

In accordance with Article 15, Paragraph 1, Item 3, and in connection with Article 55 of the Energy Law (*Official Gazette of the Republic of Serbia* No. 84/04) and Article 12 of the Statute of the Energy Agency of the Republic of Serbia (*Official Gazette of the Republic of Serbia* No. 52/05),

The Council of the Energy Agency of the Republic of Serbia, at the 21st Council Session held on 6 July 2006, passed the following

DECISION

On Establishing the Methodology for the Criteria and Manner of Setting Costs of Connection to the Electricity Transmission and Distribution System

(This Decision was published in the *Official Gazette of the Republic of Serbia*, No. 59, dated 14 July 2006)

1. This Decision shall establish the Methodology for the Criteria and Manner of Setting Costs of Connection to the Electricity Transmission and Distribution System, which is attached to this Decision and constitutes an integral part thereof.

2. This Decision shall be published in the *Official Gazette of the Republic of Serbia*.

Council of the Energy Agency of the Republic of Serbia

Ref. No. 481/2-2006
Belgrade, 6 July 2006

President of the Council
Ljubo Macic

METHODOLOGY FOR THE CRITERIA AND MANNER OF SETTING COSTS OF CONNECTION TO THE ELECTRICITY TRANSMISSION AND DISTRIBUTION SYSTEM

I. SCOPE OF THE METHODOLOGY

This Methodology shall provide a more elaborate definition of criteria and manner of setting the costs of connection of energy facilities of the producer and the facilities of the customers to the electricity transmission or distribution system (hereinafter: the Methodology), in accordance with the regulations governing the performance of energy activities and the terms of electricity supply.

II. TERMS

The terms used in the Methodology shall have the following meanings:

Standard group connection – a standard connection with multiple metering devices, and with the maximum of 64 metering devices in the facility that is being connected to the system;

Energy entity – an entity that performs the energy activity of electricity transmission or distribution;

Custom connection – any connection of the producer's energy facility to the transmission or distribution system and every connection of the customer's facility to the transmission or distribution system which does not meet the conditions for being classified as a standard connection as defined by this Methodology;

System user – a producer or customer whose facility is being or has been connected to the electricity transmission or distribution system, based on the approval of the energy entity;

Metering device – a device used for metering the active electricity, or the device used for metering the power, active and reactive electricity, at the point of transferring the responsibility for the energy delivered between the electricity producer and the energy entity, or between the electricity buyer and the energy entity to whose system the producer's or buyer's facility is connected;

Facility – energy facility of the producer or the facility of the customer, which is being connected to the electricity transmission or distribution system;

Armoured facility – armoured transforming station with SF6 equipment;

Standard single connection – standard connection with one metering device;

Connection – a set of power lines, equipment and devices intended for electricity transmission and distribution, whereby a facility is connected to the transmission or distribution system, from the metering device to the nearest point in the system at which connection is technically and legally possible;

System – a set of energy facilities for electricity transmission or distribution, mutually connected in such a manner as to constitute a unified technical and technological whole, to which the facilities of system users are connected;

Standard distance from the system – accounting unit for setting costs of a standard connection to the low voltage network, which shall be equal to 15 metres for any distance from the system not exceeding 25 metres;

Standard connection – connection of the customer's facility to the low voltage network, the maximum allowed power of which does not exceed 43.5 kW (3x63 A) per metering device and for the realisation of which a two-rate meter of the lowest prescribed class of accuracy and standardised equipment, required for realisation of two-rate metering, are installed;

Distance from the system – the distance from the facility to the nearest point in the existing system at which connection is technically and legally possible, as measured along the power line;

Internal connection installation – the part of the installation within the customer's facility from the cable connecting box or the point of entry of the power line in the facility (wall bracket or roof cable support) to the metering device.

Other terms used in this Methodology shall have the same meanings as in the Energy Law.

III. CRITERIA FOR SETTING CONNECTION COSTS AND THE BREAKDOWN OF CONNECTION COSTS

III.1. Criteria for Setting Connection Costs

Connection costs shall be set according to the following criteria: technical characteristics of the connection; the type and volume of works required in order to connect a facility to the electricity transmission or distribution system; with respect to other conditions concerning the construction of or works on the connection; and with special regards to the allowed power, voltage level of the network to which the facility is

to be connected and the distance from the existing network; the number of phases, the number of metering devices, the type and cross-section of the power line, the type of equipment, devices and materials installed in accordance with the technical conditions for connection established by technical rules and regulations governing the operation of the transmission or distribution system; and with regards to the requirements for design preparation or procurement, and gathering of other documentation for building the connection, or for performance of the related works.

III. 2. The Breakdown of Connection Costs

Connection costs shall comprise:

1. Costs of equipment, devices and materials,
2. Costs of performing the works,
3. Costs of design preparation, gathering of required documentation and securing of other conditions for building a connection, and
4. The part of system costs incurred by connecting the facility, depending on the allowed power.

The part of system costs incurred by connecting the facility shall include the costs of providing the system capacities necessary for secure supply of electricity to the customers.

The connection costs shall be set on the basis of the most favourable market value of the equipment, materials, works and services obtained in the public procurement procedure, or in the procedure of equipment, material, work and services procurement in the market (hereinafter: market price).

IV. CONNECTION TYPES

According to connection complexity and depending on the technical conditions for connection of a facility to the electricity transmission or distribution system, on the type of facility and its distance from the system, and on the connection method, the connections shall be classified into two types:

1. Standard connection, and
2. Custom connection

IV.1. Standard connection

Depending on the number of metering devices, the standard connections shall be classified into two standard connection subtypes:

- Standard single connection, and
- Standard group connection

Depending on the allowed power, power line type and the number of phases, the following connection types shall be established within the standard single connection subtype:

Table 1. – Standard single connection

Number	Connection type-designation	DESCRIPTION		
		Allowed power	Power line type	Number of phases
1	M1	up to 14.5 kW	air line	one

2	M2	up to 14.5 kW	underground	one
3	M3	up to 14.5 kW	combined air line- underground	one
4	T1	up to 43.5 kW	air line	three
5	T2	up to 43.5 kW	underground	three
6	T3	up to 43.5 kW	combined air line- underground	three

Depending on the maximum number of metering devices, the allowed power per metering device, the type and cross-section of the power line and the intended purpose of electricity consumption (whether it is also used for heating of premises), the following types are established within the standard group connection subtype:

Table 2.. – Standard group connection

Number	Connection type-designation	DESCRIPTION		
		Maximum number of metering devices	Allowed power per metering device	Power line type
1	G11	4	up to 43.5 kW	air line
2	G12	4	up to 43.5 kW	underground
3	G13	4	up to 43.5 kW	combined air line- underground
Connection types for facilities wherein electricity is used for heating the premises				
4	G21	32	up to 43.5 kW	air line
5	G22	32	up to 43.5 kW	underground
6	G23	32	up to 43.5 kW	combined air line- underground
Connection types for facilities wherein electricity is not used for heating the premises				
7	G31	64	up to 43.5 kW	air line
8	G32	64	up to 43.5 kW	underground
9	G33	64	up to 43.5 kW	combined air line- underground

Connection types from G21 to G33 include facilities wherein the number of metering devices exceeds four.

IV.2. Custom connection

Custom connection shall be every connection for the establishment of which it is not possible to deploy standardised solutions with average construction costs due to complexity of the connection.

With respect to Paragraph 1 of this Clause, custom connection shall be:

- 1) connection of the facility of an electricity producer

- 2) connection of the customer's facility, the characteristics of which do not meet the conditions for being classified as a standard connection as defined by this Methodology.

V. THE MANNER FOR SETTING CONNECTION COSTS

V.1. Standard Connection

V.1.1. The costs of building a standard connection shall be set, for each type of this connection, on the basis of the standardised average quantity of required equipment, devices and materials whose installation is required, average costs of works and design preparation, gathering of required documentation, the costs of providing system capacities necessary for secure supply of electricity to the customer and fulfilment of other conditions for building a connection.

The costs of a standard connection may be:

- fixed, and
- variable.

Fixed costs shall comprise the costs which do not depend on the distance of the facility from the system and are calculated with respect to the elements from Paragraph 1 of this Clause.

Variable costs shall comprise the costs which depend on the distance of the facility from the system and are calculated and expressed per meter of length.

V.1.1.1. The costs of equipment, devices and materials shall comprise the costs of procurement of the standardised quantities of equipment, devices and materials that are installed according to the technical rules and regulations governing the operation of the system to which the facility is to be connected.

For all types of standard group connections, the costs of necessary equipment, devices and materials shall be calculated on the basis of installation of one half of the maximum number of metering devices, where all connection types from G11 to G33 shall be considered to have three-phase metering devices only.

The costs of equipment, devices and materials may be fixed and variable.

The costs of internal connection installation shall comprise the costs of equipment and devices used for construction of the internal connection installation and the costs of materials, which shall be calculated to the standard of 10-metre-long internal connection installation for all types of the standard single connection and the standard group connection types G11 to G23, and to the standard of 20-metre-long internal connection installation for standard group connection types G31 to G33.

V.1.1.2. The costs of works shall comprise the costs of labour, the costs of machinery usage and the costs of vehicle usage.

V.1.1.2.1. The costs of labour of persons engaged to perform the necessary works on building a particular connection type shall be calculated by multiplication of the determined market price of one person-hour, according to the standardised level of educational attainment and occupational profile of the persons performing the works, and the standardised number of person-hours necessary for completion of the works on the connection. The costs of labour per one working hour shall not exceed the market price of the standard person-hour for such services, regardless of whether the work is

performed by employees of the energy entity or by the contractors hired by that energy entity.

For all types of the standard group connection, the costs of labour shall be calculated according to the standardised number of person-hours for installation of one half of the maximum number of metering devices.

V.1.1.2.2. The costs of using machinery with machine operator, which is used for the purpose of connecting a specific connection type, shall be calculated by multiplication of the standardised number of hours of operation of the particular piece of machinery necessary for the connection, and the determined market price of employment of that machine per hour of operation. The costs of using a piece of machinery with machine operator per hour of operation shall not exceed the market price of employment of that machine per hour of operation, regardless of whether the machine is owned by the energy entity, or by the contractor hired by the energy entity.

V.1.1.2.3. The costs of vehicles with drivers, which are used for the purpose of connecting a specific connection type, shall be calculated as the sum of the appertaining standardised costs of the vehicle, according to the category, or type of the vehicle required, and the appertaining costs of the fuel for the vehicles, calculated on the basis of the distance of 50 km.

The costs in items V.1.1.2.1. and V.1.1.2.2. may be fixed and variable.

The costs in item V.1.1.2.3 are entirely fixed.

V.1.1.3. The costs of design preparation, gathering of required documentation and fulfilment of other conditions for establishing a connection shall comprise the standardised costs of connection design preparation, obtaining the prescribed consents and approvals, and the costs of performing other necessary specialist, operational and administrative works required in order to connect a facility to the system. These costs shall be set depending on the connection type, and comprise:

V.1.1.3.1. The costs of labour, calculated by multiplication of standardised costs of labour of persons engaged to establish a connection, per person-hour, according to the standardised level of educational attainment and occupational profile and the standardised number of person-hours for completion of those works. The costs of labour of persons per person-hour shall not exceed the market price of the standard person-hour for such services, regardless of whether the work is performed by the employees of the energy entity, or by the service providers hired by that energy entity.

V.1.1.3.2. The costs related to prescribed taxes and other charges for connection design preparation and obtaining the prescribed consents and approvals, depending on the type of the standard connection.

The costs of design preparation and gathering the required documentation are entirely fixed.

V.1.2. The part of system costs incurred by installing a standard connection shall be set as an accounting unit expressed as a unit cost per kW, determined subject to the metering method (with or without power metering).

The basis for determining the part of system costs incurred by connecting a facility to that system shall be the average costs of construction of electricity facilities to the next higher voltage level, transforming station (TS) with associated power lines, as taken from the location of connection.

The part of system costs incurred by installing the connection shall include the average costs of construction of TS and the associated power lines, and shall comprise the costs of:

- facility, equipment, devices and materials installed, calculated according to quantities with respect to the technical regulations, for the purpose of construction of a standard transforming station facility and the power lines of the corresponding voltage level and the market price of that equipment, devices and materials;
- labour, machinery usage and vehicle usage in construction of electricity facilities, and
- design preparation, obtaining the prescribed consents and approvals and the costs of performing preliminary works on facility construction, as well as the costs of performing other necessary specialist, operational and administrative work with a view to facility construction.

The part of system costs incurred by installing a standard connection, includes the costs of construction of two precast concrete 10/0.4 kV/kV 630 kVA TSs, one precast concrete and one pole-mounted 10/0.4 kV/kV 400 kVA TS, two pole-mounted 10/0.4 kV/kV 250 kVA TSs, two precast concrete 20/0.4 kV/kV 630 kVA TSs, one precast concrete and one pole-mounted 20/0.4 kV/kV 400 kVA TS, two pole-mounted 20/0.4 kV/kV 250 kVA TSs and the appropriate number of 0.4kV power lines; the number of 0.4kV power lines shall be determined as the sum of power lines emerging from all twelve abovementioned 10/0.4 kV/kV TSs and 20/0.4 kV/kV TSs; the number of 0.4kV power lines emerging from one precast concrete TS shall be 4; the number of 0.4kV power lines emerging from one pole-mounted TS shall be 2.

For calculation purposes, the length of the power line (aerial and cable) shall be 300 m.

If an energy entity also comprises an armoured facility, the part of system costs incurred by connecting a facility shall be set by calculating the sum of weighted construction costs of armoured facilities and outdoor TS with associated power lines, and the weight factors shall be calculated on the basis of share of the power of existing armoured facilities in the total power of the existing TS of the energy entity on the corresponding voltage level.

V.1.2.1. Unit cost shall be the quotient of total average costs of construction of the part of the system defined for a standard connection, and the total customers' power that is possible to connect to thus defined part of the system; it shall be expressed in dinars/kW and set in accordance with this Methodology.

Unit cost for a standard connection shall be different for the two subgroups which have different load coincidence factors:

- a) customers with an installed device for metering active and reactive energy and power
- b) customers with an installed device for metering only active energy

V.1.2.2. The customer shall be charged for the part of system costs incurred by connection, proportionate to the unit cost and the allowed power of the connection.

V.2. Custom Connection

V.2.1. The costs of building a custom connection shall be set as the total sum of actual costs of: equipment, devices and materials, works, design preparation, gathering of required documentation and fulfilling other conditions for building the connection.

The costs of building a custom connection referred to in Paragraph 1 of this Clause, depending on the type and volume of the required works, shall comprise the costs of:

- conducting analysis of optimal connection conditions;

- connection design preparation;
- obtaining prescribed consents and approvals and other required documentation;
- settling legal and ownership issues pertaining to the connection in question;
- performing preliminary works;
- procurement of equipment, devices and materials;
- necessary assembly works for building a connection, inclusive of the costs of labour, usage of machinery and vehicles;
- metering point equipment;
- testing and commissioning;
- performing other necessary specialist, operational and administrative works with a view to connecting the facility to the system, in accordance with the technical rules and regulations governing the operation of the system to which the facility is to be connected and with the criteria stipulated by this Methodology.

If the technical conditions for the connection require the construction of an electricity facility with greater power than that allowed to the customer, i.e. installation of equipment and devices for greater power than allowed, as well as in the case when the need to build capacity for other customers is considered in view of the energy entity's development plan, the costs of building the connection with this respect shall be determined:

- as the amount needed for the next greater standardised rated power of the transformer and the next larger standardised cross-section of the power line, if the facility is constructed exclusively for the needs of the customer, or
- in proportion to the share of the customer's allowed power in the installed power of the transformer.

V.2.2. The part of the system costs incurred by connecting a facility is set for the customer, whereas there is no charge for these costs for connecting a producer's facility.

V.2.2.1. The part of system costs incurred by connecting an energy facility of the customer shall be set as the accounting unit expressed as the unit cost per kW, which is in turn determined depending on the voltage level of the network to which the facility is to be connected, and for customers connected to the low voltage network, depending also on the metering method (with or without power metering).

The part of system costs incurred by establishing a connection shall comprise average costs of construction of TS and the associated power lines and include the costs specified in V.1.2.

Depending on the voltage level of the network to which the facility is to be connected, the part of system costs incurred by establishing the connection shall be set by different groups and comprise:

1. For connections on the high voltage 220 kV – the costs of construction of one 400/220 kV/kV 400 MVA TS and 220 kV power lines, the number of which is equal to the average number of these power lines connected in the existing TSs of this type owned by the energy entity;
2. For connections on the high voltage 110 kV – the costs of construction of one 400/110 kV/kV 300 MVA TS and 110 kV power lines, the number of which is equal to the average number of these power lines connected in the existing TSs of this type owned by the energy entity;

3. For connections on the medium voltage 35kV – the costs of construction of one 110/35 kV/kV 2x31.5 MVA TS and 35kV power lines, the number of which shall be equal to the average number of these power lines connected in the existing TSs of this type owned by the energy entity;
4. For connections on the medium voltage 20kV – the costs of construction of one 110/20 kV/kV 2x31.5 MVA transforming station and 20kV power lines, the number of which shall be equal to the average number of these power lines in existing TSs of this type owned by the energy entity;
5. For connections on the medium voltage 10kV – the costs of construction of one outdoor 110/10 kV/kV 2x31.5 MVA transforming station, or 2x40 MVA in case it is an armoured facility, four 35/10 kV/kV 2x8 MVA transforming stations and the corresponding number of 35kV power lines and 10kV power lines; the number of 35kV power lines shall be equal to the number of 35/10 kV/kV TSs; the number of 10kV power lines shall be equal to the sum of the power lines emerging from 110/10 kV/kV TS and all four 35/10 kV/kV TS; the number of 10kV power lines emerging from one 110/10 kV/kV TS, or one 35/10 kV/kV TS shall be equal to the average number of these power lines connected in the existing TSs of the former or latter type, respectively, which are owned by the energy entity;
6. For connections on the low voltage 0.4 kV – the costs of construction of two precast concrete 10/0.4 kV/kV 630 kVA TS, one precast concrete and one pole-mounted 10/0.4 kV/kV 400 kVA TS, two pole-mounted 10/0.4 kV/kV 250 kVA TS, two precast concrete 20/0.4 kV/kV 630 kVA TS, one precast concrete and one pole-mounted 20/0.4 kV/kV 400 kVA TS, two pole-mounted 20/0.4 kV/kV 250 kVA TS and the corresponding number of 0.4kV power lines; the number of 0.4kV power lines shall be determined as the sum of power lines emerging from all twelve abovementioned 10/0.4 kV/kV TSs and 20/0.4 kV/kV TS; the number of 0.4kV power lines emerging from one precast concrete TS shall be 4; the number of 0.4kV power lines emerging from one pole-mounted TS shall be 2.

If the energy entity's assets include an armoured facility, the part of the system costs incurred by connecting a facility shall be set by calculating the sum of the weighted costs of construction of armoured facilities and outdoor TS with associated power lines, and the weight factors shall be calculated on the basis of share of the power of existing armoured facilities in the total power of existing TSs of the energy entity on the corresponding voltage level.

The length of the power line in the high and medium voltage networks shall be set as the average length of the existing power lines of the energy entity on the corresponding voltage level, and for calculation purposes, the length of the power line in the low voltage network (aerial cable) shall be considered to be 300 m.

V.2.2.1.1. Unit cost shall be the quotient of the total average construction costs of the part of the system defined for every connection group and the total power of customers that is possible to connect to such a system; it shall be expressed in dinars/kW and determined in accordance with this Methodology.

Unit cost shall be determined for each of the defined connection groups.

Unit cost for customers connected to the low voltage network shall be different for the two subgroups, which have different load coincidence factors:

- a) customers with an installed device for metering active and reactive energy and power
- b) customers with an installed device for metering only active energy.

V.2.2.1.2. The customer shall be charged for the part of system costs incurred by the connection, in proportion to the unit cost and the allowed power of the connection.

VI. CONNECTION COSTS CALCULATION METHOD

VI.1. Standard Connection

VI.1.1. The costs of building a standard connection for a facility which is to be connected to the system for the first time shall be calculated according to the following formula:

$$TPI = TOi + TRi + TDi + DTS \quad (1)$$

where:

$$TOi = FOi + VOi * SU$$

$$TRi = FRi + VRi * SU$$

that is,

$$TPI = (FOi + VOi * SU) + (FRi + VRi * SU) + TDi + DTS \quad (2)$$

where:

i – connection type, single (M1,...,T3) or group (G11,...,G33) (CT);

TPI – total connection costs for the i-type connection (TCCi);

TOi – total costs of the equipment, devices and materials necessary for establishing the i-type connection (TCEi);

TRi – total costs of performed works for the i-type connection (TCWi);

TDi – total costs of documentation gathering and designing for the i-type connection, which are by their nature always fixed (TCDi);

DTS – the part of system costs incurred by the connection (PSC);

FOi – fixed costs of the equipment, devices and materials necessary for establishing the i-type connection (FCEi);

VOi – variable costs of the equipment and materials necessary for the i-type connection (VCEi);

SU – standard distance from the system (SD);

FRi – fixed costs of the performed works for the i-type connection (FCWi);

VRi – variable costs of the performed works for the i-type connection (VCWi).

After classifying the costs into fixed and variable, the formula (2) is reduced to the following:

$$TPI = Fi + Vi * SU + DTS \quad (3)$$

where:

$$Fi = FOi + FRi + TDi, \text{ and}$$

$$Vi = VOi + VRi$$

where the abbreviations have the following meanings, apart from the previously stated:

Fi – the total fixed costs of the i-type connection (TFCi);

Vi – the total variable connection costs for the i-type connection (TVCi), expressed in dinars per metre;

TD_i – fixed costs of documentation gathering and designing for the i-type connection.

If the distance of a facility from the system exceeds 25 metres, the costs of connecting such a facility shall be calculated according to the following formula:

$$STP_i = TP_i + V_i * PU \quad (4)$$

where:

STP_i – the total connection costs for the i-type connection when the distance of the facility from the system exceeds 25 metres;

PU – the difference between the distance of the facility from the system and the length of 25 metres (DD).

If the installation of a single-rate meter is approved to the customer, the connection costs shall be calculated by subtracting the costs of rate-switching devices and the difference in price between the two-rate and single-rate meter from the costs as calculated according to the abovementioned formula.

If the installation of a metering group is approved to the customer, the connection costs shall be calculated by subtracting the costs of a two-rate meter and the rate-switching devices from the costs calculated according to the abovementioned formula, and adding the costs of the metering group.

The total connection costs of a standard group connection shall be expressed per one metering device, and one half of the maximum number of metering devices for that group shall taken as the basis for calculation.

VI.1.2. The part of the system costs incurred by the connection shall be calculated as the sum of the costs of equipment, devices and materials, performed works and design preparation, gathering of required documentation and fulfilling of other conditions for building the connection, in accordance with the criteria stipulated by this Methodology.

Unit costs for allowed power of the connection shall be determined according to the following formula:

$$JT_j = UT_j / \{KZ * SN_j * (1 - RZ_j) / FJ_j\}$$

where

$$UT_j = TO_j + TP_j + TA_j$$

where:

j – connection group

JT_j – unit cost of the j-group connection (dinars/kW)

UT_j – total costs of the part of the system for j-group connections,

KZ – coefficient of permissible load in the winter period, which shall be equal to 1.3

SN_j – total installed power of the transforming stations from which the j-group connections are supplied

RZ_j – capacity reserve (CR), which shall be equal to 0.2

FJ_j – demand load coincidence factor on the considered voltage level

TO_j – total costs of installed equipment, devices and materials in facilities, from which the j-group connection is supplied

TR_j – total costs of performed works in the course of construction of facilities, from which the j-group connection is supplied

TA_j – total administrative costs of a j-group connection

Energy entity whose assets also include armoured facilities shall calculate the total costs according to the following formula:

$$UT_j = p_1 \cdot UT_{1j} + (1-p_1) \cdot UT_{2j},$$

$$p_1 = SN_1 / SN_j$$

where:

UT_{1j} – total costs of the part of the system defined in V.1.2. of j-group connections, in the instance of armoured facilities and associated power lines,

UT_{2j} – total costs of the part of the system defined in V.1.2. of j-group connections, in the instance of an outdoor TS and associated power lines

p₁ – the share of the power of armoured facilities in the total power of the transformers on that voltage level

SN₁ – the total power of armoured facilities on the considered voltage level

Table 3: Coincidence factors for standard connections

Connection group	F _{Jj} (consumption)
Customers with installed devices for metering both energy and power	0,25
Customers with installed devices for metering only energy	0,15

The part of system costs incurred by the connection, which is charged to a particular customer, shall be:

$$DTS_j = Kuk \cdot JT_j \cdot OSP$$

where:

DTS_j – the part of system costs incurred by the connection, which are charged to the particular customer in question for whom the j-group connection is approved, in dinars,

Kuk – customer's share coefficient, which shall be 0.8

JT_j – unit cost of a j-group connection (dinars/kW), and

OSP – allowed power of a connection in kW.

VI.2. Custom Connection

VI.2.1. The costs of building a custom connection for a producer's facility and a customer's facility shall be calculated on the basis of project documentation, standards of the energy entity and market prices.

VI.2.2. The part of system costs incurred by connecting a customer's facility to the system shall be calculated in the manner determined in Clause VI.1.2. of this Methodology, with coincidence factors from Table 4.

Table 4: Coincidence factors for custom connections

Connection group	F _{Jj} (consumption)
On high voltage 220 kV	0.90
On high voltage 110 kV	0.85
On medium voltage 35 kV	0.50
On medium voltage 20 kV	0.40

On medium voltage 10 kV	0.40
On low voltage 0.4 kV - customers with installed devices for metering both energy and power	0.25
On low voltage 0.4 kV - customers with installed devices for metering only energy	0.15

VI.3. Adjustment of Connection Costs Calculation

Connection costs calculated in accordance with this Methodology shall be reduced for system users by subtracting the costs of works, materials, equipment and services, which were covered by the system user with a view to establishing the connection, and this part of costs shall be shown separately in the itemized connection costs calculation.

VII. CONNECTION COSTS IN SPECIAL CASES

The following cases for setting connection costs, with respect to this Methodology, shall be considered as special:

1. increase of power, separation or joining of installations in a facility already connected to the system;
2. reconnection of a facility to the system, when the application for obtaining the approval for connection is submitted due to the previous disconnection from the system;
3. connection of temporary structures, construction sites and structures in the trial period;
4. connection of a facility of a customer who, in the case of disconnection due to demolition of the facility that was connected to the system, or in case of relocation, is entitled, free of charge, to a metering device of the same type and class at a different metering point (location) in the area of the same energy entity, in accordance with the regulations governing the terms of electricity supply.

Connection costs in the abovementioned special cases shall be set according to the actual costs incurred by the connection, with the following considerations:

1. in case of increase of power, separation or joining of installations in a facility already connected to the system, the construction costs shall be set on the basis of the actual costs incurred by building a new connection, and the part of system costs incurred by the connection shall be set for the approved increase of power;
2. in case of connecting a facility to the system, when the application for obtaining the approval for connection is submitted due to previous disconnection from the system, the construction costs shall be set according to the actual costs of building a new connection, without a charge for the part of system costs incurred by the connection, except in the case of earlier disconnection due to unauthorized connection of a facility, devices or installation, i.e. with no connection permit;
3. the costs of construction of temporary structures, construction sites and structures in the trial period, shall be set by applying the criteria for calculation of

connection costs for the facility that is to be connected to the system for the first time, on the basis of the actual connection costs. The connection costs for a facility, which was temporarily connected to the system as a structure in the trial period, shall be set on the basis of potential additional costs for building a permanent connection. The part of system costs incurred by connecting a temporary structure and the construction site, shall not be charged. The part of system costs incurred by connecting a facility that was temporarily connected to the system during the trial period, shall be set according to the potential additional power allowed for permanent connection;

4. in case of disconnection of a facility due to demolition or relocation, when the customer, in accordance with the regulations governing the terms of electricity supply, is entitled, free of charge, to a metering device of the same type and class at a different metering point (location) in the area of the same energy entity, the connection costs, which are set by applying the criteria for calculating the connection costs for a facility that is to be connected to the system for the first time, according to this Methodology, shall be reduced by the value of the replaced metering device, and there will be no charge for the part of system costs incurred by the connection.

In case of connecting a facility to the system, when the application for obtaining the approval for connection is submitted due to a previous disconnection from the system after unauthorized connection of a facility, devices or installation, i.e. with no connection permit, the connection costs and the part of system costs incurred by the connection, shall be calculated by applying the criteria for calculating the connection costs for a facility that is to be connected to the system for the first time, in accordance with this Methodology;

VIII. APPLICATION OF THE METHODOLOGY

Energy entities for electricity transmission and distribution set standards for calculation of connection costs and unit costs for determining the part of system costs incurred by connecting a facility to the system, and energy entities for electricity distribution also set the costs for each of the standard connections on the basis of these standards.

Energy entity shall pass a code setting the standards for determining the connection costs and unit costs for determining the part of system costs, as well as a code setting the costs of standard connections, within 60 days from the day of publishing this Methodology in the *Official Gazette of the Republic of Serbia*. The code setting the costs of standard connections should also include a detailed structure of the set standards and costs, separately for each element determined by this Methodology (with respect to the type of equipment, devices, materials, works, design preparation, gathering of documentation and fulfilling other conditions for building a connection).

The connection costs, in accordance with this Methodology and with the codes of energy entities for electricity transmission and distribution referred to in Paragraph 1 of this Clause, shall be calculated as of 1 October 2006.

Energy entities shall provide the Energy Agency of the Republic of Serbia with one copy of the codes referred to in Paragraph 2 of this Clause, with an explanation of the calculation of the set standards and costs, before they start calculating the connection costs for customers in accordance with this Methodology.

Energy entity shall make available to the applicants for connections the codes which serve as the basis for setting the connection costs, i.e. the amount of those costs and the method for setting them.

As a rule, the costs for standard connection are set annually; however, the costs may be adjusted before the expiry of one year in case of retail prices increase or decrease exceeding 10%, according to data published by the officially competent statistical body, for the period from the date of passing the code on setting the connection costs to the date of adjustment of those costs.