



Case Study Arabtec - Public Realm Concourses & Arrival Plaza, EXPO2020

Power & Highly efficient cooling system supply

Project Description

From Feb 2019 onwards, Enerwhere is supporting Arabtec to achieve the sustainable goals set by Dubai's most anticipated world expo, EXPO2020. Enerwhere signed the contract to power and cool Arabtec's site office for the "Public Realm Concourses and Arrivals Plazas" on Jan 2019. The 270kVA diesel generator plant was designed by forecasting the energy consumption of the site office based on the data gathered over the years from powering numerous site offices. Actual building conditions were simulated, and cooling load was calculated following ASHRAE guidelines. Industries best inverter based split units of 58.5TR were selected resulting savings around 20% on energy consumption compared to non-inverter units. The entire system was installed and commissioned in 10 days.



280 TR Capacity
Ultra-efficient AC units



179 tons/year
CO₂ saved



170,000 AED/year
Saved on energy cost

Project Highlights

- Highly efficient inverter based decorative units for site office cooling
- Highly efficient package unit for labour rest area cooling

Project Details

Industry	Construction
Plant type	Diesel generator + highly efficient cooling system
Capacity	1 MVA of diesel generators 280 TR of cooling
Location	EXPO2020, Dubai
Deployed	February 2019

Enerwhere was called back in few months to power and cool Arabtec's labor welfare areas located in EXPOs main 3 zones: "Sustainability, Mobility and Opportunity". The expired DGs and ACs they were having breaks down often during working hours leading to a frustrated work force, commercial losses and a ton of paperwork. Enerwhere took over the power and cooling supply of all the tents in June 2019. Sizing of the system was done carefully based on the actual site conditions and working pattern of the people in rest area. 11 package units of 20TR each were handpicked from the market which offers the best efficiency and reliability in its class. These highly efficient units along with proper power management and regular monitoring not only saves more than 100,000AED annually but took away all the hassles of maintenance, services, fuel refilling etc. from the client. Started with an installed capacity of 270kVA and 58.5TR, currently Enerwhere's portfolio at EXPO2020 stands over a megawatt in power and 280TR in cooling capacity.



إكسبو 2020
دبي، الإمارات العربية المتحدة
DUBAI, UNITED ARAB EMIRATES



Case Study Arabtec - Public Realm Concourses & Arrival Plaza, EXPO2020

Power & Highly efficient cooling system supply

Enerwhere's Power and Cooling System Diagram

Highly efficient inverter based decorative units for site office cooling

Highly efficient package unit for labour rest area cooling

