

Would Solidarity Suffice? Stress-testing a Russian gas cutoff, the EU may be too optimistic

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With the actions of Russia's President Vladimir Putin becoming ever more unpredictable, the EU Energy Stress Test was an important step to prepare for the contingency of a supply stop of Russian gas to Europe. Relying on solidarity and LNG imports, however, may not be enough.

The release on October 16 of an Energy Stress Test, a simulation involving 38 EU and Energy

Community states, is the European Commission's answer to critics worried that the Commission had thus far been too vague in its preparations for any disruption of Russian gas



supplies. Outgoing Vice-President for Energy, Günther Oettinger, said in [the accompanying press release](#), “For the very first time, we have a complete picture of the risks and possible solutions. If we work together, show solidarity and implement the recommendations of this report, no household in the EU has to be left out in the cold this winter.”

While the execution of the Stress Test represented a significant step, this much-touted finding that no “household” would have to suffer from even the worst-case Russian gas cutoff requires a bit of contextualization; the same press release went

on to warn: “A prolonged supply disruption would have a substantial impact in the EU, with the Eastern Member States and the Energy Community countries being affected most. Finland, Estonia, the Former Yugoslav Republic of Macedonia (FYROM), Bosnia and Herzegovina, and Serbia would miss at least miss 60 percent of the gas they need.”

Within this rather dire scenario, the Stress Test found a way to avoid any cutoffs to homes: namely, member states must show a certain degree of solidarity in sharing gas supplies, while enforcing extensive cutoffs to lesser-priority end users like electrical generating plants, industrial facilities, and other businesses. While this may be possible, Spiegel Online reported the day after the Stress Test was released that it had obtained [a copy of the still-secret German Energy Ministry’s contribution to the simulation](#). According to SPON, the German ministry predicted an outcome “far less rosy than previously described.” It expected Germany to lose about 23 billion cubic meters (bcm) out of the expected 51.2 bcm the country would need during a protracted (i.e., six-month) Russian cutoff of the entire EU, and that the country would only be able to replace under 6 bcm of this from other sources, while gas prices would soar, bringing substantial “economic costs”.

German business’ faith in Russia is no substitute for preparedness

Nevertheless, many German business leaders have persistently discounted the possibility of any Russian gas embargo this winter, confident that the Russian economy’s dependence on Gazprom’s European sales acts as a safeguard, and are instead calling for an easing of sanctions. In particular, persistent calls by the chair of the DAX (German Stock exchange) in the week after the Stress Test was released [reportedly provoked the anger of Chancellor Angela Merkel](#). The same week, the CEOs of Bayer, BASF and other German business leaders visited Moscow for closed-door meetings with Prime Minister Dmitri Medvedev. While they had notified the Chancellor’s office, they had not told the Foreign Ministry of their foray, prompting a top Berlin official to warn, “The last thing we need at the moment is a parallel corporate foreign policy.”

Such views are perhaps understandable considering that, for over four decades, including during the Cold War, Germany was able to depend on gas supplies from the former USSR without ever suffering a major disruption, with industries on both sides profiting all along. This is a history one is constantly reminded of lately when speaking with business insiders in Berlin.

In the wake of Russia's unexpected aggression against Ukraine, however, this optimism seems misplaced, the more so since under Mr. Putin's leadership gas interruptions have already occurred in 2006 and 2009 – and the past year has seen Russia take a number of other steps that were once unthinkable. Furthermore, it was revealed during September that Mr. Putin had made threats to Ukrainian president Petro Poroshenko, and separately made a similar threat to then-president of the EU Commission, Jose Barroso, that he could easily have Russian troops not only in Kiev [“in two weeks,”](#) but in several other FSU Central-European and Baltic capitals in that time frame as well. It is notable that Mr. Putin included with this a boast to Mr. Poroshenko that, during any such event, he could use gas cutoffs to split the solidarity of EU states.

Results of 38-state “Stress Test” simulation

It would seem prudent for the EU to be well prepared, with a plan of cooperative action for any contingency, whether gas is only shut off for Ukraine or more generally for all of Europe. In that light, what are the main findings and proposals of the EC's Gas Stress Test?

For the harsher of the two cases simulated in the study—a six-month cutoff, as opposed to a one-month cutoff—the EU overall would still lack 22 percent of its gas-supply requirements, as seen in Figure 1. Assuming optimal boosts to production, conservation, and imports, plus cooperative sharing of stored gas, in turn 22 percent of this loss (i.e. about 5 percent of total EU supplies) could not be replaced. This shortfall is estimated at about 5-9 bcf depending on the severity of winter weather. (In Spiegel's summary of the Energy Ministry report, upwards of 6 bcf shortfalls are predicted for Germany alone.)

Figure 1 – Replacement of Russian gas in the 6-month Russian supply disruption scenario

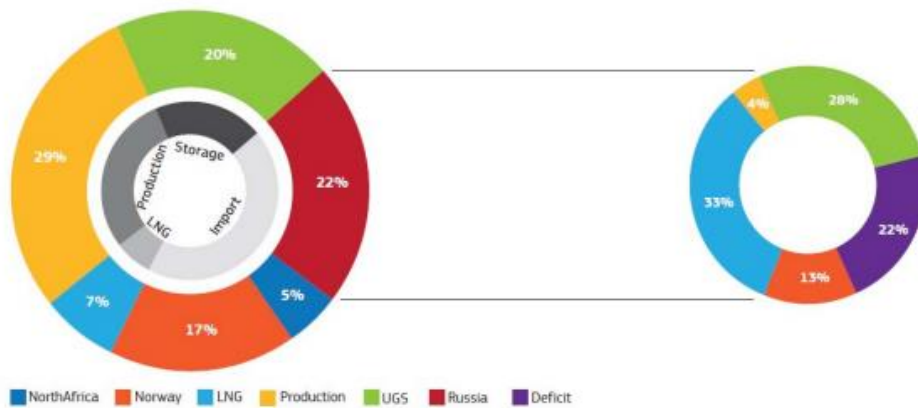


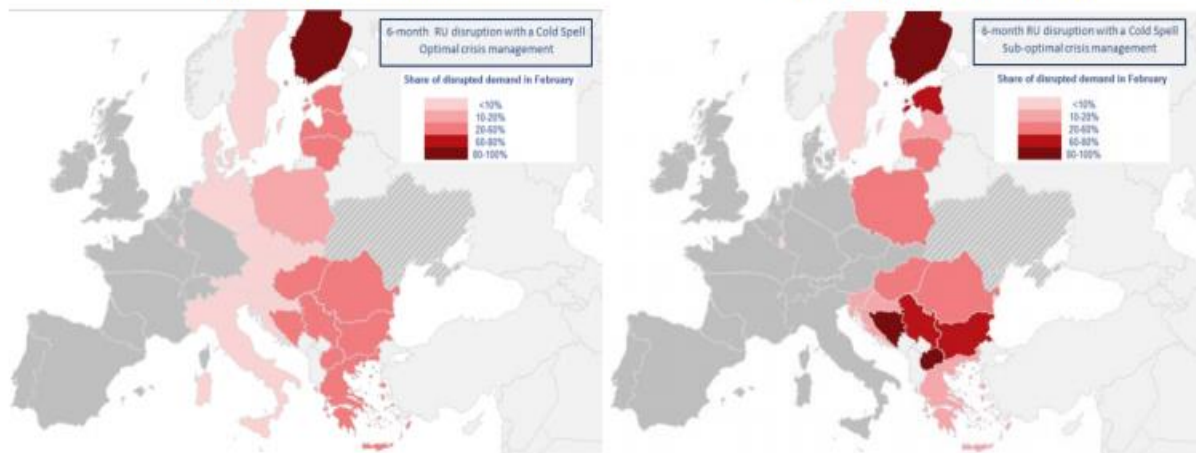
Figure 1 Source: EC Energy Security Stress Test report October 2014. Note the two largest potential replacements for Russian gas imports include UGS (underground gas storage) and especially LNG (liquefied natural gas) imports; however, a deficit of 22% would remain.

[URL:ec.europa.eu/energy/doc/energystresstests_communication.pdf](http://ec.europa.eu/energy/doc/energystresstests_communication.pdf)

However, more important than the absolute amount of any gas deficit is the fact that it would be distributed extremely unevenly. The Stress Test predicts that some states – such as the United Kingdom and France – would see essentially no deficit, while FSU states in the East and Southeast of Europe would suffer high-percentage losses. This is why the key message of the Stress Test, as shown in Figure 2, is that sharp losses in the most vulnerable states could be greatly mitigated by spreading out the more plentiful gas supplies available in the more western-located EU states, such as Germany. That is, if all states act in solidarity to share the deficit.

Cooperative Scenario

Non-cooperative scenario



Source: ENTSOG

Figure 2 Maps of likely supply interruptions—before further national measures—in February at the end of the 6-month Russian gas supply disruption scenario, in cooperative and non-cooperative scenarios during a cold spell. From: EC Energy Security Stress Test report October 2014. [URL:ec.europa.eu/energy/doc/energystresstests_communication.pdf](http://ec.europa.eu/energy/doc/energystresstests_communication.pdf)

As far as replacing Russian imports, the main source is seen as increased liquid natural gas imports (LNG), presumably predominantly from the United States. This is rather interesting, and a somewhat unexpected result considering the degree to which [many experts in both the US and Europe](#) have discounted the ability of the US and other producers abroad to supply LNG on sufficiently short notice to make a dent in the large shortfalls expected. Perhaps this is more official optimism, perhaps not. Here the report's results require further examination. However, the Stress Test's warning that European and American infrastructure to import and export LNG (respectively) present serious limitations certainly rings true.

This again raises the question of enhancing EU gas infrastructure, which has long been recommended by experts. That includes LNG import terminals (i.e. regasification facilities, such as [innovative floating facilities recently obtained by Lithuania via Norway](#)), new pipeline interconnections to facilitate reverse flow during supply disruptions, and the building of [more underground gas storages](#) (UGS). A perennial obstacle is that building these costly facilities often has little commercial logic. Rather, the logic is primarily geostrategic. Hence experts have said that the EC needs to intervene more decisively with measures to incentivize and/or require crucial new energy infrastructure, and perhaps the building and filling of EU-wide strategic gas reserves storage capacity. This could mirror the OECD-member-states' [Strategic Petroleum Reserves](#), which during a crisis automatically transfer to the direct control of the International Energy Agency (IEA), a system which has obviated any embargos in the oil sector over the past forty years.

Lastly, the Stress Test report emphasizes reliance, for as long as possible, on market forces – i.e., the rising price of gas that would naturally result from any gas cut – as the most efficient impetus for new imports and other adaptations. In some member states, this period might go on for months, while in other states it would have to end quickly as prioritized-rationing becomes necessary. In all cases, however, it makes clear that only a unified, EU-wide response, as opposed to national restrictions and local solutions, is crucial.

This “solidarity-is-optimal” finding woven throughout the Stress Test report, however, is somewhat of a truism. The question any such crisis will sharply bring to the fore, as Mr. Putin correctly predicts, is whether EU states will react primarily from their own narrow national self-interests, or primarily in solidarity according to a unified plan.

How the EC can motivate business and citizen endurance

The reality is that some states might do quite well by hoarding their national supplies, breaking ranks, and bartering separate deals with Gazprom and Putin, leaving others to “hang.” The real incentive for these better-off states to instead hang together with the most-affected, front-line states is that the Union itself is worth defending.

The EC preoccupation, as cited above, with promises to alleviate the impact on households is quite another tack. The Commission is, in effect, saying, “Don’t worry, defense of the European Union and its allies will not cost you, the ordinary citizen, anything significant.” This is quite different from asserting that any such cutoff and the hardships it would impose on businesses and ordinary citizens alike aim to impose Mr. Putin’s economic and geopolitical will on businesses and citizens of the Union. Keeping this reality in the forefront of public consciousness, while, of course, doing all that is possible to alleviate the impact on citizens, is the way to mobilize public support for enduring such an event, which will surely impose great hardships on all—official optimism notwithstanding.