

CASE STUDY

Tri-Generation Technology: Producing Utilities efficiently by utilizing waste energy.

HEADQUARTER BUSINESS PARK PROJECT

THE CLIENT

Adeem Al Wataniyah is a property developer and owner of HQBP, a state of the art Building comprising of two towers and a podium. The West Tower has 54 floors, the East Tower comprises of 16 floors and a podium with eight floors. Total Area consists of 245,000 m2. The property is occupied by commercial entities.

THE CHALLENGE

A state of the art building requires a cutting-edge deployment of utilities such as Power, Cooling System & Potable Water System. The problem is to find a company with the experience and technical competence to undertake such a demanding project successfully.

OUR SOLUTION

United Tri Generation (UTG) offered a 25-year Build, Own, Operate & Transfer (BOOT) contract with the provision of innovative solution termed as Tri-

Generation Technology. This solution uses waste energy to produce utilities at competitive rates. Tri-Generation plant would consist of the following

- 7no Diesel Generators- ea 2MW
- 3no Electrical Chillers- ea 1,400 TR
- 3 no Absorption Chillers- ea 700 TR
- 6no Cooling Towers- ea 6,554 kW
- SWRO Plant- 1,300 m3/day

SOLUTION IMPLEMENTED

To work in tandem with government regulation, a standard utility was implemented instead of the Tri-Generation concept earlier proposed. The final solution consists of the following

- 4no Diesel Generators- ea 2MW
- 3no Electrical Chillers- ea 1,400 TR
- 6no Cooling Towers- ea 6,554 kW
- SWRO Plant- 1,300 m3/day

CONCLUSION

The appointment of United Tri Generation (UTG) to provide Utility Services on a concession basis reduced the Capital cost for Adeem Al Wataniyah extensively. Our solution also ensured that the end users benefit from a competitively priced, reliable source of energy.

