



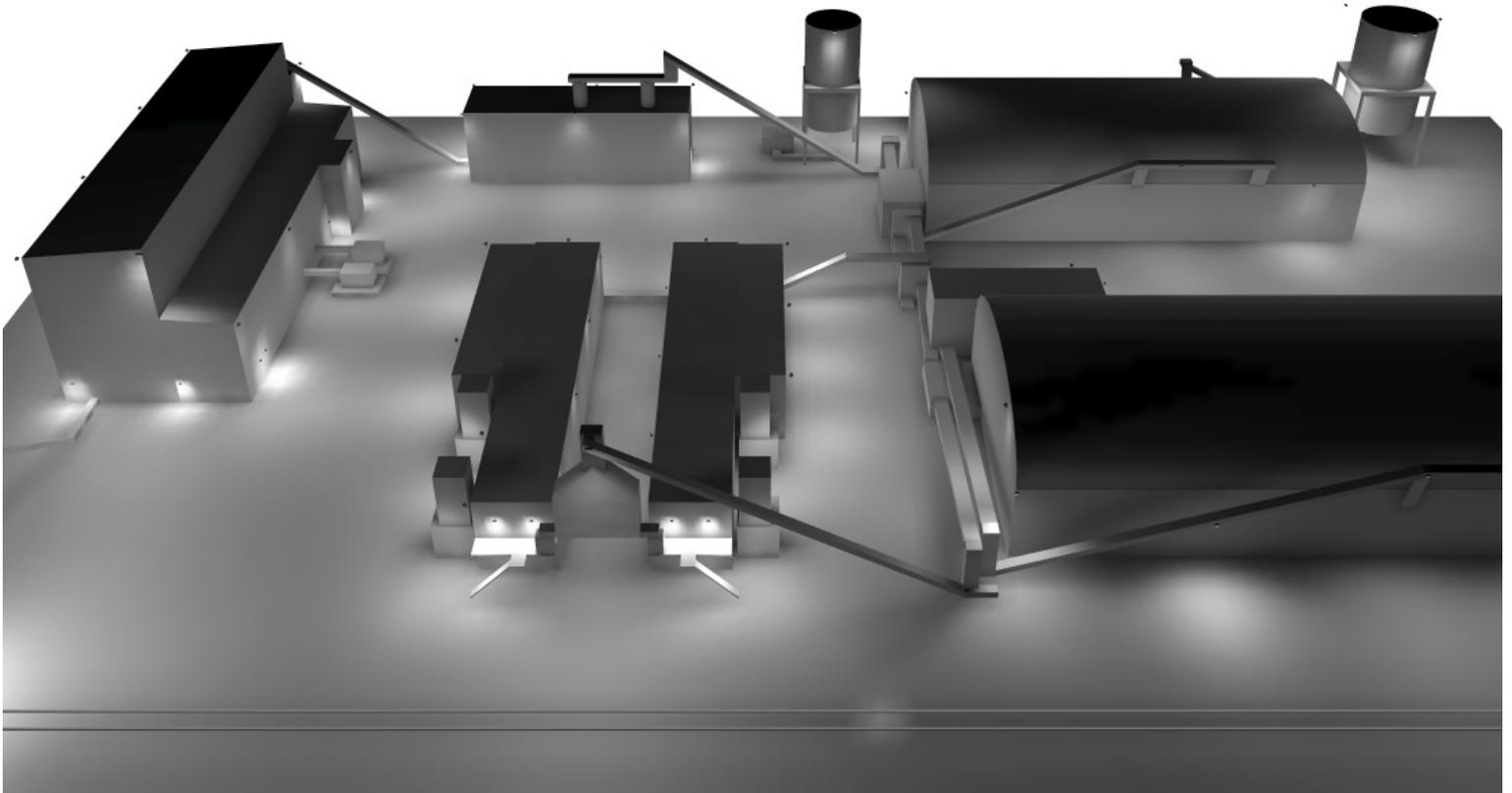
DAGR
Case Study

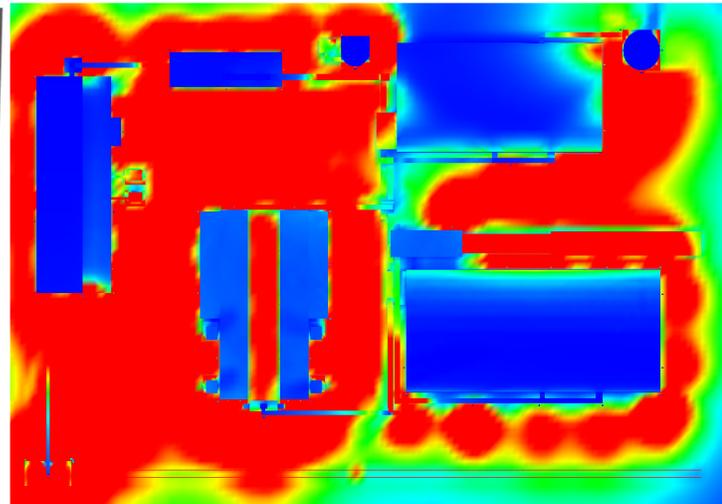
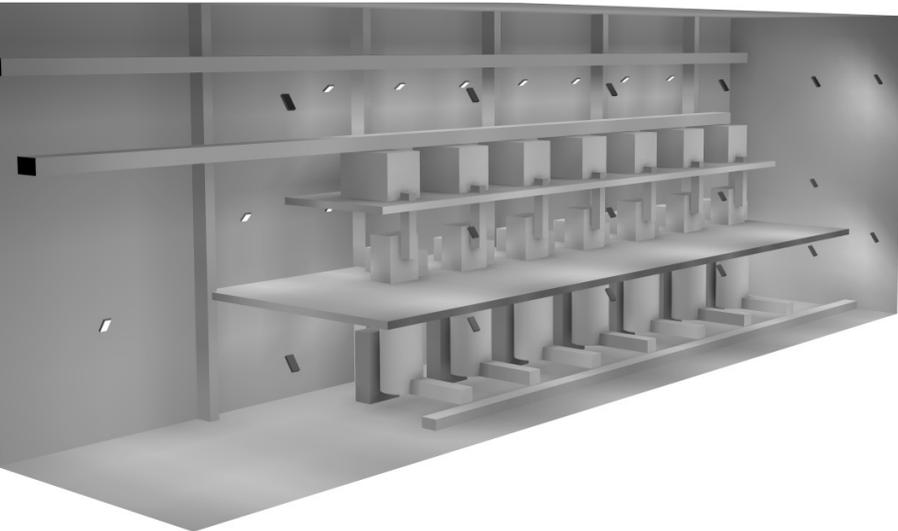
Full-Site Lighting Design
MP710 Multipurpose LED Lights
FL570 Class II LED Flood Lights

Pinnacle Pellet Lavington, BC

70% reduction in energy consumption
>\$200,000 in 5-year energy savings
Project payback under 2 years

Pinnacle Renewable Energy Inc. is the longest-established wood pellet producer in Western Canada. Pinnacle operates seven pellet plants throughout BC, producing more than one and a half million tonnes annually. Opened in late-2015, the Lavington Pellet Plant is their newest operation.





THE CHALLENGE

Pinnacle Pellet's new Lavington pellet plant was constructed during 2015 in partnership with Tolko Industries Ltd. and employs state-of-the-art process and emissions control technology. As part of their commitment to efficiency and sustainability, Pinnacle opted to utilize LED technology for their lighting needs over inefficient conventional technologies.

THE SOLUTION

Having previously worked with Pinnacle in retrofitting several of their other facilities with LED lighting, DAGR was asked to provide a full-site lighting design for the new Lavington plant. The final design covered a wide range of areas and applications, using **MP700s** and **MP710s** for exterior lighting, Class I hazardous-location certified **EXP250s** in the high-dust environment storage tent areas, and Class II **FL570s** in the process building mounted on the walls to mitigate heat concerns. Also provided was the design and specification of office and emergency & exit lighting solutions.

Exterior mounting heights and lighting angles were carefully adjusted to minimize glare and light trespass, and prevent any obtrusive light outside of the property lines. All lighting was specified to meet the relevant Canadian Occupational Health & Safety illumination standards. DAGR also helped Pinnacle take advantage of the available new build incentives offered by BC Hydro.

RESULTS

As a result of the implementation of the lighting design, the new Lavington plant provides workers with a safe, efficient and functionally lit work environment. It is estimated that by choosing LED lighting, energy consumption has been **reduced by 70%** over conventional lighting, with **energy savings of approximately \$200,000** over 5 years. With energy and maintenance savings, the project will pay for itself in under 2 years.