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## FLATTENING THE GAS DEMAND CURVE MORE SECURITY, LOWER COST

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MEDAK**

Germany's debate over the short-term economic fallout of an immediate embargo on Russian gas is misleading. Without rapidly reducing gas demand, Germany and the EU will face the economic cost of continued high gas prices as well as the political consequences of inaction. Under its current plans, Germany hopes to replace more than two-thirds of Russian gas with LNG at what will remain elevated prices. Yet, its calculations suggest less than 2% reduction in consumption over the next two years.

To regain European leadership and geopolitical agency, turbo-charge its domestic energy transition and prevent German society from paying the high price for emission-intensive LNG, Germany needs to urgently implement a mandatory and impactful programme to cut gas demand.

An all-of-society approach to "flatten the curve" of rising gas demand in the winter of 2022/23 is needed, targeting industry and households. Studies show that savings of 15% to 20% are technically achievable within one year. Germany should support comparable measures at EU level.

Only a strong focus on immediate demand reduction allows strategic independence from Russia without seriously compromising Europe's climate and energy agenda.



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## The political case for immediate action

### **The political cost of inaction**

In recent weeks, multiple voices inside and outside Germany have called on the German government to respond to the Russian invasion of Ukraine by curtailing or ending imports of Russian fossil fuels. The German government has accepted a phased EU embargo on coal and oil. But it continues, at least for the time being, to stick to its timeline of only reducing imports of Russian gas to 10% of total consumption until 2024, with no clear end date given.<sup>1</sup>

In Germany, there has been an intense debate on the economic impact of an immediate gas embargo. Many models predict an economic downturn in the order of around 3% of GDP. Other economists have taken the position that the economic consequences are simply too difficult to calculate precisely and may be much worse given the fact that gas is heavily used in the basic material industry, implying potentially heavy knock-on effects. German chancellor Scholz himself has said it was “irresponsible” to suggest the economic fallout could be accurately predicted. Industry and trade unions have jointly warned against an immediate embargo. No major political party is currently in favour of such a step.

On the European level, Germany has faced strong criticism for its piecemeal approach to what many perceive as a self-inflicted over-reliance on cheap Russian energy. Poland and the Baltic states were particularly vocal. Some observers contrasted what they saw as moralising leadership from Germany during the euro-zone crisis with the now apparent historical failure of its policy towards Russia. Although its support for an oil embargo (as well as its shift to begin supplying heavy military equipment to Ukraine) has taken some pressure off, it is likely that Germany’s claim to moral leadership in the EU has suffered significant and potentially lasting damage. The disinvitation by Ukraine of Germany’s head of state may remain in memory as a symbol of this shifting perception of Germany in the EU and beyond. Although Germany has not been alone in shying away from energy sanctions, it remains the decisive actor by allowing other countries to hide behind it in their opposition.

### **Inevitably rising gas prices**

In an effort to diversify its supply, Germany has scrambled to secure political deals with Qatar and the United States for LNG purchases. It is also urgently attempting to set up LNG infrastructure, much of which will not come online in the

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<sup>1</sup> German Federal Government, *First Energy Security Progress Report*, March 2022



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short term and on which there is strong evidence that Germany risks overshooting in its investments.<sup>2</sup>

The discussion around an immediate embargo has left little room for debate on the mid-term implications of this push towards LNG. Indeed, LNG is going to be a significantly more expensive fuel than Russian pipeline gas well beyond the current price hike. 10-year LNG contracts are already up by 75% from a year ago, a trend that is likely to continue given a potential output gap of 100 million tonnes of LNG per year.<sup>3</sup> A recent report demonstrates that the EU risks additional costs of EUR 250 billion for gas in 2030 compared to the European Commission's current price projections.<sup>4</sup> Heavy investments in LNG not only lock in the associated emissions, but also these higher costs.<sup>5</sup> The same applies to possible long-term contractual obligations, as Qatar appears to be pushing German companies to sign 20-year contracts on LNG deliveries.<sup>6</sup>

Whatever the pace of phasing out Russian imports, the fact is that Germany will face significantly increased gas prices. With inflation being at a 40-year high, the German government has been reluctant to be transparent about this fact, instead opting to subsidise the already manifest increased costs. But the only sustainable, climate-friendly way to save German industry and households from these economic costs is to reduce consumption. Unless there is clarity on this, the question around the merit of avoiding short-term disruption remains misleading.

### Political wins from decisive action

There is thus at least an open question around the German government's economic rationale to avoid the significant costs of rapidly moving away from cheap Russian pipeline gas. There are, on the other hand, several political reasons for Germany to reconsider, and take more decisive steps now. Central to this would be to enact a domestic emergency demand-reduction programme including a broad campaign to save energy and support for equivalent measures at EU level.

- > **Opening strategic space:** Both the security situation in Europe as well as Russia's export policy remain highly unpredictable. Russia has already stopped

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<sup>2</sup> Artelys, *Does phasing-out Russian gas require new gas infrastructure?*, May 2022  
E3G, Bellona, RAP, Ember, *EU Can Stop Russian Gas Imports by 2025*, March 2022

<sup>3</sup> Bloomberg, *Long-Term Gas Deals Become Pricey as World Moves to Quit Russia*, April 2022

<sup>4</sup> Ember, Global Witness, *The EU's €250 billion gas gamble*, May 2022

<sup>5</sup> Among high ranking policy makers, Josep Borrell has recently warned of a potential LNG lock-in: Josep Borell, *Decarbonization Is Now a Strategic Imperative*, April 2022

<sup>6</sup> Reuters, *Germany, Qatar at odds over terms in talks on LNG supply deal*, May 2022

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exporting to two EU member states. A further military escalation, that makes any continued cooperation with Russia through energy trade untenable, cannot be excluded. Only by preparing emergency measures that take maximum effect at the beginning of the next heating season can Germany and the EU prepare for all eventualities, expand their strategic options, and reduce Russian leverage.

- > **Regaining German credibility:** Only by acting decisively now can Germany re-establish its moral leadership in the EU. Given the importance of the issues, especially to Central European member states, questions of EU unity are clearly at play. If it remains slow to act on gas imports from Russia, it risks further alienating this large group of EU member states, thereby undermining the critical condition of EU cohesion for the success of the energy transition. On the other hand, decisive action now will provide Germany with the credibility it needs to successfully help push for higher ambition in the ongoing Fit For 55 negotiations. This higher ambition will be key to putting the whole of the EU on track to a fossil-free power system by 2035.<sup>7</sup>
- > **Geopolitical dimension:** China, which is another assertive geopolitical power with strong economic ties to the EU and other western countries, will closely follow to what extent liberal democracies are willing to suffer short- to medium-term economic costs to achieve their security goals. Equally, countries from the Global South may show little understanding for a policy that negatively affects them both directly (through further pushing up LNG prices) and indirectly (through a missed opportunity for better climate protection). Therefore, the way Germany and the EU act now has implications for their value-based geopolitical agenda more broadly.<sup>8</sup>
- > **Germany's domestic climate and energy agenda:** By urgently curtailing demand Germany can avoid losing billions in stranded LNG assets and the possibility of fatal infrastructure lock-in. Rather, it would bring forward necessary adjustments for industry and households, using its fiscal space in line with its long-term climate ambitions.
- > **Social acceptance of emergency measures and political timing:** Given the unprecedented threat to stability in Europe and the unified condemnation of Russian aggression among western societies, impactful and costly measures will be more easily accepted at an early stage. Surveys show that there is already a readiness among the German population to bear some costs to use less Russian gas.<sup>9</sup> With a clear communication strategy and an emphasis on the political case, the German government can build a wider consensus. While these measures will be disruptive in the short term, their benefits will likely

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<sup>7</sup> Pieter de Pous, *Germany's bold and ambitious 100% renewable power plan*, April 2022

<sup>8</sup> SZ, *Welche Folgen der Krieg weltweit hat*, May 2022

<sup>9</sup> Spiegel Online, *Die Angst der Deutschen vor der kalten Dusche*, April 2022

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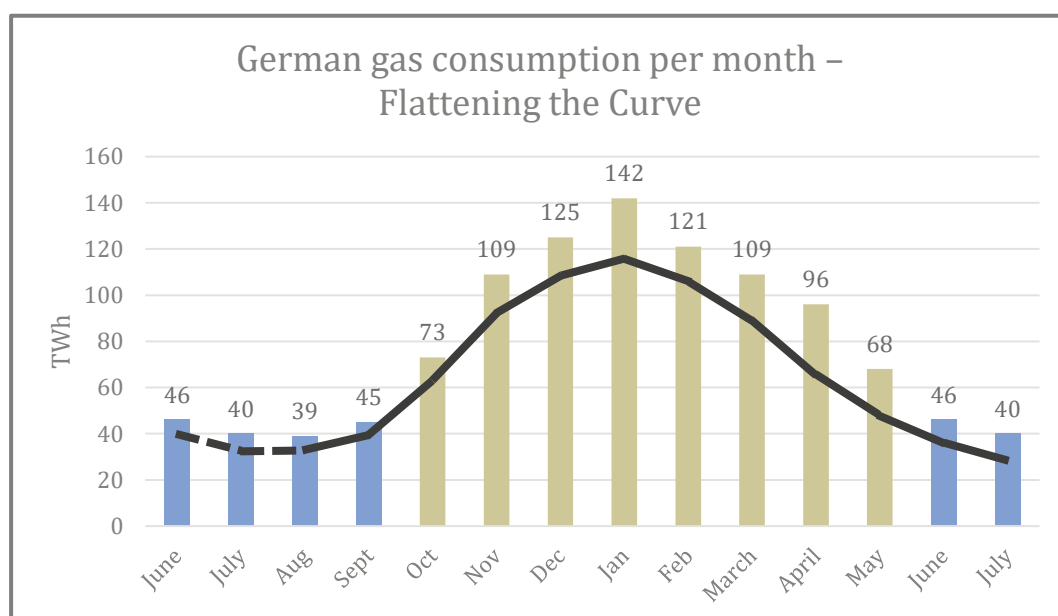


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already be felt before the next German federal election in 2025. On the European level, the re-election of Emmanuel Macron as French president allows for joint leadership of Germany and France, possibly together with important Central European member states.

## Flattening the Curve: Emergency demand-reduction

As the central plank of the strong political and diplomatic approach we are proposing, Germany should before August 2022 prepare and enact an emergency demand-reduction package including a campaign on saving energy, targeting both industry and households, to **flatten the curve** of rising gas demand in the autumn and winter months of 2022/23. Germany should support similar measures at EU level, by emphasising the importance of demand-side policies in the follow-up to the RePowerEU communication.



Source: BDEW (consumption data, 2021); E3G

Two months into the war, Germany remains unambitious on gas savings. In its updated energy security progress report as of May 2022, the German government outlined its plan to reduce dependency on Russian gas to 10% of total consumption until summer 2024. In its projections, LNG expansion will replace the bulk of previous imports from Russia. By contrast, efforts to reduce consumption fall well short: Its “workplan energy efficiency”<sup>10</sup> reiterates some laudable mid-term measures on building efficiency. But it contains neither mandatory short-

<sup>10</sup> BMWK, *Arbeitsplan Energieeffizienz*, May 2022



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term measures to cut demand nor a specific energy savings goal. Extrapolation from its previous communications suggests, however, that short-term demand-reduction plays only a minor role in its calculations, with projected gas savings of less than 2% until summer 2024. A substantial part of the overall savings may take place in the power sector, where the German government has set itself ambitious targets for the expansion of renewable energy sources.

### German government expected gas savings until 2024\*

<b>Imports from Russia 2021:</b>	46 bcm	≅ 44%**
<b>LNG expansion:</b>	- 33 bcm	≅ 32%
<b>Remaining imports from Russia:</b>	- 10,4 bcm	≅ 10%
<b>Expected savings:</b>	<b>= 1,5 bcm</b>	<b>≅ 1,4%</b>

\*excluding capacity increases for non-Russian pipeline gas

\*\* percentage of total gas consumption 2021

Sources: German government, *Zweiter Fortschrittsbericht Energiesicherheit*, May 2022; for total annual consumption: BDEW

This unambitious gas savings goal is not in line with either the geopolitical and security situation, nor with Germany's climate and energy targets. It stands in stark contrast to several recent studies that have looked at potential gas savings in the event of a full immediate embargo and concluded that savings of 15% to 20% were possible within one year.<sup>11</sup> These scenarios build on a full substitution of gas in the power sector and would require significant cuts in both industrial and household consumption. While the full range of potential measures includes actions that may not be desirable outside the situation of a full embargo, these reports show what is technically feasible in the short term and should therefore constitute the framework when designing the German emergency demand-side reduction programme.

### Possible measures to “flatten the curve”

For Germany to meet the necessary demand-reduction and achieve the political goals outlined above, measures beyond “no regret” and voluntary solutions will be needed. The concept of **flattening the curve** invokes the whole-of-society approach that needs to be taken to this end. As in the containment of the COVID-

<sup>11</sup> Agora, *Energiesicherheit und Klimaschutz vereinen*, March 2022

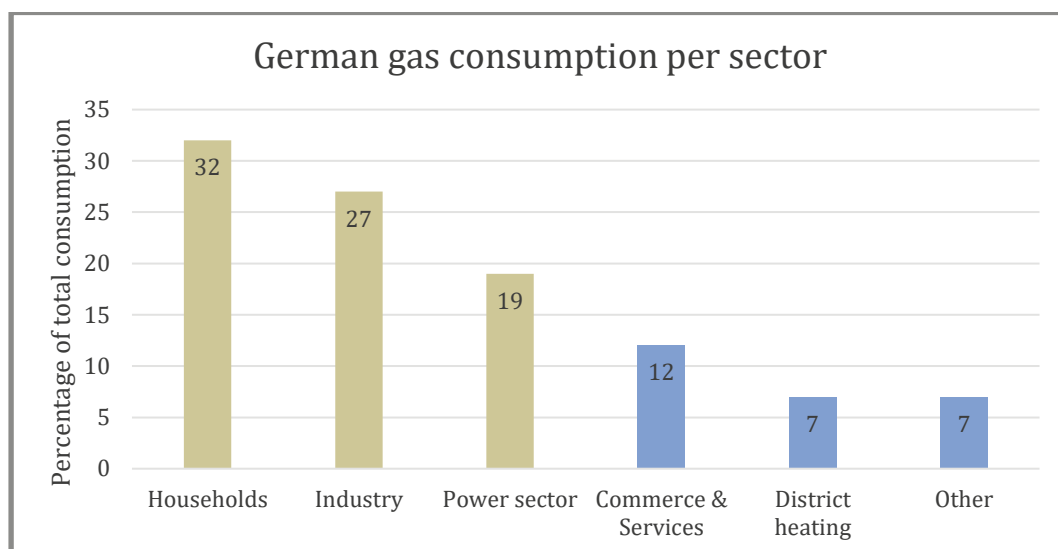
DIW, *Energieversorgung in Deutschland auch ohne Erdgas aus Russland gesichert*, April 2022

BDEW, *Kurzfristige Substitutions- und Einsparpotenziale Erdgas in Deutschland*, March 2022



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19 pandemic, mandatory and impactful measures are required. These can find acceptance if there is a strong sense of equitable burden-sharing and a clear communication around what political and societal goals can be attained and how social costs can be managed.



Source: Agora Energiewende, *Energiesicherheit und Klimaschutz vereinen*, March 2022

Multiple prominent observers have called for an impactful demand-reduction programme for Germany.<sup>12</sup> Italy has already set in place mandatory temperature requirements for heating and cooling of public buildings to save gas.<sup>13</sup> Germany, on the other hand, appears to stay on a course of voluntary measures.<sup>14</sup>

Instead, Germany should implement a phased emergency demand-reduction programme with the aim of limiting rising gas demand in the upcoming autumn and winter. This then needs to be followed up by measures to make those gas demand savings permanent, which are in accordance with its climate targets – to eventually put Germany on a lower than planned gas demand curve.

Given the distribution of gas consumption over the summer months, curtailing measures should target industry first before being expanded to households. Measures could be voluntary before gradually being made mandatory, with full impact necessary from October onwards. It will be important to alleviate the

<sup>12</sup> Veronika Grimm, *Energie wird mit oder ohne Embargo teurer*, Tagesspiegel, April 2022

Christian Bayer et. al., *Abhängigkeit von russischem Gas reduzieren, jetzt!*, Frankfurter Allgemeine Zeitung, April 2022

<sup>13</sup> Prime Minister Mario Draghi asked: “Do we prefer peace or air conditioning on all summer?”. L’Unione sarda, *Sanctions, Draghi: “Do we prefer peace or air conditioning all summer?”*, April 2022

<sup>14</sup> Frankfurter Allgemeine Zeitung, *Habeck gibt Energiespar-Tipps*, April 2022



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substantial societal and economic costs associated with the necessary actions with adequate resources.

This type of action now buys time to accelerate the mass rollout of clean energy solutions in the meantime – similar to how early containment measures of Covid-19 bought time to produce a permanent solution in the form of vaccines.

**Table 1. Measures to flatten the curve of gas demand through 2022/23**

<b>Power sector</b>	<ul style="list-style-type: none"> <li>▪ <i>Permanent:</i> Rapid deployment of renewable energy sources</li> <li>▪ <i>Temporary:</i> Increase in output from coal-fired plants with a clear end date to this and reconfirmation of longer-term phase out trajectory by 2030.*</li> <li>▪ <i>Temporary:</i> Substitution of gas with oil in plants with dual firing capacity*</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>▪ <i>Temporary:</i> Reducing room temperature in industrial facilities</li> <li>▪ <i>Temporary:</i> Production curtailment in non-critical sectors (during which energy efficiency and electrification measures can be rolled out)**</li> <li>▪ <i>Permanent:</i> Electrification of low- and medium- temperature heat, including space heating, e.g. through (industrial) heat pumps</li> <li>▪ <i>Permanent:</i> Energy efficiency measures, incl. residual/waste heat recovery</li> <li>▪ <i>Temporary:</i> Reduced demand for industrial products due to rising energy costs, substitution with imports</li> <li>▪ <i>Temporary:</i> Fuel-switch to oil, coal, biomass, or other alternatives*</li> </ul>
<b>Buildings incl. households</b>	<ul style="list-style-type: none"> <li>▪ <i>Temporary:</i> Moderate reduction in room temperature</li> <li>▪ <i>Temporary:</i> Reduction of warm water consumption by retrofitting more efficient appliances (taps, washing machines, ...)</li> <li>▪ <i>Permanent:</i> Hydraulic balancing of heating systems</li> <li>▪ <i>Permanent:</i> Simple improvements to building insulation</li> <li>▪ <i>Permanent:</i> Rapid deployment of heat pumps</li> <li>▪ <i>Permanent:</i> Power saving measures, e.g. efficient devices</li> </ul>

Source: Agora Energiewende, *Energiesicherheit und Klimaschutz vereinen*, March 2022; E3G

\* There needs to be a strong and credible commitment that the switch from gas to coal in both the power and the industrial sector is temporary and does not call into question the medium-term goals of reducing all fossil fuels. It is therefore key to complement this policy by measures that further the share of renewable energy sources and help with the phase out of coal, both at a German domestic level as well as at the EU level through a more ambitious “Fit for 55” package.

\*\* An inclusive political process to prioritise sectors is necessary.





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## Demand-reduction allows action on Russian imports

As illustrated, Germany and the EU should firmly focus on tackling the current crisis from the demand side. Still, the question of how to deal directly with imports of Russian gas will likely remain divisive. Different measures apart from a full import stop have by now been proposed, including the use of import tariffs.<sup>15</sup> Although the risks and benefits of supply side measures must be carefully weighed, they could potentially complement demand-side measures by generating revenue that can be used for social redistribution and funding the consumption cuts, while also making it more costly to avoid demand-reduction. An urgent reduction in gas consumption will allow Germany to advance the European debate on this.

### About E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. Our goal is to translate climate politics, economics and policies into action.

E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

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<sup>15</sup> Bruegel, *Cutting Putin's energy rent: 'smart sanctioning' Russian oil and gas*, April 2022