

**For discussion  
on 22 January 2020**

**Legislative Council  
Panel on Environmental Affairs**

**Proposed Creation of One Permanent Post of  
Chief Building Services Engineer  
in the Electricity and Energy Efficiency Branch  
of the Electrical and Mechanical Services Department**

**PURPOSE**

This paper seeks Members' views on the proposal to create one permanent Chief Building Services Engineer ("CBSE") (D1) post in the Electricity and Energy Efficiency Branch of the Electrical and Mechanical Services Department ("EMSD") to support and strengthen the planning, implementation and management of district cooling system ("DCS") projects and related matters.

**PROBLEM**

2. EMSD needs additional support at the Chief Engineer level to cope with the additional workload arising from planned and existing DCS projects and related matters as well as other new and ongoing energy efficiency and conservation ("EE&C") and renewable energy ("RE") initiatives.

**PROPOSAL**

3. We propose to create one permanent CBSE (D1) post to strengthen the planning and implementation of DCS related matters under a new division (i.e. Energy Efficiency Division C ("EEDC")) to be created in the Energy Efficiency Office ("EEO"), an office in the Electricity and Energy Efficiency Branch of the EMSD) and provide support for other EE&C and RE initiatives.

4. At present, EEO comprises two divisions, namely the Energy Efficiency Division A ("EEDA") and the Energy Efficiency Division B ("EEDB"), which are led by Chief Engineer/Energy Efficiency A ("CE/EEA")

and Chief Engineer/Energy Efficiency B (“CE/EEB”) respectively. If the staffing proposal is approved, EMSD plans to take this opportunity to re-organise EEO to enhance coordination, streamline operations and optimise the use of limited manpower resources to cope with the increasing workload from the new and on-going EE&C and RE initiatives. The organisation charts of EEO showing the situation before and after the creation of the proposed CBSE post and re-organisation are at Annexes 1 to 4.

## **JUSTIFICATION**

### *DCS for Enhancing Energy Efficiency*

5. DCS is an energy-efficient air-conditioning system, consuming about 35% and 20% less electricity as compared with traditional air-cooled air-conditioning systems and individual water-cooled air-conditioning systems using cooling towers respectively. DCS will also bring about other significant benefits, including –

- (a) allowing more flexible building designs for user buildings, as there is no need to install chiller plants;
- (b) no noise and vibration arising from the operation of air-conditioning plants;
- (c) reducing heat island effects; and
- (d) being more adaptable as compared to individual air-conditioning systems. Individual buildings can adjust their cooling capacity to meet air-conditioning demands without having to carry out extensive modification or retrofitting works.

6. As stated in the 2018 Policy Address, the Government would study the provision of DCSs in new development areas (“NDAs”) and redevelopment areas. Given the successful implementation of the first DCS at the Kai Tak Development (“KTD”), EMSD has commenced studies and planning for the provision of DCS in NDAs such as Kwu Tung North (“KTN”), Tung Chung New Town Extension (“TCNTE”) and Hung Shui Kiu (“HSK”). Preliminary planning and feasibility studies for DCS projects in other NDAs under planning will also be conducted. DCS projects in KTN, TCNTE and HSK NDAs, which are large-scale projects covering the design and construction of various DCS plants, have an estimated total cooling capacity of about 800 megawatt of

refrigeration (“MWr”) for serving a total air-conditioned floor area<sup>1</sup> of over 4.7 million square metres. Upon completion and full utilisation of the DCS in these NDAs, it is estimated that the annual saving in electricity consumption would be about 200 million kilowatt-hour (“kWh”) (equivalent to annual reduction in carbon dioxide emission of about 140 000 tonnes).

7. DCSs are large-scale infrastructure projects involving complex works and long implementation time-frame to tie in with related development programmes of NDAs. Careful planning at an early stage of DCS projects is essential to ensure timely completion of DCS facilities to meet district cooling requirements. The planning, design, tendering, construction and operation of each DCS project will bring about a huge amount of additional work. EMSD has to conduct thorough technical feasibility studies, assess financial viability, determine the fee levels, take forward legislative amendments for the charging of fees, formulate tendering strategies, carry out consultation with the Legislative Council (LegCo) and other advisory bodies, and closely coordinate with other government bureaux/departments (“B/Ds”) as well as private organisations.

8. In the design and construction stages of DCS projects in NDAs, the works will include the design and construction of electrical and mechanical plant buildings, large-scale chiller plants, DCS distribution piping networks, and the associated control systems. These works involve complex technical studies including hydraulic modelling for DCS distribution piping networks, laying of large-diameter piping installations, and trenchless pipe-laying works. The development of DCS projects in NDAs will be implemented in phases to tie in with the related development programmes. The construction phases are complicated and may last for up to around 15 years<sup>2</sup>. Constant and close liaison and coordination with different works agents in NDAs will be required to help implement the projects progressively over an extended period.

9. At the planning, design and construction stages, apart from the technical aspects of works, other areas requiring intensive inputs at the senior level include financial assessment and fee level determination, etc. EMSD will also maintain close coordination with government B/Ds and stakeholders (such as utility companies and DCS users) for consultation and works interface issues. It will also handle legislative amendments for the charging of fees for

---

<sup>1</sup> The estimated total cooling capacity of DCSs in KTN, TCNTE and HSK NDAs is about 2.8 times that of the existing DCS at KTD (284 MWr), which is now under phased implementation for full completion by end 2025.

<sup>2</sup> According to the current development programme, DCSs in KTN, TCNTE and HSK NDAs will be implemented in phases. The commissioned DCS facilities will have an estimated service life of about 30 years.

district cooling services. After completion of DCS works, EMSD will be responsible for the long-term effective operation and management of the commissioned DCS facilities to ensure energy-efficient, effective and reliable district cooling services are provided to DCS users.

10. Given that the multiple large-scale DCS projects will involve complex works, relatively long implementation timeframe and subsequent facilities management as highlighted in the paragraphs above, EEO requires one permanent post of CBSE to undertake the additional tasks, including the following –

- (a) for the purpose of consultation and seeking funding approval, attend meetings of LegCo and other advisory bodies to brief them on the planning and implementation of DCS projects;
- (b) review and administer the charging arrangement for the provision of district cooling services to users under the District Cooling Services Ordinance (Cap. 624);
- (c) lead and oversee the planning, design and construction of DCS projects in NDAs to ensure effective project management and timely completion for the provision of energy-efficient, effective and reliable district cooling services;
- (d) oversee the technical and financial feasibility studies for the provision of DCS projects in NDAs and set fee levels;
- (e) coordinate with utility companies, users of district cooling services and other relevant government B/Ds to ensure effective implementation of the planning, design, construction and operation of DCS projects; and
- (f) administer the operation of the commissioned DCS facilities for delivering effective and reliable district cooling services to DCS users.

*Taking forward New Initiatives in the 2019 Policy Address*

11. Apart from DCS projects, there are other new initiatives announced in the 2019 Policy Address to be taken forward by EEO, including the “Green Energy Target” and Green School 2.0.

12. The “Green Energy Target” is an energy saving initiative of the

Government. The Government has taken the lead to reduce electricity consumption in government buildings by 5% in five years (2015-16 to 2019-20). For the coming five years, the Government has set a more progressive “Green Energy Target” with a view to further improving the use of energy within the whole Government by 6% by 2024-25. The “Green Energy Target” not only covers government buildings and infrastructure, but also for the first time expressly requires saving in the consumption of electricity and other forms of energy, while the energy contribution of RE projects will also be taken into account. To achieve the target, EEO will conduct energy-cum-carbon audits<sup>3</sup> on major government buildings, implement energy saving projects for government premises, provide guidelines and information on green housekeeping measures, and conduct retro-commissioning (“RCx”) in major government buildings. EEO will also provide technical advice to government departments that manage infrastructure facilities to help them reduce energy use and develop small-scale RE installations.

13. Separately, under Green School 2.0, EEO will provide one-stop planning and installation services for primary and secondary schools to improve their energy performance through installation of inverter air-conditioners, light emitting diode (“LED”) lighting and real-time energy monitoring systems (“RTEMs”). The use of inverter air-conditioners and LED lighting will save energy in the participating schools. The installation of RTEMs will allow teachers and students to visualise the energy use in school to facilitate behavioral changes for energy saving. The school management can analyse their energy data, set energy saving targets with timelines, and review the operation of equipment/systems with a view to optimising the energy performance of the school.

#### Re-organisation of EEO

14. EEO is responsible for providing technical expertise and studies to support policy measures and drive EE&C and RE programmes. The organisation structure of EEO with two Chief Engineers heading nine sub-divisions to lead and oversee various EE&C and RE initiatives was established in 2000.

15. EEO has taken up new initiatives over the years and the scope of

---

<sup>3</sup> Funding approval for a non-recurrent provision of \$14 million will be sought in the context of Appropriation Bill 2020 for conducting the three-year energy-cum-carbon audit programme on about 260 major government buildings. The estimated cash flow requirements are \$4 million in 2020-21, \$5 million in 2021-22 and \$5 million in 2022-23. EMSD and the Environmental Protection Department will oversee energy audit and carbon audit respectively with a view to identifying energy saving opportunities, such as energy saving projects and green housekeeping measures, and carbon reduction measures.

ongoing initiatives has expanded. This has resulted in a substantial increase in its workload, and EEO is now composed of 24 sub-divisions. Annex 5 sets out some of EEO's key responsibilities in relation to EE&C and RE other than DCS. EEO's workload in the coming years will continue to increase to support the Environment Bureau ("ENB") in the implementation of DCS projects, promotion of RE in both the public and private sectors, promotion of green buildings, encouraging the use of emerging energy efficiency practices such as RCx, and the use of innovation and technology ("I&T") solutions for EE&C and RE purposes.

16. CE/EEA and CE/EEB in EEO are already overloaded with existing work and their supervisory span has already been stretched to the limit. It is very difficult for them to take up the additional tasks mentioned in paragraphs 6 to 13 above. Tasking the two existing Chief Engineers to take up more responsibilities is not sustainable and will eventually affect the quality of relevant energy-related initiatives and work efficiency.

17. With the creation of the proposed CBSE post to be designated as Chief Engineer/Energy Efficiency C ("CE/EEC") dedicated for the planning and implementation of subjects relating to DCS at KTD and other NDAs, the duties of EEO can be restructured to achieve greater operational efficiency and effectiveness. The job descriptions of CE/EEA, CE/EEB and CE/EEC after the proposed re-organisation are at Annexes 6 to 8.

## **ALTERNATIVES CONSIDERED**

18. There are nine permanent Chief Engineer posts in total (including CE/EEA and CE/EEB in EEO) in EMSD responsible for the regulatory works. They are responsible for overseeing the professional teams in EMSD in enforcing various ordinances; administering and implementing related plans, agreements and systems; planning legislative work; carrying out promotional and publicity activities as well as providing professional advice to government B/Ds and public organisations.

19. We have comprehensively reviewed the feasibility of redeploying the existing Chief Engineers within EMSD responsible for regulatory works to take up the duties of the proposed CBSE post. Our view is that the workload of the existing Chief Engineers is already extremely heavy. It is not feasible for them to take up additional duties without adversely affecting the discharge of their current duties as listed at Annex 9.

## **FINANCIAL IMPLICATIONS**

### *Staff Proposal for Creation of a Permanent CBSE Post*

20. The proposed creation of the permanent CBSE post in EEO will bring about an additional notional annual salary cost at mid-point of \$1,836,600. The additional full annual average staff cost, including salaries and staff on-cost, is around \$2,494,000.

21. Apart from the proposed CBSE post in EEO, five permanent non-directorate posts will be created to cope with the increasing workload arising from the DCS related initiative from 2020-21 onwards. An additional notional annual salary cost at mid-point is \$4,179,420 for these posts. The additional full annual average staff cost, including salaries and staff on-cost, is around \$6,628,000 for these posts.

22. We have reserved the necessary provision to cater for the expenses of this proposal.

## **BACKGROUND**

23. EMSD provides regulatory services with regard to the safety of electricity, gas, lift and escalator, amusement rides and railway and energy efficiency, as well as executing regulatory control over a number of various electrical and mechanical facilities.

24. EEO of EMSD is responsible for providing professional and administrative support to ENB through promotion, development and implementation of energy saving initiatives and strategic green solution. Besides, it is responsible for, among other duties, the administration and regulatory control of the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598), the Buildings Energy Efficiency Ordinance (Cap. 610), and the District Cooling Services Ordinance (Cap. 624).

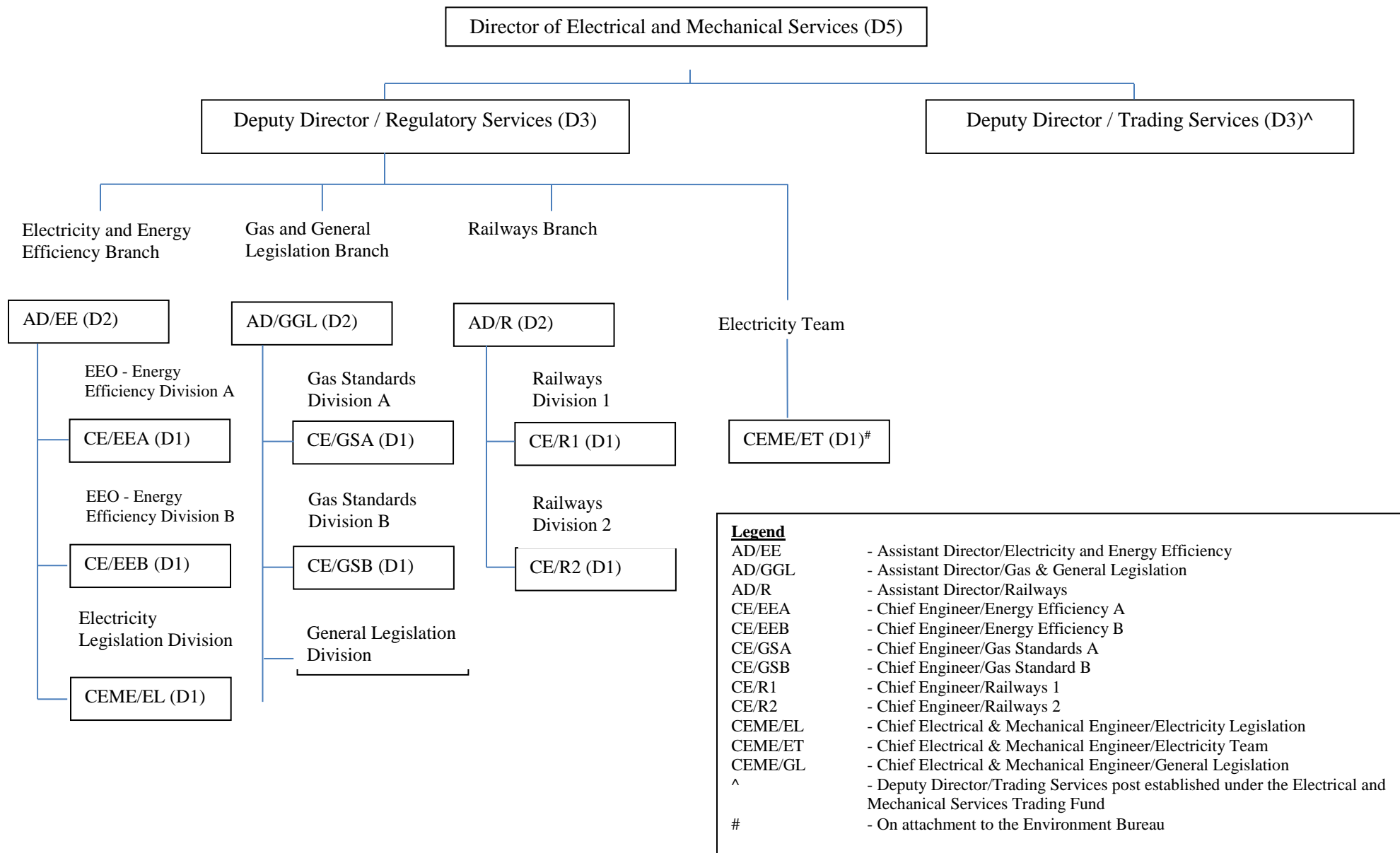
## **ADVICE SOUGHT**

25. We plan to seek the required resources from LegCo in accordance with the established procedures. Members are invited to comment on the proposal.

**Environment Bureau  
Electrical and Mechanical Services Department  
January 2020**

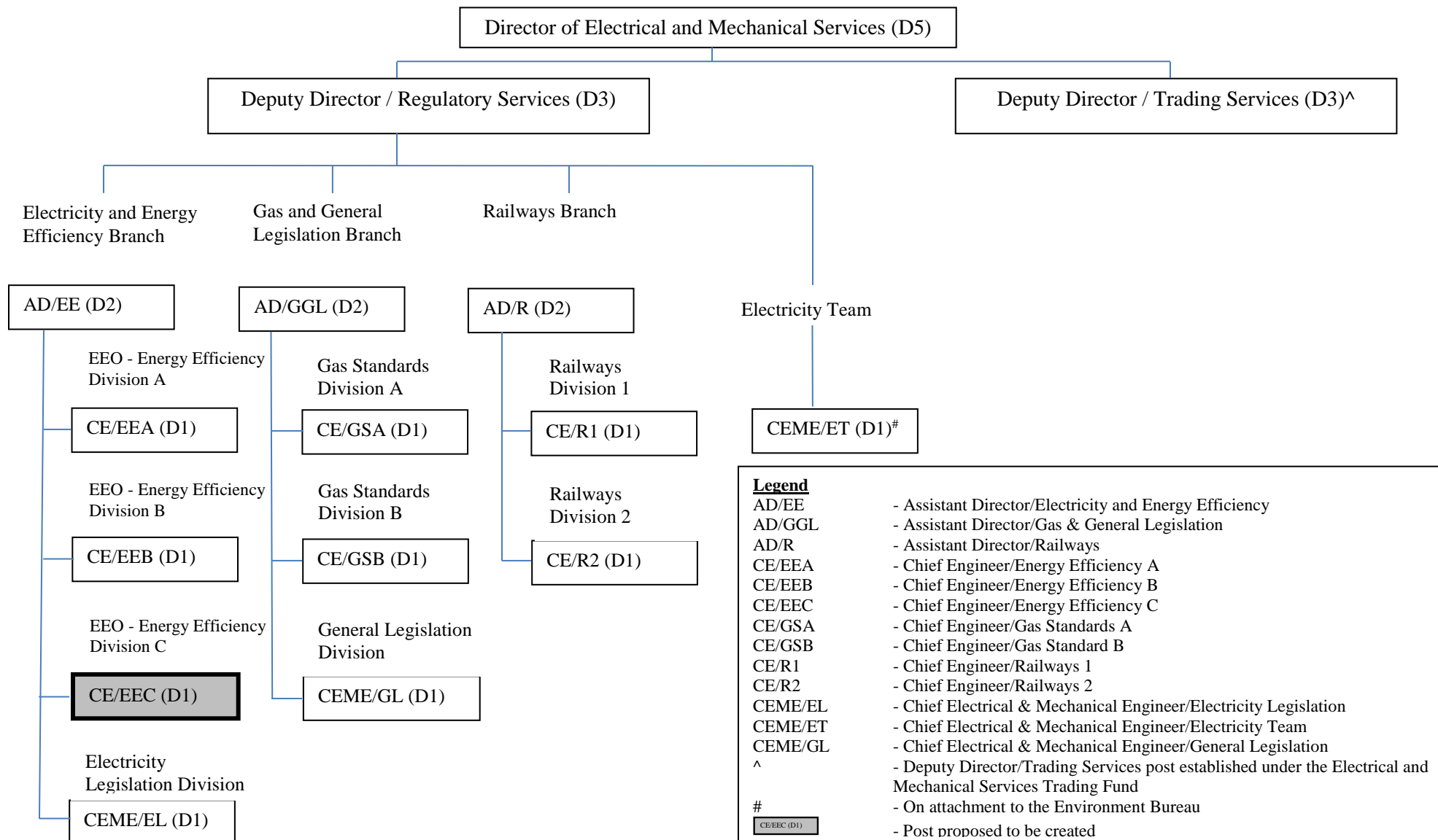


**Existing Organisation Chart of Electrical and Mechanical Services Department (Regulatory Services)  
(Established under Head 42 – Electrical and Mechanical Services Department)**

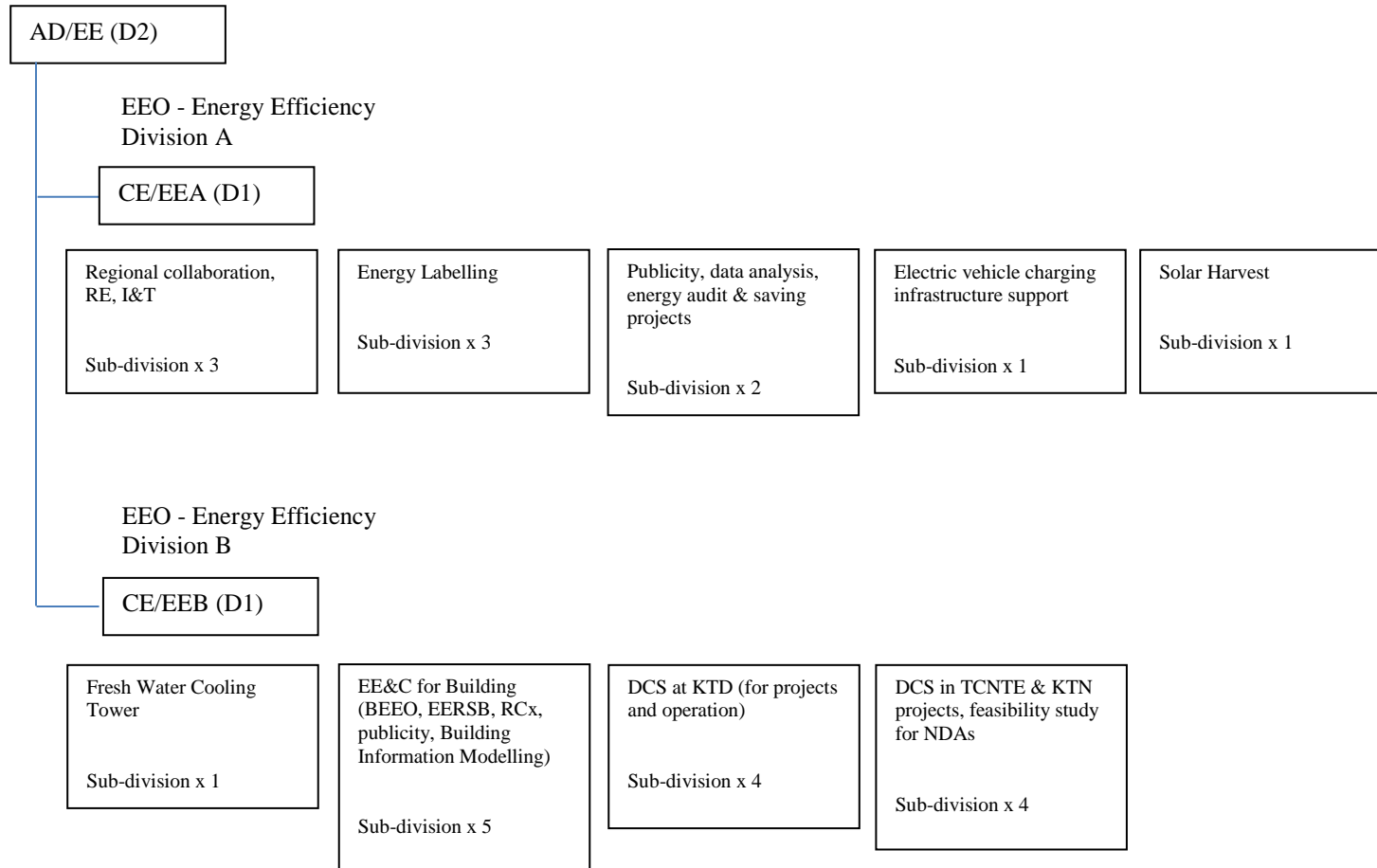


<b>Legend</b>	
AD/EE	- Assistant Director/Electricity and Energy Efficiency
AD/GGL	- Assistant Director/Gas & General Legislation
AD/R	- Assistant Director/Railways
CE/EEA	- Chief Engineer/Energy Efficiency A
CE/EEB	- Chief Engineer/Energy Efficiency B
CE/GSA	- Chief Engineer/Gas Standards A
CE/GSB	- Chief Engineer/Gas Standard B
CE/R1	- Chief Engineer/Railways 1
CE/R2	- Chief Engineer/Railways 2
CEME/EL	- Chief Electrical & Mechanical Engineer/Electricity Legislation
CEME/ET	- Chief Electrical & Mechanical Engineer/Electricity Team
CEME/GL	- Chief Electrical & Mechanical Engineer/General Legislation
^	- Deputy Director/Trading Services post established under the Electrical and Mechanical Services Trading Fund
#	- On attachment to the Environment Bureau

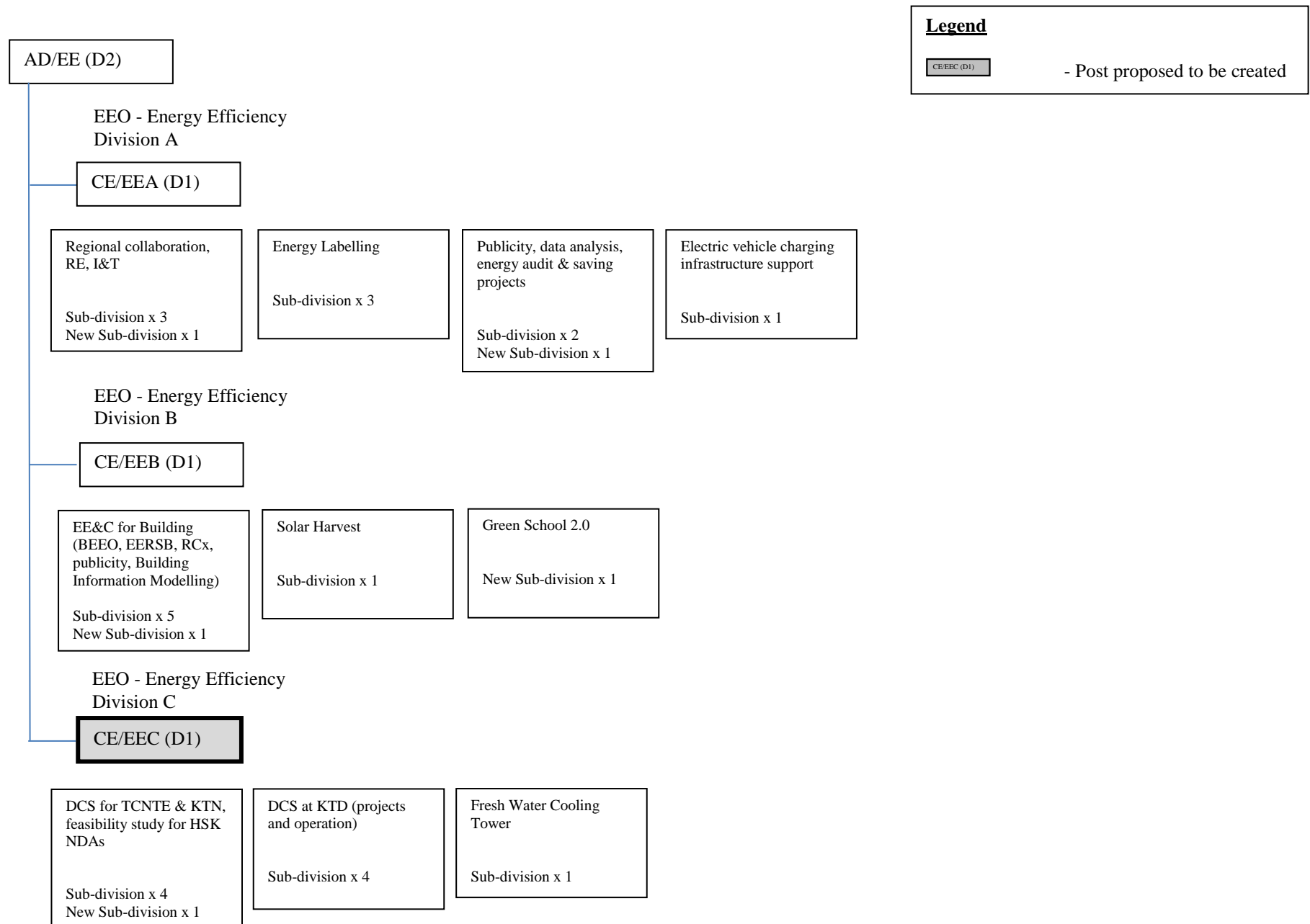
**Proposed Organisation Chart of Electrical and Mechanical Services Department (Regulatory Services)  
(Established under Head 42 – Electrical and Mechanical Services Department)**



Existing Initiatives & Organisation Chart of Energy Efficiency Office (EEO)



Proposed Organisation Chart of Energy Efficiency Office (EEO) after Re-organisation



## **Other key responsibilities of EEO in relation to EE&C and RE**

Other than DCS, EEO is currently responsible for other duties in relation to EE&C and RE. The key duties are highlighted below.

### Representing the Hong Kong Special Administrative Region in the Asia-Pacific Economic Cooperation (“APEC”) Energy Working Group (“EWG”)

- EMSD actively participates in APEC EWG to enhance Hong Kong’s international profile. We have taken up the Chairmanship of the Expert Group on Energy Efficiency and Conservation (“EGEEC”)<sup>1</sup> since March 2019. One of the major objectives of EGEEC is to collaborate with all APEC member economies to achieve APEC’s goal of reducing energy intensity.

### Implementation of the Mandatory Energy Efficiency Labelling Scheme (“MEELS”)

- MEELS has been implemented in phases. Since its launch in 2009, the scheme has expanded gradually. The energy efficiency grading standards are also reviewed from time to time. MEELS currently covers eight types of products. There are ongoing reviews on the coverage of MEELS and grading standards.

### Support for the Feed-in Tariff (FiT) Scheme

- The Government and the power companies introduced the FiT scheme in 2018, providing financial incentives to encourage the private sector to invest in distributed RE. EMSD has been supporting the implementation of the FiT scheme through various measures, including issuing Guidance Notes for Solar Photovoltaic System Installations; operating a hotline to handle enquiries and offer technical advice; organising seminars and briefings for the trade and relevant stakeholders to enhance the latter’s understanding of the regulatory, safety and technical requirements of RE installations; and revamping its website “HK RE Net” (re.emsd.gov.hk) to promote public participation in RE development, etc.

### Major Publicity Campaign

- Publicity campaigns are organised from time to time to support the Government’s policies on EE&C and RE. The “Energy Saving for All” campaign, organised annually since 2015, is a major community engagement programme on energy saving. Main activities include voluntary charter schemes on energy saving, competitions and a dedicated website on energy saving information and practices.

---

<sup>1</sup> EGEEC is one of APEC EWG’s four expert groups. EMSD has also been active in other expert groups.

## Solar Harvest

- EMSD introduced “Solar Harvest” in March 2019 to install solar photovoltaic (“PV”) systems for eligible non-governmental and non-profit-making schools, as well as welfare non-governmental organisations (“NGOs”) on recurrent subventions from the Social Welfare Department. Under “Solar Harvest”, EMSD provides for free a one-stop service including conducting site visits and technical assessments at their premises, design of the solar PV systems, procuring and installing the equipment, and system testing. EMSD also helps the schools and welfare NGOs apply for joining the FiT Scheme.

## Retro-commissioning (“RCx”) in Existing Buildings

- RCx is a systematic and cost effective energy saving method to enhance the operational energy efficiency of building services equipment in existing buildings. EEO has published technical guidelines, promoted the practices to the trades, and assisted in formulating training programmes.

## Enforcement of the Building Energy Efficiency Ordinance (“BEEO”) (Cap. 610)

- BEEO came into full operation in September 2012. Since then, the EEO has administered BEEO and the list of Registered Energy Assessors (“REA”). It reviews the Building Energy Codes every three years in order to tighten the energy efficiency standards for improving the energy performance of buildings.

## Implementation of the Energy Efficiency Registration Scheme for Buildings (“EERSB”)

- To further promote building energy efficiency above the mandatory standards, the EEO revamped EERSB and launched a revised scheme in January 2018. The revamped EERSB is a recognition scheme for buildings/premises that have outperformed the statutory requirements under BEEO. EEO administers the scheme to promote green building. Energy efficiency installations registered under EERSB are eligible for accelerated deduction for capital expenditure under section 16I of the Inland Revenue Ordinance.

## Regulatory Action for Fresh Water Cooling Tower (“FWCT”)

- In addition to promoting the wider use of water-cooled air conditioning systems, EEO also takes regulatory action under the Public Health and Municipal Services Ordinance (Cap. 132) against contaminated cooling towers. The regulatory work include conducting sampling inspection with water tests of FWCTs regularly and taking regulatory/advisory actions and control against the improperly maintained or contaminated FWCTs.

**Job Description for  
Chief Electrical and Mechanical Engineer / Energy Efficiency Division A  
after Re-organisation**

**Grade / Rank : Chief Electrical and Mechanical Engineer (D1)**

**Responsible to : Assistant Director/Electricity and Energy Efficiency (D2)**

**Main Duties and Responsibilities**

1. To lead and oversee Energy Efficiency Division A in providing professional support and advice to the Environment Bureau on the formulation and implementation of policies, strategies and initiatives on energy efficiency and conservation (“EE&C”), the application of renewable energy (“RE”) and electric vehicle charging infrastructure facilities.
2. To develop the Voluntary and Mandatory Energy Efficiency Labelling Schemes for electrical and gas appliances, and promote public awareness of the use of energy-efficient appliances.
3. To oversee the administration and enforcement of the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598).
4. To promote the adoption of energy-efficient technologies, RE, energy audits and the best practices in the public and private sectors as well as the application of innovative technologies on EE&C and RE.
5. To publicise the energy end-use data for Hong Kong.
6. To monitor the energy consumption of government facilities, carry out energy audits, assist in setting energy saving targets and implement energy saving projects.
7. To coordinate with government bureaux and departments as well as public and private organisations for the promotion of energy programmes promulgated by international/regional/local energy organisations such as the Asia-Pacific Economic Cooperation and participate in their activities.

**Job Description for  
Chief Building Services Engineer / Energy Efficiency Division B  
after Re-organisation**

**Grade / Rank : Chief Building Services Engineer (D1)**

**Responsible to : Assistant Director/Electricity and Energy Efficiency (D2)**

**Main Duties and Responsibilities**

1. To lead and oversee Energy Efficiency Division B in providing professional support and advice to the Environment Bureau on the formulation and implementation of policies, strategies and initiatives on buildings related energy efficiency and conservation (“EE&C”) and the application of renewable energy (“RE”).
2. To oversee the administration and enforcement of the Buildings Energy Efficiency Ordinance (Cap. 610) covering requirements for new buildings and major retrofitting works, energy audit for prescribed buildings, and registered energy assessors.
3. To implement retro-commissioning (“RCx”) programme for major government buildings in Hong Kong and to promote RCx and organise activities/events for RCx in Hong Kong and at regional level.
4. To administer the new Energy Efficiency Registration Scheme for Buildings (EERSB) (2018 Edition) and to promote buildings related EE&C and RE initiatives.
5. To implement EE&C and RE initiatives / works for schools and welfare non-governmental organisations.



**Job Description for  
Chief Building Services Engineer / Energy Efficiency Division C  
to be Created**

**Grade / Rank : Chief Building Services Engineer (D1)**

**Responsible to : Assistant Director/Electricity and Energy Efficiency (D2)**

**Main Duties and Responsibilities**

1. To lead and oversee Energy Efficiency Division C in providing professional support and advice to the Environment Bureau on the planning and implementation of district cooling systems (“DCSs”) and subsequent operation of the commissioned DCSs in Hong Kong.
2. To lead and oversee the planning, design, construction and operation of DCS projects at the Kai Tak Development and in other new development areas (“NDAs”).
3. To oversee the administration and enforcement of the District Cooling Services Ordinance (Cap. 624) covering the provision of and charging arrangements for district cooling services, as well as review on the charging arrangements for district cooling services at each NDA.
4. To steer and supervise feasibility studies and advanced planning coordination on provision of DCSs in NDAs, and to oversee coordination with relevant bureaux/ departments and implementation of DCS project works.
5. To undertake high-level coordination duties for DCS including attendance at relevant meetings of the Legislative Council and advisory bodies and public engagement with stakeholders.
6. To administer the operation of the commissioned DCS projects for delivering district cooling services to DCS users.
7. To promote wider use of water-cooled air conditioning system in Hong Kong and the regulation of improperly maintained or contaminated fresh water cooling towers under the Public Health and Municipal Services Ordinance (Cap. 132).

## **Main Duties and Responsibilities of the Existing Chief Engineers in the Regulatory Services of the Electrical and Mechanical Services Department**

Major duties and responsibilities of the Chief Engineers in the Electrical and Mechanical Services Department (EMSD) are summarised in the following paragraphs.

### **Regulatory Services**

#### **Under Assistant Director/Electricity and Energy Efficiency (AD/EE)**

##### **Chief Engineer/Energy Efficiency Division A (CE/EEA)**

1. CE/EEA assists AD/EE in providing professional support and advice to the Environment Bureau (ENB) on the formulation and implementation of policies, strategies and initiatives on energy efficiency and conservation (EE&C) and the application of renewable energy (RE). He/She develops the Voluntary and Mandatory Energy Efficiency Labelling Schemes for electrical and gas appliances, and promote public awareness on the use of energy-efficient appliances. He/She is responsible for the administration and enforcement of the Energy Efficiency (Labelling of Products) Ordinance (Cap. 598). He/She promotes the adoption of energy-efficient technologies, renewable energy, energy audits and the best practices in the public and private sectors as well as the application of innovative technologies on EE&C and RE. He/She is responsible for coordinating with government bureaux and departments as well as public and private organisations for the promotion of energy programmes promulgated by international/regional/local energy organisations such as the Asia-Pacific Economic Cooperation (“APEC”) and participating in their activities. He/She is responsible for publicising the energy end-use data for Hong Kong. He/She also monitors the energy consumption of government facilities, carries out energy audits, assists in setting energy saving targets and implements energy saving projects.

##### **Chief Engineer/Energy Efficiency Division B (CE/EEB)**

2. CE/EEB assists AD/EE in providing professional support and advice to ENB on the formulation and implementation of policies, strategies and initiatives on EE&C and the application of RE. He/She promotes the wider use of water-cooled air conditioning systems in Hong Kong. He/She is responsible for the promotion and organisation of activities/events on retro-commissioning at regional level. He/She is responsible for the administration and enforcement of the Buildings Energy Efficiency Ordinance (Cap. 610) and District Cooling Services Ordinance (Cap. 624). He/She oversees the implementation of the district cooling system at the Kai Tak Development. He/She provides support to studies on provision of district cooling systems in new development areas and oversees subsequent implementation works. He/She is also responsible for the regulation of fresh

water cooling towers under the Public Health and Municipal Services Ordinance (Cap. 132).

### **Chief Electrical and Mechanical Engineer/Electricity Legislation (CEME/EL)**

3. CEME/EL assists AD/EE in the management and administration of the regulatory functions related to electricity safety. He/She is responsible for the administration and enforcement of the Electricity Ordinance (Cap. 406) for ensuring safe electrical installations, safe household electrical products and the safe and reliable supply of electricity. He/She introduces and implements new legislative proposals/legislative amendments and codes of practice/guidance notes for the purpose of improving safety standards of the electrical industry and enhancing electricity safety of the public. He/She assists AD/EE in providing support to the Director of Electrical and Mechanical Services in the Daya Bay Contingency Plan and related technical advice on nuclear power safety. He/She is also responsible for maintaining liaison with outside organisations/government departments for the promotion of electricity safety and new/existing legislation.

### **Under Assistant Director/Gas and General Legislation (AD/GGL)**

#### **Chief Engineer/Gas Standards A (CE/GSA)**

4. CE/GSA assists AD/GGL in monitoring the performance of Hong Kong and China Gas Co. Ltd. to ensure that its gas production plants and notifiable gas installations are operated to the highest possible standards and that the requirements of the Gas Safety (Gas Supply) Regulations are fully complied with. He/She is responsible for the operation of registration scheme for gas contractors and installers and manages the quality assurance of town gas and cylinder liquefied petroleum gas (LPG) installation work in all market sectors. He/She manages the investigation, preparation and processing of cases for prosecution under the Gas Safety Ordinance (Cap. 51). He/She is also responsible for the processing of complaints from members of the public and representative groups concerned with the safe supply and use of gas. He/She gives expert advice to professional agencies in both public and private sectors on the supply and use of cylinder LPG and town gas premises and coordinates activities associated with the promotion of gas safety. He/She is responsible for developing, introducing and monitoring new training packages for the gas industry in conjunction with training establishments in the private and public sectors.

#### **Chief Engineer/Gas Standards B (CE/GSB)**

5. CE/GSB assists AD/GGL in administering the Gas Safety Ordinance (Cap. 51) and subsidiary regulations on behalf of the Gas Authority, the Oil (Conservation and Control) Ordinance (Cap. 264) on behalf of the Director of Oil Supplies and implementing the devised comprehensive monitoring regime on the development of refrigerants of low Global Warming Potential (GWP). He/She monitors the performance of gas supply

companies to ensure that LPG terminals, gas production plants and notifiable gas installations are operated to the highest standards and that the requirements of the Gas Safety (Gas Supply) Regulations are fully complied with. He/She also assists AD/GGL in advising ENB on aspects of gas supply on behalf of the Gas Authority. He/She monitors the implementation of the voluntary Code of Practice with the major oil companies and the Hong Kong and China Gas Co. Ltd. on strategic reserve of gas oil and naphtha respectively. He/She also represents the Gas Authority on the Coordinating Committee on Land Use Planning and Control relating to Potentially Hazardous Installations. To ensure gas safety arising from the low GWP refrigerants, he/she also assists AD/GGL in reinforcing the liaison and communication with stakeholders in the air-conditioning and refrigeration trade and relevant government departments, conducting surveillance inspections, and rolling out education and publicity activities to the trade and public.

### **Chief Electrical and Mechanical Engineer/General Legislation (CEME/GL)**

6. CEME/GL assists AD/GGL in administering the Lifts and Escalators Ordinance (Cap. 618), the Aerial Ropeways (Safety) Ordinance (Cap. 211), the Amusement Rides (Safety) Ordinance (Cap. 449) and the Builders' Lifts and Tower Working Platforms (Safety) Ordinance (Cap. 470). He/She oversees the enforcement of the legislation in respect of the safety of lifts and escalators, aerial ropeways, amusement rides, builders' lifts and tower working platforms, and other general mechanical installations and to ensure that proper actions are taken in respect of non-compliance and against offenders. He/She is also responsible for the introduction and implementation of new legislative proposal /legislative amendment and codes of practice/guidance notes for the purpose of improving safety standards and enhancing public safety. He/She administers the registration schemes and the staff management and financial control of a professional team for the development of a regulatory regime for the vehicle maintenance trade. He/She maintains liaison with outside organisations and government departments for the promotion of safety and new/existing legislation of a mechanical nature.

### **Under Assistant Director/Railways (AD/R)**

#### **Chief Engineer/Railways 1 (CE/R1)**

7. CE/R1 assists AD/R in ensuring the safe operation of the existing railway system and in developing policies and strategies with regard to railway safety. He/She oversees the safe operation of existing railway lines (including Kwun Tong Line, Tseung Kwan O Line, Tsuen Wan Line, Airport Express, Tung Chung Line, Disneyland Resort Line and Light Rail), Trams and Peak Tramway. He/She leads the Railways Branch in executing the regulatory functions in accordance with the relevant Ordinances, Regulations and Operating Agreement (i.e. the Mass Transit Railway (MTR) Ordinance (Cap. 556), Tramway Ordinance (Cap. 107) and Peak Tramway (Safety) Regulations (Cap. 265A)). He/She also oversees investigations of railway incidents and the improvement measures

of the railway operator. He/She supervises the safety preventive measures on railway operation by the Mass Transit Railway Corporation Limited (MTRCL) and the supervisory audits conducted by the Railways Branch on MTRCL's safety and asset management system. He/She is responsible for maintaining close liaison with the railway operator's management to give guidance and advice on railway safety matters and major modifications of the existing railway lines. He/She also assists in the inter-departmental coordination work with regard to railway safety and security. He/She provides the Transport and Housing Bureau with professional advice and technical support in respect of railway safety matters and attends meetings of the Panel on Transport of the Legislative Council or its Subcommittee on Matters Relating to Railways in respect of safety matters of existing railway system.

### **Chief Engineer/Railways 2 (CE/R2)**

8. CE/R2 assists AD/R in overseeing safety related matters of existing railway lines and the new railway projects, and monitoring the safety performance of these new railways after they commence operation. He/She oversees the safe operation of the existing railway lines (including Island Line, South Island Line, West Rail Line, Ma On Shan Line, East Rail Line and High Speed Rail) in accordance with the MTR Ordinance (Cap. 556) and the Automated People Mover at the Hong Kong International Airport in accordance with the Airport Authority (Automated People Mover) (Safety) Regulation (Cap. 483C). He/She also oversees safety related matters of the new railway projects (including Tuen Ma Line and North South Line of the Shatin to Central Link). He/She chairs the inter-departmental working group on safety matters of new railway projects. He/She assists in the inter-departmental coordination work with regard to railway safety and security. He/She is responsible for overseeing the interface between existing railway system and new railway projects and the safety inspections, tests and trial-runs of new railway projects, and to oversee their safety performance after they commence operation. He/She also provides the Transport and Housing Bureau with professional advice and technical support in respect of new railway projects and provides the Transport and Housing Bureau and relevant departments with professional advice on the safety related issues of the recommended railway schemes in the Railway Development Strategy 2014. He/She attends meetings of the Panel on Transport of the Legislative Council or its Subcommittee on Matters Relating to Railways in respect of safety matters of new railway projects.

### **Under Deputy Secretary for the Environment (DS(E)) and Deputy Director/Regulatory Services (DD/RS)**

#### **Chief Electrical and Mechanical Engineer/Electricity Team (CEME/ET)**

9. CEME/ET is part of EMSD's establishment and is attached to the Environment Bureau. He/She assists DS(E) and DD/RS in providing professional advice and proposals for implementation of the initiatives and measures of the Scheme of Control Agreements (SCAs) with the power companies, review of the SCAs and matters related to energy

policy and electricity industry, formulation of future fuel mix for electricity generation, and review of development of the electricity market and related regulatory framework in Hong Kong. He/She directs the operation and management of the Electricity Team for monitoring the power companies' performance under the SCAs, especially in the Auditing Review, Tariff Review and Development Plan Review, and provides professional advice on the regulation of the power companies under the SCAs. He/She is responsible for attending meetings of the Legislative Council and the Energy Advisory Committee to help explain the Government's objectives and proposals and meetings with the power companies on their electricity-related matters under the SCAs. He/She is also responsible for managing consultancy studies related to development of the electricity market and regulatory regime, monitoring of power companies, and assessment of power companies' development plans.