



# THE RETURN OF LONG-TERM CONTRACTS IN ELECTRICITY MARKETS: IMPLICATIONS FOR COMPETITION POLICY

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## Abstract

In the early years of liberalisation, many regulatory and competition authorities considered that long-term contracts for the supply of electricity should be restricted because of their potential to prevent the development of effective competition. However, the electricity industry context has evolved in recent years, both in terms of market structure, technologies cost structure, and policy objectives. For instance, long-term contracts can generate efficiencies by fostering an efficient allocation of risks thereby supporting investments in capital-intensive clean technologies, electrification. This paper analyses these evolutions and their implications for the need to revisit the historical approach adopted by the European Commission to assess the potential competitive effects of long-term contracts in the electricity industry. We conclude that the change in context justifies a change of appreciation of long-term contracts, as the pro-competitive effects are more likely to outweigh their potential negative effects on competition in many cases. Whilst the existing framework and the balancing test of the pro- and anti-competitive effects of long-term contracts remain fit for purpose, we argue that the lack of specific guidance on the specific types of efficiencies in particular that may be taken into account may cause uncertainty for the market participants regarding the appreciation by competition authorities of the long-term contracts that are likely to multiply in future years.

## Introduction

The liberalisation of the electricity industry in the 1990s/2000s led to the vertical unbundling of formerly integrated activities of generation, transport and distribution, and supply. In the early years of liberalisation, many regulatory and competition authorities considered that long-term contracts for the supply of electricity should be restricted because of their potential to prevent the development of effective

competition (European Commission, 2007a)<sup>1</sup>. Through a number of landmark cases in the second part of the 2000s, the European Commission defined its approach for assessing the potential effects of long-term contracts on competition. This assessment consists of a balancing test of the positive and the negative effects of such contracts.

Many of the arguments that tilted the balancing test toward the potential negative effects of long-term contracts in the 2000s were related to the market structure prevalent at the time. The entire industry was undergoing restructuring, with one of the main priorities being to introduce competition along the unbundled value chain. Long-term contracts were identified as one of the issues undermining progress toward competitive markets.

The context is markedly different today. Many markets have become more competitive. Further, long-term contracts are identified as important enablers for the coordination and financing of capital-intensive clean technologies investments in the context of the energy transition. In other words, the pro-competitive effects of long-term contracts are likely to play a greater role in the context of the acceleration of the energy transition, given efficiency gains associated with the facilitation and coordination of investments.

In this paper, we analyse these evolutions and their implications for the need to revisit the historical approach adopted by the European Commission to assess the potential competitive effects of long-term contracts in the electricity industry.

This paper is structured as follows. We first describe the potential pro- and anti-competitive effects of long-term contracts and the way in which the context influences the balancing of these effects. We then introduce the historical approach followed by the European Commission to assess long-term contracts for the supply of electricity. We then analyse the evolution of the context in the electricity industry, both

<sup>1</sup> The 2007 European Commission Energy Sector Inquiry actually identified long-term contracts as one of the main priorities for antitrust enforcement in the electricity industry.

in terms of market structure, technologies cost structure, and policy objectives. We draw implications for the balancing test of the anti- and pro-competitive effects of long-term contracts. We conclude that the change in context justifies a change of appreciation of long-term contracts, as the pro-competitive effects are more likely to outweigh their potential negative effects on competition in many cases.

### The Anti- and Pro-competitive Effects of Long-Term Contracts

The use of long-term contracts as an intermediate organisational form between vertical integration and short-term market trade has been extensively discussed in the economic literature (Glachant, Finon, & De Hauteclocque, 2011). The positive effects of such contracts relate to risk- and/or uncertainty mitigation and thereby induce efficiency gains for the financing and coordination of investments, whereas the main negative effects are related to the reduction in the size of the addressable market and the potential foreclosure of rivals (De Hauteclocque & Glachant, 2009).

The potential anti-competitive effects of long-term contracts have been well documented in the literature:

- Long-term contracts can support the foreclosure of actual or potential rivals (Aghion & Bolton, 1987) (Rasmusen, Ramseyer, & Wiley, 1991) (Segal & Whinston, 2000). If a significant part of the demand is tied in the long term, this may foreclose rival electricity suppliers, which may fall below scale and exit the market, or not enter the market in the first place. Long-term contracts may thus lead to foreclosure and act as a barrier to entry.
- Long-term contracts can dry up spot market liquidity. By reducing the size of traded markets, long-term contracts may reduce liquidity and induce greater volatility. The absence of competitive and liquid spot markets is detrimental in several ways. Competitive spot markets allow more transparency than bilateral contracting on the evolution of supply and demand and current production costs of the firms in place, which facilitates entry. The possibility to trade efficiently on the spot markets also limits the opportunity for dominant incumbents to abuse their market power when they contract bilaterally with smaller players. It also mitigates the risk that long-term contracts could lead to tacit collusion on spot markets by stabilising the market shares of an oligopoly of collectively dominant suppliers (Le Coq, 2004).
- However, long-term contracts can also have pro-competitive effects. In particular, long-term contracts are often considered efficient substitutes for vertical integration, and the literature highlights a number of potential positive effects on competition:
  - Long-term contracts can limit double marginalisation (Onofri, 2005). Double marginalisation occurs when several firms at different levels of the supply chain concurrently exercise market power. Long-term contracts, like vertical integration, can allow the total single margin to be lower than the sum of the margin in the de-integrated case.
  - Long-term contracts may allow an efficient hedging of risks. Long-term contracts can make revenues and expenses on both sides of the contract more stable and predictable.

They can induce different types of efficiencies depending on the precise design of the contract. The most common types of long-term contracts allow the supplier to sell and the customer to buy a quantity of electricity at a fixed, pre-determined, price. On the buy side, this induced stability allows for a better predictability in conducting business, which makes industrial customers more likely to invest in electrifying their processes to decarbonise if they can benefit from more stable and predictable energy costs. On the supply side, this induced stability and predictability allows for suppliers to finance their investments at a lower cost of capital. Long-term contracts can therefore facilitate investment and entry. If spot prices are volatile, then long-term contracts can also facilitate investments and thus contribute to long-term generation adequacy (Newbery, 1998). Long-term contracts may also contribute to fuel mix diversity by facilitating investments in high-fixed-cost technologies. Indeed, the greater the fixed costs are, the greater the price and quantity risks are (Roques, Newbery, & Nuttall, 2008), and thus the higher the hedging benefits of long-term contracts are.

- Relatedly, long-term contracts can allow efficient coordination of investments. By internalising possible externalities, buyers and sellers can benefit from co-optimising their business and therefore take coordinated investment decisions with the same long-term horizon.
- Long-term contracts can mitigate the risk of market power abuse in the spot market, by reducing the incentive to withhold capacity in the short-term market (Allaz & Vila, 1993). Long-term contracts may limit the incentives of dominant operators to abuse their market power on the spot markets as increases in prices in the spot markets would only be profitable on the un-contracted part of their supplies. As such, long-term contracts tend to increase traded volumes in the spot market, especially when supplier concentration is low.

Whether a long-term contract is pro- or anti-competitive depends on the balancing of these effects, which ultimately depends on the specific market conditions and the specific characteristics of the contract. In particular, the level of concentration in the market and the materiality of the positive effects associated with de-risking and coordinating investments are critical factors affecting the result of the balancing test.

### How Did the Case Law Shape the Current Approach to Long-Term Contracts?

Long-term contracts fall under Article 101 or 102 of the TFEU. Article 101 and Article 102 TFEU, which deal with anti-competitive practices (Consolidated version of the Treaty on the Functioning of the European Union, 2008a) and abuses of dominance (Consolidated version of the Treaty on the Functioning of the European Union, 2008b) respectively, together with relevant guidelines, notices and regulations, do not a priori allow or ban long-term contracts. They provide a framework of analysis based on market share thresholds defining which situations must be fully investigated. This framework is designed to provide predictability to firms and allow competition authorities to focus their enforcement resources on the most substantial potential infringement cases.

The European Commission conducts an in-depth case-by-case assessment of the potential anti-competitive effects of the contract only if some conditions are met, and has defined its approach through a number of milestone cases in the late 2000s. Unless a contract includes hardcore restraints (including, for example, resale price maintenance or certain territorial/customer restrictions), whether it is investigated by the European Commission or not typically depends on the parties' market shares. If the market share of one of the contracting parties falls below 15%, or if it is between 15% and 30% when the duration of the contract is below five years, the contract is in a 'safe harbour' where the Commission will not assess the potential effect of the contract (European Commission, 2014) (Commission Regulation (EU), 2022). Only cases where there is a strong presumption that the long-term contracts would result in substantial anti-competitive effects typically lead to an analysis of potential efficiency gains attached to the long-term contracts and a balancing test assessment. In such cases, the analysis typically proceeds in two steps:

(i) The European Commission first assesses the potential anti-competitive effect of long-term contracts. In its assessment, the European Commission considers both market conditions and the contract characteristics. Two landmark cases outline the main factors for the assessment, namely the *Distrigas* case (Commission of the European Communities, 2007) in the gas sector and its translation to the electricity sector in the *EDF Long-term contracts* case (European Commission, 2010a). Most prominently, the European Commission conducts a combined analysis of the following factors: contract features, competitive position of the parties, share of customer demand tied, duration of the contract, and overall share of the market covered by the contract. Past case law shows that the European Commission systematically banned exclusivity clauses for long-term contracts, as well as resale price fixing, fidelity rebates and tacit renewal. Further, any contract shorter than a year is generally not considered problematic, and an assessment is carried out beyond this threshold, with more leniency towards new entrants. The competitive position of the supplier, as well as the position of the buyer, are also considered. If either of them is too strong or if a significant portion of the market is already covered by a parallel network of long-term contracts, the contracts may be considered problematic.

(ii) Whenever the European Commission considers that a long-term contract, or a portfolio of long-term contracts, is likely to create significant anticompetitive effects, it will analyse the potential efficiency gains leading to potential pro-competitive effects and then proceed to a balancing test. For long-term contracts with substantial anti-competitive effects to be cleared by competition authorities, they should substantially improve economic efficiency, give a fair share of benefits to final consumers, be indispensable or at least proportional to the achievement of the efficiency gains and not grant contracting parties the possibility of eliminating competition in respect to a substantial part of the products in question. In case efficiency gains do not seem to clearly offset anti-competitive effects, a long-term contract might still be accepted if satisfactory remedies can be imposed.

The outcome of the balancing test is therefore highly influenced by the specific market conditions and the contract characteristics. The same long-term contract signed in a distinct market context may indeed result in different effects on competition and customers' welfare.

When State resources are involved, long-term contracts must comply with State Aid rules. First, the aid must facilitate the development of an economic activity deemed positive for society at large and must foster the creation of an incentive effect. As for the negative criterion test, the aid must not unduly affect trading conditions to an extent that would be harmful to society. Once this has been established, the European Commission carries out a case-by-case assessment of the positive and negative consequences of the aid (European Commission, 2022a).

### The Historical Approach of the European Commission Towards Long-Term Contracts in the Electricity Sector

Prior to liberalisation, long-term contracts were not a priority for the European Commission who rather focused on removing legal monopolies over imports and exports. A few decisions in the early to mid-1990s nonetheless concerned long-term power purchase agreements between independent power producers and national incumbents (De Hauteclocque, 2009)<sup>2</sup>.

They mainly aimed at limiting their durations so that these long-term contracts would not jeopardise the forthcoming opening of markets.

A decade after the start of liberalisation in 1996, the European Commission 2007 Energy Sector Inquiry identified long-term contracts as one of the main priorities for antitrust enforcement (European Commission, 2007). At this time, against the background of the effort to restructure and liberalise the electricity markets, the European Commission identified long-term contracts as one of the issues undermining progress toward competitive markets. The Commission took a series of decisions against the portfolio of long-term contracts of several incumbents: *Repsol* (Commission of the European Communities, 2006) *E.ON Ruhrgas* (European Commission, 2010b), *RWE* (Commission of the European Communities, 2009), *Distrigaz* (Commission of the European Communities, 2007), *EDF* (European Commission, 2010a), *Electrabel* (European Commission, 2007b), *GDF* (European Commission, 2009). The European Commission also intervened in *Poland* (European Commission 2007c) and *Hungary* (European Commission ,2008) to terminate long-term contracts under State Aid rules.

To understand the European Commission stance against long-term contracts at the time, in light of the assessment framework described in the previous section, it is necessary to look closer at the market context and policy priorities. In the early 2000s, the EU energy policy priorities were centred around making the market more competitive by increasing short-term competition. Former national incumbents entering long-term contracts to replicate vertical integration was working

<sup>2</sup> Prior to liberalisation, in the early- to mid-1990s, a few decisions concerned long-term power purchase agreements between independent power producers and the national incumbents. The EC aimed to limit their durations, so that the contracts would not jeopardise the forthcoming opening of markets.

directly against this objective. The 2007 Energy Sector Inquiry concluded that the long-term contracts were cementing the dominant position of the incumbents and drying up the short-term markets liquidity, with no clear outweighing efficiencies, for the following reasons (European Commission, 2007a):

- Long-term contracts prevented the development of effective competition. Before the restructuring of the markets, the electricity sector was both vertically and horizontally integrated. This integration arose from two factors. First, economies of scale in building long and complex projects allowed to bring down the complete cost of building generation assets and networks. Second, this allowed coordination across timeframes because of the centralisation of information. Integrated utilities are able to forecast the demand growth, which allows them to plan for the building of new generation assets and simultaneously plan for the corresponding expansion of network and flexibility assets. When the market was liberalised, incumbent suppliers and retailers entered long-term contracts, partly to replicate the benefits of vertical integration and partly because the market was not liquid and deep enough to allow efficient hedging. This gave rise to a situation where incentives were low to join the newly restructured markets, and several countries saw their incumbents enter long-term contracts with suppliers, which left the competitive structure of the market largely unchanged.

- Long-term contracts were drying up short-term market liquidity. The demand served through a long-term contract was not traded in the spot markets, which further contributed to reducing short-term markets liquidity.

- Long-term contracts were not needed to support investments in generation assets and networks. The generation fleet was already largely built and new entry typically relied on gas-fired generation that has low upfront capital costs and large fuel-induced variable costs. Against this background, long-term contracts were perceived unfavourably, especially for assets already amortised and /or for new assets that, because of their cost structure, did not incur substantial financing risk.

### The Evolution of the Electricity Industry and EU Policy Objectives and Implications for the Assessment of the Competitive Effects of Long-Term Contracts

The electricity market context, technology cost structure, and energy policy objectives have drastically evolved in the past decade. Many markets have become more competitive. Besides, long-term contracts are now identified as important enablers for the financing of capital-intensive clean technologies investments in the context of the energy transition.

In this section, we analyse these evolutions and their implications for the need to revisit the historical approach adopted by the European Commission to assess the potential competitive effects of long-term contracts in the electricity industry. We argue that the pro-competitive effects of long-term contracts are likely to play a greater role in the context of the acceleration of the energy transition, given efficiency gains associated with the facilitation and coordination of investments. This in turn means that this new context should in many cases tilt the balancing test (Bureau, Glachant, & Schubert, 2023).

We set out the key arguments supporting our analysis below:

First, against this new context, long-term contracts are less likely to have anti-competitive effects for the following reasons:

- Electricity markets have generally become more liquid, competitive and integrated regionally both upstream and downstream (ACER, 2023). The electricity market has become more competitive in many countries, with former incumbents facing more intense actual or potential competition. Following the restructuring of the electricity markets across Europe, the transmission capacities between Member States have greatly increased through the building of interconnectors (ENTSO-E, 2023). The integration of the electricity market has led to some harmonisation of operating rules (European Parliament & Council of the European Union (2009). This has resulted in the emergence of regional markets, with further integration planned in the future as cross border transmission capacity continues to develop (European Commission, 2019). In practice, incumbents now have reduced market shares in many countries (De Rosa, Gainsford, Pallonetto, & Finn, 2022). Further, the liquidity in the spot markets has significantly developed (ACER & CEER, n.d.). The development of competition and liquidity makes any potential anti-competitive effects of long-term contracts less likely material.

- Some customers have countervailing buyer power, which further reduces the likelihood of unfair terms in long-term contracts (Eurostat, 2023) (Naschert, 2021). The market power of consumers has evolved as well, with larger buyers having some form of negotiating power, which puts further pressure on suppliers to offer competitive offers<sup>3</sup>.

- Second, long-term contracts are more likely to have pro-competitive effects in this new context. This is because the price level and volatility have increased as a result of, notably, the development of renewables as well as policy and regulatory uncertainty (ACER, 2022). The volatility is expected to remain high at a time when significant coordinated investments are needed for the energy transition. Long-term contracts have the potential to fulfil market participants' hedging needs, supporting coordinated investments in the energy transition, shielding customers and industrials from price volatility and signalling Member States' commitment to decarbonisation, for the reasons explained below:

- The cost structure of electricity production has typically changed toward relatively more fixed costs, increasing exposure to volume and price risks (Hirth & Steckel, 2016). The technologies corresponding to most investments in the next years are, renewables, nuclear, carbon capture and storage, as well as batteries and other storage technologies and are all capital intensive. In the traditional market design, the gas and coal-fired generation are supposed to bid their marginal costs in equilibrium, which they hope would cover their fuel and operating costs. Their relatively low capital costs are recovered in periods of scarcity when the price spikes whereby they earn large profits. For renewables and other low carbon technologies that are extremely capital-intensive but have near-zero marginal costs, this model leads to substantial uncertainty and volatility over the revenue

<sup>3</sup> It needs however to be recognised that too many long-term contracts and/or contracts with inefficient design could distort short-term price signals as explained above.



that these technologies can expect in the future. Long-term contracts could provide the required certainty to ensure investments in the efficient production mix.

- The EU decarbonisation ambition requires a step up in power sector investments, which in turn requires a predictable stream of revenues (European Commission, 2022b) (Simson, 2022). Investments of EUR 800 bn are needed in power generation in the next decade, a significant increase compared to the previous decades. Long-term contracts are necessary to support investments in capital-intensive clean technologies, i.e., attracting private investments in energy assets requires predictability of revenues to facilitate financing. In this respect, most of the existing renewable generation fleet in Europe has been, to date, supported by public or private long-term contracts.

- The EU decarbonisation ambition requires a coordination of investments along the value chain, which in turn requires predictable long-term price signals (Roques & Finon, 2017). In addition to clean generation, there is a need for significant investment in the electricity grid as well as flexible resources such as storage or demand response (e.g. through electric vehicles and the associated smart charging infrastructure), to prepare the electricity system to address the new challenges caused by renewables (European Commission 2022c). Indeed, large shares of intermittent renewables provoke sudden and uncontrollable ramp-ups in supply that need to be addressed (delivered somewhere else, stored, or used), which requires investment in transmission systems and other forms of infrastructure. These new investments exhibit complementarity with other investments in adjacent industries (EVs, H2) that can also be supported through long-term contracts.

- Market prices also embed policy and regulatory uncertainties associated with the energy transition (IEA, ECB, & EIB, 2023). Policy and regulatory interventions affect market risk and limit the ability of market participants to hedge merchant risks. Regulatory or policy decisions (e.g., forced exit/entry, decision on mix) influence the electricity price signal as well as other typical sources of market risks (e.g., commodity price, demand volatility). Notably, Member States have adopted a range of market interventions to mitigate the impact of the energy crisis that contributed to further distorting the choices made by generators in the market. These include caps on wholesale electricity prices, caps on fuel prices, and the introduction of bilaterally negotiated contracts for electricity supply or inframarginal taxes introducing de facto a revenue cap for renewable generators, which reduces incentives to invest (ACER, 2023). These mechanisms are meant to temporarily remedy the effects of the energy crisis but should be replaced by a long-term solution in the form of a modification of the market design. Contrary to other market risks, regulatory or policy decisions channelling through to power price risks cannot be efficiently managed or hedged by market parties due to lack of predictability and hedging possibilities. Long-term contracts backed by Member States could signal commitment toward decarbonisation and support investments, thereby reducing policy and regulatory uncertainties.

## The Evolution of the EC Approach Towards Long-Term Contracts and Electricity Market Design

All in all, these changes in market structure, technology cost structure and policy priorities for the electricity industry have strong implications for market design and the wider competition policy framework, which have been discussed in recent years and partly accounted for in the recent European Commission proposals for reform:

- First, there is a need to decouple short- and long-term markets to allow (i) short-term allocative efficiency through an efficient market and system operation signals based on marginal costs as well as (ii) long-term dynamic efficiency through efficient investment and retirement of power plants, leveraging a range of de-risking and contracting mechanisms (Roques & Finon, 2017).

- Second, there is a need to coordinate the deployment of infrastructures such as networks and storage with generation plants (Roques & Finon, 2017). This implies a coordination of infrastructure build out and generation investments which will require some form of commitment mechanism from governments. Long-term contracts can help meet these objectives.

In this context, the European Commission proposed in March 2023 a new regulation on market design which supports a greater role for long-term contracts (European Parliament & Council of the European Union, 2019) in the energy transition. This regulation recognises the key role of long-term contracts to support decarbonisation and to shield suppliers and consumers from price volatility in light of the recent energy crisis that followed the Russian invasion of Ukraine.

The benefits of long-term contracts have also been emphasised in recent publications from the European Commission related to its approach towards competition policy:

- The revised Guidelines on Vertical Restraints published in 2022 (European Commission, 2022d) open the door to an evolution of the assessment of a long-term contract in the context of its potential contribution to sustainability objectives. The European Commission outlines a case in which a long-term contract might be appropriate and illustrates it with the example of a power generator that might not undertake a given investment without the predictability of revenues.

- The Guidelines on State Aid for climate, environmental protection and energy (European Commission, 2022e) published in 2022 outline that aid can be appropriate to ensure that an already existing economic activity is carried out in a sustainable manner. Following the COVID crisis and the passing of the Inflation Reduction Act in the United States, the European Commission released the Temporary Crisis and Transition State aid Framework (TCTF) (European Commission, 2023) which further relaxes the State Aid rules and allows to fast-assessment) is not fit for purpose and should eventually be reconsidered to allow fast development of long-term contracts – e.g., many contracts will not meet the market share and duration thresholds but still track the implementation of pre-approved State Aid schemes, in

particular for certain long-term contracts. This is aimed at guaranteeing a favourable environment for the development of clean generation and fostering the transition to a low-carbon economy in the face of the increased attractiveness of the United States and the challenged business environment after the COVID-19 pandemic and the ongoing cost of the energy crisis.

## Conclusion

In this paper, we argued that the evolution of the market and technology context as well as the EU energy policy objectives call for revisiting the overall assessment of long-term contracts from a competition policy point of view, given the likely titling of the balancing test toward the pro-competitive effects of these long-term contracts in many cases. Indeed, long-term contracts can generate efficiencies by fostering an efficient allocation of risks thereby supporting investments in capital-intensive clean technologies, electrification. Long-term contracts can also, in some cases, contribute to the coordination of different investments along the fragmented value chain, and, in the case where states are involved, can help ensure a credible long-term policy commitment to decarbonisation.

At the same time, long-term contracts are less likely to have material foreclosure effects of actual or potential rivals today compared to the initial stages of liberalisation, given the substantial development of upstream and downstream (regional) competition in many countries. Similarly, long-term contracts are less likely to dry up spot markets liquidity and to result in unfair terms for customers, which now have stronger buyer power with some large buyers and/or buying consortia of smaller consumers.

The Commission has recognised this new context and the importance of long-term contracts to achieve ambitious decarbonisation objectives in the recent new regulation on market design. The recent updates to the guidelines on vertical restraint and on state aid are also noticeable but fall short of providing specific guidance regarding the competition assessment of long-term contracts in this new context.

Whilst the existing framework and the balancing test of the pro- and anti-competitive effects of long-term contracts remain fit for purpose, we argue that the lack of specific guidance on the specific types of efficiencies in particular that may be taken into account may cause uncertainty for the market participants regarding the appreciation by competition authorities of the long-term contracts that are likely to multiply in future years. Further predictability in the outcome of the competitive assessment is required to support the development of long-term contracts and facilitate investment towards decarbonisation.

Indeed, the current safe harbour is narrow and insights from case law are not fully fit for purpose, although the general principles are appropriate. In particular, it would not cover long-term contracts with a duration above five years, which is a too-short horizon, or with incumbents, which may have an important role to play in the transition. This means that in most cases, the assessment of long-term contracts may

need to be carried out on a case-by-case basis, weighing the pro- and anti-competitive effects. In this respect, we conclude that future guidance from the Commission on how different dimensions of long-term contracts are likely to affect the outcome of the balancing test is needed. As highlighted in this paper, assessing the effects on competition of a long-term contract in the current context requires a comprehensive assessment of different factors affecting both pro- and potential anti-competitive effects. This raises a number of new challenges for competition authorities, both with regard to the evolution of the current balancing text framework and with regard to the specific types of efficiencies that should be accounted for and the specific methodologies and tools to be used to do so.

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