

## **FLOW-ICE<sup>®</sup> Systems**

### **HVAC & DISTRICT COOLING**

**Thermal Energy Storage (TES) is an excellent energy management strategy.**

#### **Benefits of using TES**

- \* **Can store low-cost energy**
- \* **Heat absorption at constant temperature**
- \* **High short period heat loads can be accommodated**
- \* **Smaller refrigeration equipment**
- \* **Reduced refrigerant charge**
- \* **"Reserve" cooling capacities**
- \* **Lower electrical capacity requirements**

#### **Advantage using Low temperature air distribution**

- \* **Extra comfort-low relative humidity**
- \* **Less air transport**
- \* **Lower horsepower fan motors**



FLOW-ICE-System with 220m<sup>3</sup> thermal energy storage tank



600 KW FLOW-ICE System Installation

Water as a secondary refrigerant offers itself as a safe alternative to conventional refrigerant and these types of systems have been in operation for many years. **FLOW-ICE<sup>®</sup>** Systems used in conjunction with traditional air conditioning installations are designed to maximise benefits using Thermal Energy Storage (TES) principals and, existing ventilation systems can also be converted to **FLOW-ICE<sup>®</sup>** Systems for further cost saving.

Planners for air conditioning systems need not install large diameter piping for **FLOW-ICE<sup>®</sup>** Systems. A significant part of the initial investment cost for any large scale central cooling system is the piping distribution network and a reduction in the pipe size represents a significant cost reduction.

**FLOW-ICE<sup>®</sup>** Systems are an economical way to spread the peak cooling loads over a 24 hour period. In many such applications, a smaller conventional cooling system can be installed and **FLOW-ICE<sup>®</sup>** / TES is then used to satisfy the large peak cooling demands. Furthermore, the lower off-peak energy costs are an attractive option that contribute to an overall lower operating cost.