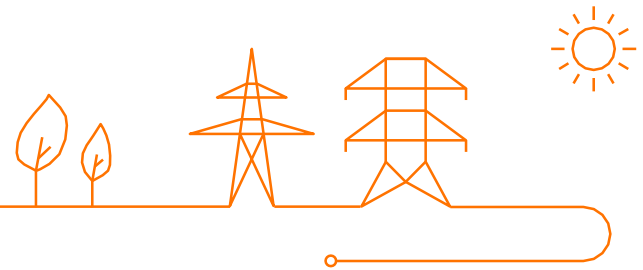
Elia Tariffs 2020-2023

14.11.2019 | Brussels | Customer Relations

This info session as well as the presented slides are for information purposes only.
The decision as adopted by the CREG and published on their website is the only valid legal basis.

Agenda

1. Introduction and recap of the process for establishing new tariffs
2. Overview of the Tariff Structure
3. Evolution of the Tariffs
4. Publications & Contacts

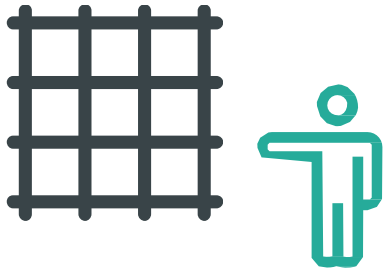


1 Introduction

Process to establish new tariffs

CREG approves Elia's 2020-2023 Tariffs

Tariffs



1

Tariff Methodology

Tariff framework for setting up the Tariff Proposal

2018

2

Tariff Proposal & Approval

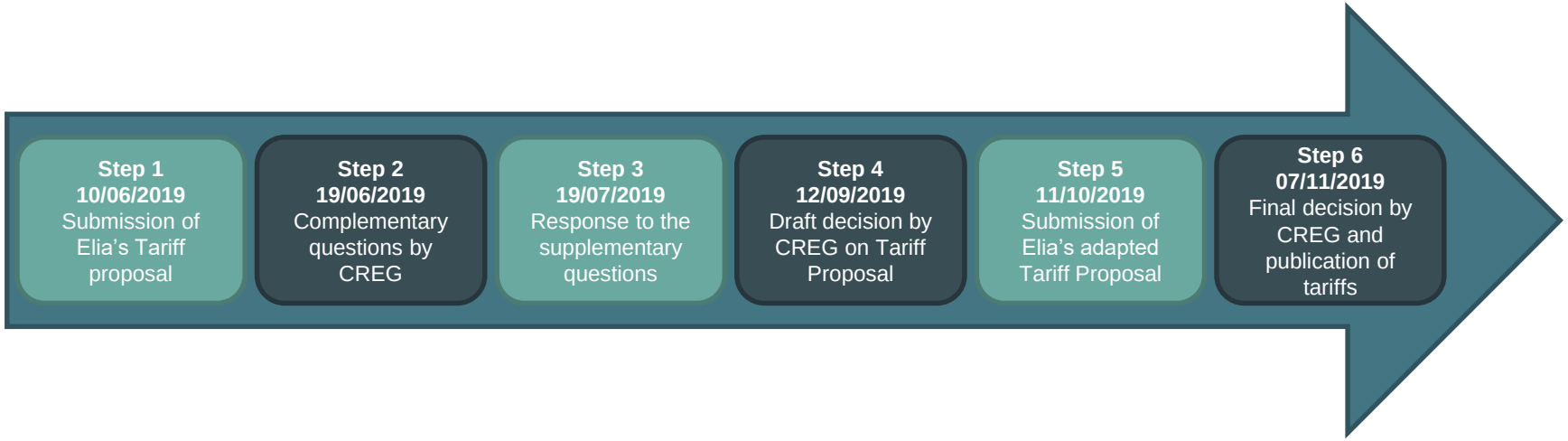
Tariff Proposal by Elia submitted for approval by CREG

2019

A Process with interaction from Stakeholders

- **February – March 2019:** Public consultation on the Elia proposal with regard to the key factors of foreseen evolutions in the tariff proposal for the period 2020-2023

- **May – November 2019**: Formal approval process by CREG



General principles

- One individual tariff per year, instead of an equal and constant tariff for the entire period

- The tariff structure is based on the following principles, in accordance with the tariff methodology:
  - ✓ Output-based
  - ✓ Transparency
  - ✓ Simplicity

- Number of client groups: 3
  - ✓ Connected to the 380/220/150kV network;
  - ✓ Connected to the 70/36/30kV network;
  - ✓ Connected at the end of the transformations to medium voltage.

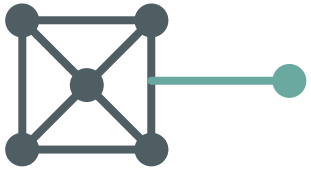
Key messages

- Despite inflation, the approved annual budget for the period 2020-2023 is 5,8% lower (in comparison to 2019). This ensures cost control to the benefit of the end consumer.
- This reduction ensures that the transmission costs remain at a reasonable level as concerning the electricity bill paid by the end customer. And this despite of the reduction of the MWh volumes transported on Elia's network, as a result of the development of decentralized generation units and the improvement of energy efficiency.
- Having approved tariffs provides a clear budgetary framework for the next 4 years, essential for the further development of our regulated activities as a system operator in Belgium. Amongst others, this stability is of the utmost importance for all our customers.

Overview of the Tariff Structure

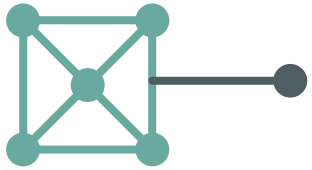
Tariff Structure per product

Tariff Structure



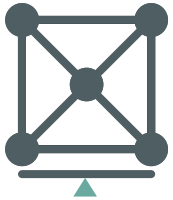
1 Connection

- Tariff for connection to the grid



2 Access

- Tariffs for the management and development of the grid infrastructure
- Tariff for the management of the electric system
- Tariffs for compensation of imbalances
- Tariff for market integration



3 Balance

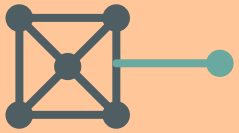
- Tariffs for maintaining and restoring of the residual balance of the individual responsible parties

4 Levies

- Tariffs for public service obligations and taxes & Levies

Tariff Methodology – Tariff Structure

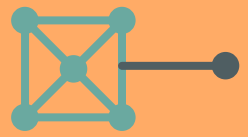
1.



CONNECTION TARIFFS

Invoiced to grid user

2.



ACCESS

TARIFFS FOR THE MANAGEMENT AND THE DEVELOPMENT OF THE GRID INFRASTRUCTURE
- **Tariffs for the monthly peak for an offtake point**
- **Tariffs for the yearly peak for an offtake point**
- **Tariffs for the contractual power for an offtake point**

TARIFFS FOR THE MANAGEMENT OF THE ELECTRIC SYSTEM
- **Tariffs for the management of the electric system for an offtake point**
- **Tariffs for the offtake or injection of additional reactive energy for an offtake or injection point**

TARIFFS FOR COMPENSATION OF IMBALANCES
- **Tariffs for the power reserves and black-start for an offtake or injection point**

TARIFFS FOR MARKET INTEGRATION
- **Tariffs for market integration for an offtake point**

Invoiced to access holder

3.

TARIFFS FOR THE MAINTENANCE AND RESTORING OF THE RESIDUAL BALANCE OF THE INDIVIDUAL BALANCING RESPONSIBLE PARTIES.

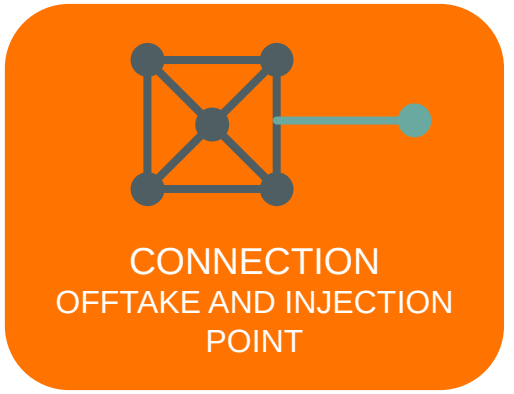
Invoiced to balancing responsible party

4.

TARIFFS FOR PUBLIC SERVICE OBLIGATIONS, TAXES AND LEVIES

Invoiced to access holder

1. Connection Tariffs



- No significant change in the structure or the way in which tariffs are set
- Rates evolve according to Elia's expected inflation and cost of capital
- Connection tariffs cover:
  - ✓ tariff for an orientation study;
  - ✓ tariff for a detailed study;
  - New! ✓ tariff for a substantial modernization study;
  - New! ✓ tariff for the partial use of the first connection bay;
  - New! ✓ introduction of offshore connection tariffs;
  - ✓ tariff for the use of other connection equipment: lines or cables and its requisites, equipment for transformation, compensation of reactive power and filtering of the voltage wave;
  - ✓ tariff for the use of supplementary protection-equipment, supplementary equipment for alarm signalization & metering;
  - ✓ particular terms.

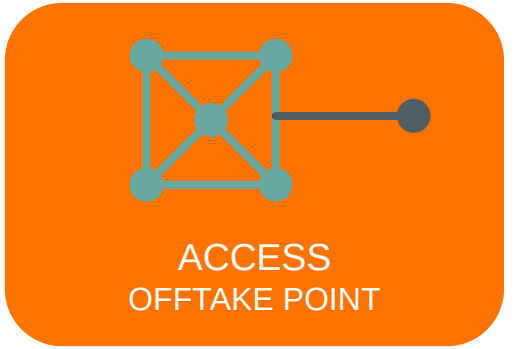
2. Tariffs for the management and development of the grid infrastructure

Three different tariffs in the category "management and development of the grid infrastructure" apply:

- During the regulatory period 2016-2019, Elia had identified little change in the behavior of grid users. To further incentivize grid users, the allocation key for the annual peak has been increased.
- Allocation key for cost allocation:
  - ✓ Allocation key for the monthly peak: 15% of the necessary costs (instead of 20%)
  - ✓ Allocation key for the annual peak: 35% of the necessary costs (instead of 30%)
  - ✓ Allocation key for the availability of the contractual power: 50% of the necessary costs (unchanged)

2. Tariffs for the management and development of the grid infrastructure

Tariffs for the monthly peak for offtake



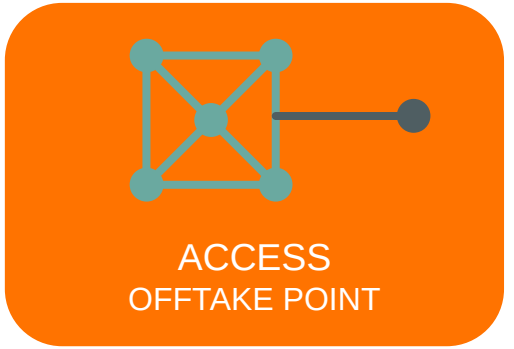
- No changes for the application of this tariff
  - ✓ Monthly peak for offtake = maximum peak of the offtake power during each quarter of the concerned month*
  - ✓ Expressed in €/MW.month
  - ✓ Differentiated per infrastructure level

* For the grid users directly connected to the Elia grid, the tariff for the monthly peak for the offtake is applied on the 11th measured peak of the month

* In case a downward activation by Elia (decremental bids in the scope of a CIPU-contract) of non-reserved tertiary power (mFRR) creates an impact on the determination of the monthly peak for the offtake for a given access point in the Elia grid, the monthly peak will be corrected based on the activations asked by Elia

2. Tariffs for the management and development of the grid infrastructure

Tariffs for the yearly peak for offtake

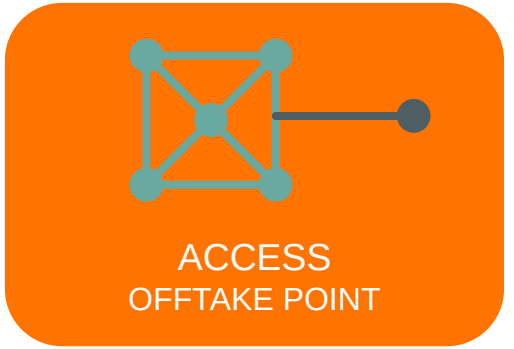


- No changes for the application of this tariff
  - ✓ Determination of annual peak period: Based on an analysis of monotonic load curves from 2015 to 2018, the annual peak period remains unchanged: It corresponds to the period from November to March, from Monday to Friday, between 5 pm and 8 pm on a quarterly basis (excl. week-ends and public holidays)
    - ✓ Yearly peak = monthly ex-post determined as the maximum peak during the quarters of an hour that make up the tariff period of the yearly peak over the 12 last months*
    - ✓ For grid users and DSOs connected to 70/36/30 kV, the highest measured 10 quarters of an hour are excluded for each month (independently whether they are within the annual peak period). The next measure of the quarter during the annual peak period applies.
  - ✓ Expressed in €/MW.year
  - ✓ Differentiated per infrastructure level

* In case a downward activation by Elia (decremental bids in the scope of a CIPU-contract) of non-reserved tertiary power (mFRR) creates an impact on the determination of the yearly peak for the offtake for a given access point in the Elia grid, the yearly peak will be corrected based on the activations asked by Elia.

2. Tariffs for the management and development of the grid infrastructure

Tariffs for the contractual offtake power (PPAD) – (1/3)



- Grid Users: No changes for this tariff
  - ✓ The contractual offtake power of an access point is the **contractual kVA-value** specified in Annex 1 of the Connection Contract
- DSOs:

New!

  - ✓ Rate is based on the level of infrastructure and also applies to the contractual power available for each point of interconnection instead of the transformer nameplate per point of interconnection
  - ✓ In case no contractual offtake power is included in the SOK, this tariff will be invoiced based on the MVA-value mentioned on the transformer nameplate (Snom)
- Reservation of the total apparent power capacity must reflect the various operating situations and a possible participation in ancillary services.

2. Tariffs for the management and development of the grid infrastructure

Tariffs for the contractual offtake power (PPAD) – (2/3)

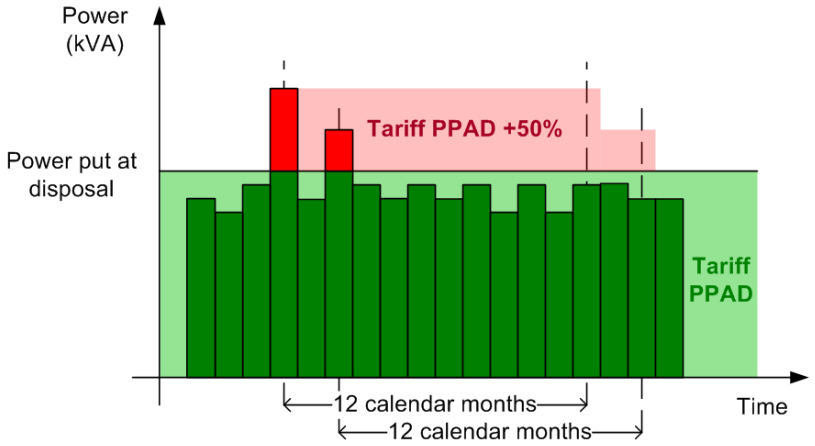
- Definition of an "**additional**" access point: Taking into consideration that the same electrical installations can be supplied via more than one access point
- Tariff for contractual offtake power of an additional access point = 20% of tariff for the related "main" access point

  The combined peak (over all access points considered) must be put at disposal at one "main" access point so that the other remaining access points can be considered as being "additional". The "main" access point has the highest PPAD.

2. Tariffs for the management and development of the grid infrastructure

Tariffs for the contractual offtake power (PPAD) – (3/3)

- Tariff in case of exceeding* the PPAD = tariff for power put at disposal at the offtake increased by 50%
- The tariff will be applied to the exceeding part measured in the month M for a period going from month M till month M+11



* The reference used for the calculation of the exceeding part for the grid users directly connected to the Elia grid is the 11th peak of the month measured in kVA

3. Tariffs for the management of the electric system

Tariffs for the management of the electric system

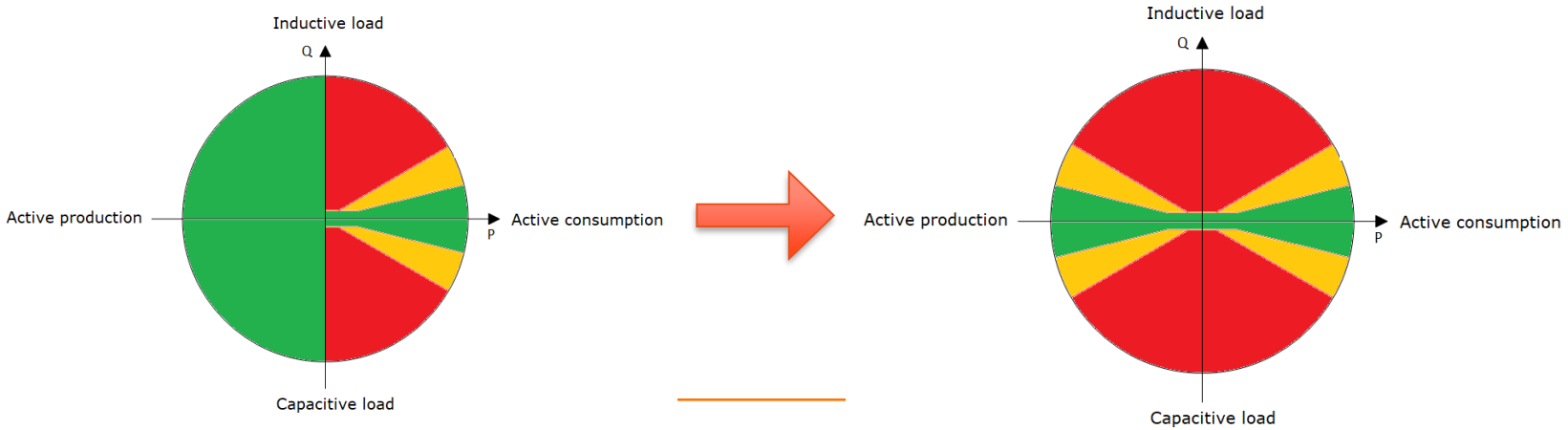
- No changes for the application of this tariff
  - ✓ Expressed in €/MWh net offtake
  - ✓ Differentiation per infrastructure level
  - ✓ Applies equally to grid users and DSOs

3. Tariffs for the management of the electric system

Tariffs for the injection or offtake of additional reactive energy – (1/2)

ACCESS
OFFTAKE AND INJECTION POINT

- Elia observes that, in recent years, the excess rate for the injection or absorption of reactive power (inductive or capacitive) continues to increase despite the incentive nature of this tariff.
  - ✓ The current two rate zone provides a strong signal to respect the required cos phi;
  - ✓ Existing thresholds for capacity reactive power are maintained
  - ✓ Expressed in €/MVArh
  - ✓ Tariffs are independent of the regime (inductive/capacitive)
  - **New!** ✓ Tariff is applicable for quarters hours with offtake **and injection** of active power;



3. Tariffs for the management of the electric system

Tariffs for the injection or offtake of additional reactive energy – (2/2)

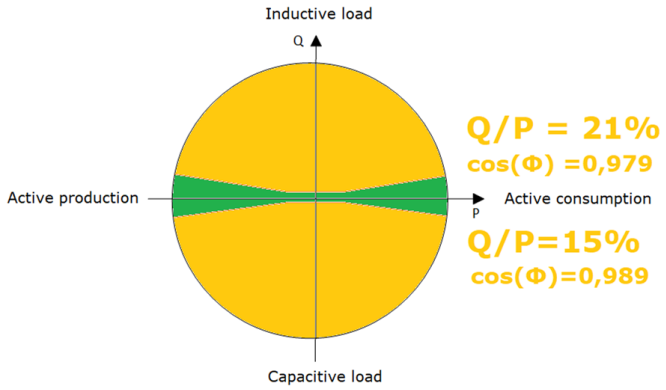
ACCESS
OFFTAKE AND INJECTION POINT

New!

- **Grid users:**
  - ✓ As from 2021 (cfr. Implementation new MVAr design), connection points participating to the ancillary service ‘voltage control’ are corrected for the requested/theoretical setpoint (including a tolerance margin) and are no longer exempted.

New!

- **DSOs:**
  - ✓ As from 2021, tariff exemption could be requested for several interconnection points in case of voltage constraint.
  - ✓ As from 2021, introduction of a tariff at zone level.



4. Tariffs for compensation of imbalances

Tariffs for the power reserves and black-start

- No changes for the application of this tariff
  - ✓ Tariff applied to both **injection** and **offtake**
  - ✓ Expressed in €/MWh net offtake or €/MWh net injection
  - ✓ No differentiation per infrastructure level
  - ✓ Applies equally to grid users and DSO
  - ✓ No injection tariffs for DSOs “at transformer output of medium voltage”
- No changes for the allocation principles
  - ✓ Only an injection fee for the price for the power reserves and black start
    50% - 50% split between injection and withdrawal of the costs underlying the reserve power taking into account an international benchmark of injection tariffs
  - ✓ Elia proposes that the injection tariff should not be higher than the average injection rate revealed by the benchmark

4. Tariffs for compensation of imbalances

Tariffs for the maintenance and restoring of the residual balance of the individual balance responsible parties

IMBALANCES
INJECTION AND OFFTAKE POINT

- Compensation of federal losses in kind by BRPs:
  - ✓ Mechanism unchanged

New!

- Modification of the tariffs for the maintenance and restoring of the residual balance of the individual balancing responsible parties, more precisely on the calculation of the parameter alpha and the transition to a full identical price for the compensation of the individual imbalances

		System Imbalance (SI)	
		Positive	Negative or zero
Imbalance of the balance responsible party	Positive	MDP – α	MIP + α
	Negative		

- MDP = marginal price of downward activation
- MIP = marginal price of upward activation
- α (EUR/MWh) = 0 if si ABS(SI(t)) ≤ 150 MW
- $\alpha(t)$ (EUR/MWh) = $a + \frac{b}{1+\exp\left(\frac{c-x}{d}\right)}$ if ABS(SI(t)) > 150MW

  with the values for parameters a, b, c, d, x:
  - a = 0 EUR/MWh
  - b = 200 EUR/MWh
  - c = 450 MW
  - d = 65 MW
  - x = Average [(ABS (SI (t)); ABS (SI (t-1))], namely the moving average of the absolute value of the quarter-hour system imbalance qh (t) and qh (t -1)
- System imbalance = ACE – NRV
- NCV = Net Control Volume
- ACE = Area Control Error
- ABS (SI (t)) = the absolute value of the quarter-hour system imbalance qh (t)
- ABS (SI (t-1)) = the absolute value of the quarter-hour system imbalance qh (t-1)

5. Tariffs for Market Integration

- No changes for the application of this tariff
  - ✓ Expressed in €/MWh net offtake
  - ✓ No differentiation per infrastructure level (output-based)
  - ✓ Applies equally to grid users and DSOs

6. Tariffs for Public Service Obligations and Taxes & Levies

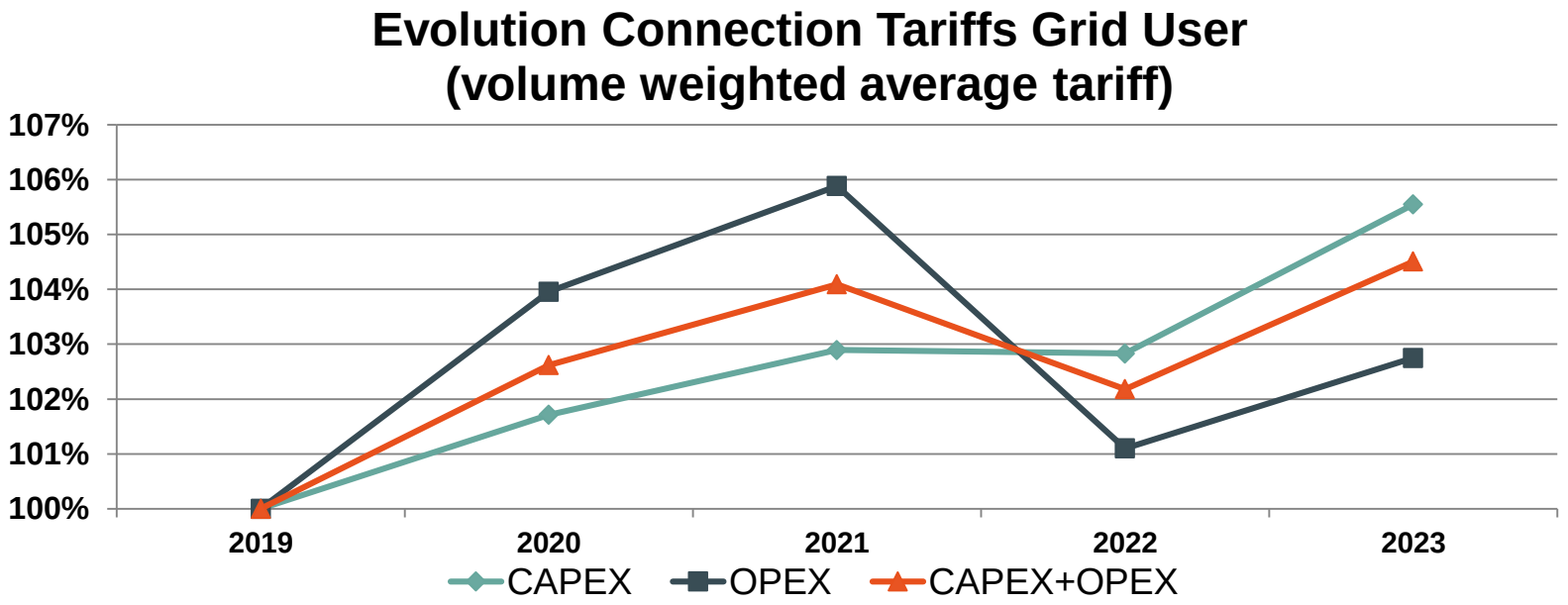
- Public service obligations, taxes and surcharges imposed on the network operator by the competent authorities
- Taxes and surcharges: costs added to amounts billed by the network operator
- Public service obligations: all net costs (management and financial costs) related to their implementation are reflected in the tariffs
  - ✓ Expressed in €/MWh net offtake
  - ✓ No differentiation per infrastructure level
  - ✓ Applies equally to Grid Users and DSOs

Tariff Evolutions

Evolution Connection Tariffs – Grid User

Grid User

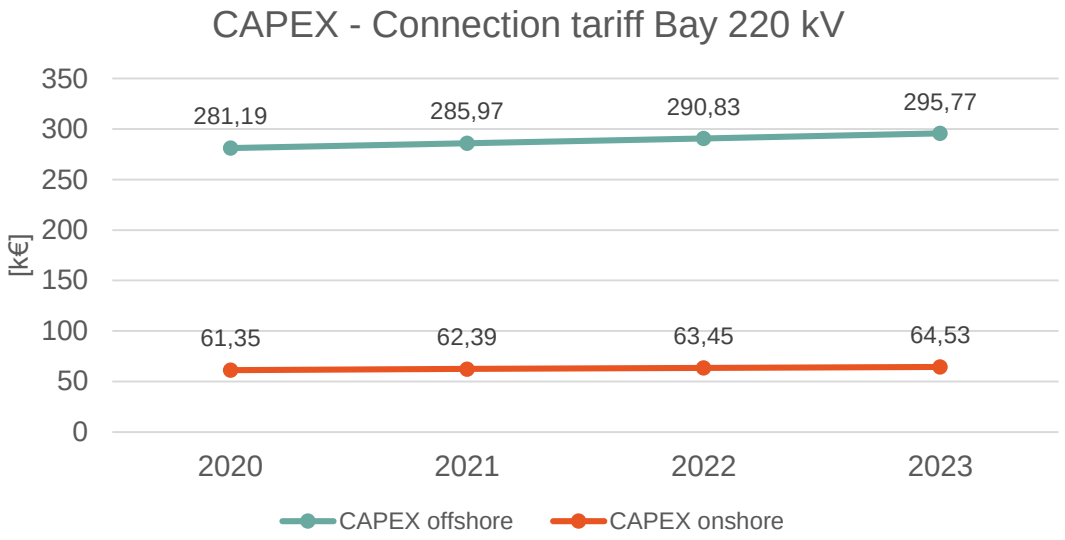
- Tariffs increase based on inflation and WACC in the comings years
- As from 2022 tariff decrease for certain OPEX tariffs due to adapted maintenance policy

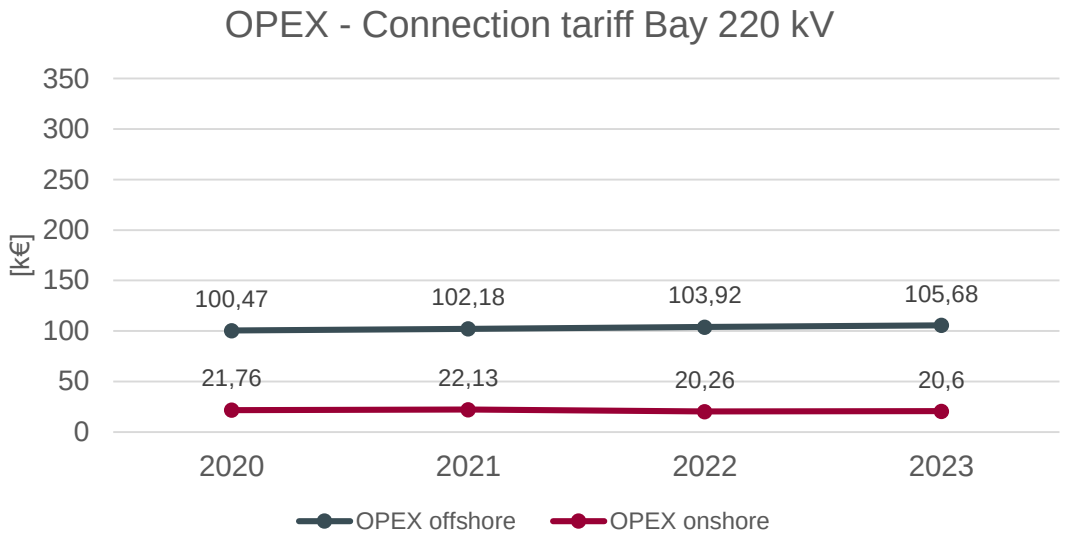


Evolution Connection Tariffs – Grid User

Grid User

- Due to the different nature of offshore grids, a different tariff applies for offshore bays



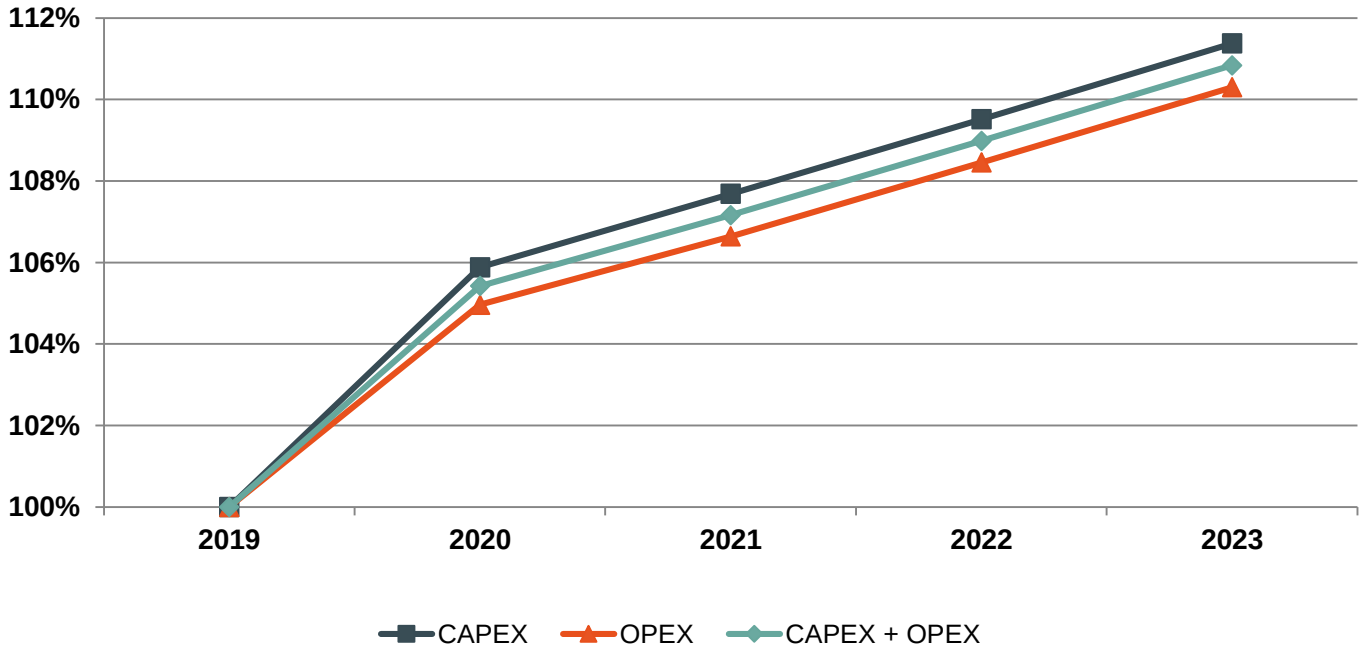


Evolution Connection Tariffs - DSO

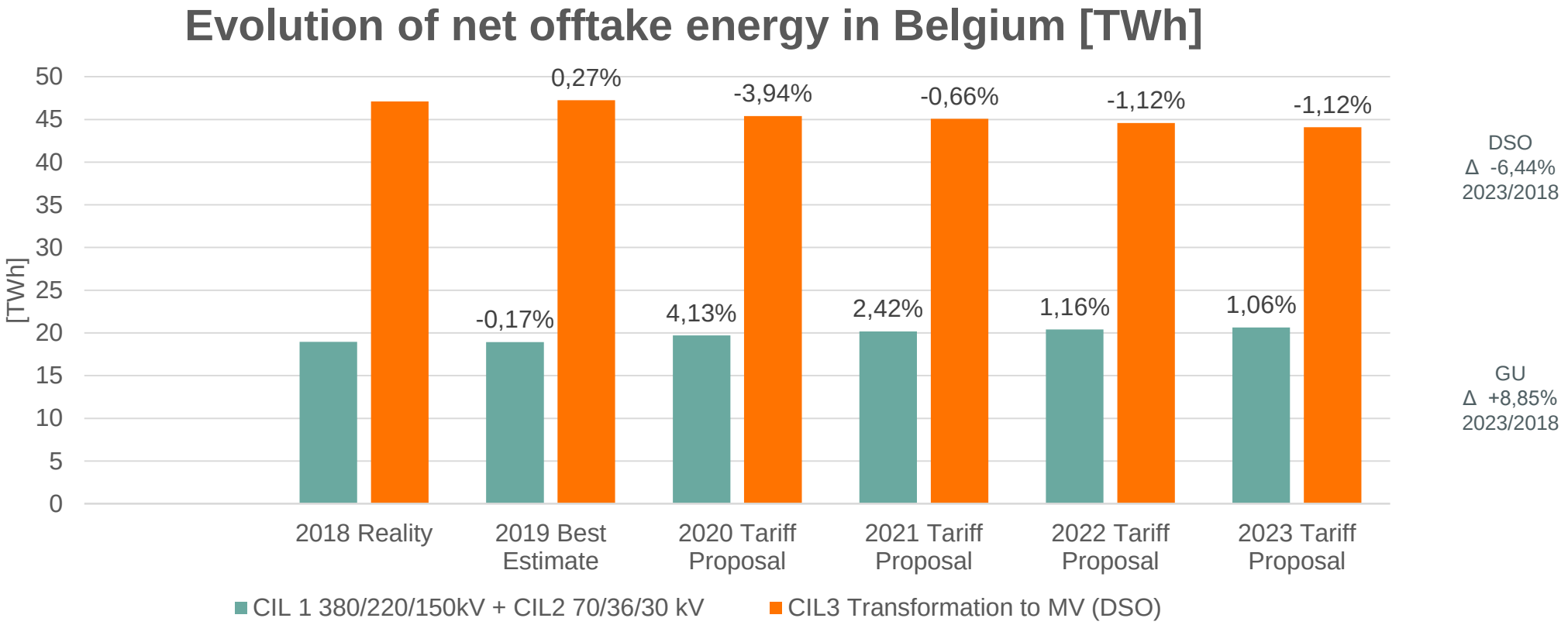
DSO

- Tariffs increase on average of 5,4% for 2020 and annually by 1,8% for the following years
- Main drivers explaining the evolution:
  - ✓ CAPEX: Inflation, Costs (↑) & WACC
  - ✓ OPEX: Inflation & Costs (↑)

Evolution Connection Tariffs DSO (volume weighted average tariff)



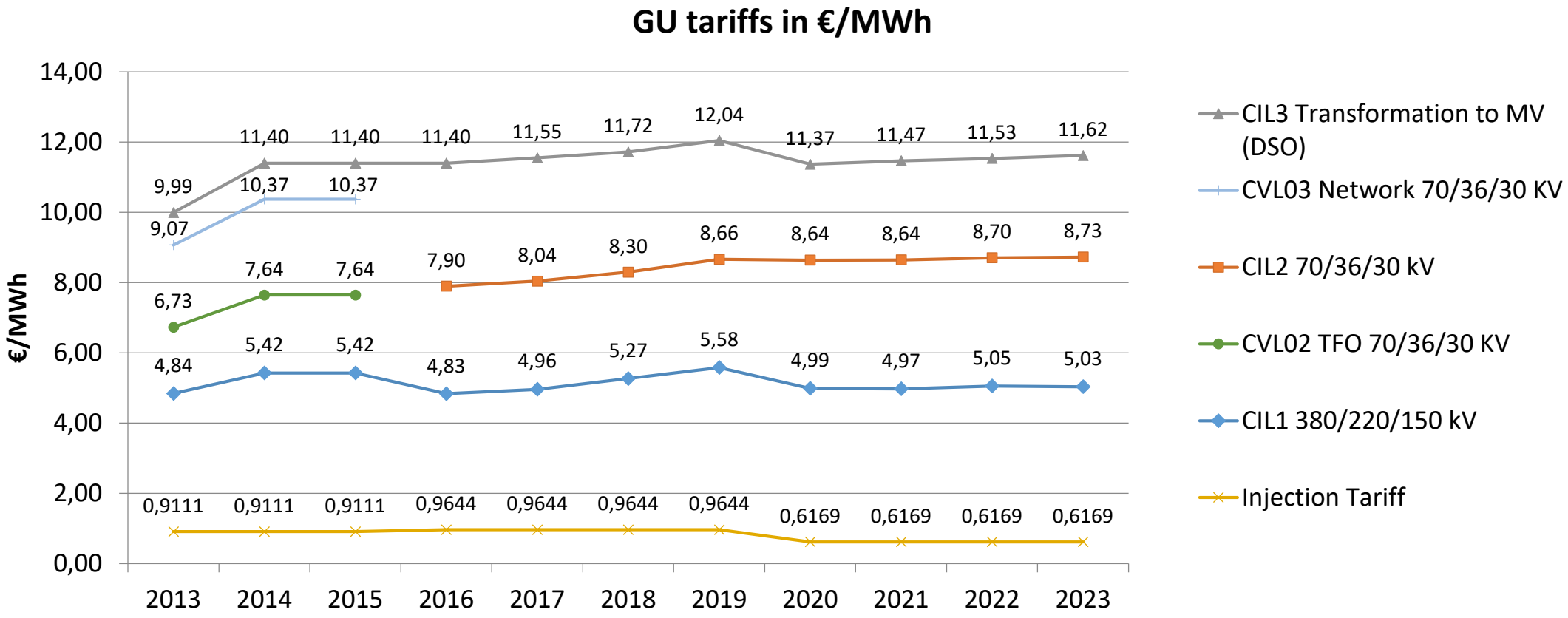
Evolution Volumes



Representative Profiles for tariff Evolution	CIL1 380/220/150 kV	CIL2 70/36/30 kV	CIL 3 Transformation to MV (DSO)
Power Put at Disposal (MVA)	45	12	50
Yearly peak (MW)	30	6	20
Monthly peak (MW)	35	7	17
Net Offtake (GWh)	155	32	90

Evolution Access Tariffs

Graph



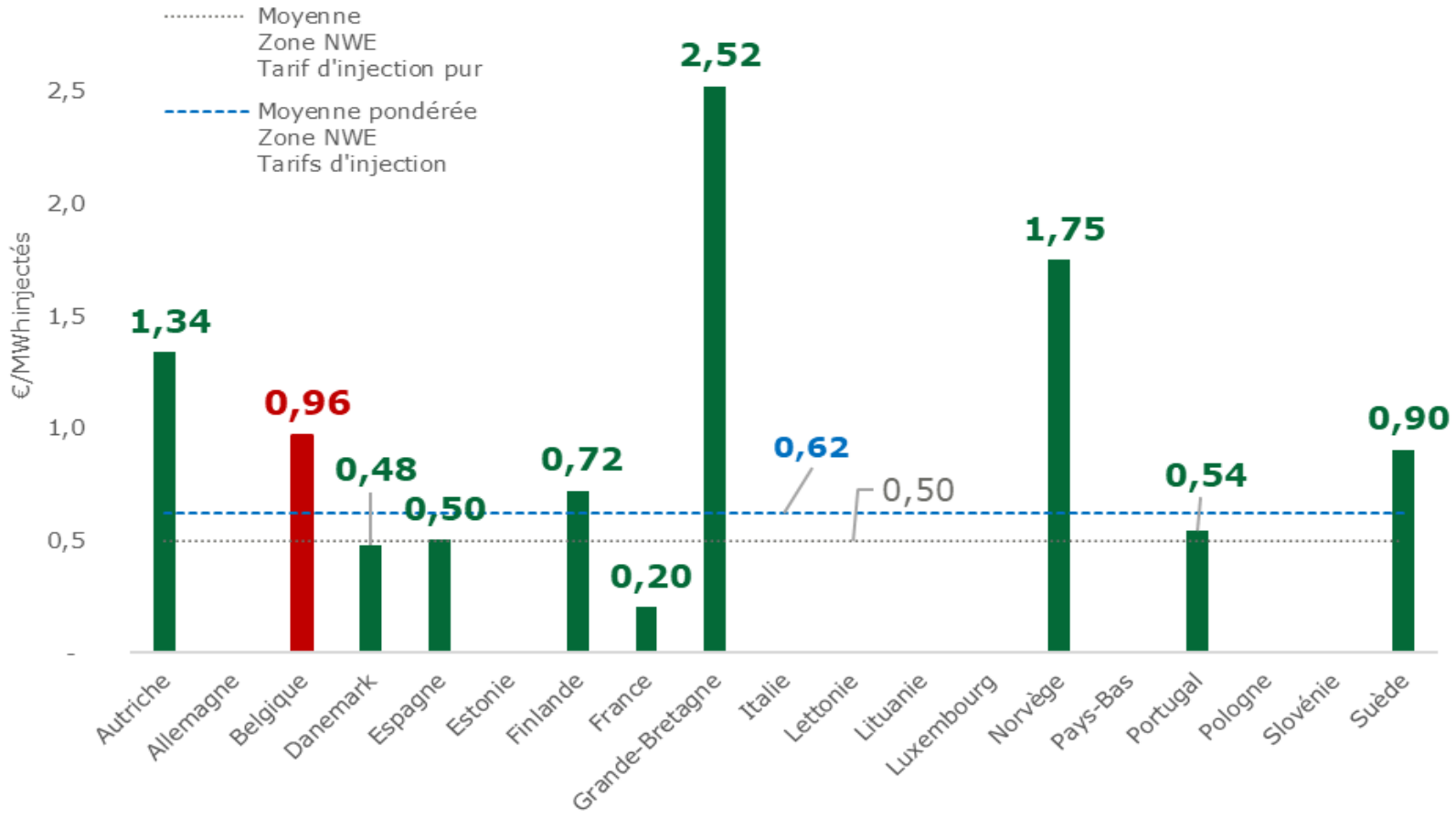
Evolution Access Tariffs

Explanations

- **Tariffs are stable between 2020 and 2023.** A total average decrease 2019 vs 2023 of 1% can be noted.
- **Tariffs decrease by 10,88% for Grid Users CIL 1** (Industrial Clients) between 2019 and 2020.
- **Tariffs are stable for Grid Users CIL 2** over the upcoming 4 years and this in despite of the decrease of net offtake volume on the CIL 2 contractual level.
- **Tariffs decrease for the DSOs in 2020 of 5,5% compared to 2019**; from 2019 onwards an increase of 0,5% per year on average is applicable due to a decrease in the net offtake volume.
- **Injection tariff decreases significantly by 36%** 2019 vs 2023 (due to evolution of the benchmark).

Benchmark of Access Tariff

European benchmark generation

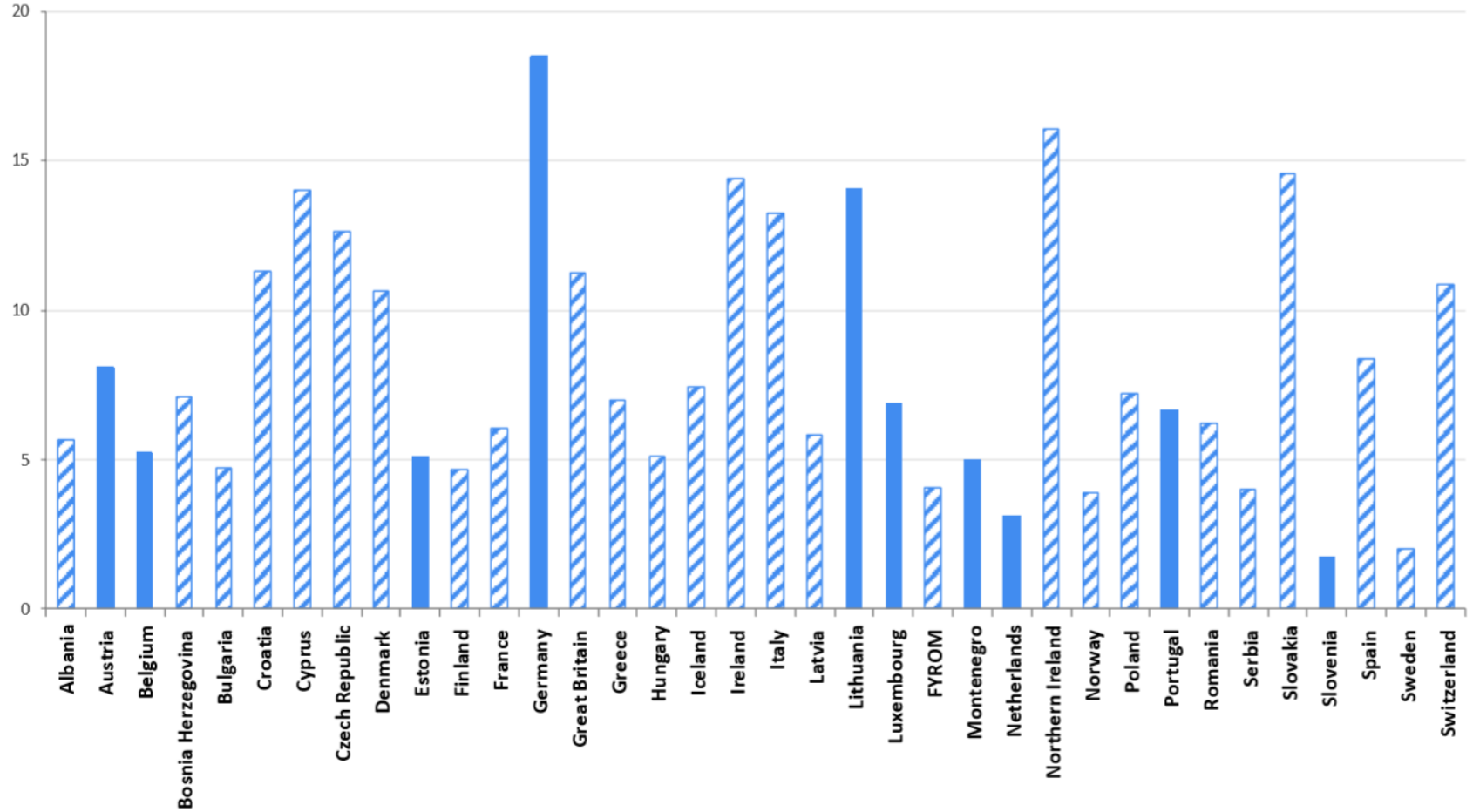


Source: Deloitte Finance

Benchmark of Access Tariff

European Benchmark Load

Chart 7.3. L components of the TSO components of the Unit Transmission Tariffs in 2018 (€/MWh)



Source: ENTSO-E Overview of Transmission Tariffs in Europe: Synthesis 2018

Evolution Tariffs for Public Service Obligations and Taxes & Levies

Public Service Obligations / Taxes & Levies (€/MWh net offtaken)	*2019*	*2020*
Federal		
Federal contribution	3,3461	3,1428
Tariff for public service obligations for financing of connection of offshore wind turbine parks	0,1613	0,1188
Tariff for public service obligations for financing of green certificates (federal)	7,2875	9,0141
Tariff for public service obligations for financing of Strategic Reserves	0,0000	0,0000
Flemish Region		
Tariff for public service obligations for financing the support measures for renewable energy and cogeneration in Flanders (≤ 70kV)	0,3621	0,1609
Tariff for public service obligations for financing measures for promotion of rational energy use in Flanders (≤ 70kV)	0,0000	0,0000
Levy for the taxes « pylons » and « trenches » in Flanders	0,0933	0,1441
Walloon Region (≤ 70kV)		
Tariff for public service obligations for financing the support measures for renewable energy in Wallonia (first component)	13,8159	13,8159
Tariff for public service obligations for financing the support measures for renewable energy in Wallonia (second component)	2,5495	-
Tariff for public service obligations for financing the support measures for renewable energy in Wallonia (third component)	-	N.A.
Levy for occupying public domain in Wallonia	0,3340	0,3378
Brussels Metropolitan Region (≥ 30 kV)		
Levy for occupying road network in Brussels	3,4642	3,5084

* To be defined by ministerial decree

Publications & Contacts

Tariff Publications

- Tariffs 2020-2023 (and their structure) are published on Elia's website:

https://www.elia.be/en/customers/invoicing-and-tariffs

- Tariffs for public service obligations, taxes and levies for 2020 are published on Elia's website:

https://www.elia.be/en/customers/green-certificates-and-levies-tariffs

- An invoice simulation tool has been made available for access tariffs, tariffs for obligation of public services, taxes and levies

https://www.elia.be/en/customers/invoicing-and-tariffs

Your Key Account Manager remains at your disposal!

Key Account Managers for Grid Users and Access Contract Holders:

Ms. Ann LARSEN
+32 2 546 73 20
ann.larsen@elia.be

Mr. Raphael Bourgeois
+32 2 546 72 43
raphael.bourgeois@elia.be

Ms. Sophie Gorlé
+32 2 546 76 66
sophie.gorle@elia.be

Mr. Matthias Masschelin
+32 2 546 73 91
matthias.masschelin@elia.be

Mr. Jean-Philippe Deckers
+32 2 382 72 42
jeanphilippe.deckers@elia.be

Mr. Nicolas BRAGARD
+32 2 546 74 56
nicolas.bragard@elia.be

Key Account Managers for Distribution System Operators

Mr. Christophe Baader
+32 2 546 73 64
christophe.baader@elia.be

Mr. Hans Vandenbroucke
+32 2 546 73 39
Hans.Vandenbroucke@elia.be

Thank you.