

CEER

**Council of European
Energy Regulators**



Fostering energy markets, empowering **consumers**.

Position paper on well-functioning retail energy markets

**Ref: C15-SC-36-03
14 October 2015**



INFORMATION PAGE

Abstract

This strategic high-level paper (C15-SC-36-03) develops CEER's first step in delivering a framework of what characterises well-functioning retail energy markets. Its origin is the "Bridge to 2025" and our commitment to develop a roadmap and to advise the European Commission in respect of its future Retail Markets policy, outlined in its July 2015 Communication on "Delivering a New Deal for Energy Consumers in Europe".

The paper presents a forward-looking framework for evaluating the performance of retail energy markets and begins a process of refinement to allow a proper evaluation of the performance of retail energy markets. It considers issues from both the supply and demand side and develops our thinking in terms of the principles of competition/innovation and of consumer involvement. Eight key properties, underpinned by these two principles and a series of different metrics, are proposed in order to better assess and inform market functioning and to identify policy thinking on how to improve it.

The next steps will be twofold. First, for individual national regulatory authorities (NRAs) to use available metrics for their national markets, and identify which might need to be further developed. Second, to review the CEER framework as a whole, and to refine the analysis in the light of any comments received from stakeholders and the experience gained by NRAs. On this basis, CEER will continue its work to define in greater detail the metrics and to develop our thinking on the roadmap needed to deliver well-functioning retail energy markets to the benefit of consumers by 2025.

We welcome stakeholders' views and reactions, which will serve to inform the development of the roadmap mentioned above.

Target Audience

European Commission, Member States, energy industry, gas/electricity consumers, consumer representative groups, academics and other interested parties.

Keywords

3rd Package, consumer rights, consumer protection & empowerment, reliability, simplicity, supplier switching, vulnerable consumers

If you have any queries relating to this paper please contact:

CEER Secretariat

Tel. +32 (0)2 788 73 30

Email: brussels@ceer.eu



Related Documents

CEER/ACER documents:

- [The future role of the DSO – A CEER conclusions paper](#) – Ref: C15-DSO-16-03, July 2015
- [CEER Advice on customer Data Management for Better Retail Market Functioning](#) – Ref: C14-RMF-68-03, March 2015
- [European Gas Target Model – Review and Update](#) – January 2015
- [ACER/CEER Annual Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets in 2013](#) – October 2014
- [Energy Regulation: A Bridge to 2025, Conclusions Paper](#) – September 2014
- [2020 Vision for Europe's Energy Customers](#) – November 2012
- [Guidelines of Good Practice on Price Comparison Tools](#) – Ref: C12-CEM-54-03, July 2012
- [Guidelines of Good Practice on electricity and gas retail market design, with a focus on switching and billing](#) – Ref: C11-RMF-39-03, January 2012
- [5th Benchmarking Report on Electricity Quality of Supply](#) – Ref: C11-EQS-47-03, December 2011
- [EREGG Guidelines of Good Practice \(GGP\) on indicators for retail market monitoring for electricity and gas](#) – Ref: E10-RMF-27-03, October 2010

External documents:

- [EC Communication – Delivering a New Deal for Energy Consumers](#) – July 2015
- [EC Staff Working Document – Best Practice on Renewable Energy Self-consumption](#) – July 2015
- [Energy Union Package, A framework strategy for a resilient Energy Union with a forward-looking climate change policy](#) – February 2015
- [Consumer Markets Scoreboard](#) – June 2014
- [Directive 2013/11/EU on alternative dispute resolution for consumer disputes](#) – May 2013
- [Directive 2012/27/EU on energy efficiency](#) – October 2012
- [Directive 2010/31/EU on the energy performance of buildings](#) – May 2010
- [Directive 2010/30/EU concerning the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products](#) – May 2010



- [Directive 2009/72/EC concerning common rules for the internal market in electricity](#) – July 2009
- [Directive 2009/73/EC concerning common rules for the internal market in gas](#) – July 2009
- [Directive 2009/28/EC on the promotion of the use of energy from renewable sources](#) – April 2009



Table of Contents

EXECUTIVE SUMMARY	6
1. INTRODUCTION.....	9
1.1. Rationale.....	9
1.2. Context	9
1.3. Characteristics of well-functioning retail energy markets	10
1.4. Assessing market functioning.....	11
1.5. Scope of our work	12
2. PRINCIPLE: COMPETITION AND INNOVATION.....	13
2.1. Property: Low concentration within a relevant market	13
2.2. Property: Low market entry barriers	14
2.3. Property: Close relationship between wholesale markets and retail prices	17
2.4. Property: A range of offers including demand response	18
3. PRINCIPLE: CONSUMER INVOLVEMENT	20
3.1. Property: High level of awareness and trust	20
3.2. Property: Availability of empowerment tools	22
3.3. Property: Sufficient engagement	23
3.4. Property: Appropriate protection.....	24
4. CONCLUSIONS AND NEXT STEPS	26
ANNEX 1 – GLOSSARY OF TERMS	27
ANNEX 2 – TABLE OF KEY PROPERTIES AND METRICS.....	28
ABOUT CEER	31



EXECUTIVE SUMMARY

In the “Bridge to 2025,”¹ regulators place energy consumers at the centre of their policy consideration. CEER’s 2020 vision for the European Union’s consumers² defined in detail that approach to put customers first: by providing a reliable supply at an affordable price, through simple to use services and in a way that protects consumer interests and empowers them to participate in the market. Well-functioning retail gas and electricity markets are vital to achieve that vision and to understand how markets are performing; whether they are functioning in consumers’ interests and the measures needed to achieve those objectives.

The European Commission’s recent Communication on “Delivering a New Deal for Energy Consumers”³ (hereafter ‘Retail Communication’) highlights many concerns about the functioning of retail markets, including insufficient competition and a lack of appropriate information for consumers on costs and consumption. We share those concerns, all the more so as energy markets across the EU are undergoing significant changes. Retail markets are also benefiting from some new technologies (e.g. smart metering), which may require new policy approaches.

The present paper begins a process of refinement to develop common criteria to assess better what a well-functioning retail market should look like and to provide a framework for analysing its evolution and performance. The centrally important link between wholesale markets and retail markets is included in our reflections. Our objective is to increase the level of sophistication in the understanding of retail markets by building from the present paper as we work towards defining a roadmap to deliver well-functioning retail energy markets to the benefit of consumers by 2025, in open dialogue with all interested stakeholders. We also hope to benefit from the experience individual national regulatory authorities (NRAs) have from applying some or all of the metrics identified, using what data is already available and what might become available in the coming months.

The annual Market Monitoring Report⁴ issued jointly by CEER and ACER already contains a number of metrics. However, in this paper we seek to increase the range of these metrics, in part to develop a more holistic framework for assessing market functioning, and also to take into account new and emerging services and technology. Our purpose is also to underline that effective competition is a fundamental - though not sufficient - basis to deliver all the outcomes sought. Similarly, this will enable us to contribute towards informing future policy thinking on better retail market functioning.

In defining some common criteria for well-functioning retail markets, we have tried to provide a framework for analysing the evolution and performance of retail markets. We have examined the question from both the supply and demand sides of the market and established two overarching principles, supported by a set of eight key properties and their corresponding selection of metrics. This approach will, we believe, help to understand market functioning and should contribute towards developing policies that lead to better functioning of retail markets.

¹ [Energy Regulation: A Bridge to 2025, Conclusions Paper](#) – September 2014

² [2020 Vision for Europe’s Energy Customers](#) – November 2012

³ [EC Communication – Delivering a New Deal for Energy Consumers](#) – July 2015

⁴ The next issue of the MMR is due in November 2015.



We have established two overarching principles. First is that competition and innovation are fundamental to well-functioning retail markets (including, of course, their relationship to wholesale markets). The second principle concerns consumer involvement; for retail markets to function well, consumers must be adequately involved in market activities.

The key properties for **competition** and **innovation** relate to the supply side of the market, where competitive pressure keeps suppliers on their toes to avoid their customers switching to better deals with competitors, including new entrants. This pressure should encourage suppliers to innovate to create products that meet the changing needs of consumers; to present complex deals and products simply; to keep their costs down; and to treat customers fairly, including through continually improving customer service. In the same way, distribution system operators (DSOs) need to provide quality services and must facilitate a level playing field for retail competition by acting as neutral and efficient market facilitators.

The second principle of **consumer involvement** relates to the demand side of the market, focusing on consumers' experiences of interacting with the retail market and their ability to navigate within it. Effective competition between suppliers is in fact driven by consumers that are sufficiently engaged to incentivise rivalry for their business. Furthermore, given the essential nature of energy as a service, competition is necessary - but may not be sufficient - for the delivery of broader consumer outcomes. Well-functioning markets need to benefit society as a whole, particularly by ensuring that vulnerable consumers are not disadvantaged or overlooked.

In order to be able to assess markets against these two principles and their respective properties, we have selected a number of key metrics (a full list is provided in Annex 2). This common set of metrics is not intended to be exhaustive, and will need to be complemented or refined by further work. In this way, we hope to provide a deeper understanding of any given retail market.

It is clear that many of the metrics we have identified in the paper are already in use and as such are already clearly defined and available for use in market assessments (as in the metrics used in the ACER/CEER Market Monitoring Report and in the European Commission's 'Consumer Market Scoreboard'). Others are more aspirational and reflect areas that we consider to be important or that will become more important in future. These are not currently collected in many Member States (MSs) and some will require further definition and refinement to enable consistency.

The metrics we have identified should be considered collectively for each 'relevant market', in the context of local/national circumstances (including, for example the stage of market development reached). Such metrics should always be seen in the context of the national market, and each metric should not be taken in isolation.

The triple-layered framework (principles, properties and metrics) will, we believe, be helpful to understand which issues may prevent retail energy markets from unlocking their full potential to energy consumers. Furthermore, rather than a simple monitoring exercise this paper is intended to provide a strategic framework of how well markets are performing (from both the supply and demand side) in order to improve the prospect of well-functioning retail markets by 2025. We hope it will help to inform both NRAs' work in retail developments and be helpful also to the European Commission's work on the future of energy retail markets.



The present paper is but one step in pursuing the proposals regulators set for themselves in the “Bridge to 2025” Conclusions document, notably developing a roadmap for securing well-functioning retail energy markets to the benefit of consumers. The framework we set out at this stage will be developed further and help inform our thinking about the main challenges to be overcome in improving market functioning. Individual NRAs using those metrics for their national markets will identify what data is available and which might need to be further developed. At the same time, we will be working on developing the roadmap, whilst also contributing towards the European Commission’s evolving policy framework.

Follow up work to this paper will be among our priorities in the 2016 CEER’s work plan – alongside reports on barriers to market entry, supplier switching, and price comparison tools – and should inform any subsequent policy developments. We remain committed to delivering the New Deal for energy consumers and we look forward to contributing to the European Commission’s future work and invite stakeholder comments on these issues.



1. Introduction

1.1. Rationale

Throughout our work, we place substantial emphasis on putting consumers at the heart of the market and on promoting and designing competitive markets that work in their interest. Our position starts from the perspective of ‘well-functioning’ (rather than purely ‘competitive’) markets. While in a competitive market the focus is for competition to deliver consumer benefits, in a well-functioning retail energy market, competition is combined with other tools – such as effective regulation – in order to deliver the desired consumer outcomes (for example consumer involvement and security of energy supply).

One of our objectives in the Bridge is to achieve well-functioning retail energy markets that deliver reliable, affordable and simple-to-use services to protect and empower consumers. We thus seek to establish common criteria to assess the functioning of our retail markets as a first step in developing a roadmap for securing competitive, reliable, and innovative retail energy markets to the benefit of consumers by 2025.

The metrics proposed should help to impose a framework to evaluate the functioning of a retail energy market (whilst taking into account the current stage of a market’s development). As in the Gas Target Model⁵, with its proposed self-assessment process to measure the functioning of gas wholesale markets, we suggest that the properties and outcomes we have identified can be used to analyse the functioning of retail energy markets.

The core principles in the CEER-BEUC 2020 Vision for Europe’s energy customers⁶ serve as the foundation for regulators’ views on retail markets: Reliability Affordability Simplicity Protection and Empowerment (the RASP principles). These principles must underpin energy markets that meet the diverse needs of customers, be they residential consumers (including the most vulnerable) through to businesses, and to deliver services that meet those needs.

To prepare this strategic paper, we built on an extensive body of work on retail energy market monitoring and design. However, this work is not intended simply as an exercise in market monitoring; it seeks to present a forward-looking framework to understanding and assessing national retail markets.

1.2. Context

In the same way that regulators have long promoted retail markets which deliver for consumers, the European Commission has emphasised the importance of retail market functioning in its Communication on an Energy Union⁷, and in particular its goal “*to give EU consumers – households and businesses – secure, sustainable, competitive and affordable energy*”. As part of its Energy Union Package, the European Commission is planning to launch new legislative measures to strengthen the internal market and to link wholesale and retail energy markets.

⁵ [European Gas Target Model – Review and Update](#), January 2015

⁶ [A 2020 Vision for Europe’s energy customers](#) – 13 November 2012

⁷ [European Commission Energy Union Package \(A framework strategy for a resilient Energy Union with a forward-looking climate change policy\)](#) – Ref: COM(2015) 80 final, 25 February 2015



In July 2015, the European Commission published its Retail Communication “Delivering a New Deal for Energy Consumers”. In this Communication, the European Commission describes three areas of action (pillars of the “New Deal”) to put consumers at the heart of retail markets:

- Empowering consumers to act (through better information, wider choice and consumer protection)
- Making smart homes and networks a reality (with fully-interoperable appliances and components, fit-for-purpose smart metering systems and research and innovation)
- Paying particular attention to data management and protection (guaranteeing consumers’ privacy and non-discriminatory handling of metering data to promote innovation and competition)

Building from these three priorities, the Retail Communication identifies some specific areas where they see further need for improvement, including on the clarity and comparability of content of bills; the transparency and reliability of price comparison tools; and the incentivisation of innovation and cost-efficiency by distribution system operators.⁸

CEER agrees that better information is needed to support consumer awareness, trust and market engagement. The same is true in respect of safeguarding consumer rights and protection measures. We also support the Communication’s analysis that wholesale and retail markets must be better linked and agree that competition should be consolidated and facilitated in the market design to enable consumers to benefit from the ongoing energy transition.

In the present strategic paper, we have sought to address and complement many of the issues identified in our earlier discussions and counselled by the European Commission’s Retail Communication. We have done so, broadly speaking, by defining the key characteristics of retail markets, and those outcomes which, taken together, should be delivered in a well-functioning market.

1.3. Characteristics of well-functioning retail energy markets

The characteristics of **well-functioning retail energy markets** can be described as follows:

*There is a high degree of competition and innovation thrives to the benefit of consumers. DSOs provide quality services and facilitate a level playing field by acting as neutral and efficient market facilitators. Consumers are **aware** of key features of energy markets; they are **empowered** and are **enabled** to engage in market activities through which they can acquire further trust in the market and its actors. Energy supply is safeguarded for all energy users, and vulnerable consumers are provided with extra protection where needed.*

Principles, Properties and Metrics

We have identified two high level **principles** as the cornerstones of our thinking: I) Competition and innovation; and II) Consumer involvement in retail energy markets. These are supported by 8 key properties, which are described in detail in this paper. The

⁸ The Communication proposes to cooperate with energy regulators in addressing these issues.



properties represent the desired outcomes of the key elements, which retail energy markets need to have in order to be considered to be functioning well (for example, low market entry barriers for suppliers). For each key property, we have provided a number of **metrics**, as the tools for identifying whether an individual market meets the key property or not (e.g. non-discriminatory access to transparent wholesale markets). These properties and metrics have been chosen with the aim of providing a measurable framework of what characterises a well-functioning retail energy market, although not all will, at present, have data reliable enough to allow their practical use with any degree of confidence. (Moreover, defining thresholds for the chosen metrics is not within the scope of this paper).

1.4. Assessing market functioning

Previous CEER work on market monitoring has been expanded by using a limited number of established metrics to illustrate our strategic vision of well-functioning retail energy markets. We have also identified a number of ‘new’ forward-looking metrics, which may become increasingly relevant as a result of the on-going energy transition. In developing this framework, we have used a similar approach to that for the development of the ACER European Gas Target Model (GTM)⁹, by identifying the key properties of well-functioning markets and metrics that enable market performance to be assessed against the identified key properties. The national context (for example the size of the country, regional characteristics, number of DSOs, the present stage of market development) should always be taken into consideration when using the framework of metrics we have developed to analyse the functioning of any given retail energy market. Indeed, this approach distinguishes our framework from current monitoring exercises, which means for example that certain metrics may need additionally to be collected at subnational level.

There are numerous market functioning metrics available, for example from NRAs’ publications, the annual ACER/CEER market Monitoring Report¹⁰ and the European Commission’s Consumer Markets Scoreboard. With these indicators, CEER has been able to establish key properties that characterise well-functioning retail energy markets. Many of the metrics we have identified in the paper are derived from existing resources, and are already clearly defined and available to use in market assessments. Others are more aspirational and reflect areas that we consider will become more important in future; they are not currently collected or used in many Member States and will require further definition to enable consistent analysis. This will also help it maintain consistency across the Union to develop and monitor well-functioning retail energy markets. Indeed, nearly half of the suggested metrics (11 out of 25) are currently monitored in the European publications mentioned above. The other 14 metrics are either monitored by a significant number of NRAs, or are new. The metrics (and the sources from which we have taken them) are detailed in Annex 2.

⁹ [ACER European Gas Target Model – Review and Update](#), January 2015

¹⁰ [ACER/CEER Report on the Results of Monitoring the Internal Electricity and Natural Gas Markets](#) – October 2014



We strongly believe that metrics should be considered collectively – never in isolation – for each ‘relevant market’. At best, they act as proxies to approximate and measure real circumstances. The set of metrics we propose is not intended to be exhaustive, but should be complemented by further indicators. Again, these metrics should be considered as a whole, and used appropriately in relation to local circumstances and with a qualitative understanding of the market being examined.

1.5. Scope of our work

The present paper covers gas and electricity retail markets, from residential consumers to businesses, including industrial consumers participating in the retail market. The term “consumer” is used in a broad sense, including: household consumers, ‘prosumers’, small and medium-sized enterprises, non-for-profit organisations and large businesses. While large industrial consumers are included in the scope of our work, they may be excluded from some metrics specific to small consumers, especially household consumer involvement. We consider, on the other hand, that small and medium-sized enterprises (SMEs)¹¹ may share some characteristics with household consumers. Our approach has been to consider retail markets from both the demand and the supply sides: the chapter on *Consumer Involvement* contains metrics describing the “demand side”; while the chapter on *Competition and Innovation* encompasses the “supply side”.

The market for self-generation is also included in the scope of our work, including the market for related energy services, as well as technological evolutions (such as smart meters and smart grids, smart homes, other distributed energy resources such as solar power, electric cars and batteries).

Defining the individual ‘relevant market’ to be assessed is not within the scope of this paper, as we focus on what it means to be functioning well irrespective of market size. A ‘relevant market’ could be defined either by geographical properties (e.g. DSO areas or national borders) and/or by product or consumer categories (e.g. household consumers, small business). We consider, therefore, that the definition of the geographical scope of the relevant market should take into consideration the number of DSOs and their geographical coverage¹².

Our informal consultations with different experts ahead of the publication of this report took place in Brussels at a closed workshop on 14 April 2015 with academics, the European Commission, ACER, regulatory authorities and one competition authority based on a list of questions concerning possible key properties and metrics which was circulated in advance.

¹¹ For a definition of SMEs, please see the glossary in Annex 1.

¹² For example, in theory, in a country served only by DSOs of less than 100,000 consumers with no unbundling, as allowed by the 3rd Package, and only local energy companies serving their historical zone, the number of suppliers measured at national level will be very high even without any retail competition at local level. In this specific theoretical case, national metrics would not be the right way to assess competition.



2. Principle: Competition and innovation

CEER vision:

In a well-functioning retail energy market, there is a high degree of competition and innovation thrives to the benefit of consumers. DSOs provide quality services and facilitate a level playing field for retail competition by acting as neutral and efficient market facilitators.

Competition and innovation are crucial for the functioning of retail energy markets. In competitive markets, multiple suppliers can offer consumers a range of products and services at competitive prices. Suppliers in a well-functioning retail energy market compete to attract and retain consumers, and can do so by competing on prices, innovative services and products, or in other ways responding to consumers' needs. Although energy as a commodity is a homogenous product that is difficult to diversify, competition and innovation factors may include the origin of energy, different pricing options and the availability of offers related to demand response and self-generation.

As emphasised in the ACER European Gas Target Model (GTM), a well-functioning wholesale market is a prerequisite for competitive energy retail markets¹³. The availability of market mechanisms through which suppliers procure energy in wholesale markets affects their ability to innovate, compete and enter into retail markets. Therefore, market access and the relationship between wholesale and retail prices are key metrics for competition. This relationship can also be a virtuous circle, where a well-functioning retail market with multiple suppliers provides liquidity and a more elastic demand side in the wholesale market.

The following properties for our high level principle of competition and innovation relate to the supply side of energy markets; in particular to wholesale conditions which have direct implications for the functioning of retail markets and to structural design aspects of retail markets themselves.

2.1. Property: Low concentration within a relevant market

With low market concentration, the ability of any market player to exploit market power to the detriment of consumers is reduced and consumers can benefit from competition, innovation and customer services.

Metric:

- Herfindahl-Hirschman Index

Our vision of a well-functioning retail energy market is one characterised by several active suppliers and low market concentration within the relevant market. The level of market concentration, translated as the Herfindahl-Hirschman Index (HHI)¹⁴, takes into consideration

¹³ [ACER European Gas Target Model – Review and Update](#), January 2015

¹⁴ The HHI indicates the degree of concentration in a market, and is calculated as the sum of the squares of the market shares of all firms in the market, or the 50 largest firms if applicable. It ranges between 0, for an infinite number of small firms, and 10,000, for one firm with a 100% market share. Based on guidance from the European Commission, an HHI above 2000 signifies a highly concentrated market, and 2000 may therefore be used as a threshold for a competitive market.



the number of suppliers and their respective market shares. The HHI can be used to assess the degree of market concentration in a specific market. However, a high or low HHI is only an indication of market concentration. To fully evaluate the degree of concentration and in the end the degree of competition, the relevant market has to be defined. For example, an HHI calculated at national level would be very low (i.e. there is very low concentration) in a theoretical case where many local energy companies (vertically-integrated DSO/supplier) exclusively serve their historical zones and no other suppliers operate. Therefore, a national assessment of the HHI is not the most appropriate way to assess the functioning of those markets. Other metrics may also be necessary depending on national context, such as the number of alternative vs. incumbent suppliers.

2.2. Property: Low market entry barriers

In order to facilitate competition and innovation, barriers to market entry and growth for new market actors (i.e. suppliers and third parties) as well as barriers for innovation (including demand response) need to be as low as feasible.

Metrics:

- Time needed and cost of accessing well-functioning wholesale markets and licencing/balancing regimes
- Percentage of consumers connected to “bundled” DSOs
- Percentage of consumers with regulated energy prices
- Number of common standards for consumer data and for DSO-supplier contracts
- Availability of time-of-use metering and, where applicable, additional fee paid by the consumer to be able to have time-of-use price vs. traditional metering

Barriers to entry can stifle market development and functioning. Examples of such barriers include the use of financial guarantees for access to wholesale markets or of licencing regimes, where the requirements are disproportionate to their protective function. A well-functioning energy market should be one where there is a good environment for innovation of energy services and products that benefit the consumer. There are many different ways for suppliers and/or service providers to innovate. The availability of smart infrastructure would increase and facilitate a supplier or service provider to provide the most adapted offer to customers (e.g. based on accurate consumption information with the appropriate frequency for the customer to have an advantage).

A common denominator for market rules is that they must be based on the key principles of equal and non-discriminatory access for all suppliers, to ensure a level playing field in the market. Here, we present a number of key barriers with a particular relevance to retail energy markets.

Some barriers to market entry result from measures seeking to ensure access to energy as an essential service or to ensure that the market operates to the benefit of consumers. However, such policies should not constrain competition in an undue manner.

Fair access to energy procurement on wholesale markets is a key pre-requisite for any supplier considering entry into the retail market. Access to well-functioning wholesale markets significantly influences a firm’s entry decision. A study commissioned by ACER in



the context of the 2014 ACER/CEER Market Monitoring Report¹⁵ suggests that access to wholesale markets is perceived as a significant barrier by new entrants. Another issue identified in the study relates to balancing regimes, which may not be well developed and can be expensive for smaller suppliers.

To create a level playing field in retail energy markets, all competitive actors need to compete on the same terms. DSOs should facilitate this by acting as neutral market facilitators. This requires a sufficient level of unbundling between suppliers and associated DSOs. As energy networks are regulated monopolies, DSOs have exclusive access to all customers within their geographic network area. Without sufficient unbundling, this has the potential of disturbing competition in the market. Unbundling, i.e. the separation of DSOs and suppliers within a vertically integrated utility (VIU), is required by the 3rd Package. However, application of this provision can depend on the size of the DSO, with small DSOs being exempted from certain requirements. Insufficient unbundling may be an entry barrier for new suppliers. For example, the use of similar branding (brand bundling), can result in customers associating a DSO with its VIU, giving the supplier of the same group a competitive advantage in the market (*vis-à-vis* new entrants). As a first step, full implementation of the 3rd Package is required in all Member States, in order to limit market entry barriers due to insufficient unbundling.

Furthermore, as indicated in our Conclusions paper “The future role of the DSO”, to ensure that DSOs act as neutral market facilitators it is important to subject them to a greater extent to the legal and management unbundling regime. This would result in a high common standard of independence from VIUs in operating the distribution network. A proportionate approach to de minimis threshold (above which EU requirements apply to DSOs) should therefore be adopted. We suggest adjusting the current de minimis threshold so as to restrict the number of customers connected to distribution systems operated by DSOs falling below the de minimis threshold to a very small share of all customers. We consider that this approach would provide more flexibility in examining “special cases”. We recognise that adjusting the de minimis threshold is a matter for each Member State. However, a more economic approach is required from a regulatory perspective. Only very small DSOs should have the possibility of being a de minimis DSO, thus recognising the varying commercial capabilities of differently sized DSOs. We also suggest considering a new approach which would link de minimis exemptions to a specified balance sheet total and net turnover threshold. Obviously, special care would need to be taken to avoid providing an incentive to split larger entities into smaller ones to come within the threshold. Adapting the de minimis rule to the specific structural conditions existing in each Member State could help in ensuring that only truly marginal situations are covered by this rule.¹⁶

In many European countries, regulated prices for household customers continue to apply; acting as a major entry barrier. As a general principle, regulated prices distort competition in the market and prevent a level playing field between competing suppliers. They should be abolished as soon as practicable, i.e. where retail competition exists and when it has reached a minimum level. Regulated prices set below cost remove the opportunity for supplier profits and create deficits which need to be recovered elsewhere. This prevents new actors from entering the market and acquiring customers and is therefore detrimental to the functioning of retail markets. CEER fully supports the European Commission’s call to phase out regulated prices. As indicated in the Retail Communication, examples of the successful

¹⁵ E-Bridge (2014), [Barriers to cross-border entry into retail energy markets](#), August 2014

¹⁶ [The future role of the DSO - A CEER conclusions paper](#) – Ref:C15-DSO-16-03



phase-out of regulated prices in some Member States may present lessons for other Member States. As part of a broader exercise on “how to remove barriers to market entry”, regulators have begun work on identifying experience in Member States on removing price regulation.

Data management can also be a barrier to entry and to market growth. CEER believes that efficient, safe and secure data exchange between stakeholders is vital to reducing entry and growth barriers and to ensuring retail market functioning. This is critical both for the privacy and integrity of customers and for effective competition. To promote competition and lower the barrier to entry, new suppliers and other third parties need to be able to access relevant customer meter data¹⁷ on equal and non-discriminatory terms. A transparent and efficient data management process is essential to ensure smooth processes (such as moving, switching, billing, contracting for suppliers and other service providers). In addition, suppliers having to enter into many contracts/interactions with many DSOs in order to sell electricity or gas in a country can also be a barrier to entry. The existence of standardised contracts could help address this. Another option is to create a data hub (at national or regional) level. Furthermore, with the arrival of aggregators and other third parties in retail markets, new opportunities and challenges arise related to data access. Data protection and standardisation at national or European level are key to any well-functioning data management system. As mentioned above, the Green Button initiative allows easy access to standardised data. Such an approach has the potential to help overcome this market barrier.

The availability of smart metering equipment and systems which allow time-of-use meter readings is a pre-requisite for consumers to be able to opt into implicit demand response schemes. Smart meters may also enable explicit demand response services through a dedicated standard interface, either as mandatory equipment or an option. For this reason, we have included a proxy on the availability of time-of-use metering.

¹⁷ As defined in [CEER Advice on data management for better retail market functioning](#) – Ref. C14-RM-68-03, Customer meter data comprises of point of delivery identification data, user and contract data, and consumption data.



2.3. Property: Close relationship between wholesale markets and retail prices

Well-functioning retail energy markets are dependent on well-functioning wholesale energy markets. Organised and transparent wholesale markets set the market value of energy as a commodity, thereby providing the foundation for the prices that consumers pay in retail energy markets.

Metrics:

- Correlation over time between a transparent, market-based wholesale price and the retail energy price
- Mark-up between wholesale prices and retail energy prices

In many European countries, wholesale energy prices, in particular for electricity, have decreased in recent years.¹⁸ As a general principle, consumers should reap the benefit of lower wholesale prices through reductions in the energy component of their bill. Moreover, dynamic price signals from wholesale electricity markets, which increasingly contain intermittent renewable production that cause price variations, create important incentives for demand response. Access to contracts that directly link the energy component to wholesale markets with a possible granularity down to hourly-based prices create a bridge between wholesale and retail markets, incentivising consumers to exploit opportunities when prices are low and to adjust consumption when prices are high. Likewise, risk-averse consumers may wish to have access to contracts that protect them against price variations such as fixed price contracts.¹⁹

Wholesale energy prices should be transparent and publicly accessible, acting as a reference price for consumers. A relationship between the wholesale price and the energy component of the retail price is an important measure, indicating whether consumers are paying a fair price relative to the market value of energy as a commodity.²⁰ As a prerequisite, various cost elements should be visible on consumer bills so they can distinguish between the energy component and other costs (for example, network-related costs and other services), so that product offers are easy to compare and are understandable. This enables the consumer to compare the final price of the energy component to the wholesale energy price.

We have selected two metrics used in the ACER/CEER Market Monitoring Report to measure the relationship between wholesale prices and retail energy prices: Firstly, there must be a correlation over time between a transparent, market-based wholesale price and the retail energy price. This correlation can be either instant or lagged depending on the supplier's procurement strategy and the price structure of the consumer's supply contract, but must follow a clear long-term correlating trend. Secondly, the mark-up between wholesale prices and retail energy prices must not be exploitative of consumers and must at the same time be sufficient for competition and innovation to thrive among market actors. The mark-up is primarily defined as the difference between the retail energy component costs and the wholesale market price. Mark-ups are not precisely comparable to final profit.

¹⁸ Annex 2 in the [2014 ACER/CEER Market Monitoring Report](#).

¹⁹ Pricing options are covered in more detail in Section 3.4 on the range of offers.

²⁰ The energy component of the retail price is the commodity price that consumers pay for a volume of energy, separate from the network tariffs, levies and taxes which are also present in end-user bills.



Suppliers have to pay operational costs and taxes out of this margin. Mark-ups represent the gross margin, while the actual or net margin will depend significantly on operating costs and consumption levels. However, the evolution of mark-ups may serve as an indication of the level of retail competition and the “responsiveness” of retail to wholesale prices over time²¹.

2.4. Property: A range of offers including demand response

A well-functioning market is characterised by innovation and a range of products and services offered to consumers. In general, retailers’ ability to offer a significant number of commercial options - coupled with consumers’ ability to compare the offers and take informed decisions - is a sign of healthy competition and innovation.

Metrics:

- Availability of a variety of pricing and billing options
- Availability of value added services for implicit demand response and self-generation
- Availability of explicit demand response offers
- Availability of online offers
- Availability of contracts guaranteeing the origin of energy

The main characteristic that makes the retail energy market unique is that energy as a commodity is a homogenous product which in itself cannot be differentiated. That being said, there are numerous opportunities for energy suppliers to differentiate their offers and provide consumers with choice. This may include the type of contract, the pricing or billing applied, which includes online-only contracts and contracts where the source of the energy is guaranteed. It may also include offers of value added services, including at home-generation, feedback solutions, improved customer service, or additional products supplied as part of the offer.

The basic forms of differentiation in retail energy markets are in pricing and billing options related to the retail energy component and the network tariffs that, excluding taxes, make up the consumers’ bills. For example, in terms of electricity, a supplier can offer consumers a variety of pricing options such as a) dynamic wholesale-based pricing, potentially exposing the consumer to hourly price fluctuations; b) variable price, set by the supplier and adjusted at regular monthly intervals; or c) fixed-price, which fixes the price of energy over any number of years. Various billing options may also be offered, for example advance payment, partial advance payment or post-meter reading payments only.

While differentiated pricing options should be a sign of healthy innovation in the market, they may also create market segmentation and increase the risk for price discrimination. By splitting consumers into different segments (for example, based on contract type), suppliers could charge different consumers differently with no justifiable reason. While this may be socially optimal from an economic perspective, this can lead to passive consumers subsidising active ones.

A strategy for increasing demand response (implicit and explicit) and harnessing consumer flexibility needs to be complemented by relevant infrastructure and tools for consumers. Therefore, pricing options should be supported by value added services from suppliers such as feedback solutions that visualise energy costs and automation. Armed with information

²¹ [2014 ACER/CEER Market Monitoring Report](#)



about the price of energy at the time of consumption, consumers can decide – or automate the decision – to use less electricity at times of high prices and thereby reduce their energy bill.

The availability of demand-side response and flexibility services can also indicate a competitive and innovative retail energy market. In explicit demand response schemes (sometimes called “incentive-based”), the “freed-up” or “shifted” electricity is traded in electricity markets or used for other purposes. Consumers can receive specific remuneration for changing their consumption upon request (i.e. using more or less energy at a given moment), e.g. activation of balancing energy, differences in electricity prices or due to a constraint on the network.

The European Commission’s Digital Agenda proposes to exploit better the potential of Information and Communication Technology (ICT) in order to foster innovation, economic growth and progress. In this regard, the availability of different user-friendly ICT channels through which consumers can interact with market actors in executing the main processes that make up their market experience (e.g. signing up to an offer, comparing different offers, switching supplier, complaining, etc.) is also a positive sign of innovation in energy markets.

Increasing types of product differentiation within retail energy markets include products that guarantee the source of energy as well as services for consumers engaged in self-generation and storage. With increasing environmental awareness, the demand for energy from renewable sources, such as solar panels and batteries, is growing. Fair access to maintenance services and market mechanisms and systems through which ‘prosumers’ can feed energy onto energy networks are also crucial. While the availability of the offers in itself is a sign of innovation in the market, it is crucial that the contract terms for these services do not disadvantage the consumer or limit consumer benefits. In addition, too large a number of offers can add complexity to the market to the detriment of consumer engagement.



3. Principle: Consumer involvement

CEER Vision - Consumers are aware of key features of energy markets; they are empowered and are enabled to engage in market activities through which they can acquire further trust in the market and its actors.

For retail markets to operate, consumers must be involved in market activities. This involvement depends on consumers being aware of their opportunities and of the rights and tools that can empower them to participate. Through this participation, consumers may also increase their trust in the market. The engagement of consumers puts competitive pressure on energy suppliers, which in turn will heighten rivalry between suppliers. Engagement in any market necessitates a (basic) awareness and understanding of consumer opportunities on such a market as well as knowledge of a set of rights and tools to pursue individual decisions. It is assumed that large businesses, and only to some extent small and medium-sized enterprises (SMEs), have higher degrees of awareness (and are also better equipped to get a deal that suits them) than household consumers. We have therefore aimed the metrics in this section at household consumers and SMEs, where applicable.

Consumers need to be provided with robust legal means and practical tools enabling them to engage and participate actively in the market. These means and tools should support them in making the choices which are best for them. Together, awareness and empowerment are key to consumer action. They indicate the extent to which consumers understand their potential in retail energy markets and can confidently act on it, based on available and accessible information while using existing tools (e.g. to switch product or supplier, to install a self-generation facility or similar, or even not to engage in some cases). Finally, successful action can translate into increased levels of consumer trust in markets to the extent that consumers know how to benefit from market liberalisation.

Specific and targeted protection mechanisms must be in place to support energy consumers, especially those who are vulnerable. Such “back-up” empowerment completes an energy market in which consumer wants and needs are sufficiently recognised and speaks to the well-functioning of energy markets.

The properties and metrics under our high level principle of consumer involvement address the demand side of retail markets; focusing in particular on the consumer’s experience of and interaction with energy.

3.1. Property: High level of awareness and trust

In well-functioning retail markets, consumers are aware of the most relevant features for engaging in markets; and they trust the market.

Metrics:

- Percentage of consumers knowing they can switch supplier
- Percentage of consumers who know that DSOs are responsible for continuity of supply and, where applicable, metering
- Percentage of consumers trusting the energy market

Knowledge of the most relevant market characteristics can be instrumental for consumer engagement. This has its roots in consumers’ ability to access and assess information about



energy, which - in turn - enables them to act. This knowledge should guide consumers to make appropriate and well-informed choices, to make use of existing empowering mechanisms and protections and to reap the benefits of liberalised retail energy markets.

The key forms of awareness

1. Awareness of the right to, and implications of, switching energy supplier

The market liberalisation process foresees a number of consumer rights in energy retail markets, of which the right to freely choose their supplier and thereby select specific products (e.g. renewable electricity products) is crucial. For consumers to be involved in the market (by switching to a different supplier if this offers them a better deal), they should be aware that this possibility exists and should know what their rights are in relation to this (e.g. duration of the switch, continuity of supply during the process, etc.).

2. Awareness of main DSO responsibilities

Energy retail market design attributes varying roles and responsibilities to suppliers and to DSOs (in some cases also to additional market actors, e.g. meter reading responsible companies). Although continuity of supply is always the DSO's responsibility, depending on national frameworks, consumers either have a contract with the supplier only or contracts with both their supplier and their DSO. Importantly, awareness of the respective roles and responsibilities of suppliers and DSOs helps consumers to decide to whom to turn in each case (e.g. whom to contact in an emergency/outage; whom to report a meter reading to, or whom to contact to make an inquiry about the bill).

Data availability regarding levels of consumer awareness, as indicated in the chosen metrics, often comes from market research, such as consumer perception and satisfaction surveys (a common practice among NRAs, and at EU-level).

Consumer trust

A well-functioning market is one also characterised by consumer trust and confidence in the market. This should translate into high levels of consumer satisfaction regarding their suppliers and, in general, low levels of complaints. Consumer trust is both cause and consequence of consumer engagement. On the one hand, it takes a certain level of trust by the consumer to deviate from current actions and choices – for instance, to trust a new supplier, or to trust in the usefulness of a new service. On the other hand, a successful market experience can also reinforce trust, just as unsuccessful action may lead to distrust. Furthermore, consumer trust includes trust in different market actors as well as trust in effective protection, in the efficacy of one's own actions and in the predictability of anticipated consequences. In addition, consumers' interaction with non-competitive elements of the market, such as DSO services, is part of their overall experience. In this respect, key services such as connection, disconnection, activation and maintenance are also very relevant processes for the consumer experience.

Consumer trust in energy retail markets is, however, a complex issue to quantify. It is usually monitored using survey data from a large number of market participants, such as in the European Commission's market monitoring in its annual Consumer Markets Scoreboard. Another example of a European-wide survey is the Eurobarometer, which often includes questions on trust in public organisations.



3.2. Property: Availability of empowerment tools

The aim of consumer empowerment is to enable consumers to engage effectively with the market. Tools to facilitate this engagement should be in place and should be easily accessible to customers.

Metrics:

- Percentage of consumers having access to at least one independent and verified price comparison tool
- Percentage of consumers having online access to historical consumption information
- Percentage of consumers having access to a standardised supplier switching process (and its duration)

Consumer empowerment relates to the legal and practical information and tools which assist consumers in making informed choices. Indeed, the first powerful action that a single consumer can take in relation to the retail energy market is an informed switch in supplier or offer. Making a choice (or ‘acting’) should be grounded on available options, be that switching to an alternative supplier, choosing a different product, contracting a new service provider and many more.

Which goods and services are available and offered by energy service providers is, however, not always widely known in many countries. Hence, presenting different offers in a clear and user-friendly way is an important factor for engagement. Tools which shed light on these products and services are indispensable on retail energy markets. They must meet consumers’ needs and wants, and display all publically available energy products in a reasonable and easy-to-understand way, such as via price comparison tools²². These user-friendly tools should provide relevant and up-to-date information, and be free of any commercial bias. Through its “Multi-stakeholder Group on Comparison Tools,”²³ the European Commission has engaged with different market actors to improve this type of tool. CEER has actively contributed with its experience and expertise to this group and we recognise it is an important area of work. In its Retail Communication, the European Commission has indicated that work will be done with national regulatory authorities to develop transparency and reliability criteria for energy comparison tools and to ensure that each consumer has access to at least one independent and verified comparison tool to assess the current contract against all offers available from the market.

In order to handle such price comparison tools, consumers need to know what they want to purchase and how much of it they are likely to use based on previous consumption patterns. A conventional price comparison tool therefore usually asks for the amount of energy consumed in a previous period²⁴. Hence, empowerment of consumers must also include easy access to information on past or current consumption, be it on bills, electricity/gas meters, or via the internet.

²² For more information about CEER views on price comparison tools: [CEER Guidelines of Good Practice on Price Comparison Tools](#), 10 July 2012

²³ <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=3325&news=1>

²⁴ In the EU, access to detailed historical consumption information is a right for those consumers with smart meters. This access should be easy and free-of-charge, as specified in Article 10, Directive 2012/27/EU on Energy Efficiency



In Great Britain, the introduction of machine readable images (typically a quick reference “QR Code”) on energy bills from June 2015, and the availability of downloadable “midata” has increased consumers’ access to their energy usage. Machine readable images on bills contain consumers’ annual consumption and key tariff information for each fuel. This information can be read by smartphones and tablets to give quick and accurate tariff comparisons. Some suppliers have also made this information available to download electronically as “midata”.

Another example is the US Green Button initiative through which consumers can download their own detailed energy usage with a simple click of a "Green Button" on electric utilities' websites²⁵. There are comparable initiatives in European MSs such as France and Sweden, which give consumers easy and secure access to information about their energy usage in a consumer-friendly format.

Such initiatives may also contribute to deliver 24-hour switching in the near future, as proposed by regulators in the Bridge to 2025 paper, (and as noted in the Retail Communication). Arguably, the availability of an easier and quicker switching process can also spur further consumer engagement. At national level, there might be a lack of implementation by some DSOs of the standardised switching process; for this reason the metric includes “coverage”, i.e. the percentage of consumers having access to this process.

3.3. Property: Sufficient engagement

A well-functioning market is one in which a number of consumers engage with the market.

Metrics:

- Supplier switching rate
- Percentage of inactive consumers
- Percentage of prosumers

This section covers the frequency of consumer activity in the retail market. The opportunities for consumer engagement in the retail market are extensive (e.g. ranging from a clarification request, supplier switching, self-generation, participation in newly emerging aggregation services). Furthermore, the act of consulting different offers and reflecting on available alternatives, perhaps resulting in an unchanged situation, could also be considered as a form of engagement.

While the most active consumers engage in several areas, the majority of consumers are likely to be limited to a subset of ways to engage with the energy markets. This is often due to a lack of control over the relevant infrastructure (e.g. living in an apartment rather than a detached house often precludes the installation of PV). However, what all consumers have in common is the right to switch electricity and/or gas suppliers. Therefore, although not an absolute proxy, the switching rate is considered a key metric for signalling consumer engagement. It captures core consumer behaviour in an objective way and might signal to suppliers (both the one the consumer is switching away from and the one they are switching to) what are the consumer’s preferences.

Supplier switches are directly linked to competition issues since they affect the market

²⁶ [EC Staff Working Document – Best Practice on Renewable Energy Self-consumption](#) – July 2015



shares of competing companies and thus put competitive pressure on energy suppliers. Indeed, supplier switching can stimulate companies to offer better products to keep their consumers in the first place. Supplier switching must be observed over time as only a longitudinal perspective can help understand the dynamics of competition and how competitors react to new market players and/or new offers.

Moreover, a low switching rate does not necessarily imply that consumer involvement is low. The share of consumers renegotiating contracts must also be taken into consideration, as well as the share of consumers who search for better deals, but subsequently make the informed decision not to switch.

Competition should deliver consumer services and energy products that are desired by consumers. Therefore, another important set of information is the number of successful renegotiations, whereby the current supplier offers competitive prices and quality services to the satisfaction of both existing and new customers. In their Consumer Market Scoreboard, the European Commission includes a metric on the number of renegotiated contracts for household consumers. This could be used to complement the switching rate metric that we have selected.

The share of inactive consumers - that is, consumers who have neither switched supplier/product nor actively searched for better deals – is a metric which captures the lack of consumer engagement. As a proxy, consumers considered as inactive have contracted with either a default supplier or a supplier of last resort or an incumbent supplier with or without regulated prices depending on national context.

As indicated in the EC Staff Working Document “Best practices on Renewable Energy Self-consumption”²⁶ accompanying the Retail Communication, self-consumption allows passive consumers to become active “prosumers”. Being able to produce and consume energy, by using different available technologies (e.g. roof solar photovoltaic panels, batteries), allows the consumer to engage actively in the market. The percentage of “prosumers” is therefore a relevant proxy to measure engagement.

3.4. Property: Appropriate protection

In well-functioning retail energy markets, consumers enjoy an appropriate level of protection and there are specific measures to protect those defined as vulnerable customers.

Metrics:

- Time between notification to pay and disconnection for non-payment
- Number of disconnections due to non-payment
- Percentage of suppliers using minimum standards for key information in advertising and bills

The 3rd Package²⁷ foresees a series of consumer rights which reflect the specific protections required in energy, as an essential service for consumers’ lives. In this regard, the right of universal service is of special importance. It is defined as the right to be supplied with

²⁶ [EC Staff Working Document – Best Practice on Renewable Energy Self-consumption](#) – July 2015

²⁷ <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=OJ:L:2009:211:TOC>



electricity of a specified quality at reasonable, easily and clearly comparable, transparent and non-discriminatory prices, within the territory of the Member State where the consumer is located.

Furthermore, Member States should put in place necessary protection rules to ensure energy supply for vulnerable consumers. Member States can use their discretion in the way they define vulnerability as well as in the measures they put in place to protect vulnerable consumers (including for example various horizontal social policy provisions). As a consequence, there are important differences across Member States in this area. For this reason, CEER does not propose any metric for vulnerable customers.

In this section, CEER suggests two concrete and easily measurable metrics to assess specifically the level of protection against disconnections due to non-payment. Furthermore, as mandated by the 3rd Package, the number of disconnections should be monitored; therefore, this data should be easily available. Although they are proxies, in conjunction with other metrics these two disconnection indicators should help in assessing the functioning of a relevant market.

Finally, as identified in the Retail Communication, understandable billing information as well as readily comparable information are critically important for consumers. CEER welcomes the proposal from the European Commission to identify, in collaboration with national regulators, minimum standards for key information in advertising and bills, especially as regards price comparison. Indeed, for consumers to benefit from the range of offers available, comparability is crucial. Consumers need to be provided with the means of assessing the offers against each other in a transparent and clear manner. For this reason, we have included a metric on the proportion of suppliers using minimum standards for key information in advertising and bills, these standards being required in legislation or applied through self-regulation.



4. Conclusions and next steps

This position paper presents CEER's first step in delivering a high level forward-looking framework for evaluating the performance of retail energy markets at national level in order to understand market functioning and identifying any associated issues. The framework will help inform further thinking about the main challenges to be overcome in improving market functioning, as well as our work on a roadmap to 2025.

Many of the metrics we have included are clearly defined and are available to use in market assessments straight away. They are derived from current resources (including NRA publications, the annual ACER/CEER Market Monitoring Report and the EC Consumer Markets Scoreboard). Others are more aspirational and reflect areas that we consider are, or will become, more important in future; these are not currently collected in many Member States and some will require further definition to enable consistent analysis. Naturally, these metrics have been designed to be considered collectively for each 'relevant market', within the context of local circumstances, such as the stage of market development.

We believe this three-tiered framework (principles-properties-metrics) is instrumental to understanding which issues may be preventing retail energy markets from unlocking their full potential to energy consumers. We hope it will help inform both NRA work in the design of future policy developments and European Commission work on the future of energy retail markets. Rather than a monitoring exercise in itself, this paper provides a horizontal and strategic view of how markets should function (from both the supply and demand side) if we wish to achieve competitive, reliable and innovative retail markets by 2025.

Energy regulators have taken a leading role in promoting consumer protection and empowerment, and market design which responds to consumer interests. We agree with the European Commission that delivering a new deal for energy consumers implies putting consumers at the centre of a thriving and functioning energy system.

CEER remains committed to examining all issues affecting energy consumers and has adopted a holistic approach as described in the Bridge. Thus, we are developing recommendations to address barriers to retail market entry and to supplier switching. We will also prepare a review of price comparison tools (how our 2012 Guidelines of Good Practice have been applied) and guidance on data management and reporting. Bringing together these various strands of work (including our parallel reflections on the changing role of DSOs), we will review our framework as a whole, and refine the analysis in the light of any comments received from stakeholders and the experience gained by NRAs in using these metrics for their national markets (thereby identifying what data is available and which might need to be further developed). On this basis, CEER will continue its work to define in greater detail the metrics and to develop our thinking on the roadmap needed to secure competitive, reliable and innovative retail energy markets to the benefit of consumers by 2025²⁸. We will also continue working with the European Commission in the different areas of work identified in the Retail Communication and we want all energy stakeholders on consumer issues to give their views on all the papers.

²⁸ [Energy Regulation: A Bridge to 2025, Conclusions Paper](#), September 2014



Annex 1 – Glossary of Terms

Term	Definition
CEER	Council of European Energy Regulators
Consumer	In this document, the term “consumer” is used in a broad sense, including: household consumers, prosumers, small and medium-sized enterprises and non-for-profit organisations and large businesses.
GGP	Guidelines of Good Practice
HHI	The HHI indicates the degree of concentration in a market, and is calculated as the sum of the squares of the market shares of all firms in the market, or the 50 largest firms if applicable. It ranges between 0, for an infinite number of small firms, and 10,000, for one firm with a 100% market share. Based on guidance from the European Commission, an HHI above 2000 signifies a highly concentrated market, and 2000 may therefore be used as a threshold for a competitive market.
Prosumer	A consumer who is equipped with self-generation and/or batteries (i.e. producer + consumer = prosumer).
SME	Small and medium-sized enterprises are defined in EU recommendation 2003/361 . The main factors determining whether a company is an SME are: number of employees and either turnover or balance sheet total (more information can be found here).



Annex 2 – Table of key properties and metrics

NOTE: The use of the term “consumer” in the key properties and metrics table below refers to all types of consumers (this includes household consumers, prosumers, small and medium-sized enterprises and large businesses as well as public administrations).

Metrics can only be used in relation to a specific relevant market. The relevant market can be defined by geographical properties (e.g. DSO areas or national borders), by product (e.g. electricity or gas) and/or by customer categories.

Metrics should be considered collectively for each relevant market, never in isolation, and as proxies to approximate and measure real circumstances, whilst taking into account the current stage of a market’s development.

The table below includes all the properties and metrics identified in this paper. It provides the source for each metric, also indicating those which are used in EU-level publications and those which are not currently available at EU level (i.e. they may be used by some countries or be related to new market issues).

Competition and innovation		
Key Properties	Metric	Source of metric
<p>I. Low concentration within a relevant market: With low market concentration, the ability of any market player to exploit market power to the detriment of consumers is reduced and consumers can benefit from competition, innovation and customer services.</p>	1. Herfindahl-Hirschman Index	ACER/CEER MMR
<p>II. Low market entry barriers: In order to facilitate competition and innovation, barriers to market entry and growth for new market actors, (i.e. suppliers and third parties) as well as barriers for innovation (including demand response) need to be as low as feasible.</p>	2. Time needed and cost of accessing well-functioning wholesale markets and licencing/ balancing regimes	Not available at EU level
	3. Percentage of consumers connected to “bundled” DSOs	Not available at EU level
	4. Percentage of consumers with regulated energy prices	ACER/CEER MMR
	5. Number of common standards for consumer data & for DSO-supplier contract or existence of data hub	Not available at EU level



	6. Availability of time-of-use metering and - where applicable - additional fee paid by the consumer to be able to have time-of-use prices vs. traditional metering	Partially ACER/CEER MMR
III. Close relationship between wholesale markets and retail prices: Well-functioning retail energy markets are dependent on well-functioning wholesale energy markets. Organised and transparent wholesale markets set the market value of energy as a commodity, thereby providing the foundation for the prices that consumers pay in retail energy markets.	7. Correlation over time between a transparent, market-based wholesale price and the retail energy price	ACER/CEER MMR
	8. Mark-up between wholesale prices and retail energy prices	ACER/CEER MMR
IV. A range of offers including demand response: A well-functioning market is characterised by innovation and a range of products offered to consumers. In general, retailers' ability to offer a range of products and services to customers can be a sign of healthy competition and innovation in the market.	9. Availability of a variety of pricing and billing options	Not available at EU level
	10. Availability of value added services for implicit demand response and self-generation	Not available at EU level
	11. Availability of online offers	Not available at EU level
	12. Availability of contracts guaranteeing the origin of energy	ACER/CEER MMR
	13. Availability of explicit demand response offers	Not available at EU level



Consumer involvement in retail energy markets		
Key Properties	Metric	Source of metric
V. High level of awareness and trust: In well-functioning retail markets, most consumers are aware of the most relevant features for engaging in markets and they trust the market.	14. Percentage of consumers knowing they can switch supplier	Not available at EU level
	15. Percentage of consumers who know that DSOs are responsible for the continuity of supply and - where applicable - metering	Not available at EU level
	16. Percentage of consumers trusting the energy market	EC Consumer Markets Scoreboard
VI. Availability of empowerment tools: The aim of consumer empowerment is to enable consumers to engage effectively with the market. Tools to facilitate this engagement should be in place and should be easily accessible to customers.	17. Percentage of consumers having access to at least one independent and verified price comparison tool	Not available at EU level
	18. Percentage of consumers having online access to historical consumption information	Not available at EU level
	19. Percentage of consumers having access to a standardised supplier switching process (and its duration)	ACER/CEER MMR
VII. Sufficient consumer engagement: A well-functioning market is one in which a number of consumers engage with the market.	20. Supplier switching rate	ACER/CEER MMR
	21. Percentage of inactive consumers	Not available at EU level
	22. Percentage of prosumers	Not available at EU level
VIII. Appropriate protection: In well-functioning retail energy markets, consumers enjoy an appropriate level of protection and there are specific measures to protect those defined as vulnerable customers.	23. Time between notification to pay and disconnection for non-payment	CEER BR on QoS ²⁹
	24. Number of disconnections due to non-payment	ACER/CEER MMR
	25. Percentage of suppliers using minimum standards for key information in advertising and bills	Not available at EU level

²⁹ [5th Benchmarking Report on Electricity Quality of Supply](#), December 2011



About CEER

The Council of European Energy Regulators (CEER) is the voice of Europe's national regulators of electricity and gas at EU and international level. CEER's members and observers (from 32 European countries) are the statutory bodies responsible for energy regulation at national level.

One of CEER's key objectives is to facilitate the creation of a single, competitive, efficient and sustainable EU internal energy market that works in the public interest. CEER actively promotes an investment-friendly and harmonised regulatory environment, and consistent application of existing EU legislation. Moreover, CEER champions consumer issues in our belief that a competitive and secure EU single energy market is not a goal in itself, but should deliver benefits for energy consumers.

CEER, based in Brussels, deals with a broad range of energy issues including retail markets and consumers; distribution networks; smart grids; flexibility; sustainability; and international cooperation. European energy regulators are committed to a holistic approach to energy regulation in Europe. Through CEER, NRAs cooperate and develop common position papers, advice and forward-thinking recommendations to improve the electricity and gas markets for the benefit of consumers and businesses.

The work of CEER is structured according to a number of working groups and task forces, composed of staff members of the national energy regulatory authorities, and supported by the CEER Secretariat. This report was prepared by the Strategy and Communication Task Force of CEER's Customers and Retail Markets Working Group.

CEER wishes to thank in particular the following regulatory experts for their work in preparing this report: Mr Olav Sem Berg, Mr Matthias Noorlander, Mr Antonio Ocaña Álvarez, Ms Kristina Östman, Ms Consuelo Pacchioli, Mr Florian Pichler and Ms Patricia de Suzzoni.

Special acknowledgements: CEER is grateful to the speakers and participants in the CEER closed workshop on well-functioning retail markets which took place on 14th April 2015; in particular: Professor Runar Brännlund, Umeå University; Ms. Silvia De Francisci, ADVANCED FP7 Project; Professor Monica Giullietti, University of Warwick; Professor Thomas Léautier, Toulouse School of Economics; and Mr. Raymond de Rooij, Authority for Consumers & Markets (Netherlands).

More information at www.ceer.eu