

## 「綠色校園2.0-智能慳電」成果分享

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王肇枝中學參與「綠色校園 2.0 - 智能慳電」計劃後,在節能方面取得了卓越的成果。透過安裝高能效冷氣機和節能光管,並引入實時能源監察系統,學校成功降低了整體用電量,成效顯著。

#### 調整冷氣機運作模式: 節省用電量的關鍵措施

在計劃中,學校調整了課室和特別室的變頻冷氣機運作模式,採用逐漸降温的 方式,並在達到指定温度後自動停機,以節省用電。由於冷氣機在學校能源使 用量中佔最大比重,因此這項措施顯著降低了整體能源消耗。

#### 實時能源監察系統: 監測與防止能源浪費

學校引入了「實時能源監察系統」,即時監測能源消耗状況。一旦發現某個房間的用電量 異常,學校可以立即進行檢查和跟進,避免不必要的能源浪費。例如,在假期期間,學校 注意到一些儲物室仍在消耗電力,經檢查後發現冷氣機未被關閉。這個監測系統成為學校 能源管理的重要工具,確保能源用得其所。

參與計劃後,學校的用電量大幅減少,尤其是在五月和六月這些用電量較高的月份, 2022年的用電度數比2021年未安裝前減少了約一萬度,為學校節省了大量電費支出。

學校透過改變變頻冷氣機運作模式和安裝實時能源監察系統,取得了顯著的節能成效,同時避免了不必要的能源 消耗。這不僅降低了學校的電費支出,也向學生宣揚能源效益的重要性,使學校成為綠色校園的典範。



Wong Shiu Chi Secondary School has achieved remarkable results in energy conservation after participating in the "Green Schools 2.0 – Energy Smart" program. By installing high-efficiency air-conditioners, energy-saving lighting, and implementing a real-time energy monitoring system, the school has successfully reduced its overall electricity consumption, demonstrating significant effectiveness.

Adjustment of air-conditioner operation mode: Key measure for saving electricity As part of the program, the school adjusted the operation mode of variable frequency air-conditioners in classrooms and special rooms, adopting a gradual cooling approach and automatically shutting down once the designated temperature is reached. This measure significantly reduces the overall energy consumption, given that air-conditioners account for the largest proportion of the school's energy usage.

### Real-time energy monitoring system: Monitoring and preventing energy waste

The school has introduced a real-time energy monitoring system that instantly monitors energy consumption. If any abnormal electricity usage is detected in a room, the school can promptly investigate and follow up, avoiding unnecessary energy waste. For example, during holidays, the school noticed that some storage rooms were still consuming electricity. Upon inspection, it was discovered that the air-conditioners were not turned off. This monitoring system has become an important tool for the school's energy management, ensuring proper use of energy.

After participating in the program, the school's electricity consumption has significantly decreased, especially during the high-demand months of May and June. In 2022, the

electricity consumption was approximately 10,000 kilowatt-hours less compared to the previous year before the installations, resulting in substantial savings on electricity expenses.

Through the changes in the operation mode of variable frequency air-conditioners and the installation of a real-time energy monitoring system, the school has achieved significant energy-saving results while avoiding unnecessary energy consumption. This not only reduces the school's electricity expenses but also promotes the importance of energy efficiency to the students, making the school a model for a green campus.



