



الشركة العربية للتبريد  
Arabian District Cooling Company



*Cooling Solutions Whose Time Has Come...*





# Arabian District Cooling Company...

Cooling solutions whose time has come....

## **Future Cooling Technologies are here today from Arabian District Cooling Company (ADCCO)...**

The hyper fast development pace in the Kingdom of Saudi Arabia has ushered in the era of the “super towers” and “mega cities”. There is a paramount need for creative and dramatically more efficient solutions for the tremendous demand imposed on the utilities by the air conditioning needs of these developments, and the resulting impact of ever higher electricity demand on our environment.

A technology known by its early adopters as District Cooling is delivered to the Kingdom’s project owners by a respected and reliable engineering solutions provider: Al Gihaz Group, via its Arabian District Cooling Company (ADCCO).

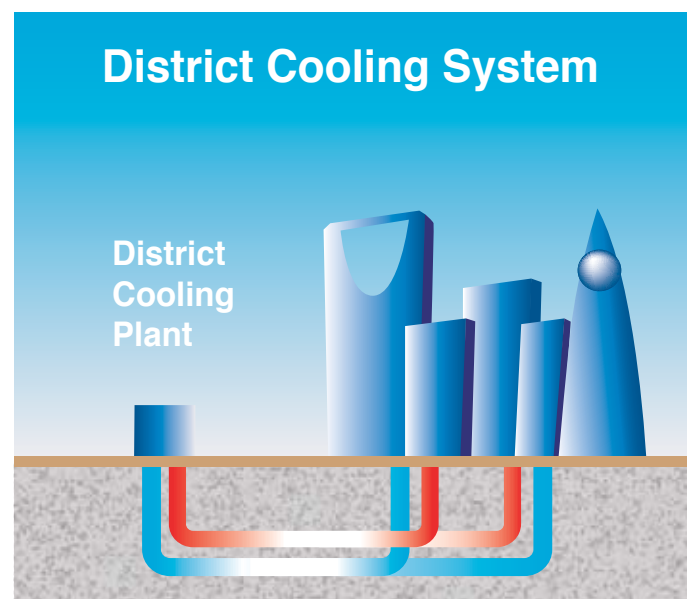
## **ADCCO bringing you the future of cooling technologies economically, efficiently and reliably...**

Arabian District Cooling Company (ADCCO), a district cooling services provider, evaluated the leading district cooling solutions around the world, and selected those most suitable for the environment we live in. The result is a unique offering of efficient, effective, eco-friendly, flexible and reliable State-of-the-art District Cooling technology. It is a modern approach highly adaptable and flexible to provide a custom solution always cost effectively efficiently and reliably. ADCCO professionals have the cooling solutions whose time has come.



# What is District Cooling?...

District Cooling delivers chilled water from a central plan to cater to the cooling needs of remote buildings...



**Individual buildings don't necessarily need air conditioning systems on the premises. A district cooling system provides the perfect alternative...**

Buildings and facilities connected to district cooling systems have dramatically lower capital costs for their cooling equipment; they don't need conventional chillers. By relying on a district cooling service provider, project owners will do away with the technical complexities inherent in central chiller systems; they will save valuable up-front investment to deploy more effectively elsewhere in the project. Reduced complexity speeds up the project and accelerates the start of the income generation phase of the project. Reliability is enhanced by the high-tech nature of the technology employed by district cooling plants. To maintain their competitive edge, these plants continuously upgrade their systems and apply the latest state-of-the-art technologies and highly sophisticated and redundant systems. They thus attain levels of efficiency and reliability no single project system can match without the economies of scale a district cooling plant benefits from.

Building owners can count on such a high end district cooling solution operated around the clock by sophisticated professionals.

## District Cooling, a technology whose time has come...

District Cooling solutions could not have come at a better time for the Region, in the midst of an unprecedented economic boom driving development to unprecedented highs. This technology provides ways to reduce the demand on the highly stressed electrical utilities, it speeds up projects by reducing a key element of complexity in all buildings and structures: their electromechanical systems.





## Why District Cooling?...

District Cooling: saves energy, saves running costs, conserves capital, is highly reliable and eco-friendly...





## **Benefits of district cooling for project owners:**

### **■ A highly efficient solution:**

With temperatures reaching 50 degrees in our region, air-conditioning can account for as much as 70% of the energy consumption in a typical building. District Cooling cuts this energy consumption by almost a half, a most welcome benefit to every project owner, building owner, factory or home, a benefit they can see in their electricity bills.

### **■ Significant capital and O&M cost reduction:**

By eliminating in-building or on-premises chiller plants, district cooling frees considerable building space for a multitude of other uses, be it parking, more shopping area, or more residential, commercial or recreational space. It also frees projects owners from the need to own, operate and maintain complex central air conditioning plants, and frees them from the need to ever have to replace or upgrade expensive complex machinery.

### **■ Reduced project complexity means faster project completion:**

Dedicated experienced professionals take over the complex task of providing the cooling needs of the project, simplifying and expediting the project development cycle and expediting move-in dates and income generation.

### **■ Improved ROI numbers:**

Reduced initial up-front capital outlays, faster move-in dates, reduced O&M costs and the elimination of costs related to technical staff all translate into less financial risk for project owners, with improved return on investment and better project economics overall for developers and owners.

### **■ No idle expensive capacity:**

District Cooling Solutions allow project owners to buy the capacity they need when they need it.

### **■ Improved reliability and ease of operation:**

Economies of scale allow for sophisticated redundant systems, and first rate professional staffing resulting in superior 100% up-time performance and ease of operation for project owners.

### **■ Greater flexibility in design:**

With the absence of heavy machinery, be it large chillers or even larger cooling towers and special mechanical rooms, architects have more freedom to design creative, aesthetically pleasing buildings.

### **■ Ecologically friendly:**

A district cooling system eliminates the chillers and related equipment; it greatly reduces or eliminates most sources of difficult to control vibration and noise anywhere in or near the project, to the delight of tenants and all those who use the facilities. Unsightly cooling towers are removed, making for a more serene and clean environment.

### **■ Environmentally sounder and safer:**

District cooling systems are designed to be highly efficient. Higher efficiency for such large systems that ordinarily account for 70% of the energy consumed by a project, translates directly into significantly less demand for power generation, with the resulting reduction in damage to the environment, not only for a particular project, but on a aggregate basis for society at large.



## Who can benefit from District Cooling...

District Cooling brings the right technical and economical solution to a wide spectrum of projects...





#### ■ **New Mega Cities Projects:**

The new Mega Cities Projects offer project owners, planners and designers unmatched opportunities to adopt the best practices from around the world, for a superior living environment. The flexibility of a large planned community with its large set of design options allows the project owners the ideal placement of district cooling plants and associated infrastructure to provide the owners and tenants with efficient, economical, state-of-the-art cooling solutions.

#### ■ **Urban Redevelopment Projects:**

District Cooling is the right solution for Urban redevelopment projects that strive to build model communities to replace the mistakes of the past... communities that utilize modern technological solutions for a better living environment.

#### ■ **High rise buildings in the core of large existing cities:**

With the skyrocketing costs of land in the cities cores, and the high density of buildings, all the benefits of district cooling are magnified to exceptional levels, be it the freed space, the reduced noise and other pollution, the reduced demand for power, the design flexibility or enhanced investment returns.

#### ■ **Ministries, Government and Municipal facilities:**

The Kingdom and the Gulf Region have created landmark ministries and governmental buildings... Typically these are clusters of high density structures located within large complexes, offering an ideal setting for efficient, economical and eco-friendly district cooling solutions.

#### ■ **Shopping malls:**

With multiple buildings, multi purpose facilities and a large number of owners , shopping malls are ideal for the efficient, economical and dependable technology of district cooling.

#### ■ **Schools, Universities, and Medical Centers:**

The Kingdom and the Region are in the midst of a massive expansion of schools, universities and medical centers. District cooling advantages apply across the board and enhance the opportunity for such facilities to apply comprehensive master planning, best practices and advanced technological solutions.

#### ■ **Master Planned Communities:**

A new generation of comprehensively planned housing and multi-use developments is springing up throughout the Kingdom and the region; these require smart and innovative master planning; district cooling brings exceptional, technologically advanced, environmentally friendly and economical solutions to their complex cooling needs.





Distinguished achievements in the field of district cooling...



Through its strategic relationship with Stellar, covering the engineering and construction of District Cooling projects, ADCCO is in a position to deliver state of the art district cooling plants that are environmentally friendly with world class performance and reliability.

Stellar has a long and distinguished list of achievements in the field of district cooling, on the world scene and in the Middle East. The partnering with Stellar gives ADCCO a clear technological edge to address district cooling in the largest market for air conditioning in the Middle East.

Three decades of state-of-the-art engineering solutions.....



Arabian District Cooling Company is the specialized district cooling service provider of Al-Gihaz Group. The Group has delivered state-of-the-art value-added engineering solutions for over three decades. It has a heritage of dependable exceptional quality projects delivered on time, every time.

Al Gihaz is a diversified 32 year old conglomerate with activities in key economic sectors across the Kingdom, including: power, contracting, manufacturing, industrial works, advanced automation, information technologies, telecom networks, security solutions, Geographic Information Systems (GIS), and unique Real Estate Development Projects.

The Group strives to offer its clients Best in Class products and services, with a particular focus on high value added technological solutions.

**ADCCO is supported by strong affiliations...**



**Al-Gihaz**<sup>®</sup>  
HOLDING

MAKING THE GOLDEN QUANTUM LEAP



**Adcco**

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