

Message From the Chair:

Dear fellow IOM3 Energy Transition Group (ETG) technical community members:

It has been some time since our last newsletter but your IOM3 ETG leadership team has not been idle.

Last summer we started the process of refreshing your leadership team and the new members were all inducted in stages by the end of the 1st quarter. We are delighted to have been able to diversify the energy sectors represented in the leadership beyond our historical fossil fuel focus. We now have a good mix of longer serving members, new members including younger members with gender, and ethnic background diversity. Steve Bedford, a long serving member, has taken on the role of Vice Chair with newer members appointed to the following roles: Usama Zulfiqar, Secretary; Helen Goddin, Schools and University Outreach; Henry Oughton, Webmaster; and Abigail Stanley IOM3 SECC liaison and newsletter editor.

Once the refreshed leadership team had been fully formed, we held a one-day workshop developing the background for an IOM3 policy paper on the Energy Transition. This will be issued early on in 2024. We continue to be involved in helping IOM3 with input into government consultations related to the Energy Transition and will be contributing an article for Materials World October issue focusing on the unfortunate slowing actions on the commitments to reduce climate change towards the goal of net-zero by 2050. The ETG technical community portion of the IOM3 website will be revised and updated and this newsletter will be the first for a time with 3 or 4 editions planned per year.

We are always looking for our membership to give us advice on what we should continue doing, stop doing or start to do. Please give us input by emailing me on: ETG@iom3materialscycle.org



Meet the New Leadership Team Members



Abigail Stanley

IOM3 SECC liaison and Newsletter Editor

Abigail Stanley holds a BEng in Materials Science and Technology from the University of Birmingham. Currently, Abigail works as a consultant within the Nuclear Industry, using her knowledge of materials to focus on key issues such as spent fuel corrosion and waste encapsulation within cementitious materials.

Dr Helen Goddin

Schools and University Outreach

Dr Helen Goddin has a BEng in Materials Science and Engineering from the University of Bath, and a PhD in high temperature electronics from the University of Cambridge. Helen has 17 years of industrial experience, including 8 years at Johnson Matthey focused on catalyst development, and 9 years at TWI. In her current role, she develops catalysts for the ammonia market, including those for the emerging low carbon hydrogen economy.



Dr Usama Zulfiqar CEng MIMMM

Secretary, IOM3 Energy Transition Group

Usama is a materials scientist who has worked on various types of materials for energy and environmental applications. He obtained PhD (Materials) from the University of Manchester and currently work as a Research Fellow at University College London. He is a member of the Royal Society of Chemistry and the Institute of Materials, Minerals and Mining.



Tony Palmer BEng MSc MBA CEng FIMMM

Tony has been in the energy industry, with BP, for over 30 years in a variety of commercial and technical senior leadership roles covering the full energy value chain from exploration, production to midstream transportation and trading to gas and power sales to customers. This has included leading the commercial development and financing of large infrastructure projects and subsequent P&L delivery. He has spent extensive periods of time working in North Africa, the Middle East and has lived in both China and Indonesia. Based in London, Tony is currently the VP of Gas & Power Integrated Solutions for bp focussing on developing customers, initially based on the supply gas, liquefied natural gas and power that can be combined and ultimately de-carbonised over time to low carbon solutions.

Mandar Thakare



Mandar Thakare is the Associate Director of ICAM. He joined BP in Sep 2019, as the Materials Science Programme Manager, and in Nov 2021 was appointed as the Associate Director.

He is responsible for ensuring that the bp-ICAM continues to deliver business value and maintains alignment with bp's strategy for net zero transition. He has over fifteen years' experience in materials engineering, innovation strategy, and new product development. Prior to joining bp, he worked as an Innovation Programme Lead at Element Six Ltd, where he supported a multi-site global team of scientists in developing and commercialising novel polycrystalline diamond products for oil and gas applications. He holds a BEng in Mechanical Engineering (Mumbai, India), MSc in Surface Engineering (University of Nottingham), a PhD in Tribology (University of Southampton, Schlumberger plc funded) and an MBA (Alliance Manchester Business School). He has published journal papers, book chapters and conference papers about tribocorrosion and is also a member of the IMechE Tribology Committee, and a reviewer for journals such as Wear, Tribology International, ASME Journal of Tribology.

Henry Oughton

Henry holds a BEng in Materials Science and Engineering from the University of Birmingham and is an associate member of IOM3 (AIMMM). Working for Frazer-Nash Consultancy, Henry has held roles across a variety of industries with a primary focus on fatigue and corrosion modelling of PWR technology for civil and defence applications.



Joseph Frean

Joseph Frean holds a BSc in Geology from the University of Southampton and a MSc in Geoenergy from the University of Edinburgh, where he studied geoscience of the energy transition covering minerals, new energy production and subsurface energy storage. He has had one years experience as an Offshore Geophysicist working for Enviros and has recently joined Intertek as a Junior Consultant. He has worked in the UK, Namibia and Korea, for numerous global energy clients. Being new to the industry he is wanting to learn and get involved within the changing energy transition.



Dr Jack R Barnes BE CEng FIMMM

Dr Jack Barnes holds a BE(Hons) in Electrical Engineering from the University of Sydney and a PhD in nanotechnology from Cambridge University. Following a post-doctoral research position, also at Cambridge University, he spent 25+ years in the energy industry working for Shell across diverse operational and corporate roles, including drilling, upstream development, commercial, strategy, M&A and JV leadership, living and working in many countries. He has more recently become the CEO of Mining3, a global innovation and development organisation supporting the mining industry based in Brisbane, Australia. Jack is committed to helping find the 'least messy' way to help navigate the complexities of the energy transition.



Upcoming Events:

In addition to the many excellent events and conferences run by IOM3, there are several upcoming conferences which may be of interest to ETG members.

- 21-22 February 2024 - **SPE Aberdeen Geothermal 2024:** [Geothermal 2024- SPE Aberdeen \(spe-aberdeen.org\)](https://spe-aberdeen.org)
- 13-15 May 2024 - **World Hydrogen 2024 Summit & Exhibition:** [World Hydrogen Summit 2024 – The Global Platform Where Hydrogen Deals Get Done \(world-hydrogen-summit.com\)](https://world-hydrogen-summit.com)
- 18 - 19 June 2024 - **Global Offshore Wind 2024:** [Overview \(renewableuk.com\)](https://renewableuk.com)

Energy Transition in Action:



ETG Member Photo - Craig Durham: Vattenfall Aberdeen Bay Windfarm