

Our Ref: NEA-EECD-CIRCULAR-ECA-00001

Date: 16 August 2017

Dear Sir / Madam,

Industry Consultation on Proposed Details of Industrial Energy Efficiency Requirements for New Facilities and Major Expansions (“New Ventures”)

Introduction

The National Environment Agency (NEA) of Singapore is seeking feedback on the proposed details for the energy efficiency opportunities assessment and energy performance measurement requirements for new ventures¹, and to introduce the requirements from 1 October 2018.

2 This circular serves as an invitation to an industry consultation exercise with various stakeholders including members of The Institution of Engineers Singapore (IES), Association of Consulting Engineers (ACES), Professional Engineers (PEs) registered under PE board, Qualified Persons (QPs), engineering consultancy firms, and companies regulated under the Energy Conservation Act (ECA).

Background

3 Singapore ratified the Paris Agreement and formalised our pledge to reduce our emissions intensity² by 36% from 2005 levels by 2030, and stabilise our greenhouse gas emissions with the aim of peaking around 2030. The industrial sector is expected to account for more than half of the projected emissions in 2030, and has the largest potential for emissions reduction.

Enhanced Energy Management Practices for New Ventures

4 To meet Singapore’s 2030 commitments under the Paris Agreement, further energy efficiency improvements are needed. To this end, the ECA³ was amended⁴ to introduce the following new requirements for new ventures in the industrial sector:

¹ A new venture refers to any new business activity or expansion of any existing business activity that is projected to consume 54 TJ or more of energy annually (based on 365 days of operations at 100% of designed production capacity), carried out at a single site and is attributable to one of the following industry sectors:

- a) Manufacturing and manufacturing related services
- b) Supply of electricity, gas, steam, compressed air and chilled water for air-conditioning
- c) Water supply and sewage and waste management

² Emissions intensity refers to greenhouse gas emissions per dollar of GDP, measured in CO₂-equivalent per dollar.

³ The mandatory energy management practices under the Energy Conservation Act (ECA) commenced in 2013. Energy-intensive users in the industrial sector that consume 54TJ or more of energy annually in at least 2 out of the 3 preceding years have to comply with the following requirements:

- a) appoint at least one certified energy manager;
- b) monitor and report energy use and GHG emissions annually; and
- c) develop an energy efficiency improvement plan and update the plan annually.

- a) Energy efficiency opportunities assessment (EEOA)
- b) Energy performance measurement

Industrial Energy Efficiency Requirements for New Ventures

5 These new requirements will promote energy management discipline from the facility development stage for companies investing in new ventures with projected energy consumption of 54 tera-joules or more of energy annually. They will be required to review their new facility design for energy efficiency and also report measured energy performance of key energy-consuming systems⁵. Through these measures, companies will potentially benefit from lower capital expenditure at the outset and reduced operating and maintenance costs over time from best practices such as right-sizing of facilities.

6 As the new industrial energy efficiency requirements will be introduced in 2018, NEA has developed the detailed requirements (refer to **Annex A** for the broad requirements) and would like to consult the industry stakeholders and gather feedback.

Industry Consultation

7 There will be a total of 2 industry consultation sessions slated for QPs, PEs and engineering consultants to attend. The details of the consultation sessions are listed below.

Consultation Session	Session 1	Session 2
Date	24 August 2017, Thursday	28 August 2017, Monday
Time	10.00am – 12.00pm (Registration starts at 10.00am)	
Venue	Auditorium at JEM (6 th storey) 52 Jurong Gateway Road, Singapore 608550	Sustainable Energy Association of Singapore (SEAS) Sustainability Academy No. 180 Kitchener Road #06-10 City Square Mall Singapore 208539
Programme	<ol style="list-style-type: none"> 1. Registration 2. Presentation on proposed details of the following requirements for new ventures <ul style="list-style-type: none"> a) Energy efficiency opportunities assessment b) Energy performance measurement 3. Q&A session on proposed detailed requirements 4. End of session 	

⁴ The other initiatives that will be introduced under the Energy Conservation (Amendment) Act 2017 are i) structured energy management system for existing facilities; ii) EEOAs for existing facilities; and iii) minimum energy performance standards for common industrial equipment and systems.

⁵ Systems that account for at least 80 per cent of a facility's total energy consumption.

8 Please register with NEA by sending the information requested in the table below to Mr Chua Beng Lye at chua_beng_lye@nea.gov.sg and Mr Neo Chin Ho at neo_chin_ho@nea.gov.sg by **21 August 2017**. Due to limited seating capacity, the number of representatives per organisation/ association is limited to 2 and registration is based on first-come, first-served basis. Alternatively, if the proposed date is not suitable, please inform us so that we can propose an alternate date.

Name of Organisation/ Association		
Consultation Session (Please indicate)		
Name of Representative		
NRIC/ Fin No.		
Designation		
Contact No. (preferably both office and mobile)		
Email Address		

9 Should you have further queries on the details of the industry consultations, please contact the Energy Efficiency Promotion Centre at 6731 9871 or nea_eepc@nea.gov.sg. Alternatively, you can contact the following officers:

Mr Chua Beng Lye at 6731 6086 or
Mr Neo Chin Ho at 6731 9614

Thank you.



KWEK CHIN HIN
HEAD, INDUSTRIAL ENERGY EFFICIENCY
for DIRECTOR (ENERGY EFFICIENCY & CONSERVATION DEPARTMENT)
NATIONAL ENVIRONMENT AGENCY

cc The President
Singapore Institute of Architects (SIA)

The President
Association of Consulting Engineers Singapore (ACES)

The President
The Institution of Engineers Singapore (IES)

The President
Real Estate Developers' Association of Singapore (REDAS)

The President
Singapore Contractors Association Limited (SCAL)

Industrial Energy Efficiency Requirements for New Ventures

EEOA for new ventures
<p><u>All new energy-intensive facilities & major expansions $\geq 54\text{TJ}$ per year</u></p> <ul style="list-style-type: none"> • Design phase (from 1 October 2018) <ul style="list-style-type: none"> ✓ Review facility design, develop economically feasible energy/carbon efficiency measures for incorporation into the new facility ✓ Report findings
Energy performance measurement for new ventures
<p><u>All new energy-intensive facilities & major expansions $\geq 54\text{TJ}$ per year</u></p> <ul style="list-style-type: none"> • Design and construction phase (from 1 October 2018) <ul style="list-style-type: none"> ✓ Plan for and install instruments and meters at system level • Operations phase <ul style="list-style-type: none"> ✓ Report energy use and energy performance indicators based on measured data <ul style="list-style-type: none"> ➤ Cover energy-consuming systems that account for at least 80% of total consumption