

IR Heating Case Study – Lou’s Tyres Ltd

Outline: System: 6x Herschel Advantage IR 3 **Controls:** BN Thermic



Flixborough Eco Technologies have been advising Lou’s Tyres Ltd for a while in matters of energy including the installation of a 15kW Solar PV system. They then wanted to make the most of the onsite generated electricity to reduce their heating bill. Lou's Tyres Ltd is a local family tyre supply and fitting centre serving Scunthorpe and the surrounding areas for over 25 years; offering personal service and local knowledge along with an excellent range of tyre brands to suit all pockets and vehicles.

Lou’s Tyres Ltd were originally heating the work bay via a recycled oil boiler but with an uninsulated roof which required frequent door opening and closing and was unreliable; retention of heat became very difficult. When Simon, Director of Lou’s Tyres Ltd approached us to consider the project, it was for staged works. Up to this point we have fitted Herschel Advantage 3’s around the perimeter of the primary lifts with the view to increase the capacity if required. Each radiant heater is on a 30 minute time switch which is minimising usage and there is reduced wastage when areas are not occupied.





Calculation	Length	x	Width	=	Area	x	Height	=	Volume	x	Power Demand	=	Output Needed			
Po Room Name	m	x	m	=	m ²	x	m	=	m ³	x	watt/m ³	=	Watt	Qt.	Output Elements	Σ Output Elements
Lift 1	2.55	x	2.35	=	5.9925	x	2.75	=	16.47938	x	35	=	576.778125	1	1950	1950
Lift 2	2.55	x	2.35	=	5.9925	x	2.75	=	16.47938	x	35	=	576.778125	1	1950	1950
Lift 3	2.55	x	2.35	=	5.9925	x	2.75	=	16.47938	x	35	=	576.778125	1	1950	1950
Lift 4	2.55	x	2.35	=	5.9925	x	2.75	=	16.47938	x	35	=	576.778125	1	1950	1950
Lift 5	2.55	x	2.35	=	5.9925	x	2.75	=	16.47938	x	35	=	576.778125	1	2600	2600
Lift 6	2.55	x	2.35	=	5.9925	x	2.75	=	16.47938	x	35	=	576.778125	1	2600	2600
				Total	11.99	m ²				32.96	m ²	Wattage req	3460.67		Σ Watt	5200.00

Energy Output at full Load	3460.67	Watt
Average Power Tariff	0.14	£
Heating Cost per hour	0.484	£
Average operating time per day	5	Hours
Heating cost per day	2.42	£
Average operating days per year	180	Days
Approx. Heating costs per year	435.6	£

