

EnergyWits

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APEC Cooperative Energy Efficiency Design for Sustainability Workshop

亞太經合組織 「可持續性能源效益設計合作」 研討會

APEC Cooperative Energy Efficiency Design for Sustainability (CEEDS) Workshop



研討會參與者合照

Group photo of the workshop participants



環境局局長邱騰華太平紳士
為研討會致歡迎詞
Mr Edward Yau, JP, Secretary for
the Environment, gave welcome
remarks for the workshop

背景

「可持續性能源效益設計合作」項目的目的在推動亞太地區，特別是發展中的經濟體系，去實施「高效能」能源效益政策和措施。該計劃旨在協助各經濟體系為特定的能源類別制定適合各自的措施，以提高能源效益。

2011年1月26日至28日在香港舉行了「可持續性能源效益設計合作」項目下一個名為「建築物能源效益守則和標籤」的研討會。這次研討會由亞太能源研究中心（APERC）主辦，泰國和香港共同協辦。第一次研討會已於2010年9月8日至10日在泰國曼谷舉行，在香港舉行的是第二次研討會。

參與研討會

六個被亞太能源研究中心邀請參與研討會的經濟體系包括智利、中國、印度尼西亞、馬來西亞、菲律賓和越南，在研討會分享他們的政府現時在建築物能源效益守則和標籤的政策和項目，以及可能遇到的障礙和解決方案。泰國和香港特別為研討會簡述在建築物能源效益守則和標籤方面在當地的實施情況。研討會參與者超過五十人，包括各經濟體系的代表、國際專家、泰國和香港的高級官員及觀察員。國際專家和各經濟體系的代表在研討會上所發表的觀點和意見有助各經濟體系識別和制定下一步的措施。

Background

The objective of the APEC CEEDS (Cooperative Energy Efficiency Design for Sustainability) project is to promote "high-performance" energy efficiency policies and measures in economies in the APEC region, especially among the developing economies. The project aims to assist economies to design measures for achieving energy efficiency improvements in a specified sector and apply such measures within the local context of individual economy.

On 26-28 January 2011, a CEEDS workshop entitled "Building Energy Codes and Labeling" was held in Hong Kong. The workshop was organized by the Asia-Pacific Energy Research Centre (APERC) and co-hosted by Thailand and Hong Kong. It was the second workshop. The first one was held in Bangkok, Thailand on 8-10 September 2010.

Participation in workshop

APERC invited six economies including Chile, China, Indonesia, Malaysia, Philippines and Viet Nam to participate in the workshop to brief on the current status of policies and programs, along with barriers and possible solutions to building energy codes and labeling. Thailand and Hong Kong provided special briefings on their implementation of building energy codes and labeling. More than fifty participants joined the workshop, including delegates from invited economies, international experts, and senior officials and observers from Thailand and Hong Kong. Observations and comments by international experts and participating economies were provided in the workshop to help the delegates from each economy to identify and formulate the next steps forward.

建築物能源效益守則和標籤的主要發現

一個亞太能源研究中心的分析指出若從建築物能源效益守則項目所帶來的節省能源潛力去估算，該六個參與經濟體系市區裏四個主要建築物類型若實施了最先進的建築物能源效益守則，到2030年將有可能累計節省高達23億toe (tons of oil equivalent)的能源，即相等於2030年這六個經濟體系在住宅和商業類別中預計能源使用的3至11個百分點。

在研討會的交流中各參與的經濟體系均表示在追求共同的目標過程中面對類似的挑戰。共同的目標包括：

- 收緊能源效益守則的要求，並納入可再生能源等先進技術
- 由自願性轉到強制性能源效益守則
- 加強守則的執行和遵守及
- 擴大應用能源效益守則到鄉村和城市地區的所有建築物，並涵蓋現有建築物的修改及新的建設而共同的挑戰則包括：
- 需要國家政府及當地政府高層支持及持續的政策配合
- 開發和維持體制能力（法律機關，工作人員和預算）去面對政府行政的變更和工作人員的流動
- 各部委和各級政府機關之間的合作
- 缺乏建築物和建設的具體經濟數據及
- 培訓相關的技術官員和營造商（因工作人員的流動必須定期進行）

研討會的結論

各個參與的經濟體系有意向前邁進，並且實施在研討會中制定的行動計劃。此外美國能源部與泰國的能源發展和效益部（DEDE）合作，將於2011年在曼谷召開一次跟進研討會，制定能源效益測試和建築物的評級。亞太能源研究中心亦計劃開拓其他領域的區域合作，包括勞動力的培訓和建築物能源效益守則和標籤相關的進一步發展，並考慮與其他亞太經濟體系分享這個研討會的成果。



亞太能源研究中心主席小林健二先生(左)、機電工程署署長陳鴻祥太平紳士(中)及泰國的能源發展和效益部副部長 Twarath Sutabutr 博士(右)在研討會後合照
Mr Kenji Kobayashi, President, APERC(left), Mr Chan Hung Cheung, JP, Director of Electrical and Mechanical Services(middle) and Dr Twarath Sutabutr, Deputy Director General, Ministry of Energy, DEDE, Thailand (right)

Key findings on Building Energy Codes and Labeling

In terms of the potential for building energy code programs to achieve energy savings, an APERC analysis found that by applying state-of-the-art building energy codes to four major types building – and just in urban areas – would have the potential to save up to 2,300 Mtoe (million tons of oil equivalent) cumulatively by 2030, for the six participating economies. This represents 3 to 11 percent of those economies' projected residential and commercial sector energy use in 2030.

The exchange of views at the workshop showed that all economies faced similar challenges in pursuing common objectives such as:

- Tightening energy code requirements and incorporating renewable energy and other advanced technologies;
- Moving from voluntary to mandatory energy codes;
- Stepping up code enforcement and compliance; and
- Broadening the application of energy codes to all buildings, to rural as well as urban areas and to cover modifications of existing buildings as well as new construction.

These common challenges included:

- The need for top-level, sustained policy support from leadership in the national government and also in local governments;
- Development and maintenance of institutional capacity (legal authority, staff, and budget) in the face of government changes and staff turnover:
- Cooperation among Ministries and levels of government;
- Lack of economy-specific data on building stocks and construction; and
- The need for technical training (periodically, due to staff turnover) for code officials and builders alike.

Conclusion of the workshop

Each participating economy intended to move ahead with steps to implement the action plan so developed during the workshop. In addition, the US Department of Energy, in cooperation with Thailand's Department of Alternative Energy Development and Efficiency (DEDE), Ministry of Energy, was formulating plans to convene a follow-up workshop on energy testing and rating of building products, to be held in Bangkok in 2011. APERC planned to explore other areas for regional cooperation, including workforce training and further development related to building energy codes and labeling, and to consider ways to share the results of the workshop with other APEC economies.



各經濟體系的代表在研討會上發表當地政府在建築物能源效益守則和標籤的政策和項目
Delegates of each economies presented the current status of policies and programs on Building Energy Codes and Labeling in the workshop

淡水冷卻塔的 規管與良好作業

Regulatory Control and Good Practice of Fresh Water Cooling Towers

加強規管冷卻塔

機電工程署已於2011年1月24日在《公眾衛生及市政條例》(香港法例 第132章)下獲授權，如確定冷卻塔的污穢程度或狀況足以構成該條例所指的妨擾，或足以損害或危害健康，機電署可根據該條例發出妨擾事故通知，要求擁有人或佔用人合理時限內，糾正淡水冷卻塔的欠妥情況。機電署人員可按《公眾衛生及市政條例》而進入處所、抽取水樣本及測試，作與冷卻塔有關妨擾事故的調查。如未能在指定時限內，遵從《妨擾事故通知》的規定，即屬違法。

淡水冷卻塔操作及維修的良好作業

冷卻塔擁有人應確保冷卻塔的妥善操作及維修，以避免冷卻塔受污染及對公眾人士構成妨擾。機電工程署能源效益事務處近日出版了一本名為「空調系統使用淡水冷卻塔操作及維修的良好作業」的小冊子。該本小冊子為冷卻塔擁有人或操作人員提供了淡水冷卻塔操作及維修的良好作業指引。欲知詳情，可瀏覽機電工程署網頁下載該小冊子。

http://www.emsd.gov.hk/emsd/e_download/pee/Good_OnM_Practice_of_Fresh_Water_Cooling_Towers_for_Air-conditioning_Systems.pdf

能源效益事務處於2011年3月22日舉行的樓宇機電安全及能源效益講座2011中介紹了淡水冷卻塔的操作及維修良好作業方法與加強管制措施。講座協助業界及操作人員更有效應用水冷式空調系統及推廣廣泛使用水冷式空調系統，以達至節能目的。講座亦為業界提供了一個平台進行有關樓宇機電安全及能源方面的交流和經驗分享。

Enhanced Regulatory Control of Cooling Towers

With delegated powers to EMSD on 24 January 2011 under the Public Health and Municipal Services Ordinance, Cap 132 (PHMSO), if fresh water cooling towers are found being so foul, or in such a state, as to be a nuisance or injurious or dangerous to health under the ordinance, EMSD may issue a Nuisance Notice to require owners/occupiers to rectify unsatisfactory conditions of the cooling towers within a reasonable period of time. Public officer may enter premises, take water samples, carry out tests and to investigate the related nuisances under the PHMSO. Failure to comply with the requirements of the nuisance notice within a specified period is an offence under the PHMSO.

Good Operation and Maintenance Practice of Fresh Water Cooling Towers

The owners of cooling towers shall ensure their proper operation and maintenance including water treatment so as to prevent contamination of cooling towers and nuisances to the public. The Energy Efficiency Office (EEO) of EMSD has recently published a pamphlet titled "Good Operation and Maintenance Practice of Fresh Water Cooling Towers for Air-conditioning Systems". It provides guidelines to the owners/operators of cooling tower installations on good operation and maintenance of fresh water cooling towers. For details, please visit EMSD website to download a copy of the pamphlet :

http://www.emsd.gov.hk/emsd/e_download/pee/Good_OnM_Practice_of_Fresh_Water_Cooling_Towers_for_Air-conditioning_Systems.pdf

Briefing on good operation and maintenance practice and enhanced control of cooling towers was presented by EEO in the Seminar on E&M Safety and Energy Efficiency for Buildings 2011 held on 22 March 2011. It helps trade practitioners and operators use water-cooled air conditioning system more effectively and also to promote the wider use of water-cooled air conditioning system for energy efficiency. The seminar also provided a platform for the trade to share their practical experience on E&M safety and energy efficiency in buildings.

全面節約能源講座

Energy Efficiency and Conservation Seminar



引言

在日常生活中，我們應該注重能源效益及節能，從而減少使用能源對環境所造成的影響。我們可以通過許多方法來節約能源和改善能源效益。為了讓市民大眾可以獲得這方面的資訊，機電工程署透過講座，以不同的角度介紹和探討與節能有關的議題，令大家了解有效的節能措施及培養節能習慣。

內容

家居和辦公室節能措施、能源效益標籤計劃、高效能的裝置、慳油及良好駕駛習慣等等。詳情請瀏覽能源資訊園地<http://www.energyland.emsd.gov.hk>的最新消息。

對象

工商樓宇用戶、住宅樓宇住客、辦公室員工、環保行政人員、車主、司機、物業管理人員、學校代表，以及其他對節約能源有興趣的人士。

語言

廣東話

費用

免費

日期及時間

2011年8月8日(星期一) 10:00 - 13:00
2011年11月7日(星期一) 14:00 - 17:00
(15分鐘前開始登記入座)

地點

中央圖書館演講廳
香港銅鑼灣高士威道66號

報名

請瀏覽能源資訊園地<http://www.energyland.emsd.gov.hk>的“最新消息”。

Introduction

We should pay attention to energy efficiency and conservation in our daily life in order to reduce the environmental impacts of energy consumption. There are many ways to conserve energy and improve energy efficiency. To disseminate the information, the Electrical & Mechanical Services Department will hold Energy Efficiency and Conservation Seminars. The seminars will introduce and discuss related topics from different aspects so as to provide the public useful information on energy efficiency and conservation practices and to cultivate good energy saving habits.

Contents

Home and office energy saving tips, energy efficiency labelling schemes, high efficiency installation, eco-driving practices, etc. For details, please visit the "What's New" section of Energyland website at <http://www.energyland.emsd.gov.hk>

Audience

Industrial and commercial building occupants, residential building tenants, office worker, environmental executives, vehicle owners, drivers, property management agencies, school representatives and those who are interested in energy saving.

Language

Cantonese

Fee

Free of charge

Date & Time

8 August 2011 (Monday) 10:00 - 13:00
7 November 2011 (Monday) 14:00 - 17:00
(Registration starts 15 minutes before the seminar)

Venue

Lecture Theatre, Central Library
66 Causeway Road, Causeway Bay, Hong Kong

Application

Please visit the "What's New" section of Energyland website at <http://www.energyland.emsd.gov.hk>

《建築物能源效益條例》^(第610章) 提升建築物的能源效益

Buildings Energy Efficiency Ordinance (Cap. 610) enhances the energy efficiency in buildings

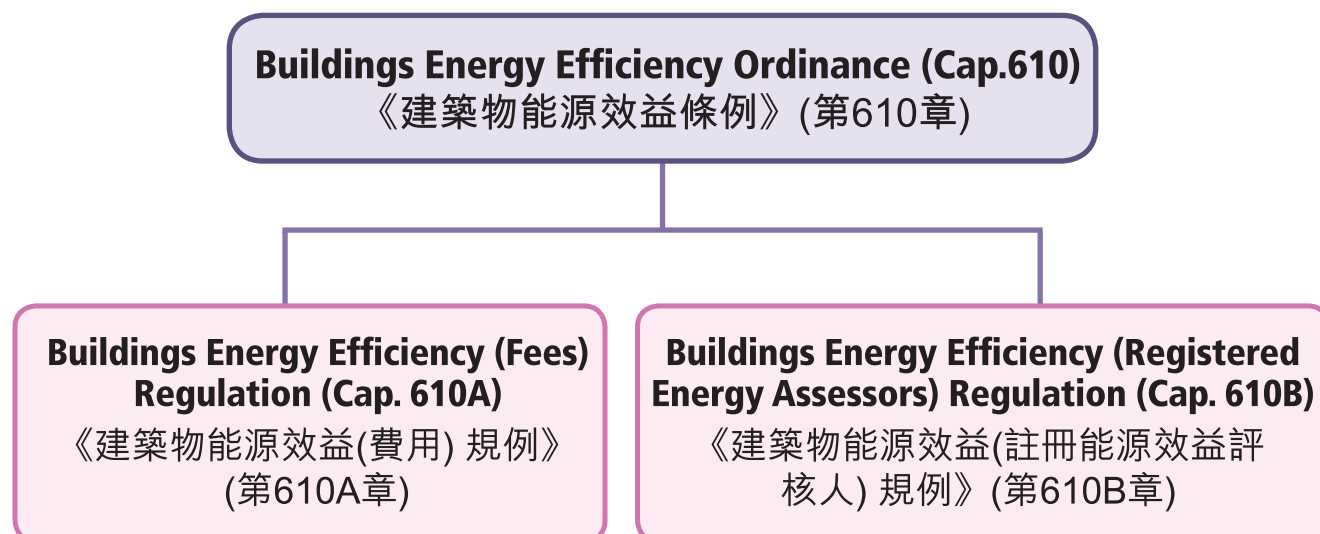
《建築物能源效益條例》(第610章)將於2012年9月21日開始全面實施。條例的主要目的是規管所有新建和進行主要裝修工程的訂明建築物內的屋宇裝備裝置，包括照明、電力、空調、升降機和自動梯裝置，必須遵守《建築物能源效益守則》的指明最低能源效益標準及規定，而條例亦規定商業建築物和綜合用途建築物的作商業用途的部分內的中央屋宇裝備裝置必須跟據《能源審核守則》進行能源審核。隨著條例下的附屬規例於2011年3月21日開始生效，即《建築物能源效益(費用)規例》(第610A章)和《建築物能源效益(註冊能源效益評核人)規例》(第610B章)，註冊能源效益評核人的註冊亦已接受申請。為使業界和相關的專業人士能盡快對條例下的規定有所了解，我們正與各界籌辦多場簡介會。在未來的日子裡，我們仍會繼續舉辦簡介會和派發單張及小冊子為條例作推廣。有關《建築物能源效益條例》的詳細資料可到以下網址參閱。

http://www.emsd.gov.hk/emsd/chi/pee/mibec_beeo.shtml

The Buildings Energy Efficiency Ordinance (Cap. 610) will come into full operation on 21 September 2012. The purpose of this Ordinance is to enhance the energy efficiency in buildings by means of regulating the building services installations including lighting, electrical, air-conditioning and lift & escalator installations of prescribed buildings in new construction and in major retrofitting works to comply with the minimum energy efficiency standards and requirements specified in Building Energy Code (BEC). Moreover, the Ordinance also requires the central building services installation in commercial building and in a portion of a composite building that is for commercial use to conduct the energy audit in accordance with Energy Audit Code (EAC). Following to the commencement of two subsidiary regulations under the Ordinance on 21 March 2011, namely Buildings Energy Efficiency (Fees) Regulation (Cap. 610A) and Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B), the applications for registration as Registered Energy Assessors were also allowed. To facilitate the relevant trades and professionals realize the requirements of the Ordinance, we are collaborating with various bodies to hold briefing sessions for the Ordinance. In the coming future, we will continue to hold briefing sessions and will publish some leaflets and pamphlets for publicity purpose. For the detailed information of Building Energy Efficiency Ordinance, please visit the following website.

http://www.emsd.gov.hk/emsd/eng/pee/mibec_beeo.shtml

Structure of Buildings Energy Efficiency Ordinance 《建築物能源效益條例》的架構



應用全面水力平衡技術於 Total Hydronic Balancing in 空調冷凍水系統 Chilled Water System in HVAC System

傳統上，水力平衡是根據冷凍水系統滿負載的情況下，估算冷凍水於各分支的水量需求，然後透過手動調校平衡閥，使系統可以於滿負載時提供足夠的冷凍水給各空調機組使用。然而，當系統處於部分負載的情況下，冷凍水系統各分支之間的互動關係會引致冷凍水系統的水力平衡有所改變了。由於冷凍水系統的各分支壓差變化影響控制閥的表現，部份的空調機組可能得到太多或太少的冷凍水。因此，如果能調節冷凍水流量以更好地配合負載情況，便會有節能的空間出現。

全面水力平衡是透過一系列的設備和方法維持冷凍水系統在不同負載下的可控性，利用自動壓差控制閥去穩定各分支的壓差變化，並使這些變化不會影響其他分支的壓差。壓差控制閥是裝設於分支回水管的，它利用小管道與相關供水分支的平衡閥連接，並藉以感應該供水分支的水壓，壓差控制閥內的彈簧會隨著相關供水分支的水壓而動作，以維持穩定壓差給其後的負載設備，從而提供了所需的穩定壓差環境給空調機組內的控制閥有效地調節流量，典型安裝配置如圖 1所示。

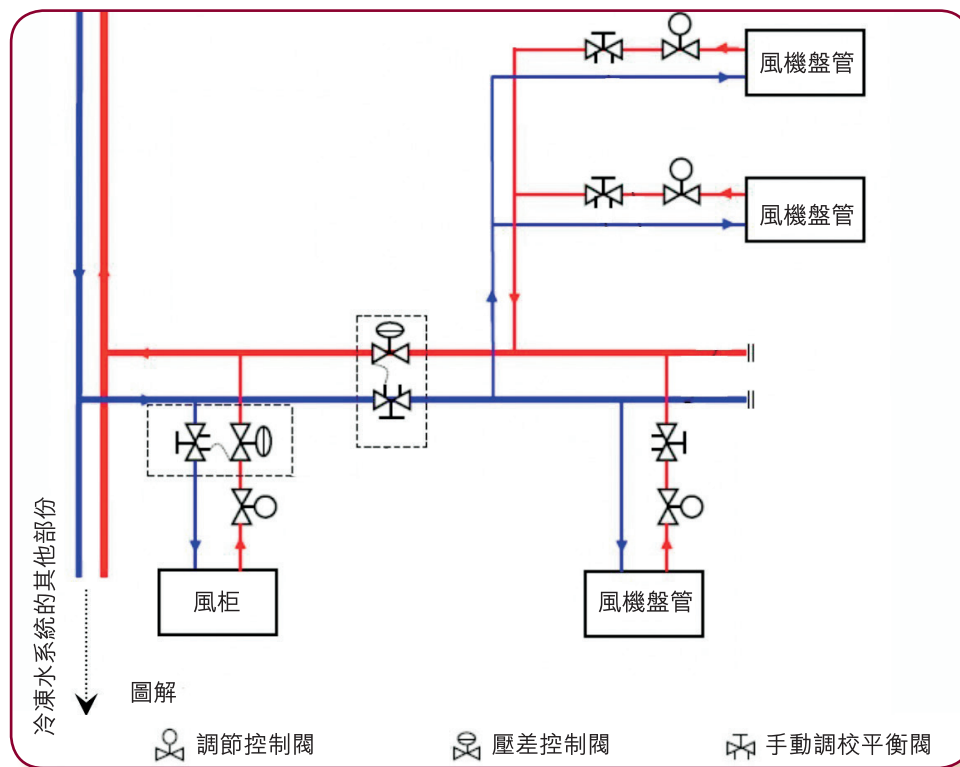


圖1 全面水力平衡應用於空調冷凍水系統典型安裝配置簡化圖

為了優化壓差控制閥的使用，首先需適當地評估冷凍水系統於不同負載時各分支的壓差分佈情況。除了以人手計算外，也可以使用適當的液體循環系統設計軟件輔助有關評估。然後就可以著手在有需要的分支水路上加設適當的壓差控制閥去穩定該分支的壓差。

如果恰當地實施，全面水力平衡或會有助降低冷凍水流量需求，從而節省冷凍水泵的用電量。以該技術試驗應用於某一政府大樓冷凍水系統的項目為例，估計有關系統每年的冷凍水流量節省了約25%。然而，實際的節能潛力是會根據個別現場和系統的配置情況，以及部分負載於冷凍水系統出現的位置而有所不同。

Traditionally, manual hydronic balancing is performed using balancing valves based on the design full load condition such that the system can deliver sufficient chilled water to air side equipment units running at full load conditions. However, when the system is at part-load conditions, the hydronic balance may not be maintained due to interactivity of different distribution circuits. Some air equipment units may get excess chilled water supply whereas others may get insufficient flow due to changes in differential pressure across different distribution circuits affecting performance of the control valves. Energy saving potential may exist if the system could better match chilled water flow to the partial load conditions.

Total hydronic balancing refers to a set of devices and methods for making hydronic systems readily controllable under different load conditions. Self-acting differential pressure control valves are used to stabilize the local differential pressure variations and make the distribution circuits independent of each other. A differential pressure control valve is a valve at return pipe of the circuit to be stabilized which senses water pressure of the supply side through an interconnecting capillary pipe anchored at the partnering balancing valve at the supply pipe. The varying upstream head pressure is taken up by the spring action of differential pressure control valve to maintain a stable differential pressure on the downstream load side. This provides the necessary stable differential pressure environment for control valves in AHU/FCU to perform flow modulation effectively. A typical installation configuration is shown in Figure 1.

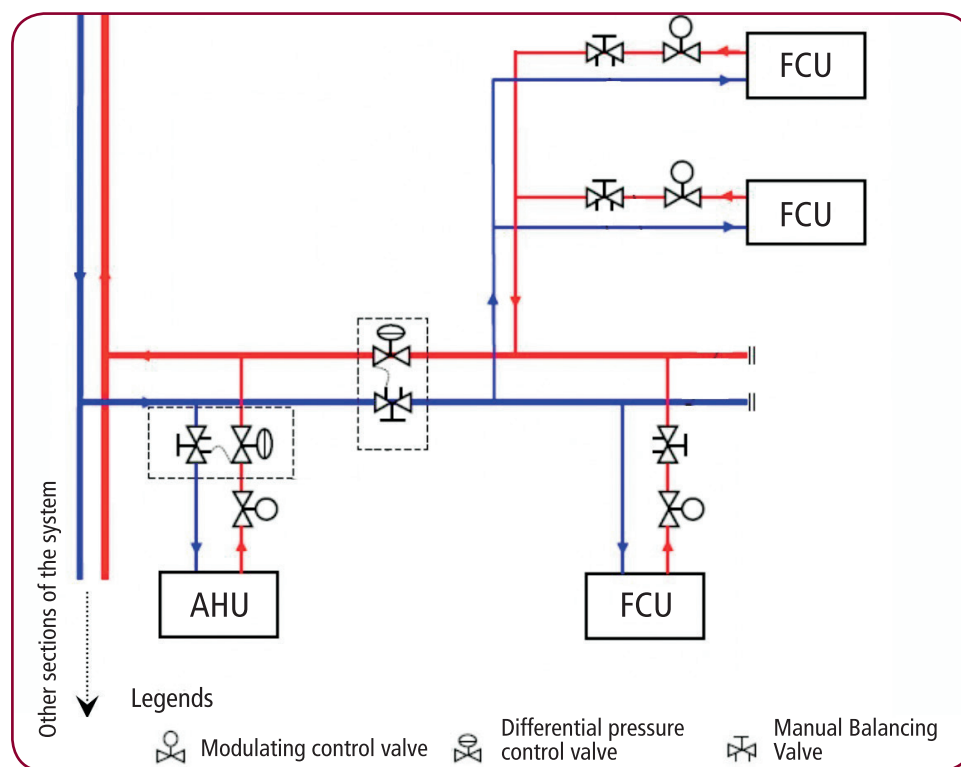


Figure 1 – Simplified Schematic Diagram of a chilled water system with total hydronic balancing

To optimize the use of differential pressure control valve, differential pressure distribution at the piping circuits under full load and various part-load conditions should be evaluated. Apart from manual calculation, the evaluation could also be assisted by appropriate hydronic design software. Appropriate differential pressure control valves could then be incorporated to provide local differential pressure stabilization at distribution branches and terminal circuits as necessary.

If properly implemented, Total Hydronic Balancing may help reduce chilled water flow requirement and hence saves chilled water pump energy. For illustration, in a trial project for a government building, the estimated annual chilled water flow reduction was around 25%. However, the actual energy saving potential is site and system specific depending on the system configuration and the locations of chilled water distribution circuits having part-load conditions.

新修訂的

電視機自願性能源效益標籤 Revised VEELS for Televisions

為方便市民選用具能源效益的產品，機電工程署推行了自願參與的家用器具及辦公室器材能源效益標籤計劃。自願性能源效益標籤計劃採用的能源標籤分別為“確認式”及“級別式”兩類。“確認式”能源標籤用於識別達到指定能源效益和表現要求的產品。而“級別式”能源標籤則把同一類產品的能源效益分為五級，當中以“第一級”標籤代表能源效益最高的產品。本計劃旨在為消費者提供不同產品的能源消耗量及效益資料，從而有助他們購買時作出精明的選擇。

To facilitate the public on choosing energy efficient products in their daily life, Electrical and Mechanical Services Department (EMSD) operates a Voluntary Energy Efficiency Labelling Scheme (VEELS) for various household appliances and office equipment. The scheme is classified into two labelling systems, namely the “Recognition Type” and the “Grading Type” energy labels. The “Recognition Type” energy label is used to distinguish products that have met a certain level of energy efficiency and performance requirement, while the “Grading Type” energy labelling scheme classifies the energy performance of a product type into 5 grades with “Grade 1” represents the most energy efficient product. Through the scheme, general public can take the energy efficient factor into consideration before making their purchasing decision.



電視機自願性能源效益標籤計劃早於2003年12月22日起開始推行，而新修定的計劃已於2011年3月1日起生效，電視機的能源標籤由原有的“確認式”改為“級別式”。新修定的計劃除了保留舊有的「備用模式」耗電量要求外，「開啟模式」耗電量也須要包括在計算能源效益的表現內。

Television is one of the electrical appliances under the VEELS since 22 December 2003. The scheme of televisions was revised and has been implemented from 1 March 2011. It operates as a “Grading Type” labeling system instead of the former “Recognition Type”. Other than requiring the models to meet “Standby” power consumption requirement, the revised scheme has also included television “On-mode” power consumption for energy efficiency performance assessment.

技術標準 Technical Standards

在新修定的電視機自願性能源效益標籤計劃下，所有型號均需要符合平均「備用模式」耗電量不多於一瓦的要求，方合資格參與本計劃。

透過引入器具能源效益評級，把能源效益指數(EEI)依次劃分為五個級別（見表1所示），第一級表示最省電，而第五級則代表能源效益最低，使一般消費者更容易明白器具能源效益的概念。

To qualify for this revised scheme, all the models should meet the specification of average power consumption not higher than 1 Watt during “Standby-mode”.

To make the concept of television energy efficiency more readily understood by consumers, television energy efficiency grade is introduced by linking the Energy Efficiency Index (EEI) to the 5 grades as shown in Table 1. Television with a “Grade 1” label means that it is the most energy efficient product and “Grade 5” the least.

表1:能源效益指數與能源效益級別換算表

Table 1: Converting Energy Efficiency Indices to Energy Efficient Grades

能源效益指數 (EEI) Energy Efficiency Index (EEI) = P / Pref A*	能源效益級別 Energy Efficiency Grade
$EEI \leq 0.4$	1
$0.4 < EEI \leq 0.64$	2
$0.64 < EEI \leq 1.0$	3
$1.0 < EEI \leq 1.44$	4
$1.44 < EEI$	5

*Remark (註解):

(i) Pref A = 20 Watts (瓦) + (A / 100) x 4.3224 Watts/cm² (瓦/平方厘米);

(ii) A: Television visible screen area expressed in cm² 電視的可視熒幕尺寸(以平方厘米為單位);

(iii) P: The "on mode" power consumption of the television in Watts 電視處於「開啟模式」時的耗電量(以瓦為單位).

能源標籤 Energy Label

ENERGY LABEL 能源標籤	
Brand 牌子	ABC 某某牌
Model 型號	HK1234
Annual Energy Consumption (kWh) <small>Actual energy consumption depends on how the television is used. Based on 1460 hrs/yr operation. 每年耗電量 (千瓦小時) 實際耗電量視乎電視機的使用方式，以每年使用1460小時計算。</small>	123
Energy Efficiency Grade* 能源效益級別 <small>*Among the five grades, Grade 1 is the most energy efficient. 在五個級別中，第一級為最省電。</small>	1
Screen Size Measured Diagonally in cm (inch) 屏幕對角尺寸，以厘米(英寸)量度	102 (40)
EEL Registration Number 能源標籤登記號碼	TV11-0001
<small>*The data are provided according to the Hong Kong Energy Efficiency Labelling Scheme administered by the Electrical and Mechanical Services Department (EMSD), Government of the Hong Kong Special Administrative Region. The registration record can be found at the EMSD website at www.emsd.gov.hk. 資料根據香港特別行政區政府機電工程署推行的香港能源效益標籤計劃的規定列出。有關註冊記錄可查閱網址 www.emsd.gov.hk。</small>	

(圖1) Figure 1

電視機的“級別式”能源標籤(見圖1所示)均附有每年耗電量、能源效益級別及屏幕對角尺寸等資料,有助市民購買時作出選擇。

有關計劃的詳細資料,可於機電工程署網址瀏覽 (<http://www.emsd.gov.hk>),亦可致電(852) 2808 3465機電工程署能源效益事務處或電郵`eepublic@emsd.gov.hk`查詢。

The "Grading Type" Energy Label for Televisions as shown in Figure 1 contains information on the Annual Energy Consumption, Energy Efficiency Grade and Screen Size Measured Diagonally, which helps to facilitate the customer in their purchasing decision.

For details of the scheme, please visit the website of EMSD (<http://www.emsd.gov.hk>). For enquiries, please contact the Energy Efficiency Office of EMSD at (852) 2808 3465 or email: `eepublic@emsd.gov.hk`.

強制性

能源效益標籤計劃

的產品能源表現監察測試

Compliance Monitoring Testing on Energy Performance of Products under Mandatory Energy Efficiency Labelling Scheme

為推廣能源效益，政府已透過《能源效益（產品標籤）條例》（第598章）推行了強制性能源效益標籤計劃（強制性標籤計劃）。根據條例規定，製造商或進口商供應的訂明產品，必須屬已獲機電工程署按其名稱編配參考編號的表列型號，並附有符合指明規格的能源標籤。

強制性標籤計劃由機電工程署執行，並設有一個全面的產品能源表現監察測試機制。為確保本地的製造商或進口商不同產品型號所聲稱的能源效益表現與事實相符，機電工程署會定期從市場挑選表列型號的樣本，交由獨立的認可實驗室進行監察測試，以查核有關產品的實際能源效益表現是否符合標籤所示的資料。為了增加測試的覆蓋率和成效，我們會根據隨機或風險準則來挑選產品型號。如發現有關的表列型號產品不符合能源效益表現的規定，則其參考編號會從表列型號紀錄冊上被刪除，而該型號將不得在本港供應。

強制性標籤計劃首階段由2009年9月11日全面實施以來，機電工程署已為70個表列型號安排了監察測試，包括47個緊湊型熒光燈（慳電膽）型號、17個空調機型號和6個冷凍器具型號。空調機和冷凍器具的測試經已完成，而慳電膽的部份測試則仍在進行中，測試結果已上載至機電工程署網頁。至今，有1個空調機型號和4個慳電膽型號在監察測試中不合格，其參考編號已從表列型號紀錄冊上被刪除，而該批型號已不得在本港供應。

如欲參閱更多有關強制性標籤計劃的監察測試資料，請瀏覽機電工程署網頁

http://www.emsd.gov.hk/emsd/chi/pee/eels_cmplnc_mntr.shtml

With a view to promoting energy efficiency, the Government has introduced the Mandatory Energy Efficiency Labelling Scheme (MEELS) through the Energy Efficiency (Labelling of Products) Ordinance, Cap. 598. Under the Ordinance, a prescribed product being supplied by a manufacturer or importer shall be a listed model having a reference number assigned by EMSD and bear an energy label that complies with the specified requirements.

The MEELS operated by EMSD has a comprehensive mechanism in place for compliance monitoring testing on energy performance of products. To ensure the accuracy of energy efficiency performance claimed by local manufacturers and importers for various product models, EMSD regularly selects product samples in the market for compliance monitoring testing by independent accredited laboratories to check that the actual energy efficiency performance of the products conform to the information shown on energy labels. To increase the coverage and effectiveness of the testing, the product models are selected on either random basis or risk basis. If a listed model is found not conforming to the performance requirements, its reference number will be removed from the record of listed models and the model will not be allowed to be supplied in Hong Kong.

Since the full implementation of the initial phase of MEELS on 9 November 2009, EMSD has arranged compliance monitoring testing for 70 listed models including 47 compact fluorescent lamp models, 17 room air conditioner models and 6 refrigerating appliance models. The testing of room air conditioners and refrigerating appliances has been completed whereas part of the testing of compact fluorescent lamps is still in progress. The test results have been uploaded to the EMSD website. Up to now, 1 room air conditioner model and 4 compact fluorescent lamp models have failed in the compliance monitoring testing and their reference numbers have been removed from the record of listed models. These models are not allowed to be supplied in Hong Kong.

For more details of the compliance monitoring testing under MEELS, please visit EMSD website at

http://www.emsd.gov.hk/emsd/eng/pee/eels_cmplnc_mntr.shtml

聯絡資料 Contact

任何人士如欲就本通訊提出意見或詢問，請與我們聯絡，資料如下：
香港九龍啟成街3號機電工程署

電話：(852) 2808 3465 傳真：(852) 2890 6081 電郵：eepublic@emsd.gov.hk

Anyone wishing to offer comments or make enquiries about this newsletter can contact us at:

Energy Efficiency Office, Electrical and Mechanical Services Department, 3 Kai Shing Street, Kowloon, Hong Kong

Tel: (852) 2808 3465 Fax: (852) 2890 6081 Email: eepublic@emsd.gov.hk

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