

Design Submission Process

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Document control

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Author	Robert Peare
Reviewer	Luay Elia
Approver	Gregory Addison-Smyth
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Introduction

This document outlines the design submission process and the required documentation for Gas, Electric and Water networks.

When submitting your design

Please ensure the correct **mua ref** is included within the subject of the email submission.

Please ensure that all below mentioned documentation is provided within your design submission and in line with our MUA Gas technical standards, Electric G81s and NAV Water/Waste standards.

mua's dedicated design team will respond within **2-3 working days**.

Gas designs

Please submit the following information to us by email to Gasdesign@muagroup.co.uk ;

- Signed and accepted AV (Latest revision).
- Copy of signed accepted GDN CSEP application FM153a.
- Engineering Report, Site address, materials specifications, and MUA reference.
- Construction plan, Site layout, design drawing, showing proposed gas pipeline network.
- Gas network design files and reports (GasWorks SNAP, Stoner SynerGee ...).
- Check the Gas design criteria (Pressure and Velocity) are within MUA Gas Technical standards limits.
- Design risk assessment, flood risk, and method statement where applicable.
- Easement requirement: check route of lay for all mains and services in line with MUA guidance.
- Manifold sketch diagram, set up, access route, and cross section (where applicable).
- PRI SR25 Pack, Governor Risk assessments, Vehicle Impact assessments (where applicable).
- PRI Technical data sheet, model, type, make ...etc. (where applicable).
- PRI Civil drawings and Plinth detail with Parking (where applicable).

Electricity designs

Please submit the following information to us by email to elecdesign@muagroup.co.uk ;

- Signed and accepted AV (Latest revision).
- Copy of signed accepted DNO POC application.
- Engineering Report, Site address, materials specifications, and MUA reference.
- Construction plan, Site layout, design drawing, showing proposed cables routes network.
- Electric network study, files and reports (such as Windebut, Grid connect etc.)
- Check the electric design criteria (Volt drops, ELIs) are within MUA Electric G81s standards limits.
- Design risk assessment, flood risk, and method statement where applicable.
- Easement requirement: check route of lay for all mains and services in line with MUA guidance.
- SLD, High rises sketch diagrams, set up, access route, and cross section (where applicable).
- Substation design, drawing, earthing, small power, and lighting (where applicable).
- Substation Civil drawings, plinth detail, cable pit and access (where applicable).
- Earthing report, earthing design drawing and other associated document (where applicable).

NAV designs

Please submit clean water and wastewater designs to waterdesign@muagroup.co.uk

- Clean water design approval checklist – [click here](#)
- Wastewater design approval checklist - [click here](#)

All networks

- Signed and accepted AV (Latest revision).
- Copy of signed accepted NAV POC application with site demand and pressure level.
- Engineering Report, Site address, materials specifications, and MUA reference.
- Construction plan, Site layout, design drawing, showing proposed Water/Waste pipeline network.
- Design risk assessment, flood risk, Topographical drawing CAD format, Soil investigation and method statement where applicable.
- Contaminated land assessment
- Environmental Authority (EA, Scottish Environmental Protection Agency (SEPA) or Natural Resources Wales approvals for river/stream crossings, etc.
- Easement requirement: check route of lay for all mains and services in line with MUA guidance.
- Details of any special features (PS, DMA areas, water sampling points).
- Fire authority requirements showing position of hydrants – correspondence required

Domestic meters

- Housing description/specification
- Labelling proposals
- Meter location

Flats

- Internal M&E schematics inclusive of full water design
- Manifold details
- Entry points
- Meter location

Commercial metered supplies

- Demand profile
- Meter size, type, manufacturer
- Meter location

Unmetered Connection Request

Please submit the UMS request form found in [Appendix 1](#) of this document, with your Electric design submission.

An unmetered supply is any street furniture that draws a predictable current and is connected to the Distribution Network without a meter recording its energy consumption.

mua will consider providing an unmetered connection where the point of load, defined as the point at which the item connected consumes electrical energy is 500Watts or less.

Please note that for new connections, the form is only applicable to unmetered supplies that require a single-phase connection - please contact us in the first instance if you require a three-phase unmetered supply. Each unmetered supply request we receive is reviewed on a case-by-case basis and you may be contacted by us to verify the information you have provided.

Embedded Generation

Please submit all generation enquiries to generation@muagroup.co.uk;

We will need to have a live 3400000 MPAN in the system to proceed with the generation connection.

Some G98/G99 generation applications are subject to mua and DNO reinforcement charges. We will provide costs for the contestable and non-contestable work, which are passed on to the applicant. Costs may vary depending on the application size and the incumbent DNO cost.

G98 application

Connection of single and multiple micro-generating installations. Connection of generation <3.68kW (Engineering recommendation G98)

What we require for approval:

- Completed ENA G98 application form containing all contact details and the appropriate technical information set out in the ENA forms. Details of the full address for where the connection will be installed including plot number and MPANs (mua MPANs start at 34000).
All G98 applications should follow the guidance set out by the Energy Networks Association. This can be found on the ENA website: energynetworks.org
- A single line diagram (SLD) electrical wiring schematic of the proposed installation ie the location of the equipment, PV investor, isolator and metering unit.

G99 application

Connection of single and multiple generating installations. Connection of generation >3.68kW and including 50kW (Engineering recommendation G99)

What we require for approval

- Completed ENA G99 application form containing all contact details and the appropriate technical information set out in the ENA forms. Details of the full address for where the connection will be installed including plot number and MPANs (mua MPANs start at 34000).
All G99 applications should follow the guidance set out by the Energy Networks Association. This can be found on the ENA website: energynetworks.org
- Site plan as follows, at a scale of at least 1:500:
 - Including the six-digit X, Y OS grid coordinates
 - Showing some identifiable landmarks such as roads
 - Showing the proposed site boundary
 - Showing the proposed location of incoming connection point
 - mua network reference number

- A Letter of Authority (LOA) from the landowner or occupier where the applicant is acting as an agent of the occupier or landowner.
- A single line diagram (SLD) electrical schematic of the proposed installation showing:
 - the location of the protection equipment
 - the associated automatic disconnecting devices
 - preferred connection location and with voltages
 - the interface with the mua Electricity network and the customer's local network including loads, isolation points, generators, transformers, circuit breakers and cables etc.
- Fault level data - this is the fault level contribution from your installation/equipment into our electricity network.
- Details of Invertors, capacity limitation units, battery storage devices, harmonics, flicker, and any other disturbing equipment you plan to connect as a part of this generation system.

Generation next steps

When your G98/G99 application is fully approved, we'll issue you with an approval letter and notify our Asset Values team (AV.requests@muagroup.co.uk) that a generation has been added to this MPAN.

If you require an export MPAN, we'll introduce you to our Supply Point Administration team (spa@muagroup.co.uk) and confirm the generation connection KVA in the email.

As part of the application process, we forward all application to the local DNO. Where witness testing is required, this is chargeable, and payment is required before booking a date.

Land rights

Please submit all land rights enquiries to landrights@muagroup.co.uk ;

Please submit your instructions to your chosen land rights service provider:

CLM enquiries

The Grain Store, 63 High Street, Ketton, Stamford, PE9 3TE

Tel: 01780 755 355

Email: admin@clm-ltd.co.uk

Easement Solutions enquiries

Ford Cottage, 2 Water Street, Stamford, PE9 2NJ

Phone: 01780 751 122 / 753 388

Email: enquiries@easementsolutions.co.uk

Land rights will be required if the below is met:

PRI POC (Industrial, commercial, and residential)	
PRI Gas Governor Installation	With Clearance and Parking Bay
Third Party Land	IP/MP for 6m Strip, LP for 3m strip
Multiple Registered Landowners	Full Land rights for all MUA Gas connections

CSEP POC MP/LP (Industrial, Commercial and Residential)	
Mains Gas Pipe	When AVs above 3K, covered by (ICP/Dev) Third Party Land Bridge and Culvert Crossing Tunnel Crossing Multiple Landowners Commercial Estate Water Tank Crossing Private Customer Garden Grass Verge Ground Soft Ground (Unmade)
Services MP or LP	As Above
Metering Position (if applicable)	Commercial Plot, IP Network, Bulk Supply
Safety Valve Position (if applicable)	Commercial Plot, IP Network, Bulk Supply
CSEP Position (if not within ROs/NROs)	Commercial Plot, Non-Public Highway

Substation HV POC (If Applicable)	
RMU HV (if MUA Adoption)	With Clearance and Parking Bay
EHV Cable (if MUA Adoption)	When AVs above 3K, covered by (ICP/Dev) Third Party Land Bridge and Culvert Crossing Tunnel Crossing Multiple Landowners Commercial Estate Water Tank Crossing Private Customer Garden Grass Verge Ground Soft Ground (Unmade)
HV Cable (if MUA Adoption)	As Above HV for 6 Mtrs Strip, LV for 3 Mtrs strip
Multicores Control LV Cable (ACB installed)	As Above
Substation Package (if MUA Adoption)	With Clearance and Parking Bay
LV Cabinet (if MUA Adoption)	With Clearance and Parking Bay

LV POC (Industrial, Commercial and Residential) Site	
Mains LV Cables	When AVs above 3K, covered by (ICP/Dev) Third Party Land Bridge and Culvert Crossing Tunnel Crossing Multiple Landowners Commercial Estate Water Tank Crossing Private Customer Garden Grass Verge Ground Soft Ground (Unmade) HV for 6 Mtrs Strip, LV for 3 Mtrs strip
Services HV or LV	As Above HV for 6 Mtrs Strip, LV for 3 Mtrs strip
Service Cut out	Integral Building, 24/7 Access Required

Appendix 1 – UMS request form

Customer Information

Contact Name	
Company Name	
Company Address	
Telephone	
Mobile	
Email	

Electrical Contractor / Independent Connection Provider Details

Name	
Company	
Address	
Postcode	
Telephone	
Mobile	
Email	
Fax	

Site Details

Development name	
Address	
Postcode	
Grid Reference / OS Coordinates*	
Site Plan	Please include site and location plan marked with the Unmetered Supply(s) with this request

**If known*

Supplier Details

Supplier Contact Name	
Supplier contact details (email/Phone)	
MA (Meter Administrator)	
MA/CMS Reference Code	
Expected connection Date	
MPAN Address (if different from main site address)	
Measurement Class	
Meter Time Switch Code	

* Please note measurement Class that Mua Electricity Limited will not provide a connection to our network until you (the end user) have appointed an Electricity Supplier for this Unmetered Supply. We can provide an MPAN to you for New Connections upon our acceptance and approval of this application.

Equipment Information

Equipment Type	No. of units	Wattage of Unit(s)	Daily hours of operation	Measured CMS/Non-Measured CMS	Switching Regime	UMS Charge Code
E.g. Streetlighting	15	17	Dusk Til Dawn	Non-Measured CMS	200	4200170000100
Total:						
Anticipated Connection Date:						

Equipment Type examples: - Streetlights, CCTV, Speed Cameras, Network Pillar etc.

Hours of Operation examples: - Continuous, Dusk to Dawn, Half Night and Pre-Dawn, Dawn to Dusk etc.

**Please see <https://www.elaxon.co.uk/operations-settlement/unmetered-supplies/charge-codes-and-switch-regimes/> for relevant charge codes

Signature

Name	
Company	
Address	
Postcode	
Telephone	
Mobile	
Email	
Fax	

By signing this sheet, you have the authority to request this Unmetered Supply for and on behalf of the end user