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Environment

## Brief examination on the deadlines of analysis of entities involved in simplified federal environmental licensing processes

Breve exame sobre os prazos de análise das entidades envolvidas em processos de licenciamento ambiental federal simplificado

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### ABSTRACT

In order to analyze some of the reasons for the delays in the implementation and the beginning of the operation of transmission system projects in Brazil, this study considers the deadlines and definitions of the regulations of the MMA Ordinance No. 421/2011, Interministerial Ordinance No. 60/2015, MS/SVS Ordinance 01/2014, IPHAN RI 001/2015 and FCP RI 01/2018, applicable in the environmental licensing of energy transmission enterprises. The analysis focused on the simplified federal environmental licensing, deemed to have little potential for environmental impact by IBAMA and its interface with involved bodies FCP, IPHAN and MS/SVS. The regulations and their deadlines were applied in a developed schedule in the MS Project software and the result was that the simplified licensing process for energy transmission systems projects is controlled by the deadlines for the manifestation of the bodies involved and not by the deadlines of the environmental licensing body. Thus, despite efforts to seek a design of the energy transmission system with less socio-environmental impact, the project schedule may not be compatible with shorter deadlines for simplified environmental licensing.

Keywords: Simplified Environmental Licensing; Energy Transmission Systems; Critical Path; Delay



## **1 INTRODUCTION**

In the latest publication of the Differential Monitoring Report of Transmission Expansion prepared by the National Electric Energy Agency (ANEEL, 2020), in March 2020, it was informed that the number of energy transmission projects in progress with a delay forecast has been decreasing.

ANEEL currently monitors 391 expansion enterprises for the basic network and, according to the aforementioned report, 28.9% (113) of these energy transmission enterprises are expected to be delayed. A delay in the environmental licensing of an enterprise can cause a reduction in the pace of other associated activities, such as the purchase of materials, preparation of projects and signing of contracts (ANEEL, 2020).

According to Cardoso Jr. and Hoffmann (2019), in the current concession model of the Brazilian electric sector, enterprises are granted without carrying out studies on the impacts on the environment, that is, the environmental impact assessment is not applied as a decision-making instrument for environmental feasibility before the concession.

In order to guide the discussion on the environmental feasibility of transmission line projects, the Ministry of the Environment (MMA) published the MMA Ordinance No. 421 in 2011 to regulate environmental licensing of transmission lines at the federal level and to define the main environmental issues associated with this type of enterprise, intelligently separating which energy transmission enterprises could be licensed through simplified environmental studies and, thus, have shorter deadlines.

In the same context, another ordinance of interest for the regularization of the environmental licensing process was published defining deadlines for the other entities involved in the process (National Indian Foundation – FUNAI, Palmares Cultural Foundation – FCP, National Historical and Artistic Heritage Institute – IPHAN and the Ministry of Health – MS/SVS) manifest themselves when consulted

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by the licensing bodies, the Interministerial Ordinance No. 419/2011, which was replaced four years later by Interministerial Ordinance No. 60/2015, the main object of analysis of this study.

The objective of this study is to compare the deadlines for the manifestation of the entities involved in the environmental licensing of energy transmission enterprises subject to simplified federal environmental licensing, deemed to have little potential for environmental impact, with the schedule of the main licensing agency.

## 2 MATERIAL AND METHODS

#### 2.1 Timeline construction and management

To achieve the goals set, the approach recommended by the PMBOK Guide (2017) for schedule management was used. According to the Guide, schedule management consists of six processes: planning schedule management, defining activities, sequencing activities, estimating activity durations, developing the schedule, and controlling the schedule. This method is discussed and validated by several authors such as Sepasgozar *et al.* (2019), Bondarenko *et al.* (2018) and Rosenberg and Tick (2018).

In this context, the organization of the timelines under study began with the definition of the legal framework that supports the three subsequent steps, which are: the mapping of activities in the process of issuing environmental licenses, the sequencing of predecessor and successor deliveries, and the identification of legal deadlines. Then, a Gantt Chart was automatically generated, the pattern chosen for viewing the schedule.

In the developed schedules, all stages or activities were considered milestones, that is, none of them had an estimated deadline for duration. This definition in the methodology aims to assess only the request and manifestation

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deadlines foreseen for the licensing body and the entities involved, not considering the period for preparing the studies, which varies greatly from case to case.

The evaluation of the elaborated schedules was carried out from the identification of the Critical Path, defined by Costa (2017) as the sequence of critical activities between the beginning and the end of a network of activities to be carried out. They are critical because they have the lowest margins or the time available to do them, so as not to affect the next activity in the sequence. In the MS Project software, the Critical Path is highlighted in red, in the standard notation of the Gantt Chart tab. According to Son *et al.* (2017), project managers with critical schedule information will be able to evaluate their projects and take appropriate actions.

This study assessed the legal deadlines described in MMA Ordinance No. 421/2011, Interministerial Ordinance No. 60/2015, MS/SVS Ordinance 01/2014, IPHAN RI 001/2015 and FCP RI 01/2018, as detailed at Item 2.2. The legal determinations have been organized in a schedule by order of predecessor and successor deliveries in the MS Project 2020 software, acquired by the Study Group on the Electric Energy Sector (GESEL) of the Institute of Economics of Universidade Federal do Rio de Janeiro (IE/UFRJ), within the scope of the Research & Development (R&D) project PD-05018-0419/2019 named "Reference Portal for the Environmental Licensing of Transmission Systems".

### 2.2 Legal framework

The Interministerial Ordinance No. 60, of March 24, 2015, establishes administrative procedures that govern the actions of FUNAI, FCP, IPHAN and MS/SVS in the environmental licensing processes under the competence of the Brazilian Institute of Environment and Renewable Natural Resources – IBAMA.

It describes the type of relationship between IBAMA and the bodies involved (FUNAI, FCP, IPHAN and MS/SVS), the deadlines for the manifestation of the

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involved bodies about studies, reports and consents to environmental licenses, among other pertinent deadlines in this process.

So that such procedures could be applied by technical teams, each of the bodies involved drew up an internal regulation, adhering to the general rules of the Interministerial Ordinance No. 60/2015 in accordance with its provisions, its final objectives, and its internal resources.

Thus, the Health Surveillance Department, linked to the Ministry of Health, published the Ordinance No. 01 on January 13, 2014 (MS/SVS Ordinance 01/2014); the National Historical and Artistic Heritage Institute, linked to the Ministry of Culture, published the Regulatory Instruction No. 001 on March 25, 2015 (IPHAN RI 001/2015), the National Indian Foundation, linked to the Ministry of Justice, published the Regulatory Instruction No. 02 on March 27, 2015 (FUNAI RI 02/2015) and, finally, Palmares Cultural Foundation, also linked to the Ministry of Culture, published the Regulatory Instruction No. 001 on October 31, 2018 (FCP RI 01/2018).

It is worth mentioning that in February 2020 Decree No. 10.252 transmitted to the National Institute for Colonization and Agrarian Reform – INCRA, linked to the Ministry of Agriculture, Livestock and Supply, the competence to coordinate the activities of environmental licensing in lands occupied by the remnants of quilombos in articulation with the responsible environmental body that previously was under the jurisdiction of the FCP.

It should be noted that FUNAI RI 02/2015 was excluded from this analysis, given that its environmental licensing will never be simplified, since, according to MMA Ordinance No. 421/2011, the federal environmental licensing procedure for electricity transmission systems, when the substation area or administrative easement of the transmission line implies intervention in indigenous land, shall be carried out through an Environmental Impact Study and the respective Environmental Impact Report (EIA/RIMA).

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## **3 RESULTS AND DISCUSSION**

When applying in the MS Project program the deadlines foreseen in the regulations cited to electric power transmission systems subject to a simplified federal environmental licensing procedure, it was possible to identify that the activities of the bodies involved stand out as the Critical Path of the environmental licensing schedule of these projects.

Figure 01, shown further ahead, shows the application of the deadlines for manifestation provided for in MMA Ordinance 421/2011, in Interministerial Ordinance 60/2015 and in MS/SVS Ordinance 01/2014 (environmental licensing in malaria risk or endemic areas).

As can be seen, the activities that are the responsibility of IBAMA and MS/SVS, the body involved shown in Figure 01, are on the critical path of this licensing process. That is, any delay in the stages involving these bodies will be reflected in a delay in the beginning of operation of the project.

One of the reasons for this to happen is that in §2 of Art. 5 of Ordinance No. 60/2015, it is established that the bodies and entities involved shall manifest themselves to IBAMA within fifteen (15) consecutive days, counted from the date of receipt of any request for manifestation. However, in Art. 10 of MS/SVS Ordinance 01/2014, it is defined that the response of the MS/SVS shall occur within ten (10) business days, after the request for manifestation made by IBAMA, which shall occur within ten (10) consecutive days counted from the date of the environmental licensing application, as provided for in §1 of Art. 5 of Ordinance No. 60/2015.

Thus, what should happen in fifteen (15) consecutive days, as provided for in Ordinance No. 60/2015, happens in at least twenty-two (22) days, not counting the time of request for manifestation by IBAMA, which is ten (10) consecutive days, thus saying, added the deadlines, the manifestation of the involved body goes from

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fifteen (15) days to about thirty-two (32) days, understanding the MS/SVS Ordinance 01/2014 and without considering any delay.

In this sense, considering that the deadline for approval of the Preliminary License (LP) in a simplified procedure in the federal environmental licensing is 60 days, in case the transmission system crosses any municipality belonging to malaria endemic or risk areas, and, therefore, needs to involve the MS/SVS in the licensing, there is a possibility of at least seventeen (17) days of delay in the issuance of the LP, which represents an increase of about 28% of the original deadline for issuance of the first environmental license.

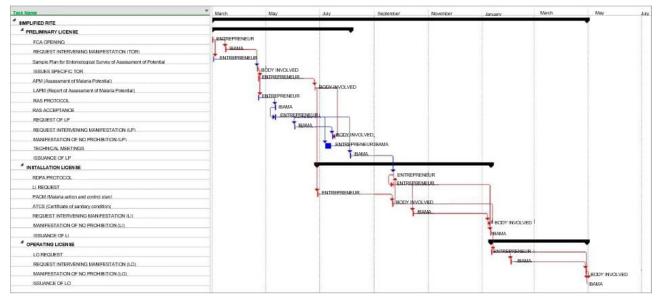
In Figure 02, shown in sequence, the deadlines set out in MMA Ordinance No. 421/2011, in Ordinance No. 60/2015 and in FCP RI 01/2018 (environmental licensing of works, activities or enterprises that impact quilombola communities) were applied.

Once again, it is possible to observe that there is no margin for delays in these stages, since any postponement will be reflected directly in the schedule for beginning of operation of the enterprise.

The particularity of FCP RI 01/2018 is that, at all stages of the licensing process, an informative meeting is planned to be held with the quilombola communities involved. Thus, the manifestation of the FCP at any stage will only be signed after the completion of three consecutive stages: (i) analysis of the body's technicians, (ii) implementation of a prior disclosure campaign and (iii) holding of deliberative community meetings.

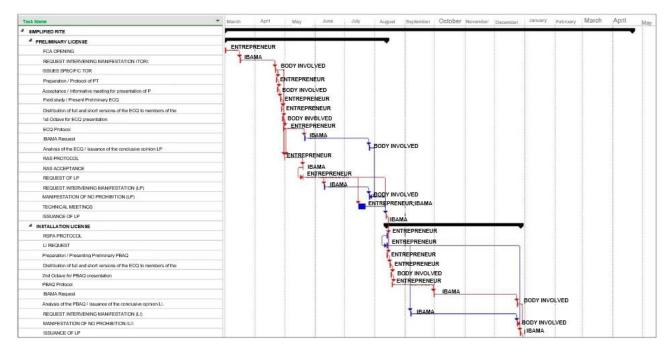
It should be noted that in FCP RI 01/2018 no deadlines were set for the FCP to hold the deliberative community meetings. It is implicit that interested parties seek to accelerate these stages, at the risk of delaying the schedule, without any legal support to complain about possible interference or delay.

Figure 1 - Image from Gantt Chart generated in MS Project, considering the following agencies: IBAMA and MS/SVS. Source: Author's preparation



Source: Authors (2021)

Figure 2 - Image from Gantt Chart generated in MS Project, considering the following agencies: IBAMA and FCP. Source: Author's preparation



Source: Authors (2021)

Finally, Figure 03 hereinafter shows the application of the deadlines provided for in MMA Ordinance No. 421/2011, in Ordinance No. 60/2015 and in IPHAN RI 001/2015.

According to §5 of Art. 11 of IPHAN RI 001/2015, every energy transmission enterprise shall be classified as level III or level IV, therefore, in all cases, IPHAN participates in the licensing process for energy transmission systems. Nevertheless, some actions, in order to minimize the volume of surveys, studies, equity redemption and other stages, may be adopted in the search for the route with the lowest socio-environmental impact.

As can be seen in Figure 03, the licensing stages provided for in IPHAN RI 001/2015 control the simplified environmental licensing schedule, at the federal level, for energy transmission systems projects.

In a systematic analysis, it is possible to observe that the current legislation induces divergences in the deadlines established for certain rites. Examples include the stage of preparation and presentation of the Final Term of Reference by IBAMA, a document that defines the minimum content for the preparation of a previous environmental study.

On the part of the federal environmental licensing body (IBAMA), the model to be followed for the preparation of a previous environmental study is already attached to MMA Ordinance 421/2011, with the specific intention of shortening the time consumed with stages prior to the beginning of environmental studies. Nevertheless, the Final Term of Reference can only be made available by IBAMA, after the manifestation of the body involved (IPHAN), regarding the minimum content of its Specific Term of Reference.

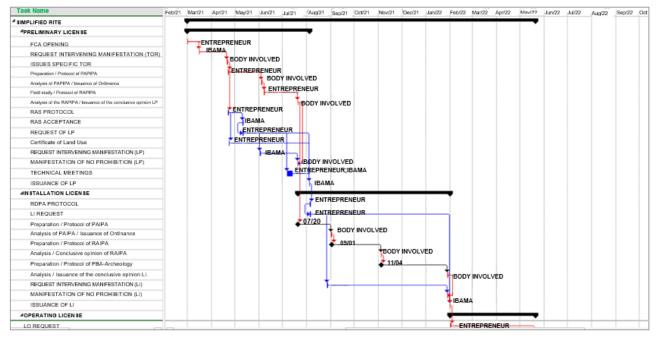
According to IPHAN RI 001/2015<sup>1</sup> IPHAN has a maximum deadline of twentyfive (25) days for the issuance of the Specific Term of Reference, that is, even for

<sup>&</sup>lt;sup>1</sup> IPHAN RI 001/2015. Classification of Level III Enterprise - Medium and high interference on the current land conditions, large areas of intervention, with limited or nonexistent flexibility for changes in location and layout. Classification of Level IV Enterprise - Medium and high interference on the current

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transmission systems projects with little potential for environmental impact, included in the simplified licensing by IBAMA, there is no Final Term of Reference available for consultation and immediate start for the preparation of the simplified environmental study.

Figure 3 - Image from Gantt Chart generated in MS Project, considering the following agencies: IBAMA and IPHAN. Source: Author's preparation



Source: Authors (2021)

Another attention point is that the conclusive manifestation of IPHAN, for the preliminary licensing phase, considers the results of the Assessment Report of Potential Impact on Archaeological Heritage (RAPIPA), which in turn depends on the approval of the Assessment Project of Potential Impact on Archaeological Heritage (PAPIPA).

In Ordinance No. 60/2015, bodies and entities involved in environmental licensing, in this case IPHAN, shall submit to IBAMA a conclusive manifestation on environmental studies, in this case RAPIPA, within thirty (30) days, counted from

land conditions and whose precise layout and location shall only be able to be defined after the Preliminary License phase or equivalent.

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from the date of receipt of the request, which shall occur within fifteen (15) days, after the protocol of the studies at IBAMA.

It so happens that, according to IPHAN RI 001/2015, IPHAN has thirty (30) days for analysis of the PAPIPA and, later, another thirty (30) days for analysis and approval of the RAPIPA, which is the study taken into account in the preliminary licensing.

Thus, in conflict with Ordinance 60/2015, IPHAN, through IPHAN RI 001/2015, has a total of 60 days to assess specific studies on listed, valued and registered cultural property and archaeological property to be presented by the entrepreneur. This deadline is not in line with the provisions of the MMA Ordinance No. 421/2011 for the issuance of the Preliminary License, which requires a great deal of diligence in the impact assessment studies on property protected by IPHAN and, even so, may result in delays in the schedule.

That is, despite efforts to seek a design of the energy transmission system with less socio-environmental impact and, therefore, be framed by IBAMA as an enterprise with little potential for environmental impact, the project schedule may not be compatible with what is defined in the MMA Ordinance No. 421/2011 regarding shorter deadlines for simplified licensing process.

## **4 CONCLUSION AND RECOMMENDATIONS**

The stages to be carried out for the completion of the environmental licensing of energy transmission projects need to be known and overcome in order for the project to be planned, implemented and operated in an environmentally appropriate manner.

Knowing all the existing complexities, it is up to the designer to seek a route that minimizes impacts in areas of socio-environmental relevance, as there is no doubt that this decision benefits the good relationship of the project with its area

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of direct and indirect influence over the duration of the granting, which is, on average, thirty (30) years.

These benefits are in the order of (i) less wear and tear on the project's image; (ii) less consumption of resources with studies, reports and meetings; (iii) less time spent on interrelated stages; and (iv) more sustainability to the project, guaranteeing future generations the right to a more balanced environment.

Thus, in addition to the knowledge of the applicable regulations, a robust and updated geographic database can also help the designer to search for a more sustainable and less costly design for all those involved in the implementation of energy transmission systems projects.

The sooner the project developers of transmission systems have access to secure information on sensitive socio-environmental themes in the country, the sooner deviations and adjustments can be anticipated, bringing to the auctions for the granting of energy transmission, more sustainable, economical and safer projects for the bidding process.

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