

# Closed distribution systems

Past, present and future



**Clean energy** for all Europeans

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# Closed distribution systems

## Past, present and future

### 1. Introduction

Within the various energy user systems, closed distribution systems (CDSs) represent a set of systems that have not been treated very much to date, but whose role may become increasingly important for the development of the competitiveness of industrial, tertiary and commercial energy systems. In particular, the recent Directive (EU) 2019/944 has renewed the definition of CDSs without major changes to its substance, but by setting the instrument in the context of the renewed energy market.

In order to develop the regulation of CDSs, which should include the possibility of also setting up new CDSs, it is useful to note that Italy has one of the most advanced CDS regulations in Europe.

The purpose of this study is to carry out a summary survey of the state of implementation of CDS in Italy since their initial definition, in order to recall the current regulatory arrangements with a view to laying the foundations for a subsequent new development of the CDS discipline. Although the study refers specifically to the Italian experience, the elements and considerations are well suited to their application at a general level.

### 2. Evolution of the definition of closed distribution system

#### 2.1 DCSs in the Directive 2009/72/CE

The definition of closed distribution system appears for the first time in European law with Directive 2009/72/EC. The main precondition for the establishment of a closed distribution system is that where such a system is used to ensure the optimal efficiency of an integrated energy supply requiring specific operational rules or where a closed distribution system is maintained primarily for the use of the system owner, it should be possible to exempt the distribution system operator from obligations that would constitute an unnecessary administrative burden due to the particular nature of the relationship between the distribution system operator and system users. Industrial, commercial or shared service sites, such as railway station buildings, airports, hospitals, large campsites with integrated facilities or chemical industry establishments may include closed distribution systems due to the specialised nature of their operation<sup>1</sup>.

What is considered by the above mentioned Directive outlines what are the profiles of the particular network regime constituted by closed distribution systems; more in detail, the Directive limits the scope of closed distribution systems to cases where the system distributes electricity within an industrial, commercial site or geographically limited shared services when:

- it is necessary to ensure the optimal efficiency of an integrated energy supply that requires specific operational standards;
- the system is maintained primarily for the use of the system owner.

The precise definition of a closed distribution system is referred to in Article 28 of the aforementioned Directive.

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<sup>1</sup> Whereas (30) of the Directive 2009/72/EC.

## **Articolo 28 – Closed distribution systems**

*1. Member States may require national regulatory authorities or other competent authorities to classify as a closed distribution system a system which distributes electricity within a geographically limited industrial, commercial or shared services site and, subject to paragraph 4, does not supply household customers, if:*

- a) for specific technical or safety reasons, the operations or production process of the users of the system in question are integrated, or*
- b) the system distributes electricity primarily to the owner or operator of the system or their related undertakings.*

The Citiworks judgment of the Court of Justice of the European Communities (Case C-439/06) played a central role in generating the definition of TDI in the Directive<sup>2</sup> as a result of which, the European Commission considered it appropriate to provide for the possibility for Member States to exempt certain systems from the application of the general rules on distribution systems in order to avoid unnecessary administrative burdens: such are the systems where the nature of the relationship between the distribution system operator and system users is very different from that commonly found for the "public" network.

But on the basis of what criteria is it possible to classify a distribution system as "closed"? These criteria are set out in Article 28(1) of the Directive.

- The first point is that the closed distribution system must be located on a geographically limited site<sup>3</sup>. This distinguishes it from the general public network. It also means that it would not be possible, in general, for users located outside the site to be connected to the closed distribution system.
- Secondly, the site should be an industrial, commercial or shared service site. As already mentioned, several examples of such sites, including hospitals and chemical industry sites, are given in recital (30) of the said Directive. The site does not need to have a commercial function, as indicated by the inclusion of hospitals among the examples, but the site cannot be used to supply domestic customers. Incidental use by a household is covered by Article 28(4). Only incidental use of the closed distribution system by households having an employment or similar relationship with the owner of the site is compatible with the classification of the system as a closed distribution system. In particular, the total number of households shall be small. The definition of what constitutes a relationship similar to an employment relationship depends on

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<sup>2</sup> In Citiworks, the Court was asked whether the obligation imposed on Member States by Article 20(1) of Directive 2003/54/EC (4 ), now Article 32(1) of Directive 2009/72, to ensure that free access to transmission and distribution systems is provided (5 ) applies to a system which supplies electricity only to its operator, the managing body of Leipzig/Halle airport, and 93 other undertakings established in the area of that airport. The Court found, first, that that system was to be regarded as a distribution system because Directive 2003/54 did not lay down conditions relating to the size of the system or to electricity consumption. Second, the Court held that Article 20(1) of Directive 2003/54 was applicable to the system in question because free access by third parties to the distribution system was one of the essential measures which the Member States were required to implement in order to complete the internal market in electricity, and that system did not fall within the scope of any exception or derogation from the obligation to provide free access laid down in Directive 2003/54. Following the Court's judgment in the Citiworks case, there was increased concern that the requirements laid down in Directive 2003/54 were too burdensome for distribution system operators such as the one at issue in that judgment. Therefore, Directive 2009/72 introduced the notion of 'closed distribution systems', whose operators are entitled to exemption from certain obligations under that Directive.

<https://eur-lex.europa.eu/legal-content/IT/TXT/?uri=CELEX:62017CC0262>

European Court of Justice Opinion of Advocate General E. Tanchev, delivered on 13 September 2018

<sup>3</sup> Due to the fact that they operate on confined geographical sites serving only non-domestic customers, CDSs will have no more than 100,000 customers, Member States will therefore be allowed to apply the provisions of Article 26(4) of the Electricity and Gas Directives, which allow Member States not to require such TSOs to be unbundled.

the precise circumstances, in particular the historical relationship between the owner and the users of the system, e.g. when a company that has developed a distribution system exclusively for its own operations subsequently splits into several separate companies.

Finally, the site must meet one of the two additional criteria set out in Article 28(1) in order to be classified as a closed distribution system. These are:

- (1) for specific technical or security reasons, the operations or production process of the system users are integrated; or
- (2) the system mainly distributes electricity to the owner or operator of the system or to the relevant undertakings.

In relation to the last two criteria mentioned, the Commission itself provides some useful clarifications, in particular:

- criterion (1) captures situations where several companies jointly use a distribution system that optimises an integrated energy supply or requires specific technical, safety or operational standards. This is particularly common in industrial sites where, for example, heat generated from electricity generation is used in the production process of other system users. Another reason could be where site users need to operate with different standards of reliability than those that apply to the public grid, e.g. in relation to frequency. The interrelation between the operations of users of such systems means that it should be possible for them to reach an agreement to ensure that the externalities associated with their operations are duly taken into account. It is for Member States to define precisely the circumstances in which this criterion would be met;
- criterion (2) allows an amended regulatory regime to be established where an undertaking has allowed users to connect to a system developed for the undertaking's own use.

An important point to note is that closed distribution systems are distribution systems and do not constitute a new and separate category of systems. Therefore, the general obligations that apply to public distribution system operators also cover CDSs operators. In particular, the obligation to grant third party access to the system also applies to CDSs.

## 2.1 CDSs in the Directive (EU) 2019/944

The definition of closed distribution system has also been taken over by Directive (EU) 2019/944 using in practice the same conditions already defined by the previous Directive and introducing new conditions as well as clarifying that such systems are to all intents and purposes distribution networks. More specifically, Article 38 of the above mentioned Directive provides that Member States may provide that regulatory or other competent authorities may classify as a closed distribution system a system which distributes electricity within a geographically limited industrial, commercial or shared services site and, subject to certain special conditions (mentioned in paragraph 4 of the above mentioned Article 38), may also classify as a closed distribution system a system which distributes electricity within a geographically limited industrial, commercial or shared services site and, subject to certain special conditions (mentioned in paragraph 4 of the above mentioned Article 38)<sup>4</sup> doesn't supply civilian customers if (a) for specific technical or security reasons, the operations or production process of the users of that system are integrated or (b) the system mainly distributes electricity to the owner or operator of the system or to their related undertakings. Furthermore, as mentioned above, the Directive

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<sup>4</sup> The accidental use by a limited number of households employed by, or linked to, the owner of the distribution system and located in the area served by a closed distribution system shall be without prejudice to the granting of the exemptions referred to in paragraph 2.

provides that closed distribution systems shall be considered as distribution systems and may be exempted by the regulatory authorities from the following set of obligations:

- a) the obligation referred to in Article 31(5) and (7) to acquire the energy it uses to cover energy losses and ancillary non-frequency services of its system in accordance with transparent, non-discriminatory and market-based procedures;

*Article 31 - Tasks of distribution system operators*

*5. Each distribution system operator shall act as a market-neutral facilitator in purchasing the energy it uses to cover energy losses in its system according to transparent, non-discriminatory and market-based procedures, when fulfilling this function.*

*7. In carrying out the tasks referred to in paragraph 6<sup>5</sup>, the distribution system operator shall procure the non frequency ancillary services necessary for its system according to transparent, non-discriminatory and market-based procedures, unless the regulatory authority has assessed the market-based provision of non frequency ancillary services as not being economically inefficient and granted a derogation. The obligation to acquire non-frequency ancillary services shall not apply to fully integrated network components..*

- b) the obligation under Article 6(1) to ensure that tariffs, or the methodologies underlying their calculation, are approved in accordance with Article 59(1)<sup>6</sup>, before their entry into force;

*Article 6 - Third party access*

*1. Member States shall ensure the implementation of a system of third party access to transmission and distribution systems based on published tariffs, applicable to all customers, and applied objectively and without discrimination between system users. Member States shall ensure that tariffs, or the methodologies underlying their calculation, are approved in accordance with Article 59 prior to their entry into force and that tariffs and methodologies, where only the latter have been approved, are published prior to their entry into force.*

- c) the obligation referred to in Article 32(1) to acquire flexibility services and the obligation referred to in Article 32(3) to develop its system on the basis of network development plans;

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<sup>5</sup> Where a distribution system operator is responsible for acquiring products and services necessary for the efficient, reliable and secure operation of the distribution system, rules adopted by the distribution system operator for that purpose shall be objective, transparent and non-discriminatory and shall be developed in coordination with transmission system operators and other relevant market participants. The terms and conditions, including rules and tariffs where applicable, for the supply of such products and the provision of such services to distribution system operators shall be established in accordance with Article 59(7) in a non-discriminatory and cost-reflective manner and shall be published.

<sup>6</sup> Article 59, Tasks and powers of regulatory authorities - The regulatory authority shall have the following tasks: [...] to establish or approve, on the basis of transparent criteria, transmission or distribution tariffs or the methodologies underlying their calculation, or both.

*Article 32 - Incentives for the use of flexibility in distribution networks*

*1. Member States shall define the regulatory framework necessary to enable and encourage distribution system operators to acquire flexibility services, including congestion management in their areas, in order to operate and develop the distribution system more efficiently. In particular, the regulatory framework shall ensure that distribution system operators are able to procure such services from providers of distributed generation, demand management or energy storage and shall promote the adoption of energy efficiency measures when such services reduce in a cost-effective manner the need to increase or replace electricity capacity and facilitate the efficient and secure operation of the distribution system. Distribution system operators shall procure such services in accordance with transparent, non-discriminatory and market-based procedures, unless the regulatory authorities have determined that the acquisition of such services is not economically efficient or would lead to market distortions or increased congestion.*

*3. The development of a distribution system shall be based on a transparent network development plan which the distribution system operator shall publish at least every two years and submit to the regulatory authority. The network development plan shall provide transparency regarding the necessary medium and long-term flexibility services and specify the planned investments for the next five to ten years, in particular the main distribution infrastructure needed to connect new generation capacity and new loads, including charging points for electric vehicles. The network development plan shall also cover the use of demand management, energy efficiency, energy storage facilities or other resources that the distribution system operator uses as an alternative to system expansion.*

- d) the obligation referred to in Article 33(2) not to own, develop, operate or operate charging points for electric vehicles;

*Article 33 - Integration of electromobility into the electricity grid*

*2. Distribution system operators may not own, develop, operate or operate charging points for electric vehicles, except where distribution system operators own private charging points exclusively for their own use.*

- e) the obligation referred to in Article 36(1) not to own, develop, operate or operate energy storage facilities.

*Article 36 - Ownership of energy storage facilities of distribution system operators*

*1. Distribution system operators may not own, develop, operate or maintain energy storage facilities.*

Where an exemption is granted under paragraph 2, the applicable tariffs, or the methodologies underlying their calculation, shall be reviewed and approved in accordance with Article 59(1) of Directive (EU) 2019/944 at the request of a user of the closed distribution system.

### 3. CDSs in Italy

#### 2.1 The transposition of the Directive 2009/72/EC

In Italy, Directive 2009/727 EC was implemented by Legislative Decree no. 93/2011 which, in relation to closed distribution systems, established the following:



**Closed distribution system (pursuant to Legislative Decree no. 93/2011<sup>7</sup>)**

« Without prejudice to the rules relating to efficient user systems as per article 2, paragraph I, letter t), of Legislative Decree no. 115 of 2008<sup>8</sup>, closed distribution systems are internal user networks as defined in Article 33 of Law No 99/2009 of 23 July 2009 and other private electricity networks defined in accordance with Article 30(27) of Law No 99/2009.<sup>9</sup> (...)».

CDSs include the internal user networks (IUN – RIU in Italian) that were previously defined by Law No 99/2009 (see Article 33 of that Law)

**Internal user network**

"An internal user network (IUN-RIU) is defined as an electricity network whose layout complies with all the following conditions:

- a) it is a network existing at the date of entry into force of this law (Aug. 15<sup>th</sup>, 2009), or it is a network for which, on the same date, construction work has been started or all the authorizations provided for by current legislation have been obtained;
- b) it connects industrial consumption units, i.e. it connects industrial consumption units and electricity production units functionally essential for the industrial production process, provided that they are included in areas insisting on the territory of no more than three adjacent municipalities, or of no more than three adjacent provinces only if the production units are powered by renewable sources;
- c) is a grid not subject to the obligation to connect third parties, without prejudice to the right of each party included in the same grid to connect, as an alternative to the grid with the obligation to connect third parties;
- d) it is connected via one or more connection points to a grid with a third party connection obligation at a nominal voltage of not less than 120 kV;
- (e) it has a responsible person acting as the sole operator of the same network. This person may be different from the holders of the consumption or production units, but may not hold electricity transmission and dispatching or distribution concessions".

In practice, to say that CDSs other than RIUs are the other private networks that meet the definition of CDSs - the other CDSs (ASDC) - means to include in the list of CDSs also the other aforementioned private networks existing, however, on the date of entry into force of the law that established the criteria for the identification of the same CDSs, i.e. August 15, 2009.

<sup>7</sup> Article 38, paragraph 5, of Legislative Decree No 93/2011

<sup>8</sup> Efficient user system (SEU): system in which one or more electricity production plants powered by renewable sources or in high-efficiency cogeneration, managed by the same producer, possibly different from the final customer, are directly connected, through a private connection without the obligation to connect third parties, to the consumption unit of a single final customer (natural or legal person) and are made within an area, without interruption, net of roads, railways, watercourses and lakes, owned or at the full availability of the same customer and partly made available to the manufacturer or owners of the relevant production equipment.

<sup>9</sup> In order to guarantee and improve the quality of the electricity service to end customers connected, through private networks with possible internal production, to the national electricity system referred to in Article 2 of Legislative Decree no. 79 of 16 March 1999, the Ministry of Economic Development shall determine, within one hundred and twenty days of the date of entry into force of this law, new criteria for defining the relationships between the network operator, the distribution companies under concession, the owner of the private networks and the end customer connected to these networks. The Electricity and Gas Authority (now ARERA) is in charge of implementing the above criteria in order to reconcile and safeguard the rights acquired, also with reference to the need for a rational use of existing resources.



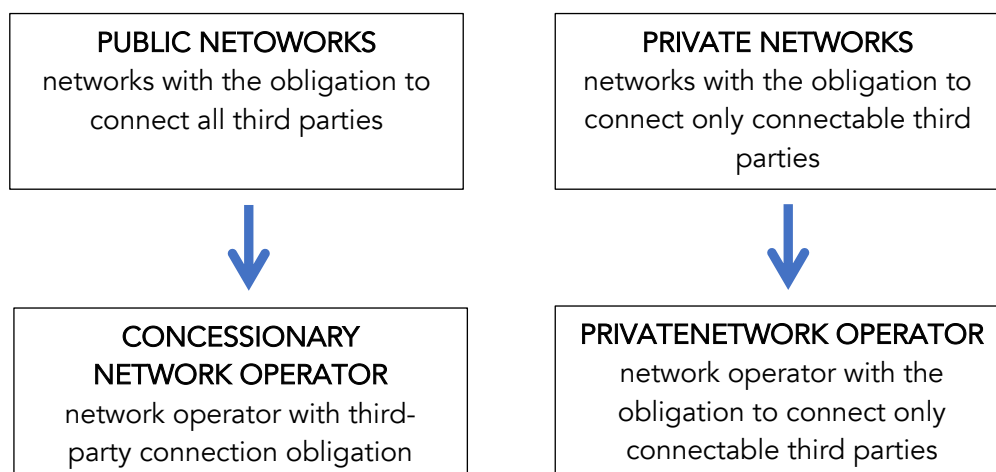
The general definition of a closed distribution system is provided by the Regulatory Authority for Energy, Networks and Environment (ARERA) in Annex A to Resolution 539/2015/R/eel (containing the integrated text of closed distribution systems - TISDC):

*"Closed distribution service (CDS) is a private electricity network, which distributes electricity within a geographically limited industrial, commercial or shared services site and which, except in the cases referred to in Article 6(6.1) of the TISDC, does not supply civil customers. This system, in the ownership and management of parties other than Terna and the concessionary distribution companies, is characterised by the fact that, for specific technical or security reasons, the operations or production process of the users of the system in question are integrated or by the fact that it distributes electricity mainly to the owner or operator of the system or to their related companies. The set of TDIs can be divided into the following two sub-sets: internal user networks (RIU) and other CDSs (ASDC)"*.

On the defining issue, with particular reference to the role of CDSs and the type of network associated with them, ARERA recently intervened with resolution 558/2019/R/eel. With this resolution, the ARERA intended to clarify the scope of the distinction of the roles of the networks previously divided simply between public and private networks by clarifying, in particular, that both these networks have an obligation to connect third parties.<sup>10</sup>, the former, like the ASDCs, are 'networks with the obligation to connect only connectable third parties', while the distribution networks operated by the licensee operators referred to in Article 9 of Legislative Decree 79/99 are 'networks with the obligation to connect all third parties'.

For the definition of a connectable third party it is necessary to refer to a territorial principle (the only users that may arise within the territorial perimeter in which the CDS network is located and functional (according to the principles expressed by the definition of CDS).

In view of the above, the ARERA has further specified the taxonomy of the networks by distinguishing them according to the following.



With regard to the limitation of the recognition of the CDS condition to existing systems only, the ARERA, in Resolution No. 558/2019/R/eel, expressly referred to the fact that Law No. 99/09 does not seem to provide for new private networks, referring to the transposition into national law of EU legislation on the subject; similarly, Article 38 of Legislative Decree No. 93/11, which limits itself to identifying CDSs only with the private networks referred to in Law No. 99/09, does not explicitly mention the possible creation of new CDSs, while Directive No. 2009/72/EC does not set any time constraints in this regard. It is therefore made clear that the abovementioned limitation is the result of a precise choice

<sup>10</sup> The third party access obligation translates into practice a general principle of Community derivation in the field of distribution (so-called third party access - TPA) according to which each party connected to a network can choose its seller on the free market.

made by the Italian legislature, since European legislation does not impose such a condition. As is well known, the aforesaid transposition will have to be overcome by 31 December 2020 by the transposition of Directive (EU) 944/2020 and this could be an opportunity to overcome the aforesaid limitation by providing the conditions for the development of new CDSs (see prg. 4 below).

## 2.1 Tariff benefits

Tariff benefits are currently associated with the management regime of a TDI as set out below.

- (2009) The RIU definition law initially stipulated that, as a general rule, system charges were to be paid on the entire consumption, except for RIUs where the variable components (energy share) of the fees to cover system charges were to be paid in relation to the only energy exchanged by RIU with the public grid.
- (2014) In 2014, Decree-Law No 91/2014 converted into Law No 116/2014 rationalised the previous provisions by establishing that the general system for the payment of system charges is that for which they must be applied to consumption in any case supplied. In the case of internal user networks and SEUs (and equivalent systems), which entered into operation by December 31, 2014, the fees covering general system charges, limited to the variable parts, are applied to electricity consumed and not taken from the grid, at a rate equal to 5% of the corresponding unit amounts due on the energy taken from the grid. Thus, the system exemption from payment of charges on self-consumed energy for permitted systems is no longer total, but partial.
- (2017) Law No. 19 of 27 February 2017 converting Decree-Law No. 244 of 30 December 2016 consolidated the new system for the payment of general system charges (currently in force). More specifically, the system for the payment of general charges, which, under the previous system in force until 31 December 2016, had to be paid by customers on the basis of consumption regardless of whether or not they were self-produced internally, was amended. This general regime did not apply, as already mentioned in the previous point, to particular cases such as internal user networks and efficient user systems, for which the rule was that the abovementioned tariff fees should be applied only to electricity withdrawn from the network (which entailed considerable economic savings in the case of self-production) unless a share of the contribution on consumption corresponding to only 5% of the total was paid. Under the new regime, it was established that these tariff charges should only be applied to the withdrawal of electricity from the grid, whatever the system of production and consumption, establishing this as a general regime and no longer as a specific one. It should be noted that the rule has not changed the types of systems that can be implemented, but has only intervened to establish how the system is called to cover general charges.

As a consequence of the last of the previous points and as clarified by the ARERA with resolution 276/2017/R/eel:

- The system of applying network and system charges to electricity withdrawal alone applies in general to all existing systems that consume electricity on their own, it being understood that new systems can in practice only be set up on an SEU basis. As the national transposition of the definition of CDSs was limited to systems existing on 15 August 2009, no new CDS could be set up.
- The exemption scheme on self-consumption for CDSs was extended not only to the CDSs but also to the 'other private electricity networks defined pursuant to Article 30(27) of Law No

99/2009', i.e. to other CDSs other than the CDSs (ASDC) existing on 15 August 2009 and referring only to the configuration and territorial scope identifiable on that date.

## 2.1 Applicable regulation

The methods of regulation of CDSs are defined at national level by resolution ARERA 539/2015/R/eel<sup>11</sup>. In a nutshell, each user of a CDS (a user that can be connected or connected to a CDS, i.e. an electricity producer user or a consumer falling within the industrial, tertiary or civil sector under certain conditions and falling within the criteria of functionality and territoriality of a CDS) is connected to what is recognised as a distribution network. This user, through the CDS, is directly connected to the market, the only difference being that the transport service for the physical delivery of the electricity purchased or for the delivery to the electricity system of the electricity produced and possibly fed into the grid is provided by the CDS operator and the tariffs for connection to and use of the grid are defined independently by the CDS operator.

### 2.1.1 Methods of procurement contracts

The regime for the operation of a TDI requires that exchanges of energy with the TDI network are regulated economically in the same way as exchanges of electricity with any distribution network.

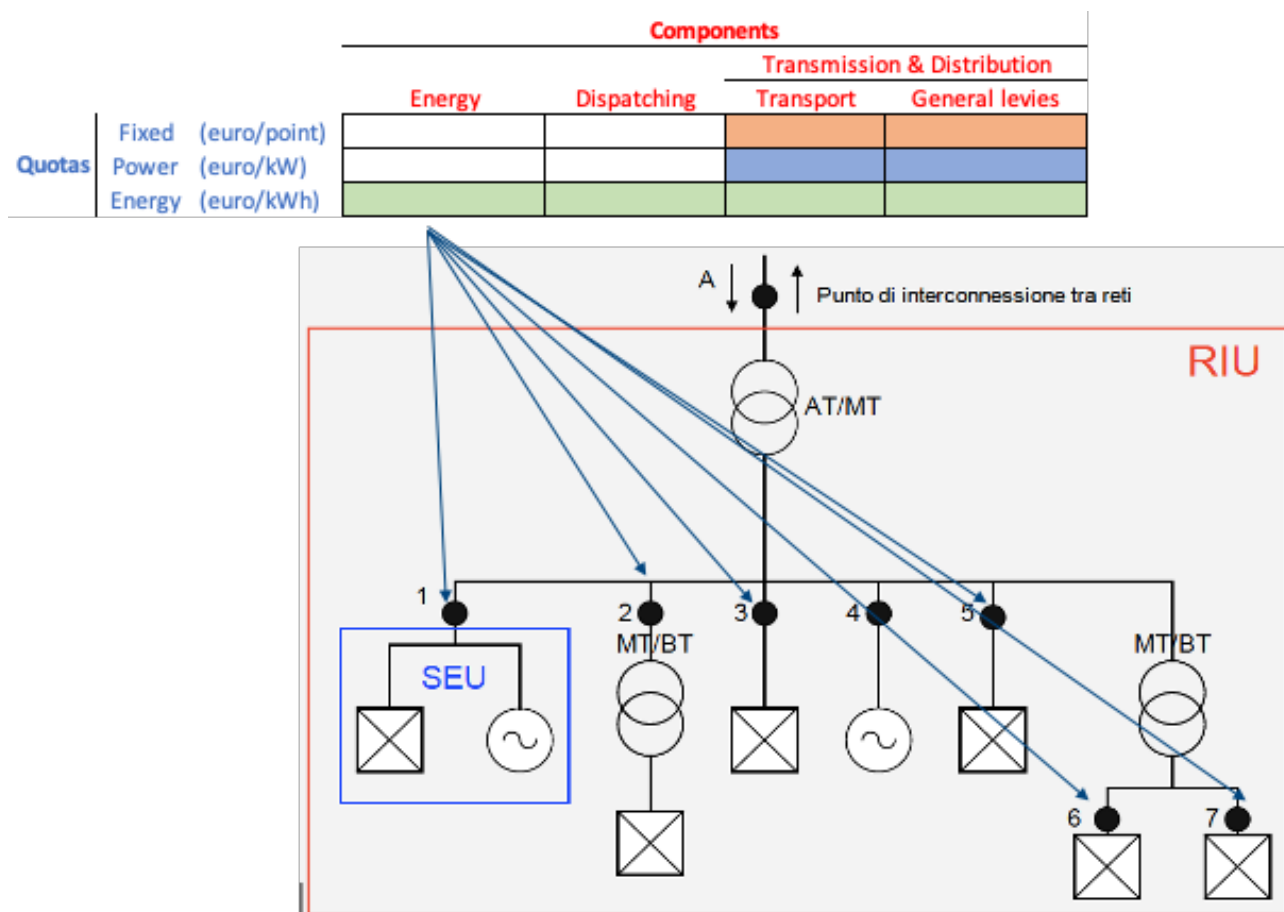
The following table summarises the items of electricity supply broken down into its main components and the quotas forming each component.

			Components			
					Transmission & Distribution	
			Energy	Dispatching	Transport	General levies
Quotas	Fixed	(euro/point)				
	Power	(euro/kW)				
	Energy	(euro/kWh)				

### Energy component

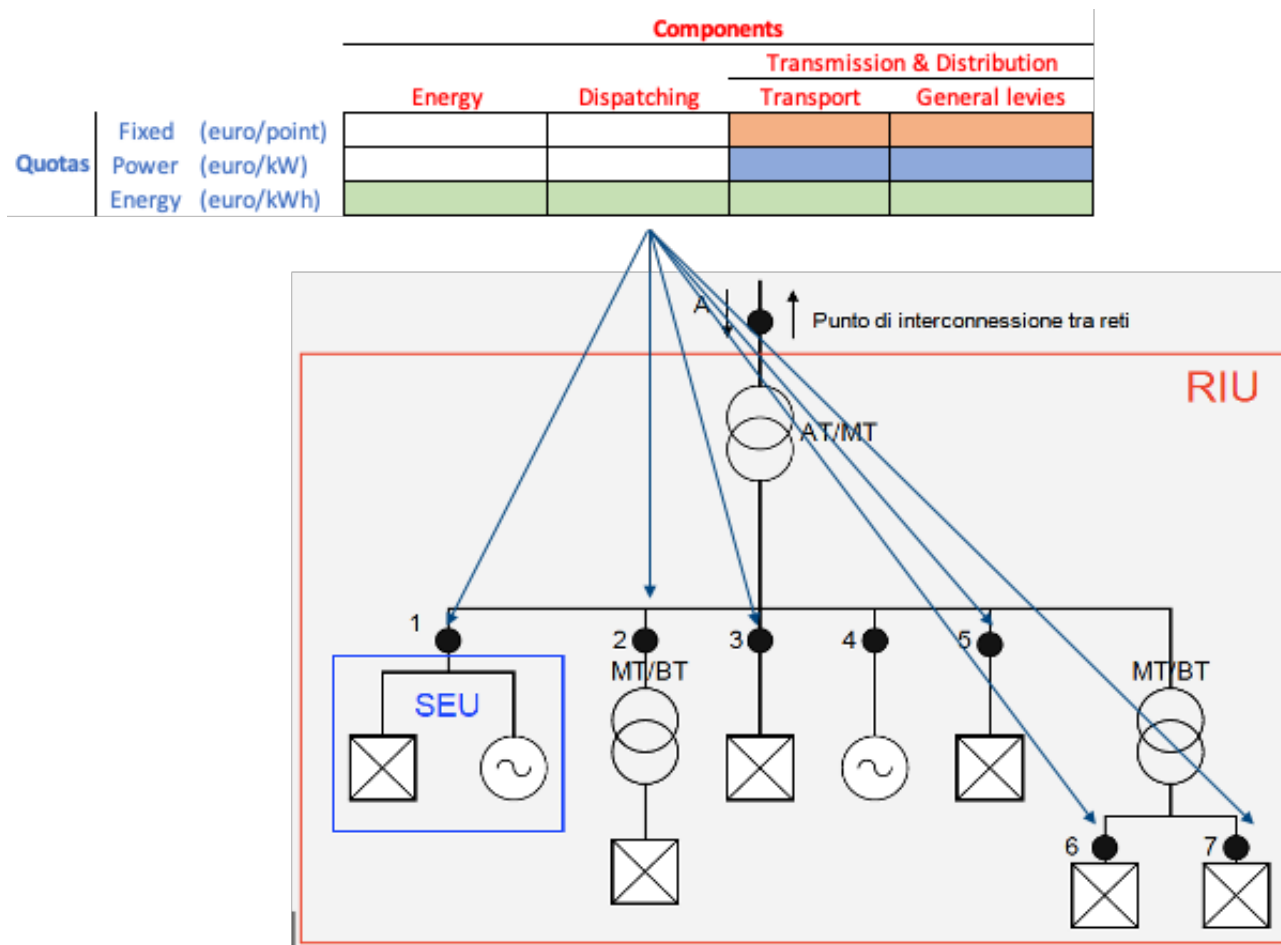
The energy component is invoiced by the sales company in the market on the basis of the electricity exchanged with the network (of the CDS) at each point of connection of the various users with the network of the CDS on a par with any user connected to an electricity distribution network operated by a concessionaire.

<sup>11</sup> <https://www.arera.it/it/docs/15/539-15.htm>



### Dispatching component (uplift component)

The dispatching component is adjusted in the same way as for electricity.



With regard to the way in which dispatching regulations are regulated, a dispute is still in progress, which is in opposition to the choice of the ARERA to adopt the aforementioned regulations; in essence, the operators argue that the uplift charge should be applied only to the electricity exchanged by the CDS with the network to which the CDS is connected and that the economic effect of this regulation should be distributed among the various users in proportion to their withdrawal of electricity from the CDS network.<sup>12</sup> The European Court of Justice also ruled on this dispute on 28 November 2018, but did not take a precise and definitive position on the matter, referring the final judgment to the national court and stating that "Articles 15(7) and 37(6)(b) of Directive 2009/72 must be interpreted as meaning that, in the absence of objective justification, they preclude national legislation such as that at issue in the main proceedings, which provides that the dispatching charges payable by users of a closed distribution system are to be calculated on the electricity exchanged with that system by each of the users of that system through the point at which their users connect to that system, where it is established, which is a matter for the national court to determine, that users of a closed distribution system are not in the same situation as other users of the public network and that the provider of the public network dispatching service bears limited costs in relation to those users of a closed distribution system."

The question of how the dispatching charges are to be applied is therefore still pending, and pending the decision of the national court, what is stated at the beginning of this paragraph applies.

<sup>12</sup> Ref. [http://www.enusyst.eu/documents/Energy\\_user\\_system\\_V.0.pdf](http://www.enusyst.eu/documents/Energy_user_system_V.0.pdf)

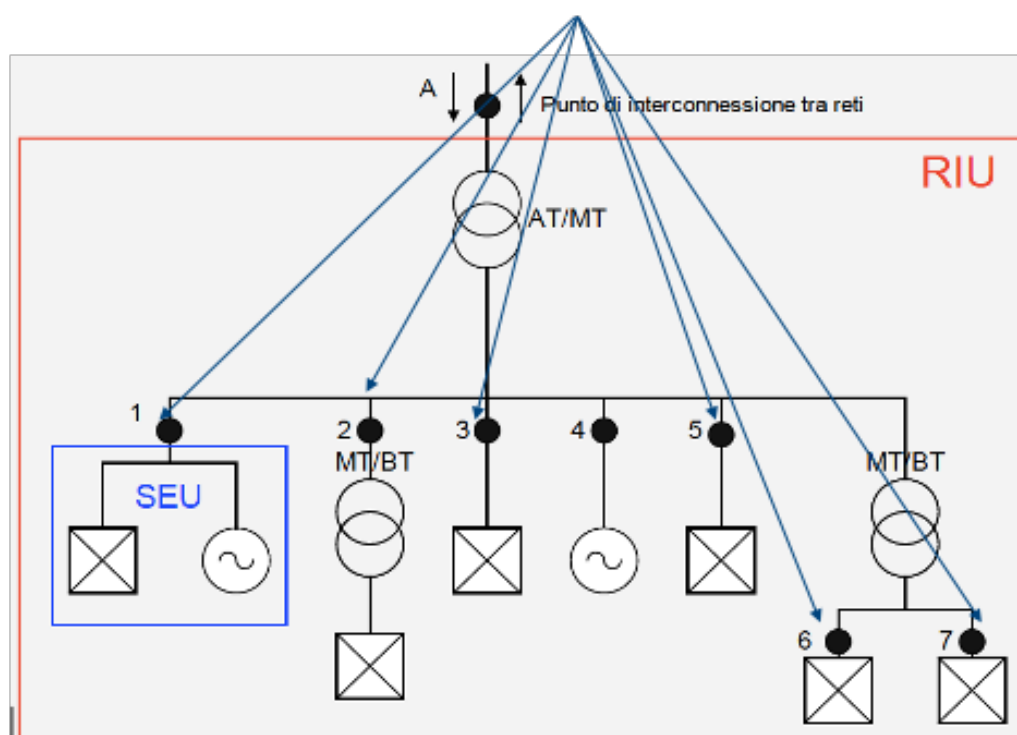
### Definition of tariffs for access and use of a TDI network

The tariffs for access to and use of the CDS are defined independently by the CDS operator and do not need to be approved in advance by the national regulatory authority. The CDS operator takes them into account when defining them:

- the fact that, as a distributor, it will be obliged to regulate the transmission service with the system operator to which it is interconnected by reason of the electricity flowing from this network into its network (the regulation in this case is part of the framework of rules and charges defined by the authority and applicable to network operators);
- the costs incurred in transporting energy from the point of interconnection to the individual points where users connect to their own network

		Components			
		Energy	Dispatching	Transmission & Distribution	
				Transport	General levies
Quotas	Fixed (euro/point)				
	Power (euro/kW)				
	Energy (euro/kWh)				

Defined by  
CDS operator

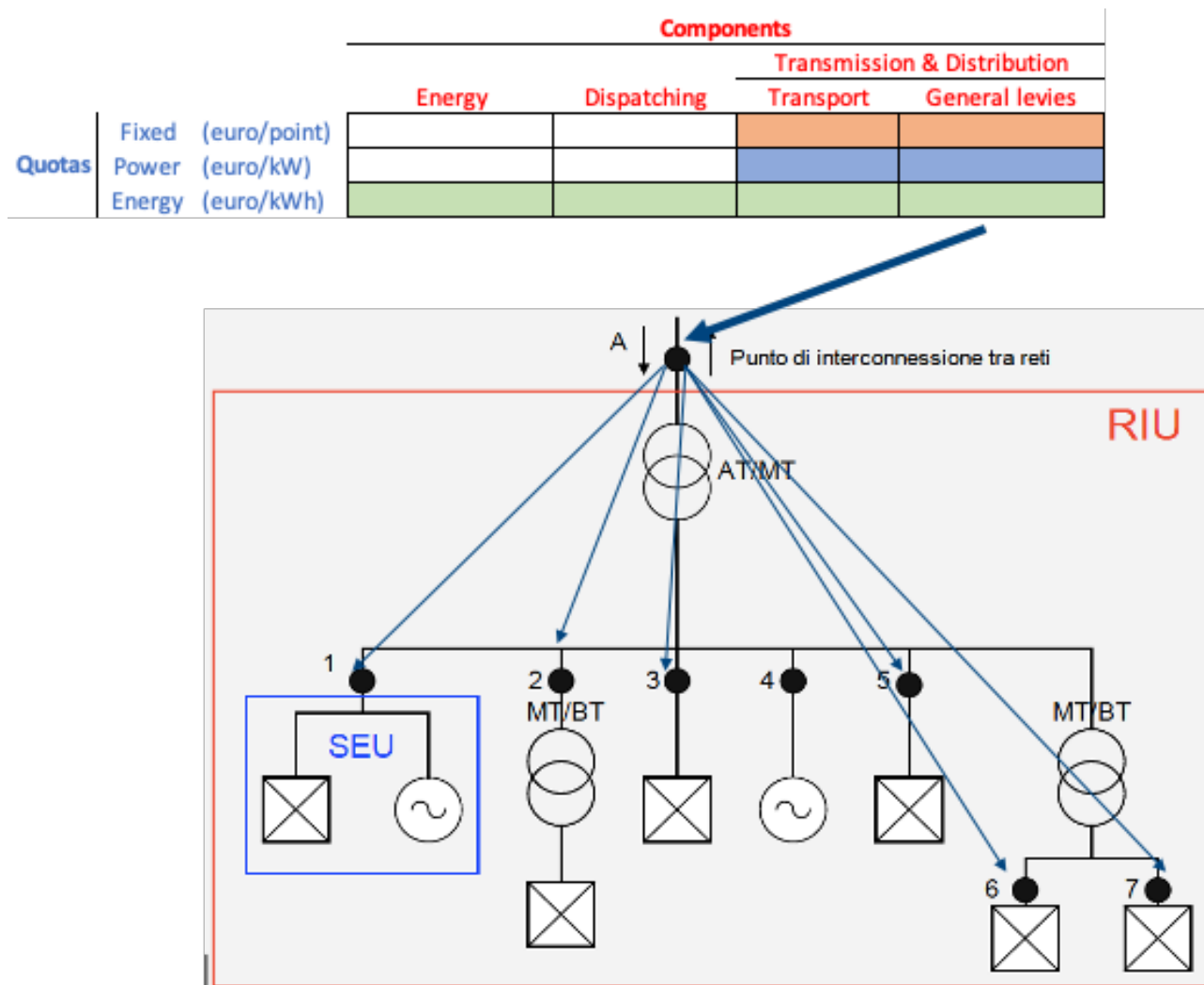


### Internal production regime

The internal production it feeds into the TDI network is treated on an equal footing with any production it feeds into a third-party-connected network operated under concession: the feeds are in fact regulated at the wholesale market selling price.

### Application of general system levies

Contrary to the other components mentioned above, system charges are instead regulated according to the parameters of the energy exchange at the interconnection point so that, at least as far as the energy share of this component is concerned, a tariff benefit corresponding to the level of production within the CDS that is physically self-consumed within the system itself is realised.



By applying such rules, the benefit of the TDI is, in principle, allocated entirely to the users of the CDS. The CDS operator is entitled, in agreement with the users, to allocate this benefit so that it can then be reallocated to production as is normally the case in any production and self-consumption system.<sup>13</sup>

## 2.2 Role and tasks of a CDS operator as a distributor

The operator of the CDS is assigned practically all the tasks of a distributor, including the following:

- the obligation to connect all connectable users who request it and to manage all our electricity transport contracts;
- the obligation to allow all users to have free access to the market also directly, i.e. through the establishment of a new connection point with the concessionary network operator by territorial

<sup>13</sup> In this breakdown as well as in the definition of the internal tariff system of a CDS, it is good practice not to take discriminatory decisions.



area; in this context the CDS operator has the obligation to make its infrastructure available in order to be able to carry out this type of access if the network operator and concessionaire is unable to make a direct physical connection;

- the responsibility for the installation and management of measuring equipment and flows to determine all the quantities underlying the market settlement and services. In this context, it should be remembered that the treatment of measures within a CDS must always be done on hourly basis;
- the obligation to interface with the Integrated Information System (IIS) of the Single Buyer in order to manage the information flows underlying the aforementioned settlement processes (with the transmission of the measurements), the switching processes on the market, as well as all user management;
- the obligation to pay to Cassa Servizi per Energia e Ambiente (CSEA) the system charges collected from transport users.

## 2.3 Applicable unbundling regime

For the purposes of unbundling discipline, the operator of a CDS is treated as an electricity distribution service operator with less than 5,000 withdrawal points.

## 2.4 Current state of consistency of CDSs

The current status of CDSs can be defined on the basis of the TDI list compilation processes carried out by ARERA, in particular by<sup>14</sup>:

- Resolution 426/2018/R/eel of 02 August 2018 with regard to internal user networks (RIU);
- Resolution 558/2019/R/eel of 19 December 2019 with regard to TDIs other than internal user networks (ASDC).

(RIU)

Registro Reti Interne di Utenza				
Codice Distributore	Gestore della RIU	Partita IVA	Indirizzo del dichiarante	Collocazione rete
707	Enomondo S.r.l.	02356350393	Via Convertite 6, Faenza (RA)	Faenza (RA)
708	Chemisol Italia Srl	01938500129	Via Sempione 13, Castellanza (VA)	Castellanza (VA), Olgiate Olona (VA)
710	Consorzio P.I.CHI. S.c.a.r.l.	07350480013	Via Caluso 50, Chivasso (TO)	Chivasso (TO)
713	Novareti S.p.A.	01405600220	Via Manzoni 24, Rovereto	Rovereto (TN)
714	Edison S.p.A.	08263330014	Foro Buonaparte 31, Milano	Torviscosa (UD)
715	Edison S.p.A.	08263330014	Foro Buonaparte 31, Milano	Torviscosa (UD)
716	Enipower Mantova S.p.A.	13193030155	Via G. Tallercio 14, Mantova	Torviscosa (UD)
718	Enipower S.p.A.	12958270154	Strada della Corradina, Ferrera Erbognone (PV)	Mantova, San Giorgio (MN), Bigarello (MN)
720	Enipower S.p.A.	12958270154	Via E. Fermi 4, Brindisi	Ferrera Erbognone (PV), Sannazzaro de' Burgondi (PV), Pieve Albignola (PV)
721	Enipower S.p.A.	12958270154	Via Baiona 107, Ravenna	Brindisi
722	ERG Power Generation S.p.A.	01440590899	Via De Marini 1, Genova	Ravenna
723	Ferrania Technologies SpA	01417260096	Viale della Libertà 57, Cairo Montenotte (SV)	Priolo Gargallo (SR), Melilli (SR)
732	WECCO S.p.A.	09709770011	Via Puglia 35, Torino	Cairo Montenotte (SV)
736	FCA Italy S.p.A.	07973780013	Corso G. Agnelli 200, Torino	Torino "Iveco Stura"
744	AFERPI S.p.A.	01804670493	Largo Caduti sul Lavoro 21, Piombino (LI)	Torino "Mirafiori"
745	NGP Utilità S.r.l.	06206660968	C.da Pagliarone, Acerra (NA)	Piombino (LI)
747	Nuova Solmine S.p.A.	01420420067	Località Casone, Scarlino (GR)	Acerra (NA)
749	Ottana Energia S.p.A.	13356620156	Strada Prov. 17 - km 18, Ottana (NU)	Scarlino (GR)
752	Raffineria di Gela S.p.A.	06496081008	C.da Piana del Signore, Gela (CL)	Ottana (NU)
754	Solvay Chimica Italia S.p.A.	00104340492	Via Piave 6, Rosignano (LI)	Gela (CL)
755	Sarlux S.r.l. - Impianti Nord	02093140925	SS Sulcitana 195 - km 19, Sarroch (CA)	Rosignano Marittimo (LI)
756	Sarlux S.r.l. - Impianti Sud	02093140925	SS Sulcitana 195 - km 19, Sarroch (CA)	Sarroch (CA)
757	Sasol Italy S.p.A.	04758570826	Via Vittor Pisani 20, Milano	Sarroch (CA)
758	Avio S.p.A.	05515080967	Via Latina snc (SP600 Ariana - km 5,2) Colleferro (RM)	Augusta (SR)
759	S.E.F. S.r.l.	13212410156	P.le Donegani 12, Ferrara	Artena (RM), Colleferro (RM), Segni (RM)
760	Società Chimica Bussi S.p.A.	01451960494	Piazzale Elettrochimica 1, Bussi sul Tirino (PE)	Ferrara
764	Tampieri Energie S.r.l.	02062760398	Via Granarolo 102, Faenza (RA)	Bussi sul Tirino (PE)
765	Tecnoparco Valbasento S.p.A.	00523220770	Via Pomarico snc, Pisticci Scalo (MT)	Faenza (RA)
769	Unilever Italia Manufacturing S.r.l.	06397540961	Via Paolo di Dono 3/A, Roma	Pisticci (MT)
770	Versalis S.p.A.	01768800748	Piazza Boldrini 1, San Donato Milanese (MI)	Casalpusterengo (LO)
771	Versalis S.p.A.	01768800748	Piazza Boldrini 1, San Donato Milanese (MI)	Venezia
773	Zignago Power S.r.l.	03849180272	Via Ita Marzotto 8, Fossalta di Portogruaro (VE)	Porto Torres (SS)
774	Covestro S.r.l.	03599730961	Via Ludovico di Breme 13, Milano	Fossalta di Portogruaro (VE)
				Filago (BG)

<sup>14</sup> The first list of private electricity networks qualified as RIU was initially defined with Table 1 attached to Resolution ARG/elt52/10. This list, after the entry into force of the TISDC, has been included in the RIU Register which, over the years, has been amended and supplemented several times, most recently by Resolution 426/2018/R/eel and Resolution 269/2019/R/eel. The Register of ASDCs was published for the first time with resolution 530/2018/R/eel and was integrated with subsequent resolutions 613/2018/R/eel, 680/2018/R/eel and 269/2019/R/eel; resolution 558/2019/R/eel makes a further update. All the resolutions can be downloaded by [www.arera.it](http://www.arera.it)

Registro degli ASDC					
Codice Distributore	Nome ASDC	Ragione sociale gestore ASDC	Partita IVA gestore ASDC	Indirizzo gestore ASDC	Collocazione rete ASDC
607	Condominio Industriale Area ex 3M	BST S.p.A.	02528120617	Via Caduti della Liberazione 21040 Uboldo (VA)	San Marco Evangelista (CE)
610	Eco & Power Ambrosiana	Eco & Power Ambrosiana S.r.l.	08083040017	Via Ponchielli Amicare, n. 7 20129 Milano (MI)	Arese (MI), Garbagnate Milanese (MI), Lainate (MI), Rho (MI)
612	Interporto Toscano Amerigo Vespucci	Interporto Toscano Amerigo Vespucci S.p.A.	00882050495	Via delle Colline, n. 10 - Guasticce 57017 Collesalveti Livorno (LI)	Collesalveti (LI)
613	Centro Commerciale Le Zagare	Alea Heat & Power S.r.l.	02844320594	Via Duca del Mare, n. 19 04100 Latina (LT)	S. Giovanni La Punta (CT)
614	Centro Commerciale-Direzionale Energon	Energon Esco S.p.A.	03288490364	Via Emilio Po, n. 86 41126 Modena (MO)	Mira (VE)
616	Aeroporto Fiumicino	Aeroporti di Roma S.p.A.	06572251004	Via dell'Aeroporto di Fiumicino, n. 320 00054 Fiumicino (RM)	Fiumicino (RM)
617	Aeroporto Ciampino	Aeroporti di Roma S.p.A.	06572251004	Via dell'Aeroporto di Fiumicino, n. 320 00054 Fiumicino (RM)	Ciampino (RM)
618	Porto Civitavecchia	Port Utilities S.p.A.	07036641004	Darsena Romana, n. 2 00053 Civitavecchia (RM)	Civitavecchia (RM) Tarquinia (VT)
619	Porto Fiumicino	Port Utilities S.p.A.	07036641004	Darsena Romana, n. 2 00053 Civitavecchia (RM)	Fiumicino (RM)
620	Porto Gaeta	Port Utilities S.p.A.	07036641004	Darsena Romana, n. 2 00053 Civitavecchia (RM)	Gaeta (LT)
621	Centro Commerciale "Campo dei Fiori"	Consorzio degli Operatori del Centro Commerciale "Campo dei Fiori"	02677940120	Viale Ticino, n. 82 21026 Gavirate (VA)	Gavirate (VA)
628	Stazione Milano Centrale	Grandi Stazioni Rail S.p.A.	05129581004	Via G. Giolitti, n. 34 00185 Roma (RM)	Milano (MI)
630	Stazione Roma Termini	Grandi Stazioni Rail S.p.A.	05129581004	Via G. Giolitti, n. 34 00185 Roma (RM)	Roma (RM)
636	Centro Commerciale Camporosso	Camporosso S.r.l. Società Unipersonale	02643920925	S. P. 61 km 4,5 09039 Villacidro (VS)	Villacidro (VS)
637	Centro Direzionale via Val Bavona, n. 21	Setyl S.r.l.	03692990165	Via Stezzano, n. 87 24126 Bergamo (BG)	Milano (MI)
639	Centro Commerciale Itaca	Consorzio Centro Commerciale Itaca	01732250590	Via Mamurrano Località Santa Croce 04023 Formia (LT)	Formia (LT)
640	Centro Commerciale Maximal	Consorzio Operatori Centro Commerciale Maximal di Pontecagnano Faiano	04454960651	Via Pacinotti, snc 84098 Pontecagnano Faiano (SA)	Pontecagnano Faiano (SA)
641	Centro Commerciale Via Vicentini	Autoipanema S.r.l.	00237740667	Viale Nizza, n. 3 67100 L'Aquila (AQ)	L'Aquila (AQ)
642	Consorzio Le Fontane	Consorzio Centro Le Fontane - P.I.P. di Treviolo	03149090163	Via Generale Carlo Alberto Dalla Chiesa, n. 10/54 24048 Treviolo (BG)	Treviolo (BG)
645	Alta Metal	Alta Metal S.r.l.	02749100166	Via Arcene, n. 2/A 24040 Pontirolo Nuovo (BG)	Pontirolo Nuovo (BG)
646	Orlandi S.p.A. Sito Industriale di Imola	Orlandi S.p.A.	03524600156	Via Matteotti, n. 67 21012 Cassano Magnago (VA)	Imola (BO)
647	Orlandi S.p.A. Sito Industriale di Novara	Orlandi S.p.A.	03524600156	Via Matteotti, n. 67 21012 Cassano Magnago (VA)	Novara (NO)
652	Nettis Resort	Nettis Resort S.r.l.	04109360729	Via Roma, n. 11/A 70025 Grumo Appula (BA)	Pisticci (MT)
653	Complesso via Monte Rosa, n. 91	CBRE GWS Technical Division S.p.A.	12222600152	Via Giuseppe Verrotti, Centro Espansione 2, int. 216 65015 Montesilvano (PE)	Milano (MI)
771	Versalis Porto Torres	Versalis S.p.A.	01768800748	Piazza Boldrini 1, San Donato Milanese (MI)	Porto Torres (SS)

## 4. Future developments in CDSs discipline

On the basis of the definition of CDS set out in Directive 2009/72/EC, several Member States have transposed these provisions into their national legal systems, which however results in a differentiated framework between systems that have merely transposed the definition from systems where particular regimes have been associated with it in addition to the transposition of the definition. Italy was a case in point in the second group to which Spain has recently been added, which, like Italy, has accompanied the establishment of new CDSs with specific benefit allocations by placing them explicitly within the framework of general measures to support industry.

Real Decreto-ley 20/2018, de 7 de diciembre, de medidas urgentes para el impulso de la competitividad económica en el sector de la industria y el comercio en España.

[.....]

### CHAPTER II

#### Measures to support the proper transition of the electro-intensive industry

##### *Article 3. Closed electricity distribution networks.*

1. The Government has the power to develop the figure of the electricity distribution network closed by regulation, for the supply of electricity to industrial activities which, for security reasons, are integrated in small geographical areas.

2. To this end, within a maximum period of six months from the entry into force of this Royal Decree-Law, the Government shall draw up a regulation laying down the procedure and requirements to be met for the granting of administrative authorisation for closed electricity distribution networks. These requirements shall include at least those relating to the economic and financial sustainability of the electricity system, ensuring operational security, preventing the fragmentation and redundancy of networks to supply consumers, preventing discrimination between groups of consumers with similar characteristics and minimising the environmental impact caused by networks. The authorisation may be withdrawn if the requirements for authorisation are no longer met.

In addition, the aforementioned Royal Decree may regulate aspects relating to ownership of goods, conditions of access to closed electricity distribution networks, types of contracts and economic and technical obligations with the electricity system.

3. The closed distribution networks must be authorised by the Directorate-General for Energy Policy and Mines of the Ministry of Ecological Transition, following a report by the National Commission for Markets and Competition, which analyses compliance with the requirements set out in point 2 and, in particular, the economic and financial sustainability of the electricity system.

In the light of the above, the importance of the CDS instrument for the development of the competitiveness of industrial, tertiary and commercial systems is understood, provided that the discipline is released from the constraint that no new CDSs can be set up.

For the development of (new) CDSs, it may be useful to recall what could potentially be the criteria for identifying such systems as derivable:

- the interpretative note of the European Commission of 22 January 2010<sup>15</sup> (Interpretative note) which is believed to remain intact in the new transposition model;
- by the regulations currently in force, which is also deemed to be fully applicable to the new systems.

<sup>15</sup> [https://ec.europa.eu/energy/sites/ener/files/documents/2010\\_01\\_21\\_retail\\_markets.pdf](https://ec.europa.eu/energy/sites/ener/files/documents/2010_01_21_retail_markets.pdf)

It should be noted that between the old and the new Directive, the criteria for setting up a CDS have not changed in practice and therefore the specific provisions in force for CDSs (unless new ones cannot be created) should remain valid for the future. The criteria for the identification and establishment of a CDS could be as follows.

Criterion		Reference
Typology	CDSs are located at industrial, commercial or common service sites. The users connected to CDSs are industrial, commercial customers, entities that provide shared services <sup>16</sup> .	Art. 38 Directive (EU) 944/2019 and Interpretative note
Functional	Existence of specific technical or safety reasons that imply that the operations or production process of the users of the system in question are integrated: situations in which several parties share a distribution network that allows the optimisation of energy supply or requires specific technical, safety or management standards.	Art. 38 Directive (EU) 944/2019 and Interpretative note
Territorial	TDIs are distribution systems implemented within a geographically limited site: the CDS operator cannot independently connect users located outside the site. The site can be identified as follows: <ul style="list-style-type: none"> <li>- the presence of appropriate delimitations such as boundary walls or fences that make it possible to perimeter the industrial, commercial or service site to which the CDS is assigned is a functional element for the identification of the cadastral parcels comprising the territorial area on which a CDS is located:</li> <li>- where there are no boundary walls or fences, the perimeter of the CDS is defined by all the adjoining cadastral parcels on which the various users are located or which are affected only by the presence of the private network, and not by users of the private network if those parcels are included in the industrial, commercial or service site to which the CDS is assigned.</li> </ul>	Art. 38 Directive (EU) 944/2019, Interpretative note and TISDC <sup>17</sup> .

<sup>16</sup> The Commission would point out in this respect that only households hired by the owner of the distribution system, or linked to it by a similar constraint, must be identified flexibly, including households for which there are working relationships with companies linked to a CDS and initially belonging to the same corporate group as the owner of the CDS.

<sup>17</sup> Ref. article 5 Annex A to ARERA Resolution 539/2015/R/eel as subsequently amended and supplemented.