



Since the occurrence of the contingency at the Ituango Hydroelectric Project in April 2018, EPM has contracted several reports, including a forensic audit with the firm JAVH McGregor.

The purpose of this advisory was to gather elements to reinforce the Company's legal defense in current and possible future proceedings. It is useful for the effects of addressing inquiries that may be made on the basis of this document, which has been reported to the Office of the Comptroller.

The full forensic audit report was submitted to EPM by JAVH McGregor in December 2020, before the replacement of the Company's CEO in February 2021. Due to the sensitive nature of this material, it was reviewed only by a small team of EPM employees in charge of its assessment. Its contents were delivered to EPM's legal team for the Company's defense and to the Disciplinary Control Office, which forwarded it to the competent body, the office of the Nation's Administrative Attorney General (*Procuraduría General de la Nación*).

Also, the Board of Directors of EPM, at an extraordinary meeting held today, October 21, 2021, ordered to forward the report to the National Prosecutor's Office (*Fiscalía General de la Nación*) for its review in accordance with its powers.

The following is a description of the findings:

Finding No. 1

Delays in the works of the pre-construction contracts on the account of the company Hidroituango S.A. E.S.P, which produced non-compliance with the overall timetable and created the need for EPM to implement an acceleration plan, which included changes to the original project design.





Finding No. 2

EPM actions that run counter to the effective and efficient management criteria set forth in article 4 of Decree 260/2009, for not having accepted the recommendations made by the Advisory Board regarding the plan to accelerate the bypass of the Cauca River, related to maintaining the project's original design, and instead having adopted the arrangement proposed by the CCCI consortium, which implied not installing the devices that had originally designed to close the tunnels (RDT and LDT) as well as construction of a third auxiliary diversion tunnel (GAD, for the Spanish original).

Finding No. 3

Non-compliance by EPM of clause 4.02 of BOOMT, by having initiated performance of the works for the Auxiliary Bypass System (SAD, for the Spanish original), without having previously amended Environmental License No. 155/2009, as a result of which ANLA imposed penalty No. SAN0210-00208 on the company Hidroeléctrica Ituango S.A. E.S.P.

Finding No. 4

At a task group meeting held by the contractor consortia (Consulting, Works and Contract Supervision), at which EPM was absent, the decision was made to reduce the technical specifications set out in the original design regarding installation of the floor slab over the entire length of the Auxiliary Diversion Tunnel (GAD, for the Spanish original).

Finding No. 5

The Acceleration Plan, which includes the Auxiliary Diversion System (SAD, for the Spanish original) was approved by the company Hidroeléctrica Ituango S.A. E.S.P, as documented in the Minutes of the Board of Directors No.158 of December 28, 2015 and in its annex: Report on Justification for Implementation of Acceleration



strategies for the Works of the Project, which also made reference to building the SAD, of which the Auxiliary Tunnel of GOD formed part.

Finding No. 6

Defense arguments of EPM regarding failure to meet Milestones 7, 8 and 9 of the BOOMT contract, and of unmodifiable characteristic 2. Minimum downstream flow of the Hydroelectric Plant, contained in Annex 1.02 (3) of the BOOMT contract, in reference to occurrence of the contingency on April 28, 2018.

Finding No. 7

Non-compliance by Consorcio Generación Ituango of section 6.4 of the Terms of Reference No. 2008-003, regarding the quality of the works performed in terms of the design of the GAD, because it did not contemplate coating of the floor for its construction, despite reiterated recommendations issued by the task group for the acceleration program and the indications given by external consultants of the projects.

Finding No. 8

Non-compliance with the sections 2.2.1, 5.2.1, 6.11.1 and 6.4 of the Terms of Reference No. 2008-003, due to errors in the actions performed by Consorcio Generación Ituango during construction of the GAD, because it (i) failed to issue a recommendation on treatment for the shear stress that was identified; (ii) reduced the technical specification of the support treatment for the rock mass, and (iii) delivered the drawings of the Auxiliary Bypass Tunnel two years after it had been built and seven months after its collapse on April 28, 2018.

Finding No. 9

Non-compliance by Consorcio Generación Ituango of the contractual obligation of performing an adequate risk assessment (section 6.2.9 of the Terms of Reference number 003).



Finding No. 10

1. Non-compliance by Empresas Públicas de Medellín E.S.P., of article 7 of Decree 362 of September 2, 2014, issued by the Board of Directors of EPM, and of article 18 of the Business Guidelines and Rules for the contracting process number 2018-LINGG-26 of January 4, 2018, issued by the CEO of EPM, for having extended the term and increasing the amount of contract 2011-0009 by means of AMB 8 without sufficient justification.

2. Non-compliance by Empresas Públicas de Medellín E.S.P, of its legal obligation of having technical supervision during performance of contract number 00009 of 2011 pursuant to article 83 of Law 1474/2011.

Finding No. 11

Non-compliance with section 6.11 of the Terms of Reference of Process 003/2008, for having included consulting for the project by signing contract 009/2011, rather than by an addendum for a bilateral amendment to contract 007/2008, which may in turn have implications of a criminal type pursuant to article 410 of Law 599/2000.

Finding No. 12

Omissions by management of Empresas Públicas de Medellín, regarding noncompliance of obligations on the account of Consorcio Túneles Ituango in performance of Contract CT 2011-000014.

Finding No. 13

Non-compliance with the principle of responsibility pursuant to article 4 of Decree 260/2009, whereby general contracting regulations are issued for EPM, and related regulations, due to inadequate contract performance of contract CT 2011-000014, which ended with the transaction and settlement certificate signed by Consorcio Túneles Ituango and EPM.





Finding No. 14

Non-compliance by Consorcio CCCI in construction of the Auxiliary Diversion System due to deficiencies in the required construction characteristics (incomplete support, cast concrete, bolts, explosions, floor slab, cleaning of rocks and geological mapping).

Finding No. 15

Non-compliance of ancillary civil works of the Ituango Hydroelectric Project, for producing delays that resulted in the materialization of the risk of collapse of the GAD, which gave rise to the contingency (dimensions of dam, spillway and intermediate discharge).

Finding No. 16

Non-compliance with the procedure established in Decree DECGGL-2035/2014 of EPM for signing of the Bilateral Amendment Addendum No. 15 to works contract GT 2012-000036, thereby failing to fulfill the essential requirements for signing it, a situation that may derive in criminal charges pursuant to article 410 of Law 599/2000.

Finding No. 17

Conducts that may have affected public property and trust by including a subsequent note in the original minutes of contracting process No. 45/2015 and the statements made in the clarification minutes No. 45-001, in order to justify the non-inclusion, analysis and study by the contracting committee of the report on amendment No. 15 that was the basis for AMB 15 to Contract 000036-2012. This may be grounds for criminal charges pursuant to chapter III Title IX of Law 599/2000.





Finding No. 18

Differences in the sums of quantities of excavation, based on an analysis of the agreed unit prices (APU, for the Spanish original) of contract CT-2012-00036, compared to what was agreed in the APU of the AMB, which indicates lack of control of the quantities reported by the contractor.

Finding No. 19

Greater quantities of works performed and paid for in performance of the main works contract CT-2012-000036 after having signed AMB, in which additional works were contracted under descriptions such as "Other Services"" or "OTSV", without adequate rules established by EPM and no uniform and detailed descriptions of the corresponding APU.

Finding No. 20

Non-compliance with the principle of responsibility, pursuant to article 4 of Decree 260/2009, which establishes general contracting rules for EPM and related rules, due to irregularities that indicate that decisions were made regarding issuing an order to commence works in advance for contracts CT-2011-000014 and CT-2012 000036, without having fulfilled the minimum requirements for government contracting.

Finding No. 21

Non-compliance by the contract supervision consortium INGETEC-SEDIC of its obligations as set out in the Terms of Reference, section 6.7 on the responsibilities of the contract supervisor, for contract CT-2011-000008, given the lack of control and adequate verification of the works performed by the construction contractor under works contract CT 2012 000036, regarding the review of the instability of the terrain above the entrances to the diversion tunnels.





Finding No. 22

Non-compliance by the contract supervision consortium of its obligation to review and monitor construction of the SAD, in accordance with the obligations set out in the Terms of Reference PC-056-2010 sections 6.3; 6.3.8 and 6.7.

Finding No. 23

Non-compliance with the obligation on the account of the contract supervision consortium INGETEC SEDIC set out in sections 5.20, 6.7 and 6.3.22 of the Terms of Reference PC-056-2010 and the regulations set out in article 84 of Law 1474/2011, by not warning EPM that some of the works of the SAD were being built by the consortium CCC ITUANGO, following signing of AMB 15, without having an amended environmental license, and without having submitted and received approval for its construction program.

Finding No. 24

Non-compliance by the contract supervision consortium INGETEC-SEDIC of its obligation set out in the terms of reference PC-056-2010 under the section "quality assurance... for the provision of contract supervision services during civil works construction..." by participating in acceleration task groups in which the decision was made to not install the floor slab in the GAD.

Finding No. 25

Non-compliance by the contract supervision consortium INGETEC-SEDIC, regarding its responsibilities set out in section 6.7 of the Terms of Reference of the Contracting Process PC-056-2010, regarding: "...Assess non-compliance events by the contractors and recommend to HIDROITUANGO corrective actions to be taken," by not recommending EPM to take corrective actions on the Ituango Tunnels contractor in the framework of contract CT 2011-000014.





Finding No. 26

Greater amount of interest recognized and paid by Empresas Públicas de Medellín ESP on the loans granted by HSBC and Bancolombia, arising from the difference between the nominal rate at the time the loan was granted and the rate that was subsequently renegotiated, arising from the level of exposure to credit risk.

Finding No. 27

Cost overruns arising from non-compliance with the commercial terms offered in the Wholesale Energy Market in June 2008, regarding Firm Energy Obligation (OEF, for the Spanish original), a situation that served as factual grounds for imposition of penalties pursuant to Resolution No. 101 of August 30, 2019, issued by the Energy and Gas Regulatory Commission (CREG, for the Spanish original), consisting in ordering XM S.A. ESP to make effective the guarantee that covered the construction and start-up of operations of the project by December 1, 2018.

Finding No. 28

The certified financial statements with cut-off date on December 31, 2018, of Empresas Públicas de Medellín ESP, under the cost center for the Ituango project (30pituango), did not recognize the full amount of the economic losses of the civil works and electro-mechanical equipment derived from the consequences of the contingency that took place on April 28, 2018, and the subsequent flooding of the machines room on May 12, 2018.

Finding No. 29

Economic damages for EPM in the capacity of BOOMT contractor of the company Hidroituango S.A., during the Operation and Maintenance phase, due to failure to start up operations on the scheduled date (according to the timetable) of the Ituango Hydroelectric Power Plant, as a result of the collapse of the GAD that took place on April 28, 2018, at a time when the hydroelectric power plant was in the construction stage.





Finding No. 30

Ineffectiveness, inefficiency and violation of the principle of contract planning, pursuant to articles 7 and 4 of Decree 260/2009 (EPM Contracting Manual) and article 209 of the Political Constitution, for having signed numerous bilateral amendment addenda that included additional costs to the contracts for construction consulting, civil works contract supervision and main civil works and construction of main civil works of the Ituango Hydroelectric Project.

Finding No. 31

Inadequate control and monitoring of the Budget Availability Certificates (CDP, for the Spanish original) issued by Empresas Públicas de Medellín for performance of the Ituango Hydroelectric Project, which display constant amendments to the dates, amounts, associated AMB and associated future fiscal years.

Finding No. 32

Over-costs in performance of the Ituango Hydroelectric Project.