MAG Manchester Airport				Manchester Airport **Fixed Electrical Ground Power**		**Risk Rating**	**High – Reviewed Annually**
Reference:	EGCC-I-AOPS-019	**Issue:**	1	**Owner:**	Head of Airfield Operations	**Department:**	Airfield
Issue Date:		**01/08/2025**		**Compliance Date:**	**01/09/2025**	**Planned Review Date:**	**19/03/2026**

1 PROCEDURES FOR USE OF FEGP

Once the aircraft is parked the ground mounted pantograph ('crocodile') unit may be pulled out towards the aircraft and the cable plugged into the aircraft's external supply socket. A reasonable amount of slack cable should be left between the socket and the pantograph bucket.

Before being able to draw power from the FEGP, the individual user will need to present their valid ID card to the proximity or swipe card reader on the control panel, which is usually located adjacent to the FEGP or on the airbridge. Once swiped the light on the card reader should flash red/green. Whilst the card reader is flashing and the unit is connected to an aircraft the individual user may operate the system by pressing the start button on the FEGP units or on the pantograph to activate the FEGP. If, however, the user has not connected the FEGP to the aircraft and activated the FEGP within approximately 5 minutes of swiping their card, then the user will have to swipe their card again to allow use of the FEGP. Once the system is activated this will assign the supply to a particular user and record the levy.

When the user has finished drawing power the FEGP needs to be de-energised by pressing the stop button on the on the FEGP units or on the pantograph (same locations as for powering up).

- Use of FEGP is mandatory where available. APU/GPU usage is only permitted where there are operational FEGPs under the following circumstances:
- Prior to push back Code C and below = 30 mins
- Prior to pushback Code D & E – 45 mins
- Prior to pushback Code F = 60mins
- Where the air temperature exceeds 20˚C (temperature information provided sensors on Terminal 1 Ramp)
- Where the air temperature is below 5˚C (temperature information provided sensors on Terminal 1 Ramp)
- Where the aircraft commander deems absolutely necessary to condition the cabin

Should the user attempt to use the FEGP without using the swipe card first then no power will be able to be drawn. Also, should any unauthorised users attempt to swipe their card then no power will be able to be drawn and the card number logged. It is imperative that when an updated ID is issued that the ID is also updated at the Permit Office to ensure access to FEGP system is maintained.

If the FEGP fails to operate it must be reported immediately to the Asset Support Team (AST) on 3776 stating time, stand number, aircraft type and registration number along with the fault.

Queries and ID authorisations are handled by:

Permits Controller
Pass Office
Telephone 0161 489 3479

2 USE OF MOBILE GROUND POWER UNITS (GPU's)

Only if the FEGP is unserviceable or incompatible should a mobile GPU be used. Constantly running GPU's can cause high noise levels on the apron; are an additional obstruction to free movement around a parked aircraft and, if poorly maintained, may deposit oil spillage on the stand. When the use of mobile GPU's is necessary the following procedures are to be observed:

- GPU's are to be used in a manner consistent with necessity and must be shut down when not required
- Ground Power Units are to be parked so that they can be driven 'away' from a running engine and not towards the engine
- Operators are to ensure, when GPU's are in use, that the connection cable between the GPU and the aircraft is routed, so that as far as is reasonably practicably, it does not present a trip hazard to persons
- Operators are to ensure that the GPU's are maintained so that they do not present a safety or environmental hazard (i.e. emissions). In addition, all associated cabling must be adequately shielded.

3 AUXILIARY POWER UNITS (APU's)

Aircraft APU's generate high levels of noise and significant fumes. The noise of an APU can mask the sound of approaching vehicles.

It is the responsibility of Airlines and Aircraft Handlers to ensure that APU's are used in a manner consistent with necessity and for the absolute minimum time necessary to meet the operational needs.

4 28 VOLT CONVERSION UNITS

There are 23 x 28 volt conversion units placed on various stands around the apron. These units are used to convert the 400Hz ac supply to a 28Volt dc supply for smaller aircraft.

To operate these units, they must first be connected to the 400Hz FEGP system, and then the FEGP is activated in the normal way. The 28 Volt connections can then be made with the aircraft and the unit started.

Upon completion the unit should then be stopped at the FEGP or pantograph, the plug withdrawn from the aircraft and the 400Hz plug withdrawn from the 28V converter. The converter should then be returned to a safe parking position with cables stowed so as not to present and safety or trip hazard