North Bethesda, MD 20852

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DAVID REINSTEIN

EXPERIENCE

The World Bank, Washington D.C., March 2007 - June 2021

Senior Energy Specialist (Global Practice Infrastructure, Extractives and Energy)

Project manager in charge of developing energy projects and defining energy policies in emerging economies. Supported governments around the world in the implementation of energy policies to enable the energy transformation, decarbonization, improvement of contractual arrangements, and electricity and gas markets design.

Some Relevant Projects

Brazil Brazil - Sugar Bagasse and Lages Woodwaste projects, carbon finance, power generation

<u>Bulgaria</u> Electricity Sector Reform Technical Assistance, development of contracts for differences

Chile Technical assistance on the natural gas downstream sector regulation

Colombia Carbon finance of Amoya Hydropower Plant and Jepirachi Wind Power Plant

Dominican Republic

- Strengthening Capacity for Commodity Risk Management
- Distribution Network Rehabilitation project, \$152 million loan to improve utilities performance, community outreach, loss reduction, real cost cash recovery, and increase customer's satisfaction
- Aguacate Hydro Power Plant Rehabilitation, \$80 million for rehabilitation and plant repowering
- Development Programmatic Loan \$150 million loan, and Technical Assistance Project \$11.3 million loan

Ecuador Carbon finance of Abanico and Sibimbe hydro power plants

<u>EITI Projects</u> Extractive Industries Transparency Initiative projects in Albania, Argentina, Ecuador and Ukraine

Egypt Natural gas market design and establishment of gas regulator

Kenya Technical Assistance, capacity building and establishment of the petroleum regulator, \$54 million loan

<u>Mexico</u>

- o Integrated Energy Services, rural electrification, solar energy, \$30 million loan
- Carbon finance of a biomass generation project \$7 million

Peru Huaycoloro Landfill Gas Recovery and power generation \$4.4 million (carbon finance)

<u>Paraguay</u> Transmission network strengthening project, \$100 million loan to increase reliability of power supply, and reduce losses

Other relevant activities

- Team member of electricity projects in Azerbaijan, Bolivia, Colombia, Egypt, Ethiopia,
 Indonesia, Mozambique, Peru, South Sudan, Turkey, and Ukraine
- o Peer reviewer of studies, investment and technical projects in Albania, Argentina,

- Armenia, Azerbaijan, Brazil, Central America, Egypt, Indonesia, Iraq, Kenya, Kyrgyz, Mexico, Pakistan, Turkey, Ukraine, Uzbekistan, and Vietnam
- Peer reviewer and team member of investment and technical assistance projects in Armenia, Bolivia, Central America Countries, Iraq, Kosovo, Mexico, Tanzania, and Turkey.

Colombian National Hydrocarbon Agency (ANH), Colombia, October 2004 – February 2006

Senior Advisor

Supported the creation of the regulatory agency after being a key member of the study (Project PETRO, 1999) that defined the functions of the agency. I acted as a Deputy General Manager in the procurement process of the agency assets and lead the first study on hydrocarbons security of supply, and feasibility study GTL and CTL for the country. I successfully organized and delivered the First ANH Colombian International Hydrocarbon Supply Seminar and the First Hydrocarbon Supply Action Plan

Clairepierre Consulting, Colombia, March – December 2006, March/1998 to December 2000

Senior Principal Consultant

Consultant on regulatory issues for KPMG; British Petroleum; Emgesa, Tractebel, NERA (Washington), Gener (Chile); Empresas Públicas de Medellin (EPM); Government of Cundinamarca, Superintendence of Public Services, and Ministry of Finance and Public Credit. Participated in the technical due diligence for JP Morgan-Correval in the selling of Ecogas pipelines, \$1.3 billion, the evaluation and technical assessment of Gas Risaralda Co., and acted as Expert Witness on regulatory issues in international electricity arbitrages.

FEDESARROLLO, Colombia, August 2002 – September 2004

Senior Research Associate

Co-authored the study *Contingency Analysis of Private Participation in Infrastructure Projects* for the Ministry of Finance, performed studies electricity and gas markets competition, auction capacity market, and consultant on the design of the reliability charges financial guarantees scheme. Performed an evaluation of the Ecuadorian Electricity Market, and a risk assessment for the Colombian Contingency Fund of Energy Infrastructure Projects.

Energy and Gas Regulatory Commission (CREG), Colombia, January 2001 - May 2002

Executive Director, Expert Commissioner

Managed the regulation process of 253 electricity and gas companies, executed a \$4 million budget, and managed a team of 56 people between economists, engineers, lawyers, and social and environmental experts. The regulation process included the definition of tariffs, quality of services, customer service and utilities performance indicators.

BP - British Petroleum Exploration, Colombia, April 1995 - March 1998

Business Development Manager, Gas and Power

In charge of the definition of the gas monetization strategy and technical definition of power projects. Performed analysis of investment risk, contracting for natural gas and electricity, tariff

and tax issues, markets trends, regulatory and contractual aspects. Designed the commercial, financial, and legal structure for the Apiay-Granada Gas pipeline and links to twelve municipalities, a power development of 1000 MW, and participated in power developments in different countries.

Ministry of Finance and Public Credit, Colombia, October 1992 - March 1995

Senior Advisor to the Minister

Represented the Minister at the Board of Directors of nine (9) state owned companies, and managed hydro and thermal power plants owned by the central government (Betania Hydro Power plant 510 MW, Cartagena gas power plant 170 MW, and Tasajero coal power plant 163 MW). Created the first privatization plan for the energy sector and participated in the drafting of the Electricity and Public Services Laws (1994), and the creation of the energy regulatory agency. Performed financial structuring of investment projects such as Cusiana Oil Pipeline, Ocensa Oil Pipeline, and Ecopetrol investments in power and gas.

CARBOCOL (Exxon-Colombian Government Joint Venture), September 1987 - October 1992

Manager of Planning, Evaluation, and Negotiation of Coal Projects

Supported the Technical Vice Presidency and Executive Committee on social and economic evaluation of investment projects and provided technical support to different Ministries of the Colombian Government in negotiations with foreign and local investors.

EEB- Empresa de Energía de Bogotá S.A. E.S.P. Colombia, March 1985 - August 1987

Power Systems Engineer

Implemented power system security analysis software and designed and implemented digital displays for the Energy Dispatch Control Center. Responsible for security and optimal operation of the transmission network.

EDUCATION

- National University, Bogota, Colombia, Master of Arts in Economics, finished studies, 1989
- McGill University, Montreal, Quebec, Canada, Master of Engineering (M. Eng.), 1984
- National University, Bogota, Colombia, Electrical Engineer (BSEE), 1981
- Other relevant training
 - Gas Strategies, Istanbul, Turkey, LNG Commercial Structuring and Operation, 2012.
 - o Oxford University, UK, CPS: The Olefin Business, Economy and Markets; 1997
 - Gas Strategies, Alphatania Training, UK, Global Gas Markets, 1996
 - Harvard University, Boston, USA. Law School. Negotiation Workshops; 1991

PUBLICATIONS

- Central America, Regulatory Barriers for Electricity Market Development, 2013
- Improving the Quality of Public Expenditure in the Dominican Republic, The Quality of Public Expenditure in the Electricity Sector, World Bank, March 2012
- o Perú en el umbral de la nueva era, El Sector del Gas Natural, Banco Mundial, Enero 2012
- Regional Power Integration: Structural and Regulatory Challenges, World Bank, ESMAP, January 2011
- Central America Programmatic Study for the Energy Sector: General Issues and Options, World Bank, Energy Unit, Sustainable Development Department, ESMAP, November 2010

- Peru's Downstream Natural Gas Sector: A Preliminary Assessment, David Reinstein, Daniel
 A. Benítez, Todd M. Johnson, The World Bank, Washington D.C., September 2010
- Contingency Analysis of Private Participation in Infrastructure Projects (Coauthor), Ministry of Finance and Public Credit, May 2000
- o Social Assessment of Privatizing the Ecuadorian Electric Power Sector, April 2000
- Report of the Ministry of Mines and Energy to Congress. August 1999
- PETRO Report, Recommendations for Changes in Petroleum Policy, UPME, 1999
- Coal within the Colombian Energy Context. ENERGETICA, National University Magazines 1991
- Using Supercomputers in the Petroleum Industry. AIEUN, Magazine. 1991
- What is Seismic Analysis? AIEUN, Magazine. 1991
- o Expert Systems. Engineer's Association Magazine, ASIEB Bulletin No. 9, Jul. 1986, Bogotá.
- Direct Current Transmission. ASIEB, Bulletin No. 9, Jul. 1986, Bogotá.
- D. Reinstein; F.D. Galiana; A.F. Vojdani; Probabilistic Simulation of a Power System under Transmission Constrained Economic Dispatch. Transactions on Power Apparatus and Systems (PAS), IEEE, New York, N.Y., June 1986
- Operating Cost Forecast of a Power System Based on Parametric Programming. ASIEB, Bulletin No. 8, Bogotá, March 1986
- D. Reinstein; F.D. Galiana; A.F. Vojdani; Probabilistic Simulation of a Power System under Transmission Constrained Economic Dispatch. Proceedings PICA Conference 1985, San Francisco, California, May 6-10, 1985
- L. Florez, W. Kerpel, D. Reinstein, Coherence Analysis for Studies of Dynamic Equivalents.
 Engineering and Research Vol. 1, #3, UNAL, Faculty of Engineering, Bogotá, 1982

ADDITIONAL INFORMATION

- Academic experience, University of Los Andes, Faculties of Economics and Management, lecturer on Energy Economics, graduate, and undergraduate courses. Taught various research seminars relative to the energy industry and privatization processes.
- President of the Association of Electrical and Electronic Engineers of the Colombian National University 2002-2007
- Member for more than twenty years of the Institute of Electric and Electronic Engineers (IEEE).