

# **Public perception of energy policy in crisis. A netnographic study of social media platforms in Norway, Italy, and Romania**

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## Abstract

On the backdrop of the global pandemic and the war in Ukraine, the ensuing energy crisis demanded fast and comprehensive policy responses in all national contexts. Government measures came under political and societal pressure, with a high degree of contestation for their capacity to deliver. Academic literature is reflecting on the nature of decision-making in highly dynamic and convoluted situations pointing out the importance of making citizen's voices noticeable at all levels of knowledge gathering and decision-making. New technologies are especially useful at inquiring citizen's perspectives on the state of the art, policy alternatives, political support, and own behavioral conduct with respect to public decisions or general occurrences. The present article is employing the netnographic methodology to understand public responses to critical energy crisis policies adopted by governments in Norway, Italy, and Romania with respect to households during the most recent energy crisis. With our inductive approach, we aim to understand similarities and differences in public perception and meaningful emerging topics.

Keywords: crisis, energy policy, prices increase, public perception, netnography

## 1. Introduction

Barely recovered from a global pandemic, the world economy succumbed to a growing crisis on the energy market given the imbalanced demand and supply playing out in the second half of 2021 and Russia's invasion of Ukraine in February 2022 [1]. These events presented the EU members and neighboring states with high risks related to their energy security and affordability, prompting decision-makers to take waves of measures to minimize the impact of these developments on their economies and households [2, 3]. Given the limited room for thorough evaluation, it comes as no

surprise that all measures have been highly disputed and were the subject of broad political and societal concern across Europe [4, 5]. In a global environment of increased uncertainty and crisis incidence, policymaking finds itself at an unease with high impact in terms of performance, output quality and social effects, leading to an increased possibility of unrest and democratic backsliding [6]. The energy market, typically eventful, is especially earmarked for these developments. Besides the call of decisionmakers for higher preparedness or resilience on the market, in more structural terms [7], the call of some academics for more adaptive and effective policy reactions in the field of energy is notable [8, 9]. These authors especially count on the core-value of higher participation of citizens in the process. It is not surprising that values, such as trust, are increasingly being discussed in the context of energy, as a fundament for effective decision-making and ultimately for democracy [10].

The current situation offers the opportunity to reflect on the quality of energy policy by interrogating the public perception through netnographic methods and through the lens of policy-cycle theories [11]. Our study is exploratory, and we rely on public framings of energy crisis apprehension, policy alternatives appraisal, agency valuation and individual behaviour (adherence/aversion to the norm) harvested from online communities in Italy, Norway, and Romania. Our fundamental assumption is that such creative methods benefit a more thorough understanding of the policy context and policymaking, given the eventful environment. We are not downgrading the value and democratic character of traditional decision-making models or of more consecrated data-collection procedures. We target the household level, due to the widespread and indiscriminate impact of the energy crisis on the population [12]; and aim to ascertain possible commonalities and differences in the response of the three online publics.

We structure our paper as follows: by touching upon the limitations of the traditional policy cycle in crisis situations, we discuss the benefits that computer-mediated insights into the public opinion may bring to policymaking, especially in the current, highly unstable, context of energy policy making. We discuss the benefits of netnography in various policy fields, including energy. After setting the historical context to our research, we then transition to our case studies, presented in brief, along with our data collection protocol, results, discussion, and main conclusions.

## 2. Literature review

Theorists [11] note the existence of six non-linear stages that characterize traditional governance models: (1) The agenda setting phase is related to problem definition and action statement; (2) the deliberation stage is dedicated to debates on solutions and impact; (3) the policy formation stage involves policy wording and administrative task allocation; (4) a policy adoption stage; (5) the appropriation stage is related to popular (non)adherence; (6) the implementation stage refers to the technicalities of measure deployment; and (7) evaluation, may be added as an input stage which feeds into each of the above. For convenience and ease of understanding, we will group these stages into four main concerns: Stages concerning context and solutions apprehension (1, 6); stage concerning behavioral intent (5); stages concerning agency valuation related to trust and legitimacy (3, 4); stage concerning policy alternatives (2).

Many actors are involved at every single stage, and their contributions are filtered into decisions through a looping process. The policy cycle dilemma, which relates to hierarchy (or the lack of inclusivity) and opportunity (or lack of timeliness) can become important drawbacks in policy fields and contexts marked by instability, such as those that make the object of our study. To be precise, there is high chance for outside contributions to become marginal, especially in some of the more technical stages. Also, typically policy cycles take place over longer periods of time, evaluation takes effect at the end, resulting in fine tuning. Fundamental revisions that may call into question underlying philosophies of policies are rare, whereas the chances for immediate evaluation to be delayed, to become irrelevant, or be excluded altogether, are high [9].

These are important inconveniences when facing contexts and policies that have a higher exposure to change. In such situations, authors point out the need for additional mechanisms for early warning [13], public preference and support identification [14], early recognition of problem areas and topics, and measurements for success or failure to be deployed along the policy process. Besides just the technicalities involved in securing higher policy flexibility by effectively compressing or reshuffling the policy stages to make them more time-effective, or by making evaluation habitual [9], authors also value a higher degree of citizen participation [15], which is deemed to increase the democratic potential and effectiveness of policies [16]. These are qualities in which traditional policy cycles do not particularly excel.

In this sense, traditional policy utilization theorists call for the instantaneous/immediate application of evaluation findings in the policy cycle along with the more systematic evidence, even if this may mean taking into account more symbolic input [11]. The integration of computer-mediated methodologies and social media, for that matter, is the immediate natural step made by some theorists otherwise associated with e-governance/e-government in literature [17]. The speed, low-cost, volume and diversity of data to inform knowledge, the high potential for steady utilization are evident and they have high potential to increase government performance [18].

Of course, caution should be exercised, given the possible distortions embedded in social media [19, 20, 21, 22]. Bias and misuse are two of the strongest arguments, leading scholars to caution against their compatibility with democratic values and therefore to warn against any temptation to equate social media with public opinion, a representative sample thereof [21] or treat it as an exclusive source of public priorities [9].

Albeit, these arguments, which need to be taken seriously, cannot disqualify the employment of social media in policy-evaluation altogether. Academia points out the substantial feedback that may be harvested from online groups at the policy formation stage (stage 1). Reversed agenda-setting [22] can make topics that are otherwise marginalized, visible to decision-makers, being ultimately effective in case of high-risk issues (such as environmental issues) [23] or topics of social concern [21]. With some limitation, policy scenario modeling placed in stage two of Nachimas and Felbinger's model can also benefit from social-media interaction [24] given its potential to integrate in deliberation actors that would otherwise elude the policy process [25]. At the resource allocation stage (stage 3), the participatory budgeting literature has validated social media as essential infrastructure [26]. Social media can be a source of transparency, performance politics and, ultimately, public legitimacy for governments (stage 4). Scholarship points out the use of social media to gain an understanding of policy preferences, assess public sentiment [27], changes in public opinion [28] (stage 5), or even predict events in order to shape policy action [29], such as social unrest [22]. The implementation (stage six), benefits from real time support, even in situations as concrete as the most effective step to take next or aspects of differentiated policy-making [9, 22]. Based on the pandemic experience, social media data is much faster to acquire than census data and it can be employed to gain a better understanding of real-time demographic statistics [30].

Methodologies to harvest social-media data can be as complex as automated policy analytics (BDA), involving high volumes of systematically processed data. Literature finds opportunity for lower volumes of data that can be collected and analysed manually or multimethod [9]. We propose netnography for its simplicity and compared experiential potential.

Advanced in the late 1990s in the area of marketing research by adapting classic ethnographic research instruments to computer-mediated social interaction formats, netnography was developed to offer "grounded knowledge" [31] of otherwise unobservable behaviour from reflexive narratives published by individuals online [32]. These narratives come in a variety of forms, such as text, multiple types of audio-visual information or symbols. They can be accessed in social networks, forums, play communities, chats, mailing lists, and a diversity of other sources depending on the specificities of each study.

With the overall growth of online activity, a few other fields have validated the method given its comparative conveniences. Fields such as learning and education [33, 34], social sciences over-all [35], history [36], to name just a few, discuss netnography as a scientific method. In energy and sustainability research the method is still incipient, with a few interesting directions investigating for instance the roll-out of new energy technologies in communities [37]. Belz and Baumbach are set to decipher lead user attributes in new technology adoption [38]. Kumar, Shrivastav, Adlakha, and Vishwakarma, explore the use of enablers by firms to generate responsible energy consumption in line with SDG goals [39]. Values, interests, and meanings created around sustainable online communities are investigated by Gummerus, Liljander, and Sihlman [40], and inspired other studies [41] on the rationale of choosing train instead of plane travel based on sustainability values. Foulds, Robison, and Macrorie discuss the convenience of multimethod approaches to evaluate consumption feedback [42], just like (Gram-Hanssen, Bonderup, Agaard, and Møller-Askholm, who use netnography complementarily to data scraping to understand how mobile technologies shaping sustainable consumption lifestyles [43]. Peuckert and Kern also employ netnography as one of the methods to assess the role of online innovation communities in facilitating sustainable transition [44].

Netnography comes across as much faster and cheaper than any other traditional method of scientific enquiry [45], less elaborate and easier to deploy when needed [32], unobtrusive, based

on voluntary reveal of information, authentically displaying naturally occurring behaviour [46]; it is a qualitative method that can be performed on a vast number of people and by collecting systematically larger sets of data for longer periods of time to understand complex social phenomena or unfolding topics and events [47], rich in symbolism that is able to describe meanings, values, choices and needs. It may be performed retroactively due to online data permanency, by using multiple methods and with larger flexibility [48].

There are a few methodological and epistemological challenges that may arise, however: The technical requirement of skills; the difficulty to access some of these contexts [49]; trust bias given online identity shields [32] and even ethical validity of study [50]. These shortcomings have been recognized in our study and met with several mitigation strategies. Some of these are considered by Kozinets when he recommends the necessary steps to take for scientific [32]: (1) The *entrée* condition as a way of identifying the most relevant communities and gaining as much understanding of their context and culture is satisfied by the involvement in the current study of an experienced team of researchers knowledgeable of their own national setting and the topic. (2) Unobtrusive community observation and data collection criteria is based on an extensively reviewed research protocol and data collection which allowed for the authentic collection of a large set of narratives. (3) Trustworthiness is secured by the collaborative data collection and interpretation process conducted between the multiple team members for each country, most of which are native speakers of the language spoken in their country of analysis. Direct data collection and personal observations have been strictly separated in the data collection instrument (4) Ethical research is secured through associated clearance based on the legal requirements that govern data collection. (5) Aggregation of insights into solutions is based on a combination between inductive and deductive categorization of posts with a set of manual and automated procedures.

### 3. Methods

#### 3.1. Cases and expectations

The three countries selected, Norway, Italy, and Romania, are European countries that are subject to a common energy policy regime based on the European Green Deal [51] either by virtue of EU

membership or based on commonly agreed standards<sup>1</sup>. Yet, the three cases differ significantly with regards to their energy markets, how much, and what type of energy they produce, import and export, as well as with regards to their economic development, public concern with ecological issues and attitudes about green policy, how dependent they were on external energy sources, and legacies of the past. Because of these deep-set differences, no one theoretical explanation is likely to fit in all national contexts. Our case selection strategy was guided by the goal of including only very different national contexts with regards to these country-level characteristics. The selection was also constrained by feasibility concerns to the minimal number of cases sufficient to exemplify these different contexts.

Moreover, the saliency of energy policy as a topic of public opinion has greatly increased in the past two decades, and research is still catching up. Most studies have thus far investigated American public opinion [52], and recent evidence describing important factors influencing European public opinion on energy policy, especially under instability situations, is lacking. In fact, the emergence of an energy crisis on the background of increased salience of climate threat is a new policy challenge. Therefore, descriptive evidence on this topic is needed to orient and inform theory development attempting to explain the formation of public opinion at the intersection of these two phenomena.

Lastly, we believe that public behaviour on social media platforms offers researchers a rich opportunity to get insights into a national public opinion. Opinions about the energy policy changes triggered by the energy crisis in the cold season of 2022 – 2023 can be taken as an approximate thermometer for the national public opinion at large, while recognizing that these data might not reflect the opinions of groups absent from social media spaces. We expect to find that reactions to the governmental management of the energy crisis are heavily dependent on national contexts, but we also consider the possibility to identify common attitudes.

### 3.2. Research procedure

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<sup>1</sup> Norway has agreed to the EU-Norway Green Alliance in 2023



Online public opinion in each of the three selected countries is measured from social media activity in reference to one major policy change governing household energy consumption implemented during the energy crisis time-frame conventionally defined between the outbreak of the COVID-19 and the end of the cold season 2022-2023. This common point of reference will guide a comparative case-study design [53]. Within cases, the method of analysis employed will be qualitative (hand-coded), exploratory and inductive.

For each of the three selected countries, we constructed an analytical framework reproducing the following procedure. First step: An author team with case-expertise assessed the landscape of national policy changes and measures adopted by the government in response to the energy crisis. Based on this assessment, the team then selected a new measure, package, or update, in the national policy framework affecting energy consumption at household level in the period of analysis. The main criterium of this selection was that it should be the most impactful, or the paradigmatic policy implemented in the country at the level of household energy consumption during this time.

Second step: Once the policy identification was made, we selected one or several social media public announcements of the policy by the state institution responsible with its implementation. In all three countries, we selected Facebook as the most popular social media platform and the platform hosting government accounts with the largest following.

Third step: All public comments made in response to the original policy announcement were manually collected, along with selected metadata. These data were collected between May and August 2023. The obtained datasets of social media announcements of energy policy changes and comments made by platform users to these announcements were analysed using qualitative content analysis specific to the method of netnography. Table A. presents a summary of the selected cases.

*Table A. Overview of selected policy announcements on social media*

Country	Institution	Date published	Platform	# comments at collection date
Italy	The Ministry of the Environment and Energy Security	06.10.2022	Facebook	34
		14.01.2023		44

		24.02.2023		19
Norway	Prime Minister's Office	11.12.2021	Facebook	80
		08.01.2022		134
Romania	The Government of Romania	06.10.2022	Facebook	623
		06.10.2022		203
		18.03.2022		44
		18.03.2022		11
		01.09.2021		98

### 3.3. Policy Announcements and cases description

This section describes the content of the policy announcements published on social media by the governments of the three countries. The full posts, with translations, and posting date, are provided in Appendix A.1.

*Italy.* The Italian case study is based on an energy crisis response package consisting of three measures introduced between October 2022 and February 2023. We analyse the comments related to the posting of these measures on the Facebook page of the Ministry of the Environment and Energy Security, which is the initiator. The first action was a governmental decree of the 6th of October 2022 to regulate housing heating and cooling procedures, limiting parameters to  $\sim 19^{\circ}\text{C}$  during winter and a minimum of  $25^{\circ}\text{C}$  in summer. Time constraints were introduced for the use of gas-fueled thermal air conditioning. Moreover, Italy's domestic heating season was shortened by 15 days to save 3.6 billion cubic meters of natural gas. The regulation established penalties for non-compliance. The measure was accompanied by public awareness campaigns focused on inducing behavioural change around household energy consumption. A second measure introduced in mid-January 2023 concerned the rollout of individual electric mobility. This was followed suit by another regulation introduced at the end of the following month, which defined the regime around energy communities. The two latter measures were rendered unobserved in the media.

*Norway.* In a context of skyrocketing household electricity prices, the Norwegian Government enacted several measures, posted on the Facebook page of the Prime Minister's Office in the form of press conference video recordings. The first measure from December 2021, introduced a temporary support scheme of 80% price reimbursement for monthly average electric spot prices exceeding NOK 0.7 per kilowatt hour (kWh) in the period from December 2021 to March 2022. The sum was made deductible in the bill. The second decision, from January 2022, extended the support scheme to March 2023. The support package was designed as a temporary solution. It was, however, extended several times after March 2023, with additional changes on the inclusion criteria or the size of the subsidy. We only selected for analysis the first two iterations.

*Romania.* For Romania, we selected 5 announcements corresponding to three gas and electricity price cap and compensation measures adopted through government decree between September 2021 and October 2022. The posts were made on the Facebook account of the Romanian Government. The response to the energy crisis relied heavily on the introduction of these blanket measures, which were extended with some adjustments to cover subsequent cold seasons. The decrees essentially regulated a progressive cap with tariffs based on consumption rates starting from 0.68 RON/kWh (~14 Eurocents) for low consumers (< 100 kWh) for electricity, and a unique gas rate of 0.31 RON/kWh (~6 Eurocents). Households and small and medium enterprises were set to benefit.

#### 4. Results

To assess public reactions on social media to these measures, we report results under the four stages established in the literature review based on the policy cycle theory: 1. Problem and solution apprehension; 2. Adherence to norm and behavioural intent; 3. Agency valuation related to trust and legitimacy; 4. Policy alternatives. Results are presented in comparison, associated with an assessment of other relevant features, such as the style of communication and the expression of sentiments.

#### 4.1. Public problem/solution perception

Taken as reactions to the announcements made by the government, user comments can be classified in all three countries as negative reactions (pessimism, dissatisfaction, sarcasm, negative evaluation) and positive reactions (appreciation, optimism, positive evaluation). Many comments did not refer directly to the contents of the new policy measures, instead remarking on politicians, mostly in a negative way. Other remarks frequently referred to aspects of the larger national energy strategy. Finally, some users commented on issues of international politics, war, or the international energy market. Topics that were non-recurring or oblique to the content of the announcements, such as, for instance, conspiracy theories about chemtrails, were classified as other. *Table B.* below offers an overview of the prevalence of these interpretative topics by country. The values are given as percentages of the total number of comments made in each country.

*Table B. The prevalence of classified topics in comments from the three countries. Values are given as percentages (%) of the total number of comments in the country. One comment could be classified in several different categories if it contained a relevant topic.*

Topic	Italy	Norway	Romania
Negative reactions	65%	77%	90%
Positive reactions	7%	10%	8%
Feasibility / pragmatism	13%	45%	17%
Criticism of specific politicians	5%	10%	17%
Larger national energy strategy	35%	8%	5%
Freedom	5%	0.7%	6%
International politics	4%	0%	0%
Other	7%	11%	0%
Total comments	97	145	294

In all three countries, most users who commented on the government's posts expressed negative reactions to the policy announcements. The number of comments expressing positive reactions is also very similar between the three countries, and no higher than 10%. Even though Italy seems to have the lowest percentage of negative comments compared to the other two countries, when accounting for the "Other" category, the shares of negative comments are very similar in all three cases.

What differs significantly, however, is the way in which people express their negative reactions. In Romania, most of the negative comments are highly intense, expressing profound anger or disgust, and using strong verbal formulations of attack or threat or the written equivalent of booing, and are very personal and targeted mostly to the prime minister. In Italy, very few negative comments could be considered rude, and most tend to express frustration or sarcasm. Similarly, in Norway, most negative comments express dissatisfaction and criticism, but without sarcasm. Few comments are meant to provoke, hurt, or attack individual politicians or the government in a nonconstructive way, but even then, they never take the outraged and injurious tone that can be found in the Romanian dataset.

In Italy and Norway, the expression of negative sentiment tends to vary over time and in relation to individual regulations. This is not the case with Romania, where sentiments tend to remain unchanged. In Italy, the percentage of negative sentiment is higher regarding the decree on regulating domestic heating in the Winter 2022/23 season (80%). Also, there is no positive sentiment expressed regarding this decree. Negative sentiment is lower in relation to the establishment of energy communities (68% negative and 15% positive sentiment) and the decree regarding the installation of new charging stations for electric vehicles, which is perceived with the least amount of animosity (53% negative and 7% positive sentiment).

In Norway, the percentage of comments expressing negative sentiment is much higher for the second post compared to the initial December announcement, going from 61% to 91%. Alongside negative sentiment, the proposal of alternative solutions in the comments also increased from December to January.

When the measures were criticized argumentatively, in all three countries most comments either called into question their feasibility, applicability and pragmatism, or their miscorrelation with larger national energy objectives.

In Italy, a third of the comments raised concerns on implementation by evoking a few problems. Misalignment between objectives and funding was one of them. The materialization of the NRRP funds was mentioned in relation with insufficient financial capacity to bring about the objectives of electric mobility or energy communities. The Italian comments highlight two additional areas of concern insufficiently addressed in the measures: energy waste (mentioned in 4% of comments) and air pollution (2% of comments), rendering the policy unfit for its central focus. What is also visible, is the evaluation of the policy by means of association with similar experiences of the past, as commentators invoked the lack of adequacy of other similar policies, their inability to serve citizens' needs, which resulted in high public dissatisfaction. The lack of applicability was also related to the lack of detail and clarity of the measures.

In Norway, the largest part of criticism was related to one of the following justifications: a negative perception of the Acer/Nordpool deal, unfairness, lack of predictability, insufficiency, and inadequate timing. The support scheme is criticized for normalizing high prices and generating a loss in predictability of energy costs. Perceived unfairness includes reference to unequitable distribution of benefits between national regions, where people from the North, where the prices have been fluctuating, are at a disadvantage compared to those from the South. A few additional categories are mentioned as being particularly vulnerable and disregarded by measure: pensioners, students, and minimum income households, who do not qualify for a housing benefit.

In Romania, comments invoke the impracticality of the measures, or refer to its incompatibility with the larger energy strategy, while either pointing out policy gaps, or high implementation difficulties coming from a complicated bureaucracy. Ineffectiveness is also recalled when categories of vulnerable population are being referred to. Energy poor households, for instance, are particularly pointed out given that, for many, electricity is the only heating option, which pushes their consumption beyond the legislated capped thresholds, effectively resulting in mistargeting. Examples of such concerns are formulated as: “You've seen that there are many people consuming around 250 and 300 kW and sic on them, right? Your callousness knows no

bounds. You must know that we who consume approximately 300 kW, do not benefit from gas, running water, or sewage. We connected to the grid on our own money. That's why we have high consumption, not from the recirculation of the pool water. We pay taxes and fees to a town hall that didn't even put light bulbs on our street. Give special pensions to parasitic mayors. Shame on you!" Those with high electrical consumption due to medical reasons would also not be protected under the new measures: "Did you think of the sick who depend on an oxygen machine which works on electricity, they exceed 255kw per month. You're literally taking away their air, criminals."

The comments deploring the bureaucracy involved in accessing the subventions were especially apt at expressing outrage, such as the following comment written in capital letters in the original: "Crap ... liars. You're forcing old people to make all sorts of paperwork, you put them on the roads until they lose their heads, hoping they won't be able to do it. And then the reimbursement comes in three months. Wouldn't it have been better if the bullhead Cîțu<sup>2</sup> would have been more careful with liberalizing the energy market? You are all a bunch of despots. To pensioners, you are criminals!!!"

Another topic of interest is the emergence of a discussion on freedoms and the infringement thereof, based on the government policy response. Given the Italian government's option to impose energy saving measures as the main policy for energy price increases, it is not surprising that some felt like their freedom to control their own energy consumption was being affected. About 5% of the Italian comments raised this issue, treating it with outrage ("What stupidity, now you can decide even when it's cold or hot."), sarcasm ("I have to go to the bathroom, at what time can I go?") or with a conspiratorial tone ("We have entered a decade of limitations of freedom, expression, heat, electricity, power, water, every year or two years there will be a new limitation.").

By contrast, in Romania, the topic of limitations on freedoms comes up in relation to the country's communist heritage. Remarkably, there is nothing in the content of the new policy measures announced by the Romanian government that refers to restrictions on consumption or energy

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<sup>2</sup> Referring to the Romanian Prime Minister at the time

savings behaviours. Yet, 6% of the comments touch upon restrictions, referring to Ceausescu-era energy rationing, and judging the measures as outright dictatorial. Around 4% of the Romanian comments mention Ceausescu's name or liken the current state of the energy crisis or energy measures to events from before 1989. For instance: "Stay at home, brothers and sisters, but without gas and without electricity, because it's woe like back in the day of you know who", "Sounds like Ceausescu's last discourse from the balcony, when he was promising another hundred in child benefits", or "Do you realize that Ceausescu was killed for deeds 1000 times less serious than you committed in the last 30 years? So, you realize what's expecting you, especially after the past two and a half years!!!"

Despite the general sentiment of dissatisfaction and criticism, in all three countries there are a few comments which make a point of expressing appreciation for the new measures or optimism regarding their effectiveness. Most of these are very short and sometimes they only consist of an appreciative emoji. Notably, while these comments refer to the announcements or the policy measures in Italy and Norway (e.g., "Good solution", "It was time!", "Optimal! Finally."), in Romania most of the appreciative comments seem to be addressed at the government or the prime Minister, rather than the measures themselves: "Congratulations! A competent government!", "Bravo! I support Prime Minister Cîțu.", "Respect, Mr. Cîțu". Some even go out of their way to justify and defend the Prime Minister: "I know there are several accomplishments. If you consider only the fact the government managed to redress the budget after the pandemic and after the PSD<sup>3</sup> government and it's an accomplishment!!! Even the fact that the EU appreciated at trusted Cîțu is an accomplishment! Somebody like Ciolacu<sup>4</sup> would never ever win the respect of the EU! I believed in the Cîțu government, but especially in Florin Cîțu as a person because I never asked to get anything for free, instead I always got it through hard work. All those who beg hate you, all those who don't, appreciate you."

We also combed the comments to see if we could find any statements of personal impact of either the energy crisis or the announced measures. About a third of comments in each country related a

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<sup>3</sup> The Social Democrat Party

<sup>4</sup> The head of the Social Democrat Party



story or an evaluation of personal impact. In Italy, most of these statements describe how the higher energy prices are negatively affecting the household or the social relationship with other condominium residents. Similarly in Norway, most comments mention the idea that ordinary Norwegians are “freezing” and “worried about the high energy bills” or “worried about the future”. Some comments in Italy and Norway also mention the small businesses struggling due to the prices of energy. In Romania, most comments mention negative effects of high energy prices and high inflation or low income and pensions jointly. Additionally, most comments show a loss of trust in government, accusing elected politicians of undermining the economy, treason, sabotage, impoverishing citizens, or deceiving the people.

#### 4.2. Adherence to the norm and behavioural intent

Overall, we observe a very low rate of expressed behavioural intent in Facebook comments across the three countries, at a rate between 4% - 5% of total comments per case.

Surprisingly, despite high criticism, in Italy we do not find any expressed intent not to comply with the energy saving behaviours compelled by the decree regulating domestic heating for the winter season of 2022/23. However, there are two comments referring to dissent either by refusing to pay abnormal energy prices, or by complaining to local representatives. There is no expression of intended behavioural changes aimed at consumption reduction or in relation to the installation of energy efficient technology. However, with regards to energy communities, one post advertises services and loans meant to help people take advantage of the new measure. In Norway, the few comments that could be classified under this category expressed intent to vote differently at the coming election. This was also a behaviour that emerged from some of the Romanian comments, but the most prevalent here was the intention to protest. Only one Romanian comment mentioned the intention to save more energy.

#### 4.3. Policy alternatives and visions of the future

About a third of the comments in the Italian dataset describe alternative solutions to the energy crisis to the ones introduced by the government. One common vision of the future among Italian Facebook users is a more protectionist national energy pricing policy. The commercial sector is seen as the most suitable area for cutting consumption by turning off advertisements, nightlights in shops, restaurants, and pubs, or cutting service hours. The use of renewable energy is supported and several commentators would like to see more government support for photovoltaics including reduced taxation for private and commercial use of solar energy.

In Norway, only about 5% of comments come up with alternative solutions, and most of them are in response to the second announcement. Comments most often mentioned the need for a cap on energy prices, and the renegotiation of the Acer/Nordpool deal to aim for an arrangement that takes a more protectionist approach to the Norwegian energy market. For instance: “Just lower the price – then it will be the same for everyone. The agreement with Acer must be renegotiated. Cables to Europe cannot be built if this continues. We must keep something ourselves. Businesses must be taken care of. Norwegian power for Norway.” The need of a more long-term strategy to avoid this situation in the future accounts for 4% of the total comments and is mostly focused on the idea that the policy does not fix the root cause, only its symptoms.

Alternative solutions In Romania were also proposed at a rate of about 5%. They are formulated as mitigating solutions rather than visions of the future. Most mention the need to reduce the VAT on energy or to introduce a progressive tax. These solutions are coherent with the above-mentioned comments on social inequity and unaffordability. Several also mention that measures should rather target the main cause of unaffordability, which is the low incomes and pensions, rather than scramble to manage energy prices.

#### 4.4. Legitimacy and blame attribution

The differences in the number of comments making some sort of blame attribution for the energy price increases between Romania and the other two countries are stark. In Norway 38% of

comments attribute blame. Italy sits halfway at 44%. The number doubles in Romania, where 88% of comments make a point of attributing blame for the energy crisis. Remarkably, blame is not attributed to the COVID-19 pandemic or the Russia - Ukraine war in either of the three countries. Instead, most point it at the government (34% in Italy, 31% in Norway, and 84% in Romania).

The tone and language used are also different. Romanians are comparatively sharper in their language and their blame attribution is more targeted than in both other cases. For instance, 24% of the Romanian comments contain language accusing the prime-minister or the government of lying, being shameless or calling for “shame on you”, and seeing elected politicians as mocking the people, thieves, mobsters, criminals, or traitors, accusing them of being pathetic, embarrassing or despicable, losers, jerks, insane, morons or dictators. Some of these comments also refer to the new measures as scams, hoaxes, crap, or garbage. Some add the interjection “hoo”, modified licentious words meant to escape content moderation, or emojis showing the middle finger, puke or poop. Criticism of government capacity to implement functional policies or of ability to take the right decisions is sharp and is either directly targeted at politicians, certain political parties, Government, or the political elite in general. Some messages of positive recognition and legitimization are formulated of the Government or prime minister are formulated, but these are few and have been described before.

Comparatively, only one comment in the Italian dataset calls for the government to be ashamed, and only 4 of the 18% of comments that can be categorized as rude or sarcastic use stronger language (specifically, calling politicians “buffoons” or using modified versions of licentious words). However, delegitimation is visible in the messages related to the incongruences identified in the measures, their lack of clarity and reference to past policy failures.

Meanwhile in Norway, 8% of comments were categorized as rude, yet their virulence does not go further than calling Norwegian politics a “circus” or mocking politicians for reading an announcement from a script.

Distrust of politicians revolves around not trusting them to make the choices that are best for the Norwegians, either because of incompetence, personal agendas, or greed: “Not impressed that

you're still making money at the expense of the people you're assigned to serve. This is not good, and we are now seeing not only increasing politician contempt but also distrust of those who run the country”, “Trust in the political environment is at an all-time low, and it doesn't matter which party you're talking about! How do they intend to restore trust when they so clearly show how little the ordinary citizen means to them! There is no doubt that we have a politically corrupt power elite that does not care about the people.

## 5. Discussions

The above results allow us to bring to the forefront four emerging topics for discussion:

### 5.1. Emerging evaluations of the state of the art.

Most evaluations analysed were negative with an overall tendency to dock criticism in political behaviour rather than content analysis, with a higher degree of personalization of policy in Romania than in any of the other two cases. When criticism was pointed at policies, incongruities were pointed out, either with respect to the broader national or European objectives, or with regards to bureaucratic mechanisms and realities on the ground. In all three cases analysed the fundamental policy assumptions were called into question pointing out, with some national nuances, a disregard of the principles of fair distribution with some concern for individual freedoms in the large conceptual span of democracy. The highest concern was related to the impact of the crises and the adopted policies on individual households, with some categories being pointed out as more vulnerable than others, and generally disregarded in policy.

### 5.2. Emerging evaluations of decision-makers

The absence of trust for decision-makers is stark and the use of language is figurative of this attitude across all three cases, and mostly in Romania. This is related to low administrative capacity attributed to politicians, their failure to understand the realities on the ground and their incapacity to translate the needs into effective policies.

### 5.3. Emerging behavioural conduct

The platforms analysed are scarce in expressions of willful behavioural conduct. No norm adherence is expressed, just very marginal intentions towards energy efficient behaviour and no intention related to the adoption of energy efficient technology are proposed, either than some political sanctioning in the two more solid democracies, Italy and Norway, or an outright intention to protest in Romania. This makes us conclude that the online environment created by these postings is overall not one for constructive debate, but one of attrition.

### 5.4. Emerging policy alternatives

Policy alternatives were generally focused on household welfare with variation in discursive framing. If in Italy and Norway the ambition was formulated from an over-all market viewpoint, with a high preference for protectionist measures and proposals to regulate businesses ahead of households, in Romania the social justice rhetoric is predominant, signalling the need for progressive taxation or the prioritization of certain vulnerable categories. What is also visible is a demand for more consistent

## 6. Conclusion

In the context of an increasingly changing environment, marked by crises and policy transformation, citizens become engaged in making sense of the reality around them and how that may affect their daily life. This type of engagement becomes more and more visible given active online participation facilitated by social media. The literature engaged in this research upholds the need to make sense of these narratives in order to better understand the policy context, increase participation, inclusivity, policy flexibility, and effectiveness, with a view of over-all to increasing the resilience of democracies given the shifting realities around. Netnography has been referenced as a useful tool across fields, and the present paper extends the types of exercises endeavoured with the method in the field of energy research. Despite its technicalities, the topic of energy and energy policy is becoming an increasingly actively apprehended topic of social concern. If this is

more so for Norway and Italy, for which the topic has a much more resounding echo in view of a more institutionalized free energy market. It is a rather new topic in Romania, where market liberalization is fairly recent. Nevertheless, the subject has received enhanced meanings around democracy over the pandemic years and the ensuing energy crisis aggravated with Russia's invasion in Ukraine. The findings presented in this paper are intended to offer preliminary, yet valuable insights in public perceptions on one of these most significant market events and the immediate regulatory interventions. The analysis offers just a snapshot of these attitudes, and more substantial engagement is necessary with these narratives. However, a number of key takeaways are relevant: 1. The lack of trust in the political elite quite blatantly extends to the energy policy arena, despite its very specific technicalities, and people are tempted to relate to it by referring to their overall trust in politicians. 2. The impact of energy policy making is translated into substantial costs social costs; 3. There is a strong perception of separation between the realities on the ground and policy decisions; 4. Values such as green transition and fair distribution of benefits and costs are demanded and strongly related to one another in the public narrative. With due regard of the nuances, which these conclusions bare for every national case study, it is quite clear that all these conclusions are of utmost relevance in the political context of today and invite to deeper reflections and academic dialogue.

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#### Conflict of interest:

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

## References

- [1] International Monetary Fund (IMF), World Economic Outlook Update July 2022. Gloomy and More Uncertain. <https://www.imf.org/en/Publications/WEO/Issues/2022/07/26/world-economic-outlook-update-july-2022>, 2022 (Accessed 20 November 2023)
- [2] M. Hasselman, A. Varo, R. Guyet, H. Thomson, 2021. Energy poverty in the COVID-19 era: Mapping global responses in light of momentum for the right to energy, *Energy Research & Social Science*. 81, 102246. <https://doi.org/10.1016/j.erss.2021.102246>.
- [3] European Commission, REPowerEU. [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repower-eu-affordable-secure-and-sustainable-energy-europe\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/repower-eu-affordable-secure-and-sustainable-energy-europe_en), 2022 (accessed 20 November 2023).
- [4] K. Abnett, EU poised to propose extending energy crisis measures - official. <https://www.reuters.com/business/energy/eu-poised-propose-extending-energy-crisis-measures-official-2023-11-17/#:~:text=The%20European%20Union%20passed%20a,extend%20them%20for%20a%20year>, 2023 (accessed 20 November 2023).
- [5] K. Abnett, G. Baczynska, EU countries to back energy windfall levies, lock horns over gas price cap. <https://www.reuters.com/business/energy/eu-countries-back-energy-windfall-levies-lock-horns-over-gas-price-cap-2022-09-30/>, 2023 accessed 20 November 2023).
- [6] G. Jigla, S. Bouzarovski, U. Dubois, M. Feenstra, J. Gouveia, K. Grossmann, R. Guyet, S. Tirado-Herrero, M. Hasselman, S. Robic, S. Sareen, A. Sinea, H. Thomson, 2023. Looking back to look forward: Reflections from networked research on energy poverty. *iScience*. 26, 106083. <https://doi.org/10.1016/j.isci.2023.106083>.
- [7] B. Galgóczi, Response measures to the energy crisis: policy targeting and climate trade-offs, European Trade Union Institute (ETUI), Brussels, 2023.
- [8] A. Silvasta, G. Valkenburg, 2023. Energy citizenship: A critical perspective. *Energy Research & Social Science*. 98, 102995. <https://doi.org/10.1016/j.erss.2023.102995>.

- [9] J. Höchtl, P. Parycek, R. Schöllhammer, Big data in the policy cycle: Policy decision making in the digital era, *Journal of Organizational Computing and Electronic Commerce* (2016) 147–169. <https://doi.org/10.1080/10919392.2015.1125187>.
- [10] K. Grossmann, G. Jigla, U. Dubois, A. Sinea, F. Martín-Consuegra, M. Dereniowska, R. Franke, R. Guyet, A. Horta, F. Katman, L. Papamikrouli, R. Castaño-Rosa, L. Sandmann, A. Stojilovska, A. Varo, 2021. The critical role of trust in experiencing and coping with energy poverty: Evidence from across Europe. *Energy Research & Social Science*. 76, 102064. <https://doi.org/10.1016/j.erss.2021.102064>.
- [11] D. Nachmias, C. Felbinger, Utilization in the policy cycle: Directions for research, *Review of Policy Research* 2 (1982) 300–308. <https://doi.org/10.1111/j.1541-1338.1982.tb00676.x>.
- [12] Y. Guan, J. Yan, Y. Shan, Y. Zhou, Y. Hang, R. Li, Y. Liu, B. Liu, Q. Nie, B. Bruckner, K. Feng, K. Hubacek, Burden of the global energy price crisis on households, *Nature Energy*. 8 (2023) 304–316. <https://doi.org/10.1038/s41560-023-01209-8>.
- [13] G. King, J. Pan, E.R. Margaret, How censorship in China allows government criticism but silences collective expression, *American Political Science Review*. 107 (2013) 1–18. <https://doi.org/10.1017/S0003055413000014>.
- [14] D. Lazer, R. Kennedy, G. King, A. Vespignani, The parable of google flu: Traps in big data analysis. <https://gking.harvard.edu/files/gking/files/0314policyforumff.pdf>, 2014 (accessed 23 February 2024).
- [15] W. Parsons, *Public Policy: An Introduction to the Theory and Practice of Policy Analysis*, Edward Elgar Publishing, Aldershot, UK, 1995.
- [16] R. A. W Rhodes, Understanding governance: Ten years on, *Organization Studies*. 28 (2007) 1243–1264. <https://doi.org/10.1177/0170840607076586>.
- [17] H.J. Carolyn, Evidence-Based Policy and Performance Management: Challenges and Prospects in Two Parallel Movements, *The American Review of Public Administration*. 37 (2007) 255–277. <https://doi.org/10.1177/0275074007301957>.
- [18] M.P. Gupta, D. Jana, E-Government evaluation: A framework and case study, *Government Information Quarterly*. 20 (2003) 365–387. <https://doi.org/10.1016/j.giq.2003.08.002>.
- [19] S. Zuboff, Big Other: Surveillance Capitalism and the Prospects of an Information Civilization, *Journal of Information Technology*. 30 (2015) 75–89. <https://doi.org/10.1057/jit.2015.5>.



- [20] R. Epstein, *Manipulating Minds: The Power of Search Engines to Influence Votes and Opinions*, in: M. Moore, D. Tambini (Eds.), *Digital Dominance. The Power of Google, Amazon, Facebook, and Apple*, Oxford University Press, New York, 2018, pp. 294-390.
- [21] D. Tambini, *Social Media Power and Election Legitimacy*, in: M. Moore, D. Tambini (Eds.), *Digital Dominance. The Power of Google, Amazon, Facebook, and Apple*, Oxford University Press, New York, 2018, pp. 265-294.
- [22] P. Lorentzen, China's strategic censorship, *American Journal of Political Science*. 58 (2014) 402-414. <https://doi.org/10.1111/ajps.12065>.
- [21] W. Russell Neuman, L. Guggenheim, S. Mo Jang, S. Young Bae, *The Dynamics of Public Attention: Agenda-Setting Theory Meets Big Data*, *Journal of Communication*. 64 (2014) 193-214. <https://doi.org/10.1111/jcom.12088>.
- [22] G. Misuraca, F. Mureddu, D. Osimo, *Policy-Making 2.0: Unleashing the Power of Big Data for Public Governance*, in: M. Gascó-Hernández (Ed.), *Open Government. Public Administration and Information Technology*, vol 4, Springer, New York, 2014, pp. 171-188.
- [23] J. Barkenbus, *Expertise and the Policy Cycle*. <https://www.gdrc.org/decision/policy-cycle.pdf>, 1998 (accessed 21 January 2024).
- [24] S. Harris, *The Social Laboratory*. <https://foreignpolicy.com/2014/07/29/the-social-laboratory/>, 2015 (accessed 17 November 2023).
- [25] K. A. Daniell, A. Morton, D. R. Insua, *Policy analysis and policy analytics*, *Annals of Operations Research*. 239 (2015) 1-13. <https://doi.org/10.1007/s10479-015-1902-9>.
- [26] V. Gordon, J.L. Osgood Jr., D. Boden, *The Role of Citizen Participation and the Use of Social Media Platforms in the Participatory Budgeting Process*, *International Journal of Public Administration*. 40 (2017) 65-76. <https://doi.org/10.1080/01900692.2015.1072215>.
- [27] L. Nemes, A. Kiss, *Social media sentiment analysis based on COVID-19*, *Journal of Information and Telecommunication*. 5 (2021) 1-5. <https://doi.org/10.1080/24751839.2020.1790793>.
- [28] C. Alfaro, J. Cano-Montero, J. Gómez, J.M. Moguerza, F. Ortega, *A multi-stage method for content classification and opinion mining on weblog comments*, *Annals of Operation Research*. 236 (2013) 197–213. <https://doi.org/10.1007/s10479-013-1449-6>.

- [29] K. Leetaru, P.A. Schrodtt, *GDELT: Global Data on Events, Location and Tone, 1979-2012*. <http://data.gdeltproject.org/documentation/ISA.2013.GDELT.pdf>, 2013 (accessed 13 December 2023).
- [30] X. Huang, S. Wang, M. Zhang, T. Hu, A. Hohl, B. She, Z. Lin, X. Gong, J. Li, X. Liu, O. Gruebner, R. Liu, X. Li, Z. Liu, X. Ye, Z. Lo, 2022. Social media mining under the COVID-19 context: Progress, challenges, and opportunities. *International Journal of Applied Earth Observation and Geoinformation*. 113: 102967. <https://doi.org/10.1016/j.jag.2022.102967>.
- [31] B. G. Glaser, A. L. Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Aldine Transactio, New Brunswick, London, 2006.
- [32] R. Kozinets, The field behind the screen: using netnography for marketing research in online communities, *Journal of Marketing Research*. 39 (2002) 61-72. <https://doi.org/10.1509/jmkr.39.1.61.18935>.
- [33] M. Nind, R. Wiles, A. Bengry-Howell, G. Crow, Methodological innovation and research ethics – forces in tension or forces in harmony?, *Qualitative Research Journal*. 13 (2013). 650–667. <https://doi.org/10.1177/1468794112455042>.
- [34] C. H. Noble, S. M. Noble, M. T. Adjai, Let them talk! Managing primary and extended online brand communities for success, *Business Horizons*. 55 (2007) 69–84. <https://doi.org/10.1016/j.bushor.2012.05.001>.
- [35] M. Nelson, C. Otnes, Exploring cross-cultural ambivalence – a netnography of intercultural wedding message boards, *Journal of Business Research*. 58 (2005) 89–95. [https://doi.org/10.1016/S0148-2963\(02\)00477-0](https://doi.org/10.1016/S0148-2963(02)00477-0).
- [36] J. Podoshena, J. Huntb, Animosity collective memory rumor and equity restoration – consumer reactions to the Holocaust, *Consumption Markets & Culture*. 12 (2009) 301–327. <https://doi.org/10.1080/10253860903204485>.
- [37] A. Shaw, Netnography and a summative content analysis approach to market research, *Journal of Emerging Trends in Marketing and Management*. 1 (2020) 12-22.
- [38] M. F. Belz, W. Baumbach, Netnography as a Method of Lead User Identification. *Creativity and Innovation Management*. 19 (2010) 304-313. <https://doi.org/10.1111/j.1467-8691.2010.00571.x>.

- [39] A. Kumar, S. Shrivastav, A. Adlakha, N. Vishwakarma, Appropriation of sustainability priorities to gain strategic advantage in a supply chain, *International Journal of Productivity and Performance Management*. 71 (2020) 125-155.
- [40] J. Gummerus, V. Liljander, R. Sihlman, Do Ethical Social Media Communities Pay Off? An Exploratory Study of the Ability of Facebook Ethical Communities to Strengthen Consumers' Ethical Consumption Behavior, *Journal of Business Ethics*. 144 (2017) 449–465.  
<https://doi.org/10.1007/s10551-015-2830-y>.
- [41] C. Bodén-Malmsten, M. Kisch, When people unite, in the environmental consumption fight. A netnographic study of the meaning creation within sustainable online communities.  
[https://gupea.ub.gu.se/bitstream/handle/2077/60919/gupea\\_2077\\_60919\\_1.pdf?sequence=1](https://gupea.ub.gu.se/bitstream/handle/2077/60919/gupea_2077_60919_1.pdf?sequence=1)  
 (accessed 24 January 2024).
- [42] C. Foulds, R.A. Robison, R. Macrorie, Energy monitoring as a practice: Investigating use of the iMeasure online energy feedback tool, *Energy Policy*. 104 (2017) 194–202.  
<https://doi.org/10.1016/j.enpol.2017.01.055>.
- [43] K. Gram-Hanssen, S. Bonderup, L.K. Agaard, A.S. Møller-Askholm, 2023. Energy justice in heat metering: Findings from a Danish experiment of metering and distribution in residential apartment buildings. *Energy Research & Social Science*. 104, 103250.  
<https://doi.org/10.1016/j.erss.2023.103250>.
- [44] J. Peuckert, F. Kern, 2023. How user innovation communities contribute to sustainability transitions. An exploration of three online communities. *Environmental Innovation and Societal Transitions*. 49, 100785. <https://doi.org/10.1016/j.eist.2023.100785>.
- [45] F. M. Belz, W. Baumbach, Netnography as a method of lead user identification, *Creativity And Innovation Management*. 19 (2010) 304–314. <https://doi.org/10.1111/j.1467-8691.2010.00571.x>.
- [46] D. Harhoff, J. Henkel, E. von Hippel, Profiting from voluntary information spillovers – how users benefit by freely revealing their innovations. *Research Policy*. 32 (2003) 1753-1769.  
[https://doi.org/10.1016/S0048-7333\(03\)00061-1](https://doi.org/10.1016/S0048-7333(03)00061-1).
- [47] M. Bartl, G. Jaweck, J. Stoenner, D. Gastes (2011). Review and analysis of literature on netnography research. *International Journal of Technology Marketing*. 11 (2016) 165-196.  
<https://doi.org/10.1504/IJTMKT.2016.075687>.









- [48] A. Puri, The web of insights:the art and practice of webnography, *International Journal of Market Research*. 49 (2007) 387–408. <https://doi.org/10.1177/147078530704900308>.
- [49] R. Venturini, R. Rogers, "API-Based Research" or How can Digital Sociology and Journalism Studies Learn from the Facebook and Cambridge Analytica Data Breach, *Digital Journalism*. 7 (2019) 532-540. <https://doi.org/10.1080/21670811.2019.1591927>.
- [50] L. Costello, M. McDermott, R. Wallace, Netnography: range of practices, misperceptions, and missed opportunities, *International Journal of Qualitative Methods*. 16 (2017) 1-12. <https://doi.org/10.1177/1609406917700647>.
- [51] European Commission, *The European Green Deal* [https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal\\_en](https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en), 2021 (accessed 2 January 2024).
- [52] P.Bergquist, D. M. Konisky, J. Kotcher, 2020. Energy policy and public opinion: Patterns, trends and future directions. *Progress in Energy*. 2, 032003. <https://doi.org/10.1088/2516-1083/ab9592>.
- [53] J. Gerring, *Case Study Research: Principles and Practices*, second ed., Cambridge University Press, Cambridge, 2016.

#### Appendix A.1. Full posts with translation and posting date

##### Italy

Full post in original language	Full post in English (translate with Google Translate)	Date
<p>Il ministro della Transizione Ecologica, Roberto Cingolani, ha firmato il Decreto che definisce i nuovi limiti temporali di esercizio degli impianti termici di climatizzazione alimentati a gas naturale e la riduzione di un grado dei valori massimi delle temperature degli ambienti riscaldati, da applicare per la prossima stagione invernale come previsto dal Piano di riduzione dei consumi di gas naturale.</p> <p>Il periodo di accensione degli impianti è ridotto di un'ora al giorno e il periodo di funzionamento della stagione invernale</p>	<p>The Minister of Ecological Transition, Roberto Cingolani, signed the Decree which defines the new time limits for the operation of thermal air conditioning systems fueled by natural gas and the reduction of one degree of the maximum temperature values of heated rooms, to be applied for the next winter season as envisaged by the Natural gas consumption reduction plan.</p> <p>The switch-on period of the systems is reduced by one hour per day and the</p>	06/10/2022

<p>2022-2023 è accorciato di 15 giorni, posticipando di 8 giorni la data di inizio e anticipando di 7 la data di fine esercizio.</p> <p>In presenza di situazioni climatiche particolarmente severe, le autorità comunali, con proprio provvedimento motivato, possono autorizzare l'accensione degli impianti termici alimentati a gas anche al di fuori dei periodi indicati al decreto, purché per una durata giornaliera ridotta.</p> <p>Inoltre, i valori di temperatura dell'aria sono ridotti di 1° C. Al fine di agevolare l'applicazione delle nuove disposizioni, ENEA pubblicherà un vademecum con le indicazioni essenziali per impostare correttamente la temperatura di riscaldamento che gli amministratori di condominio potranno rendere disponibile ai condomini.</p> <p>Le riduzioni hanno delle esenzioni; in particolare non si applicano agli edifici adibiti a luoghi di cura, scuole materne e asili nido, piscine, saune e assimilabili e agli edifici adibiti ad attività industriali, artigianali e simili per i quali le autorità comunali abbiano già concesso deroghe ai limiti di temperatura dell'aria, oltre che agli edifici che sono dotati di impianti alimentati prevalentemente a energie rinnovabili.</p>	<p>operating period of the 2022-2023 winter season is shortened by 15 days, postponing the start date by 8 days and bringing forward the end date by 7.</p> <p>In the presence of particularly severe climatic situations, the municipal authorities, with their own motivated provision, can authorize the ignition of gas-fired heating systems even outside the periods indicated in the decree, provided that for a reduced daily duration.</p> <p>In addition, the air temperature values are reduced by 1°C.</p> <p>In order to facilitate the application of the new provisions, ENEA will publish a handbook with the essential indications for correctly setting the heating temperature that the condominium administrators will be able to make available to the condominiums.</p> <p>The reductions have exemptions; in particular, they do not apply to buildings used as health resorts, nursery schools and nursery schools, swimming pools, saunas and similar and to buildings used for industrial, craft and similar activities for which the municipal authorities have already granted derogations from the temperature limits of the air, as well as the buildings that are equipped with systems mainly powered by renewable energies.</p>	
<p>🚧 #PNRR: oltre 21.000 stazioni di ricarica per veicoli elettrici entro i prossimi 3 anni.</p> <p>✅ Con i decreti firmati dal Ministro, potranno essere installate entro fine 2025, 7.500 infrastrutture di ricarica super-rapida sulle strade extraurbane e 13.755 di ricarica veloci nelle città. L'investimento</p>	<p>🚧 #PNRR: over 21,000 electric vehicle charging stations within the next 3 years.</p> <p>✅ With the decrees signed by the Minister, 7,500 super-fast charging infrastructures on extra-urban roads and 13,755 fast charging infrastructures in</p>	<p>14/01/2023</p>

<p>del Piano Nazionale di Ripresa e Resilienza finanzia fino al 40% dei costi di realizzazione.</p> <p> L'obiettivo è promuovere la mobilità elettrica su tutto il territorio nazionale, grazie alla realizzazione di una rete capillare di colonnine di ricarica, e contribuire alla riqualificazione dell'attuale rete di distribuzione dei carburanti.</p> <p> "C'era grande attesa per questi provvedimenti", spiega il ministro @gilbertopicetto, "che consentiranno all'Italia di raggiungere più velocemente gli obiettivi di decarbonizzazione dei trasporti, che non lasciano indietro alcuna area del Paese e dal cui raggiungimento dipende anche la qualità dell'aria e della vita nei nostri territori".</p> <p> Per approfondire, vai al link in bio.</p>	<p>cities can be installed by the end of 2025. The investment of the National Recovery and Resilience Plan will finance up to 40% of the construction costs.</p> <p> The aim is to promote electric mobility throughout the national territory, thanks to the creation of a capillary network of charging columns, and to contribute to the redevelopment of the current fuel distribution network.</p> <p> "There was great expectation for these measures", explains the minister @gilbertopicetto, "which will allow Italy to reach the decarbonisation objectives of #transport more quickly, which do not leave any area of the country behind and on whose achievement it also depends the quality of the air and of life in our territories".</p> <p> To learn more, go to the link in bio.</p>	
<p> <b>COMUNITÀ ENERGETICHE: INVIATA ALLA UE LA PROPOSTA DI DECRETO</b></p> <p>Il min. Gilberto Pichetto ha spiegato in un'intervista a Il Sole 24 ORE i vantaggi della proposta di decreto che introdurrà in Italia, dopo il via libera di Bruxelles, le Comunità Energetiche.</p>	<p> <b>ENERGY COMMUNITIES: PROPOSAL FOR A DECREE SENT TO THE EU</b></p> <p>The min. Gilberto Pichetto explained in an interview with Il Sole 24 ORE the advantages of the proposed decree which will introduce the Energy Communities in Italy, after the green light from Brussels.</p>	24/02/2023

#### Norway

Full post in original language	Full post in English (translated with Google Translate)	Date
Statsminister Jonas Gahr Støre, finansminister Trygve Slagsvold Vedum og olje- og energiminister Marte Mjøs Persen inviterer til pressekonferanse om strømsituasjonen laurdag 11. desember kl. 12.00.	"Prime Minister Jonas Gahr Støre, Finance Minister Trygve Slagsvold Vedum and Oil and Energy Minister Marte Mjøs Persen invite to a press conference on the current situation on Saturday 11 December at 12.00".	12/11/2021

<p>Statsminister Jonas Gahr Støre, finansminister Trygve Slagsvold Vedum og olje- og energiminister Marte Mjøs Persen inviterer til pressekonferanse om straumsituasjonen laurdag 11. desember kl. 12.00.</p> <p>– De ekstraordinært høye strømprisene rammer økonomien til mange i Norge. Vi tok flere grep i forhold til de høye prisene høsten 2021, men ser nå behov for å styrke den viktige sikringsordningen der vi som fellesskap avlaster husholdningen for en høyere andel av strømregninga. Dette er en rettferdig omfordeling til fordel for vanlige folk i en krevende tid for mange, sier statsminister Jonas Gahr Støre.</p>	<p>The government is strengthening the scheme to help households deal with record high electricity prices throughout the winter. The crisis hits socially unfairly and therefore needs fair solutions. The compensation level in the scheme is increased from 55 to 80 per cent.</p> <p>- The extraordinarily high electricity prices affect the finances of many people in Norway. We took several measures in relation to the high prices in the autumn of 2021, but now see a need to strengthen the important security scheme where we, as a community, relieve the household of a higher proportion of the electricity bill. This is a fair redistribution to the benefit of ordinary people in a demanding time for many, says Prime Minister Jonas Gahr Støre.</p>	1/8/22
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## Romania

Full post in original language	Full post in English (translate with Google Translate)	Date
<p>Măsuri luate de Guvernul Cîtu:</p> <ul style="list-style-type: none"> <li>✓ compensarea facturilor la energie și gaze</li> <li>✓ majorarea salariului minim net cu 10% (ianuarie 2022)</li> <li>✓ introducerea sistemului de e-facturare pentru mediul de afaceri</li> <li>✓ reintroducerea șomajului tehnic pentru angajați, în contextual pandemiei</li> </ul>	<p>Measures taken by the Citu government</p> <ul style="list-style-type: none"> <li>✓ compensation of energy and gas bills</li> <li>✓ increasing the minimum net salary by 10% (January 2022)</li> <li>✓ introducing the e-invoicing system for the business environment</li> <li>✓ the reintroduction of technical unemployment for employees, in the context of the pandemic</li> </ul>	06.10.2022
<p>Bună seara! În ședința de guvern de astăzi au fost luate mai multe decizii, mai multe hotărârri au fost aprobate printre care prelungirea stării de alertă. Am avut mai multe discuții în ultima perioadă referitor la prețul la energie. am văzut și evoluția prețurilor în ultima perioadă și am luat decizia ca Partidul Național Liberal și Guvernul să susțină plafonarea preturilor</p>	<p>Good evening! In today's government meeting, several decisions were taken, several decisions were approved, including the extension of the state of alert. We have had several discussions recently regarding the price of energy. I also saw the evolution of the prices in the last period and I made the decision that the National Liberal Party and the</p>	06.10.2022

<p>la energie în România. Va fi o decizie luată în prima şedinţă de guvern după ce se v-a rezolva criza. Deci v-om susţine plafonarea preţurilor la energie la preţurile pe care le vedem în această perioadă şi avertizez toate companiile care vor să profite de acest anunţ în perioada următoare să nu se chinuie pentru că v-om folosi plafonarea la preţurile actuale.</p>	<p>Government support the capping of energy prices in Romania. It will be a decision made in the first government meeting after your crisis is resolved. So we support capping energy prices at the prices we see in this period and I warn all companies that want to take advantage of this announcement in the next period not to bother because we will use capping at current prices.</p>	
<p>Bună seara! Am încheiat şedinţa de guvern în care au fost adoptate o serie de acte normative, iar unul dintre acestea se referă la ceea ce am promis în serile trecute pentru ceea ce înseamnă protejarea cetăţenilor, a a locurilor de muncă şi protejarea economiei şi anume măsurile de protecţie pentru ceea ce înseamnă creşterea preţurilor la energie şi gaze naturale. Astfel, în cazul ordonanţei de urgenţă am stabilit următoarele: pentru consumatorii casnici care consumă până într-o 100 de kW preţul va fi 0,68 de lei, măsură de care vor beneficia aproximativ 3,5 milioane de gospodări; pentru cei care consumă între 100kW şi 300 kW preţul va fi de 0,80 lei iar de această măsură vor beneficia aproximativ 4,5 milioane de gospodării; pentru consumatorii non-casnici preţul va fi de aproximativ de 1 leu per kilowatt iar aici discutăm de întreprinderi mici şi mijlocii şi întreprinderi din industria alimentară. De asemenea, pentru consumatorii energointensivi se v-a aplica o schemă de ajutor de stat. În ceea ce priveşte preţul gazelor naturale pentru consumatorii casnici preţul va fi de maxim 0,31 lei per kilowatt iar pentru consumatorii non-casnici preţul va fi de până la 0,37 lei per kilowatt cu menţiunea că pentru întreprinderile care au avut un consum la locul de consum în anul 2021 de până la 50000 de kilowaţi per oră se menţine acelaşi preţ. Am luat toate aceste măsuri precum am precizat anterior astfel încât să continuăm programul şi măsurile</p>	<p>Good evening! We ended the government meeting in which a series of normative acts were adopted, and one of them refers to what we promised in the previous evenings for what it means to protect citizens, jobs and protect the economy, namely the protection measures for which means higher energy and natural gas prices. Thus, in the case of the emergency ordinance, we established the following: for household consumers who consume up to 100 kW, the price will be 0.68 lei, a measure that will benefit approximately 3.5 million households; for those who consume between 100 kW and 300 kW, the price will be 0.80 lei and approximately 4.5 million households will benefit from this measure; for non-household consumers the price will be approximately 1 leu per kilowatt and here we are talking about small and medium enterprises and enterprises in the food industry. Also, for energy-intensive consumers, a state aid scheme will apply. Regarding the price of natural gas for household consumers, the price will be a maximum of 0.31 lei per kilowatt and for non-household consumers the price will be up to 0.37 lei per kilowatt with the mention that for businesses that had a consumption of the place of consumption in 2021 of up to 50,000 kilowatts per hour remains the same price. We have taken all of these measures as previously stated in order to</p>	<p>18.03.2022</p>



<p>guvernamentale pentru a proteja cetățenii, pentru a stimula economia și a proteja locurile de muncă. Concomitent la nivelul Ministerului Energiei se iau măsuri pentru tot ceea ce înseamnă identificarea de surse noi de energie și identificarea de surse de noi de aprovizionarea cu gaze naturale.</p>	<p>continue the government's program and measures to protect citizens, stimulate the economy and protect jobs. At the same time, at the level of the Ministry of Energy, measures are being taken for everything that means the identification of new sources of energy and the identification of new sources of natural gas supply.</p>	
<p>Premierul Nicolae-Ionel Ciucă: Sectorul energetic rămâne o prioritate pentru Guvern. Așa cum am promis, am aprobat astăzi în Guvern măsuri prin care să preluăm presiunea creșterii prețurilor la energie electrică și gaze naturale atât pentru cetățeni, cât și pentru economie. Pentru o perioadă de un an, până la 1 aprilie 2023, asigurăm stabilitate și protecție consumatorilor de energie.</p> <p><b>ENERGIE ELECTRICĂ</b></p> <p><input type="checkbox"/> Niciun cetățean nu va plăti mai mult de 0,68 lei/kWh, în cazul realizării unui consum mediu lunar mai mic sau egal cu 100 kWh;</p> <p><input type="checkbox"/> Se plafonează la maximum 0,8 lei/kWh, în cazul clienților casnici al căror consum mediu lunar este cuprins între 100 kWh și 300 kWh inclusiv;</p> <p><input type="checkbox"/> În cazul în care prețul din contractele în vigoare încheiate cu clienții finali este mai mic decât prețul maxim stabilit prin Ordonanța de Urgență, se aplică prețul contractual.</p> <p><b>GAZE NATURALE</b></p> <p><input type="checkbox"/> Începând cu 1 aprilie va fi aplicat un preț reglementat de maximum 0,31 lei/kWh.</p> <p><b>MĂSURI CONSUMATORI NON – CASNICI</b></p> <p>Pentru protejarea economiei și păstrarea locurilor de muncă, se plafonează prețurile finale facturate pentru energie electrică și gaze naturale pentru clienții non-casnici, excepție fiind marii consumatori care vor beneficia de schema specifică industriei.</p> <p><b>ENERGIE ELECTRICĂ</b></p> <p><input type="checkbox"/> Prețul maxim aplicat va fi 1 leu/kWh;</p>	<p>Prime Minister Nicolae-Ionel Ciucă: The energy sector remains a priority for the Government. As we promised, today in the Government we approved the measure to take over the pressure of the increase in electricity and natural gas prices for both citizens and the economy. For a period of one year, until April 1, 2023, we ensure stability and protection for energy consumers.</p> <p><b>ELECTRICITY</b></p> <p><input type="checkbox"/> No citizen will pay more than 0.68 lei/kWh, in the event of an average monthly consumption of less than or equal to 100 kWh;</p> <p><input type="checkbox"/> It is capped at a maximum of 0.8 lei/kWh, in the case of household requests whose average monthly consumption is between 100 kWh and 300 kWh inclusive;</p> <p><input type="checkbox"/> if the price in the contract in force at the conclusion of the contract is lower than the maximum stability price by the Emergency Ordinance, the contract price is applied.</p> <p><b>NATURAL GASES</b></p> <p><input type="checkbox"/> Starting from April 1, a regulated price of maximum 0.31 lei/kWh will be applied.</p> <p><b>NON-HOUSEHOLD CONSUMER MEASURES</b></p> <p>To protect the economy and preserve jobs, the final prices billed for electricity and natural gas for non-household purchases are capped, with the exception of large consumers who</p>	<p>18.03.2022</p>

<p>GAZE NATURALE</p> <p>□ Prețul maxim va fi de 0,37 lei/kWh, în cazul firmelor, școlilor, spitalelor, instituțiilor al căror consum anual de gaze naturale realizat este de cel mult 50.000 MWh.</p> <p>Detalii aici:</p>	<p>will benefit from the industry-specific scheme.</p> <p>ELECTRICITY</p> <p>□ The maximum price applied will be 1 leu/kWh;</p> <p>NATURAL GASES</p> <p>□ The maximum price will be 0.37/kWh, in the case of companies, schools, hospitals, institutions whose annual natural gas consumption is at most 5,000 MWh.</p>	
<p>Prim-ministrul Nicolae-Ionel Ciucă: Am consolidat și extins, astăzi, măsurile de protecție a populației și economiei de creșterile de prețuri la energie și gaze naturale.</p> <p>Protejăm toate gospodăriile conectate la rețeaua de gaze naturale, toate cele patru milioane urmând a beneficia de plafonare și compensare până la 31 august 2023.</p> <p>Până la aceeași dată, 98 la sută dintre gospodăriile care beneficiau de plafonare și compensare la energie vor continua să fie ferite de efectele creșterilor de prețuri.</p> <p>Consolidăm resursele alocate în acest sens și am luat măsuri pentru a ne asigura că piața internă este asigurată și cu gaze naturale, și cu energie electrică.</p> <p>Prin măsurile luate azi, vom descuraja comportamentul speculativ din piața energiei și gazelor naturale.</p> <p>Suntem pregătiți să preluăm în legislația internă măsurile pe care le vom agreea la nivel european, alături de partenerii noștri.</p>	<p>Prime Minister Nicolae-Ionel Ciucă: Today, we have consolidated and expanded the measures to protect the population and the economy from increases in energy and natural gas prices.</p> <p>We protect all households connected to the natural gas network, with all four million to benefit from capping and compensation until 31 August 2023.</p> <p>By the same date, 98 percent of households benefiting from energy capping and compensation will continue to be protected from the effects of price increases.</p> <p>We are consolidating the resources allocated to this and have taken measures to ensure that the internal market is provided with both natural gas and electricity.</p> <p>Through the measures taken today, we will discourage speculative behavior in the energy and natural gas market.</p> <p>We are ready to take over in the domestic legislation the measures that we will agree on at the European level, together with our partners.</p>	<p>01.09.2022</p>