



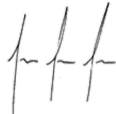
**Validation report form for post-registration changes for  
CDM project activities  
(Version 03.0)**

*Complete this form in accordance with the instructions attached at the end of this form.*

**BASIC INFORMATION**

<b>Title and UNFCCC reference number of the project activity</b>	0846: La Venta II
<b>Process track</b>	<input type="checkbox"/> Prior approval <input checked="" type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
<b>Version number of the validation report</b>	01.0
<b>Completion date of the validation report</b>	06/12/2019
<b>Type(s) of PRCs</b>	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents <sup>1</sup> <input type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan <input checked="" type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents <input type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation project activities
<b>Version number of PDD to which this report applies</b>	12
<b>Project participants</b>	Comisión Federal de Electricidad; International Bank for Reconstruction and Development (IBRD) as the Trustee of the Spanish Carbon Fund (SCF); Kingdom of Spain - Ministry of Agriculture, Food and Environment and Ministry of Economy and Competitiveness; AZULIBER 1, S.L.; Comercial De Materiales De Construcción, S.L. (COMAC); Compañía Española De Petróleos, S.A. (CEPSA); Endesa Generación, S.A.; E.ON Generación S.L.; Gas Natural SDG, S.A.; Hidroeléctrica Del Cantabro, S.A.; IBERDROLA Generación S.A.U.; Repsol YPF S.A.; Zeroemissions Carbon Trust, S.A.; Cementos Portland Valderrivas S.A.; International Bank for Reconstruction and Development (IBRD) as Trustee of the Spanish Carbon Fund (SCF).

<sup>1</sup> Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

<b>Host Party</b>	Mexico
<b>Applied methodologies and standardized baselines</b>	ACM0002 Version 14.0.0 – “Grid-connected electricity generation from renewable sources”
<b>Mandatory sectoral scopes</b>	1: Energy industries (renewable - / non- renewable sources)
<b>Conditional sectoral scopes, if applicable</b>	N.A
<b>Name and UNFCCC reference number of the DOE</b>	Colombian Institute for Technical Standards and Certification (ICONTEC)– E-0024
<b>Name, position and signature of the approver of the validation report</b>	 Juan Sebastian Salazar Technical Director

**SECTION A. Executive summary**

ICONTEC was contracted by Comisión Federal de Electricidad (Federal Electricity Commission) and the International Bank for Reconstruction and Development (IBRD) as the Trustee of the Spanish Carbon Fund (SCF); to perform a validation assessment of post registration changes to the approved PDD of the project No.0846 La Venta II, on the basis of UNFCCC criteria contained in the criteria of the CDM Executive Board and the host country, as well as the operational and technical monitoring criteria specific to this type of project.

Along the 3<sup>th</sup> verification of the second crediting period of this activity project, which is running, the DOE (ICONTEC) raised CLs requiring to the PP to clarify the roll of CENACE - Centro Nacional de Control de Energía (National Center of Energy Control) in the monitoring plan, given the changes in the wholesale electricity market in Mexico, as per the new Law of Electricity Industry. In responding the requests, became clear that CENACE acquired a roll different to that described in the registered PDD, what gives rise to the post registration change addressed through a new PDD.

The proposed project activity under PRC validation process is based on the consolidated baseline methodology for grid-connected electricity generation from renewable sources ACM0002, version 14. The project activity consists of 98 wind turbine-generator engines ("WTGs") each one of 0.85 MW capacity, which add up to 83.3 MW total capacity. The WTGs are distributed in 4 rows approximately 600 meters away from each other and every WTG is approximately 130 meters away from each other; the height of the WTGs is 44 meters. The maximum estimated annual generation is 307,728 MWh ("megawatts hours"). The project was fully commissioned on January 5th, 2007, and has been in continuous operation since that date.

The PRC validation process consisted of the following three phases:

- I. Desk review of the project documentation, revised PDD, previous validation report at registration stage and relevant information
- II. Follow up interviews with project stakeholders.
- III. Resolution of outstanding issues and the issuance of the final PRC validation report.

The review of the project's documentation, revised PDD, previous validation report at registration stage, relevant information and interviews allowed ICONTEC to collect enough evidence to completely assess the validation criteria and determinate that changes on PDD, version 12, dated on 30/08/2019, comply with relevant requirements related to permanent changes from the approved monitoring plan, and also with the relevant requirements in the Project Standard.

PRC to be assessed are permanent changes to the registered monitoring plan, as they are addressed in the CDM project standard for project activities, paragraph 8.3.4. Therefore the validation process has been focused on this issue.

**SECTION B. Validation team, technical reviewer and approver**

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**B.1. Validation team member**

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Verification findings

1.	Team Leader Verifier	IR	Santos	Diana	Icontec's employee	x	N/A	x	x
2.	Technical Expert	EI	Gómez	Fernando	Freelance	x	N/A	x	x

## B.2. Technical reviewer and approver of the validation report on PRCs

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Lead Technical Reviewer and Technical Expert Reviewer (Sectoral Scope 1)	IR	Ramírez	Francy	Icontec's employee
2	Approver	IR	Juan Sebastian	Salazar	Icontec's employee

## SECTION C. Means of validation

### C.1. Desk/document review

Documents provided by the project proponent were:

- Registered PDD version 11, dated on 20/03/2014 /1/
- Validation Report issued by AENOR reference: 2014/018/CDM/05, dated on 16/04/2014 /2/
- Revised PDD version 12 submitted by PP on 30/08/2019 /3/
- Ley de la Industria Eléctrica /4/  
([http://www.diputados.gob.mx/LeyesBiblio/pdf/LIElec\\_110814.pdf](http://www.diputados.gob.mx/LeyesBiblio/pdf/LIElec_110814.pdf))

In addition to the monitoring documentation provided by the project proponent, ICONTEC reviewed:

- CDM validation and verification standard for project activities, version 02.0/UN1/
- CDM project standard for project activities, version 02.0/UN2/
- CDM project cycle procedure for project activities, version 02.0/UN3/
- Project design document form, version 11.0/UN4/
- Consolidated baseline methodology for grid-connected electricity generation from renewable sources ACM0002, version 14.0.0 /UN5/

A compilation of the documents related to the PRC validation activities has been included on Appendix 3.

### C.2. On-site inspection

In accordance with the requirements in the VVS PA /UN3/ paragraphs 30, 31 and 118 (b); ICONTEC decided not to conduct an onsite inspection. Hence the audit team use a strictly documental review and the interviews with the project participants in order to assess the feasibility of the monitoring plan change proposed by the PP.

### C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Saldivar Urquiza	Gaffie	CFE-GPG-DIB project's site Manger of Basic Engineering Area	25/06/2019	<ul style="list-style-type: none"> <li>• Compliance with:               <ul style="list-style-type: none"> <li>. relevant requirements in the "CDM project standard for project activities, version 02.0"</li> <li>. applied methodologies</li> </ul> </li> <li>• Accuracy of the monitoring compared with the requirements contained in the registered monitoring plan</li> </ul>	Diana Santos Fernando Gómez
	Cuadrat	Sergi	Climate Change Mitigation Consultant ClimaLoop			

### C.4. Sampling approach

ICONTEC checked the 100% of project's information hence, no sampling approach was required.

### C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	-	-	-
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	-	-	-
Corrections	-	-	-
Changes to the start date of the crediting period	-	-	-
Inclusion of a monitoring plan	-	-	-
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents	-	-	-
Changes to the project design	-	-	-
Changes specific to afforestation and reforestation project activities	-	-	-
Others (please specify)	-	-	-
<b>Total</b>			

## SECTION D. Validation findings

### D.1. Compliance with PDD form

<b>Means of validation</b>	The audit team can confirm that revised PDD is complete, transparent and
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	in accordance with the project activity implementation, relevant CDM requirements and applicable PDD form. (version 11.0)
<b>Findings</b>	There are no findings
<b>Conclusion</b>	The audit team confirms that the PDD Version 12 /3/ is in compliance with the relevant valid version of project design document form /UN4/ and instructions therein for filling out PDD.

**D.2. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents**

<b>Means of validation</b>	N.A
<b>Findings</b>	N.A
<b>Conclusion</b>	N.A

**D.3. Corrections**

<b>Means of validation</b>	N.A
<b>Findings</b>	N.A
<b>Conclusion</b>	N.A

**D.4. Changes to the start date of the crediting period**

<b>Means of validation</b>	N.A
<b>Findings</b>	N.A
<b>Conclusion</b>	N.A

**D.5. Inclusion of a monitoring plan**

<b>Means of validation</b>	N.A
<b>Findings</b>	N.A
<b>Conclusion</b>	N.A

**D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents**

<b>Means of validation</b>	As indicated by means of track changes in Section B.7.3 Other elements of monitoring plan of the proposed PDD, the PP points that “As far as La Venta II is concerned, the hourly measurements of the generated electricity are still recorded by CFE, although CENACE is not the sole provider of La Venta II’s generation data anymore as occurred before the Post-Registration Change”. This is a permanent change which is in accordance with the law DOF 11-08.2014.
<b>Findings</b>	There are no findings
<b>Conclusion</b>	<p>The DOE deems that the proposed permanent change is adequate. as it addresses a regulatory adjustment in the Mexican regulatory framework In so far the measurement and registration systems of the energy generation of La Venta II become unaffected by the roll of CENACE, as described in the PDD and corroborated by the DOE in former verification process, the emission reduction calculations are not affected by this post registration change.</p> <ul style="list-style-type: none"> <li>• The proposed permanent changes to the registered monitoring plan complies with the relevant requirements in the CDM project standard for project activities /UN2/</li> <li>• The proposed permanent change to the registered monitoring plan do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan.</li> <li>• The proposed permanent changes to the registered monitoring plan do not lead to a reduction in the accuracy of the calculation of GHG emission reductions.</li> </ul>

	The DOE concludes that the proposed permanent change to “Other elements of monitoring plan” (Section B.7.3) do not disable the PP to implement the registered monitoring plan, so that alternative monitoring is not necessary, and concludes that the emission reduction calculations are not affected by this post registration change
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#### D.7. Changes to the project design

Means of validation	N.A
Findings	N.A
Conclusion	N.A

#### D.8. Changes specific to afforestation and reforestation project activities

Means of validation	N.A
Findings	N.A
Conclusion	N.A

### SECTION E. Internal quality control

This report includes the validation findings that underwent a technical review before being submitted to UNFCCC.

The technical review and the quality control process was performed by an internal technical reviewer team in accordance with the ICONTEC's internal procedures for carrying out validation, verification and certification audits of CDM project activities. After this step, the submission for requesting the post registration changes was conducted.

The technical reviewers are qualified in accordance with the ICONTEC's professional qualification scheme for CDM validation and verification.

### SECTION F. Validation opinion

ICONTEC performed the validation of post registration changes to La Venta II Project, registration number 0846, owned by Comisión Federal de Electricidad (Federal Electricity Commission) and the International Bank for Reconstruction and Development (IBRD) as the Trustee of the Spanish Carbon Fund (SCF).

This validation was performed based on the requirements set by the CDM and relevant guidance provided by CMP and the CDM Executive Board.

The validation consisted of the following three phases:

- i) desk review of the project design document and additional background documents;
- ii) follow-up interviews with project stakeholders;
- iii) resolution of outstanding issues and the issuance of the final validation report and opinion.

The review of the revised project design document, relevant additional information and the subsequent follow-up interviews have provided ICONTEC with sufficient evidence to determine the fulfilment of stated criteria as described in the PDD and corroborated by the DOE in former verification process. ICONTEC's opinion, is that the post registration changes meet all relevant requirements for the CDM. Particularly, the DOE finds that the proposed permanent change to “Other elements of monitoring plan” (Section B.7.3) do not disable the PP to implement the registered monitoring plan, so that alternative monitoring is not necessary, and concludes that the emission reduction calculations are not affected by this post registration change. ICONTEC thus request the approval of the post registration changes of the project activity

## Appendix 1. Abbreviations

Abbreviations	Full texts
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CENACE /GOM	Centro Nacional de Control de Energía (National Center of Energy Control, the Mexican Grid Operator)
CENAM	Centro Nacional de Metrología (National Metrology Center)
ERs	Emission Reductions
CERs	Certified emission reductions
CL	Clarification Request
CO <sub>2</sub> e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EMA	Entidad Mexicana de Acreditación a.c. (Mexican Accreditation a.c.)
GHG	Greenhouse Gases
ICONTEC	Colombian Institute of Technical Standards and Certification (Instituto Colombiano de Normas Técnicas y Certificación)
IBRD – SCF	International Bank for Reconstruction and Development (IBRD) as The Trustee of the Spanish Carbon Fund (SCF)
IMNG	Interconnected Mexican National Grid
MoC	Modalities of Communication
PDD	Project Design Document
MR	Monitoring Report
UNFCCC	United Nations Framework Convention for Climate Change
VVS	CDM Validation and Verification Standard
PP	Project Participant
IPCC	Intergovernmental Panel on Climate Change
PS	CDM Project Standard
PCP	CDM Project Cycle Procedure



## Appendix 2. Competence of team members and technical reviewers

**Diana Carolina Santos Camargo**  
Lead Team Auditor

### MAIN PROFESSIONAL EDUCATION

Specialization on Climate Change and Kyoto Protocol OEA 2011-ILC, Latin American, 2011.

Post degree on International cooperation for development Pavia University. Italy - San Buenaventura University, Cartagena, Colombia, 2007.

Clean Production specialization, Los Andes University, Bogotá, Colombia, 2003.

Industrial Engineer, Los Andes University, Bogotá, Colombia, 2002.

### ADDITIONAL STUDIES

Lead Auditor Carbon Footprint. ICONTEC. Jun 2012.

Lead Auditor Clean Development Mechanisms. UNFCCC- ICONTEC. Jan 2012

Lead auditor Sello Ambiental Colombiano, Sostenibilidad Turística. ICONTEC.Feb 2011

Quality Management Systems Diploma, ISO 9001, and 14001. ICONTEC. Apr 2010.

Sustainable development indicators. World Bank, CEPAL – United Nations, Los Andes University, Bogotá, Colombia. Jun 2007.

Seminary Development Projects for Latin America. Hilfswerk der Evangelischen Kirchen der Schweiz –HEKZ- Basilea, SUIZA. Apr 2005.

### PROFESSIONAL EXPERIENCE

- ICONTEC (October 2008 – Actual)

Sustainable Development. Ensure efficiency and quality when providing climate change services by meeting policies, standards and procedures defined by ICONTEC and the accreditation bodies. Ensure the fulfillment of the UNFCCC accreditation and other schemes requirements in relation to the performance of professionals providing services, non-conforming product and training plans design and implementation focused on professionals' skills improvement, technical criteria unification, and added value increase in the audit process. Coordination of projects to design and develop new services; Research and analysis of new business opportunities, and analysis of the market projections through participation in activities that permit knowing and analyzing the market conditions and their characteristics. Direction of Inter-institute Relations and Special Projects, 2008-2009 my initial work was focused on the Centro American Custom Integration project. I supported the research and development of a unified quality system for the region

- ECLAC –Economic Commission for Latin America and the Caribbean– United Nations Organization – UNO (Mar 2007 - July 2007)

Project: Política social y reducción de la pobreza; Optimizando el gasto social. My functions were as practicum collaborating on the formulation and management of the project, participate on the link enforcement with the UNICEF initiative of public investment for children; support on the management of the project Efectos y Costos de la Desnutrición Infantil en Colombia, currently in process, made in association with the Programa Mundial de Alimentos PMA, lead by CEPAL; y also support other projects for sustainable Development and environment.

- Büro Nosotras – Basilea, Suiza (Sep 2005- Aug 2006)

Project development assistant and Administrative assistant. Nosotras is a NGO supported for the Swiss government to promote integration projects of Latin-American immigrant families in the Swiss society, My function in this organization consisted on the formulation, management and implementation of projects that promote the integration, education projects for women as a vulnerable member of the society, I also did some management work for this organization and social work planning, support on the area of language teaching.

- ODES. Organización para el Desempeño Empresarial Sostenible (Jan 2005- Aug 2005)

Professional on the development and implementation of PGIRS with the Tolima government and the Environmental authority. My duties were the coordination of productive and commercialize projects that were integrated as important elements of the productive chain of solid remainders management service, focused on link and benefit of the vulnerable population that work on recycling in 39 places in Tolima, Colombia.

- CIGRAF – Colciencias (Jan 2005- Apr 2005)

Professional on the development, presentation and execution planning of the project “Competencias Laborales de la Industria Gráfica” for the whole nation.

- Artico Software (Aug 2004- Jan 2005)

Commercial Manager, in charge of market lines and customer care; communication between company and customers; work plan projections.

- Corporación Somos Más (Jul 2004- Nov 2004)

Formulation Project Assessor. Specifically for the project [www.somosmas.org](http://www.somosmas.org) - This Project shows the civil organization work for more than 1.200 organizations, this Project was made in association with the Bogota Major office, United Nations Volunteer Program, Los Andes University and important local NGO's.

- Industrial Engineering Department, Los Andes University. (2003)

Research group leader. Responsibilities: Coordination of a research group about the viability of a transportation enterprise as an alternative solution to the problematic of the population working with the animal-driven vehicles and recycling in Bogotá city. Achievement: Exposition of the formulated solution to the Bogotá's Major Antanas Mockus Sivickas.

- Bogotá Council. (2002)

Debate assessor of the councilor David Luna. Responsibilities: Exposition of the social problematic related with the population working with animal-driven vehicles and formulation of solution alternatives.

**EXPERIENCE IN CDM ACTIVITIES****Lead Auditor and Specialist:**

1. Verification of Carbon Footprint –Pacific Rubiales
2. Verification of Carbon Footprint –Biorganicos S.A.S.
3. Verification of Carbon Footprint –Colcafé S.A.S.
4. Verification of Carbon Footprint –Compañía De Galletas Noel S.A.S.
5. Verification of Carbon Footprint –Europharma
6. Verification of Carbon Footprint – Empresa De Acueducto Y Alcantarillado De Bogotá EAAB
7. Verification of Carbon Footprint –Tropical Coffee Company S.A.S.- Colcafé
8. Verification of Carbon Footprint –Celsia S.A E.S.P.
9. Verification of Carbon Footprint –Supercerdo Paisa S.A.S.
10. Verification of Carbon Footprint –Profafor S.A
11. Verification of Carbon Footprint –Industrias Japan
12. Verification of Carbon Footprint –Coltanques
13. Verification of Carbon Footprint – Ladrillera La Clay
14. Verification of Carbon Footprint – Red De Salud Ladera
15. Verification of Carbon Footprint – Univesidad Autonoma De Cali
16. Verification of Carbon Footprint – Reii
17. Verification of Carbon Footprint – Eternil
18. Verification of Carbon Footprint – Isagen
19. Verification of Carbon Footprint – Pacific Rubiales
20. Verification of Carbon Footprint –Proalco
21. Verification of Carbon Footprint – Corpbanca
22. Verification of Carbon Footprint –Industrias Japan
23. Verification of Carbon Footprint –Profafor
24. Verification of Carbon Footprint – Colombia de Extrusión SAS
25. Verification of Carbon Footprint – Freskaleche SAS
26. Verification of Carbon Footprint – Instituto del corazón Bucaramanga SA
27. Verification of Carbon Footprint – Zona Franca Santander SA.
28. Verification of Carbon Footprint – Compañía de Galletas Pozuelo DCR, S.A.
29. Verification of Santa Ana Hydroelectric Plant
30. Verification of La Venta II
31. Verification of Proyecto Forestal Co2cero
32. Verification of La Venta II

**Technical reviewer**

1. Verification of Energy Efficiency and Partial Fuel Switch at Ladrillera Alcarraza
2. Verification of Co-composting of EFB and POME project
3. Verification of A joint venture project of cogeneration of electricity and hot water using natural gas and biogas produced from on-site wastewater biodigesters
4. Verification of Reduction of energy consumption during the production of hydraulic lime for the construction industry through the addition of non-calcined mineral components and additives
5. Verification of Fertinal Nitrous Oxide Abatement Project
6. Verification of GEA Small Hydropower (SHP) Run-of-the-River CDM Project Bundle
7. Verification of Agua Fresca Multipurpose and Environmental Services
8. Verification of Methane recovery and effective use of power generation project Norte III-B Landfill
9. Verification of CELSIA
10. Validation of N2O Abatement at Austin Bacis Mexico Nitric Acid Plant
11. Validation of Project LRT system in tunis
12. Validation of Doña Teresa Small Hydro Power Plant
13. Validation of San Nicolas CDM Reforestation Project
14. Validation of Providencia I: 1.8MW Small Hydro Power Generation Plant
15. Validation of Providencia III: 9.11MW Small Hydro Power Generation Plant

16. Validation Gold Standard: Consorcio Eólico Amayo, S.A.
17. Validation VCS: Grouped Project for Commercial Forest Plantations initiatives in the department of Vichada.
18. Validation CCB: Grouped Project for Commercial Forest Plantations initiatives in the department of Vichada.

### **Fernando Gómez Gómez**

Sector Specialist (Sector 1.2)

#### **MAIN PROFESSIONAL EDUCATION**

Financial Specialist. EAFIT University. Colombia, 1984.

Master of Power Systems. Instituto Tecnológico de Monterrey. Mexico, 1970.

Electrical Engineer. National University of Colombia Bogotá. 1967.

#### **PROFESSIONAL EXPERIENCE**

- ENVISERVICES SAS. (2014)

Technical and Energy Advisory in registering hydro power generation projects into the UPME (Mining and Energy Planning Unit) catalog of projects for long term Colombian national expansion plan.

- PERSONAL CONTRACT for BID (Interamerican Development Bank). (2014)

As an Expert in Energy Economics to review the study “Vulnerabilidad al Cambio Climático de los sistemas de producción hidroeléctrica en Centroamérica y sus opciones de adaptación” (Vulnerability of the Central American hydroelectric systems to the Climate Change and adaptation options), commissioned by OLADE (Latin America Energy Organization) to the Incam Group.

- ICONTEC (from 2006 to present)

Specialist Scope 1. CDM Activities (Attached)

- GESTION Y AUDITORIAS ESPECIALIZADAS - GAE LTDA. Technical and Economic Advisory (November 2004 – May 2005)

Technical and Economic Advisory to Superintendencia de Servicios Públicos Domiciliarios (Superintendent of Public Services) in integral auditing to EPM (Medellín Public Services Utility) management of energy and gas services.

- ECONOMETRÍA S.S. - Technical Advisory (October 2002 - March 2003)

Technical Advisory to Unidad de Planeación Minero Energética to incorporate international electrical interconnections into the Colombian electrical planning carried by UPME, (including use of SUPEROLADE, MPODE, NEPLAN and REAL models).

- ECOENERGIA S.S. ESP - Founding Member and Manager

Management of private projects of generation, distribution and commercialization of power.

- UNIDAD DE PLANEACIÓN MINERO ENERGÉTICA – UPME (October 1996 - October 1997)

Elaboration of Catalog of Generation Projects for National Energy Plan.

- AUDITORES ENERGÉTICOS - AENE LTDA (October 1994 - March 1995)

Advisory to the company in the application of the new regulatory scheme of Colombian electrical sector to private and public entrepreneurial management through the following studies:

- CORELCA: Determination of marginal costs and development of innovative rate structures for power generation companies and big industrial customers, October 1994 - March 1995.
- CORELCA: Development and application of rate models to prepare proposal on power sale in the wholesale market, July 1995 - September 1995.
- Empresa de energía de Cundinamarca - EEC: Advisory in convoking and long-term power contracting, July 1995 - September 1995.
- Instituto Nacional de Ciencias Nucleares y Energías Alternativas - INEA: Development of tutorial model for financial assessment of energy projects in the industry, April 1995 - September 1995.
- Consorcio Nacional de Energía CNE : Consortium Management. Elaboration of studies on power commercialization in Colombia and competitive strategies. Interpretation and application of the Code of Commerce, Code of Networks and other power regulatory standards - commercial activity in Colombia, October 1995 - March 1996.

- EMPRESA DE ENERGIA DE BOGOTÁ – EEB (1978 – 1994)

Positions:

- Chief of the Department of generation planning, interconnection and sub-transmission, 1978 - 1979.
- Chief of Electric Planning Division, 1979 - 1986.
- Assistant for Technical Sub-management, 1986 - 1987
- Chief of Special Projects Division, 1987
- Chief of expansion and Development Division, 1987 - 1994
- Management Advisor, 1994

- INTERCONEXIÓN ELÉCTRICA S.A - ISA (1976 – 1978)

Engineer Specialist in electric planning Research and development of models for planning and operation of electric systems.

National Coordinator of Colombian electric system planning in the project "Study of Electric Power Sector (Estudio del Sector de Energía Eléctrica), ESEE" winner of the National Award of Engineering.

### Technical Expert

1. Validation of Thuan Nhien Phong Wind Farm
2. Validation of Phuong Mai 3 Wind Power Project
3. Validation of Fossil Fuel replacement by Biomass in the Brick Manufacturing Industry (Group 1)
4. Validation of CTR Rosario Landfill Gas Project
5. Validation of SHP Itaguacu CDM Project (JUN 1146), Brazil
6. Validation of Palmaceite Wastewater Treatment and Biogas Utilization Project
7. Validation of Agua Fresca Multipurpose and Environmental Services
8. Validation of CTR Feira de Santana Landfill Gas Project
9. Validation of SHP Morro Azul CDM Project (JUN1164)

10. Validation of Biogas recovery and heat generation from Palm Oil Mill Effluent (POME), Coopeagropal.
11. Validation of EPM Grouped Natural Gas Project
12. Validation of Caruquia 9.76 MW hydroelectric project
13. Validation of Cervecería Hondureña Methane Capture Project
14. Validation of El Bote Small Hydroelectric Plant project
15. Validation of Guanaquitas 9.74 MW hydroelectric project
16. Validation of Rio Amoyá Run-of-River Hydro Project
17. Validation of Fuel Switching through change of furnaces at Imusa S.A.
18. Validation of Installation of a high-pressure/high-efficiency bagasse boiler to cogenerate heat and power
19. Validation of Macano Small Hydro Power Plant
20. Validation of Cueva Maria Hydroelectric Expansion Project
21. Validation of La Vegona Hydroelectric project
22. Validation of Chamelecón 280 Hydroelectric project
23. Validation of Pardos Small Hydro Plant and LOGICarbon CDM Project
24. Validation of Cambará and Embaúba SHPs and LOGICarbon CDM Project
25. Validation of Bonyic hydroelectric project
26. Validation of Tunjita Diversion Hydroelectric Project
27. Validation of METALDOM Fossil fuel switch from reheat furnace.
28. Validation of Providencia Sugar Mill Cogeneration Project
29. Validation of Toachi – Pilaton Hydroelectric Project
30. Validation of El Toqui wind power project
31. Validation of Paramonga Bagasse Boiler Project
32. Validation of Ferreira Gomes Hydro Power Plant Cdm Project Activity
33. Validation of Providencia I: 1.8MW Small Hydro Power Generation Plant
34. Validation of Providencia III: 9.11MW Small Hydro Power Generation Plant
35. Validation of Marañon Hydroelectric Project
36. Validation of Ventana, Suba and Usaquén Hydroelectric CDM Bundled
37. Validation of EMGEA Small Hydropower (SHP) Run-of-the-River CDM Project Bundle
38. Validation of Inversiones Hondurenas Cogeneration Project
39. Validation of Panuco Bagasse Cogeneration Project
40. Validation of Pequi and Sucupira SHPs and LOGICarbon CDM Project
41. Validation of Santa Rita Hydroelectric Plant
42. Validation of Tres Valles Cogeneration Project
43. Validation of La Calera Biodigesters Project
44. Verification of Agua Fresca Multipurpose and Environmental Services
45. Verification of La Cascada 2.3 MW Hydroelectric Project
46. Verification of La Venta II
47. Verification of RIMA Fuel Switch in Bocaiúva
48. Verification of Agua Fresca Multipurpose and Environmental Services
49. Verification of Biogas Project, Olmeca III, Tecun Uman
50. Verification of Jepirachi Wind Power Project
51. Verification of A joint venture project of cogeneration of electricity and hot water using natural gas and biogas produced from on-site wastewater biodigesters
52. Verification of Santa Ana Hydroelectric Plant
53. Verification of Los Algarrobos hydroelectric project
54. Verification of La Joya Hidroelectric project
55. Verification of Bio energy in General Deheza –Electric power generation from peanut hull and sunflower husk-
56. Verification of Agua Fresca Multipurpose and Environmental Services
57. Verification of La Joya Hidroelectric project
58. Verification of Biogas energy plant from palm oil mill effluent
59. Verification of Incauca S. A. Fuel Switch from Coal to Green Harvest Residues CDM Project
60. Verification of Cervecería Hondureña Methane Capture Project
61. Verification of Inversiones Hondurenas Cogeneration Project

## 62. Verification of La Venta II

**Francy Ramírez**  
**Lead Technical CDM reviewer**  
**Expert in Sectoral Scope 1.2**

## Education:

Electrical Engineer. Universidad Los Andes, 2001

## Post grade:

Assessment of Social Projects. Universidad Los Andes, 2005

Environmental Management. Universidad Los Andes, 2016

University of Oxford. Course: Applying Knowledge Management, Principle and Practices (December 1st/ 2009).

University of Oxford. Course: Successful Change Management for Engineers, Scientists and Staff in Hi-tech Companies (December 2nd 2009).

University of Oxford. Course: Essentials of Project Management for Engineers, Scientists and Staff in Hi-tech Companies (December 3rd 2009).

University of Oxford. Course: Advanced Project Management for Engineers, Scientists and Staff in Hi-tech Companies (December 4th 2009).

Climate Change, Trade and Standardization - in a development perspective". Stockholm, Sweden(23 and 25 November 2009)

ISO global workshop on Greenhouse Gas Schemes Addressing Climate Change – How ISO Standards Help, Stockholm, Sweden. (20 and 21st November 2009)

Conference on Climate Change – Deforestation and Standardization. Bali, Indonesia (31st May and 1st June 2010)

## Professional Background:

ICONTEC (2005 - 2010)

## Professional of Standardization

Planning, coordinate, implement and ensure compliance with the program of national standardization in technical committees among which are electrical installations, electrical power quality, electrical transformers, substations and equipment for medium and high voltage, lighting, appliances and electrical accessories, protection against lightning strikes and electrical equipment. Develop technical standards. Develop and manage special projects assigned. Participate in programs of regional and international standardization.

CODENSA (2002 - 2005)

## Inspections and electrical works coordinator

Supervise field work and download the results in the central information system, evaluate the inspections performed, reconciled with contractors, addressing the results of inspections to different areas of the company, charging inspections and electrical work to clients of the firm , coordination and support group field sales engineers, technical training for technical staff, administrative support to department business processes and lost control, maintenance of the database for internal management inspections. Project Leader for the Optimization of Technical Processes and Regional Trade in Cundinamarca.

## CDM Experience

## Lead Auditor

- Validation of Guanaquitas 9.74 MW hydroelectric project, Colombia
- Validation of Fuel Switching through change of furnaces at Imusa S.A., Colombia
- Validation of Installation of a high-pressure/high-efficiency bagasse boiler to cogenerate heat and power, Argentina
- Validation of Cueva Maria Hydroelectric Expansion Project, Guatemala

- Validation of Paysandú Clean Energy, Uruguay
- Validation of La Vegona Hydroelectric project, Honduras
- Validation of Chamelecón 280 Hydroelectric project, Honduras
- Validation of Pardos SHPs and LOGICarbon CDM Project, Brazil
- Validation of Pequi and Sucupira SHPs and LOGICarbon CDM Project, Brazil
- Validation of Cambará and Embaúba SHPs and LOGICarbon CDM Project, Brazil
- Validation of Bonyic hydroelectric project, Panamá
- Validation of METALDOM Fossil fuel switch from reheat furnace, República Dominicana
- Validation of Toachi – Pilaton Hydroelectric Project, Ecuador
- Validation of EMGEA Small Hydropower (SHP) Run-of-the-River CDM Project Bundle, Colombia
- Validation of Energy efficiency at Malvinas Gas Plant, Perú
- Validation of Marañon Hydroelectric Project, Perú
- Validation of Santa Rita Hydroelectric Plant, Guatemala
- Validation of Ventana, Suba and Usaquén Hydroelectric CDM Bundled, Colombia
- Verification of Los Algarrobos hydroelectric project, Panamá
- Verification of Bio energy in General Deheza –Electric power generation from peanut hull and sunflower husk-, Argentina
- Validation of Taurichuco Hydropower Project, Perú
- Validation of Aguafresca Multipurpose and Environmental Service Project, Colombia
- Verification of Agua Fresca Multipurpose and Environmental Service Project, Colombia
- Verification of La Joya Hidroelectric project, Costa Rica
- Verification of Amaime Minor Hydroelectric Power Plant, Colombia

Specialist:

- Validation of Rio Bonito and Baitaca SHPs and LOGICarbon CDM Project, Brazil
- Validation VCS of Pequi and Sucupira SHPs and LOGICarbon CDM Project, Brazil
- Verification of three crediting periods of La Vuelta and la Herradura hydroelectric project, Colombia

CDM Technical Reviewer:

- Validation of improving energy efficiency in a new Gas Plant in Gibraltar - Colombia
- Validation of Tres Valles Cogeneration Project, Honduras
- Validation of Tunjita Diversion Hydroelectric Project, Colombia
- Validation of Ferreira Gomes Hydro Power Plant CDM Project, Brazil
- Verification of two crediting periods of La Venta II, México
- Verification of two crediting periods of La Joya Hidroelectric Project, Costa Rica
- Verification of Bio energy in General Deheza –Electric power generation from peanut hull and sunflower husk-, Argentina
- Verification of Tres Valles Cogeneration Project, Honduras
- Verification of Agua Fresca Multipurpose and Environmental Services, Colombia
- Verification of La Venta II, México
- Verification of two crediting periods of Fertinal Nitrous Oxide Abatement Project, México
- Verification of Co-composting of EFB and POME project, Guatemala
- Verification of Biogas Project, Olmeca III, Tecun Uman, Guatemala
- Verification of Jepirachi Wind Power Project, Colombia
- Verification of Biogas energy plant from palm oil mill effluent, Guatemala
- Verification of Santa Ana Hydroelectric Project, Colombia
- Validation of SHP Morro Azul CDM Project (JUN1164), Colombia
- Verification of Biogas Project, Olmeca III, Tecun Uman, Guatemala

Specialist Technical Reviewer

- Validation of Biogas project, Olmeca I, Santa Rosa, Guatemala
- Validation of CGR Catanduva Landfill Gas Project, Brazil
- Validation of Macaubas Landfill Gas Project, Brazil.



### Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	PP	Registered PDD	version 12, dated on 20/03/2014	Other
2	AENOR	Validation Report issued by AENOR	reference: 2014/018/CDM/05, dated on 16/04/2014	Other
3	PP	Revised PDD	version 12 dated on 30/08/2019	PP
4	Mexican Government	Ley de la Industria Eléctrica	( <a href="http://www.diputados.gob.mx/LeyesBiblio/pdf/LI_Elec_110814.pdf">http://www.diputados.gob.mx/LeyesBiblio/pdf/LI_Elec_110814.pdf</a> )	Other
/UN 1/	UNFCCC	CDM validation and verification standard for project activities, version 02.0		Other
/UN 2/	UNFCCC	CDM project standard for project activities, version 02.0		Other
/UN 3/	UNFCCC	CDM project cycle procedure for project activities, version 02.0		Other
/UN 4/	UNFCCC	Project design document form, version 11.0		Other
/UN 5/	UNFCCC	Consolidated baseline methodology for grid-connected electricity generation from renewable sources ACM0002, version 14.0.0		Other

### Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. CLs from this validation

CL ID	xx	Section no.	Date: DD/MM/YYYY
Description of CL			
Project participant response			Date: DD/MM/YYYY
Documentation provided by project participant			
DOE assessment			Date: DD/MM/YYYY

Table 2. CARs from this validation

<b>CAR ID</b>	xx	<b>Section no.</b>		<b>Date:</b> DD/MM/YYYY
<b>Description of CAR</b>				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY

Table 3. FARs from this validation

<b>FAR ID</b>	xx	<b>Section no.</b>		<b>Date:</b> DD/MM/YYYY
<b>Description of FAR</b>				
<b>Project participant response</b>				<b>Date:</b> DD/MM/YYYY
<b>Documentation provided by project participant</b>				
<b>DOE assessment</b>				<b>Date:</b> DD/MM/YYYY