

POLICY BRIEF

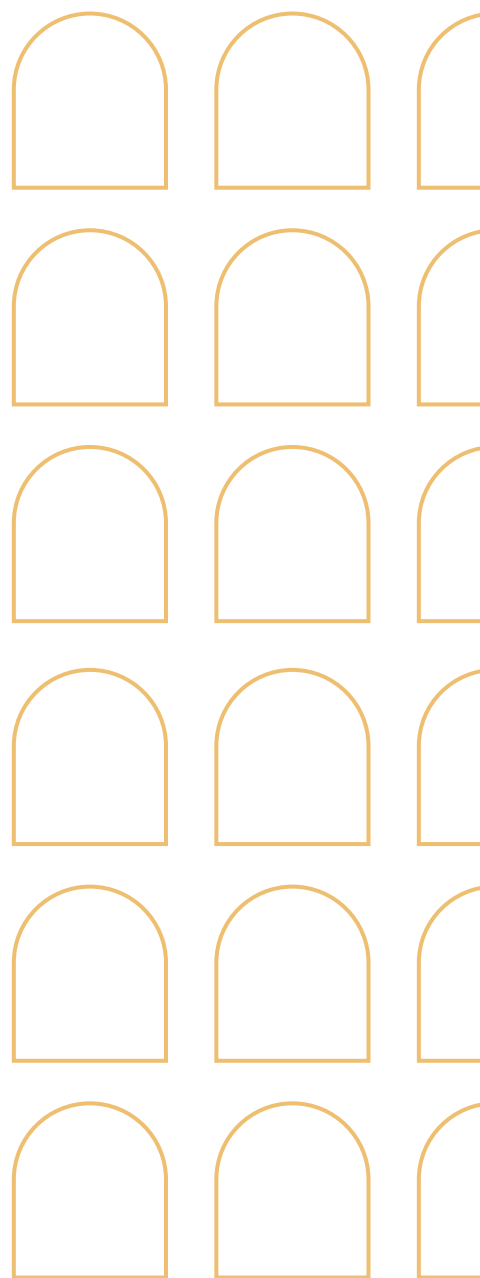
Consumer protection mechanisms during the current and future periods of high and volatile energy prices

Highlights

The recent surge in energy prices has prompted many governments to introduce emergency measures to reduce the impact on consumers' electricity and gas bills.

In its REPowerEU Communication of 8 March 2022, the European Commission confirmed that price regulation can be used to mitigate the effect of higher energy prices on consumers' bills. However, most government interventions and what the Commission refers to are measures to reduce the energy prices facing consumers. This type of measures weakens the incentives to save energy, and therefore runs counter to the more general energy policy objectives of sustainability and security of supply, including the reduction of the European Union's dependence on Russia.

In this Policy Brief, a more targeted approach, based on lump-sum rebate payments, which protects energy-poor consumers from unaffordable energy bills, while maintaining the incentives to save energy, is proposed.



Issue 2022/20
March 2022

Authors

Alberto Pototschnig; Jean-Michel Glachant; Leonardo Meeus; Ilaria Conti; FSR, RSC, EUI

1. Introduction

The sudden surge in energy prices since the autumn of 2021, recently exacerbated by the uncertainty created by the invasion of Ukraine by the Russian Federation army, has prompted many governments to introduce a range of emergency measures to curb the effects of higher energy prices on consumers' electricity and gas bills.

These measures have ranged from reductions in taxes and other levies charged on energy bills (as, for example, in Belgium, Germany, Italy and Spain), to the imposition of price caps or price freezes (as, for example, in France), to lump-sum payments to consumers (as, for example, in Belgium and Great Britain). Taxes on windfall profits were also introduced in some Member States (for example, in Italy and Spain), partly to finance the above-mentioned measures.

In October 2021, the European Commission proposed a “toolbox for action and support”¹, outlining a set of measures which the Commission itself and Member States could adopt to deal with the current high-price situation. Many of these measures aimed at mitigating the impact of higher energy prices on industry, businesses and households, especially vulnerable ones.

2. Price regulation in the *REPowerEU* Communication

In its Communication *REPowerEU* of 8 March 2022², the European Commission confirmed that, in order to mitigate the effect of higher energy prices on consumers' bills, “*price regulation and transfer mechanisms to help protect consumers and our*

economy are possible”. The same Communication provides, in Annex 1, detailed Guidance on the application of Article 5 (on market-based supply prices) of Directive (EU) 2019/944³ in the current situation. Such a Guidance concedes that “*the current situation on energy markets is such that intervention in retail price setting may be necessary for Member States to meet their policy objectives and ensure affordable transparent energy prices and costs for consumers*”.

In the Guidance, the Commission also highlights that various provisions in the above-mentioned Article 5 envisage the possibility of derogating from the principle of market-based supply prices, in particular for the purpose of:

- ensuring that vulnerable household customers can afford to meet their basic energy needs (Article 5(3), subject to specific conditions set out in Article 5(4));
- facilitating the transition to effective competition between suppliers in the case of households and micro-enterprises (Article 5(6), subject to the more specific conditions set out in Article 5(7)⁴).

Recital 23 of Directive (EU) 2019/944, which spells out the objective of Article 5, shows that the provisions in this article may be used to address the impact of situations of particularly high prices⁵.

It is however imperative that the goal of protecting vulnerable consumers is pursued in a way which is consistent with the other objectives of energy policy, which include efficiency, sustainability and security of supply. The sustainability objective has been spelt out in terms of increasingly ambitious

1 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, Tackling rising energy prices: a toolbox for action and support, Brussels 13.10.2021, COM(2021) 660 final.

2 Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, *REPowerEU*: Joint European Action for more affordable, secure and sustainable energy, Strasbourg, 8.3.2022, COM(2022) 108 final.

3 Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU.

4 These conditions are different from those applicable to regulated retail prices for energy-poor and vulnerable consumers. Moreover, this type of intervention is envisaged on a temporary basis.

5 “*Public service obligations in the form of price setting for the supply of electricity should be used without overriding the principle of open markets in clearly defined circumstances and beneficiaries and should be limited in duration. Such circumstances might occur for example where supply is severely constrained, causing significantly higher electricity prices than normal, or in the event of a market failure where interventions by regulatory authorities and competition authorities have proven to be ineffective. This would disproportionately affect households and, in particular, vulnerable customers who typically expend a higher share of their disposable income on energy bills compared to high-income consumers*”.

targets for the reduction of greenhouse gas (GHG) emissions⁶ and the penetration of renewable energy sources⁷. However, it is the security of supply objective which has taken an additional and more specific connotation over recent weeks, following the invasion of Ukraine by Russia: security of supply now includes the very specific objective of reducing the dependence of the European Union on Russian gas. This goal can be achieved using a combination of measures; in this context, reducing energy consumption and increasing generation from renewable energy sources clearly provide important contributions, while also delivering benefits in terms of a reduction in GHG emissions.

The development of (distributed) generation from renewable energy sources might be a way of shielding consumers from the volatility of electricity prices in the market. Recent estimates⁸ put the potential of rooftop photovoltaic energy production in the European Union at 680 TWh per year, which is more than a quarter of the electricity consumed in 2019 (the last year before the pandemic and the resulting reduction in energy consumption)⁹. However, reaching such a potential will take time, and while measures should be put in place to promote the efficient and timely deployment of renewable energy sources, in particular at distributed level, more immediate interventions to protect consumers from the sharp increase in their energy bills are also necessary. However, such interventions should not weaken, and instead complement, the incentives for these consumers to reduce consumption.

In the Guidance provided in Annex 1 to the *REPowerEU* Communication, the European Commission refers mainly to “*Regulated retail prices during the current period of high and volatile energy prices*” and indicates, more specifically that, “*in line with Recital 23 [of Directive (EU) 2019/944], time limited retail price interventions during the current exceptional period of instability are allowed even if a Member State has already moved to a*

situation of full competition, either for all or for a class of customers”. Therefore, it seems that the Commission had mostly in mind measures aimed at reducing the retail energy prices for consumers.

As already indicated above, these are the type of measures already introduced by a number of Member States, mainly through a reduction in taxation or of components of the retail price related to general policy objectives (e.g. the support for renewable energy sources). However, by making energy more affordable through a reduction in the prices paid by consumers, these interventions might weaken the incentive to reduce consumption.

3. Protecting energy-poor consumers without weakening incentives to save energy

Other countries, e.g. Belgium and the United Kingdom, have intervened by granting consumers fixed-sum payments partly to offset their energy bills. In other countries, e.g. Italy, the offsetting payments already provided to vulnerable customers have been increased.

This type of measures seems more aligned with the aim of protecting (vulnerable) consumers while pursuing the other policy goals mentioned above. In particular, by maintaining consumers’ exposure to the correct price signals at least on their marginal consumption volumes, this type of measures does not weaken the incentives for consumers to reduce consumption in an efficient way.

Before we turn to some suggestions on how such an approach could be designed, two questions should be at least raised, if not fully addressed:

- What could be considered as a correct price signal?
- To what extent consumers would be able or willing to react to price signals and adjust their consumption accordingly?

6 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 (‘European Climate Law’) sets, in its Article 4(1), “the binding Union 2030 climate target [of] a domestic reduction of net greenhouse gas emissions (emissions after deduction of removals) by at least 55% compared to 1990 levels by 2030”. The previous target for the same year (2030) was set at 40% by the European Union’s intended nationally determined contribution to the 2015 Paris Agreement.

7 In July 2021, the European Commission unveiled a Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652 (Brussels, 14.7.2021 COM(2021) 557 final 2021/0218 (COD)), increasing to 40% (from 32% as set by Directive (EU) 2018/2001) the target for the share of energy from renewable sources in the Union’s gross final consumption of energy in 2030.

8 Bodis, K., Kougias, I., Jaeger-Waldau, A., Taylor, N. and Szabo, S., A high-resolution geospatial assessment of the rooftop solar photovoltaic potential in the European Union, *Renewable and Sustainable Energy Reviews*, ISSN 1364-0321 (online), 114, 2019, p. 109309, JRC113070. This article also indicates that two-third of this potential would have a cost lower than the residential tariffs at that time.

9 By comparison, total photovoltaic production in the European Union in 2019 was estimate at 133TWh.

On the first point, it is worth recalling that what consumers pay in their bills comprises components to cover the cost of the ‘commodity’ (electricity or gas) and the cost of delivering the commodity to them through the networks, as well as a fiscal component (excise duty and VAT) and other charges (typically to fund renewables support schemes)¹⁰. It is questionable whether these latter charges contribute to provide correct price signals to consumers, or whether the schemes that they contribute to fund should instead be financed through the general budget. In fact, such schemes are aimed at promoting the achievement of general policy goals (such as decarbonisation), whose costs might be more fairly allocated on the basis of consumers’ ability to pay (therefore in a progressive manner, which is typical of direct taxation), rather than being charged on energy bills (which typically involve a regressive allocation)¹¹.

With respect to the retail price component reflecting the cost of the commodity (electricity or gas)¹², concerns have been raised in the last weeks regarding the extent to which the current wholesale prices for gas and then, as a result, for electricity, reflect the fundamentals of the markets and are not instead the result of speculative behaviour. As a consequence, there have been calls for intervention on the pricing of gas – to take into account the fact that significant volumes of gas are still imported on the basis of long-term contracts whose prices have not increased to the same extent as those of the spot market – and in the price-setting mechanism of the wholesale electricity market, in an attempt to decouple electricity prices from gas prices.

Assessing whether current wholesale energy prices reflect the market fundamentals should clearly be a priority, but goes beyond the scope of the present Policy Brief.

On the second aspect, the extent to which consumers might be able and willing to react to higher energy prices and adjust their consumption accordingly, we only note that a number of recent developments, made possible by technological advances and digitalisation, indicate the aspiration of consumers, or at least provide them with the possibility of moving away from being exposed to variable and possibly

increasing energy prices. We refer here to peer-to-peer trading and the different types of energy communities. Smart meters and energy service companies and/or aggregators might also facilitate the deployment of demand-response schemes. It is therefore likely that the price elasticity of demand in the future could be higher than it was in the past.

4. Protecting energy-poor consumers with rebate payments

We now turn to how an approach which protects consumers from high energy bills, while still preserving the correct price signal on marginal consumption volumes, could be designed. Preliminarily, we note that, while in autumn last year it looked as if the energy price surge was a short-lived phenomenon, it now seems more likely that prices will remain higher than in the past for some time to come. Therefore, some form of more structural and sustainable consumer protection scheme is needed and this might likely cover a wider share of the population than those which were traditionally referred to as vulnerable customers. Said it differently, a larger share of the population has become and will remain ‘energy poor’ for some time to come and therefore any support scheme should be designed considering that it might apply on a larger scale.

On the basis of the considerations developed above, a more structural and sustainable protection scheme, which is aligned with the other energy policy goals, could entail that:

- all consumers who have not opted for a fixed-price supply contract would be exposed, for the commodity component of the retail price, to the short-term wholesale price;
- at the same time, these consumers would be entitled to apply for a rebate payment if they find themselves unable to pay their energy bills. Rebate payments would be granted on an individual consumer basis.
- for the calculation of the level of the rebate payment, consideration would be given to a reference level of consumption. This reference level could be determined so as:

¹⁰ According to data provided by ACER and based on incumbents’ offers in capital cities, in 2019, charges to fund renewable support schemes represented, on average, 14% of total electricity bills of household consumers in the European Union. VAT and other taxes represented, respectively, 14% and 10% of household electricity bills and 13% and 9% of household gas bills. ACER Market Monitoring Report 2019 – Energy Retail and Consumer Protection Volume, Figures 15 and 19.

¹¹ As energy consumption account for a share of total household expenditure which decreases with income.

¹² In 2019, this component represented, on average, 37% and 47% of total electricity and gas bills, respectively, for households in the European Union (based on incumbents’ offers in capital cities). ACER Market Monitoring Report 2019 – Energy Retail and Consumer Protection Volume, Figures 15 and 19.

- » to cover the basic energy needs (lighting, heating and basic kitchen appliances) of the consumer¹³; or
- » to cover the standard energy needs (for example using past consumption as a guide) of the consumer.

In both cases, the characteristics of the consumer's household would have to be taken into account. The rebate payment would then be equal to the difference between the energy bill for the reference consumption level, calculated on the basis of the actual prices and charges, and the maximum expenditure on energy that the household is deemed to be able to afford (more on this further below). The rebate payment could be included, as an offset item, already in the energy bill. In this way, the rebate payment, while protecting the consumers from the impact of higher prices on their total energy costs, would not depend on the actual consumption levels and, at the margin, the consumers would be exposed to the full energy costs, thus promoting energy efficiency and (at least indirect¹⁴) demand response;

- for those consumers who have opted for fixed-price supply contracts, these contracts could be modified to operate on a fixed-volume basis (e.g. based on historical consumption), with marginal quantities, in excess or in reduction with respect to such a fixed volume, being valued on the basis of the full short-term price.

Such a scheme would expose marginal consumption to the full energy cost, while:

- reducing the energy bills to an affordable level for those consumers who have not opted for a fixed-price supply contract; and
- not significantly changing the energy bills for those consumers who have opted for fixed-price contract.

The most complex implementation aspects of such a scheme would be the determination of the reference consumption level and the maximum

affordable energy cost for each consumer. As mentioned above, the protection can cover the basic energy needs or the standard energy needs. In the latter case, a combination of standard consumption profiles, based on the household characteristics, and historic consumption levels for the specific household could be used to determine the reference consumption level. By changing the relative weightings of the two components, incentives could be provided for consumers to rationalise their consumption habits. For the determination of the maximum affordable energy costs, a threshold indicator of energy poverty could be used¹⁵; it would indicate which is the maximum proportion of income that a household could devote to energy without becoming 'energy poor'.

Two final remarks. First, Italy has been using fixed rebate payments to support vulnerable consumers since 2009. However, the level of the payment is not calculated, as proposed above, as the difference between the actual energy bill for a reference consumption level and the maximum payment for energy that a household is deemed to be able to afford. Instead:

- the level of the rebate payment depends on the number of members and other characteristics of the household. For the first quarter of 2022, the quarterly rebate payment for electricity (which includes an extraordinary component due to the recent price surges) varied between 165.60€ for a one/two-person household to 235.80€ for households with more than four members. The rebate payment for gas also depends on the climatic area¹⁶ where the consumer lives and the purposes for which the gas is used¹⁷. For the first quarter of 2022, the quarterly rebate payment varied between 62.10€, for a household with up to four members using gas for water heating and cooking only, and 816.30€, for a household with more than 4 members living in the coldest climatic area and using gas also for space heating;
- access to this rebate payment is based on an indicator of the economic situation of the household: the ISEE – Indicator of the equivalent

13 As already indicated, the need to ensure that consumers are able to cover their basic energy needs is also the justification for derogating from the principle of market-based supply prices in Article 5(3) of Directive (EU) 2019/944.

14 Indirect demand response is the reduction of consumption at times at high prices.

15 For example, in the United Kingdom, according to the first official definition (1991), which is still unofficially used in other countries, "a household is said to be fuel poor if it needs to spend more than 10% of its income on fuel to maintain an adequate level of warmth" (see [Energy poverty Energy \(europa.eu\)](#)).

16 Italy is divided in six climatic areas.

17 A separate rebate payment is granted for the use of gas for water heating and cooking and for the use of gas for space heating, with the latter attracting a higher rebate payment.

economic situation. This indicator takes into account the income and the financial and real estate assets of the consumer, as well as the number of people in the household.

While the scheme in Italy is implemented in a different way than the one proposed in this Policy Brief, it shares the same characteristics of having the rebate payment independent of actual consumption. Therefore, also in the Italian scheme, consumers are exposed to the market prices on their marginal consumption volumes, thus having strong incentive to consume electricity and gas efficiently¹⁸.

Secondly and last, the type of approach outlined above might also be appropriate for businesses, even though the effect might be less clear. In fact, by leaving business customers exposed to the actual cost of energy at the margin, they could still consider such a cost in pricing their entire production. This would be the rational behaviour for businesses and therefore, while any measure of the type proposed above would help their “bottom line”, it might not protect them from losing competitiveness, if their competitors face lower energy prices (for their whole consumption or at the margin).

18 In a not too distant past, protection of ‘vulnerable’ electricity consumers in Italy was implemented by granting lower electricity prices to low consumption levels. This approach had several unintended negative consequences, including: (i) the approach was poorly targeting the consumers in real need (usually large families with higher electricity consumption); and (ii) provided reduced incentive to save electricity by those who benefitted from support.

The Florence School of Regulation

The Florence School of Regulation (FSR) was founded in 2004 as a partnership between the Council of the European Energy Regulators (CEER) and the European University Institute (EUI), and it works closely with the European Commission. The Florence School of Regulation, dealing with the main network industries, has developed a strong core of general regulatory topics and concepts as well as inter-sectoral discussion of regulatory practices and policies.

Complete information on our activities can be found online at: fsr.eui.eu

Robert Schuman Centre for Advanced Studies

The Robert Schuman Centre for Advanced Studies (RSCAS), created in 1992 and directed by Professor Erik Jones, aims to develop inter-disciplinary and comparative research on the major issues facing the process of European integration, European societies and Europe's place in 21st century global politics. The Centre is home to a large post-doctoral programme and hosts major research programmes, projects and data sets, in addition to a range of working groups and ad hoc initiatives. The research agenda is organised around a set of core themes and is continuously evolving, reflecting the changing agenda of European integration, the expanding membership of the European Union, developments in Europe's neighbourhood and the wider world.

www.eui/rsc



Co-funded by the
Erasmus+ Programme
of the European Union

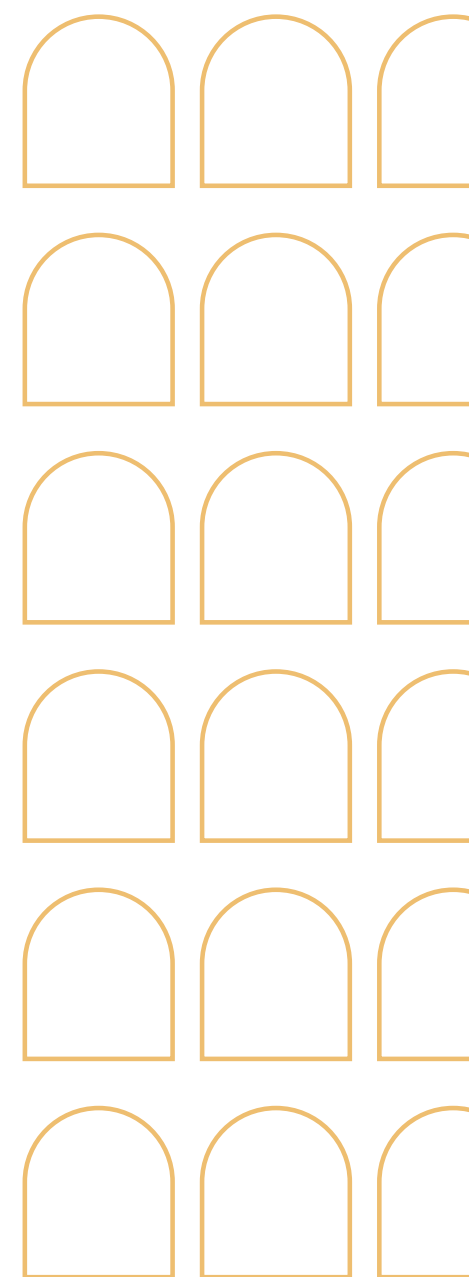
© European University Institute, 2022

Editorial matter and selection © Alberto Pototschnig, Jean-Michel Glachant,
Leonardo Meeus, Ilaria Conti, 2022

This work is licensed under the Creative Commons Attribution 4.0 (CC-BY 4.0) International license which governs the terms of access and reuse for this work. If cited or quoted, reference should be made to the full name of the author(s), editor(s), the title, the series and number, the year and the publisher.

Views expressed in this publication reflect the opinion of individual authors and not those of the European University Institute.

Published by
European University Institute (EUI)
Via dei Roccettini 9, I-50014
San Domenico di Fiesole (FI)
Italy



doi:10.2870/920931
ISBN:978-92-9466-159-3
ISSN:2467-4540
QM-AX-22-020-EN-N