

Field Visits

Field Visit 1 - Industrial visits

Organizer: Dr Furat Dawood

Date: Tuesday 10th FEBRUARY 2026

For those who choose the field visit the coach leaves from the Discovery Way bus stop in front of Boola Katitjin at 1.20pm.

Here is a short description followed by the itinerary:

Visiting Magellan Power in Bibra Lake provides a firsthand look at a cornerstone of Western Australian renewable energy manufacturing. Guided by founder and Managing Director Masoud Abshar—a passionate power electronics engineer who established the company in 1991 to champion local innovation—the visit highlights a sophisticated facility where backup power systems, electric vehicle chargers, and advanced energy storage units are designed and built. As a family-owned business, the Bibra Lake headquarters showcases a 70-strong workforce, including specialized technicians and engineers working on mission-critical technologies for the mining, oil and gas, and defense sectors. Visitors can observe the company's commitment to the "4R" battery ecosystem—repair, refurbishment, repurposing, and recycling—which positions Magellan at the forefront of the Battery Circular Economy in Australia.

Visiting Carbon 280 in Henderson near the Kwinana heavy industry area offers a deep dive into the future of global decarbonisation through their breakthrough Hydrilyte® technology. A visit led by Dr. Adriana Pires Vieira, the company's lead Research Scientist, highlights the sophisticated materials science behind their 100kW Technology Pilot (HTP) Plant. This state-of-the-art facility demonstrates how hydrogen can be safely stored as a non-toxic, non-flammable liquid at ambient temperature and pressure using a magnesium-based carrier. As a specialist in materials characterization, Dr. Pires Vieira provides expert insight into the system's ability to separate hydrogen from mixed gas streams—such as natural hydrogen or industrial by-products—and store it for transport using existing liquid fuel infrastructure.

The final visit to **Carnegie Clean Energy** in North Fremantle offers a unique look at the forefront of wave energy technology. Located at the Fremantle Wave Energy Research Facility, the site serves as the global headquarters where engineers develop the proprietary CETO technology—a fully submerged buoy

system that captures energy from ocean swells. Visitors can explore the onshore and offshore test facilities, which include a "nursery" site for rapid prototype deployment and a sophisticated SCADA system for real-time monitoring. Under the leadership of CEO Jonathan Fiévez, the facility highlights Carnegie's transition from research to commercial-scale projects, such as the MoorPower™ technology designed to decarbonise offshore aquaculture and the Garden Island Microgrid.

Tuesday 10 February– Visit to Industries (50 People Maximum)

1.30 pm - Discovery way Bus stop in front of Boola Katitjin, Murdoch University

1.40 - 2.40pm - Magellan Power, Bibra Lake (Masoud Abshar) 64 Bushland Ridge, Bibra Lake, 6163, Nicole Arkell, Front desk Receptionist , P: 08 9434 6621 | Ext 108. E: reception@magellanpower.com.au

3.15 - 4.00pm - Carbon 280 - Henderson (Adriana) ,10 Ward Rd, East Rockingham, Western Australia 61684.30- 5.30pm - Carnegie Clean Energy Limited; 21 North Mole Drive, North Fremantle Deone Denner, Office Co-Ordinator,+61 8 6168 8400. e: ddenner@carnegiece.com

6.00 pm - Discovery Way, Boola Katitjin, Murdoch University to end the field visits

6.10 pm - Pick people up for dinner at 6.10 pm. Only those with dinner tickets will be allowed on the bus.

We need to reach the Fremantle Sailing Club (151 Marine Terrace Fremantle WA 6160) by 6.20 pm to start at 6.30 pm.

Field Visit 2 - Electric Power Conversions Australia (EPCA) (18 Maximum)

Organizers: Assoc. Prof. Martin Anda & Mr Fred Spring

Date: Tuesday 10 February

Conference delegates can visit 3 sites east of Perth city focused on battery energy storage. First, Centurion electric truck recharging, second, EPCA diesel mining truck conversions and thirdly, solar microgrid power stations factory near the airport.

Electric Power Conversions Australia (EPCA) at their workshop at 3 Central Avenue, Hazelmere WA to experience a tour led by Clayton Franklin, a proud Wunumara Aboriginal man and the company's founder. During the tour of the active workshop floor, delegates will see firsthand how EPCA retrofits massive

100-tonne diesel mining trucks, such as the CAT 777D, into full battery-electric vehicles by replacing traditional diesel engines with high-torque electric powertrains. Participants will learn about the engineering behind these systems—which can reuse up to 80% of existing truck components—and explore how they eliminate over 1,300 tonnes of CO2 emissions per year while offering faster acceleration and superior operational efficiency.

1:00 pm - Discovery way Bus stop in front of Boola Katitjin, Murdoch University

1.30 pm – Visit Centurion Transort (6 Mackay St, Kewdale WA 6105)

2:30 pm – Visit EPCA (3 Central Ave, Hazelmere WA 6055)

3.30 pm – Visit Microgrid Systems (Unit B1/20 Tarlton Cres, Perth Airport WA)

4:30 pm – Return to Murdoch

5:30 pm – Reach Murdoch

6.10 pm - Pick people up for dinner at 6.10 pm. Only those with dinner tickets will be allowed on the bus.

We need to reach the Fremantle Sailing Club (151 Marine Terrace Fremantle WA 6160) by 6.20 pm to start at 6.30 pm.

Field Visit 3 – DigiLab Tour (Maximum of 30 people)

Organizers: Mr Martin Hill & Mr Bryn Durra ns

Date: Wednesday 11 February 2.30pm -3.30 pm

Registered participants come to the registration counter at 2:30pm to proceed to the Digi Lab Tour.

Murdoch University utilizes virtual and alternative reality to support teaching. This includes VR headsets which allow students to experience virtual tours of wind, solar, hydro, and nuclear power systems. We invite conference participants to have a tour of the virtual reality labs including having a go of a virtual tour using the Energy Encyclopedia application on a Meta Quest 3 headset.