

# SMARTCOOL™

THE AMOUNT OF ENERGY USED TO KEEP WIRELESS NETWORK BASE STATIONS COOL ENOUGH TO FUNCTION, IS EQUAL TO THE AMOUNT OF ENERGY NEEDED TO RUN THE TELECOMMUNICATIONS EQUIPMENT.

EACH WIRELESS BASE STATION IS ESTIMATED TO PRODUCE 11 TONNES OF GREENHOUSE GASES EVERY YEAR DUE TO HIGH ENERGY CONSUMPTION.

ENERGY EFFICIENCY

ECONOMIC BENEFITS

ENVIRONMENTAL SUSTAINABILITY



## ENERGY SAVING MODULE™ PRODUCTS

Reduces energy usage (kWh) of air conditioning and refrigeration compressors by an average of 15%

Average demand (KW) savings of 10%

Savings achieved with no effect on space temperature

Retrofit technology compatible with all air conditioning and refrigeration systems

Financial and environmental benefits are quantifiable and can qualify for rebates and other financial incentives

[WWW.SMARTCOOL.NET](http://WWW.SMARTCOOL.NET)

# SMARTCOOL™

The Smartcool Energy Saving Module (ESM)™ and ECO<sup>3</sup>™ are unique retrofit technologies designed specifically for air conditioning and refrigeration systems. The ESM™ and ECO<sup>3</sup>™ work through a process known as 'compressor optimization', improving the efficiency of the compressors, which normally consume 70% of the total electricity used by cooling systems. This optimization results in a significant reduction in electricity consumption, operational costs and greenhouse gas emissions.

The technology interfaces with existing controls, and is compatible with all types of air conditioning and refrigeration systems. The ESM™ is suitable for installation on virtually any system, while the ECO<sup>3</sup>™ provides an economical solution for smaller single and dual compressor systems. Both are 'set and forget' technology and install with virtually no system downtime, meaning no interruptions to facility operations.

Smartcool Systems Inc. markets the ESM™ and ECO<sup>3</sup>™ through a network of distributors that interface directly with clients. Smartcool's head office in Vancouver, Canada and regional distribution hubs in Houston, London, and Sydney provide exceptional customer service for clients anywhere in the world.

## APPLICATIONS FOR THE ESM™ AND ECO<sup>3</sup>™



The Smartcool ESM™ and ECO<sup>3</sup>™ can optimize the compressors within two key parts of any wireless network's cooling systems. The ECO<sup>3</sup>™ is an ideal fit for improving energy efficiency within the base sub-stations, while the ESM™ is perfectly suited for the large cooling systems present in switching sites.

## TELECOMMUNICATIONS CASE STUDY

TELSTRA  
ADELAIDE, AUSTRALIA

22.9%  
KWH SAVINGS

26,130 KWH  
ESTIMATED ANNUAL REDUCTION

35,246 LBS  
GREENHOUSE GAS EMISSIONS  
REDUCTION

36 MONTHS  
RETURN ON INVESTMENT



The Energy Saving Module™ units installed on air conditioning systems in Telstra switching stations across Australia saved a total of 32,708,310 kWh over a four year period. This initiative accounted for 45% of all energy savings strategies undertaken by Telstra, which culminated in an overall reduction of 75,791 tonnes of greenhouse gas emissions. The ESM™ will continue to save Telstra energy on their air conditioning systems for years to come.

## PROVEN TECHNOLOGY

Independent third party testing and over 25,000 installations worldwide all prove the Energy Saving Module™ product line as an effective, reliable technology providing energy savings worldwide.

## QUANTIFIABLE RESULTS

Energy savings achieved by Smartcool products are easily measured, helping clients qualify for government & utility rebates.

## ORGANIZATIONS



BC hydro  
powersmart



## CORPORATE RECOGNITION

Deloitte.  
Technology Green 15



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## STANDARDS COMPLIANCE



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