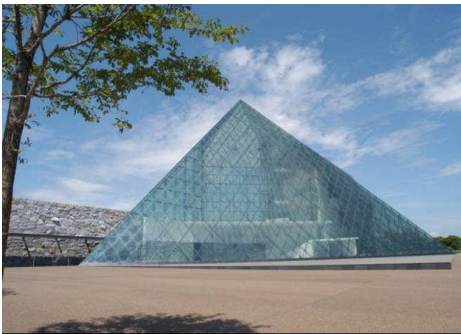


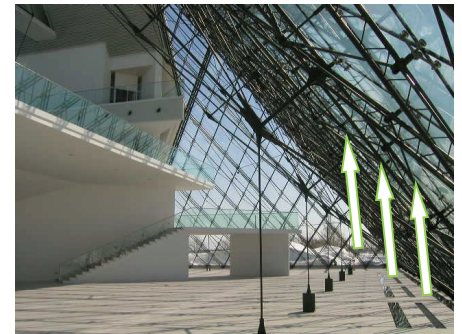
An Outline of The Green Power Air- Conditioning System of the Glass Pyramid in MOERENUMA Park, Sapporo

[Design concept: Harmony with the Environment]



Building Outline

- Completion date: March in 2003
- Number of floors: 4floors
- Total Floor area: 5,322m²
- Principal Use: art gallery, restaurant, office
- Snow Storage:
Area: 635m²; Height: 5.3m



The Green Power Technologies based on Sapporo's climate and Energy Efficiency Technologies

Snow, Atmosphere, Solar energy

- Actual stored Snow for Cooling (Stored Snow from winter to summer ,when its cold is utilized)
- Hybrid Ventilation Cooling (Natural Ventilation & Mechanical Ventilation)
- Floor Cooling (via cooling tower-based free cooling)
- Solar energy (upper atrium heat recovered and accumulated to the stone floor during winter)

Snow: for Cooling

- As a result of its operations from July to August in 2004.
- Approximately **1735t of snow** was stored and **1427t of snow for cooling was consumed (478GJ)**, which is equivalent to **a 368kW chiller** running at full load for 360hours.
- The emissions avoided are estimated to be approximately **30,000kg/ CO2**

Schematic outline of the Green Power Air Conditioning System of the Glass Pyramid

