



Comparison of electricity tariffs for EV charging in Europe

Final Report

JULY 2025

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Glossary














Acronym	Definition
CP	Charging Point
FUE	«Fattore di Utilizzo Elettrico», that is «electric utilisation factor”, equal to the percentage ratio between the number of equivalent operating hours of a POD (at available power) and 8,760 hours/year (source: ARERA)
LV	Low Voltage
MV	Medium Voltage
POD	Point Of Delivery

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3. Overview of country energy tariffs	11
4. Individual configuration assessment	26

1. EXECUTIVE SUMMARY

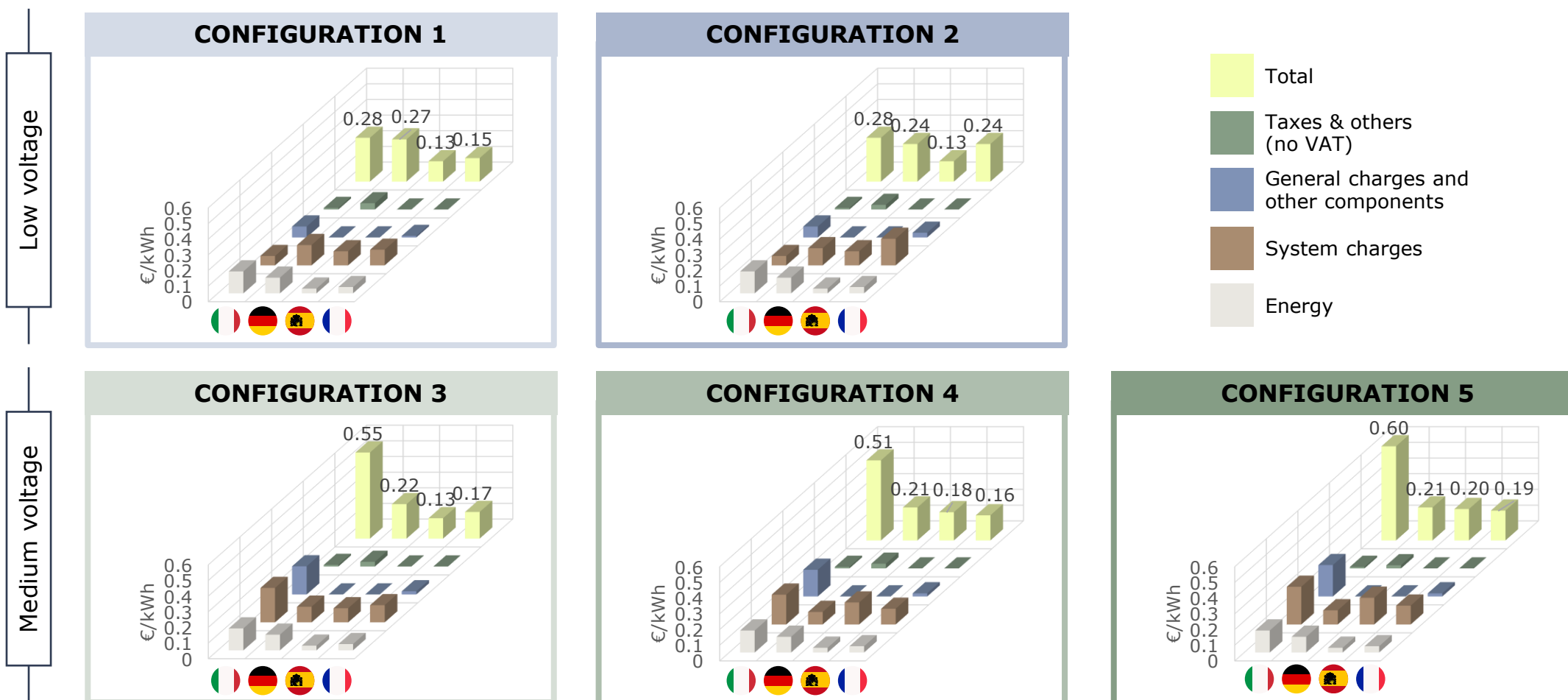
Five typical EV charging configurations have been considered in the analysis to identify and evaluate differences between the related electricity tariffs

	LOW VOLTAGE		MEDIUM VOLTAGE		
	CONFIGURATION 1	CONFIGURATION 2	CONFIGURATION 3	CONFIGURATION 4	CONFIGURATION 5
	<div><div>POD</div><div>50 kW</div><div></div><div>QUICK</div><div></div><div>QUICK</div></div>	<div><div>POD</div><div>99 kW</div><div></div><div>QUICK</div><div></div><div>FAST</div></div>	<div><div>POD</div><div>250 kW</div><div></div><div></div><div>...</div><div></div><div>MULTIFAST</div></div>	<div><div>POD</div><div>600 kW</div><div></div><div></div><div>...</div><div></div><div>MULTIFAST</div></div>	<div><div>POD</div><div>1200 kW</div><div></div><div></div><div>...</div><div></div><div>MULTIFAST</div></div>
Consumption [kWh/year]	8,000	15,000	37,000	85,000	130,000
Power [kW]	50	99	250	600	1,200
FUE [%]	1.83%	1.73%	1.69%	1.62%	1.24%
Italian tariff	BTVE	BTVE	MTA2	MTA3	MTA3

Notes: values agreed with Motus-E. No storage systems and/or secondary energy sources in addition to the electricity grid

1. EXECUTIVE SUMMARY

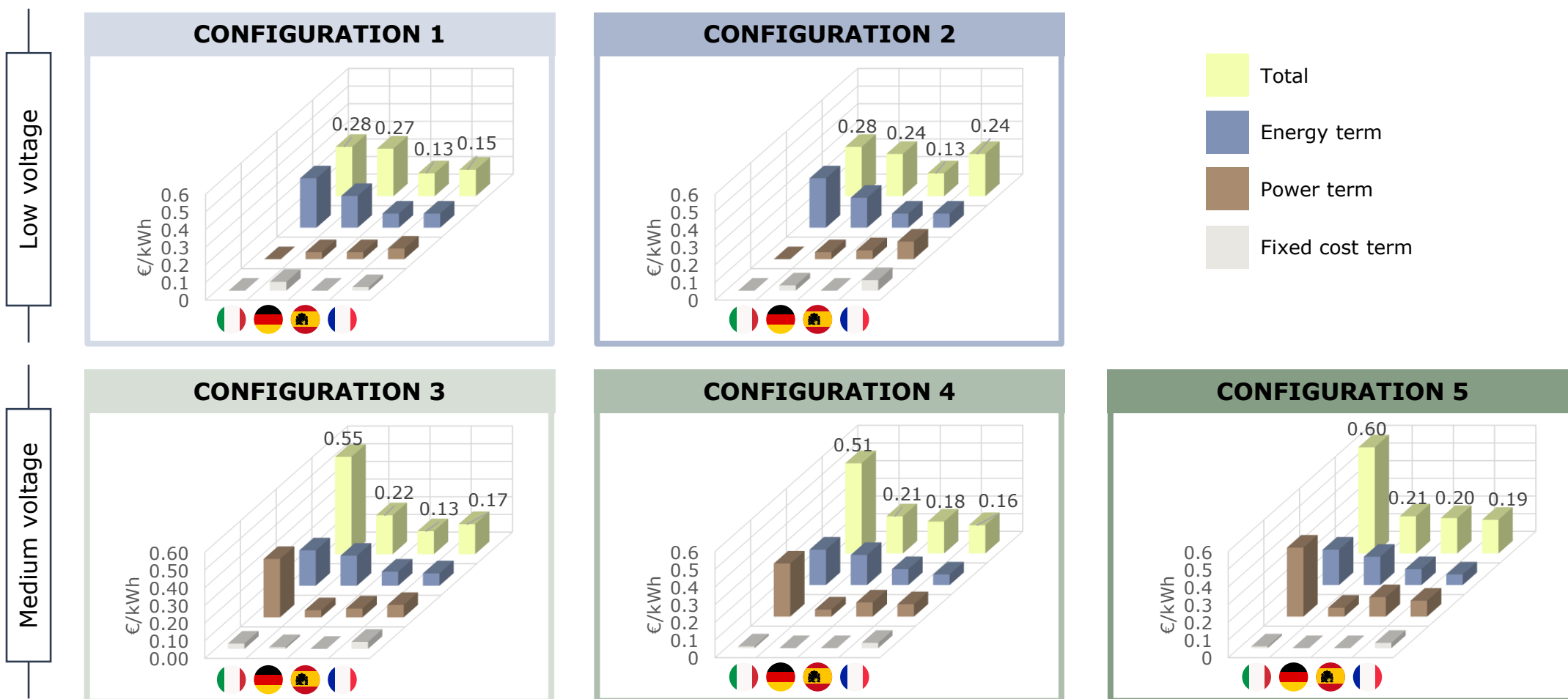
The Italian electricity tariff is the highest for all configurations, especially at medium voltage where system and general charges account for the bulk of it...



Notes: values referring to 2023

1. EXECUTIVE SUMMARY

... while power-dependent components generate most of the costs in medium voltage configurations, especially when the utilisation factor is low



Notes: values referring to 2023

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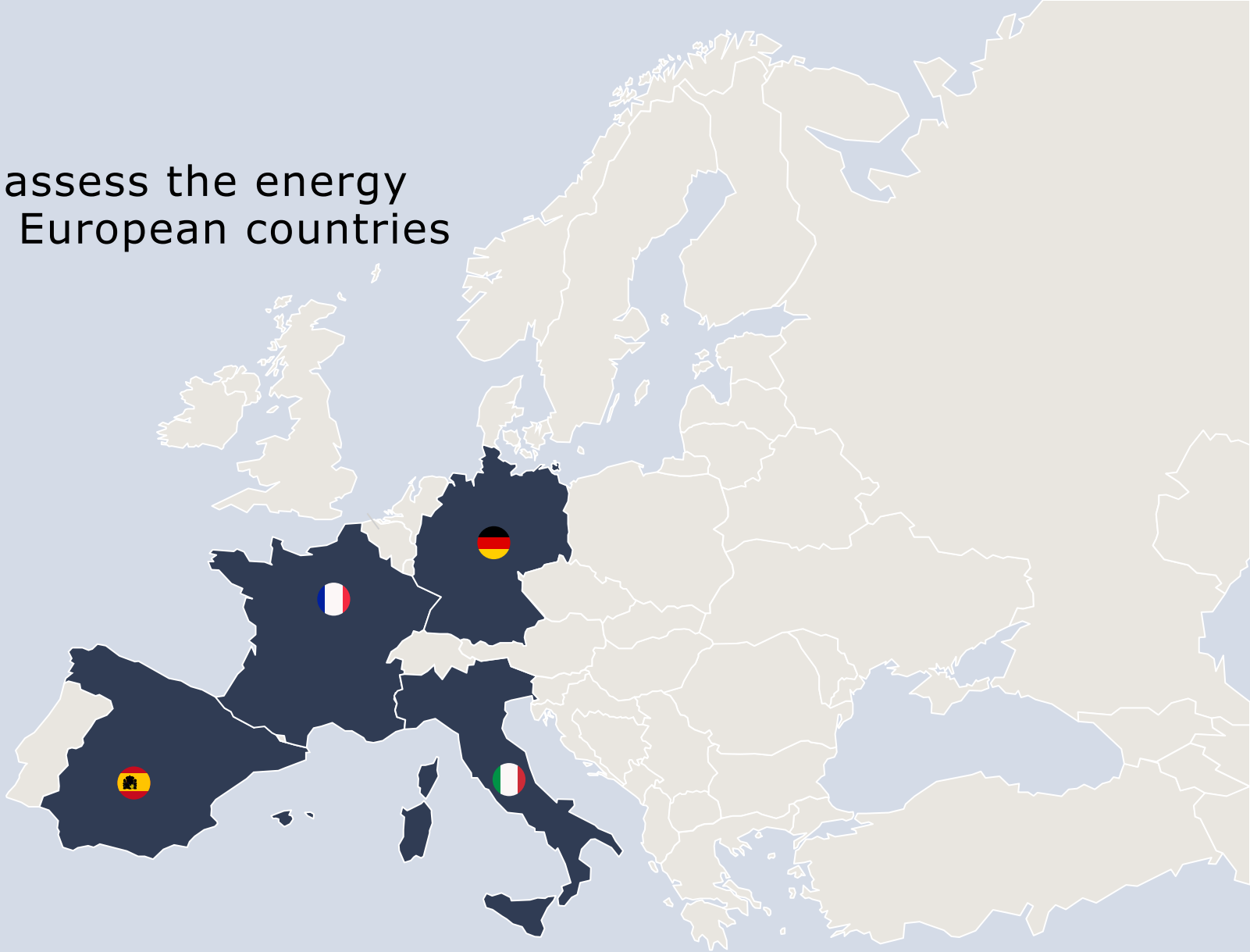
Motus-E appointed AFRY to assess the energy tariff for EV charging in key European countries

Context of the study

- In the public EV charging sector, energy represents a significant operational expenditure that operators must manage, particularly with low utilization of charging infrastructure
- To support the energy transition and promote the decarbonization of transport, some European countries have applied measures to reduce the total energy cost
- Motus-E, the Italian association for electric mobility, has commissioned AFRY to conduct a study on this topic

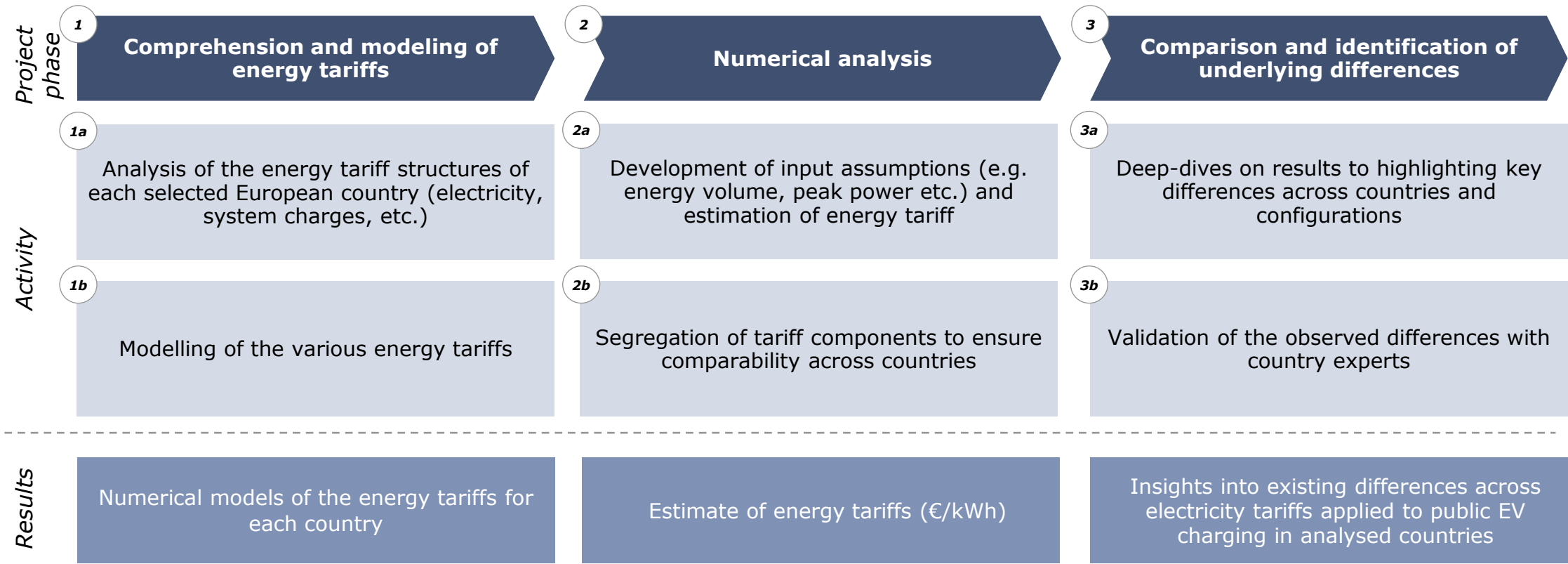
Scope of the study

- AFRY modelled and quantified the electricity tariffs that public CPO are most likely to incur in Italy, France, Germany and Spain, to identify the underlying difference
- The analysis focused on selected types of charging configurations that are representative of the current market practice



2. SCOPE AND APPROACH OF THE STUDY - APPROACH

A three-steps approach consisting of tariff modelling, numerical analysis and comparison was applied to achieve the project goal



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3. OVERVIEW OF COUNTRY ENERGY TARIFFS – ITALY

The electricity tariff consists of four macro cost-items related to fixed costs, power and energy volume, hence with variable materiality on the final cost

Tariff components		Fixed cost term [€/POD/year]	Power term [€/kW/year]	Energy term [€/kWh]	Time based	Materiality on final cost ⁴	Covering...	Special EV tariff	Time-of-use tariff
Energy	Electricity			✓	✓	●	Electricity from the either the Italian wholesale market or bilateral agreements with energy providers ⁵ . Losses included		
	Supplier margin ¹						Margin added by the energy supplier for its service (often including green energy preference)		
	Dispatching			✓	✓	🕒	Dispatching incurred by TSO (e.g. MSD, wind modulation, capacity market at peak and off-peak, system safety etc.)		
System charges	Transmission		✓	✓		🕒	Transport of electricity on the national transmission grid		
	Distribution	✓	✓	✓		🕒	Transport of electricity on distribution networks		
	Metering	✓		✓		🕒	Installation and maintenance of the meter (meter), as well as the costs of taking and recording measurements		
General charges and other components	ASOS	✓	✓	✓		🕒	General charges relating to the support of renewable energies and cogeneration		
	ARIM	✓	✓	✓		🕒	Remaining general charges (e.g. nuclear decommissioning and R&D costs)		
	UC3			✓		🕒	Imbalances in electricity transport cost equalisation systems on transmission and distribution networks, and integration mechanisms		
	UC6	✓	✓	✓		🕒	Recovery of service quality		
Taxes & others	Excise duty	✓ ³		✓		🕒	Indirect tax with immediate collection levied on the amount of energy consumed		
	Value Added Tax (VAT) ²					🕒	Indirect tax on supplies of goods and services effected within the territory of the State in the exercise of trade or profession and on imports by any person		

Sources: [Prezzi e Tariffe \(ARERA\)](#) | Notes: 1) Excluded, as dependant on the actual agreement with the supplier, 2) Excluded, 3) If energy volume is larger than 1.2 GWh/month, 4) Qualitative assessment for EV charging use, 5) Wholesale market considered, hence dependant on (yearly) market dynamics



3. OVERVIEW OF COUNTRY ENERGY TARIFFS – ITALY

The macro costs-items depend on the tariff type, which apply upon compliance with certain requirements, including the EV charging end use

TARIFF TYPES AS OF ARTICLE 2, COMMA 2.2 TIT

Letter	User type	Tariff code
a)	Domestic in low voltage	TD
b)	Public lighting in low voltage	BTIP
c)	Public charging points for electric vehicles in low voltage	BTVE
d)	Users different from a), b) and c) in low voltage	BTAU
e)	Public lighting in medium voltage	MTIP
f)	Users different from e) in medium voltage	MTAU
g)	High voltage	ALTA
h)	Very high voltage, lower than 380 kV	AAT1
h)	Very high voltage, equal of higher than 380 kV	AAT1

COMMENTARY

It is a 'favourable' energy tariff for EV charging provided in publicly accessible places through low voltage grid connection. It was introduced in 2011 ([ARG/elt 242/10](#)) to foster the growth of public EV charging and extended since then until today (full 2024)

The MTAU tariffs are meant to serve loads above 100kW with medium voltage grid connection, with no specific use (e.g. public lighting). These tariffs are often utilized for high-power public EV charging when the installed charging capacity is larger than 150-200 kW (e.g. multiple fast chargers at the same location)

The MTAU tariffs **do not introduce any favourable condition for public EV charging to support the business**



'Time-of-use tariffs' for the specific use case of EV charging are under discussion. Such tariffs basically make tariff components time dependant

Sources: [Delibera 616/2023/R/eel](#), [Consultazione 540/2023/R/eel](#)

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3. OVERVIEW OF COUNTRY ENERGY TARIFFS – GERMANY

The electricity tariff consists of four macro cost-items mostly related to energy volume

Tariff components		Fixed cost term [€/POD/year]	Power term [€/kW/year]	Energy term [€/kWh]	Time based	Materiality on final cost ⁴	Covering...	Special EV tariff	Time-of-use tariff
Energy	Electricity			✓	(✓ ¹)	●	Electricity procurement from the wholesale market or bilateral agreements with energy providers. Losses included		
	Supplier margin ¹						Margin added by the energy supplier for its service (often including green energy preference)		
System charges (grid fees)	Transmission (TSO)		✓	✓	(✓ ²)	◐	Transport of electricity in the four national transmissions grids (incl. dispatching)		
	Distribution (DSO)		(✓ ⁵)	✓	(✓ ²)	◐	Transport of electricity in local distribution networks		
	Metering	✓	✓ ³			○	Installation and maintenance of the meter, as well as the costs of taking and recording measurements		
General charges and other components	Offshore levy						Costs for the construction and operation of the connection lines between offshore wind parks and the national grid		
	CHP levy		Currently EV charging is exempted from levies				Surcharge to the plant operator for the electricity generated by CHP		
	Relief of companies						Compensation for the lost revenue resulting from reduced grid fees in the context of special forms of grid use		
Taxes & others	Electricity tax			✓		◐	Electricity consumption tax regulated by federal law		
	Concession fee			✓		◐	Municipalities receive money in return for the use of public roads and paths to lay electricity (and gas) lines		
	Value Added Tax (VAT) ²						General value added tax on energy-related services		

Sources: BNetzA, BMWK | Notes: 1) Time-based contracts are optional, usually energy is sold at fixed terms, 2) Time-based grid fees will be enabled starting in 2025 with exact details to be confirmed, 3) Different meters have to be used depending on power, 4) Qualitative assessment for EV charging use, 5) Depending on the DSO



3. OVERVIEW OF COUNTRY ENERGY TARIFFS – GERMANY

German tariffs are dependent on the yearly offtake as regulations allow for reliefs and prices scale with volume

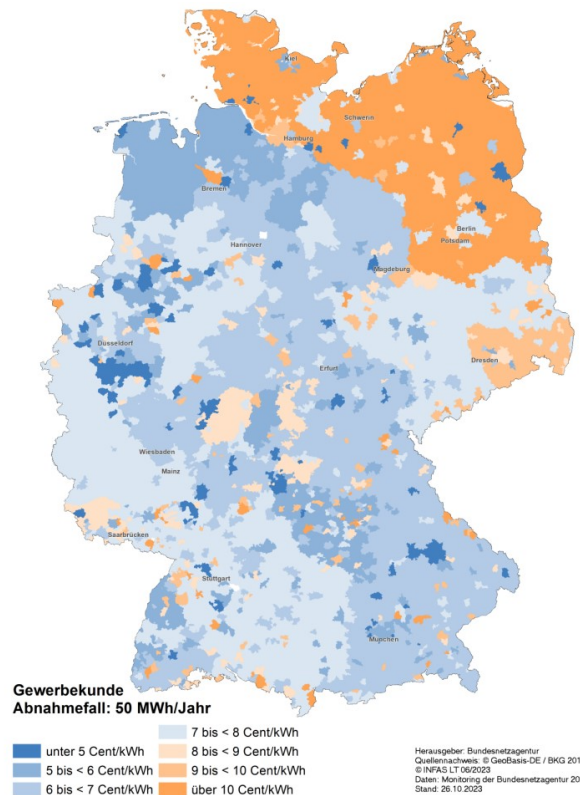
Tariff components		Household-equivalent tariff (<10 MWh)	Public EV-charging		Special tariffs
			Commercial (10-100 MWh)	Industry (>100 MWh)	
Energy	Procurement	Energy procurement on the wholesale market or within private agreements for costumers with high offtake			
	Distribution	Reduction in distribution cost scaled by volume (~50% reduction from household to industry)			Individual distribution agreements
System charges (grid fees)	Transmission (TSO)	Offtake on lowest voltage level and thus payment cover cost on all level (9.8 ct/kWh in 2023)	Offtake on medium voltage level (7.4 ct/kWh in 2023)	Offtake on high voltage level thus only cost for high voltage transmission to be paid (3.3 ct/kWh in 2023)	Individual agreements with transport and distribution system operators for special offtake
	Distribution (DSO)				
	Metering				
General charges and other	Offshore levy	Levies are paid on top of all regular power demand pulled from grid (~1 ct/kWh in 2023) – Exemption in place for public EV charging (paragraph 21, EnFG)			Reliefs can be obtained under certain circumstances
	CHP levy				
	Relief of companies				
Taxes & others	Electricity tax	Electricity tax is generally paid by all offtakers (~2 ct/kWh in 2023)		Industry companies pay the European minimum in 24/25 (~0.05 ct/kWh)	
	Value Added Tax (VAT)	End-consumer (19%)	Forwarded to end consumer (19%)		
	Concession fee	Highest fees according to federal law (1.6 ct/kWh)	Medium fees according to federal law (0.8 ct/kWh)	Lowest fees according to federal law (0.1 ct/kWh)	



3. OVERVIEW OF COUNTRY ENERGY TARIFFS – GERMANY

German grid fees are highly dependent on location as they are dependent on local network operators and offtakers

GRID FEES FOR COMMERCIAL CUSTOMERS IN 2023¹



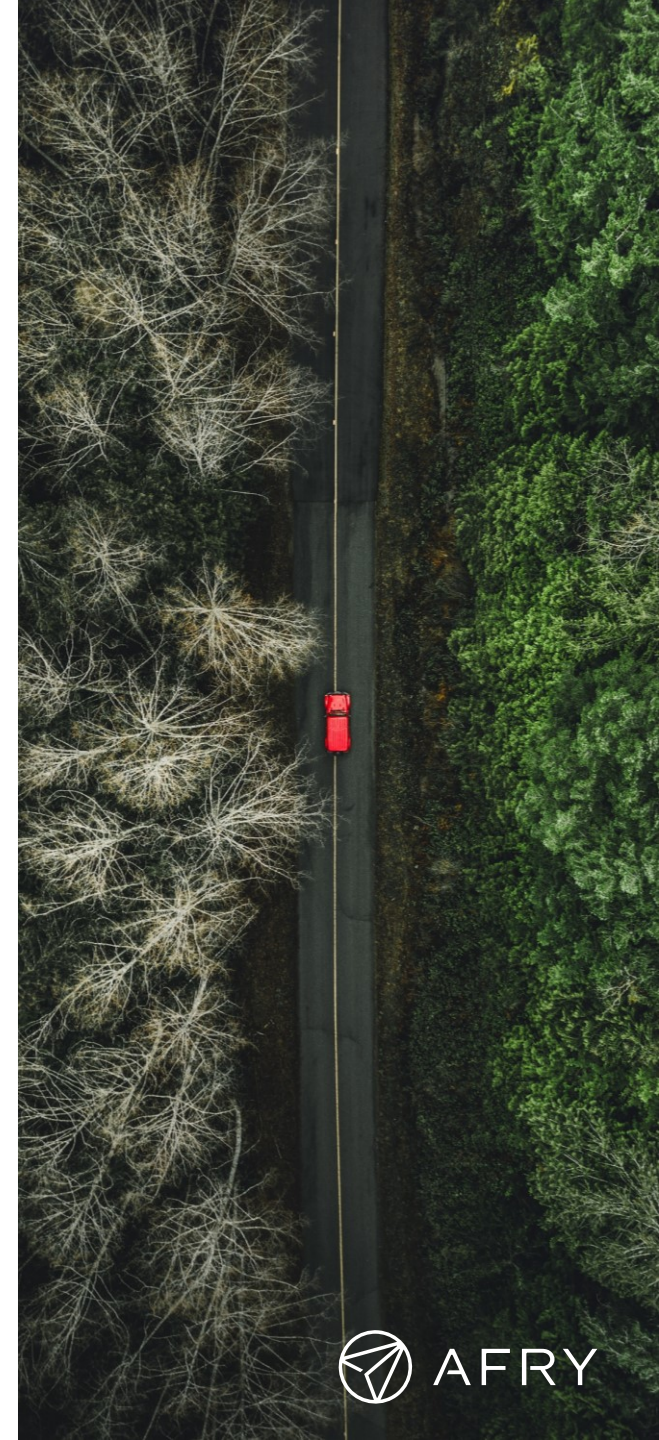
CALCULATION OF GRID FEES

- Grid fees are derived in three steps:
 - 1. Determination of grid costs:** The cost basis for grid fees is determined in regulatory periods of five years
 - 2. Determination of permissible revenues:** The recognized grid costs are converted into a revenue cap in accordance with the regulations
 - 3. Formation of grid charges:** The grid operators determine the grid charges based on the principles of the StromNEV
- This results in location-dependent grid fees
- For commercial customers with 50 MWh offtake, grid fees varied from 1.39 to 31.99 cent/kWh with an overall average of 7.42 cent/kWh in 2023¹
- Key factor for regional differences are:
 - **Population density:** In sparsely populated areas, the grid costs are distributed among a small number of grid users
 - Varying costs for **bottleneck management**
 - **Age of the grids:** Older grids with low residual values lead to lower grid costs than new grids
 - **Grid quality:** This has a direct influence on the revenue cap via the Q element
- Starting in 2024 variable grid fees will be in place for offtakers in turn for adjustment of power output (mostly relevant for households)

Notes: 1. Bundesnetzagentur

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3. OVERVIEW OF COUNTRY ENERGY TARIFFS – SPAIN

The electricity tariff consists of four macro cost-items related to fixed costs, power and energy volume, hence with variable materiality on the final cost

Tariff components		Fixed cost term [€/POD/year]	Power term [€/kW/year]	Energy term [€/kWh]	Time based	Materiality on final cost ⁴	Covering...	Special EV tariff	Time-of-use tariff
Energy	Electricity			✓	✓	🕒	Electricity from the either the Spanish wholesale market or bilateral agreements with energy providers. Losses included		
	Supplier margin ¹						Margin added by the energy supplier for its service (including green energy preference)		
Tolls & Charges	Transmission tolls		✓	✓	✓	🕒	Transport of electricity on the national transmission grid		
	Distribution tolls		✓	✓	✓	🕒	Transport of electricity on distribution networks		
	Grid charges		✓ ³	✓	✓	🕒	General system charges relating to the support of renewable energies and cogeneration, as well as non-mainland price adjustment		
Other charges	Metering equipment and rental	✓				🕒	Installation and maintenance of the meter (meter), as well as the costs of taking and recording measurements		
	Social Bond	✓		✓	✓	🕒	Transitory measure aimed to support vulnerable consumers		
Taxes & others	Impuesto Especial Electricidad (IEE)				✓	🕒	Special tax levied on the amount of energy consumed but proportional to economic value		
	Value Added Tax (VAT) ²				✓		Indirect tax on supplies of goods and services effected within the territory of the State in the exercise of trade or profession and on imports by any person. Usual levels at 21%, however has been as low as 5% depending on price context and government measures		

Sources: REE, CNMC, [Charges](#), [Tolls](#)] Notes: 1) Excluded, as dependant on the actual agreement with the supplier, 2) Excluded, 3) As of now no dependency on power term, grid charges are aimed to be paid fully via the energy term but could potentially change, 4) Qualitative assessment for EV charging use



3. OVERVIEW OF COUNTRY ENERGY TARIFFS – SPAIN

In recent years, EV-specific regulated tariffs 3.0TDVE/6.1TDVE were released to support the sector. Hourly periods have an impact on end-prices

REGULATED TARIFF GROUPS

Grid Charges	Group	Voltage Level	Contracted Power	Constraints
	2.0TD	≤ 1kV	≤ 15kW in all periods	-
	3.0TD	≤ 1kV	>15kW in any hourly period	Contracted power $P_{n+1} \geq P_n^1$
	6.1TD	(1, 30kV)	Any	Contracted power $P_{n+1} \geq P_n^1$
	6.2TD	[30, 72.5kV)	Any	Contracted power $P_{n+1} \geq P_n^1$
	6.3TD	[72.5, 145kV)	Any	Contracted power $P_{n+1} \geq P_n^1$
	6.4TD	≥ 145kV	Any	Contracted power $P_{n+1} \geq P_n^1$
	2.0TDA	Same as above	Same as above	Applied to the self-consumed energy of installations in which generation and consumption are not connected directly but through the grid
	3.0TDA			
	6.1TDA			
EV-Specific tariff groups	6.2TDA			
	6.3TDA			
	6.4TDA			
	3.0TDVE	<1kV	>15kW in any hourly period	Supply point of exclusive usage for EV charging ² & CP must be public
	6.1TDVE	≥1kV	>15kW in any period	

Grid Tolls	Charges Tariff Group		Tolls Tariff Group	
	1		2.0TD & 2.0TDA	
	2		3.0TD & 3.0TDA	
	3		6.1TD & 6.1TDA	
	4		6.2TD & 6.2TDA	
	5		6.3TD & 6.3TDA	
	6		6.4TD & 6.4TDA	
	2VE		3.0TDVE	
EV/specific tariff groups	3VE		6.1TDVE	

HOURLY PERIOD DISCRIMINATION

- Grid tolls and charges are set for each tariff group and each of the 6 hourly periods (1, 2, 3, 4, 5 & 6) or “time bands”, hence defined “time-of-use” tariff
- Hourly periods depend on:
 - The electricity season (High, Medium-high, Medium and Low) which changes every month
 - The day-type (Type A, Type B, Type B1, Type C and Type D) which depends on the day of the week and bank holidays
 - The hour within each day-type
- Contracted power can be different for each hourly period but always increasing, not decreasing: Hourly period 1 must have the lowest contracted power and increasing thereafter ($P_{n+1} \geq P_n$)

Tariff period		Month											
Hour of day		1	2	3	4	5	6	7	8	9	10	11	12
0		6	6	6	6	6	6	6	6	6	6	6	6
1		6	6	6	6	6	6	6	6	6	6	6	6
2		6	6	6	6	6	6	6	6	6	6	6	6
3		6	6	6	6	6	6	6	6	6	6	6	6
4		6	6	6	6	6	6	6	6	6	6	6	6
5		6	6	6	6	6	6	6	6	6	6	6	6
6		6	6	6	6	6	6	6	6	6	6	6	6
7		6	6	6	6	6	6	6	6	6	6	6	6
8		2	2	3	5	5	4	2	4	4	5	3	2
9		1	1	2	4	4	3	1	3	3	4	2	1
10		1	1	2	4	4	3	1	3	3	4	2	1
11		1	1	2	4	4	3	1	3	3	4	2	1
12		1	1	2	4	4	3	1	3	3	4	2	1
13		1	1	2	4	4	3	1	3	3	4	2	1
14		2	2	3	5	5	4	2	4	4	5	3	2
15		2	2	3	5	5	4	2	4	4	5	3	2
16		2	2	3	5	5	4	2	4	4	5	3	2
17		2	2	3	5	5	4	2	4	4	5	3	2
18		1	1	2	4	4	3	1	3	3	4	2	1
19		1	1	2	4	4	3	1	3	3	4	2	1
20		1	1	2	4	4	3	1	3	3	4	2	1
21		1	1	2	4	4	3	1	3	3	4	2	1
22		2	2	3	5	5	4	2	4	4	5	3	2
23		2	2	3	5	5	4	2	4	4	5	3	2
Weekends		6	6	6	6	6	6	6	6	6	6	6	6

Sources: Circular 3/2020, Charges, Tolls | (1) Contracted power can be different for each hourly period, (2) Not complying with this incurs in 20% cost penalty. TD stands for ‘Tablero Distribución’; ‘A’ for “Autoconsumo” (self-consumption) and ‘VE’ for Electric vehicle



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3. OVERVIEW OF COUNTRY ENERGY TARIFFS – FRANCE

The French electricity retail tariff structure is built on four main components comprising energy costs, system charges, general charges, levies and taxes

Tariff components		Fixed cost term [€/POD/year]	Power term [€/kW/year]	Energy term [€/kWh]	Time based	Materiality on final cost ¹	Covering...	Special EV tariff	Time-of-use tariff
Energy	Electricity			✓	✓	●	Electricity from the either the French wholesale market or bilateral agreements with energy providers. Losses included		
	Supplier margin						Margin added by the energy supplier for its service (including green energy preference)		
System charges	Transmission & Distribution		✓	✓	✓	🕒	Tariffs to access the transmission and distribution networks (TURPE) are regulated. The weights of energy/capacity components in the total tariff vary from a voltage category to the other. Transport of electricity on the national transmission & distribution grids. Installation and maintenance of the meter (meter), of taking and recording measurements. Dispatching is included		
	Administrative charges	✓				🕒			
	Capacity payment			✓		🕒	Installation and maintenance of the meter (meter), as well as the costs of taking and recording measurements		
General charges and other components	CTA levy	✓	✓			🕒	Transmission tariff contribution (CTA), helps fund the specific pension rights of employees covered by the electricity and gas industries scheme. Indexed on the fixed elements of the grid tariff (TURPE). A stable TURPE results in a stable CTA		
Taxes & others	"Accise" on electricity			✓		🕒	Merged 2 former taxes: CSPE and TICFE. Initially financed the extra-costs of the RES support mechanisms and transition of the non-interconnected zones or specific social mechanisms. Steadily increasing since 2003. In 2021, it was decided to un-index its value from the real cost of support mechanisms: it is now set in the Finance Law		
	Value Added Tax (VAT) ²						Indirect tax on supplies of goods and services effected within the territory of the State in the exercise of trade or profession and on imports by any person		

Sources: CRE, AFRY Analysis | Notes: 1. Qualitative assessment for EV charging use, 2. Excluded

3. OVERVIEW OF COUNTRY ENERGY TARIFFS – FRANCE – GRID CHARGES

Grid tariffs are paid to the TSO/DSO, directly or via the retailer, and are regulated by the CRE

FOUR PRINCIPLES FOR THE GRID TARIFFS

Main principles

**Postage stamp principle:**

The tariff is independent of the distance travelled by the electricity between the site where it was generated and the site where it is consumed

**Principle of tariff equalisation:**

In a spirit of solidarity between territories, the TURPE is applied in the same way throughout mainland France territory

Additional principles

**Principle of a dual tariff component** (binomial tariff):

Excluding HTB3 and injection, the tariff comprises a power and an energy component, to take account of the different consumption patterns of the customers

**Time-of-use principle:**

Variation of the withdrawal component according to the time of use of the network to account for the stress level of the system

INDEXATION OF THE TARIFF SCHEDULE

- Every 4-6 years, the whole tariff structure is revised by the CRE: TURPE 7 application will start in 2025 (for the 2025-29 period) to account for structural changes in investment and operational costs incurred by the TSO
- During each period, annual update on August 1st, based on:
 - The consumer price index (CPI) excluding tobacco
 - The *ex-post* correction of deviations in revenue and expenditure in relation to authorised income (+/-2%)

Regulator & TSO

The Energy Regulation Commission (CRE)



CRE, the French Energy Regulatory Commission, was created on 24 March 2000. Its role is to ensure that the electricity and gas markets in France operate smoothly, for the benefit of end consumers and in line with energy policy objectives.

RTE (Réseau de Transmission d'Électricité)



Public company (owned by EDF at 50.1%) in charge of operating and managing the electricity transmission grid in the country, namely designed as the Transmission System Operator (TSO).

3. OVERVIEW OF COUNTRY ENERGY TARIFFS – FRANCE – GRID TARIFF

The choice of voltage range and the consumption profiles highly impact grid costs

APPLICABLE GRID TARIFFS

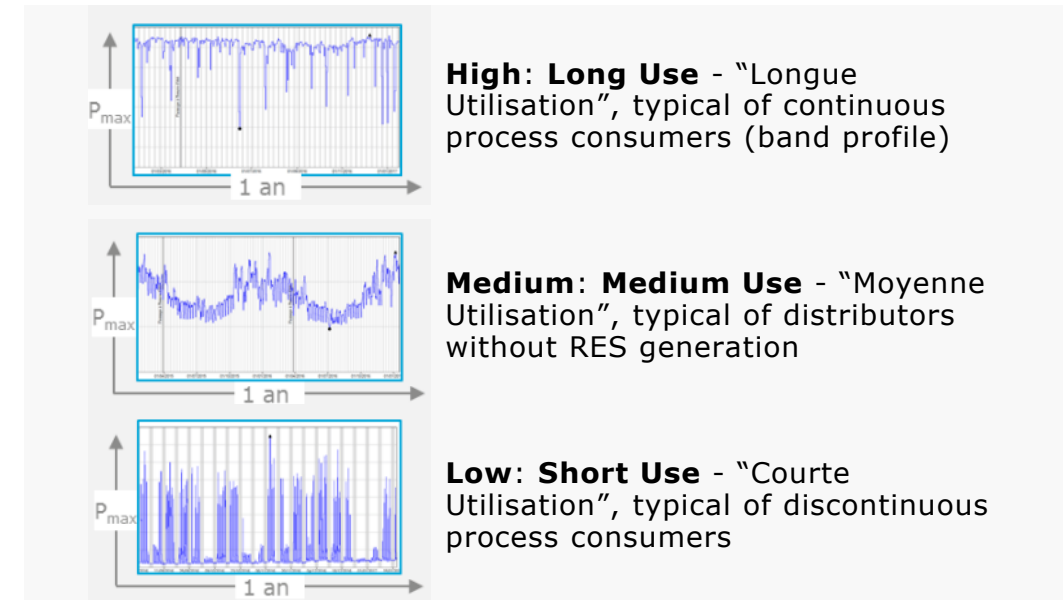
Depends on connection's intensity level (I_n)

Connection Voltage	Applicable tariff
0 kV < $U_n \leq 1$ kV	BT ≤ 36 kVA
	BT > 36 kVA
1 kV < $U_n \leq 50$ kV	HTA
50 kV < $U_n \leq 130$ kV	HTB1
130 kV < $U_n \leq 350$ kV	HTB2
350 kV < $U_n \leq 500$ kV	HTB3

- Low and Medium voltage tariffs cover Enedis's costs, while High voltage tariffs cover RTE's costs

CONSUMPTION PROFILES & TARIFF VERSIONS

- There are three tariff versions: Short Use (SU), Medium Use (MU) and Long Use (LU), according which the withdrawal component factors vary to adapt to the consumption profiles
- The Customer chooses which one to apply:
















Agenda

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4. INDIVIDUAL CONFIGURATION ASSESSMENT





Five typical EV charging configurations have been considered in the analysis to identify and evaluate differences between the related electricity tariffs

	LOW VOLTAGE		MEDIUM VOLTAGE		
	CONFIGURATION 1	CONFIGURATION 2	CONFIGURATION 3	CONFIGURATION 4	CONFIGURATION 5
	<div> <div>POD</div> <div>50 kW</div> </div> <div>  <div>QUICK</div> </div> <div>  <div>QUICK</div> </div>	<div> <div>POD</div> <div>99 kW</div> </div> <div>  <div>QUICK</div> </div> <div>  <div>FAST</div> </div>	<div> <div>POD</div> <div>250 kW</div> </div> <div>  </div> <div>  </div> <div> <div>⋮</div> </div> <div>  </div> <div>MULTIFAST</div>	<div> <div>POD</div> <div>600 kW</div> </div> <div>  </div> <div>  </div> <div> <div>⋮</div> </div> <div>  </div> <div>MULTIFAST</div>	<div> <div>POD</div> <div>1200 kW</div> </div> <div>  </div> <div>  </div> <div> <div>⋮</div> </div> <div>  </div> <div>MULTIFAST</div>
Consumption [kWh/year]	8,000	15,000	37,000	85,000	130,000
Power [kW]	50	99	250	600	1,200
FUE [%]	1.83%	1.73%	1.69%	1.62%	1.24%
Italian tariff	BTVE	BTVE	MTA2	MTA3	MTA3

Notes: values agreed with Motus-E. No storage systems and/or secondary energy sources in addition to the electricity grid

4. INDIVIDUAL CONFIGURATION ASSESSMENT

Configuration 1

				
Applied tariff	BTVE	Household-equivalent	3.0 TDVE	BT ≤36 kVA
Components [€/kWh]				
Energy	0.14	0.10	0.03	0.04
System charges	0.06	0.13	0.09	0.10
General charges and other components	0.07	0.00	0.00	0.01
Takes & others (no VAT)	0.01	0.04	0.00	0.00
Total	0.28	0.27	0.13	0.15
Fixed cost term	0.00	0.05	0.00	0.02
Power term	0.00	0.04	0.04	0.06
Energy term	0.28	0.18	0.08	0.08

Configuration specifics

Consumption [kWh/year]

8,000

Power [kW]

50

FUE [%]





1.83%

Italian tariff

BTVE

4. INDIVIDUAL CONFIGURATION ASSESSMENT

Configuration 2

				
Applied tariff	BTVE	Commercial	3.0 TDVE	BT ≤36 kVA
Components [€/kWh]				
Energy	0.14	0.10	0.03	0.04
System charges	0.06	0.11	0.09	0.17
General charges and other components	0.07	0.00	0.00	0.03
Takes & others (no VAT)	0.01	0.03	0.00	0.00
Total	0.28	0.24	0.13	0.24
Fixed cost term	0.00	0.03	0.00	0.06
Power term	0.00	0.04	0.05	0.10
Energy term	0.28	0.17	0.08	0.08

Configuration specifics

Consumption [kWh/year]

15,000

Power [kW]

99

FUE [%]





1.73%

Italian tariff

BTVE

4. INDIVIDUAL CONFIGURATION ASSESSMENT

Configuration 3

				
Applied tariff	MTA2	Commercial	3.0 TDVE	HTA
Components [€/kWh]				
Energy	0.14	0.10	0.03	0.04
System charges	0.22	0.03	0.09	0.11
General charges and other components	0.18	0.00	0.00	0.02
Takes & others (no VAT)	0.01	0.03	0.00	0.00
Total	0.55	0.22	0.13	0.17
Fixed cost term	0.03	0.01	0.00	0.04
Power term	0.33	0.04	0.05	0.07
Energy term	0.20	0.17	0.08	0.07

Configuration specifics

Consumption [kWh/year]

37,000

Power [kW]

250

FUE [%]





1.69%

Italian tariff

MTA2

4. INDIVIDUAL CONFIGURATION ASSESSMENT

Configuration 4

				
Applied tariff	MTA3	Commercial	6.1 TDVE	HTA
Components [€/kWh]				
Energy	0.14	0.10	0.03	0.04
System charges	0.19	0.08	0.14	0.10
General charges and other components	0.17	0.00	0.00	0.02
Takes & others (no VAT)	0.01	0.03	0.00	0.00
Total	0.51	0.21	0.18	0.16
Fixed cost term	0.01	0.00	0.00	0.03
Power term	0.30	0.04	0.08	0.07
Energy term	0.20	0.17	0.09	0.06

Configuration specifics

Consumption [kWh/year]

85,000

Power [kW]

600

FUE [%]





1.62%

Italian tariff

MTA3

4. INDIVIDUAL CONFIGURATION ASSESSMENT

Configuration 5

				
Applied tariff	MTA3	Industrial	6.1 TDVE	HTA
Components [€/kWh]				
Energy	0.14	0.10	0.03	0.04
System charges	0.24	0.09	0.17	0.12
General charges and other components	0.20	0.00	0.00	0.00
Takes & others (no VAT)	0.01	0.02	0.00	0.00
Total	0.60	0.21	0.20	0.19
Fixed cost term	0.01	0.00	0.00	0.03
Power term	0.39	0.05	0.11	0.09
Energy term	0.20	0.16	0.09	0.06

Configuration specifics

Consumption [kWh/year]

130,000

Power [kW]

1,200

FUE [%]

1.24%

Italian tariff

MTA3

The AFRY team brings together expert knowledge of electric mobility and energy markets



ORAZIO CORVA

Principal Future Cities & Mobility

Milan office

Orazio is a senior expert of mobility services operated through BEV fleets. Before joining AFRY he led car2go (Share Now) Iberia operating the car sharing business through a BEV fleet of 800 Smart EV; he oversaw business development for Acciona Mobility operating a fleet of 8,000 electric mopeds in Europe; as consultant he led projects on EV charging, fleet management, among others. Orazio was also involved in UI design and system integration projects



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Paolo has been part of the Milan office since 2015 and is responsible for forward looking market analysis projects in Italy. Paolo has led a large number of projects focused on the assessment of power price evolution at both wholesale and retail level. In parallel, he has also been responsible for valuation activities on power generation assets including RES, storages, thermal and hydro



CLAUDIO MOLTENI

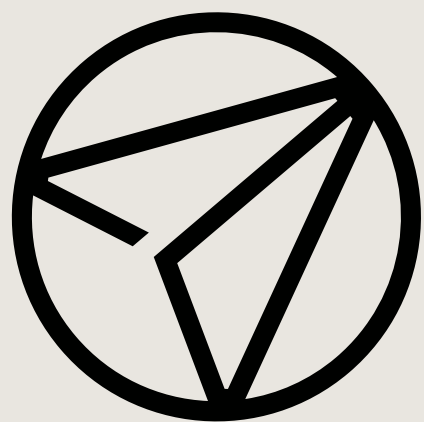
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Claudio is core member of the Future Cities and Mobility expertise cluster of AFRY. He has supported companies worldwide in their transition towards sustainable cities and transport, both at strategic and technical level. Claudio completed several projects in the mobility field, especially on EV charging and urban transport, as consultant, project manager and expert, in Italy and abroad. He holds a degree in engineering and management



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