2025

Energy Management Program

BUENAVENTURA

Buenaventura energy management

At Buenaventura, we reaffirm our commitment to sustainability through an efficient, responsible and continuous improvement-oriented energy management. Within this framework, we have developed and implemented a robust and systematic energy management program, which is detailed in this document. This program consolidates our technical, strategic, environmental and operational efforts, and reflects the sustainable best practices implemented throughout the year 2024.

1. **Strategic Axes of Energy Management.**
    - **Data capture management:**
        - Energy measurement by areas, substations and electrical circuits.
        - Automated and online register of energy consumption by processes and functions.
        - Integration of platforms for data capture, processing and data integration:
            - ✓ PI DataLink: is an integration tool that allows bringing historical and real-time data from the PI System.
            - ✓ SCADA (Supervisory Control and Data Acquisition): is a real-time supervision, control and data acquisition system. Licenses are in place at the Orcopampa, El Brocal and Tantahuatay operating units.
            - ✓ Power Monitoring Expert (PME): Collects data from meters and substations, automatic calculations and secure storage of historical data. Progressive implementation at the units, currently licensed at Tambomayo, Uchucchacua, Tantahuatay and El Brocal units.
            - ✓ PI System: can collect data from various sources, such as PLC, DCS and SCADA systems.
    - **Information Management:**
        - Projection and monitoring of energy consumption.
        - Identification of deviations and alarm points.
        - Tracking of indicators such as: CFM/kWh, TMS/kWh, m^3/kWh.
        - Integration of data analytics platforms, load profile behavior:

- ✓ PI Vision, Power BI: is an online visualization tool that allows creating customized dashboards with real-time data.
- ✓ Power Monitoring Expert (PME): advanced electric energy monitoring platform that enables analysis of power quality, demand, harmonic distortion, load balance and power failures.

- Integrated control center for real-time visualization.
- Power quality analysis personnel are available for our 138 kV substations.

- **Energy balance by process, by function - BEP (Best-efficiency-point).**
  - Analysis by process steps: extraction, crushing, grinding, flotation, filtration, discharge and gold room.
  - Evaluation of efficiency in fluid transport, air masses, others.
  - Efficiency evaluation in mechanical systems (comminution, drilling, compressors, filters, thickeners, belts, others).
  - Efficiency evaluation in thermodynamic systems (reactors, burners, boilers, motor casting, others).
  - Cost benefit evaluation of expert systems crushing, grinding, ventilation, pumping, others.
  - Calculation review of operating condition of pumps, fans, compressors, etc., verifying ducts, boxes and conditions that generate energy losses.
  - Review of processes with energy waste due to deviations in the work cycles, pumping recirculation, ventilation, or load recirculation, etc.
  - Analysis of electrical systems with respect to energy losses in transformers, electrical cables, leakage to ground, over temperature due to load or condition, low power factor, loss of insulation, unbalance of primary and secondary networks, etc.

- **Ancillary services**
  - Energy optimization in lighting, workshops, camps, open areas, and heating.
  - Efficiency evaluation of auxiliary services (lighting, workshops, camps, offices, others).

- Study substitution of low and medium loads by renewable energies such as solar or wind.
- Implementation of backup systems (BESS) to cover peak demand.
- Evaluation of power factor and calculation of line losses, leaks, undersizing, etc.
- Online energy metering and optimization of main SE operator resources, load dispatch management.
- Optimization of hydroelectric power plants.

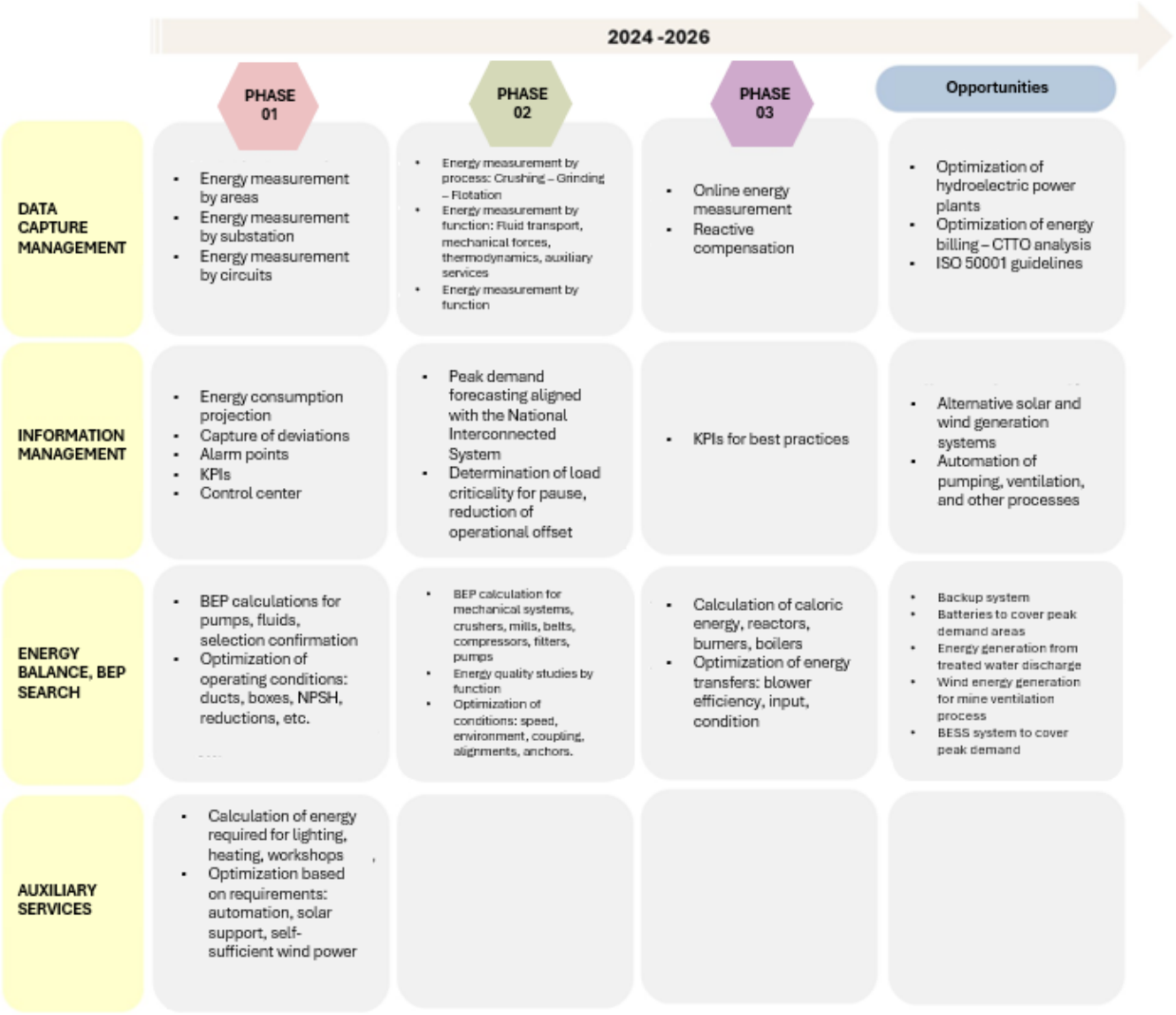


Figure N°01: Strategic Energy Management Structure

Our value proposition:

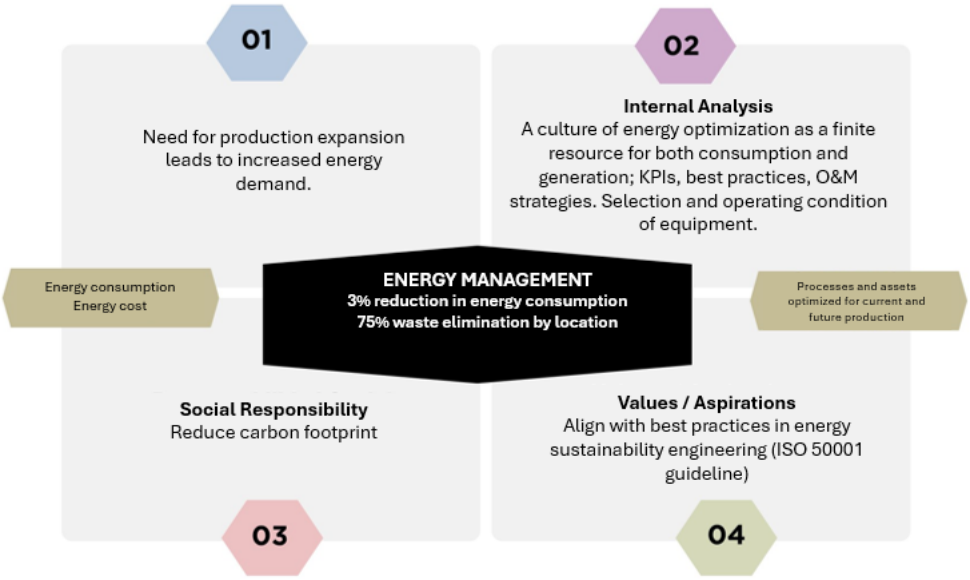


Image N°02: Value proposition

- **01. Operational Growth**

  Need for production expansion = higher energy demand. The increase in operational capacity generates a progressive increase in energy requirements, which requires efficient and adaptive energy planning to ensure the operational continuity with sustainability.

- **02. Diagnosis / Internal Analysis**
  Promote a culture of energy efficiency where energy is recognized as a limited resource. Operation and maintenance strategies, application of best practice KPIs, and systematic evaluation of the condition and performance of equipment are promoted.

- **03. Social Responsibility**
  The energy strategy contributes directly to the organization's environmental commitments, helping to minimize greenhouse gas emissions. As a result, we obtain cleaner and more sustainable operations in the context of regulatory and social requirements.

- **04. Values / Aspirations**
  Alignment with Sustainability principles and ISO 50001 adopting the best practices of sustainable energy engineering and strengthening ESG (environmental, social and governance) principles.

2. 2024 objectives and commitments

Our 2024 objectives and targets were:

- **Reduce global energy consumption** by 3% compared to 2023.
- **Eliminate 75% of** progressive **energy waste** in 5 years (detected spotlights, under-maintained equipment, condition deviations or unnecessary recirculations, etc.),
- **Replace 5% to 10% of minor loads** with renewable sources, progressive in 5 years.
- **Verify equipment performance:** Analysis of equipment energy consumption. Verify if they are working at their optimal efficiency point and condition deviations.

Key commitments include:

- Continuously improve energy performance
- Ensure compliance with legal and other applicable requirements.
- Promote the efficient use of energy and renewable energy sources
- Provide the necessary resources to achieve energy objectives.

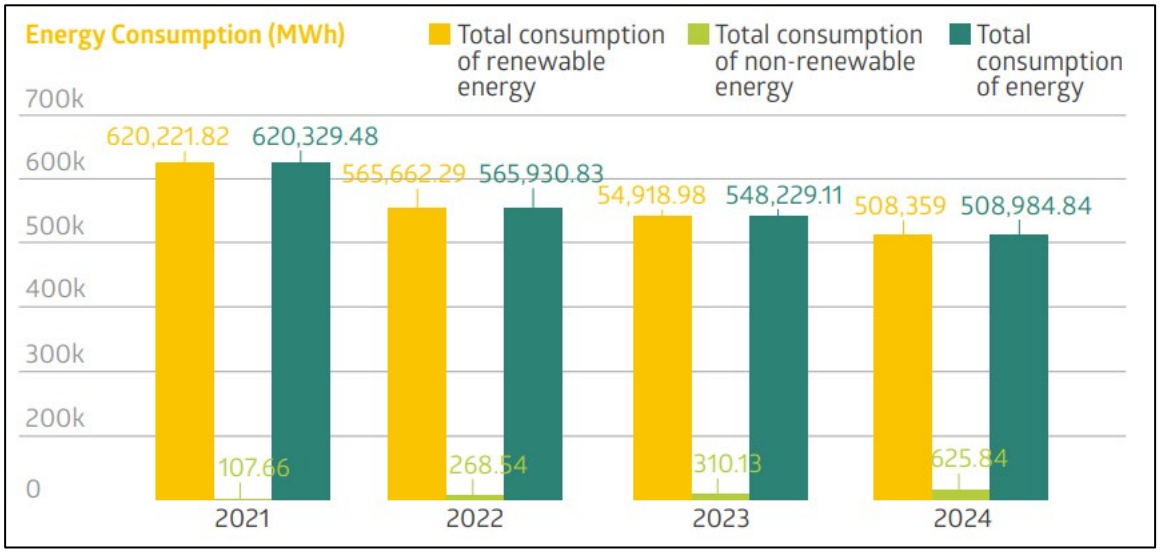
3. Energy Baseline and Diagnosis

The 2024 energy baseline was adjusted to take into account significant changes in operating and climatic conditions. For this year, Procesadora Rio Seco and the San Gabriel Project, which are about to start operations, have been included in the statistics.

In the last four years we have had the following energy consumption:

Total energy consumption	Unit	Fiscal year 2020	Fiscal year 2021	Fiscal year 2022	Fiscal year 2023	Fiscal year 2024
Total non-renewable energy consumption	MWh	**101.8**	**107.7**	**268.54**	**310.13**	**625.84**
Total renewable energy consumption	MWh	**515,249.57**	**620,221.82**	**565,662.29**	**547,918.98**	**508,359**
Data coverage (as % of denominator)	Percentage of: **Operations**	**100**	**100**	**100**	**99.9**	**99.9**

Table N°1. Energy Consumption (Mwh).



Graph N°1. Energy Consumption (MWh)

4. **Audits, evaluation and regulatory compliance**

Energy management is based on the environmental policy and procedure P-COR-SIB-03.01B Identification of Environmental Aspects, Risk Assessment and Controls (IPERC-AMBIENTAL). The purpose of the latter is to establish guidelines for a systematic process of continuous identification of environmental aspects, evaluate risks, determine those that are significant, and establish control and/or environmental protection measures to prevent or mitigate possible environmental impacts; among the various environmental aspects addressed in the procedure, electricity consumption is mentioned.

In addition, management is based on the principles of the ISO 9001 standard, which establishes a process-based approach and continuous improvement, and ISO 14001, which requires the identification of environmental aspects, risk assessment, and the establishment of sustainability-oriented objectives.

To ensure compliance with the aforementioned standards and norms, audits are conducted throughout the year.

Management of Integrated Audits - SIB; We have procedure P-COR-SIB-05.08 "Management of Buenaventura Integrated System Audits (SIB)", which establishes the guidelines for the process of planning, execution and follow-up of internal and external audits.

During the year the following audits were conducted to verify compliance with:

- ✓ Buenaventura Integrated System's own organizational requirements.
- ✓ The requirements of International Standards ISO 9001, 14001 and 45001.
- ✓ The requirements of the Legal Standards applicable to Buenaventura.
- ✓ Compliance with the Policy and Objectives of Safety and Occupational Health, Environment and Quality.
- ✓ Operational Controls of Critical Risks 07 Electrical Energy.

- **Periodic Energy Audits**

For the year 2025 we are developing the terms of reference to acquire the service of power quality audits for our operating units. The purpose of these audits is to:

- ✓ Identify opportunities for improvement in energy efficiency.
- ✓ Verify the adequacy of consumption with respect to the defined standards.
- ✓ Promote energy saving and emission reduction projects.
- ✓ Ensure progressive compliance with **ISO 50001** guidelines.

5. Commitment to Energy Efficiency and the Use of Clean Energy

At Buenaventura we reaffirm our commitment to sustainability through the active promotion of continuous improvement initiatives, technological innovation and good operating practices focused on energy efficiency and the responsible use of our natural resources.

5.1 Use of Clean and Renewable Energy

- ***Consorcio Energético De Huancavelica S.A. - Conenhua (100% BVN):***

  CONENHUA, a Buenaventura Group company, has more than 40 years of experience in hydraulic generation and electricity transmission. This company provides operation and maintenance services for BVN's electrical transmission systems, guaranteeing their optimal operation and contributing

efficient development of BVN's mining activities.

CONENHUA is currently developing various lines of business that strengthen its position in the energy sector and reinforce its commitment to sustainability and technological innovation, in strict compliance with the applicable environmental standards (Annual Report page 52)

- ***Huanza Hydroelectric Power Plant:***

  This power plant generates electricity from renewable sources and, during the July-December 2024 period, obtained the I-REC certification, which guarantees that the electricity generated comes from verified water sources.

  Additionally, in the context of the re-profiling of the loan granted by Banco de Crédito del Perú (BCP) for the Huanza Hydroelectric Power Plant, Pacific Corporate Sustainability (PCS) prepared a report to qualify it as a Green Loan. This type of loan is granted only to projects with clear environmental benefits and must comply with certain international principles.

  PCS congratulated CONENHUA for leading innovative projects that contribute directly to climate change mitigation and sustainable development.

  In line with this approach, the water footprint of the Huanza power plant has been measured and initiatives are being implemented to reduce it. One example is the "Improvement of energy efficiency in the lighting network" project, which has generated annual savings of 169,670.11 kWh and a reduction in water consumption equivalent to 2,840.59 m³ per year (Annual Report 2024 page 55)

  Likewise, we highlight the use of renewable energy sources through the National Interconnected System (SEIN), which represented more than 99% of our energy consumption in the last year, leaving a minimum percentage of non-renewable energy.

  Finally, Buenaventura has designed a strategic plan for the 2024-2027 period with the objective of certifying the use of renewable energy in all its mining operations. This plan contemplates contracting energy from hydroelectric, solar or wind sources in order to reduce emissions, minimize the use of fossil fuels and actively contribute to the fight against climate change (Plan Estratégico 2024-2027).

5.2. Continuous Improvement and Innovation Projects

Buenaventura has developed the Innovaventura program (Innovation and Continuous Improvement), which promotes the participation of all employees,

encouraging the generation of proposals that contribute to optimizing our processes, reducing energy consumption and increasing operational efficiency.

Thanks to this collaborative approach, we have been able to implement numerous high-impact initiatives that reinforce our culture of sustainability, innovation and continuous improvement throughout the organization. Below are details of the continuous improvement projects being carried out in the Operating Units:

5.2.1 Energy consumption monitoring and control projects.

A series of projects are being developed aimed at monitoring, analyzing and optimizing electricity consumption. The main objectives of these initiatives are:

- Reduction of deviations and response times in the event of waste.
- Decision-making based on real and updated data.
- Reduce operational response times to detected energy inefficiencies.
- Increase control and traceability of energy consumption by area, process and schedule.

These projects combine smart metering technologies, system automation, real-time visualization and predictive analysis, which allows to establish a more agile and efficient energy management. The main initiatives implemented in the operating units are detailed below:

- **Colquijirca Unit (Sociedad Minera El Brocal S.A.A.)**

  ✓ **Energy consumption report by dashboard.** For this project we worked on the integration of the energy meters to the PI vision for data capture and for the analysis of the information a Dashboard was generated in Power BI.

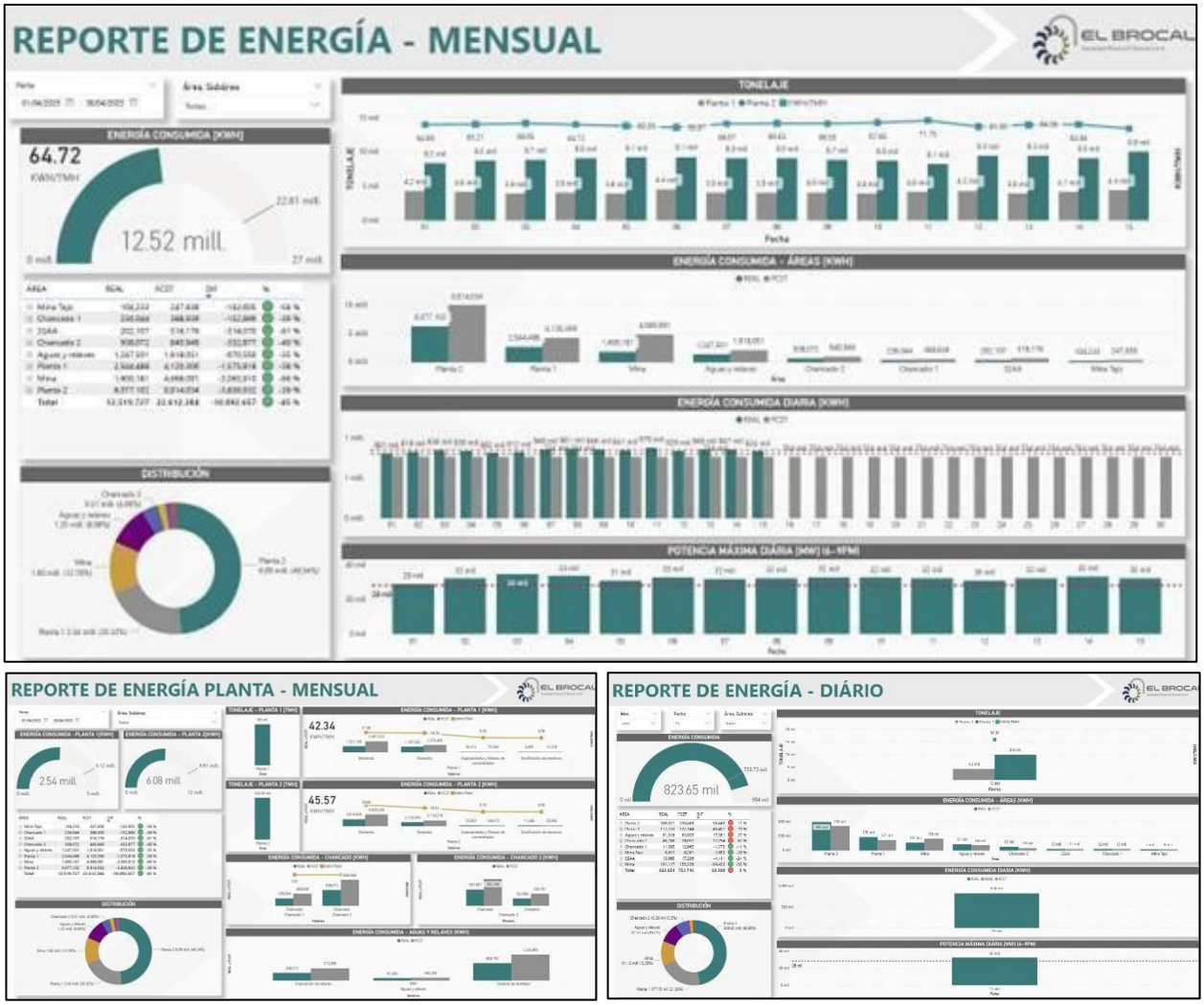


Image N°03: Energy Monitoring Dashboard (Colquijirca Unit)

- **Tantahuatay Unit (Compañía Minera Coimolache S.A.)**
  - ✓ **Implementation of energy monitoring and control system.** This data is used for integrated analysis and immediate decision making. Example: The following image shows the results of the implementation of PI DataLink for energy consumption control, with the integration of energy meters and SCADA. Also, it has been achieved in the generation of consumption reports in POWER BI to analyze deviations in Peak and Off-Peak Hours, trends and estimates in consumption.

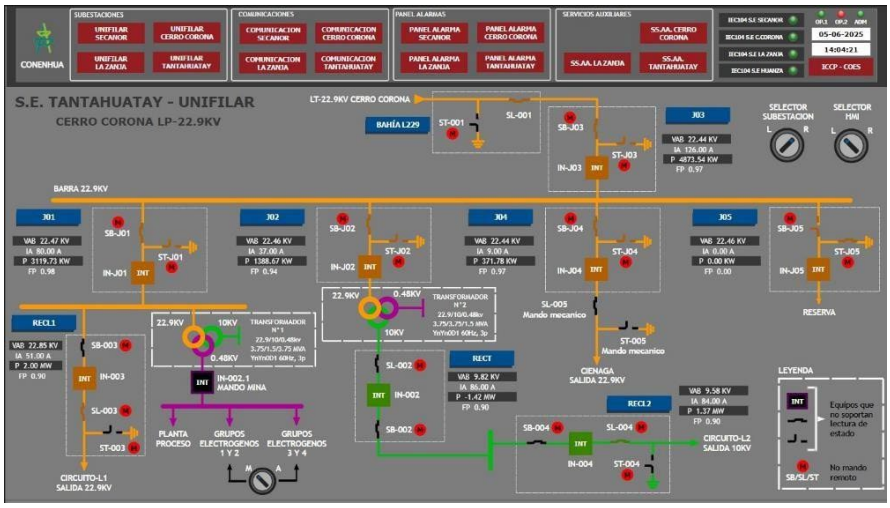


Image N ° 04: SCADA Software

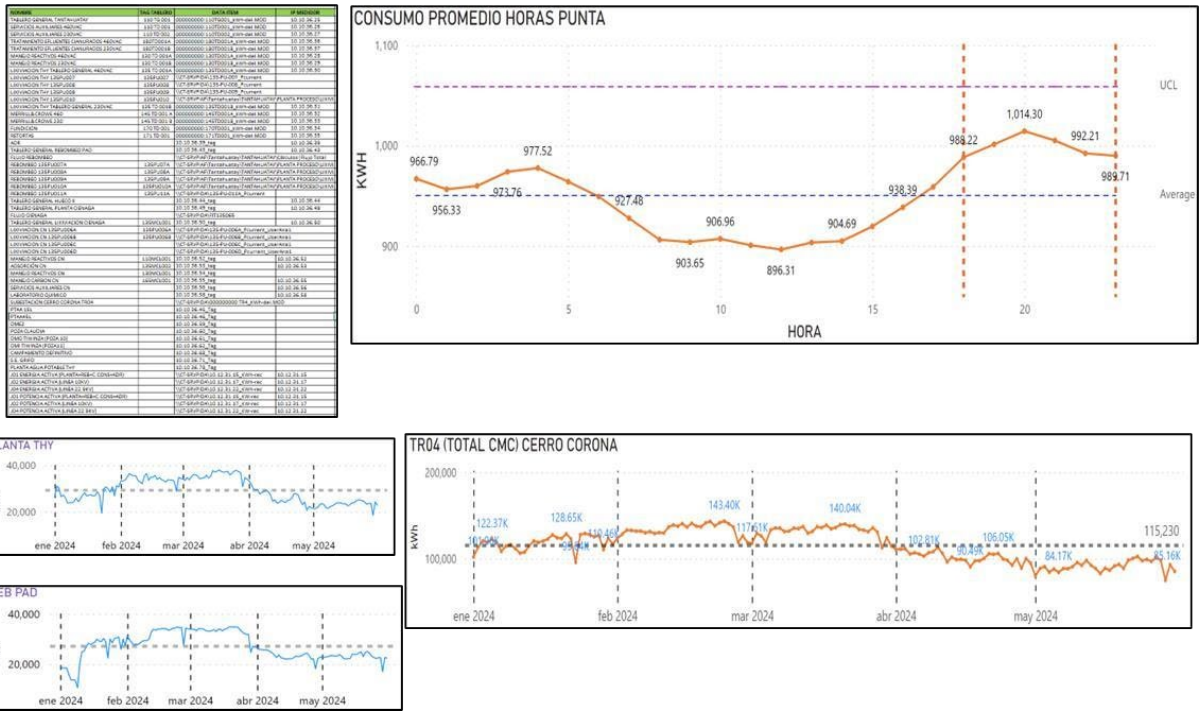


Image N°05: Power BI reports

Additionally, we have implemented the import of new energy variables to Datalink from the main meter of Cerro Corona substation (TR04) and the main meters of Tantahuatay substation (J01, J02, J04).

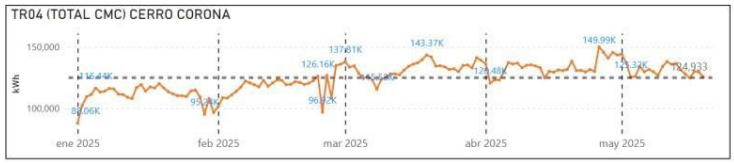
Start Time: 18/05/2025

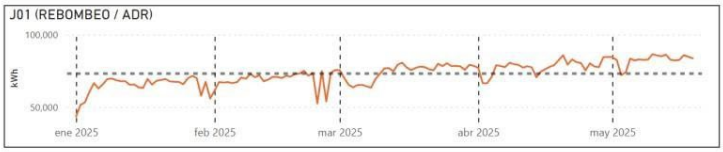
REGISTRO CONSUMO POTENCIA | REGISTRO CONSUMO ENERGIA

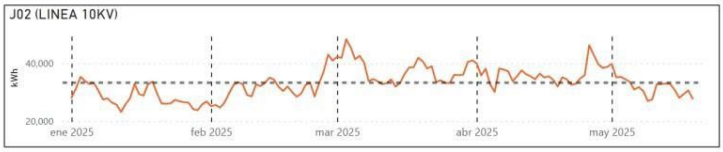
J01	J02 10KV	J03 22.9KV	TOTALES	TIMESTAMP	SUBESTACION CERRO CORONA TR04 POTENCIA (KW)	CELDA J01 (S.E.) Planta+REB+ADR POTENCIA (KW)	CELDA J02 (S.E.) LINEA 10KV POTENCIA (KW)	CELDA J04 (S.E.) LINEA 22.9KV POTENCIA (KW)
				18-May-25 00:00:00		3,683.89	1,375.87	415.52
				18-May-25 00:15:00	5,600.0	3,601.16	1,355.98	415.09
				18-May-25 00:30:00	5,660.0	3,620.14	1,424.74	397.68
NOMBRE	TAG TABLERO	DATA ITEM	IP MEDIDOR	18-May-25 00:45:00	5,704.0	3,616.85	1,568.00	401.97
TABLERO GENERAL TANTAHUATAY	110 TG 001	0000000000:110TG001_kWh-del.MOD	10.10.36.25	18-May-25 01:00:00	5,744.0	3,639.37	1,441.95	409.58
SERVICIOS AUXILIARES 460VAC	110 TD 001	0000000000:110TD001_kWh-del.MOD	10.10.36.26	18-May-25 01:15:00	5,700.0	3,637.29	1,483.12	404.31
SERVICIOS AUXILIARES 230VAC	110 TD 002	0000000000:110TD002_kWh-del.MOD	10.10.36.27	18-May-25 01:30:00	5,692.0	3,644.32	1,411.49	413.40
TRATAMIENTO EFLUENTES CIANURADOS 460VAC	180TD001A	0000000000:180TD001A_kWh-del.MOD	10.10.36.36	18-May-25 01:45:00	5,656.0	3,655.94	1,396.70	406.85
TRATAMIENTO EFLUENTES CIANURADOS 230VAC	180TD001B	0000000000:180TD001B_kWh-del.MOD	10.10.36.37	18-May-25 02:00:00	5,772.0	3,644.82	1,603.82	415.49
MANEJO REACTIVOS 460VAC	130 TD 001A	0000000000:130TD001A_kWh-del.MOD	10.10.36.28	18-May-25 02:15:00	5,700.0	3,076.53	1,510.78	415.33
MANEJO REACTIVOS 230VAC	130 TD 001B	0000000000:130TD001B_kWh-del.MOD	10.10.36.29	18-May-25 02:30:00	5,116.0	3,075.77	1,498.90	414.01
LIXIVIACION THY TABLERO GENERAL 460VAC	135 TD 001A	0000000000:135TD001A_kWh-del.MOD	10.10.36.30	18-May-25 02:45:00	5,284.1	3,631.58	1,434.67	432.66
LIXIVIACION THY 135PU007	135PU007	\\CT-SRVPIDA\135-PU-007_Pcurrent		18-May-25 03:00:00	5,699.9	3,636.86	1,524.95	423.07
LIXIVIACION THY 135PU008	135PU008	\\CT-SRVPIDA\135-PU-008_Pcurrent		18-May-25 03:15:00	5,760.0	3,649.48	1,512.11	433.27
LIXIVIACION THY 135PU009	135PU009	\\CT-SRVPIDA\135-PU-009_Pcurrent		18-May-25 03:30:00	5,644.0	3,664.73	1,341.89	411.53
LIXIVIACION THY 135PU010	135PU010	\\CT-SRVPIAF\Tantahuatay\TANTAHUATAY\PLANTA PROCESO\LIXIVI		18-May-25 03:45:00	5,600.0	3,660.54	1,322.60	401.82
LIXIVIACION THY TABLERO GENERAL 230VAC	135 TD 001B	0000000000:135TD001B_kWh-del.MOD	10.10.36.31	18-May-25 04:00:00	5,588.1	3,677.75	1,344.39	404.34
MERRILL&CROWE 460	145 TD 001 A	0000000000:145TD001A_kWh-del.MOD	10.10.36.32	18-May-25 04:15:00	5,552.0	3,605.46	1,329.94	396.87
MERRILL&CROWE 230	145 TD 001 B	0000000000:145TD001B_kWh-del.MOD	10.10.36.33	18-May-25 04:30:00	5,555.9	3,635.53	1,309.13	403.56
FUNDICION	170 TD 001	0000000000:170TD001_kWh-del.MOD	10.10.36.34	18-May-25 04:45:00	5,532.1	3,609.17	1,320.58	426.43
RETORTAS	171 TD 001	0000000000:171TD001_kWh-del.MOD	10.10.36.35	18-May-25 05:00:00	5,532.0	3,628.48	1,295.30	419.04
ADR		10.10.36.39_tag	10.10.36.39	18-May-25 05:15:00	5,492.0	3,661.13	1,157.41	418.68
TABLERO GENERAL REBOMBEO PAD		10.10.36.43_tag	10.10.36.43	18-May-25 05:30:00	5,416.0	3,622.91	1,209.81	417.04
FLUJO REBOMBEO		\\CT-SRVPIAF\Tantahuatay\TANTAHUATAY\Cálculos\Flujo Total		18-May-25 05:45:00	5,352.0	3,468.02	1,243.70	416.99
REBOMBEO 135PU007A	135PU07A	\\CT-SRVPIAF\Tantahuatay\TANTAHUATAY\PLANTA PROCESO\LIXIVI		18-May-25 06:00:00	5,288.0	3,514.52	1,260.51	414.46
REBOMBEO 135PU008A	135PU08A	\\CT-SRVPIAF\Tantahuatay\TANTAHUATAY\PLANTA PROCESO\LIXIVI		18-May-25 06:15:00	5,344.0	3,509.57	1,155.25	415.36
REBOMBEO 135PU009A	135PU09A	\\CT-SRVPIAF\Tantahuatay\TANTAHUATAY\PLANTA PROCESO\LIXIVI		18-May-25 06:30:00	5,208.0	3,442.35	1,095.18	437.92
REBOMBEO 135PU010A	135PU010A	\\CT-SRVPIAF\Tantahuatay\TANTAHUATAY\PLANTA PROCESO\LIXIVI		18-May-25 06:45:00	5,148.0	3,375.71	1,076.02	416.71
REBOMBEO 135PU011A	135PU11A	\\CT-SRVPIDA\135-PU-011A_Pcurrent		18-May-25 07:00:00	5,048.0	3,385.54	1,104.07	424.36
TABLERO GENERAL HUECO II		10.10.36.44_tag	10.10.36.44	18-May-25 07:15:00	5,060.0	3,591.94	1,031.43	425.88
TABLERO GENERAL PLANTA CIENAGA		10.10.36.100_tag	10.10.36.49	18-May-25 07:30:00	5,204.0	3,617.88	1,026.75	416.47
FLUJO CIENAGA		\\CT-SRVPIDA\FIT135065		18-May-25 07:45:00	5,180.0	3,593.16	1,056.98	418.47
TABLERO GENERAL LIXIVIACION CIENAGA	135MCL001	10.10.36.50_tag	10.10.36.50	18-May-25 08:00:00	5,172.0	3,571.04	1,060.49	423.12
LIXIVIACION CN 135PU006A	135PU006A	\\CT-SRVPIDA\135-PU-006A_Pcurrent_UserAna1		18-May-25 08:15:00	5,196.0	3,613.46	942.81	416.26
LIXIVIACION CN 135PU006B	135PU006B	\\CT-SRVPIDA\135-PU-006B_Pcurrent_UserAna1		18-May-25 08:30:00	5,064.0	3,536.61	952.81	400.22
LIXIVIACION CN 135PU006C		\\CT-SRVPIDA\135-PU-006C_Pcurrent_UserAna1		18-May-25 08:45:00	5,083.9	3,536.71	1,078.81	412.58
LIXIVIACION CN 135PU006D		\\CT-SRVPIDA\135-PU-006D_Pcurrent_UserAna1		18-May-25 09:00:00	5,200.1	3,577.45	1,036.25	392.04
MANEJO REACTIVOS CN	110MCL001	10.10.36.52_tag	10.10.36.52	18-May-25 09:15:00	5,144.0	3,550.50	1,035.69	374.21
ADSORCIÓN CN	135MCL002	10.10.36.53_tag	10.10.36.53	18-May-25 09:30:00	5,152.0	3,645.48	1,060.88	374.15
MANEJO REACTIVOS CN	130MCL001	10.10.36.54_tag		18-May-25 09:45:00	5,328.0	3,648.78	1,280.87	379.46
MANEJO CARBON CN	165MCL001	10.10.36.55_tag	10.10.36.55	18-May-25 10:00:00	5,463.9	3,641.60	1,165.73	384.79
SERVICIOS AUXILIARES CN		10.10.36.56_tag	10.10.36.56	18-May-25 10:15:00	5,420.0	3,715.05	1,113.13	389.98
LABORATORIO QUIMICO		10.10.36.58_tag	10.10.36.58	18-May-25 10:30:00	5,492.1	3,894.35	1,152.65	387.60
SUBESTACION CERRO CORONA TR04		\\CT-SRVPIDA\0000000000:TR4_KWh-del.MOD		18-May-25 10:45:00	5,700.1	3,890.00	1,157.05	387.90
PTAA 1SL		10.10.36.45_Tag		18-May-25 11:00:00	5,632.0	3,917.67	1,166.42	406.49
PTAA4SL		10.10.36.46_Tag		18-May-25 11:15:00	5,632.0	3,830.97	1,161.90	409.81
DME2 (POZA 125)		10.10.36.59_Tag		18-May-25 11:30:00	5,611.9	3,876.26	1,151.57	392.91
POZA CLAUDIA		10.10.36.60_Tag		18-May-25 11:45:00	5,652.0	3,753.61	1,399.43	398.75
DMO TIWINZA (POZA 10)		10.10.36.61_Tag		18-May-25 12:00:00	5,680.0	3,685.39	1,338.79	375.29
DMI TIWINZA (POZA11)		10.10.36.62_Tag		18-May-25 12:15:00	5,688.1	3,666.10	1,108.96	380.16
CAMPAMENTO DEFINITIVO		10.10.36.68_Tag		18-May-25 12:30:00	5,324.0	3,731.63	1,067.32	384.87
S.E. GRIFO		10.10.36.71_Tag		18-May-25 12:45:00	5,327.9	3,674.60	1,098.07	386.37
PLANTA AGUA POTABLE THY		10.10.36.78_Tag		18-May-25 13:00:00	4,184.1	1,998.49	1,174.58	388.12
J01 ENERGIA ACTIVA (PLANTA+REB+C.CONS+ADR)		\\CT-SRVPIDA\10.12.31.15_KWh-rec	10.12.31.15	18-May-25 13:15:00	4,367.9	3,180.35	1,185.60	396.48
J02 ENERGIA ACTIVA (LINEA 10KV)		\\CT-SRVPIDA\10.12.31.17_KWh-rec	10.12.31.17	18-May-25 13:30:00	5,200.0	3,685.40	1,059.78	402.78
J04 ENERGIA ACTIVA (LINEA 22.9KV)		\\CT-SRVPIDA\10.12.31.22_KWh-rec	10.12.31.22	18-May-25 13:45:00	5,304.0	3,576.87	1,144.73	398.75
J01 POTENCIA ACTIVA (PLANTA+REB+C.CONS+ADR)		\\CT-SRVPIDA\10.12.31.15_KW-rec	10.12.31.15	18-May-25 14:00:00	5,320.0	3,648.90	1,130.78	394.45
J02 POTENCIA ACTIVA (LINEA 10KV)		\\CT-SRVPIDA\10.12.31.17_KW-rec	10.12.31.17	18-May-25 14:15:00	5,316.0	3,624.50	1,121.13	399.90
J04 POTENCIA ACTIVA (LINEA 22.9KV)		\\CT-SRVPIDA\10.12.31.22_KW-rec	10.12.31.22	18-May-25 14:30:00	5,388.0	3,700.61	1,153.72	402.29
PRESION TORRE DE VACIO		\\CT-SRVPIDA\PIT145022		18-May-25 14:45:00	5,272.0	3,530.71	1,143.60	389.98
NIVEL TANQUE DE VACIO		\\CT-SRVPIDA\LIT145023		18-May-25 15:00:00	5,235.9	3,560.69	1,177.60	389.09
OXIMETRO ENTRADA TK VACIO		\\CT-SRVPIDA\AIT145030		18-May-25 15:15:00	5,248.0	3,413.62	1,074.46	385.70
OXIMETRO SALIDA TK VACIO		\\CT-SRVPIDA\AIT145031		18-May-25 15:30:00	5,268.1	3,440.24	1,247.21	385.96
CORRIENTE BOMBA PRECIP ALIM AFILTRO		\\CT-SRVPIDA\145-PU-006_Pcurrent		18-May-25 15:45:00	5,288.0	3,415.57	1,345.07	394.11
CORRIENTE BOMBA PRECIP ALIM AFILTRO		\\CT-SRVPIDA\145-PU-007_Pcurrent		18-May-25 16:00:00	5,320.0	3,431.24	1,337.77	393.14
PRESION ENTRADA FP 1		\\CT-SRVPIDA\PIT145034		18-May-25 16:15:00	5,320.0	3,427.46	1,352.08	395.16
PRESION ENTRADA FP 2		\\CT-SRVPIDA\PIT145035		18-May-25 16:30:00	5,328.0	3,444.73	1,313.43	398.02

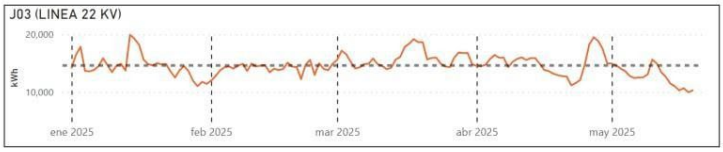
Image N°06: DataLink register

Total Energy Control









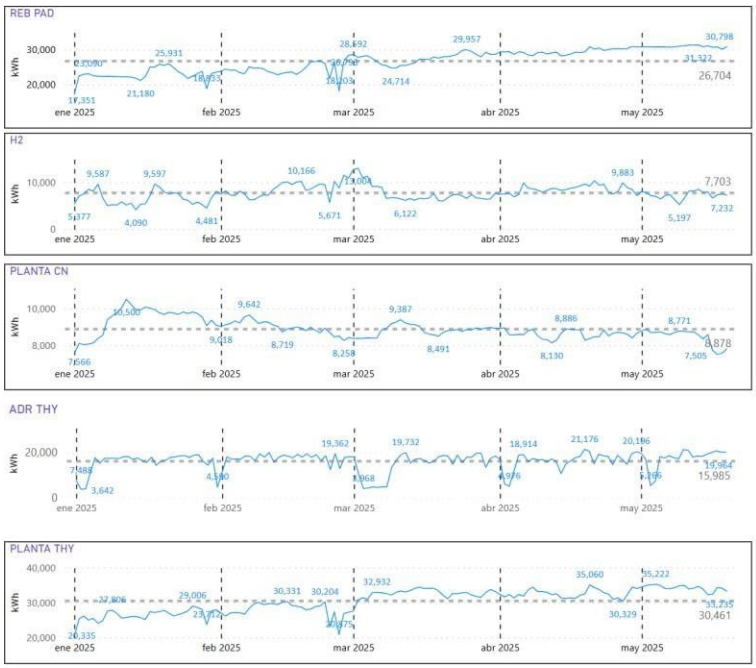
Month	Day	Sum of TOTAL CMC
January	1	88,060.03
January	2	102,122.99
January	3	109,583.99
January	4	111,255.01
January	5	116,436.00
January	6	113,166.99
January	7	114,000.99
January	8	116,184.98
January	9	115,660.02
January	10	111,603.00
January	11	111,288.00
January	12	109,017.00
January	13	107,967.00
January	14	116,916.00
January	15	119,276.00
January	16	114,070.99
January	17	117,426.98
January	18	116,603.00
January	19	120,079.02
January	20	116,646.00
January	21	113,553.01
Total		17,365,696.96

Year

2024

2025

Energy Control by Areas



Month	Day	Sum of PLANTA CN
January	1	7,565.91
January	2	8,095.62
January	3	8,036.83
January	4	8,067.43
January	5	8,121.43
January	6	8,375.41
January	7	8,537.06
January	8	9,383.58
January	9	9,591.36
January	10	9,753.25
Total		1,234,008.18

Image N°07: Energy monitoring

- ✓ **Acquisition of ETAP 22.5,** for analysis of Power Electrical Systems, which will allow us to perform simulations of Power Flow, Short Circuit Analysis, Grounding Mesh, Coordination of Protections, to identify electrical phenomena that may be reflected in voltage and current deviations, which can generate costs.

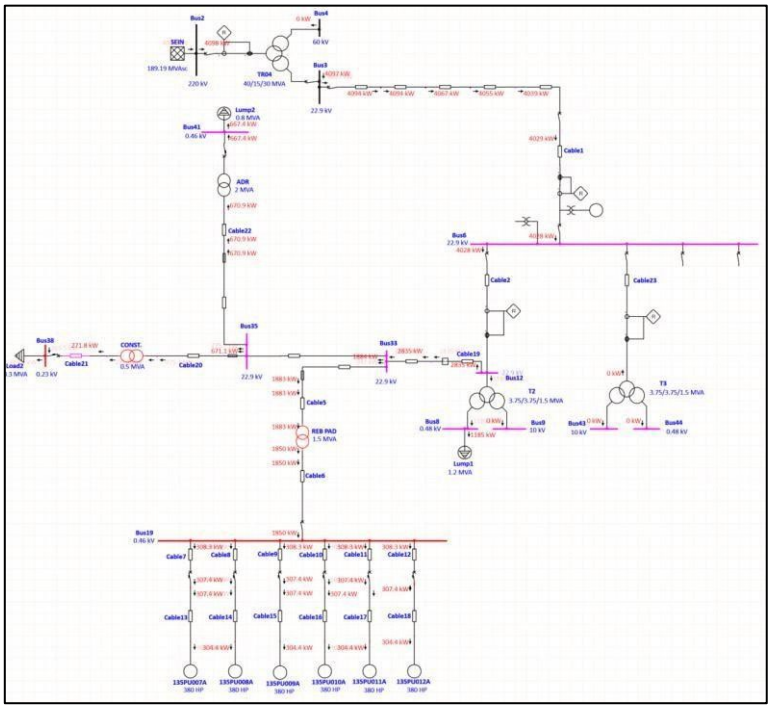


Image N°08: Power flow

5.2.2. Process and Equipment Optimization Projects

Projects aimed at reducing energy consumption through operational improvements or the replacement of inefficient equipment. These projects seek to increase the efficiency of production processes, eliminate waste and ensure that the systems work in optimal conditions, both in terms of performance and energy consumption.

- **Colquijirca Unit (Sociedad Minera El Brocal S.A.A)**
  - **Energy reduction by changing conditioners in Flotation.** This initiative is in process and its objective is to optimize the energy consumption of the flotation circuit by replacing conventional conditioners with units of higher operating efficiency and lower energy demand, without affecting the metallurgical quality of the process. To this end, the following activities will be carried out: 1) Technical diagnosis and efficiency evaluation , 2) Selection and installation of new conditioners , 3) Metallurgical validation 4) and Monitoring of energy savings.

    Project impact:
    - **Estimated annual energy** savings **of 373 to 261 kW/year.**
    - Reduced operating costs: reduced electricity demand and maintenance.
    - Improved process reliability: reduction of shutdowns due to failures or replacements.
    - Contribution to environmental goals: reduction of the carbon footprint associated with the process.

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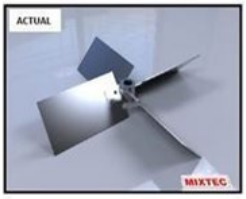

Impulsor tipo PBT45° usado actualmente en tanques de acondicionamiento.

Impulsor tipo HA710 considerado en propuesta de optimización (4-alabes).

		kW actaul	kW futuro	Horas	kWh Mes (ahorro)	kWh Anual (ahorro)	$ Ahorro anual	$ Inversión	Retorno
PLANTA 2	Acondicionar 24x24 # 1, Pb	373	261	24	80,568	966,816	67,677	310,000	4.58
	Acondicionar 24x24 # 2, Pb	373	261	24	80,568	966,816	67,677	310,000	4.58
	Acondicionar 24x24 # 1, Zn	373	261	24	80,568	966,816	67,677	310,000	4.58
				Totales	241,704	2,900,448	203,031	930,000	

Image N°. 09 : Project monitoring

- **Tambomayo Unit (Compañía Minas Buenaventura S.A.A.)**

Optimization of the use of mine (#3) and plant (#4) compressors: A real-time monitoring system has been implemented for the mine compressors, using the PI Vision platform, which allows permanent visualization of their utilization level. As part of the optimization measures, a manual blocking of the start-up of two compressors in the plant has been established, avoiding their unnecessary operation when additional air is not required. This action guarantees a rational and efficient use of compressed air, aligned with the real needs of plant operations, thus reducing the energy consumption associated with the compression system.

Expected results: Reduction of energy consumption by compressors, Reduction of equipment wear due to unnecessary operation, Improvement in the operational management of compressed air, Direct contribution to the unit's energy efficiency objectives.

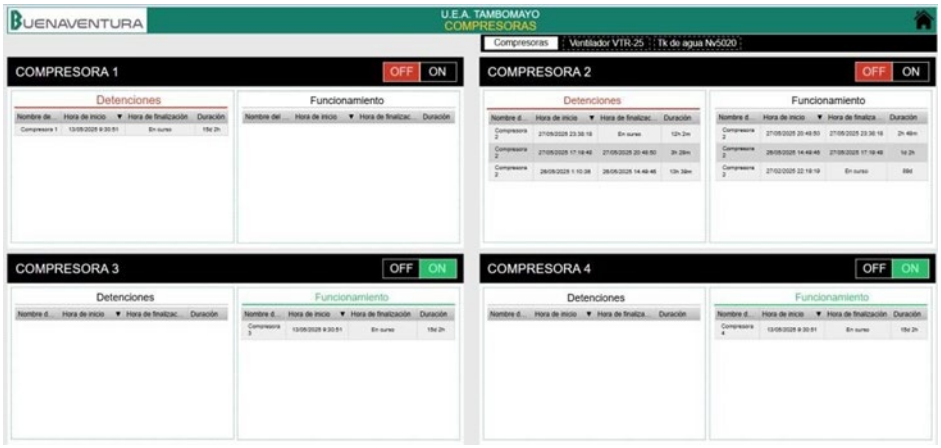

Image N°10: Compressor monitoring

- **Construction of spillway/discharge channel in the reservoir,** the objective of the project is to achieve stabilization of the water reservoir and energy savings. For the year 2024, energy savings **of 440 MWh (approximate cost US$36k)** reflected in the months of January to April 2025, due to the non-use of pumps to discharge the reservoir during the rainy season**.**

- **Integration of Substation No. 201 Mine Meters to the PME System,** the objective of the project is to monitor in real time the electrical parameters of the different 10 and 2.3 kV circuits that feed the interior of the mine from the Power Monitoring Expert (PME).

... _024, it was possible to have real-time energy consumption and other electrical parameters of the circuits that supply power to the interior of the mine, facilitating monitoring and decision making for new installations.

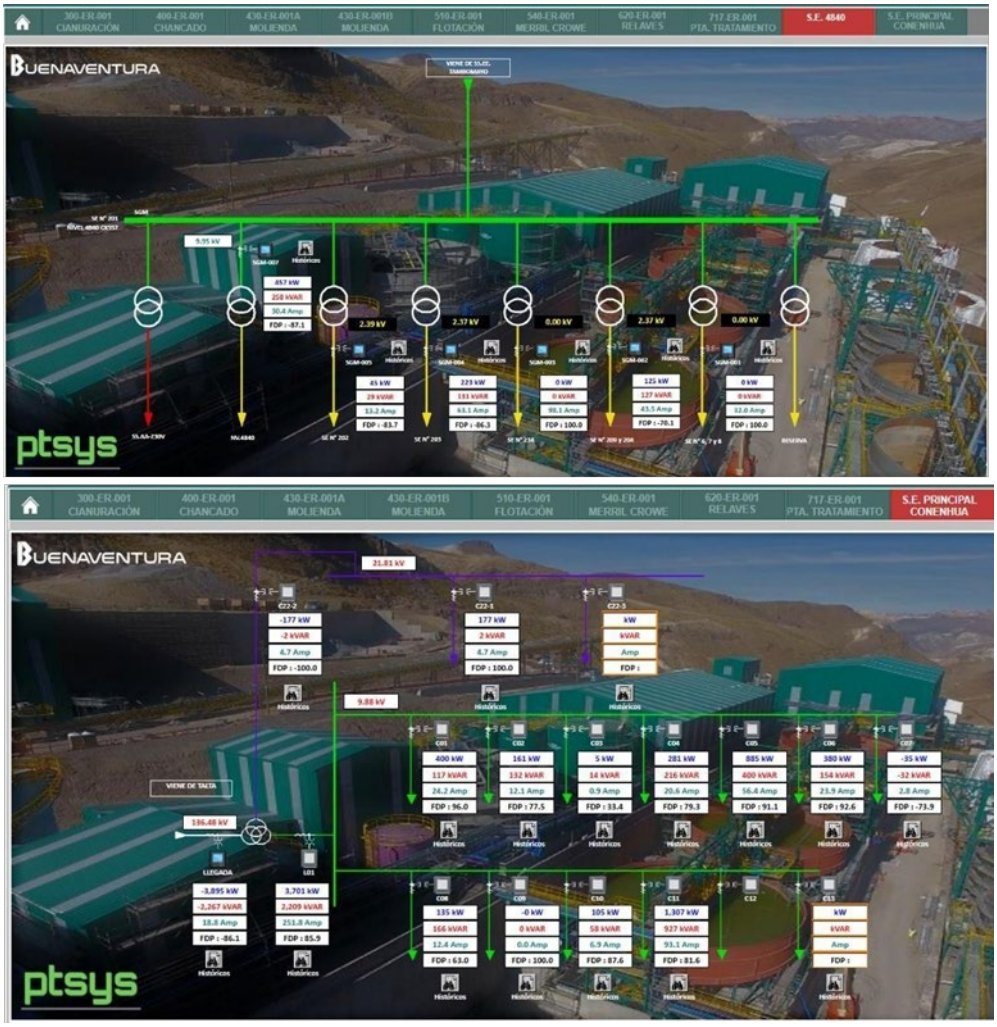

Image N°11: Substation Meter Monitoring

- **Orcopampa Unit (Compañía Minas Buenaventura S.A.A.)**
  - **Optimization of hydraulic generation of the Huancarama hydroelectric power plant.** The objective is to reduce energy purchases. The relevant activities of the project were 1) Ensuring reliability of generation equipment. 2) Maintain the infrastructure of the hydroelectric power plant (intake, canal, load chamber, penstock) 3) Optimize water damming in the Corococha lagoon. As a result**, the purchase of 14,275,234 kWh was saved, and by 2025, savings of 14,275,234 kWh are expected.**

Tantahuatay Unit (Compañía Minera Coimolache S.A.)

- ✓ **Automation of start-up and shutdown of pumps in 16 pools.** Currently, the automation of the start-up and shutdown system is being executed; to date, 8 of the 16 pools already have remote communication between the equipment, control and the indispensable conditions for their integration. At the same time, progress is being made in the implementation of the communication protocols and the integration of the variables to Tantahuatay's SCADA system, which will allow the automatic control of pump start-up and shutdown.

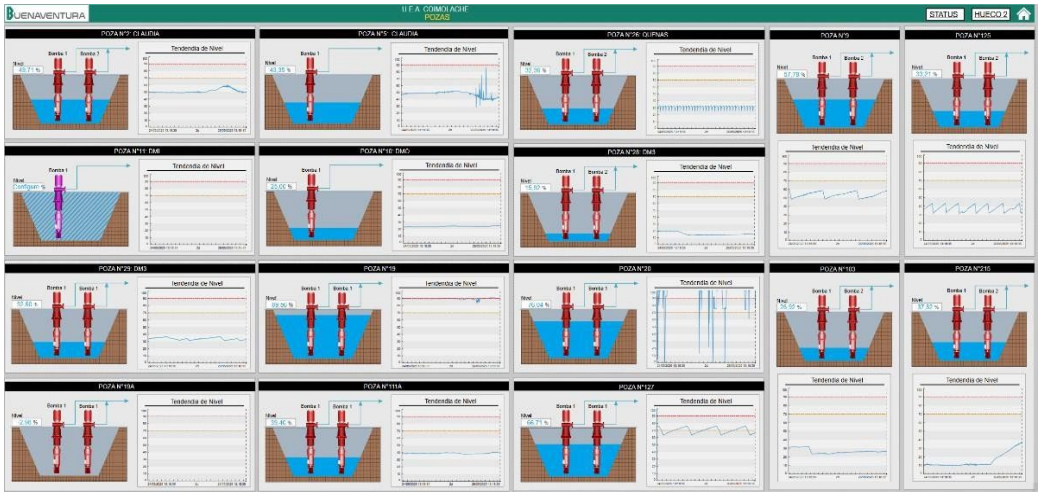

Image N°12: Monitoring of pools

- ✓ **Increase of the efficiency of the pumping capacity of the re-pumping station;** This project aims to optimize the re-pumping process, improving energy efficiency and reducing electricity consumption. For this purpose, we have the data transmission means that allows remote communication, as well as the communication interface of the station's pumping system. In addition, online and historical data is available, which is analyzed using tools such as PI Datalink and Power BI to evaluate the energy performance of the system.

  As a preliminary result, the operation of the system has been optimized, going from using three pumps to only two, maintaining the same required flow to the PAD, which has allowed a **reduction in energy consumption of approximately 30,400 kWh, representing a 2% saving,** which is especially significant considering that the re-pumping area concentrates about 30% of the total electricity consumption of the Unit.

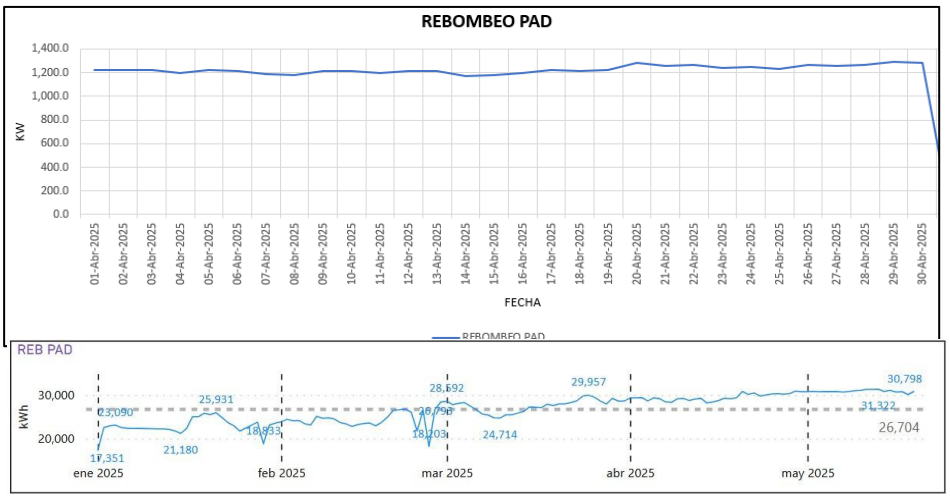

Image N°13: Pumping monitoring (Power BI)

Good practices that have been implemented during 2024:

- **Constant monitoring of key indicators such as kWh/TMS,** with the objective of establishing optimal and sustainable operating points.
- **Proposal to reschedule the processes that generate the most energy,** at times coinciding with the maximum demand of the SEIN, to reduce the impact during peak hours.
- **“Responsible Energy" Program**: Short monthly talks at the plant and mine, led by operational supervisors, aimed at reinforcing the efficient use of energy.
- **Innovaventura program for ideas for continuous improvement and innovation in energy management**: corporate program that promotes the participation of all company employees in the identification, development and proposal of continuous improvement and innovation initiatives.
- **Awareness-raising on reducing energy consumption in offices:** In the onboarding process of employees, they are offered a general induction on environmental issues, in which good environmental practices are emphasized. In addition, several academic actions have been implemented to involve all employees in the Hazard Identification, Risk Assessment and Control Measures (IPERC), addressing potential hazards and risks related to energy, among other issues.

  In Buenaventura, we distributed informative flyers to communicate to all employees about the proper use of energy, this has the name: ***"Let's contribute with our safety and energy saving!".***

Image N°14: Awareness Flyer