

SUCCESS STORY

Electrical system supply at
the new Coalspur mine in
Hinton, Alberta, Canada



AUTOMATION POWER AND CONTROL

ENGINEERED EQUIPMENT SUPPLY FOR
POWER AND CONTROL OF A NEW COAL MINE

ANDRITZ

ENGINEERED SUCCESS

The challenge

Provide a fast-tracked electrical distribution and process control solution for a green field coal mine

Coalspur Mines Limited is a thermal coal development company with approximately 55,000 hectares of leases located within the Hinton region of Alberta, Canada. In 2017, Coalspur began construction of their flagship coal project, the Vista Coal Project, potentially one of the largest export thermal coal mines in North America. The project includes a strip mine operation; a raw materials/stockpile system that runs coal to a processing plant where the ore is screened, washed and de-watered; and, finally, a conveyor that carries the product down the mountain to a rail line where it is loaded for shipping.

Powering and controlling the electrical supply and equipment across the entire mine requires 14 transformers totaling over 30 MVA and over 300 electrical motors. With site preparation and construction of the processing plant already underway, Coalspur needed

to find a supplier that could engineer, procure and deliver electrical distribution and power control equipment for all areas of the mine. Meeting the aggressive construction schedule requires a flexible approach and close working relationship with the install contractor, modifying the system as process equipment selection evolved.

Coalspur selected Lakewood Electrical as their install contractor to ensure local representation for future electrical requirements. ANDRITZ and Lakewood Electric had developed a strong working relationship through previous projects. That connection, combined with ANDRITZ's proven track record in providing specialized electrical engineering solutions, resulted in ANDRITZ being awarded the contract.

The solution

Comprehensive E-houses custom-fit to schedule

ANDRITZ worked with Coalspur to prioritize and fast track key equipment acquisitions and delivery, expediting the engineering process to ensure that Coalspur's construction schedule was met. ANDRITZ designed and developed 12 prefabricated electrical houses (E-houses) furnished with VFDs, MCCs, PLC panels, HVAC and fire suppression.

The E-houses were typically assembled off site with all equipment installed, wired and commissioned before delivery to the project site. This enabled Lakewood Electric to quickly and efficiently install the E-houses on site and on time. ANDRITZ also provided a number of specialized instruments including level transmitters, nuclear density transmitters and valve/gate actuators.



Results

Timely delivery of equipment with no construction delays

With the project awarded in March 2018, the E-houses were fully commissioned and shipped between October 2018 and February 2019. Thanks to ANDRITZ's ability to custom fit work to the project schedule, EIC engineering, equipment and installation did not delay construction at the Vista Coal Project site. And, by constructing most E-houses off site, installation time on site was minimized.

The new wash plant opened on schedule in April 2019 with two fully operational coal processing lines. Two additional lines are planned to be added in future. ANDRITZ is providing ongoing support services for electrical and process control modifications.



"I would recommend ANDRITZ Automation to any operation looking for engineering and procurement services, large or small. If I am ever involved with building another processing plant, I would come right back to ANDRITZ. Their quality of work was excellent and they earned my trust to handle any issue or challenge that arose during the execution of a large power and controls project."

BARD WELLS

VP Technical Services, Coalspur Mines Limited



WHY WORK WITH ANDRITZ

For over 20 years we've been providing simulation, electrical and automation services to clients across a variety of industry verticals, offering our clients proven solutions that enable them to achieve their project startup and operational objectives. As a vendor-neutral control system integrator, we can provide automation for a wide range of vendor equipment. Similarly, our simulation capabilities connect with any third-party control system vendor.

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