FIXED ELECTRICAL GROUND POWER
WHO AM I?

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FIXED ELECTRICAL GROUND POWER

WHAT IS IT?

Fixed Electrical Ground Power (FEGP)

“A method of providing 400Hz power to an aircraft while on stand”

Fundamentally…
Car Charging for Jets
FIXED ELECTRICAL GROUND POWER

TRADITIONAL METHODS

Aircraft Auxiliary Power Unit

“An APU is a small jet engine in the tail of an aircraft that provides energy for functions other than propulsion.”

Fundamentally…
Keeps the lights on
FIXED ELECTRICAL GROUND POWER

TRADITIONAL METHODS

Diesel Ground Power Unit

“A Mobile Diesel Generator used to energise an aircraft whilst on stand”

Fundamentally...

Keeps the lights on when aircraft is parked
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MODERN METHODS

Fixed Electrical Ground Power

“Changes standard 230V 50Hz AC to the 115V 400Hz AC used by an aircraft”

Fundamentally…
Cleaner way of keeping the lights on when aircraft is parked
Pier 3

“Converter mounted under cabin of the Airbridge, converter interlocked with Airbridge for increased safety”

Fundamentally…
Airbridge brings converter right to the aircraft
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INSTALLATIONS

Pier 1

“Converter mounted remotely with a pit and duct system delivering power to the tug box”

Fundamentally…

Power position aligned with aircraft receptacle
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MAIN BENEFITS

• Equipment Life Costs
• Asset Management
• Sustainability
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Equipment Life Costs

“Through the electricity charges applied to the airlines we are able to recoup costs for maintenance, operation and replacement of equipment”

Fundamentally…
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Asset Management

- Energy Monitoring
- Asset Monitoring
- Stand Safety
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Energy Monitoring
Active Energy + Ignition

“Dual System combining pure Energy Consumption for our Energy Monitoring team and on-block off-block times for our Billing Dept”

Fundamentally…
Stand + Time = Actual Aircraft Consumption (€€€€€ again)
Asset Monitoring
O/S Indication + Ignition

“Local asset status indication and daa IT+T built a bespoke ignition platform to monitor all FEGP equipment”

Fundamentally…
More Monitoring > Downtime
Stand Safety

“Removal of Assets from stands + We are responsible for the FEGP Assets”

Fundamentally…

Removal of Equipment + Ensured Maintenance = Safer Stand
Sustainability
Pre-planning

“Pier 1 was built with the infrastructure for FEGP 10 years before it was implemented”

Fundamentally…
Future Proofing > Environmental Impact
Sustainability
Fuel Consumption

“FEGP results in a massive reduction in fuel consumed during generation process and removes completely transportation fuel consumption”

Fundamentally...
Fuel reduction = 20% to 80%
Sustainability

CO$_2$

“FEGP dramatically reduces the CO$_2$ emitted into the air during stand operations”

Fundamentally…

CO$_2$ reduction = 11% to 78%
Sustainability

NO\textsubscript{X} reduction = 30% to 80%

"FEGP dramatically reduces the CO\textsubscript{2} emitted into the air during stand operations"
Sustainability
No local pollutants

“FEGP does not eliminate pollution but greatly reduces it and removes it from the Aerodrome and Greater Fingal”

Fundamentally…
No CO\textsubscript{2}, NO\textsubscript{X}, Noise or Particulate Matter released locally
Sustainability
No local pollutants

“FEGP aids in the removal of all the pollutants from our local environment; which not only meets our sustainability needs but also takes care of Dublin Airports Number 1 Asset……
Sustainability
No local pollutants

“……our Staff”

Fundamentally…
Majority of people employed in Dublin Airport live near Dublin Airport.