

Ideas at work

Essential services for business, delivered with energy.



The Snow Centre, Hemel Hempstead

Cool ideas mean big savings for snow centre.

Whizzing down the slope at The Snow Centre, Hemel Hempstead, you could easily be forgiven for imagining you're on a real piste somewhere far, far away. Even on a summer's day, Hemel's skiers and snowboarders enjoy fresh snow on their slopes. But maintaining a great powder feeling all year round is an energy intensive business – and that's where we come in!

Though the centre was purpose-built in 2009, its management team has benefited from a bespoke energy performance contract that guaranteed electricity consumption and cost savings since 2011. The contract also covered the capital costs of any energy-saving measures employed.

With ambitious savings targets written into the contract, the solution required exceptional energy saving expertise from the very start. That meant a 'deep dive' into the centre's existing energy data. It was then followed by an intensive site audit to gain a complete understanding of the design and construction of the building and its lighting, heating, ventilation and air conditioning – and, crucially, the refrigeration plant.



With guaranteed savings that increased year on year through the life of the contract, ambitious targets were set and achieved – reducing consumption by more than double the original target and delivering real value to the centre.

Challenge

- **Cut electricity consumption by 5%+**
- **Reduce the centre's carbon footprint**
- **Introduce new, energy-saving solutions at no cost to the centre**
- **Develop ongoing efficiency plan**

Making fresh snow daily and maintaining a sub-zero ambient temperature is energy intensive business. Although The Snow Centre is a purpose-built facility, the brief was to improve energy efficiency.

Solution

- **Implement energy-saving measures:**
 - upgrade refrigeration plant
 - isolate hydronic circuit
 - improve pump speed control
 - optimise equipment operation
 - upgrade to LED lighting
 - optimise voltage

It was important to identify energy-saving measures that could be implemented without compromising the quality of the snow or any aspect of the centre's product offering.

Results

- **Average annual saving of 12.7%**
- **Guaranteed savings of £75,000**
- **Additional savings achieved**
- **Ongoing consultancy to identify further areas of future development**

The energy-saving measures exceeded the guaranteed savings target. By introducing new working practices and physical modifications, the centre functions more efficiently, and enjoys ongoing savings without compromising operations.



Energy



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Lighting



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For energy saving ideas, talk to SSE Enterprise Energy Solutions.



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