iLotusLand Platform in Monitoring 2 CEMS and 2 Water Stations in Nghi Son 2 Thermal Power Plant, Vietnam

TIME
2023

LOCATION
Thanh Hoa province - VietNam

CLIENT
Nghi Son Thermal Power Plant

ABOUT THE CLIENT

The Nghi Son 2 BOT Thermal Power Plant, is owned by Korea Electric Power Corporation, Marubeni Corporation, Tohoku Electric Power Co, and is operated by Doosan. It is located in Thanh Hoa province, Vietnam, and stands as a beacon of modern energy infrastructure. Operating under the BOT model, it efficiently generates electricity through cutting-edge thermal technology, with a capacity to produce over 7,8 billion kWh per year, supplying more than 6 households. This project not only addresses Vietnam's surging energy demands but also catalyzes regional economic growth.

NS2PC
NGHI SON 2 POWER LIMITED LIABILITY COMPANY

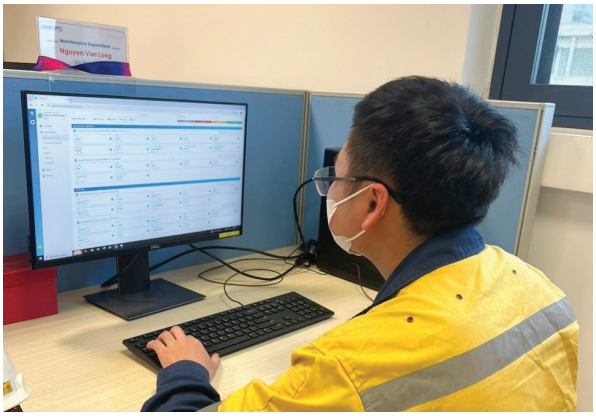
THE CHALLENGE

Being one of Vietnam's most advanced thermal power plants, Nghi Son 2 facility is dedicated to maintaining sustainability, emphasizing eco-friendly production and environmental conservation. This entails adhering to local environmental monitoring regulations, especially regarding stack emissions and water discharge. Regarding stack emission monitoring, they must transmit data from two existing stations to the authorities in the specified format. As for water discharge monitoring, they seek an integrated solution encompassing both hardware and software. Additionally, when storing data for remote management purposes, they prefer to retain data within their server rather than sending it externally.

THE SOLUTION

iLotusLand, in collaboration with its strategic partner Viet An Enviro in Vietnam, has provided the client with our carefully chosen instruments to continuously measure a range of parameters in both sea and wastewater. Alongside the datalogger, we facilitate the transmission of recorded data from all stations to the relevant authority. And upon the system, our iLotusLand platform enables engineers to remotely monitor and manage the data, while ensuring data storage within their internal server system.

Application	CEMS	Sea Water	Waste Water
Number of stations	2	1	1
Measured parameters	CO, CO2, NOx, O2, SO2, Dust, Temp, Flow, Pressure	COD, Chlorine, DO, pH, TSS, Temp, Total Chlorine, Flow	Amoni, COD, pH, Temp, TSS, Flow
Instrument models	**Codel:** - DCEM2100 - VCEM5100 **Siemens:** Set CEM CERT **ABB:**	**Endress Hauser:** - Oxymax W COS51D - Turbimax CUS50D - Viomax CAS51D **Swan Analytical:** - Monitor AMI Codes-II TC - Monitor AMI Codes-II **Pulsar:** dB Mach3 **Flexim:** FLUXUS F721	**Endress Hauser:** - Orbipac CPF81D - Viomax CAS51D - Turbimax CUS51D **Flexim:** FLUXUS F721
Datalogger model	Envidata 1801		
Software model	iLotusLand Platform for Environment (On-Premise)		



THE RESULT

"By the camera function inside the platform, we now can monitor what's happening on-site in real-time. And the data is safe as it is secured on our server"
– Customer feedback

The installation of the integrated monitoring stations and iLotusLand monitoring platform has resulted in notable improvements. It has enhanced environmental compliance, precise monitoring, and streamlined regulatory reporting have collectively reduced the plant's environmental impact. Empowering engineers with remote data access facilitates proactive decision-making, showcasing the company's commitment to sustainability and operational efficiency.

"iLotusLand is an environmental IoT company offering data-driven environmental monitoring solutions for better decision-making. With our plug-and-play stations, we monitor a wide range of parameters in Wastewater, Surface Water, Groundwater, Drinking Water, CEMS, AAQMS, etc. And iLotusLand data analytics platform delivers actionable insights for government, industries, and communities. Our commitment is to be a key player in fostering a sustainable future through intelligent environmental monitoring solutions and data science."