government
- Prof. Dr. Tom Krebs, economic policy, University Mannheim
- Dr. Anna Leipprand, industry transition, Wuppertal Institute
- Tariq Noori, sustainable finance, DZ Bank
- Dr. Martin Pehnt, heating transition, ifeu – Institut für Energy and Environmental research Heidelberg
- Frank Peter, industry transition, Agora Industry

#### **Authors**

Jonathan Barth, Kristina Jeromin, Joshua Meinke, Christian van Ballegooy

#### **Editor**

Julia Besendorf

#### **Please cite as**

Barth, J., Jeromin K., Meinke, J., & van Ballegooy, C. (2024): *Security-oriented Energy Policy – Advancing Energy Security: Mobilizing Private Finance for Natural Gas Independence.*

#### **Transparency**

We are grateful for the financial support of the Climate Finance Fund, which has made this work possible.

#### **Layout and Design**

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