

러시아-우크라이나 사태와 EU 에너지정책

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I. 러-우크라이나 전쟁과 영향

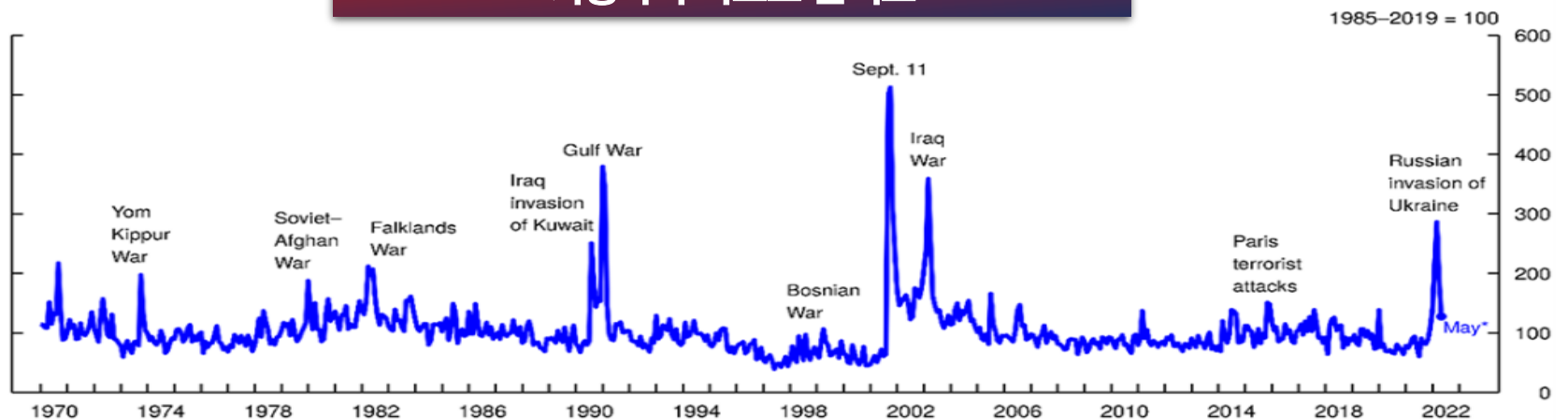
러-우크라이나 전쟁



우크라이나 주요 시설

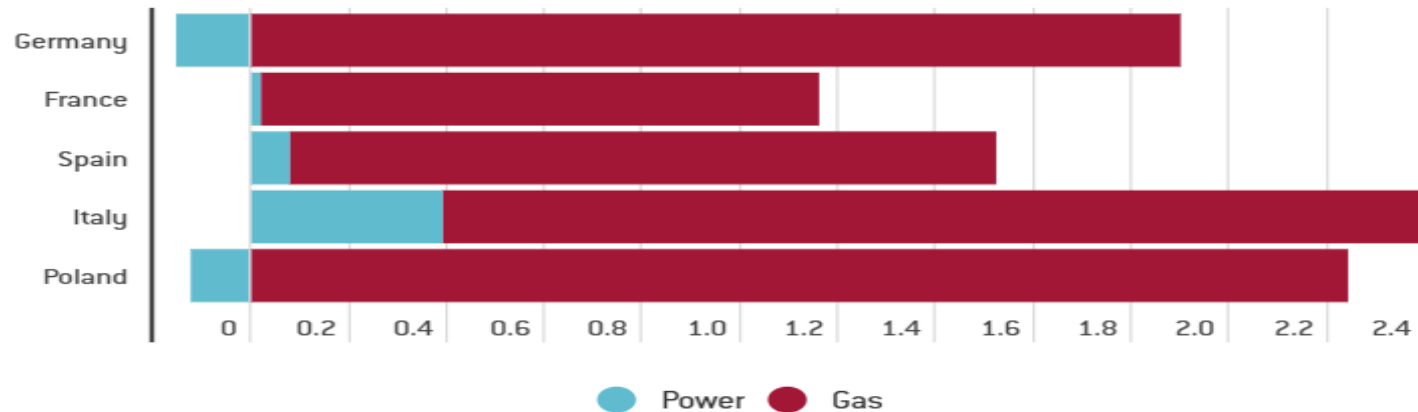


지정학적 리스크 인덱스



I. 러-우크라이나 전쟁과 영향

2022년 1분기 에너지 수입비용 (GDP 대비 %)



유로지역 인플레이션 추이 (22년 10월 10.6%/ EU : 11.5%)

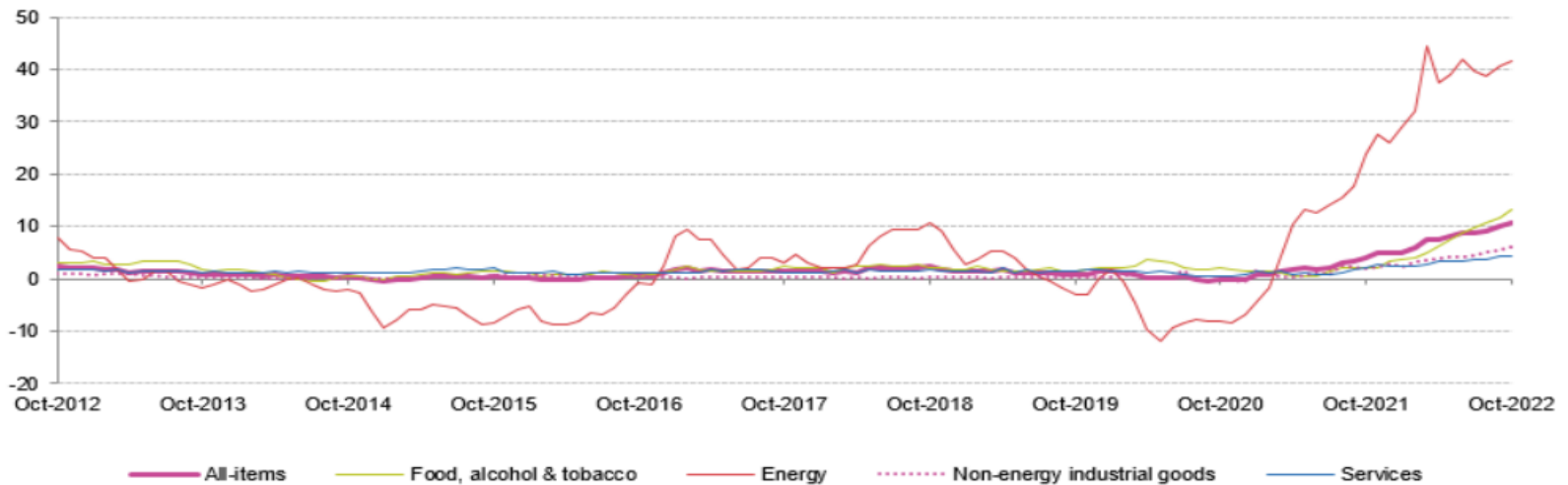


표. EU-러시아 에너지 관계

EU와 러시아 간 품목별 교역

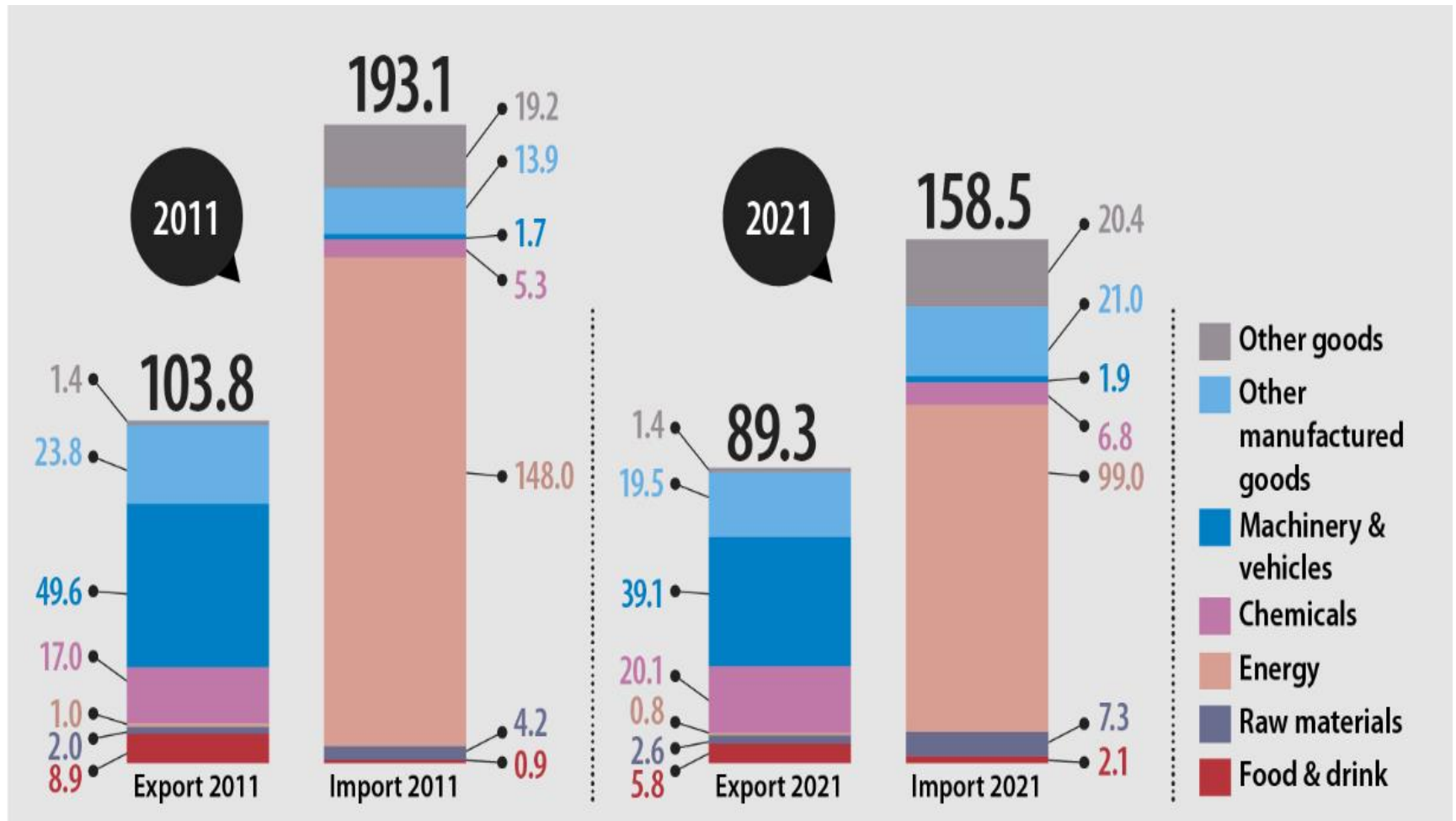
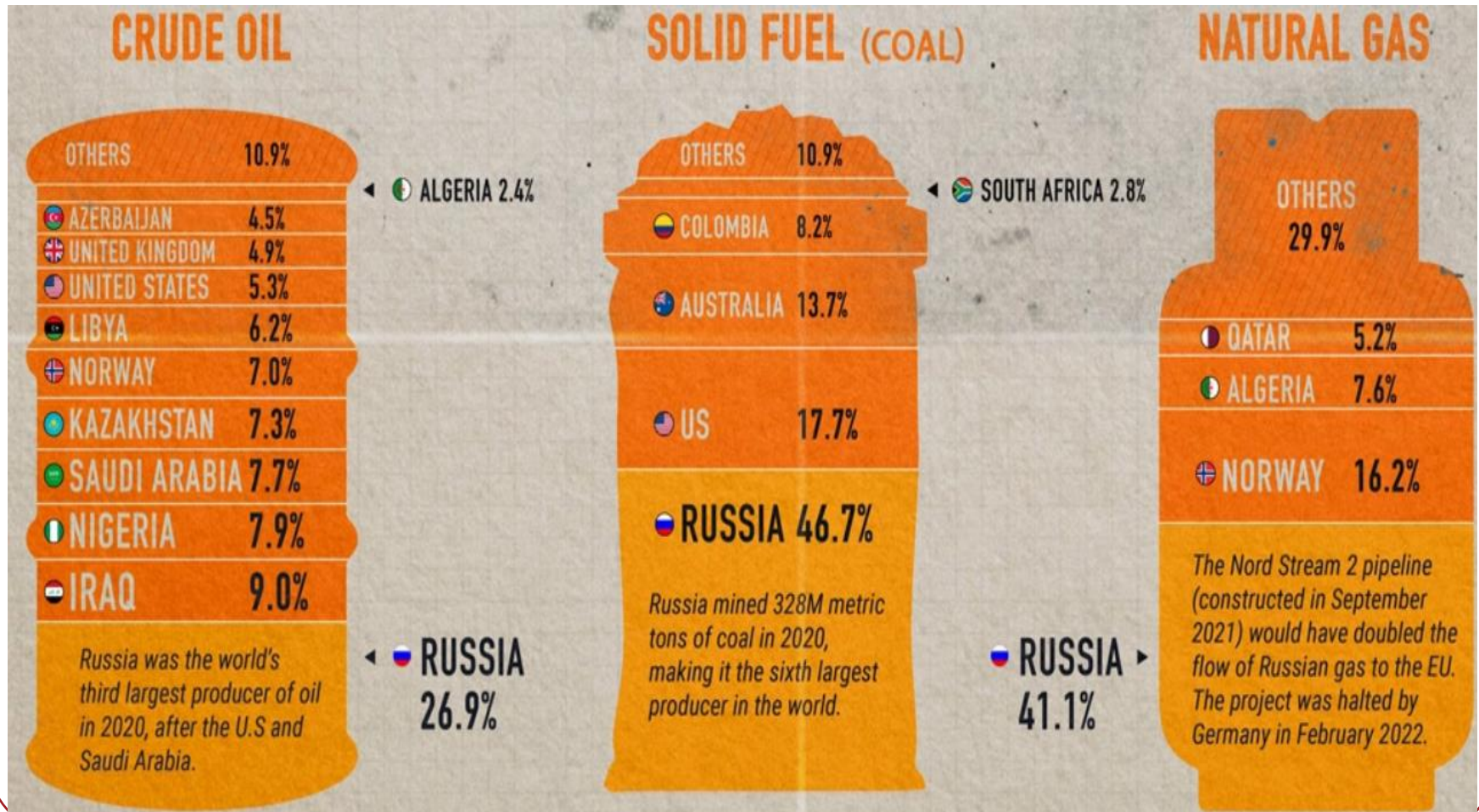


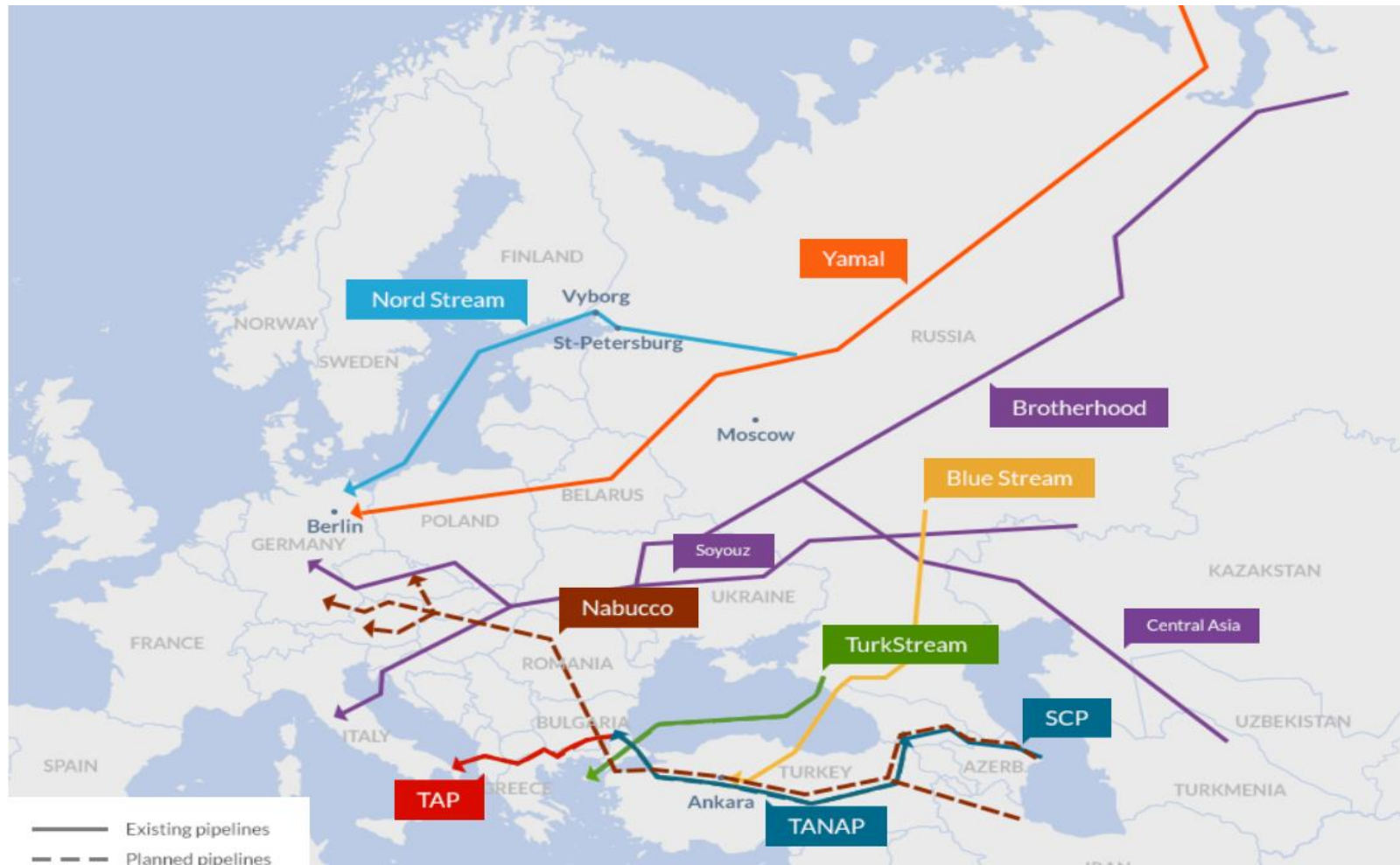
표. EU-러시아 에너지 관계

EU의 에너지원별 러시아 비중 (%)



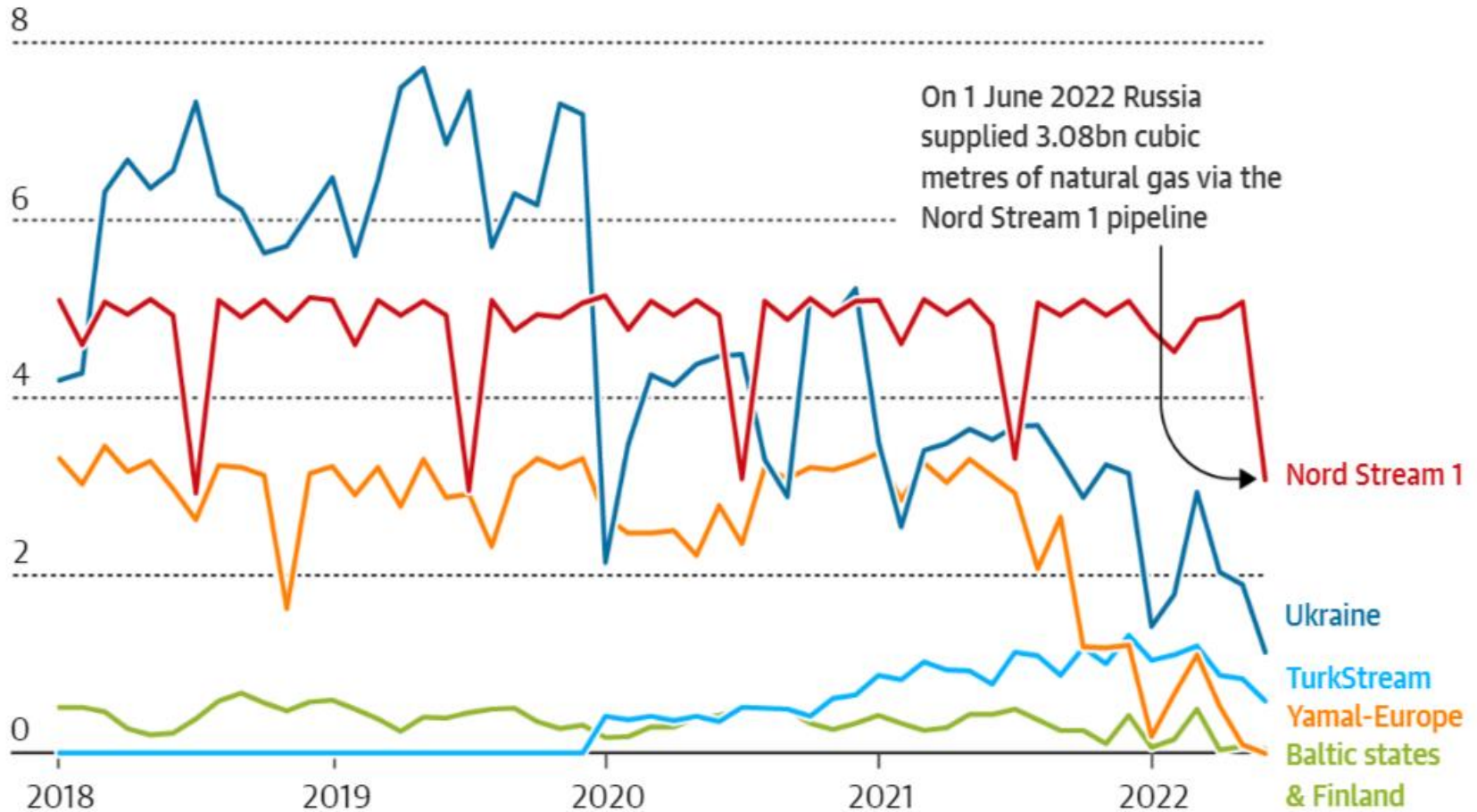
II. EU-러시아 에너지 관계

EU의 주요 가스 파이프라인



II. EU-러시아 에너지 관계

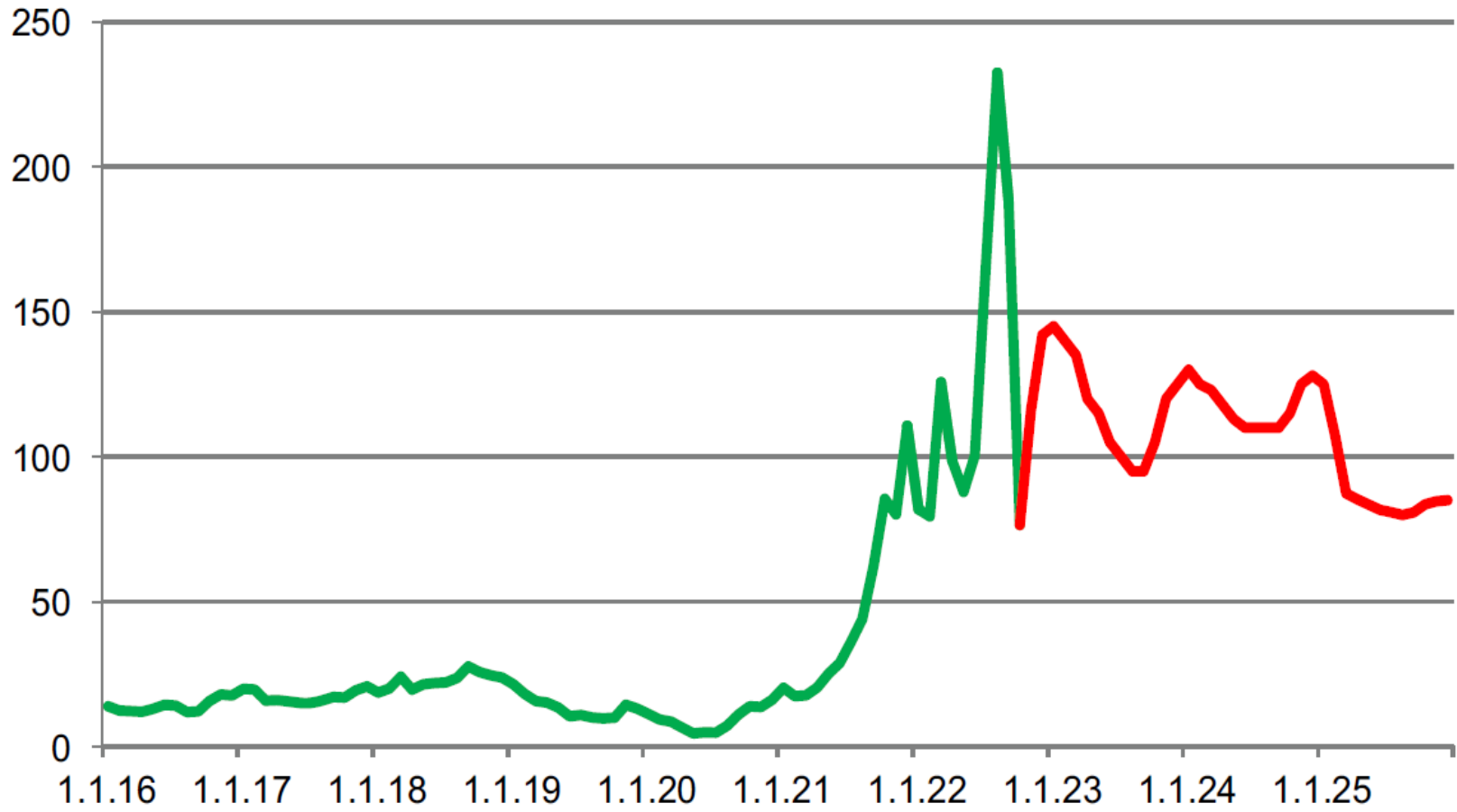
EU의 주요 가스 파이프라인을 통한 러시아 가스 공급 추이 (십억 큐빅)



Guardian graphic. Source: ICIS. Note: Europe = EU, UK and West Balkans

II. EU-러시아 에너지 관계

천연가스 가격 추이 (단위: TTF EUR/MWh, monthly)



Ⅲ. EU의 대응정책

1. REPowerEU



SAVING

Every citizen, business, and organisation can save energy. Small behavioural changes, if we all commit to them, can make a significant difference. Contingency measures for supply interruptions will also be needed.



DIVERSIFYING

The EU is working with international partners to find alternative energy supplies. In the short-term, we need alternative supplies of gas, oil and coal as quickly as possible, and looking to the future we will need renewable hydrogen too.



ACCELERATING CLEAN ENERGY

Renewables are the cheapest and cleanest energy available, and can be produced domestically, reducing our need for energy imports. **REPowerEU** will speed up the green transition and spur massive investment in renewable energy. We also need to enable industry and transport to substitute fossil fuel use faster to bring down emissions and dependencies.



INVESTMENT AND REFORM

Additional investments of €210 billion are needed between now and 2027 to achieve our independence from Russian fossil fuel imports, currently costing European taxpayers nearly €100 billion per year. The Commission proposes that Member States develop national **REPowerEU** plans to implement these new priorities.

Ⅲ. EU의 대응정책

1. REPowerEU

단기계획



- **Common purchases of gas, LNG and hydrogen via the EU Energy Platform** for all Member States who want to participate as well as Ukraine, Moldova, Georgia and the Western Balkans
- **New energy partnerships** with reliable suppliers, including future cooperation on renewables and low carbon gases
- **Rapid roll out of solar and wind energy projects** combined with renewable hydrogen deployment to save around 50 bcm of gas imports
- **Increase the production of biomethane** to save 17 bcm of gas imports

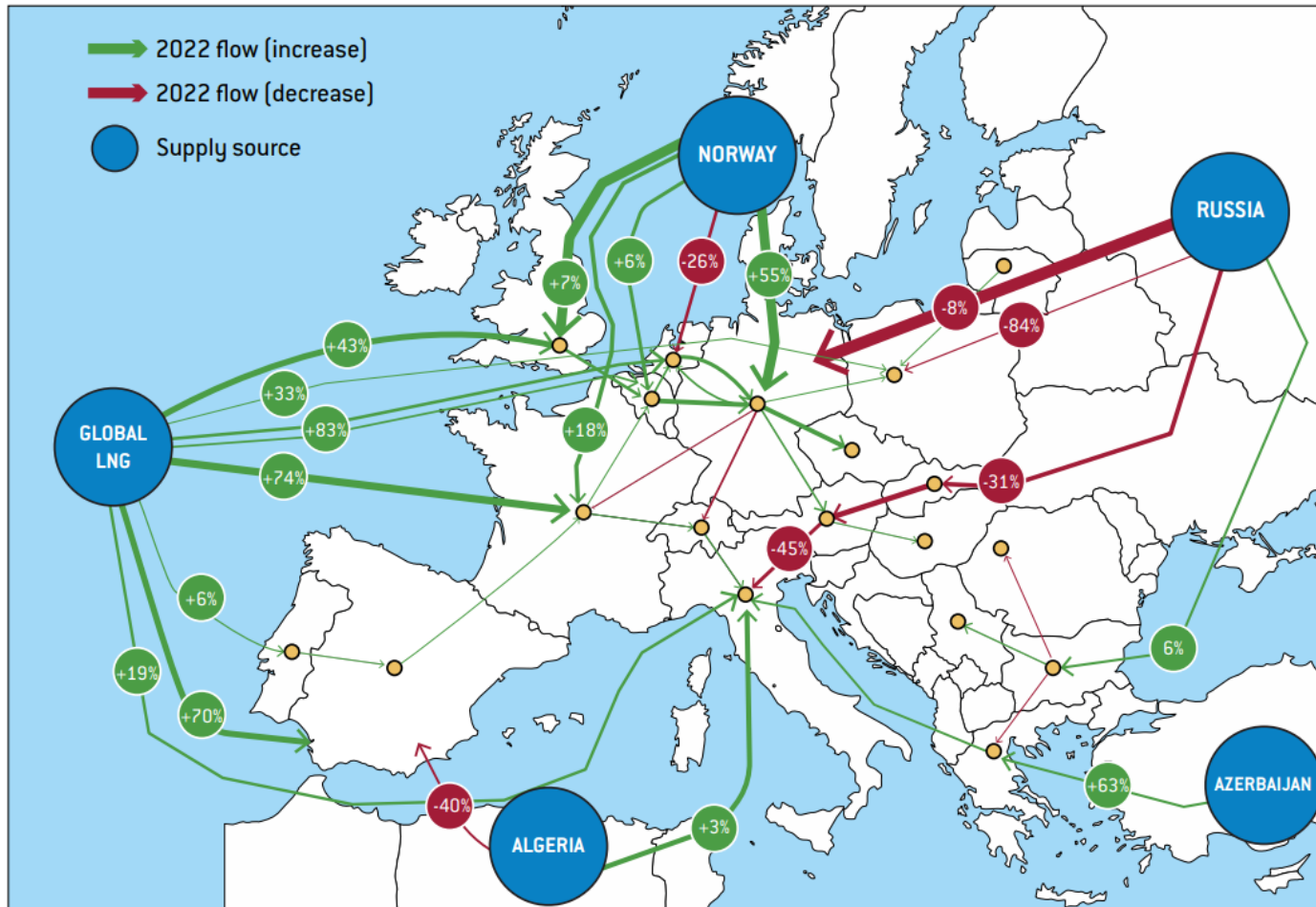
- Approval of first **EU-wide hydrogen projects** by the summer
- An **EU Save Energy Communication** with recommendations for how citizens and businesses can save around 13 bcm of gas imports
- **Fill gas storage** to 80% of capacity by 1 November 2022
- **EU-coordinated demand reduction plans** in case of gas supply disruption



Ⅲ. EU의 대응정책

1. REPowerEU

LNG 수입 확대



Ⅲ. EU의 대응정책

1. REPowerEU

EU 역내 LNG 터미널



Ⅲ. EU의 대응정책

1. REPowerEU

아시아 LNG 가격 추이



Source: Global LNG hub

Ⅲ. EU의 대응정책

1. REPowerEU

장기계획



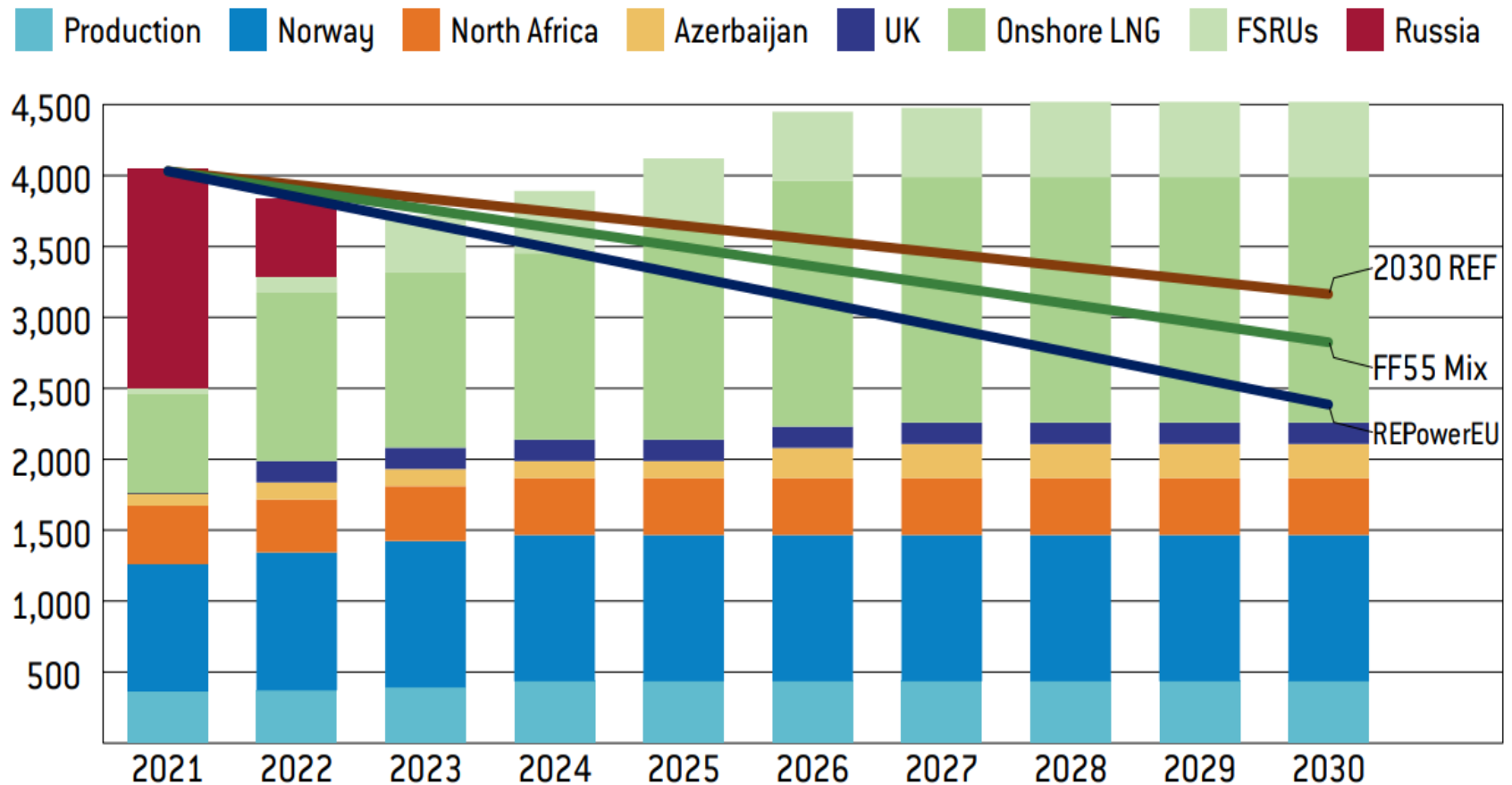
- **New national REPowerEU Plans under the modified Recovery and Resilience Fund** – to support investment and reforms worth €300 billion
 - **Boosting industrial decarbonisation** with around €3 billion of frontloaded projects under the Innovation Fund
 - **New legislation and recommendations for faster permitting of renewables** especially in dedicated ‘go-to areas’ with low environmental risk
 - **Investments in an integrated and adapted gas and electricity infrastructure network**
 - Increased ambition on **energy savings by raising the EU-wide target on efficiency for 2030 from 9% to 13%**
-
- **Increase the European renewables target for 2030 from 40% to 45%**
 - **New EU proposals** to ensure industry has access to critical raw materials
 - Regulatory measures to **increase energy efficiency in the transport sector**
 - **A hydrogen accelerator** to build 17.5 GW by 2025 of electrolyzers to fuel EU industry with homegrown production of 10 million tonnes renewable hydrogen
 - **A modern regulatory framework for hydrogen**



Ⅲ. EU의 대응정책

1. REPowerEU

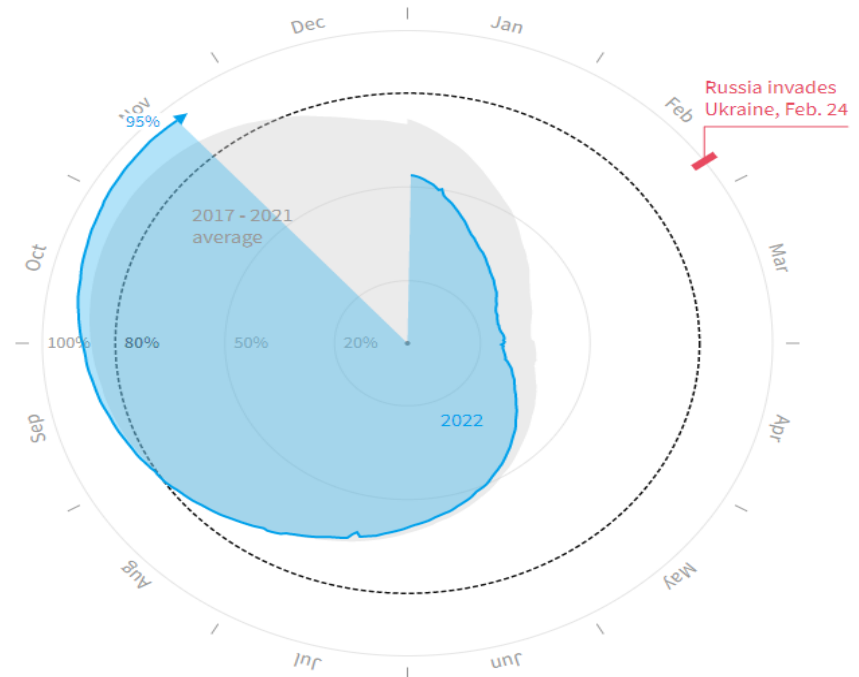
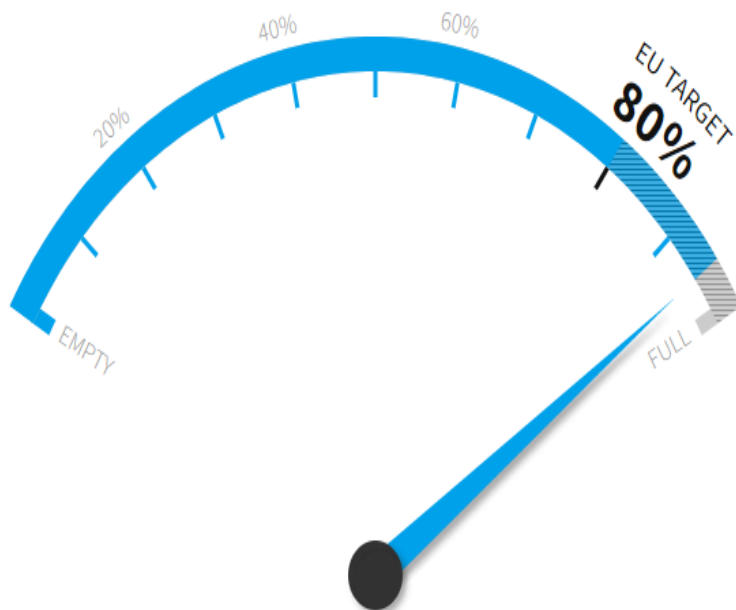
EU 가스 수요 및 공급 전망



Ⅲ. EU의 대응정책

2. 가스비축량 제고 : 80% → 90%

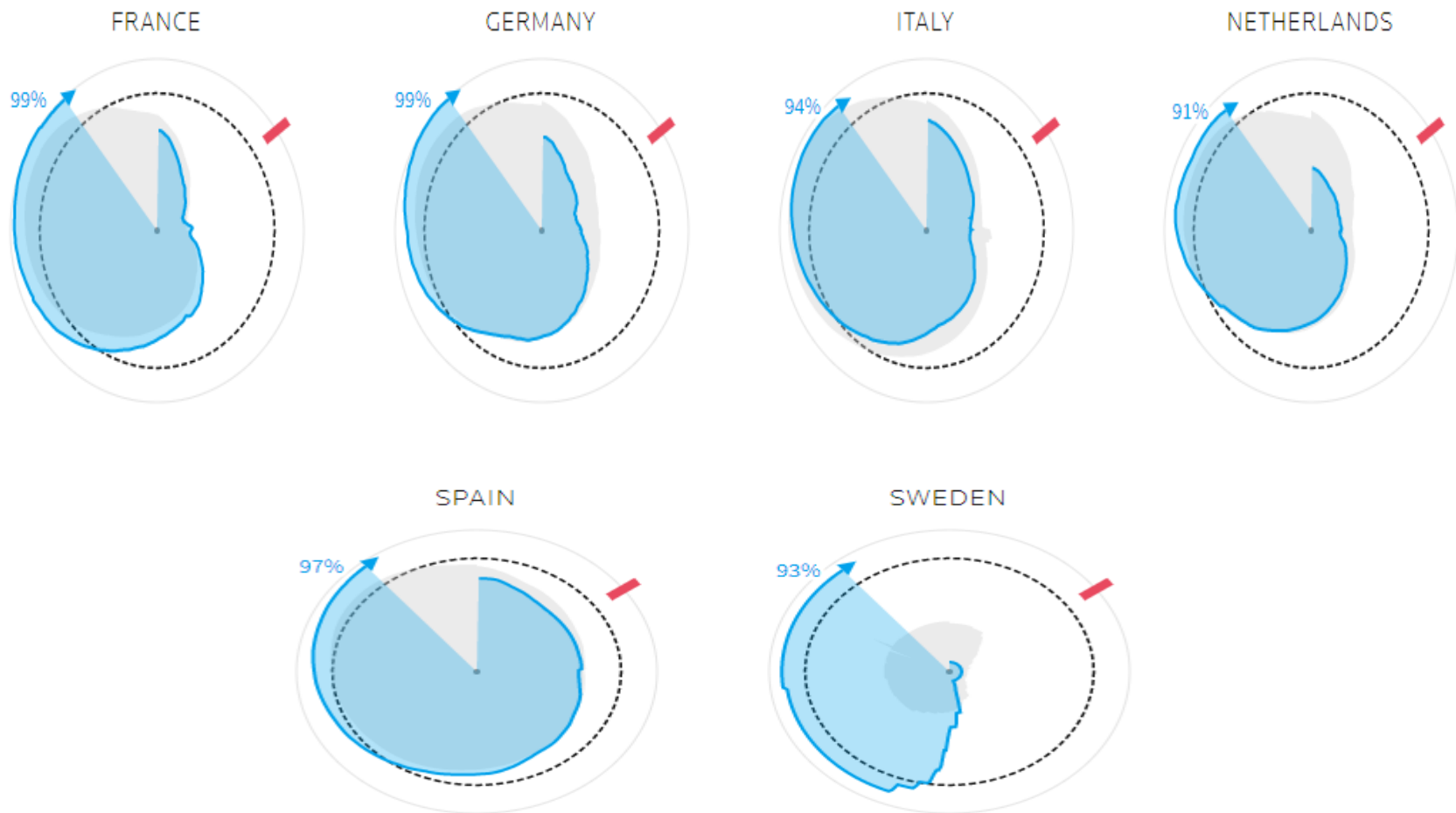
- 9월 EU 에너지장관 회의에서 **가스비축량**을 최소 80%, **내년 가을까지 최소 90%** 목표 합의



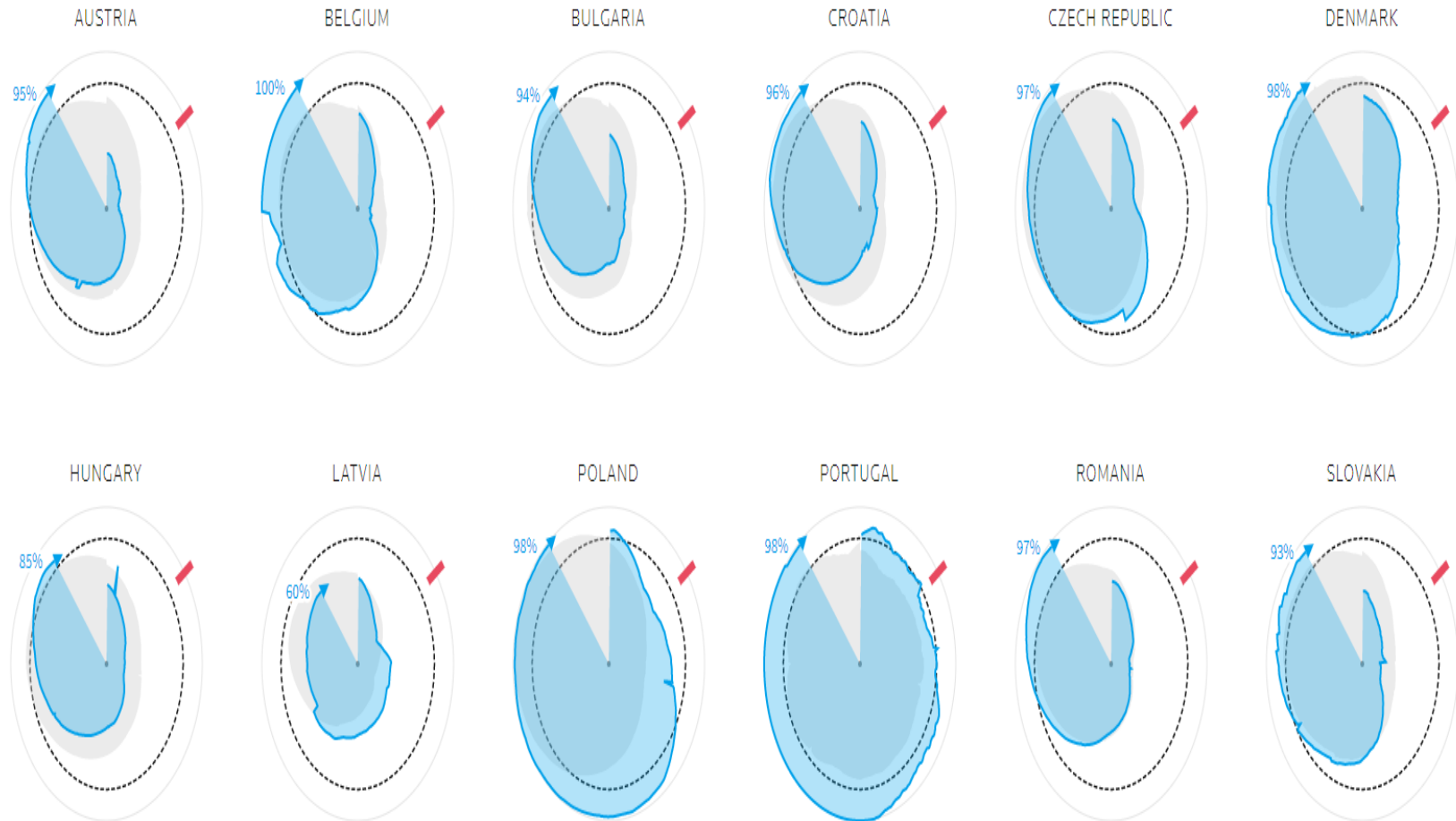
95.2% (11.19일 기준)

Ⅲ. EU의 대응정책

■ 5-year average ■ 2022 ■ Russia invades Ukraine, Feb. 24



Ⅲ. EU의 대응정책

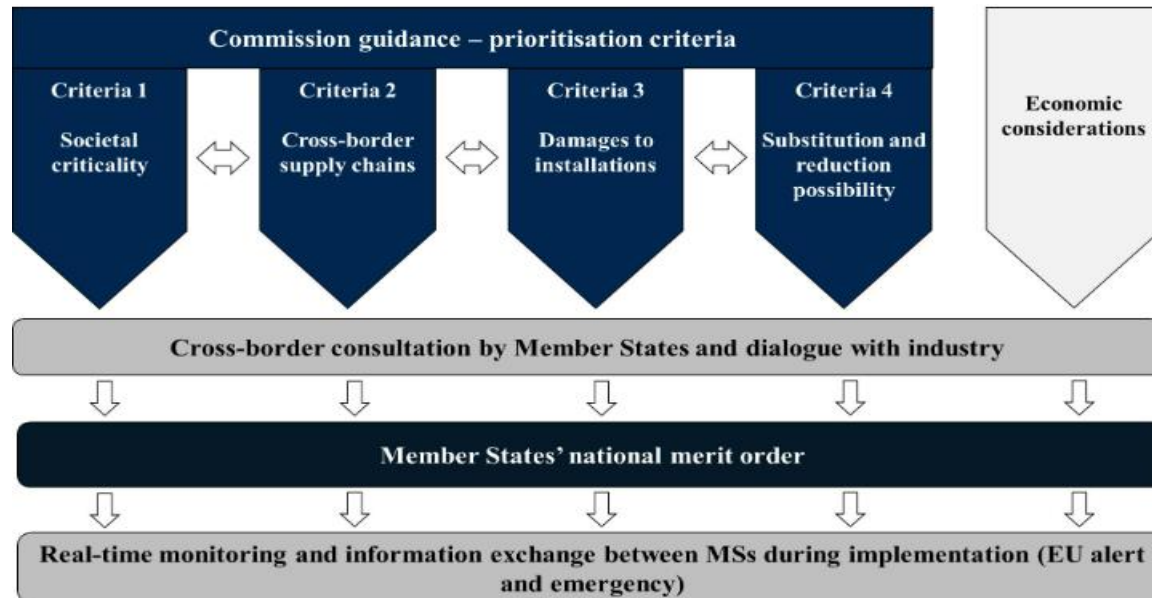


Ⅲ. EU의 대응정책

3. 에너지 소비 절약 15%

- 8월 EU 이사회는 회원국들의 가스 소비량을 이전 5개년 평균 대비 15% 줄이는 것에 합의
- 동 합의에 따라 회원국들은 2022년 8월 1일부터 2023년 3월 31일까지 각국의 조치를 활용하여 가스 소비량을 감축해야 함.
- 회원국들은 자발적으로 가스 소비량을 감축하는 것으로 일단 시작

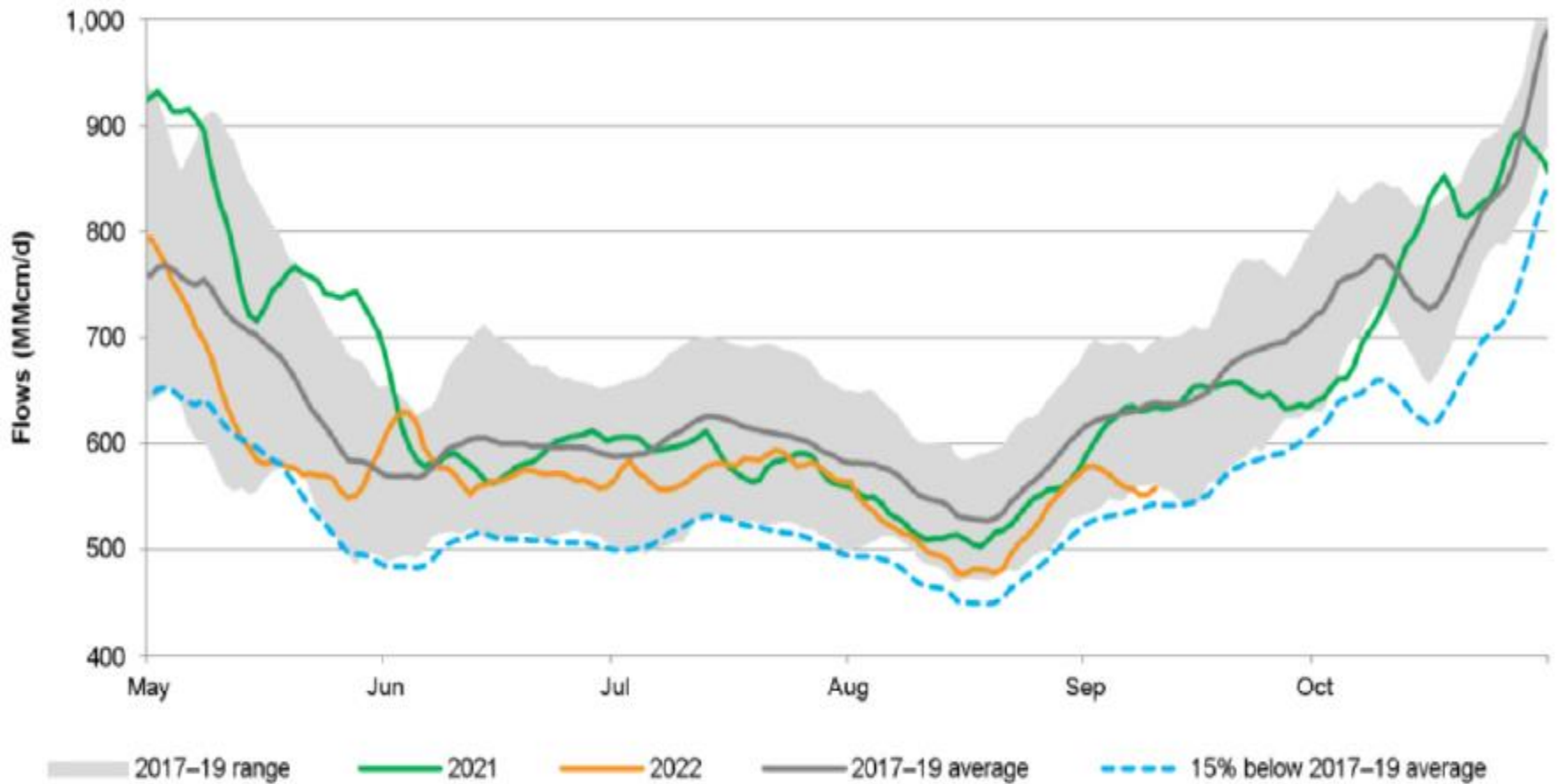
위기 이전 또는 위기 시 가스수요 감축 기준



Ⅲ. EU의 대응정책

3. 에너지 소비 절약 15%

EU 상위 5개국 및 영국의 가스 수요



Ⅲ. EU의 대응정책

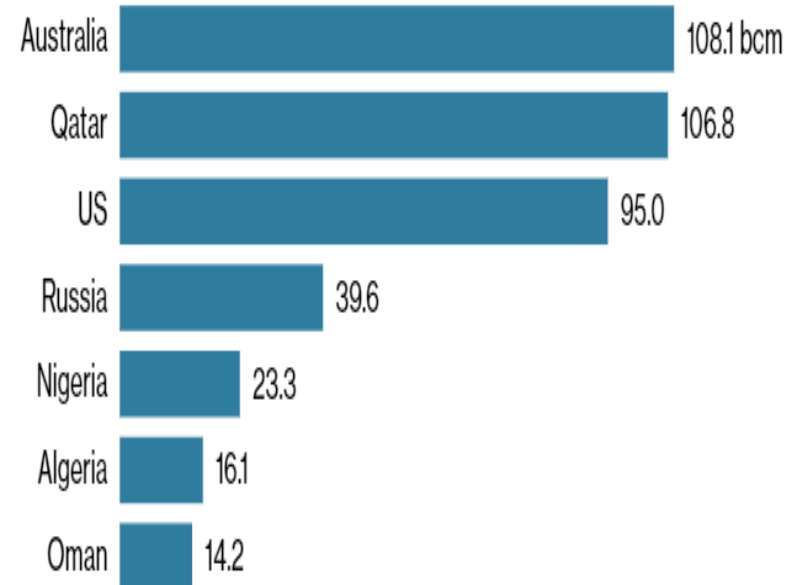
4. 에너지 가격 상한제

Is the European Energy Crisis over?



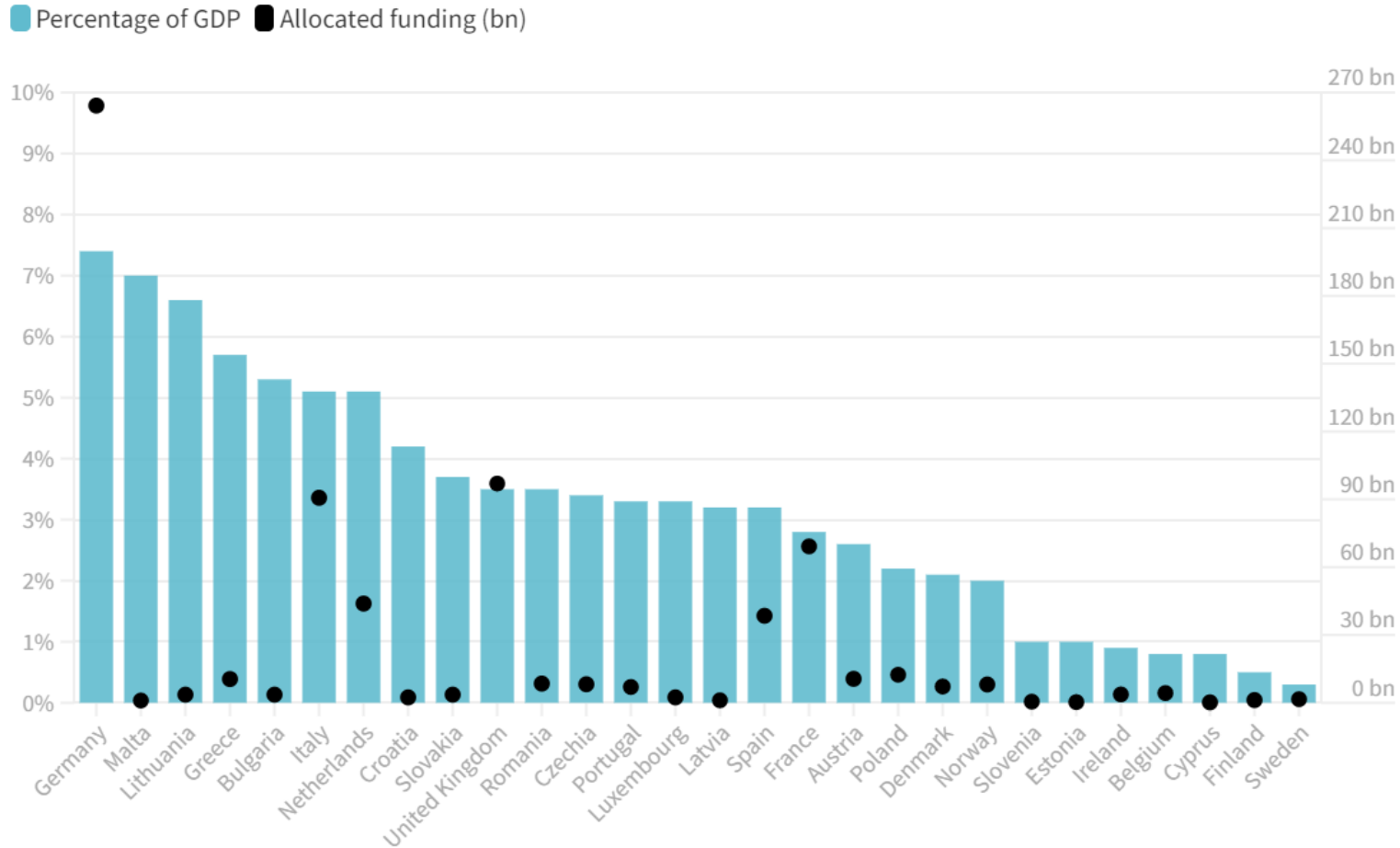
12월 13일 EU 에너지장관회의에서 에너지 가격 상한제 합의

유럽의 러시아 가스 대체 LNG 공급국 (2021년 기준)



Ⅲ. EU의 대응정책

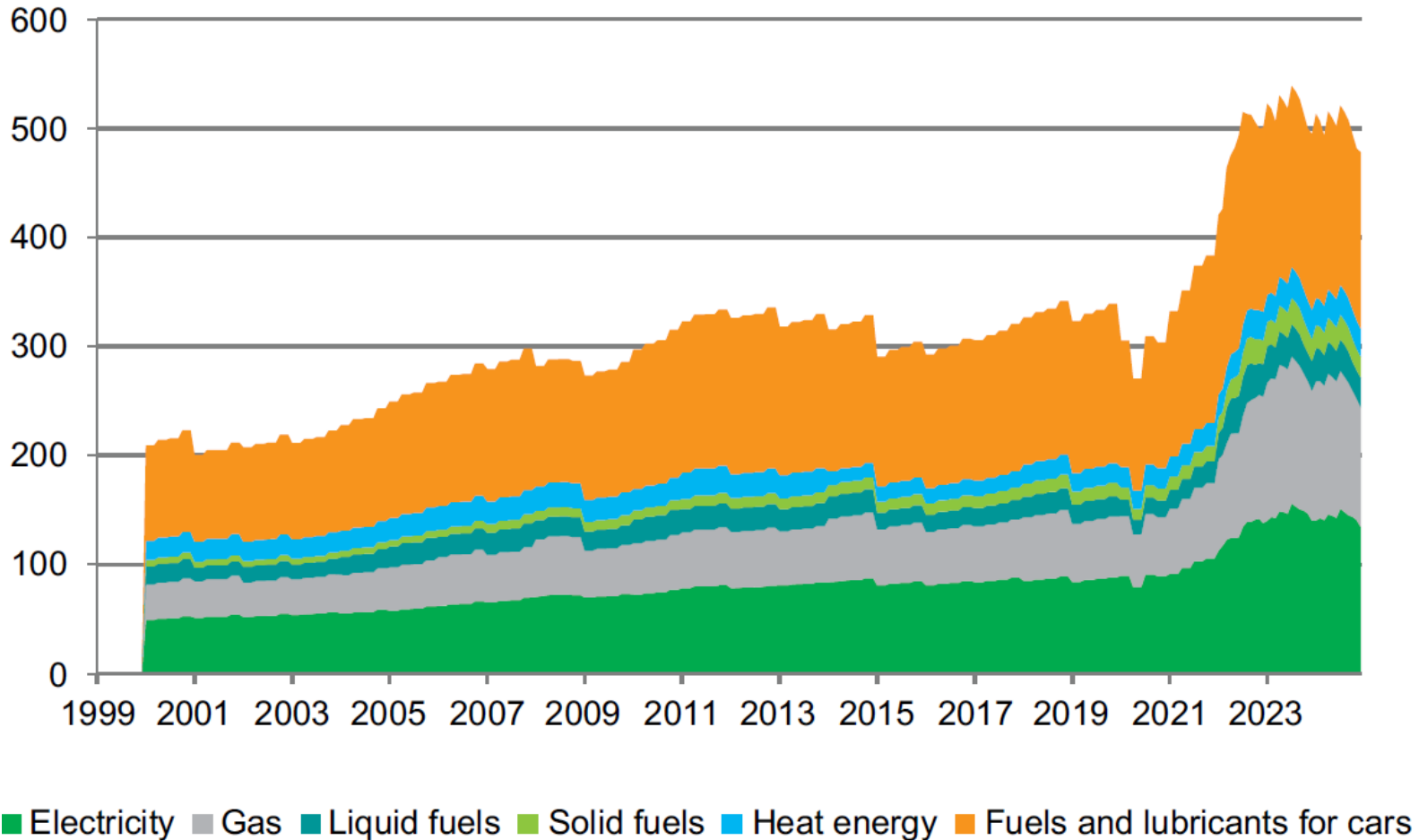
5. 정부보조금 지원 (2021.9월~2022.11월)



Ⅲ. EU의 대응정책

5. 정부보조금 지원 (2021.9월~2022.7월)

EU 27 가구당 월별 에너지 비용 지출 (유로)



Ⅲ. EU의 대응정책

6. 기타 에너지 요금 절감 정책

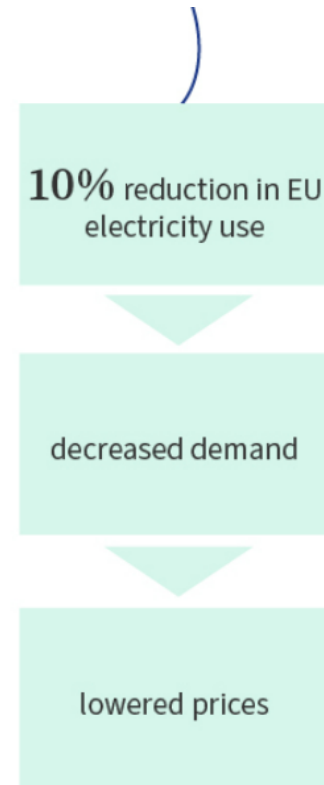
1. Reducing electricity use

- voluntary measures to **cut overall electricity use by 10%** in the EU by end of March 2023
- **obligation** for EU countries to reduce consumption by **at least 5%** during peak hours
- **countries to choose** their reduction measures

Expected result

- **preserve fuel stocks** for electricity generation and **cut gas used** to generate power
- **positive effect** on prices by specifically targeting the **most expensive hours** of electricity consumption

The new rules will also allow member states to temporarily extend regulated electricity prices to **small and medium businesses**. This is also allowed for households and microenterprises.



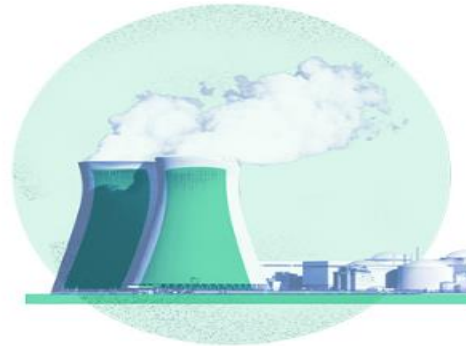
Ⅲ. EU의 대응정책

6. 기타 에너지 요금 절감 정책

2. Capping revenues of electricity producers

Power producers that **do not use gas to generate electricity** have had unexpectedly **high financial gains** in recent months, and have benefited from the increased price of electricity and from stable operation costs.

The new measure will allow the introduction of a cap on market revenues. The aim is to curb the profits of these producers so that **households and companies** benefit.



Revenue cap:

€180 per MWh (megawatt hour) for companies producing power with low operating costs using **renewables, nuclear, lignite**

- the measure concerns electricity producers with **lower marginal costs**
- cap defined in order **not to jeopardise and compromise the profitability** of existing plants and future investments, and so as to avoid distorting the wholesale electricity market
- obligation to pass on the **surplus revenues to the end consumer**
- EU countries will **collect revenues** from companies and redistribute them to **hard-hit citizens and companies**
- member states to support each other in **solidarity**, by sharing part of the revenues



Ⅲ. EU의 대응정책

6. 기타 에너지 요금 절감 정책

3. Securing a solidarity contribution from fossil fuel businesses

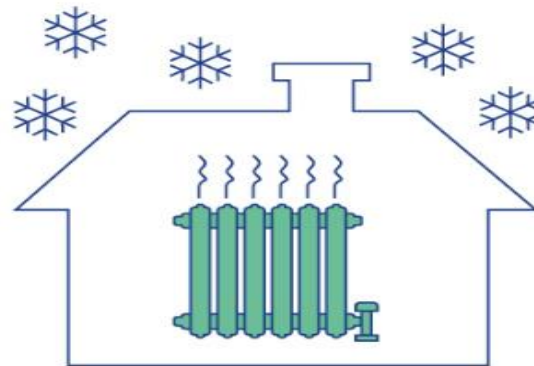
Fossil fuels companies have generated **additional profits** from the high energy prices. This measure aims to ensure that these companies contribute their **fair share** to providing relief to people and businesses struggling to pay their energy bills.



How is the contribution calculated?

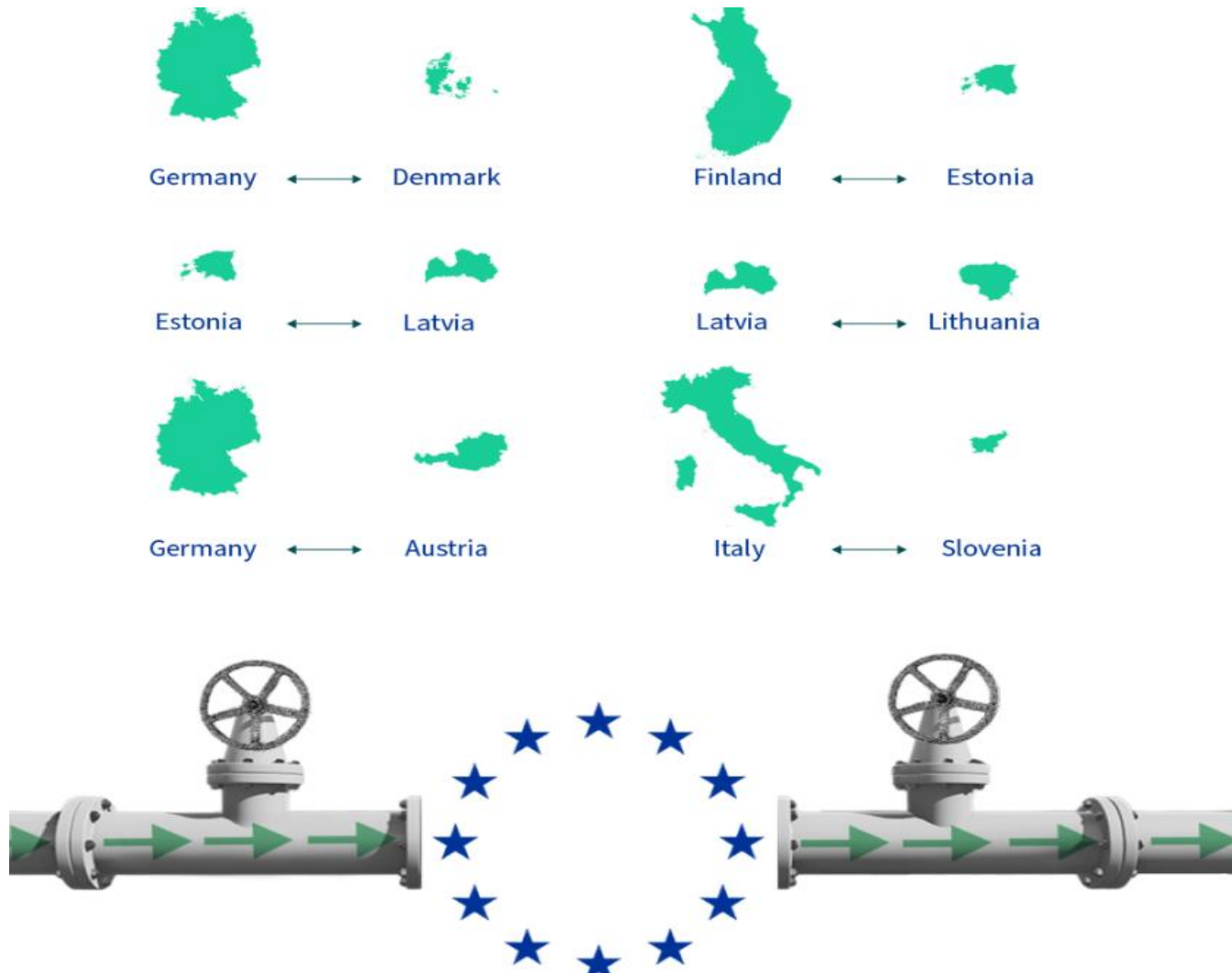
The contribution should come from companies' profits which increased by **more than 20%** compared to the average profits of the previous four years.

- it concerns companies in the petroleum, gas, coal and refinery sectors
- the measure will complement the revenue cap on certain electricity producers
- revenues will be collected by EU member states and distributed to **families and companies** - in particular those facing the highest pressure from high energy bills
- EU countries may act in a spirit of solidarity and can give part of the revenues for **EU financing of measures** to address the energy crisis



Ⅲ. EU의 대응정책

7. EU 회원국 간 연대



IV. 평가 및 전망

