

Wilfredo Francisco Escobedo Gatica

Wilfredo has experience in EPC & EPCM Projects Execution for metal and non-metal large-scale mining production. He has participated in project Design, Construction and Start-up activities, carried out at 3500 meters above sea level and in important work teams in multinational companies of the mining sector such as Fluor Corp.-Mining and Metals, Sociedad Química y Minera de Chile S.A., Codelco Chile—El Teniente Division, Anglo American Chile-El Soldado and Los Bronces. He carried out Engineering Lead activities in the French multinational company, Schneider Electric; focused in the design, electrical equipment manufacturing and system automation .

Electrical Civil Engineer degree at Universidad Católica de Chile. Master of Business Administration (MBA) and Master of Financial Management (MDF) at the Business School of Adolfo Ibáñez. Graduated with honors and with academic excellence from both universities.

Experience in design, construction and commissioning of instrumentation, control systems, data centers, control rooms, electrical room, fiber optic infrastructure and communication networks, MV&HV electrical sub stations, genset and industrial facilities, for large-scale mining project.

As a Leader of Electrical and Automation Equipment Manufacturing Engineering at Schneider Electric Chile, he gained experience in manufacturing, integration and testing in complex projects. From his professional career he has gained experience in project management and control standards in project development companies (PMI, OSR, OSIP).

Relevant Experience

Fluor Chile S.A, September 2004 to March 2020, and March 1992 to January 1999

- **Electrical, Instrumentation, Telecom and Control System Department Manager.** Ensure that all projects being executed by their functional group conform to the requirements documented in Operating System Requirements (OSR) and the Mining & Metals group's Operating System Implementation Plan (OSIP). Approving project specific Activity Plan, Project Activity Model (PAM), project specific Work Instructions and Checklists, so as to ensure that they are in line with the scope of services. Verifying planned work activities are taking place to ensure that deliverables meet the design and baseline requirements. Assign qualified personnel to projects, regularly reviewing employees to assess performance and establishing training requirement.

Technical Manager of activities at Santiago and Lima office. Preparation of technical engineering proposals for EPCM, EPC projects. Responsible for forming professional work teams for the delivery of services. Responsible for identifying and evaluating the hiring of one hundred and fifty professionals, apply and control career development plans, performance evaluation and prepare salary reviews, and dismissal processes. The work required the administration of technical specialty people from different years of experience, specialized in specialty calculation tools (ETAP, AGI, SP3D, SPEL, SPPID, SPI, ETAP).

- **SGO Project, BHP Spence, Distributed Control System Lead.** During the Detail Engineer stage, he is the DCS Leader of Automation Discipline in charge of preparing, reviewing and approving technical documentation for DCS equipment designs, manufacturing, Integration tests (AIT), manufacturing tests (FAT), comprehensive functionality (Staging Test) and DCS configuration tests (CAT). Preparation of detailed engineering documentation for the purchase, economic & technical evaluation, manufacture and configuration of controller & HMI stations. Development of technical documentation of control strategies to configure and operation interfaces. The project facilities include Centradora,

flotation, Remolienda, Filtration Plant areas. Participates in the basic engineering stage of preparation of the Execution Plan and Capex. Preparation of technical scopes for EPC contract in the Concentrator area. Capex USDMM 1200.

- **Sulfur Leaching Project, BHP-Minera Escondida Ltda. Construction Superintendent (Electrical & Instrumentation).** The projects facilities include material management areas: primary crusher, secondary/tertiary crusher, selection and agglomeration, as well as wet areas: solvent extraction, tank farm and electro abstention. The activities included construction contractors' management and on site design activities coordination amongst different disciplines. I manager electromechanical erection and civil Works contractors and negotiated payment status. Successfully negotiated new budgets for scope increases. I developed and prepared designs, purchases and design approvals in the home office stage. Amongst my achievements is maintaining construction costs in budget and close construction activities with zero accident incidents in the work crew. The project's cost was US\$ 900 millions and the electrical and instrumentation discipline's investment cost was US\$ 70 millions.
- **Oxido Project, BHP-Minera Escondida Ltda.** Construction, electrical and instrumentation superintendent. I managed a 35 million budget of materials, erection contracts and civil Works. The project's total cost was US\$ 420 millions. I complied with construction scheduled and kept the area budget assigned by estimates. I prepared contract scoped, negotiated contract and supply allocation. I managed highly complex erection work contracts without any time loss.
- **Escondida Water Supply Project, BHP-Minera Escondida Ltda. Project's Lead Engineer (Instrumentation and Control System).** The project's facilities include infrastructure area, pipeline, pump station, substations and electrical lines water ponds. Conceptual Engineering and Investment Studies. The activities included work team leading, design activities' coordination amongst disciplines, suppliers and the client. Design preparation and revision. Contract scope, requisition, evaluation and negociation elaboration. Engineering personnel management. The estimated cost of the project was US\$ 420 millions. Throughout the project I led the work team to achieve an early design and budget delivery. Another one of my achievements was to reduce the investment costs by means of a trade off study of technical and economical alternatives. I elaborated alternatives with execution programs, optimizing construction timings to a minimum.
- **Antucoya –AMSA Project. Control System and Instrumentation Project's Lead Engineer.** The project's facilities include infrastructure area, pipeline, pump station, substations and electrical lines water ponds. Basic and Detail Engineering for Control and Telecom System. The activities included work team leading, design activities' coordination amongst disciplines, suppliers and the client. Design and Contract preparation and revision. Preparation of EPC Contract scope, capex estimations, requisition, and evaluation and negotiations elaboration.
- **EOA Project- BHPBilliton.** Deputy Engineer Manager. Report results engineering studies.
- **Pascua Lama Project- Barrick Corp. Senior Area Engineer (Instrumentation and Control System).** The project facilities include primary crusher areas, overland conveyors, stockpile, concentrators, flotation, leaching, refinery, tailings, water collecting system and general infrastructure facilities. Detail and construction engineering stage. Design coordination amongst disciplines, suppliers and the client. Construction contract scope and investment budget preparation. Quotation requisition; technical evaluation of instrumentation and system equipment offers. The project's cost is US\$ 3200 millions and its scope is binational; in Chile and Argentina.
- **Minsal Project, Soquimich S.A.** Electrical and Instrumentation discipline and automatic control Leader. On site engineering Sub manager during the construction stage. I supported the construction team with designs, purchases, preparation I supported the construction team with designs, purchases, preparation and construction contract administration. The project's cost was US\$ 250 millions. On site,

I directly managed a team made up of 7 professionals, complying with the design needs that had not been covered by the home office engineering.

- **Verde Gold Project, Compañía Minera Maricunga Ltda.** On site Engineering Sub manager. I manager a 10 people team. I elaborated scope of Works for civil Works contracts and electromechanical erection. I planned and controlled contractors' erection activities, jointly developed with a new engineering team, designs not covered by the home Office. I purchased and made arrangements in order to expedite the construction team tasks and comply with the delivery schedule of the facilities for the client's operations.
- **Quebrada Blanca Project, Compañía Minera Quebrada Blanca S.A.** On site Engineering Submanager. I successfully managed a 15 people team. I elaborated civil Works scopes of work and electromechanical assembly. I planned and monitored erection contractor activities; with my team I developed new engineering designs that had not been covered by the home Office or mechanical equipment vendors. I purchased and made arrangements in order to expedite the construction team tasks
- **Codelco Chile – División El Teniente 2002 – 2004.** I managed engineering contracts in projects that were part of the Plant Project Superintendency. I planned and manager the projects' investment portfolio execution, achieving great results in areas like execution safety, project transfer to the operation area, closure negotiation with vendors and erection contractors. I led legal studies needed to implement projects' prepared contract basis, technical and economic evaluations and investment alternatives. In addition, I prepared and evaluated contracts by supply and construction. Specifically, the projects in which I participated and the accountabilities involved are:
 - **Communication Integrated System Feasibility Study Project Mina-Rancagua.** Engineering Manager.
 - **Mine Frequency Change Project.** Engineering Manager
 - **Automation Level Project Teniente 8.** Start-up Manager
 - **Pipa Norte y Diablo Regimiento Project.** Electrical and automation specialist engineer
- **Schneider Electric Chile S.A, June 2000 - November 2001.** Engineering Manager. The activities included leading, coordinating and managing engineers, mechanical and designing technicians that were in charge of the engineering Works for electrical equipment fabrication. Technical and economical evaluations of sub-providers' offers. Subcontractors' technical specification, engineering budget control and project control. Technical and economical evaluations for the commercial area during the proposal prep phase. Activity coordination with the commercial department, fabrication manager sub-suppliers and subcontractors. Amongst the activities is the design, fabrication and testing of electrical rooms , mobile and standard substations, CCM, distribution panels, switchboard, medium voltage Switchgear. The greatest achievement was the organization of the engineering department activities, in order to minimize the process timing for fabrication drawings' preparation and request and comply with the periods stated in the purchase orders. Work procedures were established as well as a high performance, harmonic working environment, which enabled plant performance improvement by means of improving the quality of the drawing design and procedures of the engineering department.
- **Soquimich S.A., Division Nitratos, Febrero 1999 - Junio 2000.** Department Manager of the Electricity and Instrumentation Discipline. The activities included the support and management for the projects of the Nitrate Business Unit of SQM. I coordinated design activities amongst disciplines and engineering companies. I developed coordination amongst different equipment, electrical and control rooms' Vendors. I revised and approved specifications, drawings and material lists for electrical and instrumentation engineering which included: 23 KV distribution lines, electrical substations, electrical and control rooms, communication systems, PLC control system, plant instrumentation. I prepared technical evaluations and economical offers of electrical and instrumentation equipment. In a joint effort with the work team, I prepared the scopes of work for the construction, engineering and budget control contracts for the project. Other projects in which I participated with SQM are the following:

- **NPT Plant Project, Coya Sur.** Electricity and Instrumentation Lead
- **Emergency Power Plant, Pedro de Valdivia.** Project Lead

Educational Background

Electrical Civil Engineer, Universidad Católica de Chile, 1982-1988.

Master of Business Administration, Escuela de Negocios de la Universidad Adolfo Ibáñez, 2007-2008.

Master of Financial Management, Escuela de Negocios de la Universidad Adolfo Ibáñez, 2009-2010.

Languages

Spanish, English

Antecedentes de Contacto

wilfredo.escobedo2007@gmail.com

Celular +56 9 37169337