

Technical Bulletin

envirotouch™
the intelligent, energy
saving solution

What is the envirotouch switch?

The envirotouch is a range of intelligent, timer based switches which allows easy, point-of-use control of lighting and electrical devices. It includes multiple preset, countdown timer options or cycles, so with the simple press of a button it will automatically turn off the appliance, after the desired time. For example, select 45 minutes for classroom lights or 60 minutes for a heater, and they will switch off automatically. Designed for simple retrofitting of current switches and power sockets; can be hard-wired to light circuits or used with plug-in appliances to give intelligent control, but at a fraction of the cost.

Where can it be used?

COMMERCIAL & INSTITUTIONAL

- Lighting control, both indoor and outdoor
- Control of appliances such electric heaters, fans, mobile A/C units etc.
- Ideal for school classrooms, offices, hospitals, universities, aged care facilities, government buildings, retail shops, high-rise, halls, staff kitchens etc.

RESIDENTIAL

- Lighting control, both indoor and outdoor
- Domestic appliances such as heaters, fans, lamps, coffee machines, irons, electric blankets, battery chargers, pumps etc.
- Ideal for all applications where electric devices are used



FEATURES

Intelligent control

Multiple timer options at the push of a button. Preset operating cycles on the TT-ET4 heated towel rail switch.

Automatic Countdown timer

15, 45, 60 & 120 minute options (not on towel rail options). Set and the device will automatically turn off.

User Friendly operation

Can be used as a simple on-off switch or enjoy all the benefits of timer control.

Simple retrofitting

Easy to replace current switches and power points. (Requires neutral connection)

Low installation costs on new builds Installation costs on new projects are the same as a standard switch – no extra cost or hassle involved.

Elegant and subtle design blends with all décor.

“Turn-off” indicator

Imminent turn-off technology will dim the lights to warn you that turn off will occur in one minute.



Table 1. Calculation of savings and abatement cost for commercial applications.

Energy Consuming Device	Scenario	Energy Savings year (kWh)	Cost Savings year (\$)	GHG ¹ Savings year (kg)	TT-ET1	TT-ET2	TT-ET3	Payback period (years)
					'Abatement cost' ² \$ _{DCF} /tonne CO ₂			
BCA lighting 10W/m ² (15x15m room) 2250W	Prevent light being left on 2hrs per day during working days of year	1139	171	911	-134	-133	-	0.44
BCA lighting 10W/m ² (10x10m room) 1000W	Prevent light being left on 2hrs per day during working days of year	506	76	405	-123	-122	-	0.99
Appliance on hours (2400W)	Prevent heater being left on during working days of winter months 2hrs per day	405	61	324	-	-	-123	1.31
Appliance on hours (2000W)	Prevent heater being left on during winter months 2hrs per day	337	51	270	-	-	-112	1.56
Lights 8 x 50W (Eg. halogen lit room)	Prevent lights being left on 2hrs per day during working days of year	292	44	234	-109	-108	-	1.72

¹ Electricity tariff based on commercial rate of \$0.15/kWh

² Based on RRP of \$75.95 for TT-ET1 and \$79.95 for other models. Does not include installation cost.

Abatement cost based on first year cost of switch, ten year discounted energy cost savings and total tonnes of CO₂ abated.

Assumptions: 253 working days/year; 4 winter months; Electricity price \$0.15; GHG emissions of 0.8kg/kWh_{elec}

Table 2. Calculation of savings and abatement cost for residential applications.

Energy Consuming Device	Scenario	Energy Savings year (kWh)	Cost Savings year (\$)	GHG ¹ Savings year (kg)	TT-ET1	TT-ET2	TT-ET3/4	Payback period (years)
					'Abatement cost' ² \$ _{DCF} /tonne CO ₂			
Appliance on hours (2400W)	Prevent heater being left on during winter months 2hrs per day	584	146	467	-	-	-220	0.55
Appliance on hours (2000W)	Prevent heater being left on during winter months 2hrs per day	487	122	389	-	-	-216	0.65
Heated towel rail (80W)	Prevent towel rail being left on 16hrs per day throughout the year	467	117	374	-	-	-215	0.68
Lights 8 x 50W (Eg. halogen lit room)	Prevent lights being left on 3hrs per day throughout the year	438	110	350	-215	-214	-	0.69
Appliance on hours (1000W)	Iron, prevented from being left on for 3hrs once a week for a year	156	39	125	-	-	-173	2.05

¹ Electricity tariff based on residential rate of \$0.25/kWh

² Based on RRP of \$75.95 for TT-ET1 and \$79.95 for other models. Does not include installation cost.

Abatement cost based on first year cost of switch, ten year discounted energy cost savings and total tonnes of CO₂ abated.

Assumptions: 4 winter months; Electricity price \$0.25; GHG emissions of 0.8kg/kWh_{elec}

Table 3. Discounted Cash Flow Analysis

DCF calculation for commercial lighting application using single switch¹

Year	0	1	2	3	4	5	6	7	8	9	Total
Capital	\$75.95	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
Savings	\$170.78	\$175.90	\$181.18	\$186.61	\$192.21	\$197.98	\$203.91	\$210.03	\$216.33	\$222.82	\$1,957.74
Cashflow	\$94.83	\$175.90	\$181.18	\$186.61	\$192.21	\$197.98	\$203.91	\$210.03	\$216.33	\$222.82	
Discount factor	1.00	0.91	0.83	0.75	0.68	0.62	0.56	0.51	0.47	0.42	
DCF	\$94.83	\$159.91	\$149.73	\$140.20	\$131.28	\$122.93	\$115.10	\$107.78	\$100.92	\$94.50	
NPV	\$94.83	\$254.73	\$404.46	\$544.67	\$675.95	\$798.88	\$913.98	\$1,021.76	\$1,122.68	\$1,217.18	
GHG emissions abated (kg)	911	911	911	911	911	911	911	911	911	911	9108

¹ Basis: Discount rate 10%; Elec cost escalation per year 3%; commercial electricity tariff at \$0.15/kWh. Assuming BCA lighting 10W/m² (15m x 15m room), total 2250W, and scenario for timer savings based on preventing lights being left on 2hrs per day during the working days (253) of the year.



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