



An Coimisiún
um Rialáil Fóntas
Commission for
Regulation of Utilities

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Pass Through Costs for Business Electricity Customers from 1st October 2018 to 30th September 2019

Information Paper

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This note provides business electricity customers with a brief overview of regulated cost components (unregulated costs such as the cost of energy and supply costs are not detailed here). Final prices are primarily influenced by international energy costs (accounting for approximately 60% of costs), and a proportion of the final price relates to regulated charges and taxes.

While suppliers may generally choose whether or not to absorb these costs (PSO and taxes are the exception), they typically pass them on to the customer. Such costs are referred to as Pass Through Costs. To assist business customers in evaluating quotations provided by suppliers, this document contains details of the Pass Through Costs for each electricity business type, which are applicable from 1st October 2018 to 30th September 2019.

For any queries on this note please contact retaildata@cru.ie.

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Glossary of Terms and Abbreviations

Abbreviation or Term	Definition or Meaning
CPM	Capacity Payment Mechanism
CRM	Capacity Remuneration Mechanism
CRU	Commission for Regulation of Utilities
DBC	Dispatch Balancing Costs
DG	Distribution Group
DLAF	Distribution Loss Adjustment Factor
DSO	Distribution System Operator
DUoS	Distribution Use of System
I-SEM	Integrated Single Electricity Market
KV	Kilo Volt
kVArh	Kilo Volt Amperes Reactive Hours
kWh	Kilowatt Hour
LEU	Large Energy User
LLF	Low Load Factor
LV	Low Voltage

LVMD	Low Voltage Maximum Demand
MEC	Maximum Export Capacity
MIC	Maximum Import Capacity
MO	Market Operator
MV	Medium Voltage
MWh	Megawatt Hour
NIAUR	Northern Irish Authority for Utility Regulation
PSO	Public Service Obligation
SEM	Single Electricity Market
SEMO	Single Electricity Market Operator
TSO	Transmission System Operator
TUoS	Transmission Use of System

1. Introduction

1.1 Background

1.1.1 Overview of Charges

Final electricity prices are generally comprised of a number of different costs to a supplier, some of which are regulated. However, the final prices of electricity are primarily influenced by energy costs which account for approximately 60% of the final electricity price.

The full breakdown of electricity costs falls into the following categories:

The cost of purchasing electricity from generators accounts for about 60% of an electricity bill. The majority of the electricity generated in Ireland uses imported fossil fuels. International fuel prices – which are outside of Ireland’s control – are the key driver of the cost of generation and therefore electricity prices.



Generation

The Integrated Single Electricity Market (I-SEM) is the new wholesale market for Ireland and Northern Ireland. The previous market arrangements have been replaced since 1st October 2018 by multiple markets or auctions, each spanning different trading time frames, with separate (although related) clearing and settlement mechanisms, covering both energy and non-energy commodities. The SEM comprises of two ex-ante Energy Markets (Day Ahead, IntraDay), a Balancing Market, two markets for Financial Instruments (Forwards Market, Financial Transmission Rights), and a market for Capacity Remuneration. These markets operate independently and on different timelines. The new market arrangements are designed to integrate the all-island electricity market with European electricity markets, enabling the free flow of energy across borders. Details on the wholesale electricity market in Ireland can be found through this [link](#). In addition to the SEM wholesale cost, suppliers pay SEMO (the SEM market operator) Market Operator charges to recover the costs of administering the SEM to all electricity users.



Networks

The cost associated with the services of Networks, which involves sending the electricity from the generation plants through the Transmission and Distribution wires to customers’ premises, also accounts for a very significant portion of the final price of electricity for customers.



A supplier's operating expenditure in supporting their business e.g. administrative costs.

Supply



Public Service Obligation Levy

The PSO levy is a Government initiative designed to support certain electricity generation plants in order to meet national policy objectives of security of energy supply, the use of indigenous fuels (i.e. peat) and the use of renewable energy sources in electricity generation.



Suppliers are responsible for payment of an electricity tax and for returns/accounts related to it.

Taxes

1.1.2 Pass Through Costs

Whilst international fuel prices are the key driver of electricity prices (and outside of Ireland's control), some of the final cost components are regulated and approved annually. These costs are necessary in order for networks and other market operators to recoup the cost of generating, transmitting and distributing electricity, and suppliers are required to pay these annually. Changes to these charges generally come into effect on the 1st October annually. While it is the decision of each supplier whether or not to pass through such costs to final customers, it is likely that most suppliers pass through all such costs. These costs, with the addition of the applicable taxes, are referred to as Pass Through Costs and are discussed in the next section.

2. Pass Through Costs

2.1 Introduction

This section describes Pass Through Costs for customers. As detailed in the previous section, these charges include regulated charges and taxes. Pass Through Costs include the following charges:

Cost	Charge	Description
 <p>Generation</p>	Capacity Payments	Payment made to generators for their availability, separate from energy production.
	Market Operator Charges	Charges levied on generators and suppliers for the operation of the wholesale markets.
	Imperfection Charges	Constraint costs on the network are recovered by imperfection charges.
 <p>Networks</p>	Network Transmission use of system charges (TUoS)	Charges levied for the building, maintenance and operation of the transmission network.
	Network Distribution use of system charges (DUoS)	Charges levied for the building, maintenance and operation of the distribution network.
 <p>PSO</p>	Public Service Obligation Levy	Levied for support for renewables, security of supply and indigenous fuels (peat).

2.2 Electricity Market Segments

The value of each charge is based upon the business electricity market segment that is being operated in. The electricity market is comprised of four different market segments covering different DUoS groups (distribution use of system groups or DGs)¹: domestic, small-sized business, medium-sized business and large energy users (LEUs). Some charges vary depending upon the DuoS group. The table below provides a breakdown of the three different business markets and their respective DUoS groups:

Business Market	DUoS Group
Small Business	DUoS Group 5 – General Purpose
Medium Business	Duos Group 4 – Local Authority Public Lighting
	DUoS Group 6 – LVMD & LLF
Large Energy User	DUoS Group 7 - Medium Voltage Max Demand
	DUoS Group 8 - 38KV Max Demand
	DUoS Group 9 – 38KV Max Demand
	T-CONN

2.3 Consumption

Components of price are charged on either consumption at trading point or consumption at selling point. All generation charges and Transmission Use of System Charges (TUoS) charges are based on consumption at trading point. Distribution Use of System Charges (DUoS) charges are based on consumption at selling point².

To apply charges (for both consumption at trading point and selling point), a customer’s metered consumption is used. However, the transportation of electricity from the trading point to a customer’s metering point results in losses. To account for these losses a ‘Distribution Loss Adjustment Factor’ (DLAF) is applied to customers’ metered energy consumption. The energy consumption measured at a customer’s meter is multiplied by the DLAF to get the consumption at which generation and transmission charges are applied. The CRU publishes DLAFs each year, broken down by size of a customer’s connection and time of consumption.

¹ A DUoS charge is a fee that ESB Networks charges to electricity suppliers for use of the electricity distribution system. The amount of DUoS that ESBN charges a supplier for each customer depends on which DUoS Group a customer is classified as, which is based on several factors including the voltage a premises is connected at, the type of meter installed, or if electricity is exported. Source: ESB Networks.

² Retail consumption data published on a quarterly basis by the CRU refers to consumption at selling point (i.e. at the customer’s site)

On the 3rd of August 2018, an Information Paper was published by the CRU which identified the DLAFs to be applicable for the 2018/19 tariff year, see [CRU/18/146](#) 'Electricity Distribution Network Allowed Revenue 2019, Distribution Tariffs 2018/2019 & Distribution Loss Adjustment Factors'. The following are the applicable DLAFs for the 2018/19 tariff year.

Voltage Level	Time Period		
	Composite	Day	Night
38kV Sales	1.020	1.021	1.017
MV Sales	1.035	1.037	1.030
LV Sales	1.087	1.093	1.075

DLAFs for 1st October 2018 to 30th September 2019

2.4 Generation Charges

2.4.1 Capacity Charges

The administratively determined Capacity Payment Mechanism (CPM) in SEM is being replaced with a competitively determined Capacity Remuneration Mechanism (CRM) and the price for awarded capacity is determined through an auction process. Capacity Payments will be funded through a Capacity Charge Tariff which is socialised across all suppliers on a monthly basis based on their daytime demand profile. More information on how the new capacity market works can be found [here](#). The following are the applicable charges for 2018/19, and these apply to consumption on every day of the year from 7am to 11pm:

Supplier Capacity Charge Price	2018/19
Tariff	12.45 €/MWh

Annual Capacity Charges 2018/19

2.4.2 Market Operator (MO) Charges

The Single Electricity Market (SEM) is administered by the Single Electricity Market Operator (SEMO). SEMO imposes a Market Operator (MO) charge, to recover the costs of administering the SEM, on all electricity users on a cent per kilowatt hour (c/kWh) basis. SEMO applies annually to the SEM Committee (which is comprised of the Irish and Northern Irish Regulators; CRU and NIAUR respectively) with their suggested revenues and tariffs for the upcoming tariff year. The SEM Committee reviews and approves a set of charges annually and publishes them on the SEM website.

On 12th September 2018, the approved MO charges for the 2018/19 tariff year were published on the SEMO website, see 'MO Tariffs & Charges and Imperfections Charge', which is available [here](#). The following are the applicable charges:

MO Charges	2018/19
Fixed Supplier Charge (per unit³)	€ 152
Variable Supplier Charge (per MWh)	€0.498

MO Charges 2018/19

With I-SEM go live from 1st October 2018 and the new market arrangements put in place, new charges have been introduced. These are discussed further in section 2.8.

2.4.3 Imperfections Charge

SEMO recovers costs on an annual basis in relation to the operation of the grid in the form of Imperfections Charges. The Imperfections Charge is levied on suppliers by SEMO.

The purpose of the Imperfections Charge is to recover the following costs, with adjustments for previous years as appropriate:

- Dispatch Balancing Costs (DBC): sum of Constraint Payments, Uninstructed Imbalance Payments and Generator Testing Charges
 - o Constraint Payments arise due to the TSOs having to dispatch some generators differently from the ex-post market unconstrained schedule, in real time, to ensure security of supply on the system;
 - o Uninstructed Imbalances occur when there is a difference between a generator unit's dispatch quantity and its actual output;
 - o Generator Testing Charges: testing of generator units results in additional operating costs to the system, in order to maintain system security
- Make Whole Payments: any difference between the total Energy Payments to a generator and the production cost of that generator on a weekly basis;
- Energy Imbalance Charges: occur if the sum of Energy Payments to generators does not equal the sum of Energy Charges to supplier.

On 30th August 2018, a decision paper was published by the SEM Committee, which identified the Imperfections Charge to be applicable for the 2018/19 tariff year, see '*Imperfections Charge October 2018 - September 2019*', which is available [here](#). The following is the applicable imperfections charge:

Imperfections Charge	2018/19
Tariff	€ 5.22/MWh

Imperfections Charge 2018/19

³ Refers to supplier unit. A full list of supply units is available on the SEMO website.

2.5 Network Charges

2.5.1 Distribution Use of System (DUoS) Charges

DUoS charges are applied for the use of the distribution system infrastructure in Ireland. DUoS tariffs are charged to suppliers based on the amount of energy used by their customers and include standing charges. These charges are paid to the Distribution System Operator (DSO) based on their 'allowed revenue', which is annually calculated by the CRU. The DSO determines the annual DUoS charges from this, with the approval of the CRU.

On the 3rd of August 2018, a decision paper was published by the CRU which identified the DUoS charges to be applicable for the 2018/19 tariff year, see [CER/18/146](#) 'Electricity Distribution Network Allowed Revenue 2019, Distribution Tariffs 2018/2019 & Distribution Loss Adjustment Factors' and accompanying [tariff statement](#).

The following are the applicable charges:

Segment	DUoS Standing charge 2018/19	DUoS Unit rates 2018/19	Low Power Factor Surcharge
DG3		€0.03301/kWh	
DG4		€0.03301/kWh (ex. DG4 premium ⁴)	
DG 5 and DG5b (low voltage non-domestic customers, non-max demand)	Standard meter: €94.27/customer/annum Day/Night meter: €94.27/customer/annum	Standard meter: €0.04351/kWh Day/Night meter: Day: €0.05088/kWh Night: €0.00622/kWh	Standard meter: €0.01009/kVArh Day/Night meter: €0.01009/kVArh
DG5a (low voltage autoproducers MEC>MIC, non-max demand)	N/A	Standard meter: €0.04351/kWh Day/Night meter: Day: €0.05088/kWh Night: €0.00622/kWh	Standard meter: €0.01009/kVArh Day/Night meter: €0.01009/kVArh
DG 6 and DG 6b (low voltage business customers, max demand)	Standing charge: €879.38/customer/annum Capacity charge: €32.82/kVA of MIC/annum	Day: €0.02589/kWh Night: €0.00305/kWh	€0.00922/kVArh
DG 6a (low voltage autoproducers MEC>MIC, max demand)	N/A	Day: €0.02589/kWh Night: €0.00305/kWh	€0.00922/kVArh

⁴ DG4 tariff also incurs an additional premium in respect of additional costs incurred on public lighting installations. This premium is 0.01 c/kWh but it is currently being reviewed.

DG 7 & 7b (medium voltage customers, max demand)	Standing charge: €1,550/customer /annum Capacity charge: €11.33/kVA of MIC /annum	Day: €0.00448/kWh Night: €0.00070/kWh	€0.00809/kVArh
DG 7a (medium voltage autoproducers MEC >MIC, max demand)	N/A	Day: €0.00448/kWh Night: €0.00070/kWh	€0.00809/kVArh
DG 8 & DG 8b (38kV looped customers, max demand)	Standing charge: €25,983.81/customer /annum Capacity charge: €5.58/kVA of MIC /annum	Day: €0.00099/kWh Night: €0.00007/kWh	€0.00760/kVArh
DG 8a (38kV looped autoproducers MEC >MIC, max demand)	N/A	Day: €0.00099/kWh Night: €0.00007/kWh	€0.00760/kVArh
DG 9 & DG 9b (38kV tailed customers, max demand)	Standing charge: €7,401.40/customer /annum Capacity charge: €5.58/kVA of MIC /annum	Day: €0.00099/kWh Night: €0.00007/kWh	€0.00760/kVArh
DG 9a (38kV tailed autoproducers MEC >MIC, max demand)	N/A	Day: €0.00099/kWh Night: €0.00007/kWh	€0.00760/kVArh

DUoS Charges 2018/19

2.5.2 Transmission Use of System (TUoS) Charges

TUoS charges are applied for the use of the transmission system infrastructure in Ireland. They are designed to recover the total costs involved in operating, maintaining and developing the transmission system. TUoS charges are calculated on an annual basis by the Transmission System Operator (TSO), with the approval from CRU.

On the 31st of August 2018, an Information Paper was published by the CRU which identified the TUoS charges to be applicable for the 2018/19 tariff year, see [CRU/18/195](#) ‘Electricity Transmission Network Allowed Revenues 2019 & Demand Transmission Use of System (D-TUoS) Tariffs 2018/2019’ and accompanying [tariff statement](#).

The following are the applicable charges:

TUoS for 2018/19	DTS-D1 ⁵ (non-LEUs)	DTS-D2 ⁶ (non-LEUs)	DTS-D1 ⁷ (LEUs)	DTS-D2 (LEUs)	DTS-T ⁸ (LEUs)
Network Capacity Charge	€1,749.5971/MW	€6.7140/MWh (day hrs)	€1,467.1907/MW	€ 5.6303/MWh	€1,734.6648/MW
Network Transfer Charge	€3.1916/MWh	€3.1916/MWh	€2.6764/MWh	€ 2.6764/MWh	€2.6764/MWh
System Services Charge	€7.5045/MWh	€7.5045/MWh	€6.2932/MWh	€ 6.2932/MWh	€6.2932/MWh
DSM Charge	€0.0001/MWh (day hrs)	€0.0001/MWh (day hrs)	€0.0001/MWh (day hrs)	€0.0001/MWh (day hrs)	€0.0001/MWh (day hrs)

Note: DTS-D2 (non-LEU) is applicable to DG 3, DG 4, DG 5, the majority of DG 6 customers.

DTS-D1 (non-LEUs) is applicable to some DG 6 customers.

DTS-D1 (LEUs) is applicable to DG 7, DG 8 and DG 9 customers.

DTS-T (LEUs) is applicable to T-CONN customers

TUoS Charges 2018/19

2.6 Public Service Obligation Levy (PSO)

The Public Service Obligation (PSO) levy is a government subsidy charged to all electricity customers in Ireland. It is designed by the Irish Government and consists of various schemes to support national policy objectives related to: renewable energy, security of supply and the use of indigenous fuels (peat). The proceeds of the levy are used to contribute to the additional costs incurred by PSO-supported electricity generation which are not recovered in the electricity market, typically via contracts that suppliers have in place with electricity generators.

On the 31st July 2018, a decision paper was published by the CRU which identified the PSO levy to be applicable for the 2018/19 tariff year, [CRU/18/148](#).

The following are the applicable monthly charges.

PSO Levy	Monthly Levy Amount 2018/19
Small commercial customers (MIC of less than 30kVA)	€11.97 per customer
Medium & large customers (MIC of equal to or greater than 30kVA)	€1.32 per kVA

PSO Charges 2018/19

⁵ DTS-D1 non-LEU customers are those connected to the distribution system and have a maximum import capacity (MIC) greater than 0.5MWs.

⁶ DTS-D2 non-LEU customers are those connected to the distribution system and have a maximum import capacity (MIC) of less than 0.5MWs.

⁷ DTS-D1 LEU customers are those connected to the distribution system and have a maximum import capacity (MIC) greater than 0.5MWs.

⁸ Applies to customers connected directly to the transmission system.

A number of drivers are contributing to the decrease in the 2018/19 PSO levy, principally the 2016/17 R-factor and the increased benchmark price. Other drivers, including an increase in renewable generation and lower capacity payments are exerting minimal upward pressure on PSO levy.

2.7 Electricity Tax

To comply with the EU Energy Tax Directive, an electricity tax on suppliers of electricity was introduced in 2008. Suppliers are responsible for payment of the tax and for returns/accounts in relation to it. This cost is passed on to final customers⁹.

Electricity Tax	
Business	€0.50 per MWh

Electricity Tax 2018/19

2.8 I-SEM and the introduction of new charges

The Integrated Single Electricity Market (I-SEM) is a new wholesale electricity market arrangement for Ireland and Northern Ireland which went live on 1st October 2018.

The new market arrangements are designed to integrate the all-island wholesale electricity market with European wholesale electricity markets, enabling the free flow of electricity across borders. It consists of a number of markets including the Day Ahead Market, Intra Day Market and the Balancing Market. This is expected to deliver increased levels of competition which should help put a downward pressure on prices as well as encouraging greater levels of security and transparency.

I-SEM introduced many changes to the wholesale market, including the introduction of a new capacity remuneration mechanism, through which generators get paid for their availability, to replace the old capacity payment mechanism.

I-SEM saw the introduction of three new pass through costs on 1st October 2018, as follows:

- Difference Payment Socialisation multiplier;
- Currency Adjustment charges; and
- Residual Error Volume charges.

SEMO published a paper on 12th September 2018, [MO Tariffs & Charges and Imperfections Charge](#) for the tariffs and charges that apply for the period 1st October 2018 to 30th September 2019. These tariffs and charges have been approved by the Regulatory Authorities (RAs) in

⁹ Households are exempt

Ireland and Northern Ireland and will be applied in accordance with the Trading and Settlement Code. The following are the applicable charges:

Tariff	Value
Difference Payment Socialisation Multiplier ¹⁰	2.3 ¹¹ %
Currency Adjustment Charge	0.015 €/MWh
Residual Error Volume Charge	1.30 €/MWh

¹⁰ Note that the Difference Payment Socialisation Multiplier will lead to different suppliers paying different amounts, depending on the load shape of their customers. It represents an illustrative charge of €0.214/MWh for a supplier with a typical load shape.

¹¹ Difference Payment Socialisation Multiplier for system input purposes is 0.023.