

REGULATION FOR THE BRAZILIAN COOPERATIVES (APPLICATION OF SOFT-REGULATION)

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ABSTRACT

This article presents the drivers that will led the Brazilian regulation to change the tariff methodology of the rural electrification cooperatives. It also analyse the benefits caused by this paradigm change.

This article conceptualizes the regulation made for cooperatives in three cases: before the regularization, as the procedure for the utilities and the new tariff review procedure adopted for cooperatives. It illustrates the cases with data and presents the main impacts for the cooperatives, the members and the society in general.

INTRODUCTION

Since 1941, when rural electrification cooperatives emerged in Brazil, this segment remained marginalized in the industry, as a free enterprise, which managed its costs and pass it on to its members [1].

In 2008 and 2010, the regularization processes of 38 cooperatives to electric power distributors licensees occurred. It culminated in the first periodic tariff review process of licensees in 2012.

However, the unpreparedness of the regulator to deal with the new agents, the precariousness of information and unfamiliarity with this market resulted in several misconceptions on the first periodic review [2].

Throughout the time, as regularized licensees, they have improved the quality of power supply and the service management. However, the regulatory framework continued to present obstacles to these service providers. In 2015, after some discussions about the methodology that should be applied in the second tariff periodic review, the regulator has concluded that the cooperatives should not align to the price-cap conventional model anymore, but the model should adapt to them [3].

OBJECTIVE

This article conceptualizes the regulation made for cooperatives in three cases: before the regularization, as the procedure for the utilities and the new tariff review procedure adopted for cooperatives. It illustrates the cases with data and presents the main impacts for the cooperatives, the members and the society in general.

HISTORIC

The cooperative systems dedicated to the energy distribution performs in Brazil, even today, an important function to ensure access and use of this public service, especially in rural areas [4].

The dispersion of consumers in these areas made the provision of this public service economically unattractive for the local energy distribution utility. The solution found was the union of the residents in the region to promote access to the system, forming what is called a cooperative. The rural electrification cooperatives (RECs) have consolidated effectively in various states of Brazil only after the sixties.

The origins of rural electrification cooperatives regulation in Brazil date back to May 3rd, 1968 with the Decree-Law n° 62655, which was the first legal framework to regulate these kind of enterprise (company) in the electric sector, even if it did not mention them.

In order to protect the concessionary market from the expansion of cooperatives, the Brazilian federal government defined the concept of rural electrification, delimiting its fields of work to areas devoted to agricultural exploitation and located outside the urban perimeter.

The "permission" mentioned in this decree referred only to the authorization by the Mines and Energy Ministry (Brazil) for the execution of transmission and distribution works, so the structures and services remained to the private consumer use.

The legal status of rural electrification cooperatives as "self-distributors" remained stable during the next few decades, even though some situations have already showed the real purpose of many cooperatives, as service providers. Their field of action was no longer restricted to the cooperative members and rural areas, especially because the regions have changed to urban areas.

The government edited the Federal Law n° 9,074 on July 7th, 1995 in order to recognize these contradictions. It laid down detailed rules for granting, extensions of the concessions and public services permissions, as well as other matters. In fact, it predicted the regularization of the cooperatives situation, in order to both match their areas of expertise with the utility ones and examine, on a case-by-

case basis, the possibility of its characterization as a public service provider licensee of the electric energy distribution, without, however, mischaracterize the legal framework of the cooperative¹.

Between 1995 and 2007, ANEEL held several actions necessary to regularize these cooperatives, in order to place them as public service licensees of electric power distribution, after they sign an accession agreement.

The Government had determined that until the first half of 2007 the regulatory agency should evaluate the economic and financial situation of the rural electrification cooperatives and define their respective legal frameworks in the permission or authorization scheme (in this case the cooperatives would be treated as a consumer).

For this reason, in 2005, ANEEL issued a resolution, which established new procedures and conditions to include rural electrification cooperatives. In addition, ANEEL approved the model of Permission Contract and settled the guidelines that were used by the Market information system of Rural Electrification cooperatives – SINCOOR, for establishing the initial tariff that would be applied from the granting of the permission.

The regulatory agency established that the initial rates of supply and purchase of electricity cooperatives licensees would be defined according to evaluation of the economic-financial balance.

The theme of the economic-financial balance of the permission contracts with rural electrification cooperatives was mentioned by Decree-Law n° 6,160/07, which predicted the periodic tariff review every four years.

In this context, the process of regularization, as power distribution licensees, continued to those cooperatives that accepted the basic rates proposed by ANEEL. Finally, this process ended, in 2008, when 26 contracts were signed allowing the electricity distribution service to the licensees.

The process of regularization continued and, in 2010, ANEEL granted the permission to 12 rural electrification cooperatives, besides that, it sets their rate review dates for 2013 and 2014.

The electricity sector contemplated 38 power distribution licensees, which have had their initial rates defined by the methodology of SINCOOR, out of a total of 52 cooperatives identified as potential licensees, until that date.

In 2011, in order to obtain subsidies and additional information to establish the methodology that should be applied in the first tariff review cycle, ANEEL accomplished the first phase of the public hearing number 19 and, in 2012; it held the second phase of this hearing. In March 2013, the agency made public the general methodology that should be adopted in the first tariff periodic review cycle of licensees. This article will focus

at this point to show the problems on the first review. Moreover, how they led to adopt an appropriate rules on the second periodic cycle.

FIRST REVISION AND ITS PROBLEMS

The methodology used during the first review cycle for the licensees was similar to the used for the utilities. The regulatory model used in Brazil is the price-cap. The costs are segregated in a non-manageable parcel, called parcel A and other manageable, called Parcel B. At every review (with four years duration), the regulator encourages a reduction of the Parcel B.

We could present several aspects about the first tariff periodic review cycle licensees (1st CRTP-P); however, we will present just 3 points:

- Definition of Operational Expenditure (OPEX).
- Recognition of the Capital Expenditure (CAPEX).
- Fixation of the Weighted Average Capital Cost (WACC).

OPEX

The cooperatives have had their regulatory operational expenditure determined by benchmark, a common practice in incentive-based regulations. This review metric stimulates the indirect competition between the agents of the system.

However, it is worth noting the first inconsistency of the method. In the Brazilian regulation, due to the lack of confidence in the obtained data, it took two review cycles to the benchmark utilization on utilities [5].

This way, not all cooperatives were prepared for this and the outcome of the model was flawed. In **Figure 1**, you can see the cost set by each cooperative, up to 5000 customers (x-axis) and the OPEX set to serve them (y-axis).

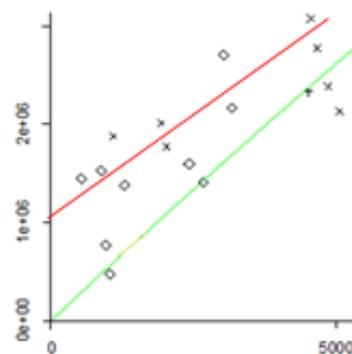


Figure 1. 1st cycle OPEX – the value adopted (green) and the minimum cost that was expected (red).

You can observe that at the time of the methodology establishment, many licensees used as benchmark reported

to government authorities to promote the regularization of permission, preserved the current legal regime of the cooperatives.

¹ § 1° Established in administrative procedure, that the cooperative exercises, in a situation of fact or based on previously granted permission, electric energy activity public indistinct located in his area of expertise is provided

incorrectly the value of its operational expenditure, what upset the entire established modelling.

CAPEX

For the evaluation of the assets of the power distribution licensees using the replacement cost accounting method, in which each value is active for all expenses necessary for their replacement with identical, similar or equivalent assets that perform the same services and have the same capacity as the existing asset.

For this, it is necessary the definition of New Replacement Value (VNR) through a Bank of Reference Prices established by ANEEL (SISBASE-P), from a modular structure, and the calculation of depreciation, systematic that reduction in the recorded cost of a fixed asset.

The Bank of Reference Prices from ANEEL tries to reflect the average costs for an efficient acquisition and installation of equipments. It is structured modularly, covering meters, networks and distribution lines, network equipment and distribution substations. It was established based on reports of eight small utilities on the 2nd review cycle made in 2008 and 2009, with reinforced base utilization updated first cycle plus the incremental basis in the second cycle.

In addition, the problems with the inconsistencies in the adoption of the bank of reference price, there were also problems with the update rates definition. When you create a Bank, the regulator expects him to stay in place for a reasonable period, and to this end, it is necessary to update the rates appropriately.

The bank of prices of the licenses started to apply in March 2013, with the values referenced to September 2011. Most of the reviews of the first cycle should have been held in the year 2012, however due to delays in the methodology approval by ANEEL they occurred in 2013, with retroactive calculations to the base date in 2012.

Even without showing the formulation used, it is expected that in a country with high inflation, the indices do not show negative percent update, which did not occur for many types of assets.

When you analyze with more accuracy the results of the first cycle review, it was showed that ANEEL updated the price of aluminum and copper based on the variation in the price in dollars per tonne, and not in real (Brazilian currency) per tonne, i.e., disregarded the exchange rate on the material acquisition. For example in some cooperatives the Aluminium update index was -25% based on the variation in dollars per tonne and if it was considered the change in real per tonne would be +10%. In the case of the index update of the copper the variations would be -18% in dollars per tonne and +21% in real per tonne, and in general the value of the total compensation basis considering only these two indices of update was reduced by around 10%.

Another fact that demonstrates the inadequacy of the Bank of Prices is that in many cooperatives the totals of VNR for distribution lines and substations were smaller than the original values (VOC) without monetary restatement.

With the maintenance of such methodology, over time, this distortion will become more damaging to the economic-financial balance of the licensees cooperatives.

Weighted Average Capital Cost (WACC)

The regulation is a public function essential to ensure effectiveness to the actions developed by the agents that are part of the regulated sector. However, what we noticed after the analysis of ANEEL performance, in relation to the capital cost on the first periodic review cycle of the licensees, was the opposite [6].

In the context of the entire public hearing No. 19/2011, ANEEL kept its idea to do not remunerate the capital of the cooperative members, because there is no "economic logic to the earning profit on cooperated yourself" [7]. Such an interpretation, does not survive for as long as the current rule that allows the distribution of "leftovers" to cooperative members, as provided for in Federal law. 5,674/71 (law of cooperatives in Brazil), which provides for the payment of interest on their behalf up to 12% of the paid up share capital.

The regulation of cooperatives had issues that were beyond the regulator action, because of the nature of the Association, the public politics or Laws and decrees prior to the regulator foundation.

THE NEW PARADIGM

The electrification cooperatives have emerged with the aim of bringing electricity to rural areas, where there was no technical and/or financial feasibility for an energy distribution utility. The business model for the feasibility of this process was the cooperativism, so each new consumer accessing the network became one of the owners of the service.

With the reformulation of the Brazilian electric sector, the cooperatives had to adapt themselves to the new service reality. The adaptations evolved technical and operational quality of the service that resulted in several quality and management awards. However, there was a serious structural problem in the relationship between the agents. In **Figure 2** it is illustrated the agents' behaviour for the classical regulation and for the desired regulation by the cooperatives.

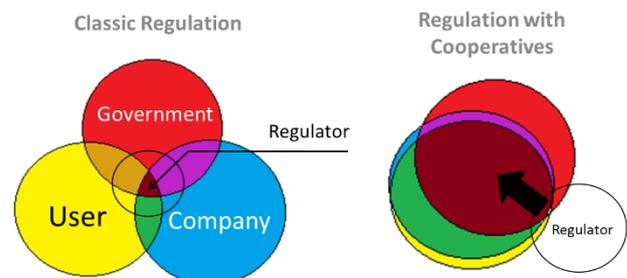


Figure 2. Agents' Relationship

While in the classical regulation the regulator balances the different interests of each agent of the sector, in the cooperative movement, the consumers are cooperative

members (partners) and there is no clear distinction between the regulated agent (Distributor) and the consumer. The Government also gets mixed up with the other agents, due to public policies for rural areas. Given the differences, there would be only two possible ways: breaking the relationship between the agents (dissolving the business) and impose the traditional methodology or adapt the rules to the involved agents.

After 4 years discussions, the regulatory agency recognized your mistake in the first review and proposed a new methodology of required revenue definition. The proposal addresses soft-regulation concepts.

PROPOSITION

In the second periodic tariff review process of licensees, the regulator is applying a new methodology, which provides greater autonomy for the required revenue definition, for 82% of the cooperatives. The main proposals contained in the methodology were:

- Systematic changes of tariff adjustments and reviews.
- Tariff ceiling.
- Advertising and reproducibility of results.
- Possibility of tariffs imposition by the regulator.

The Systematic Change of Revisions and Adjustments

The alternation between tariff adjustments and reviews follow a purpose within the ceiling price regime (price cap); creating an interval for exploration of economic incentives from lowering costs manageable (Parcel B).

In the new model, it is not necessary to differentiate reset and revision, since the cooperative itself permit holder proposes your recipe required. Annually, in default date, the permit holder must forward its proposal for a requested recipe, containing a minimal detailing, segmenting the recipe as your destination as expenses with charges sectoral energy acquisition, transport, loss, operating costs and all other tariff components.

The claim must be accompanied by the protocol of the meeting of the Board of Directors of the licensees informing the revenue-required approval requested.

Ceiling Value of Manageable Costs

It was set that every revised or annual rate review the licensee can require a manageable cost value (Parcel B) limited to the value of manageable costs established at the previous review, annually updated till date-base of the new tariff by process variation of the IPCA (national consumer price Index Broad) and the low voltage market growth, plus 20%. The regulatory agency shall remain responsible for setting the tariff structure.

Advertising and Reproducibility of Results

A practice of utmost importance is to give wide publicity and reproducibility to tariff effects. The independent review system, the process should be transparent to all of society.

Therefore, it has been given publicity to all documents and spreadsheets submitted by licensees in the election. This information is available in the annals of tariff processes in spaces for this purpose.

Possibility of Enforcement Revenue

In the event of non-compliance with the obligations laid down be for not meeting the deadlines, exceed the ceiling, or even if features a deliberate behaviour any permit holder in order to inflate artificially its rates without corresponding justification, the regulatory agency's autonomy to arbitrate the recipe to the permit holder.

BENEFITS OBTAINED

One of the main objectives of the economic regulation of public service is to establish an efficient mechanism defining the rates, to benefit the whole society.

In General, the regulatory framework in Brazil is based on regulation by incentives. This means that at the time of the review and the adjustments of the rates, and each of its components, is considered a benchmark level of efficiency. From these established a prescription required. In the methodology applied for the licensees the economic efficiency remains the benefit expected, however she will be held through other factors, not imposition.

Consumers with Decision Power

By allowing cooperatives to propose his own recipe required that the cooperative's Board of Directors approve it, ensures that the requested recipe is a representation of the will of the members. The fare becomes the result of the process of interaction and dialogue between the managers of the cooperative and its members.

Unlike a common dealership, in the common consumer cooperatives (since cooperated) can change the company, through the elections. How goal of the end consumer that the service provided is is of quality and appropriate price, not service of these goals can take down the direction of the cooperative.

As the recipe will be calculated from the election required by mathematical model or static, will be more simple and practical monitoring of expenses on rendering of the service, on the part of consumers.

Therefore, the search for efficient allocation of costs, quality of service and supervision are covered by the interest of members.

Natural Benchmarking

Other vector by the pursuit of efficiency is the peer pressure from the comparison of performance between them. As the required information will be public, the licensees will be compared with each other. However, they will not be compared by model; the comparison will be by consumers, staff and leaders, from the claimed values.

In practice, all the cooperatives will be eyed each other. In addition to the comparison to see the result of your cooperative front the other, this analysis causes less

efficient cooperatives seek best practices to achieve the same excellence of these.

Thus, in addition to transparency, the modelling stimulates the searching and sharing of technical and managerial practices between cooperatives.

Tariffs Comparison with the Concessionaires

For the establishment of the manageable costs that the licensee will claim, usually their rates for residential consumers are compared to the ones practiced by utilities from the same region.

Most cooperatives consider the licensee as an extension of the utility, and for this reason, they consider that the licensee has no reason to exist if it practices supply rates more expensive than those defined by the utility, and some accept practice rates slightly above, until 20% for example. The ANEEL understands that the use of comparison of rates for setting the manageable costs value should be avoided and that the licensee should demand the value that really is required for its proper management.

FINAL COMMENTS

Despite the long time, the regulator only placed the cooperatives in the Brazilian regulation in 2008 and 2010, and it contemplated them in a methodology less than a year before. Certainly, the model will need adjustments over the time, as common in the power distribution regulation over the world.

In a way, the proposed rule in 2016 only appears in a system with a more mature regulation. First, it was necessary to enter cooperatives in the provision of public service, ensuring the unrestricted right of access to the system for all users. Later, a more rigid setting was made to improve the management and service. Finally, a self-regulation with softer features from the regulatory point of view.

Therefore, the application of regulatory practices more bland, or soft-regulation, requires a lot of knowledge about the sector, market conditions and characteristics of the agents.

It is almost certain that it is not possible to replicate the proposals of licensees for utilities, because the company-client relationship is different. Nevertheless, it is possible to explore practices that encourage the monitoring of services by customers, not only technical, but also the economic and tariff.

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