



Energy Storage System Committee Meeting

**19 April 2023
3.00 – 4.31 pm**

**SEAS Office @ Sky Park
180 Kitchener Road, #06-10 City Square Mall, Singapore 208539**

No	Name	Company	Signature
1	Peter Ng	Narada Asia Pacific Pte Ltd	Present
2	Kenneth Lim	3DOM (Singapore) Pte. Ltd.	AWA
3	Shaun Ong	Aqua 3I Pte Ltd	AWA
4	Koon Siang Ng	C&W Services	AWA
5	Alan Khor	Cleantech Solar	Present
6	Katheryn Tan	Cleantech Solar Development Company Pte Ltd	AWA
7	Yukino Utada	Durapower Holdings Pte Ltd	AWA
8	Laurence Kwan	EDPR-Sunseap APAC	Present
9	Joseph Yan	Energreen Technologies Pte Ltd	Present
10	Dr. Ramprakash Kathiresan	Energy Research Institute @ NTU	Present
11	Cai BingYu Gui	Ground-Up Initiative (GUI)	Present
12	jeremy ong	Gurin Energy Pte Ltd	AWA
13	See Fong Ho	HY M&E Consultancy Services Pte Ltd	AWA
14	Geetha .S	Keppel Data Center Holdings Pte Ltd	Present
15	Brandon Lim	KPMG	AWA
16	Andrew Koh	megawatts	AWA
17	Kelvin Ng	Megawatts Engineering Pte Ltd	Present
18	Pedro Esteban	Merus Power Plc.	Present
19	Aman Ullah	Narada Asia Pacific Pte Ltd	Present
20	Abdul Rashid Abdul Wahid	Nippon Koei Co. Ltd (Singapore Branch)	Present

No	Name	Company	Signature
21	Garry TAY	noco-noco pte ltd	AWA
22	Emily Loo	OCBC Bank	Present
23	Param Gadhैया	OCBC Bank	Present
24	Hw Wu	opis dow jones	AWA
25	Jun Yee Chew	Rystad Energy	Present
26	Ken Tay	Rystad Energy	AWA
27	Zaixing Wang	Schneider Electric	AWA
28	Kelvin Ong	Schneider Electric	Present
30	JUN HUI GOH	Singapore District Cooling Pte Ltd	Present
31	Keng Han Chong	Singapore District Cooling Pte Ltd	Present
33	Sei Hoe Tan	Sumitomo Mitsui Finance and Leasing	Present
34	Srinivasan Sivaraman	TIPL	Present
35	Henry Eu	Trinasolar	AWA
36	Jit Wai Chua	Trinasolar	Present
38	Hitendra Shetty	Wartsila Corporation Energy	Present
39	Louie Dela Cruz	Yinson Green Technologies Pte Ltd	Present
40	William Low	Yinson Green Technologies Pte Ltd	Present

	Description	Action By
1.	<p><u>Welcome by Secretariat, Kavita Gandhi, Executive Director, SEAS and the Energy Storage System Working Group Chairman, Peter Ng</u></p> <p>Kavita Gandhi (KG) opened the meeting at 3.10pm and welcomed everyone to the meeting, before introducing the first speaker of the day.</p>	
3	<p><u>Presentation by Dr. Ramprakash Kathiresan, Co-Director, Smart Grid & Power Electronics Consortium, Singapore (hosted at Energy Research Institute @ NTU)</u></p> <p>RK shared with the members about the latest advancements in Energy Storage (ES) & applications in Smart Grids. He covered the current ES scene and highlighted the status and current challenges in Singapore and its short, medium and long term roles or actions by Singapore in the ESS transition. Next, RK also shared the hardware</p>	

	<p>(interfacing) and software needs for Energy Transition, before wrapping up his presentation with a brief sharing of the emerging techs for ESS in the Singapore scene.</p> <p>Lastly, RK closed his presentation with an invitation for the members to visit the Energy Research Institute for any potential collaboration.</p>	
4	<p><u>Presentation by Mr Aman Ullah, Technical Sales Director- Asiapac , Narada Asia Pacific Pte Ltd</u></p> <p>AU began his presentation with an introduction on Narada Group and its battery products portfolio. Next, AU shared about Narada’s ESS Solution Application on the Grid, User and Generation sides, and added that they have a Global Installation in 45 countries since 2010. AU also shared a screenshot of Narada’s Energy Management Systems and highlighted its capabilities and the Product Safety Certification their products have achieved.</p> <p>Lastly, AU closed his presentation with some of Narada’s project experiences and project brief. Both AU and Chairman Peter (PN) closed the presentation by welcoming the members with any ESS devices to reach out to Narada for any potential collaboration with their container solutions.</p>	
5	<p><u>Presentation by Cai BingYu, Kampung Architect, Ground-Up Initiative (GUI)</u></p> <p>BY began his presentation with a sharing on how he relates ‘Cognitive Dissonance’ with the social behaviours towards Climate Change. Next, he also shared about what GUI is and what it does to the environment and social aspects of Singapore. GUI uses back-to-basic tools and activities in the nature to allow people to connect with each other and the nature, which is physically, mentally, and emotionally healing. BY also shared that their goal is to collaborate and work with schools and collaborate with more corporates to achieve their alignment with Singapore Green Plan and the UN’s Sustainable Development Goals.</p> <p>Lastly, BY wrapped up his presentation with an update of their upcoming move to a new site in Yishun and their fund-raising campaign via Ray of Hope.</p> <p>PN also added and shared on how Narada has contributed to and benefited from GUI and hopes that the members could consider doing the same. GUI facility can also be used for test bedding by SME’s and start-ups who don’t have access to large facilities.</p>	

6	<p><u>Update by Secretariat, Kavita Gandhi, Executive Director, SEAS</u></p> <p>KG introduced and updated the members on SEAS past activities, including the recent MOU Signing between SEAS members on energy imports from Indonesia at the Fullerton Hotel in the presence of 3 Ministers last month. Next, KG shared about another initiative that we are doing together with SGTech & Singapore Chinese Chamber of Commerce & Industry (SCCCI) - Singapore Sustainability Alliance. KG added that this is not an exclusive alliance, where we are looking to add more Association to work together.</p> <p>KG then shared with the members of the upcoming meetings, activities, and trainings to be expected. Firstly, our next Committee meeting will be the Electric Mobility meeting that will be taking place on 31 May 2023. Secondly, we have various Business Mission to Dubai in May, Indonesia in June and China in Q2.</p> <p>KG also shared the upcoming training programme that are also available on our website, and Asia Clean Energy Summit will be held from 26 - 28 October. KG encouraged members to reach out to us if they would like to sign up as sponsors or exhibitors. Next, KG also added that the chairman of the Startup group is looking to create a Digital Platform with a landscape of all the startup in Singapore and map it to the Singapore Green Plan.</p>	
7	<p><u>Any Other Matter</u></p> <p>Next ESS meeting: <u>30 August 2023</u></p> <p>KG also urged the members to join the upcoming AGM on <u>17 May 2023</u>, where we will have SMS Dr Amy Khor joining us as a Guest of Honour, and we will also be having a fireside chat with her.</p> <p>PN shared that previously we have spoken to EMA, and they have joined the meetings twice, hence the matters between EMA and ESS are addressed for now. Next, we have discussed about SCDF matters since last meetings, and they were unable to join the meetings. However, we have been in constant communication with Major Tan from SCDF, who suggested that the committee may form a small group of 5 – 6 people to represent SEAS to submit in a proposal. Members are encouraged to volunteer and to submit your questions and issues to SEAS for consolidation. KG added that we would like to have volunteers from different parts of the ESS value chain, so that everybody's point of views will be represented.</p> <p>Lastly, Chairman closed the meeting and reminded volunteers to write to SEAS for the SCDF exercise and reiterated that we are doing this exercise with SCDF representing SEAS.</p>	

Recorded by : Joanne Ye

Vetted by : Kavita Gandhi

Approved by : Peter Ng