



Singapore
Environment
Council

Environmental Sustainability - Eco Labelling

26 Aug 2016

By: Nuramirah Suyin
Environmental Engineer (Training & Education)

Singapore Environment Council (SEC)

Established in 1995, we are an independently managed, *non-profit, non-government organisation*, and institution of public character that nurtures, facilitates and co-ordinates environmental causes in Singapore.

The Council is also an approved charity that can offer tax exemption to donors.





Vision & Mission

Vision

The SEC aims to be the preferred non-government organization partner for communities, businesses and governments to achieve best-in-class sustainable city development in Singapore and beyond.

Mission

To create a lasting impact on climate change by collaborating with people, industries and governments to encourage and achieve sustainable urbanization.



Our Partners



And many others....

Our Current Programmes

Labelling and Certifications Community Outreach

Awards

Training & Education





Agenda

- Introduction
- Singapore Green Labelling Scheme (SGLS)
 - Features
 - Criteria
 - Benefits



Eco-ce

- A strong marketing tool to declare the environmental benefits of products.
- Such 'self declarations' may arise from corporate ambitions to jump on the green products bandwagon to capture the 'green consumer' market.





Greenwashing

The practice of making an unsubstantiated or misleading claim about the environmental benefits of a product, service, technology or company practice.

Can make a company appear to be more environmentally friendly than it really is.





Why you should bother

Research calculated that the **96,937 fires** in Indonesia detected in 2015 emitted roughly

1,043 million metric tons

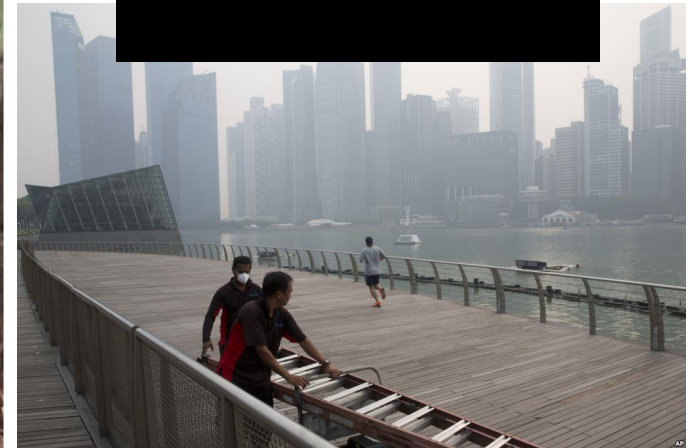
of carbon dioxide equivalent emissions (Mt CO₂eq) cumulatively.

Higher than the average annual emissions of
Germany

Biodiversity and Wildlife



Social and Economic Impacts



Human Health

the guardian

ball opinion culture business lifestyle fashion environment tech travel

US americas asia australia africa middle east cities development

Indonesia's fires labelled a 'crime against humanity' as 500,000 suffer

Haze has caused havoc, with schools in neighbouring Singapore and Malaysia shut down, flights grounded and events cancelled

An Indonesian woman rides a motorbike amidst thick haze in Palangkaraya, Central Kalimantan province, Indonesia. Photograph: Hugo Hudoyoko/EPA

Most popular

- New Hampshire primary: Bernie Sanders gives victory speech - live
- New Hampshire primary results: track the votes, county by county
- Bernie Sanders beats Hillary Clinton to win New Hampshire primary

Downfall of Japanese

Lee Hsien Loong
about 5 months ago

The air quality worsened into the "very unhealthy" range today. The PSI for the next 24 hours is expected to remain "very unhealthy", and may even go into the "hazardous" range.

This is why we are closing all primary and secondary schools tomorrow. We are also giving out N95 masks to vulnerable and needy Singaporeans at community clubs from 10am to 10pm tomorrow. Those who are eligible include: blue CHAS card holders; Pioneer Generation card holders; ComCare recipients above ... [See More](#)

23,338 1,596 3,834

2015 Haze Episode

- A problem dating back 40 years



A plane taking off from Changi Airport amid hazy conditions on Sept 7, 1982. PHOTO: ST FILE

1980s



Cable cars to Sentosa disappear from view as the three-hour PSI hit 401 at noon on June 21, 2013. PHOTO: ST FILE

2000s

Rise of Green Consumerism

- Shifting attitudes towards green products
- Led to the proliferation of consumption of “green” products, eco-labels, consumer awareness campaigns, etc.
- Businesses are moving into green processes - generating corporate environmental profiles, monitoring and evaluating green performance, and improving corporate image as a result



Why we need Eco-certs and Labels

Reliable

Valid

Accuracy

- Distinguish between falsely-declared and validated product claims.
- Eco-Labels act as reliable tools to validate the claims that products make and act as valued tools for consumers in making the right procurement decision.



Types of Eco-Labels

TYPE I

- a voluntary, multiple-criteria based, third party program that awards a license that authorises the use of environmental labels on products indicating overall environmental preferability of a product within a particular product category based on life cycle considerations



Japan: Eco Mark



Germany: The Blue Angel



Singapore: Singapore Green Label

TYPE II

- informative environmental self-declaration claims

TYPE III

- voluntary programs that provide quantified environmental data of a product, under pre-set categories of parameters set by a qualified third party and based on life cycle assessment, and verified by that or another qualified third party

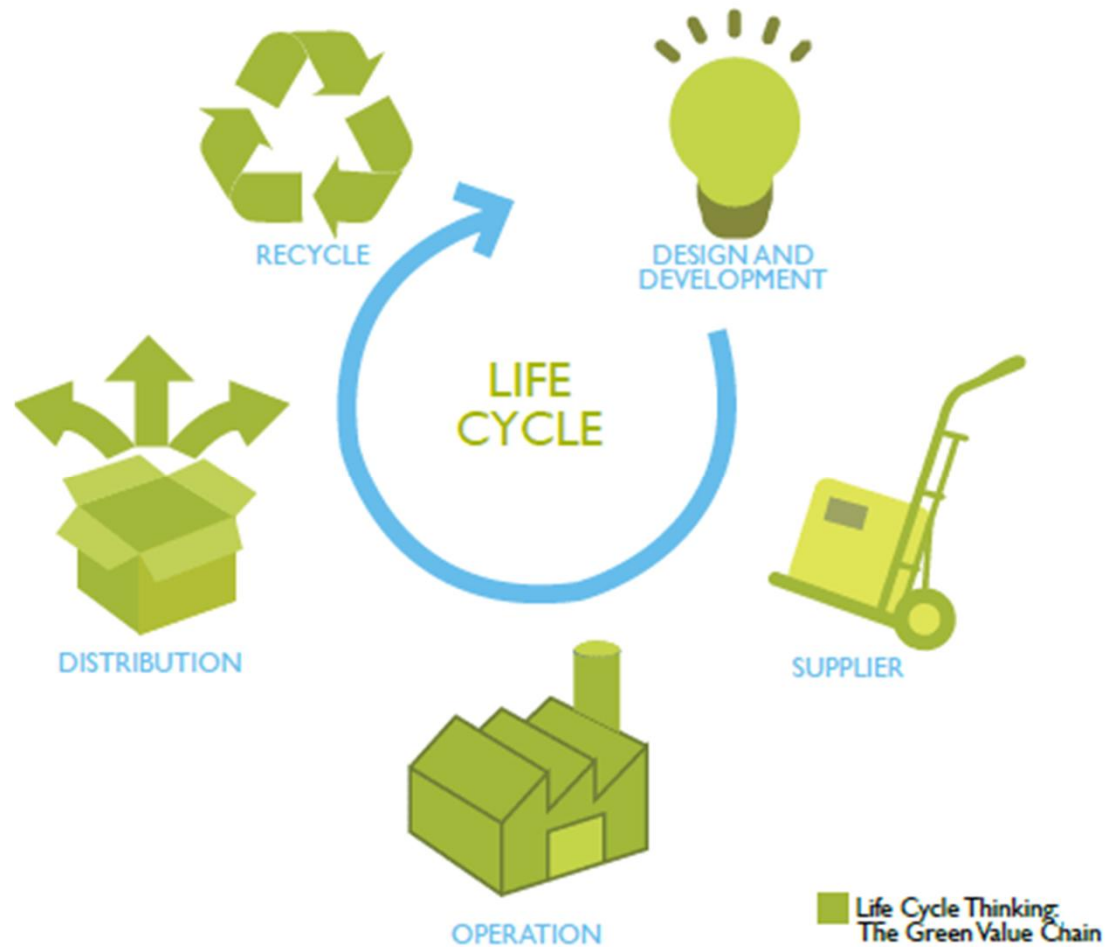
Singapore Green Labelling Scheme (SGLS)



- Launched in May 1992 by the Ministry of the Environment by Minister of Environment, Dr. Ahmad Mattar; Administered by SEC since June 1999
- SEC became a member of the Global Ecolabelling Network (GEN) in October 2003
- GEN aims to improve, promote and develop ecolabelling of products and services
- Elected into the GEN's Board on 29 October 2015, alongside Denmark, Germany, Sweden, Brazil, China, Taiwan & Japan
- Successfully audited by the GEN as meeting ISO 14024 for the Global Ecolabelling Network International Coordinated Ecolabelling System (GENICES) accreditation in October 2011.



Life Cycle Assessment (LCA)



Source: Qisda Corporation (2011)



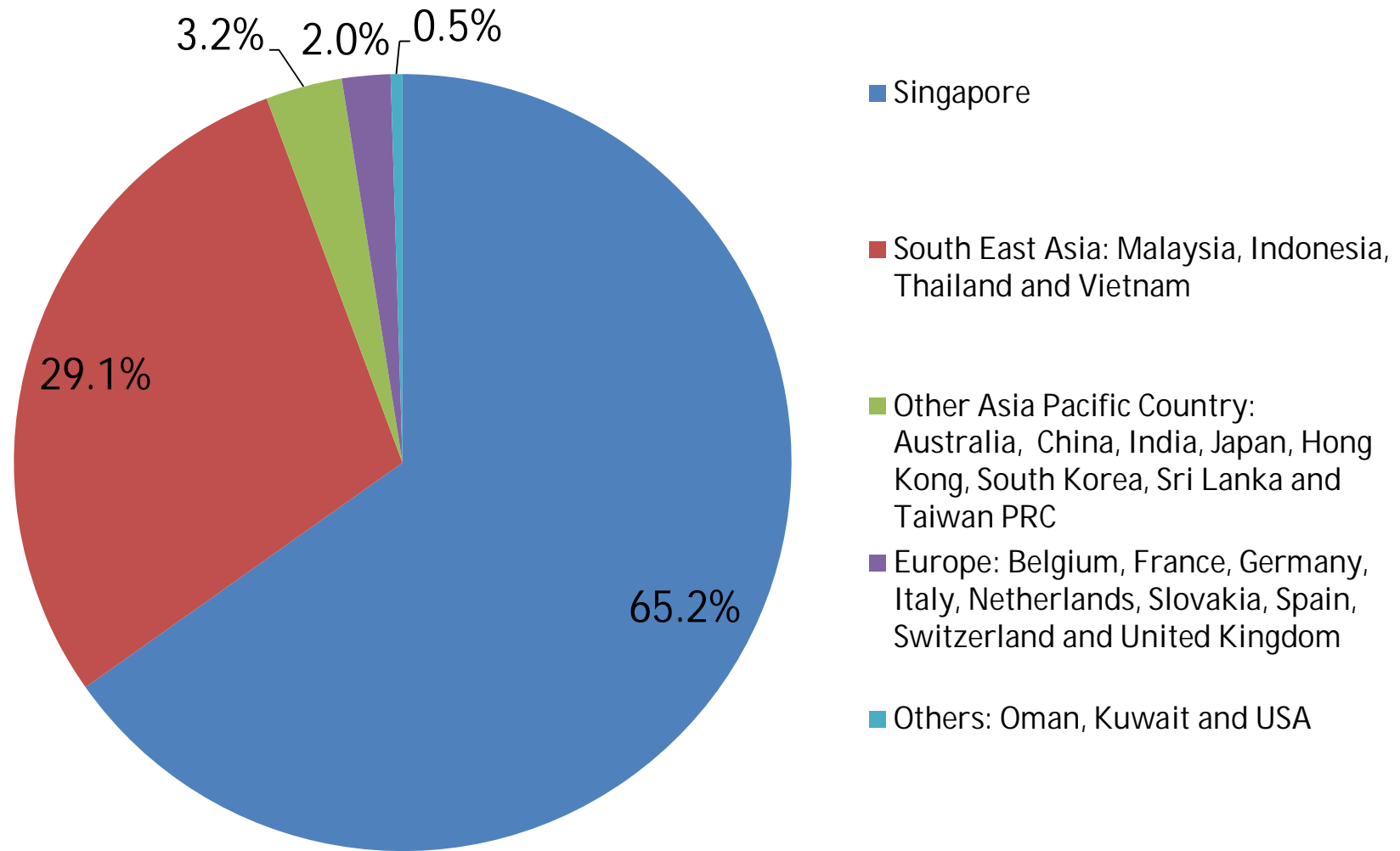
Wide coverage



More than
3,000 products certified
600 companies
25 countries worldwide







- **South East Asia:** Malaysia, Indonesia, Thailand and Vietnam
 - **Other Asia Pacific Country:** Australia, China, India, Japan, Hong Kong, South Korea, Sri Lanka and Taiwan PRC
 - **Europe:** Belgium, France, Germany, Italy, Netherlands, Slovakia, Spain, Switzerland and United Kingdom
 - **Others:** Oman, Kuwait and USA
- 

Licensee Profile



SGLS Categories

Over 50 Categories

Building Material	Lighting	Electrical and Solar Powered Products
<ul style="list-style-type: none"> Cement and Precast Concrete Brick Tile /Ceramics 	<ul style="list-style-type: none"> Compact Fluorescent Lamp (Modular) LED Lights 	<ul style="list-style-type: none"> Hand Driers Solar Powered Products Photovoltaic Equipment
Household Products	General Products	Interior Products
<ul style="list-style-type: none"> Food Packaging, Crockery and Cutlery Dishwashers Electric Kettles Espresso & Coffee Machines Gas Cookers and Gas- Fired Appliances Hot Water Storage Tanks Oxo-Biodegradable Plastic Products 	<ul style="list-style-type: none"> Soil Improver, Growing Media, Aggregate & Mulch Products made from Recycled or Renewable Fibre Products with recycled or sustainable content Biodegradable Products Environmental Innovative Products Fire Extinguishers Automobile Tyres Termiticides Eco-friendly products Products that contain Palm Oil 	<ul style="list-style-type: none"> Paints and Surface Coatings Carpets Adhesives and Sealants Panel Board Surface Covering Insulators Textiles Flooring Pipes Doors 
Cleaning Products	Personal Care Products	Office Supplies and Equipment
<ul style="list-style-type: none"> Detergents Floor Cleaners Industrial and Institutional Cleaner Surface Cleaners Hand Soaps 	<ul style="list-style-type: none"> Hair spray/Gel/Mousse Deodorant Stick/Roller/Spray Shaving Foam & Cream Cosmetics 	<ul style="list-style-type: none"> Paper Correction Fluid and Tapes Copying, Fax machines, Printers and Multi-Functional Devices Office Furniture Ink and Toner Cartridges 

Brands certified under SGLS

- Akzo Nobel (Dulux Paints)
- Jotun
- UIC
- Lion Corporation (Top, Mama Lemon)
- Goodrich (Carpets, Flooring, Laminates)
- Ricoh
- Fuji Xerox
- Canon




Products from
over 600
companies



Application Process

Compulsory Documents

- Manufacturing Process and Product Composition of Product
 - Formal environmental management system (ISO 14001 or equivalent) or must be in the process of obtaining one in 2 years
 - Test reports by nationally accredited third party laboratories
 - All supporting documents mentioned as stated in Product Checklist the product is assigned to
- 

Nippon Paint (M) Sdn Bhd

Certificate Number	First Certified	Valid Till	Product Name
032-065-0606	3-Aug-09	21-Sep-16	NIPPON SPOT-LESS
032-065-0607	3-Aug-09	21-Sep-16	NIPPON SOLAROOF
032-065-0608	3-Aug-09	21-Sep-16	NIPPON WEATHERBOND SOLAREFLECT
032-065-0609	2-Sep-09	21-Sep-16	NIPPON VINILEX 5100 WALL SEALER
032-065-0610	2-Sep-09	21-Sep-16	NIPPON VINILEX FRESH ANTI-BACTERIAL
032-065-0625	22-Sep-10	21-Sep-16	NIPPON PERFECT WHITE
032-065-0626	22-Sep-10	21-Sep-16	NIPPON VINILEX EASY WASH
032-065-0627	22-Sep-10	21-Sep-16	NIPPON VINILEX ECO 5000
032-065-0628	12-Apr-10	11-Apr-17	NIPPON ODOUR-LESS AIRCARE
032-065-0629	12-Apr-10	11-Apr-17	NIPPON HYDRO-GLOSS
032-065-0630	12-Apr-10	11-Apr-17	NIPPON HYDRO-MATT
032-065-0631	9-Jul-11	8-Jul-17	NIPPON VINILEX 5200 WALL SEALER
032-065-0632	9-Jul-11	8-Jul-17	NIPPON VINILEX 5500 WALL SEALER
032-065-0633	9-Jul-11	8-Jul-17	NIPPON HYDRO-PRIMER
032-065-0634	9-Jul-11	8-Jul-17	NIPPON WEATHERBOND
032-065-0635	9-Jul-11	24-Jul-17	NIPPON ECO-BOND WALL SEALER
032-065-0636	9-Jul-11	24-Jul-17	NIPPON ADVANCE WALL SEALER
032-065-0637	9-Jul-11	24-Jul-17	NIPPON 3-IN-1
032-065-0638	9-Jul-11	24-Jul-17	SUPER MATEX ECO

Certificate Number	First Certified	Valid Till	Product Name
032-065-1454	27-Jun-09	26-Jun-17	NIPPON WEATHERBOND ADVANCE
032-065-1455	27-Jun-09	26-Jun-17	NIPPON WEATHERBOND FLEX
032-065-1456	27-Jun-09	26-Jun-17	NIPPON SATIN GLO
032-065-1457	27-Jun-09	26-Jun-17	NIPPON ORDOUR-LESS ALL-IN-1
032-065-1595	5-May-11	4-May-17	NIPPON ECO 100 COLOURANT
032-065-1840	12-Apr-13	11-Apr-17	NIPPON VINILEX 5300 BASECOAT
032-065-1841	12-Apr-13	11-Apr-17	NIPPON AQUA EPOXY
032-065-2110	20-Jun-14	19-Jun-17	NIPPON VINILEX 5400 WALL SEALER
032-065-2111	20-Jun-14	19-Jun-17	0 VIRUSGUARD
032-065-2186	27-Oct-14	26-Oct-16	NIPPON HYDROWOOD
032-065-2187	27-Oct-14	26-Oct-16	NIPPON MOMENTO STONE ART
032-065-2188	27-Oct-14	26-Oct-16	NIPPON TILELAC EMA BASE
032-065-2255	12-Feb-15	11-Feb-17	NIPPON EXPRESSKOTE SEALER
032-065-2256	12-Feb-15	11-Feb-17	MATEX PRO ECO
032-065-2287	12-Apr-15	11-Apr-17	NIPPON MOMENTO ELEGANT
032-065-2288	12-Apr-15	11-Apr-17	NIPPON MOMENTO SPARKLE
032-065-2289	12-Apr-15	11-Apr-17	NIPPON MOMENTO CLOUD
032-065-2290	12-Apr-15	11-Apr-17	NIPPON MOMENTO FROST
032-065-2291	12-Apr-15	11-Apr-17	NIPPON MOMENTO PRIMER

First certified in 2009

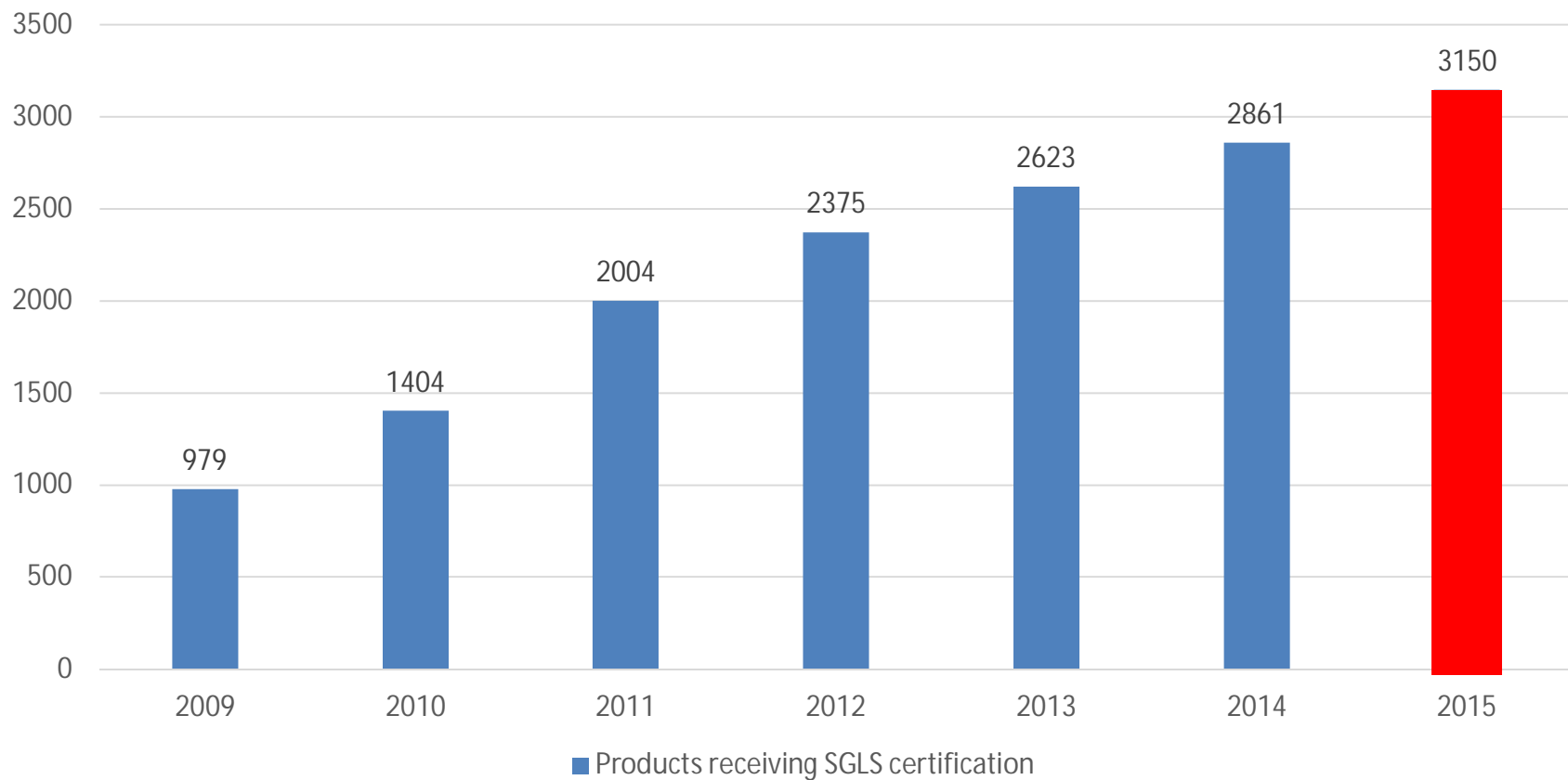


Indoor Air Quality



Growth of SGLS Certification

Number of Products certified under SGLS over the years
(Cumulative)

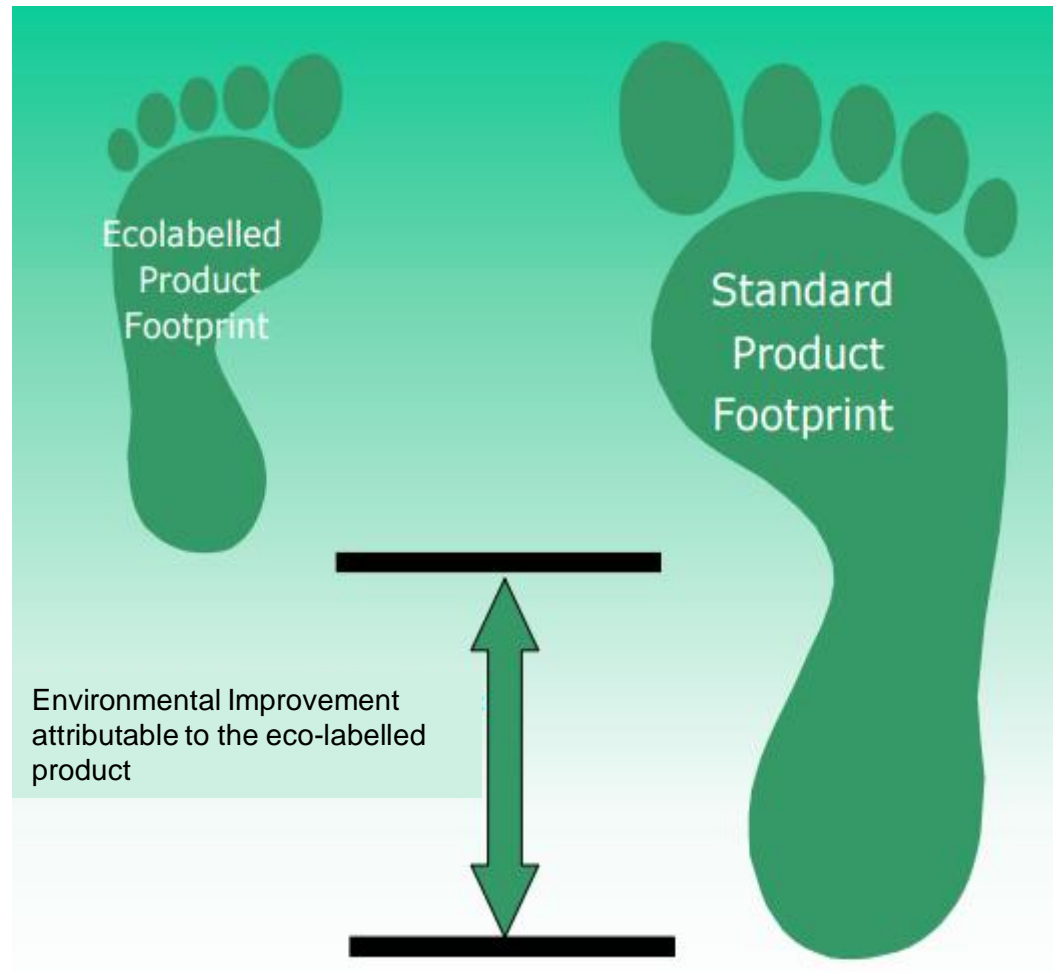


Global Presence

- Recognized by regional & international Green Building rating systems
 - BCA Green Mark Scheme
 - Malaysia GBI
 - Vietnam Green Building Council
 - Hong Kong Beam Plus
 - LEED



Benefits of SGLS



Benefits of eco labelling

1. Informing consumer choice
 - Empowers people to discriminate
2. Promoting economic efficiency
 - need for regulation is kept to a minimum
3. Stimulating market development
 - Direct impact on supply and demand in the marketplace
4. Encouraging continuous improvement
 - Corporate commitment to continuous environmental improvement
5. Promoting certification
 - Visible evidence of the product's desirability from an environmental perspective
 - Educational role for customers, promotes competition among manufacturers
6. Assisting in monitoring
 - Environmental claims can be more easily monitored



Media Coverage – Singapore government to procure SGLS certified printing paper products

SEC, Case applaud Government decision to buy only green label paper products

PUBLISHED APR 14, 2016, 12:38 PM SGT



Carolyn Khew

SINGAPORE - The Government's move to procure only printing paper products certified with the Singapore Green Label is a "move in the right direction" towards sustainability, the Singapore Environment Council (SEC) and Consumers Association of Singapore (Case) said in a media statement on Thursday (April 14).

On Tuesday, Minister for the Environment and Water Resources Masagos Zulkifli said during the debate on his ministry's budget that the Government will buy only printing paper products that carry the Singapore Green Label from September this year.

The green label is an indication that suppliers practise sustainable forestry management, said Mr Masagos.

Ms Isabella Loh, chairman of the SEC, said the Government holds a major stake in Singapore's green procurement market.

She added: "SEC is very encouraged that they are taking the lead in green procurement. This says a lot about their commitment to encourage and ensure that the public sector undertake sustainable practices.

"Having said that, the rest of our consumers, individuals and corporations alike, need to play their part too... The collective effort adds up."

Mr Lim Biow Chuan, president of consumer watchdog Case, said he hopes that businesses and



Media Coverage – SquareRooms

Use paints with low levels of VOCs

VOCs, short for Volatile Organic Compounds, are found in the paint solvent and responsible for the strong odour during and after painting. Using paints with no or low VOCs will be better for health and the environment as well. Exposure to VOCs can result in unpleasant symptoms such as nose and throat discomfort, headache, and allergic skin reactions, while long-term contact can damage the central nervous system.

Where to start?

Paints with low VOCs are usually not oil-based. Look out for paint products that are certified by [Singapore Green Label](#). Besides low and no-VOC paints, there are also paints made primarily of naturally occurring materials like clay, linseed oil, chalk, and milk. Since these paints do not use any synthetic oil products, they are considered to be low in VOCs. However, they may contain other types of chemicals which may not be suitable for certain chemically-sensitive people. Always check the ingredients on the label when using a new product.



Dulux's range of interior paints are low odour, low VOC and are certified under the Singapore Environment Council's Singapore Green Labeling Scheme as environmentally preferred paints. Dulux All is a multi-functional premium interior paint that offers durability, outstanding washability and anti-bacterial properties. It has low odour, even when freshly painted.

Media Coverage – Sky Vue Condominium

Universal Design Mark and Green Mark

Sky Vue, Singapore (Universal Design Mark Gold - Design and Green Mark GoldPLUS)

Sky Vue, a 694-unit residential development located in the heart of Bishan, will offer a wide array of lifestyle amenities to cater to residents of all ages and abilities. Every floor of the two 37-storey blocks will feature two interconnected lobbies which will not only provide more exclusivity for the residents but also reduce the travel distance between the lift lobby and the unit for more comfort. Sky Vue will offer four sky terraces on the top floor, each with their own features, where residents will be able to enjoy exclusive, panoramic views.

The development features well-articulated, livable spaces, catering to different family structures and individuals. Each unit is designed to allow for immediate 'move-in'. Design innovations include a fully fitted kitchen for each unit, a dedicated shoe cabinet with a key slot feature as well as an accessible walk-in closet for the master bedroom regardless of the unit type - a rare provision for its market segment. Each unit type also has its own unique layout features, some of which are not conventional in the current market. These features include dual access to the shared bathroom for small units and for selected unit types, balconies which straddle across the kitchen, living room and master bedroom to function as outdoor entertainment spaces. For couples with babies or young children, the structural layouts of the larger units are designed to offer the adaptability to combine the master bedroom and the adjacent bedroom into a shared space. Likewise, there is also the flexibility to combine the living room and the adjacent bedroom into a large entertainment space or work area.

Sky Vue is also thoughtfully designed in line with environmental sustainability through energy and water efficient features. Solid walls and openings are strategically positioned to reduce solar heat transfer into the unit without compromising the architectural design and user comfort. Coupled with energy-efficient air conditioners, these strategies significantly reduce energy consumption. As LED lighting has a longer lifespan and is more energy efficient than conventional lighting, the use of LED lighting in common spaces such as lobbies, corridors and car park will reduce the need for regular lighting replacement and reduce energy consumption. A rainwater tank integrated into the development will harvest

6

rainwater for landscape irrigation. In addition, a drip irrigation system coupled with rain sensors will be installed to efficiently channel the harvested water to the plant roots in order to reduce water wastage.

Sky Vue will also feature a bio-retention basin which will function as a storm water treatment system to treat surface run-off. This will slow down the rate of water flow into the city drainage system during peak rainfall, thereby minimising chances of flash floods. Sustainable products which are certified by local bodies such as Singapore Green Building Council and Singapore Green Labelling Scheme will be extensively used in Sky Vue. These products include constructed materials with recycled content, and with low chemical emissions.

Estimated energy savings: 3,000,000 kWh/yr; Estimated water savings: 85,000 m³/yr

Media Coverage - PacificLight Power

State-of-the-art power plant

PacificLight Power's \$1.2 billion gas turbine facility maximises efficiency and is environmentally friendly

by douglas chew

WINNING the BCA Green Mark Award for the first time is the new \$1.2 billion, 800-megawatt combined cycle gas turbine plant on Jurong Island by PacificLight Power.

Says Mr Rajendra Vegda, the company's project controls manager: "Careful consideration was given to ensure we met not only the Green Mark design requirements but also other environmental considerations, including both Singapore and World Bank emissions standards.

"Our plant utilises state-of-the-art technology which ensures we maximise our efficiency. This in turn reduces our impact on the environment."

During the design phase of the plant's construction, PacificLight engaged an ISO 14000 certified mechanical and electrical consultant to maximise the benefits of the energy and water efficiency measures.

In addition, the project team had on board professionals with knowledge of Green Mark requirements.

A healthy building that uses NEWater

Throughout the plant, one can find energy-saving lighting with high-frequency ballast that not only reduces consumption but also improves lighting quality.

PacificLight Power also looked into water efficiency in its quest to make its buildings environmentally friendly.

The plant uses NEWater as much as possible in its operations, reducing the need to further process the water or buying alternative sources.

In terms of its water efficiency, all its water fittings are rated Excellent or Very Good.

"Particular focus was given to the selection of materials and resources used to reduce the environmental impact of our buildings," says Mr Vegda.

Environmentally friendly products certified under the Singapore Green Labelling Scheme and the Singapore Green Building Council — such as floor coatings, waterproof coatings, acoustic tiles and plasterboard for partitions and ceilings — were employed in the plant's construction.

Paint with low volatile organic compounds was used to ensure good air quality in the buildings.

The plant has commenced operations, and the staff there continue to keep up the good work, recycling waste through the recycling bins on site.

"One of our company's core

values is social responsibility.

"An inherent part of that value is to behave responsibly in the environment we operate in by utilising resources such as water and electricity wisely," says Mr Vegda.

"Efficient equipment and environment friendly products and installations can be costly. However, we believe that adopting the best practices and equipment provides long-term benefits to the company, the environment and our customers."

Efficiency has its rewards

An efficient power plant not only helps to keep costs down, it also keeps prices competitive.

As an electricity power generation company and a licensed electricity retailer, PacificLight Power sells electricity to enterprises through its sister company PacificLight Energy.

Says Mr Vegda: "We constantly strive to maximise efficiency. Implementing high-quality equipment and adopting sustainable practices is an important step in ensuring

Our plant utilises state-of-the-art technology which ensures we maximise our efficiency. This in turn reduces our impact on the environment.

— Mr Rajendra Vegda, project controls manager

we meet that objective.

"Maximising efficiency also allows us to produce electricity with the least emission and at more competitive prices so that the consumers will benefit from a better environment and cheaper electricity costs."

The plant's buildings are designed to minimise heat transfer from the outside.

There is an envelope thermal transfer value of less than 40 watts per square metre, which helps reduce cooling requirements, thus saving energy.

The energy-efficient air-conditioning uses refrigerants that do not deplete the ozone and to save on air-conditioning costs, while areas including toilets, staircases and carparks are naturally ventilated.

Its lifts and escalators come with variable voltage and variable frequency controls — this helps to optimise energy consumption with a "sleep" mode when not in use.

Efficient equipment can be costly but Mr Vegda believes that they provide long-term benefits to the customers and the environment.

PHOTO: CHONG JUN LIANG



Stakeholders of Eco-Labeling



Consumers



Industrial
and
commercial
partners

Eco-
Labelling
Participants

Government



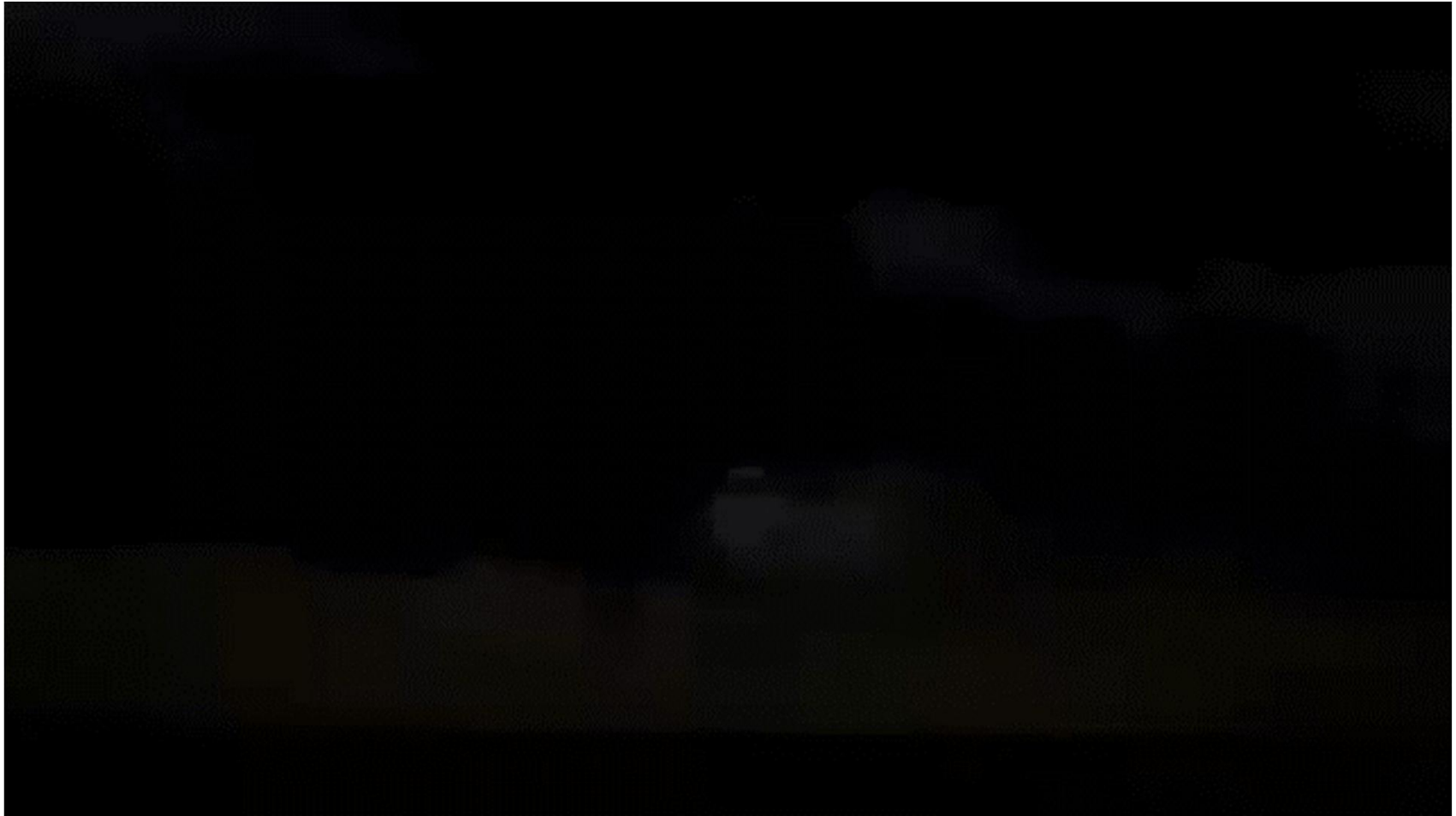
Singapore
Environment
Council

Other interested
Parties (eg
NGOs, Media,
Consumer
Groups)





We can't wait until tomorrow



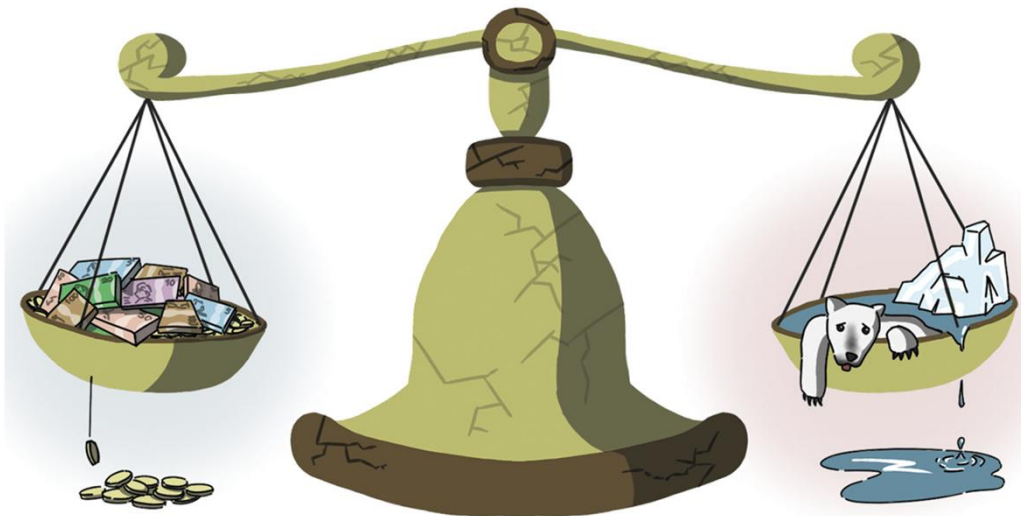
<https://www.youtube.com/watch?v=8YQlaOldDU8>



Finding that balance...

"Earth provides enough to satisfy every man's needs, but not every man's greed."

- Mahatma Gandhi





THANK YOU

www.sec.org.sg

+65 6337 6062



@SECSingapore



SingaporeEnvironmentCouncil