



AWARD OF EXCELLENCE



مرفق قطر
Marafeq Qatar

NEW SCHEME

Lusail City District Cooling
Lusail City, Qatar

ABOBAKER AL HADRAMI



LUSAIL City Overview

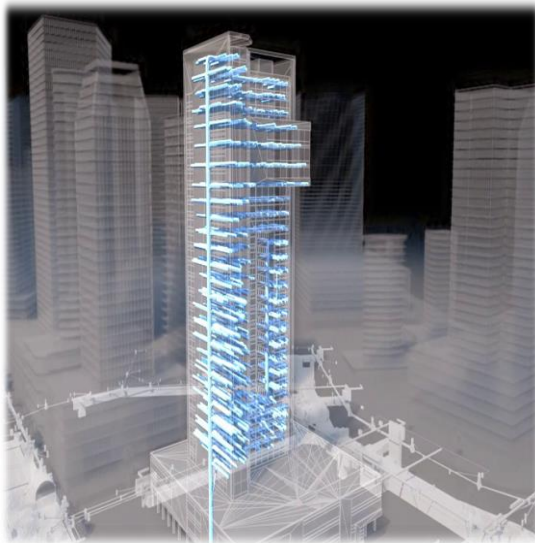
- 5,175 plots and total area: 38 km²
- To accommodate
 1. More than 200,000 residents
 2. 170,000 workers
 3. 80,000 visitors
- Consist of 19 districts (residential, commercial, hospitality, and retail)



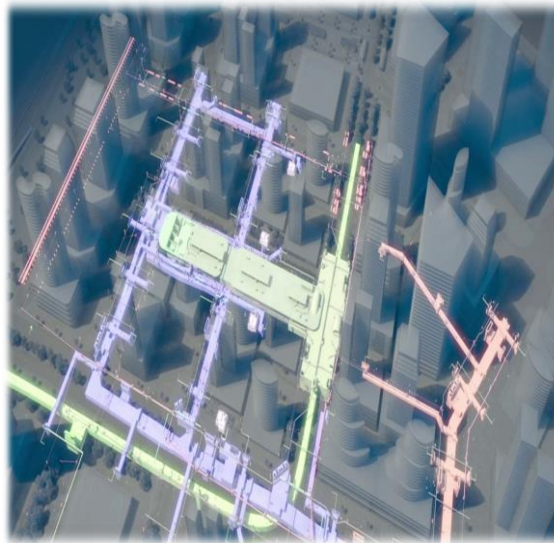


Lusail City Utilities

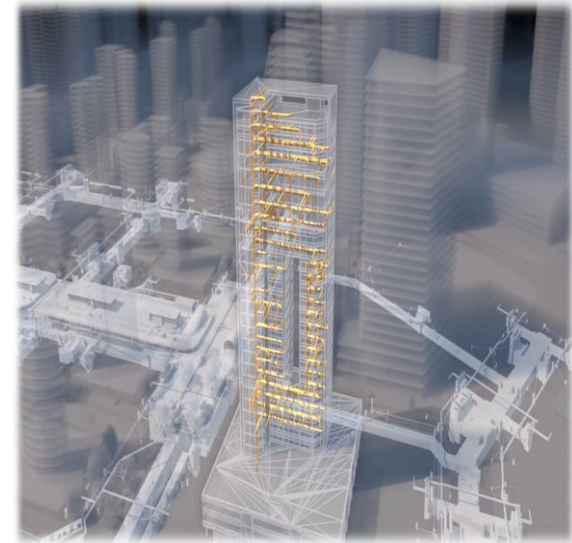
District Cooling



Pneumatic Waste Collection



Gas Network





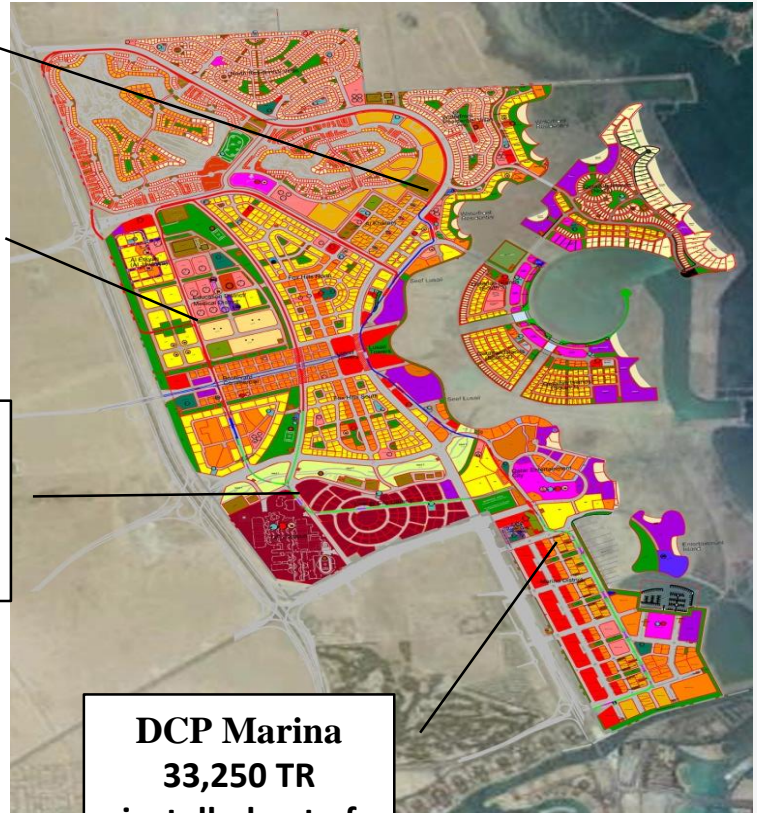
Lusail City DC System

- District cooling system will serve 866 plots, through 170 km (supply/return) underground piping from four (4) production plants.
- Total production capacity will be about 340,000 TR

DCP North

DCP West
30,000 TR under const. out of 108,000 TR

DCP Wadi
14,250 TR installed out of 73,000 TR



DCP Marina
33,250 TR installed out of 90,000 TR



The High Efficiency/Quality DC System

- The **network design**:
A distribution network with strategically placed loops and isolation valves
- Certified **EN 253** family of standards:
All welded pre-insulated steel piping system with integrated leak detection system
- Energy transfer stations – ETS:
Smart Metering Solutions
Automated Meter Reading and Billing

www.districtenergyawards.org

#17GDECA



Challenges

- Awareness
- Network  preservation
- Gradual development  temporary cooling
- Technical planning & financial modeling





Contribution to the State of Qatar

**Eliminates
Over 500,000 Tons
Of
CO₂ emissions
from the environment
per year**

