



Media Release

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SBF launches Singapore Emission Factors Registry and an industry-led Resource Portal to accelerate businesses' net zero transition

Friday, 4 October 2024 [Singapore] – A public-private initiative led by the Singapore Business Federation to accelerate businesses on their decarbonisation journey was unveiled today by Senior Minister of State for Manpower and Sustainability and the Environment Dr Koh Poh Koon at the Global Compact Network Singapore (GCNS) Apex Gala Dinner & Awards Ceremony.

2 NetZeroHub.SG is an industry-led digital platform specifically catered to help businesses reduce their carbon footprint. The platform consists of two components: the Singapore Emission Factors Registry (SEFR) and the Resource Portal.

Singapore Emission Factors Registry (SEFR)

3 In a Forward SG conversation organised by PwC Singapore on sustainability held with Minister for Sustainability and the Environment and Minister-in-charge of Trade Relations Ms Grace Fu, Singapore-based sustainability practitioners highlighted concerns that their greenhouse gas (GHG) emissions calculations (particularly Scope 3) may be less accurate. Organisations commonly use emission factors to estimate their GHG emissions. Although emission factors registries are available in countries such as the UK and the USA, the data are geography specific and may not be representative of Singapore's emission profiles.

4 This led to further conversations with Singtel, PwC Singapore, and the Ministry of Sustainability and the Environment (MSE), which culminated in the SEFR's establishment which was announced by Ms Grace Fu at Ecosperity Week in April 2024. The SEFR is co-developed by Singapore Business Federation (SBF) and the Agency for Science, Technology and Research (A*STAR), with voluntary knowledge contribution from Singtel and PwC Singapore respectively. This initiative is supported by the Ministry of Trade and Industry, MSE, Enterprise Singapore and SBF Foundation.

5 The SEFR aims to aggregate emission factors into a single source and expand the suite of emissions factors in time to come, for use by Singapore businesses. For a start, businesses will be able to access more than 200 EFs which are relevant to their GHG emissions accounting and reporting for Scope 1, 2 and 3. These EFs

covering eight categories, i.e. building equipment, building materials, fuel, greenhouse gases, land transport, purchased energy, waste, and water, are consolidated from four government agencies and the Singapore Green Building Council. The EFs are derived in accordance with internationally-recognised standards such as ISO14044 and EN15804.

6 Through SEFR, organisations seeking to calculate their GHG emissions would have more localised emission factors. This would assist businesses with their climate-related disclosure regulatory requirements, such as the requirement by SGX RegCo to require all issuers to start reporting Scope 1 and Scope 2 GHG emissions from financial year 2025. **Annex A** provides more details on the benefits of using SEFR. SEFR data can be accessed for free through www.NetZeroHub.sg, or through partner digital solution providers such as carbon calculators which will incorporate these EFs (see **Annex B**).

7 New EFs for other activities, such as logistics, information and communications technology (ICT), cleaning services, and security services, are expected to be added to the SEFR from 2025. These are common activities across a large majority of Singapore businesses. Availability of these EFs is intended to allow businesses to account for their Scope 3 emissions more comprehensively and representatively. SBF will convene industry consultations to seek feedback on other activity categories of EFs to be developed. Businesses may also provide their views via www.NetZeroHub.sg.

8 “A*STAR's partnership with SBF, government agencies, and key industry players will enable new emission factors which are tailored to the specific needs of Singapore's business landscape to be identified and developed. These newly developed EFs will help local companies better quantify their emissions. By working together, we strive to drive sustainability and support Singapore's net-zero ambitions,” said Dr David Low, Executive Director, A*STAR Singapore Institute of Manufacturing Technology (A*STAR SIMTech).

9 Ms Aileen Tan, Singtel's Group Chief People and Sustainability Officer, said, “We believe a collaborative approach is needed for the business community to tackle the complexities of measuring and reporting carbon emissions and achieve more precise climate-related disclosures. We are glad to jointly establish the Singapore Emissions Factors Registry with SBF and share what we have learned from our own experiences with other companies to further emissions accounting. With Scope 3 reporting expected to rapidly evolve, we have also pledged a S\$1 million donation to SBF Foundation's Corporate Purpose Initiative over the next five years to drive projects like the registry which will lead to more informed decision-making and action to advance decarbonisation and Singapore's net-zero transition.”

10 Ms Fang Eu-Lin, Partner and Sustainability and Climate Change Practice Leader at PwC Singapore, said, “It has been a rewarding journey to witness the ideas that emerged from the Forward SG conversation come to fruition with SBF powering the way. What I see is that this is not just a platform launch; it is also a catalyst for more robust and reliable emissions reporting, which will lead to clearer decarbonisation pathways. With more Singapore businesses empowered to make informed decisions and take decisive actions to reduce their emissions, this marks yet

another step forward for Singapore in transitioning to a low-carbon economy.”

11 Ms Jean Tan, CEO of SBF Foundation, said, “We are excited to be part of a pioneering initiative that empowers Singapore businesses to take meaningful steps toward decarbonisation. The SEFR is a critical resource, enhancing the accuracy of carbon reporting with localised emission factors and streamlined tools for emissions reduction. In alignment with UN SDG 13 on Climate Action, this initiative is central to Singapore’s efforts to combat climate change. Through the SBF Foundation’s Corporate Purpose Initiative (TCPI), which helps SMEs advance their ESG goals, we believe the SEFR will provide the data needed to drive impactful climate action and emission reduction strategies. We thank the generous donors to the TCPI including BinjaiTree, City Development Limited, DBS Bank, Far East Organisation, RGE Group and Singtel.”

Resource Portal

12 NetZeroHub.SG also features a Resource Portal, which provides a repository of thought leadership articles, practical toolkits, case studies, and directory of training programmes and solution providers to help businesses decarbonise. Its unique features include:

- (a) **Plan** - Many businesses, especially small and medium sized enterprises, lack capability and capacity to embark on decarbonisation. Even though information exists online, the resources are not organised sequentially, making it difficult for businesses to come up with a structure to plan their decarbonisation journey. NetZeroHub.SG provides step-by-step guidance to help Singapore businesses make sense of the existing ecosystem, with a focus on empowering them to develop practical plans to reduce emissions.
- (b) **Learn** - Sustainability-related information is fragmented and hosted across multiple websites, making it less convenient and even confusing for users to refer. The portal aggregates and curates resources from different organisations into one single site to enhance convenience of users. It only features those which are relevant to Singapore businesses (compared to using a general online search which may yield resources which are not specific to Singapore).
- (c) **Connect** - It serves as a first-stop for businesses embarking on decarbonisation, especially those who may be faced with a paradox of choice when identifying solutions (e.g. digital carbon accounting calculators or sustainability reporting platforms). Despite spending much time and effort, businesses may still end up with solutions that are less suitable for their needs (e.g. too complex, too costly, or not robust enough). The portal guides businesses to identify the most suitable one for their needs based on criteria such as budget, company size, function, etc.

13 The Resource Portal is a joint initiative with Sustainability Alliance (SA), which is founded in October 2022 by Singapore Chinese Chamber of Commerce and Industry (SCCCI), Sustainable Energy Association of Singapore (SEAS), and SGTech. The close collaboration between SBF and SA reflects the commitment by various trade

associations and chambers in Singapore to unite to better organise existing resources, prevent duplicative efforts, and support Singapore businesses with their net zero transition. SA comprises trade associations from diverse sectors, which would allow initiatives with SBF to become available to companies from a wide spectrum of industries.

14 Mr Frank Phuan, Co-Chair of SA, said, “The launch of the Resource Portal marks a milestone in Singapore’s journey towards net-zero. At the SA, we recognise that businesses – especially SMEs – face numerous challenges in navigating the complexities of decarbonisation. With this platform, we aim to simplify access to critical tools, knowledge, and solutions, empowering companies of all sizes to take practical steps towards sustainability. By consolidating resources under one roof, the portal serves as a vital guide to help businesses plan, learn, and connect, ultimately accelerating their transition to a greener future.” Mr Lau Shih Hor, Co-Chair of SA, said, “We aspire for the Resource Portal to help time-challenged SMEs, impact investors, and even startups, to obtain direct and useful information and guidance to get them started. The Resource Portal plays a pivotal directory role for smaller private companies to cut through the noise and start on sustainability in a manner that makes business sense.”

15 The Resource Portal is free to access, and is designed for all businesses in Singapore regardless of size, sector or decarbonisation maturity. SBF and its partners are committed to maintain the accuracy and timeliness of information, as well as actively develop new features to meet the evolving needs of businesses. SBF and the Sustainability Alliance will regularly seek feedback from the community to improve and shape the future of the platform to ensure it remains a relevant and up-to-date resource for businesses.

16 Mr Kok Ping Soon, Chief Executive Officer of SBF, said, “SBF is proud to launch these initiatives together with our partners, to support Singapore businesses in their decarbonisation journey. The SEFR is a critical and timely resource to enable businesses to turn the challenges of compliance with climate-related disclosures into opportunities. By developing a better understanding of their operations and value chains, businesses will be able to identify emission hotspots, and work more effectively towards reducing emissions. We have also developed the Resource Portal because information on decarbonisation is currently housed across multiple websites, making it very challenging for businesses to compare and decide on the toolkits, training programmes, carbon calculators, or other solution providers which best meets their needs. By consolidating multiple resources under a single site, we aim to help businesses overcome these challenges, so that they can focus on making progress on decarbonisation.”

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About Singapore Business Federation

As the apex business chamber, the Singapore Business Federation (SBF) champions the interests of the business community in Singapore in trade, investment and industrial relations. Nationally, SBF acts as the bridge between the government and businesses in Singapore to create a conducive business environment. Internationally, SBF represents the business community in bilateral, regional and multilateral fora for the purpose of trade expansion and business networking.

For more information, please visit: www.sbf.org.sg

Annex A: Benefits of using SEFR data

1) Perform GHG emissions accounting more conveniently through a single reference point

Currently, anyone who wishes to search for emission factors published by different government agencies will have to visit the websites of the respective agencies. With the launch of the SEFR, sustainability professionals will just need to refer to one single page for all data.

2) Perform GHG emissions accounting with enhanced representativeness and consistency using localised emission factors

Currently, due to a lack of localised emission factors, Singapore businesses tend to use foreign emission factors to calculate their GHG emissions. Using SEFR can improve the representativeness of the GHG measurement by taking into account the Singaporean context. For example:

- Singapore's public trains run using Singapore's grid electricity whose emission intensities are different from that of the UK's or USA's. The average occupancies, operational efficiencies and climatic conditions could be different. Thus, using international emissions factors for these would not paint the most accurate picture.
- Water use in Singapore presents the unique Four National Taps scenario, where a sizeable portion comes from recycling of used water and desalination, which are less common to other countries. Thus, having a specific factor for water which represents the actual production scenario in Singapore is important.

The current situation also means that two businesses will report two different emission data even if they perform the same activities, if one were to reference the UK database, while the other were to reference the US database. As more businesses adopt the SEFR data, we hope that SEFR will promote greater consistency in reporting across Singapore businesses.

3) Other strategic purposes

Beyond GHG emissions accounting, the SEFR can help Singapore businesses to make better decisions using localised data when used together with internal carbon pricing or green procurement policy. For instance, a business looking to procure a fleet of new passenger vehicles can use the SEFR to make more well-informed decisions on which would be the most suitable type (e.g. internal combustion engine, hybrid or battery electric for the use phase of the vehicles), based on its climate targets and policies.

Annex B: List of digital solution providers which will incorporate SEFR data

The following digital solution providers have partnered with SEFR and are committed to making SEFR data available on their platforms so that their Singapore-based users benefit from using Singapore-specific emission factors data to enhance the accuracy and consistency of their emissions measurements.

These solutions are also listed on the NetZeroHub.SG Resource Portal.

S/N	Digital solution (product name)	Company / organisation
1	Asuene	Asuene APAC Pte Ltd
2	Carbon Emissions Recording Tool (CERT)	UN Global Compact Network Singapore
3	Carbon Navigator	Novata Pte Ltd
4	Convене ESG	Convене SG Pte Ltd (Wholly owned by Azeus Systems Holdings Ltd)
5	CO2X Enterprise	CO2 Connect Pte Ltd
6	ESGpedia	ESGpedia Pte Ltd
7	Gprnt	Greenprint Technologies Pte Ltd
8	Green Project	ACT Solutions APAC Pte Ltd
9	PALO IT Impact Tracker	PALO IT Singapore Pte Ltd
10	Persefoni Pro Persefoni Advanced	Persefoni Singapore Pte Ltd
11	Terrascope Decarbonisation SaaS Platform	Terrascope Pte Ltd
12	Veridis	Zuno Pte Ltd