ALTERNATIVE SOLUTIONS PERMITTED THROUGH SPECIFIC REGULATIONS WHEN NEGOTIATING THE USED CONTRACTUAL TARIFFS IN ORDER TO CASH THE PAYMENT FOR THE CONSUMED ELECTRICITY

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1. INTRODUCTION SUMMARY

As it happens all over the world, in Romania, the electric power system has also been facing deep restructure, liberalisation, regulation, and privatisation changings.

The National Authority for Energy Regulations (A.N.R.E.), issued in 1998, has an essential role under these conditions, as it is a public autonomous national concerning institution, which has juridical personality and it is designed to create and enforce the regulation system. This regulation system is meant to make the electricity department and market function under the efficiency, competition, transparence and customers protection conditions.

In addition, the Energy Law, issued in 2003, creates the legislative frame to promote a competitive market economy within the energy department thus both obeying the international obligations assumed by the Romanian state and harmonising the national regulations with the European Union stipulations concerning this activity.

The present paper is a presentation concerning the main aspects which govern the major important action of the tariffs negotiation, in large context of electricity supply activity, in Romania.

Utilisation of the mathematical calculus models for the cost analysis realisation, and their employment as reference elements, in negotiations, it must be a decisive factor in tariff choice for the consumed electricity invoicing and constitute the final conclusion of paper.

2. CUSTOMER TYPES AS LEGISLATED BY THE PRESENT VALID REGULATIONS

According to the Energy Law, and to the Electric Power Supplying to Customers Regulations, issued in 2004, the customer is defined as follows: "an individual or juridical person who can buy electric power for his/her own use and, eventually, for a second consumer who is connected to his electrical equipment ".

The Romanian electric power market is formed of the following customer types:

- eligible customer – is the customer who can directly choose the supplier and can also directly contract the amount of the needed electricity; he also has access to the transportation and/or distribution networks;
- captive customer – is the customer who, due to technical, economic or regulation conditions, can not directly choose the supplier. These are classified, in accordance with to the specific of activity, as: domestic customers, services/trades branch and similar customers, industrial and similar customers, seasonal customers, tertiary customers.

3. RATES AND TARIFFS ENFORCED ON THE ROMANIAN MARKET FOR THE ELECTRIC POWER SECTOR

3.1. Rates and tariffs regulation/settlement

When delivering electric power to the customers, they are to pay negociated prices or regulated tariffs in accordance with their category (eligible or captive customers) and with their own options.

A price is being declared as regulated by means of a Government Bill, initiated by the interested ministry for limited time periods, under the Competition Council’s approval.

The regulated tariffs for electric power are established through methodologies approved and published by ANRE. The proposals of regulated tariffs and afferent services are elaborated by the network operators/the supplier of captive customers/ the supplier of last option, respecting the specific methodologies. The proposals are communicated to ANRE for approval.

Both the regulated tariffs for electric power and additional connected services tariffs are approved by ANRE Orders and published in Official Gazette of Romania. They are enforced within the entire country. The principles which found your regulation has in attention:
- the efficient utilization of electricity,
- the stratification in categories of customers, fuction by energetical comportment.

Regulated tariffs for the electric power supplied to the captive consumers include both producing, transportation system services, market administration, distribution, supplying costs and the dues stipulated by legislation.

Prices negociated by the suppliers and the eligible consumers concerning the supplied electric power include both settled tariffs for transportation, system services, market administration, distribution, if it is necessary and the dues stipulated by legislation. If the eligible consumer directly contracts the transportation/distribution services with the network operators, then the negociated rates will not include the settled tariffs for the transport activities, system services, market administration and distribution.
3.2. Founding the rates and tariffs types

The following rates and tariffs are enforced within the Romanian market, which sells and buys electric power:
- rates resulted from the competitive market mechanisms,
- regulated rates for the electric power produced in cooperation,
- regulated tariffs for the electrical energy transportation and distribution, activities generally looked upon as natural monopoly,
- regulated tariffs for the electric power supplying towards the captive consumers,
- regulated tariffs for providing the system technological services up to the moment when a competititional market is created,
- regulated tariffs for the interconnecting and transforming services,
- regulated tariffs for the network connecting,
- tariffs used both by the transportation and system operator and the electric power market operator for the services provided to the market partners.

4. ROMANIAN PRESENT DAY ELECTRICAL ENERGY FREE MARKET DOMAIN

An electrical energy customer who can choose his own supplier is an eligible consumer.

Eligible customers are selected among the captive customers who fulfil criteria and requests settled in the Electrical Energy Accredited Consumer Regulations and also settled within the legal market opening degree limit.

The electrical energy market liberalisation has been a progressive process. The present situation of the eligible consumers accrediting has been possible depending on the future economic evolution. Starting with Nov.16, 2004, the minimum consuming limit has been 1GWh for the energy market opening limit of 55%.

The energy market opening limit has been settled by a Government Bill.

There must be specified that an eligible customer:
- has a regulated access to the transportation and distribution networks, and to the distribution of the electric power contracted with the suppliers;
- can conclude one or more contracts for the acquired electric power transportation/distribution, but these contracts are generally concluded by the supplier.

4.1. Eligible customer’s options

The eligible customer has, according to the law, the following electric power buying options:
- to choose another supplier:
  - who can contract the electric power transport and/or distribution services for the electricity supplied to the customer;
  - who can not contract the electric power transport and/or distribution services, and under these conditions the eligible consumer (when necessary) can himself conclude contracts for the electric power transportation and distribution;
- to associate to a buyers’ group, to import, or to buy from the spot market – as a long term solution.

In order to satisfy the electric power demand, under special conditions, the supplier can conclude an electric power completion supplying contract with the licensed owner who has supplying exclusiveness within the area where that consumer is placed.

4.2. Eligible customer’s negociation possibilities

When negotiating the electric power supplying contract, the eligible customer takes the following three steps into consideration:
1. offer requests formulation;
2. suppliers’ offers’ evaluation;
3. supplier choosing decision

When negotiating the supplying contract, the eligible customer has the following in his mind: rate, contract time length, payment conditions and terms, additional services provided by the supplier, rate prognosis, supplier’s electric power offer structure, conditions for supplier’s changing, supplier’s background and reputation.

The eligible customer prepares his offer request for the possible suppliers whom he would like to conclude the supplying contract with, and consequently the suppliers send their offers. The eligible customer must compare the suppliers’ rate offers with the reference rate within an interested analysis.

The rates negotiated by the eligible customer can be:
- reduced in case of a certain reference value exceeding, value, which previously, had been agreed upon by the two partners,
- steady for a certain period of time,
- agreed upon by the two parties under any other conditions.

The rate for the electric power supplied to the eligible consumer must include two parts:
- a) one part derives from enforcing the settled tariffs for different necessary services (transport tariff, commercial operator tariff, distribution tariff, supplying tariff);
- b) one part refers to the electric power.

The contract time length is negotiated. Negotiated rates in one year long contracts are generally lower, but they can increase more than if the contract had been concluded for a longer time period, when a new renegotiation takes place.

The time length supplying contract will not exceede the
time period for which the supplier has his supplying license.
Tariffs for buying additional electric power are regulated tariffs.
When making his offer, the supplier will show the bought electric power structure in detail to the eligible consumer.

The eligible consumer can ask the supplier for some additional services. A list containing additional services can be taken over from the supplier’s obligations’ chapter in his frame contract for supplying electrical energy to the captive consumers.

At present, negotiating with the eligible consumers is somehow special, because of the transition period we are passing through in Romania:
- branches within the state company have certain competence limits in this respect,
- the deliverer takes advantage from too low regulated rates,
- no negotiation can be negotiated with the deliverer, because he only has regulated rates.

In case an eligible consumer acting within the competition market wanted to return to the regulated market, he would be applied a not differentiated time schedule tariff, for twelve consecutive months. An eligible customer can return to the regulated market, no more than twice.

5. ROMANIAN ELECTRICAL ENERGY MARKET
REGULATED DOMAIN

5.1. Negotiation of the regulated tariffs

When the supplier, who previously belonged to the state companies, negotiate the basic tariff, he pays maximum attention to it because that tariff will be the foundation the value of the electrical energy consumed by a client will be calculated from; the supplier will have limited access to the eligible consumer and unlimited access to those consumers who still belong to the regulated market.

By means of specific regulations, special conditions were enforced so that the consumed electrical energy payment to become object of some extremely interesting contract negotiations.

When concluding a supplying contract, the captive electrical energy consumer usually choose a certain regulated tariff for the delivered electrical energy, under the conditions settled by ANRE. His changing of the tariff type is allowed only under the conditions stipulated by the specific regulations.

A certain regulated tariff type negotiation has some starting elements:
- the analysis of the electrical energy consume measurement system,
- obeying the compulsory regulations.

At present, in Romania, there are regulated tariffs for all consumers types, tariffs included in the electric power supplying Regulations.

The reasoning for a fair negotiation must take into consideration that:
- there are certain consuming features: daytime period for the maximum power absorption, maximum power absorption time length, absorbed energy within a time period looked upon as reference when billing the consuming;
- binome tariffs become less attractive compared to those monome if they are characterised by a abatement average rate superior to the monome tariffs;
- binome tariffs are attractive for high energy consuming functioning organisations, which use an as constant as possible power, preferable close to the average value; in these situations the technical loss occuring within the distribution network elements are considerably diminished;
- binome tariffs can be enforced only to the consumers who have an electronic measurement group to measure their electric power consuming.

In addition to all these it is imperative to use rate analysis when negotiating tariffs, in order to make this activity efficient.

The algorithm which founds a rate analysis can be enforced:
- to real electric power consuming,
- to simulated consuming, when real datas are missing.

5.2. Negotiation algorithms

The application used by SDFEE Pitesti when negotiating the tariff type which is to be enforced in order to cash the consumed electric power include:
- the entrance datas which need:
  - electric power and power monthly average consumings within 12 month,
  - regulated rates, typical to each tariff used within the analysis, rates which are stipulated by ANRE; behind each work column there are both a specific calculation expression for each kind of tariff and the consequences derived from choosing a certain tariff type.
- consuming calculation algorithms for each analised tariff which is structured as follows:
  - peak contracted, absorbed and billed power;
  - contracted, absorbed and billed power for the rest hours;
  - absorbed electric power within different hour periods, when it is necessary: peak, normal, empty;
  - time length in using when billing
- exit datas which found the final analysis conclusions:
  - monthly and yearly average powers for each analised tariff;
  - monthly and yearly comparing analysis for each kind of tariff

Table 1 is a synthesis of the final situation within the application.
TABLE 1

PRELIMINARY ANALYSIS WHEN NEGOTIATING THE TARIFF FOR A CUSTOMER

<table>
<thead>
<tr>
<th>MONTH</th>
<th>peak electric power</th>
<th>normal electric power</th>
<th>empty electric power</th>
<th>Total electricity</th>
<th>peak power</th>
<th>rest power</th>
<th>Contracted power</th>
<th>Price for peak electric power (in morning and evening)</th>
<th>Price for normal electric power</th>
<th>Price for empty electric power</th>
<th>Price for peak power</th>
<th>Price for rest hours power</th>
<th>Invoiced price</th>
<th>Medium price</th>
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**TARIFF A 33 - differentiated binominal in hourly zone and used duration**

**TARIFF A - differentiated binominal**

**TARIFF F C – simple binominal**

**TARIFF E1 – consumption of electric power in day and night, inclusively saturday and sunday**

→ continuation

**TARIFF E2 – consumption of electric power in day and night**

**TARIFF B - monomial differentiated**

**TARIFF D - monomial simple**

Medium price TARIFF A 33 - differentiated binominal in hourly zone and used duration =

Medium price TARIFF A - differentiated binominal =

Medium price TARIFF F C - simple binominal =

Medium price TARIFF E1 – consumption of electric power in day and night, inclusively saturday and sunday =

Medium price TARIFF E2 – consumption of electric power in day and night =

Medium price TARIFF B - monomial differentiated =

Medium price TARIFF D - monomial simple =

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6. CONCLUSIONS

Taking into consideration that:
1. within a competitive market, the electrical energy offer, which can be sold on more suitable rates than within a regulated market, is limited,
2. within a free market the electrical energy is sold and bought both as a merchandise and as a service,
3. there are electrical energy producers who have supplying licenses,
4. avoiding some suppliers’ preferred treatment suspicions toward some eligible consumers it is imperative,
5. suppliers’ encouragement toward the electrical energy rational and efficient use by the eligible consumers is imperative,
6. electrical energy supplying under conditions, which should lead to the energy system security increase, is imperative,

it is obvious that there should exist a practical guidebook to help the electrical energy producers (who have supplying licenses and who are still called suppliers) ; this guidebook should be used when concluding the buying/selling contracts for the electrical energy designed to eligible consumers.

It is important for such a guidebook to apply both to suppliers and consumers, especially when the supplier wants to sell and buy electrical energy within the competition market and the received requests excel his offer level.

The art of fair reasoning when negotiating the regulated tariffs will provide positive consequences when an organisation/company will perform delivery and supplying activities, and that is:
- the energy domain lasting development by flattening the load charge bow within the National Energy System;
- the rationalization of the final electric power consuming, avoiding functioning under un-economic conditions (e.g. high power consuming and low energy), and optimum functioning standards as far as the equipment losses are concerned;
- the stimulation of competition in producing by increasing the producer’s concern to produce at as low as possible rates;
- the possibility of electric power buying for optimum rates;
- the providing both transparency and an undiscriminating treatment of the eligible consumers when dealing with the suppliers;
- the stimulation of the eligible consumers to improve/upgrade their own load charge bow
- the providing of the safety increase when supplying the electrical energy to the eligible consumers
- the designing of some efficient and realistic acquisition and consuming forecasts

There must be remembered that broad tariff negotiation possibilities are created by:
- using the eligibility right,
- creating some rate analysis based upon many regulated tariffs (at present, in Romania, there are 69 regulated tariffs both for the industrial and domestic consumers and there are 72 tariffs for specified consumings: distribution, transportation, internal services),
- opening the energy market,

This negociated tariff can be chosen by a consumer in order to pay for his consumed electric power.

7. BIBLIOGRAFIE