

EMBARGOED TILL 10:15AM ON 30 OCTOBER 2018

ENHANCED INDUSTRY ENERGY EFFICIENCY PACKAGE FOR THE ADOPTION OF ENERGY EFFICIENT TECHNOLOGIES

Background

1 The Enhanced Industry Energy Efficiency Package was announced by Minister for Trade and Industry Chan Chun Sing at the official opening of the Singapore International Energy Week on 30 October 2018.

2 The Energy Market Authority (EMA), Singapore Economic Development Board (EDB), and the National Environment Agency (NEA) will each be rolling out initiatives to give stronger support to companies in their drive to become more energy efficient and reduce carbon emissions. In an increasingly carbon-constrained future, improving energy efficiency will not only help companies to reduce costs, it will also improve their competitiveness both locally and internationally. At the same time, our companies will also stand to benefit from smaller carbon emissions and hence lower carbon tax liability. Singapore will continue to play our part as a responsible member of the international community in addressing climate change, and develop Singapore as a liveable and sustainable city for the future.

Enhanced Industry Energy Efficiency Package

3 For the power sector, EMA has launched a Genco Energy Efficiency Grant Call to co-fund up to 50 per cent of energy efficiency projects by power generation companies over the next 5 years. For the manufacturing sector, EDB and NEA are enhancing grants to better support industrial facilities to be more energy efficient and improve competitiveness. The funding support for the adoption of energy efficient technologies under EDB's Resource Efficiency Grant for Energy (REG(E)) and NEA's Energy Efficiency Fund (E2F) will be increased from the existing cap of 30 per cent, to 50 per cent of the qualifying costs¹. The grants companies receive will correspond to the abatement achieved, up to the cap. Companies with projects that can achieve significant abatement, those that have made early efforts to be energy efficient, and SMEs may receive higher grant support.

¹ Qualifying costs refer to equipment, materials and consumables, technical software and professional services cost.

4 This Media Factsheet serves to provide details of the respective grants under the enhanced Industry Energy Efficiency Package.

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For more details on the grants, kindly refer to the Annexes below:

Annex A – Genco Energy Efficiency Grant Call by the Energy Market Authority

Annex B – Resource Efficiency Grant (Energy) by the Singapore Economic Development Board

Annex C – Enhanced Energy Efficiency Fund by the National Environment Agency

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ANNEX A

Genco Energy Efficiency Grant Call by the Energy Market Authority

Background

1 Over the years, the power sector has made efforts to manage the greenhouse gas emissions from electricity generation. This includes the switch from using petroleum products to natural gas as the main energy source for electricity generation, as well as investments in new and efficient Combined-Cycled Gas Turbines (CCGTs).

Energy Efficiency Grant Call for Power Generation Companies

2 To encourage the power sector to further improve its generation efficiency and reduce carbon emissions, EMA has launched the Energy Efficiency Grant Call for Power Generation Companies (Genco EE Grant Call). The grants Gencos receive would correspond to the abatement achieved, subject to a cap of up to 50 per cent of the qualifying cost of energy efficiency projects. This is expected to help Gencos reduce the costs of energy efficiency projects and improve their overall generation efficiency.

3 Gencos can engage their preferred original equipment manufacturers or vendors to conduct the energy efficiency projects. Gencos are also encouraged to tap on the Genco EE Grant Call early to invest in energy efficient equipment or technologies to improve their competitiveness and maximise the accrued benefits.

4 The details of the Genco EE Grant Call are summarised below. More information on the Grant Call can be found at http://www.ema.gov.sg/Energy_Efficiency_for_Power_Generation.aspx.

1. Eligibility and evaluation criteria	The Genco must be operating CCGTs in Singapore. The Genco's CCGT that is undergoing the energy-efficiency project must be sited and operating in Singapore. This initiative applies to EE improvements for CCGTs and excludes embedded generation facilities. Proposed energy efficiency projects must also achieve at least 0.5ktpa of carbon abatement that is measurable and verifiable by the end of the project.
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2. Qualifying period	Project must be completed within 36 months. Energy efficiency projects should commence no later than end-FY2023 to qualify for the grant call.
3. Qualifying amount and support rate	The total amount of grant support will correspond to the total amount of carbon abated. More energy efficient facilities or projects that achieve significant abatement may be eligible for more support, subject to a cap of 50 per cent of the qualifying costs (i.e. manpower, equipment/technology, and professional services costs).
4. Measurement and verification (M&V) requirement	Applicants are required to submit an M&V Plan and an M&V report before and after project implementation respectively. Details include: <ul style="list-style-type: none"> • M&V methodology to measure and verify the realised carbon abatement after implementation; • Baseline and post-implementation energy performance measurements; and • Carbon abatement calculations.
5. Grant call timeline	30 October 2018 – 1 April 2019

For more details on the Grant Call, please visit http://www.ema.gov.sg/Energy_Efficiency_for_Power_Generation.aspx.

About the Energy Market Authority (EMA)

The Energy Market Authority (EMA) is a statutory board under the Ministry of Trade & Industry. Our main goals are to ensure a reliable and secure energy supply, promote effective competition in the energy market and develop a dynamic energy sector in Singapore. Through our work, we seek to forge a progressive energy landscape for sustained growth.

Please visit www.ema.gov.sg for more information.

Details under “Qualifying amount and support rate” have been updated on 24 March 2020 to better reflect the scope of the grant.

ANNEX B

Resource Efficiency Grant (Energy) by the Singapore Economic Development Board

Background

1 The Resource Efficiency Grant for Energy (REG(E)) will replace the current Productivity Grant for Energy Efficiency (PG(E)), to support industrial facilities in their drive to become more energy efficient.

2 From January 2012 to September 2018, a total of 32 energy efficiency (EE) projects were supported under the PG(E) scheme, and this has resulted in an annual carbon abatement of about 158.7 kilo tonnes.²

Enhanced Support under the Resource Efficiency Grant for Energy

3 While the take-up rate has been encouraging, developments in EE technologies are presenting new opportunities for companies to enhance their energy efficiency and improve their competitiveness in an increasingly carbon-constrained future.

4 To better incentivise companies to achieve higher carbon abatement, the grants companies receive would correspond to the abatement achieved. This will be subject to a cap, which will be increased from up to 30 percent under the current PG(E) scheme, to up to 50 per cent of qualifying costs. Projects that achieve significant abatement may be eligible for more support, up to the maximum cap. We will also take into consideration companies' early efforts to be efficient.

5 The details of the enhanced REG(E) are summarised below. More information on the REG(E) can be found at <https://www.edb.gov.sg/en/news-and-resources/news/enhanced-industry-energy-efficiency-package.html>.

1. Eligibility and evaluation criteria	All Singapore-registered owners or operators of existing or proposed industrial facility. The facility where the project will be implemented must be sited and operating in Singapore.
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² Equivalent to about 48 cars taken off the road annually.

	Proposed EE projects must also achieve at least 0.5ktpa of carbon abatement that is measurable and verifiable by the end of the project. Projects must also involve the installation and use of energy efficient technologies that have a proven track record of energy savings in a manufacturing facility.
2. Qualifying period	Project must not have commenced before the application is approved by EDB. The project must be completed within 36 months.
3. Qualifying amount and support rate	The total amount of grant support will correspond to the total amount of carbon abated. More energy efficient facilities or projects that achieve significant abatement may be eligible for more support, subject to a cap of 50 per cent of the qualifying costs (i.e. equipment, materials and consumables, technical software and professional services costs).
4. Measurement and verification (M&V) requirement	Motor, lighting, and air-conditioners retrofit projects do not require M&V. For all other projects, applicants must submit an M&V Plan and an M&V report before and after project implementation respectively. Details include: <ul style="list-style-type: none"> • M&V methodology to measure and verify the realised carbon abatement after implementation; • Baseline and post-implementation energy performance measurements; and • Carbon abatement calculations.
5. Grant timeline	EDB will begin consultations from October 2018. The enhanced grant takes effect from 1 January 2019. Companies can still apply for PG(EE) before 1 January 2019.

For more details on the Grant, please visit <https://www.edb.gov.sg/en/news-and-resources/news/enhanced-industry-energy-efficiency-package.html>

About the Singapore Economic Development Board (EDB)

The Singapore Economic Development Board (EDB), a government agency under the Ministry of Trade and Industry, is responsible for strategies that enhance Singapore's position as a global centre for business, innovation, and talent. We undertake investment promotion and industry development, and work with international businesses, both foreign and local, by providing information, connection to partners and access to government incentives for their

investments. Our mission is to create sustainable economic growth, with vibrant business and good job opportunities for Singapore.

Please visit www.edb.gov.sg for more information.

ANNEX C

Enhanced Energy Efficiency Fund (E2F) by the National Environment Agency

Background

1 The Energy Efficiency Fund (E2F), administered by the National Environment Agency (NEA), was launched in April 2017. The fund is aimed at encouraging and supporting companies in the industrial sector, including small- and medium-sized enterprises (SMEs), in becoming more energy efficient. One component of the fund, E2F – Energy Efficient Technologies, supports companies in investing in energy efficient technologies³. Currently, NEA co-funds up to 30 per cent of the qualifying cost of such projects.

2 As of September 2018, a total of eight projects involving technologies such as LED lights and high efficiency air-conditioning systems were supported by the E2F. The eight projects resulted in an annual carbon abatement of about 205 tonnes⁴.

Increased E2F Support for Adoption of EE Technologies

3 One of the key feedback received from SMEs was that the current level of funding for the adoption of energy efficient technologies did not incentivise SMEs to invest in energy efficient technologies.

4 NEA will increase the maximum E2F funding support for the adoption of EE technologies from 30 per cent, to 50 per cent from 1 January 2019. To better incentivise companies to achieve higher carbon abatement, the grants companies receive will correspond to the abatement achieved, subject to the cap. NEA will also consider the scale of operations, which is typically smaller for SMEs. In response to further feedback from SMEs, NEA is also simplifying the measurement and verification requirements for standard retrofits such as air-conditioners and motors. Project proposal templates and application guidelines will also be simplified to make it easier for SMEs to apply.

6 The details of the enhanced E2F – Energy Efficient Technologies are summarised below. More information on the E2F can be found at www.e2singapore.gov.sg.

³ The other two components of the E2F support Resource Efficient Design and Energy Assessments, and will remain unchanged.

⁴ Equivalent to about 62 cars taken off the road annually.

<p>1. Eligibility and evaluation criteria</p>	<p>All Singapore-registered owners or operators of existing or proposed industrial facilities with a group annual sales turnover of not more than S\$500 million. The facility where the project will be implemented must be sited and operating in Singapore.</p> <p>Projects must result in measurable and verifiable energy savings. Projects must also involve the installation and use of energy efficient technologies that have a proven track record of energy savings in a manufacturing facility.</p> <p>Examples of energy efficient equipment are listed below. If an energy efficiency project involves an equipment or system that is not listed below, the applicant can submit their proposal and calculation to quantify the expected energy savings, for NEA's review and evaluation.</p> <ul style="list-style-type: none"> i) Energy efficient motors (IE4 or above); ii) Energy efficient air-conditioners (4 ticks and above); iii) Energy efficient lighting (e.g. LED); iv) Efficient ACMV systems (chilled water systems and air-handling units); v) Heat recovery systems; vi) Energy efficient heating systems (Boilers, furnaces); and vii) Energy efficient compressed air systems.
<p>2. Qualifying period</p>	<p>Project must not have commenced before the application is approved by NEA. The project must be completed within 36 months.</p>
<p>3. Qualifying amount and support rate</p>	<p>The total amount of grant support will correspond to the total amount of carbon abated, subject to a cap of 50 per cent of the qualifying costs (i.e. manpower, equipment/technology, and professional services costs).</p>

<p>4. Measurement and verification (M&V) requirement</p>	<p>Motor, lighting (excluding lighting controls), and air-conditioner retrofit projects do not require M&V.</p> <p>For all other projects, applicants must submit an M&V Plan and an M&V report before and after project implementation respectively.</p> <p>Details include:</p> <ul style="list-style-type: none"> • M&V methodology to measure and verify the realised carbon abatement after implementation; • Baseline and post-implementation energy performance measurements; and • Carbon abatement calculations.
<p>5. Grant timeline</p>	<p>NEA will begin consultations from October 2018. The enhanced grant takes effect from 1 January 2019. Companies can still apply for the existing E2F before 1 January 2019.</p>

For more details on the Grant, please visit www.e2singapore.gov.sg.

About the National Environment Agency (NEA)

Formed on 1 July 2002, the National Environment Agency (NEA) is the leading public organisation responsible for ensuring a clean and green environment, and the sustainable development of Singapore. Its key roles are to protect Singapore's resources from pollution, maintain a high level of public health and provide timely meteorological information. NEA also develops and spearheads environmental initiatives and programmes through its partnership with the People, Public and Private sectors. It is committed to motivating every individual to care for the environment as a way of life, in order to sustain a quality living environment for present and future generations.