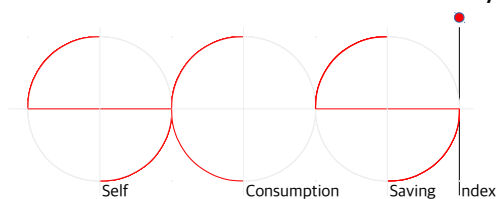


# Self Consumption Saving Index

4<sup>th</sup> quarter 2020

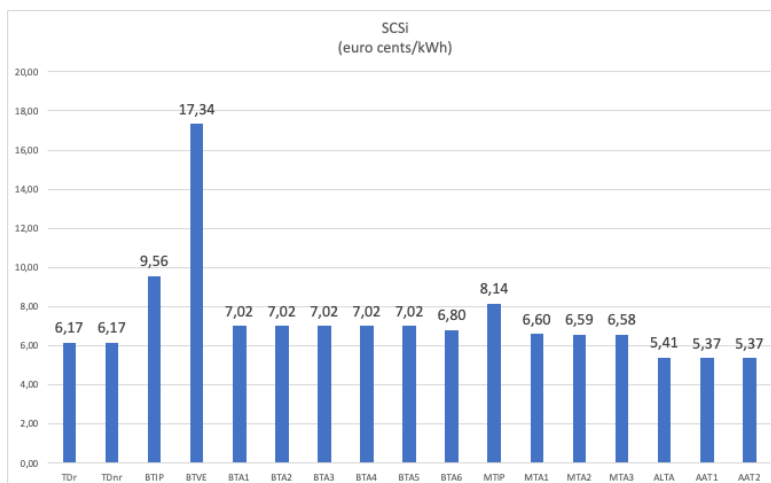
The Energy Professionals Group



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Avoided energy costs in case of self-supply of electricity according to the terms allowed by the current legislation applicable to self-consumed electricity <sup>1</sup>.

SCSi		euro cents /kWh
TD	Domestic user	
	residents	6,17
	non residents	6,17
BTIP	Low-voltage public lighting supplies	9,56
BTVE	Low-voltage power supplies for public charging infrastructure for electric vehicles	17,34
	Other low voltage consumers with available power up to 16.5 kW	
BTA1	for powers less than or equal to 3 kW	7,02
BTA2	for powers greater than 1.5 kW and less than or equal to 3 kW	7,02
BTA3	for powers greater than 3 kW and less than or equal to 6 kW	7,02
BTA4	for powers greater than 6 kW and less than or equal to 10 kW	7,02
BTA5	for powers exceeding 10 kW	7,02
BTA6	Other low voltage consumers with available power above 16.5 kW	6,80
MTIP	Medium voltage public lighting	8,14
MTA1	Other medium voltage consumers with available power up to 100 kW	6,60
MTA2	Other medium voltage consumers with available power greater than 100 kW and less or equal to 500 kW	6,59
MTA3	Other medium voltage consumers with available power above 500 kW	6,58
ALTA	High Voltage Utilities	5,41
AAT1	Very high voltage consumers, with voltage less than 380 kV	5,37
AAT2	Very high voltage consumers, with voltage equal to or greater than 380 kV	5,37



<sup>1</sup> In Italy.

Table 1

NETWORK AND SYSTEM CHARGES Values in force in the 4th quarter of year 2020		System charges			Network charges			TOTAL		
		Fixed quota	Power quota	Energy quota	Fixed quota	Power quota	Energy quota	Fixed quota	Power quota	Energy quota
		euro cents/point/year	euro cents/kW per year	euro cents/kWh	euro cents/point/year	euro cents/kW per year	euro cents/kWh	euro cents/point/year	euro cents/kW per year	euro cents/kWh
TD	Domestic user									
	residents	0,00	0,00	4,25	2.040,00	2.088,00	0,76	2.040,00	2.088,00	5,01
	non residents	11.486,28	0,00	4,25	2.040,00	2.088,00	0,76	13.526,28	2.088,00	5,01
BTIP	Low-voltage public lighting supplies	0,00	0,00	6,34	0,00	0,00	2,07	0,00	0,00	8,41
BTVE	Low-voltage power supplies for public charging infrastructure for electric vehicles	0,00	0,00	10,30	0,00	0,00	5,88	0,00	0,00	16,19
	Other low voltage consumers with available power up to 16.5 kW									
BTA1	for powers less than or equal to 3 kW	2.568,72	3.037,92	5,05	2.473,47	2.925,01	0,82	5.042,19	5.962,93	5,87
BTA2	for powers greater than 1.5 kW and less than or equal to 3 kW	2.568,72	2.877,12	5,05	2.473,47	2.770,25	0,82	5.042,19	5.647,37	5,87
BTA3	for powers greater than 3 kW and less than or equal to 6 kW	2.568,72	3.198,60	5,05	2.473,47	3.079,77	0,82	5.042,19	6.278,37	5,87
BTA4	for powers greater than 6 kW and less than or equal to 10 kW	2.616,84	3.198,60	5,05	2.519,74	3.079,77	0,82	5.136,58	6.278,37	5,87
BTA5	for powers exceeding 10 kW	2.616,84	3.198,60	5,05	2.519,74	3.079,77	0,82	5.136,58	6.278,37	5,87
BTA6	Other low voltage consumers with available power above 16.5 kW	2.490,96	2.946,00	4,82	2.473,47	2.925,01	0,82	4.964,43	5.871,01	5,64
MTIP	Medium voltage public lighting	0,00	0,00	5,58	-	-	1,41	0,00	0,00	6,99
MTA1	Other medium voltage consumers with available power up to 100 kW	67.837,44	3.285,24	4,68	67.355,56	3.261,91	0,77	135.193,00	6.547,15	5,45
MTA2	Other medium voltage consumers with available power greater than 100 kW and less or equal to 500 kW	63.417,24	2.950,08	4,68	62.966,61	2.929,06	0,76	126.383,85	5.879,14	5,44
MTA3	Other medium voltage consumers with available power above 500 kW	62.071,92	2.588,04	4,67	61.630,85	2.569,59	0,75	123.702,77	5.157,63	5,42
ALTA	High Voltage Utilities	2.103.853,56	2.169,12	4,17	2.025.711,17	2.088,46	0,09	4.129.564,73	4.257,58	4,26
AAT1	Very high voltage consumers, with voltage less than 380 kV	2.103.853,56	2.169,12	4,15	2.025.711,17	2.088,46	0,07	4.129.564,73	4.257,58	4,22
AAT2	Very high voltage consumers, with voltage equal to or greater than 380 kV	2.103.853,56	2.169,12	4,15	2.025.711,17	2.088,46	0,07	4.129.564,73	4.257,58	4,22

Table 2

NETWORK CHARGES (year 2020)		Metering		Distribution			Transmission		TOTAL		
		Fixed quota	Energy quota	Fixed quota	Power quota	Energy quota	Power quota	Energy quota	Fixed quota	Power quota	Energy quota
		euro cents/point/year	euro cents/kWh	euro cents/point/year	euro cents/kW per year	euro cents/kWh	euro cents/point/year	euro cents/kWh	euro cents/point/year	euro cents/kW per year	euro cents/kWh
TD	Utenze domestiche										
	di cui: residenti	1.733,20		306,80	2.088,00	0,761			2.040,00	2.088,00	0,761
	di cui: non residenti	1.733,20		306,80	2.088,00	0,761			2.040,00	2.088,00	0,761
BTIP	Utenze in bassa tensione di illuminazione pubblica	-	0,062	-	-	1,244	-	0,761	-	0	2,067
BTVE	Utenze in bassa tensione per alimentazione esclusiva dei punti di ricarica di veicoli elettrici in luoghi accessibili al pubblico	-	0,152	-	-	4,969	-	0,761	-	0	5,882
	Altre utenze in bassa tensione con potenza disponibile fino a 16,5 kW							0,761		0	0,761
BTA1	- per potenze impegnate inferiori o uguali a 1.5 kW	2.010,77	-	462,70	2.925,01	0,061		0,761	2.473,47	2925,01	0,822
BTA2	- per potenze impegnate superiori a 1.5 kW e inferiori o uguali a 3 kW	2.010,77	-	462,70	2.770,25	0,061		0,761	2.473,47	2770,25	0,822
BTA3	- per potenze impegnate superiori a 3 kW e inferiori o uguali a 6 kW	2.010,77	-	462,70	3.079,77	0,061		0,761	2.473,47	3079,77	0,822
BTA4	- per potenze impegnate superiori a 6 kW e inferiori o uguali a 10 kW	2.010,77	-	508,97	3.079,77	0,061		0,761	2.519,74	3079,77	0,822
BTA5	- per potenze impegnate superiori a 10 kW	2.010,77	-	508,97	3.079,77	0,061		0,761	2.519,74	3079,77	0,822
BTA6	Altre utenze in bassa tensione con potenza disponibile superiore a 16,5 kW	2.010,77	-	462,70	2.925,01	0,059		0,761	2.473,47	2925,01	0,820
MTIP	Utenze in media tensione di illuminazione pubblica	-	0,059	-	-	0,646	-	0,709	-	0	1,414
MTA1	Altre utenze in media tensione con potenza disponibile fino a 100 kW	23.466,13	-	43.889,43	3.261,91	0,056		0,709	67.355,56	3261,91	0,765
MTA2	Altre utenze in media tensione con potenza disponibile superiore a 100 kW e inferiore o uguale a 500 kW	23.466,13	-	39.500,48	2.929,06	0,050		0,709	62.966,61	2929,06	0,759
MTA3	Altre utenze in media tensione con potenza disponibile superiore a 500 kW	23.466,13	-	38.164,72	2.569,59	0,044		0,709	61.630,85	2569,59	0,753
ALTA	Utenze in alta tensione	95.477,31	-	1.930.233,86	-	0,020	2.088,46	0,069	2.025.711,17	2088,46	0,089
AAT1	Utenze in altissima tensione, con tensione inferiore a 380 kV	95.477,31	-	1.930.233,86	-	-	2.088,46	0,069	2.025.711,17	2088,46	0,069
AAT2	Utenze in altissima tensione, con tensione uguale o superiore a 380 kV	95.477,31	-	1.930.233,86	-	-	2.088,46	0,069	2.025.711,17	2088,46	0,069

Table 3

SYSTEM CHARGES (valid for 4th quarter 2020)		Relating to support for energy from renewable sources and CIP 6/92 cogeneration <sup>(A<sub>0j</sub>)</sup>			Remaining general charges (A <sub>0a</sub> )			UC3	UC6			TOTAL		
		Fixed quota	Power quota	Energy quota	Fixed quota	Power quota	Energy quota	Energy quota	Fixed quota	Power quota	Energy quota	Fixed quota	Power quota	Energy quota
		euro cents/point/year	euro cents/kW per year	euro cents/kWh	euro cents/point/year	euro cents/kW per year	euro cents/kWh	euro cents/kWh	euro cents/point/year	euro cents/kW per year	euro cents/kWh	euro cents/point/year	euro cents/kW per year	euro cents/kWh
TD	Domestic user													
	residents			3,2650			0,9167	0,072		0,00	0,000	0,00	0,00	4,2537
	non residents	11.486,28		3,2650	0,00		0,9167	0,072		0,00	0,000	11.486,28	0,00	4,2537
BTIP	Low-voltage public lighting supplies			5,4120			0,8572	0,072			0,000	0,00	0,00	6,3412
BTVE	Low-voltage power supplies for public charging infrastructure for electric vehicles			7,8452			2,3863	0,072			0,000	0,00	0,00	10,3035
	Other low voltage consumers with available power up to 16.5 kW													
BTA1	for powers less than or equal to 3 kW	1.577,52	1.865,52	4,6179	991,20	1.172,40	0,3582	0,072	0,00		0,000	2.568,72	3.037,92	5,0481
BTA2	for powers greater than 1.5 kW and less than or equal to 3 kW	1.577,52	1.766,76	4,6179	991,20	1.110,36	0,3582	0,072	0,00		0,000	2.568,72	2.877,12	5,0481
BTA3	for powers greater than 3 kW and less than or equal to 6 kW	1.577,52	1.964,28	4,6179	991,20	1.234,32	0,3582	0,072	0,00		0,000	2.568,72	3.198,60	5,0481
BTA4	for powers greater than 6 kW and less than or equal to 10 kW	1.607,04	1.964,28	4,6179	1.009,80	1.234,32	0,3582	0,072	0,00		0,000	2.616,84	3.198,60	5,0481
BTA5	for powers exceeding 10 kW	1.607,04	1.964,28	4,6179	1.009,80	1.234,32	0,3582	0,072	0,00		0,000	2.616,84	3.198,60	5,0481
BTA6	Other low voltage consumers with available power above 16.5 kW	1.499,76	1.773,60	4,3947	991,20	1.172,40	0,3574	0,072	0,00		0,000	2.490,96	2.946,00	4,8241
MTIP	Medium voltage public lighting			4,9681			0,5784	0,029			0,000	0,00	0,00	5,5755
MTA1	Other medium voltage consumers with available power up to 100 kW	40.841,88	1.977,96	4,3353	26.995,56	1.307,28	0,3182	0,029	0,00			67.837,44	3.285,24	4,6825
MTA2	Other medium voltage consumers with available power greater than 100 kW and less or equal to 500 kW	38.180,52	1.776,12	4,3317	25.236,72	1.173,96	0,3158	0,029	0,00			63.417,24	2.950,08	4,6765
MTA3	Other medium voltage consumers with available power above 500 kW	37.370,64	1.558,08	4,3280	24.701,28	1.029,96	0,3135	0,029	0,00			62.071,92	2.588,04	4,6705
ALTA	High Voltage Utilities	1.291.963,20	1.332,00	4,1141	811.890,36	837,12	0,0416	0,015				2.103.853,56	2.169,12	4,1707
AAT1	Very high voltage consumers, with voltage less than 380 kV	1.291.963,20	1.332,00	4,1014	811.890,36	837,12	0,0336	0,015				2.103.853,56	2.169,12	4,1500
AAT2	Very high voltage consumers, with voltage equal to or greater than 380 kV	1.291.963,20	1.332,00	4,1014	811.890,36	837,12	0,0336	0,015				2.103.853,56	2.169,12	4,1500

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Table 1: summary table

Table 2: charges for metering and transport services on networks with third-party connection obligations

Table 3: tariff fees to cover system charges

## Notes

In accordance with current legislation, dispatching charges, transport tariffs and tariff components to cover general charges refer to electricity drawn from the grid.

- Resolution ARERA 568/2019/R/eel: the fees for transmission and distribution services are applied to electricity withdrawn at withdrawal points in the ownership of end customers.
  - Article 6, paragraph 9, of Law no. 19 of 27 February 2017 converting Decree Law no. 244 of 30 December 2016 establishes that from 1 January 2017, the variable parts of general system charges shall be applied to electricity withdrawn from public networks with the obligation to connect third parties.
  - Dispatching - ARG/elt Resolution 107/09<sup>2</sup> (ref. art. 24)
- 
- The amounts indicated refer to enterprises not classified as energy-intensive (ordinary users, not "energy-intensive" users).
  - The avoided cost only takes into account the variable parts (energy share) of the dispatching, transport and general charges tariff components. Any avoided costs relating to the power share deriving from the change in the exchange profile with the grid due to the presence of internal production must be assessed on a case-by-case basis<sup>3</sup>.
  - The index does not include the avoided cost of purchasing self-consumed energy because, while it is true that this energy is not purchased from outside, it is also true that it is produced internally and therefore has a cost. The determination of this cost depends on many parameters that are left to the evaluation of individual cases<sup>4</sup>.
  - As far as the dispatching fee is concerned, it must be taken into account that one of its main components (uplift) is regulated according to a down payment mechanism. In order to calculate the index in question, the value of the moving average of the 12 months prior to the reference quarter is taken as the basis for the calculation of the index in question.
  - - As far as the measurement and transport services for domestic users are concerned, the mandatory tariff as defined by the AERA is taken into account<sup>5</sup>.
  - The amounts of the fixed tranche and the power tranche are annual amounts, for their applicability on a monthly basis in the reference quarter they must be divided by 12.
  - The amounts, especially those relating to general charges, may be affected by pricing policy actions and therefore do not necessarily accurately reflect the trend in underlying costs in the short term.
  - They are not taken into account:
    - the tariff components related to the exchange with the reactive energy grid;
    - the effect of the non-application of loss coefficients to energy traded within the user system as a avoided cost component on the energy share of the supply burden;
    - the effect of applying transmission capacity charges (CCT) to energy traded within the user system.

### Acts of reference:

- Resolution No. 95/2020/R/com of March 26, 2020, updating, as of April 1, 2020, the tariff components used to cover general charges and other components of the electric power and natural gas sectors<sup>6</sup>;
- Resolution 574/2019/R/eel of 27 December 2019 updating the dispatching fees as of 1 January 2020<sup>7</sup>;
- Resolution 568/2019/R/eel of 27 December 2019 updating the tariff regulation for electricity transmission, distribution and metering services for the 2020-2023 half regulatory period<sup>8</sup>.

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<sup>2</sup> <https://www.arera.it/it/docs/09/107-09arg.htm>

<sup>3</sup> It should be recalled that in the case of closed distribution systems and internal user networks, the avoided burden must not include the dispatching charge - see [http://www.enusyst.eu/documents/Paper\\_SDC.pdf](http://www.enusyst.eu/documents/Paper_SDC.pdf).

<sup>4</sup> The same could also be said for network costs since the establishment of a user energy system includes a cost component (establishment and operation) of an energy transmission system within the system in question. This cost is typically internalised in the production initiative as this is a practice, but not a norm.

<sup>5</sup> The energy share of the transport service for domestic users concerns both the distribution service and the transmission service; for reasons of representation, it is here allocated entirely to the distribution service with no effect of variation on the final results of the valuations that are carried out.

<sup>6</sup> <https://www.arera.it/it/docs/20/095-20.htm>

<sup>7</sup> <https://www.arera.it/it/docs/19/574-19.htm>

<sup>8</sup> <https://www.arera.it/it/docs/19/568-19.htm>

*Gruppo Professione Energia - The Energy Professionals (GPE) is the integrated consulting firm founded and managed by Marco Pezzaglia, a graduate in electrical engineering from the Polytechnic of Milan in 1993, began his career in the field of modeling and studies of electrical systems in a liberalized environment at the Italian Experimental Electrotechnical Centre (CESI [www.cesi.it](http://www.cesi.it)). In 2001 he joined the Authority for Electricity and Gas (now Regulatory Authority for Energy, Networks and the Environment – ARERA [www.arera.it](http://www.arera.it)) where, in 2003, he was appointed Head of the Electricity Networks unit, dealing in particular with the terms and conditions for access to the electricity networks of production and consumption plants (connection and rules for dispatching) and the use of the interconnection network with foreign countries. On 1<sup>st</sup> January 2007, he took up the position of Head of the Renewable Sources, Energy Production and Environmental Impact Unit within the Markets Department, where he was actively involved in issues relating to assessments of the development of renewable sources, production and consumption systems and access to the system and the electricity market for electricity production and self-production/self-consumption systems. Since the beginning of 2010, he has been providing strategic consultancy and services in the energy sector both to private customers and to numerous sector associations, with particular reference to technical-regulatory and market issues. Expert in Energy Management certified EN 11339.*

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*The information contained in this document is purely reconnaissance. The author does not assume responsibility for any choices and actions that market operators may make on the basis of the information contained in this document. Please note that the application of the legislation on user systems must be duly analyzed in relation to each specific case.*

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