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Introduction & Process

UK Power Solutions aim to provide the highest standard of customer service throughout the entire connection process providing the customer with a single point of contact at every stage of the project.

We will be installing the electricity distribution infrastructure to ensure the new supplies you have requested are energised to the required metering points. Once this infrastructure has been energised it will then become fully owned and maintained by the adopting Network Operator.

An approved design will be provided for you which will have been approved by the adopting Network Operator, it is essential that the elements of the installation that you are responsible for are installed to the exact specification required on the design, failure to adhere to this could result in the energisation of the new infrastructure being delayed and/or incurring additional costs, something we are very keen to avoid.

Finally, if there is any part of this project that you are unsure, unhappy or really pleased about, please don’t hesitate to contact us, in addition we will also provide you with details of our Area Construction Manager should you wish to escalate any queries.
Responsibilities

The below table clearly defines who is responsible for the various tasks required for the installation of the electricity services on your site, these may vary slightly if specifically requested at quotation stage, please check your proposal to confirm or call your Project Manager to discuss.

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Customer</th>
<th>UKPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Request call off of service connections from UKPS</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Provision of MPAN numbers</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Excavation and reinstatement of onsite cable trenches</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Supply and installation of onsite ducting and draw cord</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Supply and installation of onsite cable warning tape</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Supply and installation of external meterbox and hockey stick</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Excavation of onsite joint bays</td>
<td>✔️</td>
<td></td>
</tr>
<tr>
<td>Supply and installation of electrical cabling</td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Arrange for meters to be fitted</td>
<td>✔️</td>
<td></td>
</tr>
</tbody>
</table>

Requesting works

Once the main supply has been energised onto your site you will be able to call off any remaining mains cable installation and service connections in line with your requirements.

Lead times for calling off work are:
- LV mains cable installation – 20 working days
- LV service connections – 15 working days

LV mains cable installation should be requested through your Dedicated Project Manager

LV Service connections should be requested via the UKPS plot Call Off team by simply filling out the Service “Connection Request Form” (Page 14) and either faxing it to 0845 2577 106 or emailing the form to plotcalloff@ukpowersolutions.co.uk.

Please be aware that the below requirements need to have been met prior to our site attendance to ensure the works can be completed without aborted visits.

- Premises are watertight and lockable
- Meter boxes/positions are installed and complete
- Final Ground Lines and Levels are determinable
- Jointing excavations are suitable and safe
- Scaffolding has been removed from our work area
- Ducting/containment has been installed to the correct specification and position
It is very important that only the correct specification of materials are used, below is a list of the items that the customer would normally be required to supply, if in doubt always ask your Project Manager prior to procurement:

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Material Use</th>
<th>Colour/Size</th>
<th>Manufacturer</th>
<th>Applicable standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Meter Box Recessed</td>
<td>Housing of cutout and meter</td>
<td>White H595 x W409 x D210mm</td>
<td>MCL Composites</td>
<td>ENATS 12-24 Class 3</td>
</tr>
<tr>
<td>38mm Hockey Stick</td>
<td>Protection of service cable rising into meter box</td>
<td>White 38mm width</td>
<td>MCL Composites</td>
<td>BS8567:2012 ESI 12-3</td>
</tr>
<tr>
<td>38mm smooth electrical Polyduct</td>
<td>Ducting of service cables</td>
<td>Black 38mm ID</td>
<td>Polypipe</td>
<td>ENATS 12-24 Class 3</td>
</tr>
<tr>
<td>125mm twin walled ridgiduct electricity embossed on two diametrically opposing sides</td>
<td>Ducting of Low Voltage and High Voltage mains cable</td>
<td>Black 125mm ID</td>
<td>Polypipe</td>
<td>ENATS 12-24 Class 2</td>
</tr>
</tbody>
</table>
Examples of Service Crossings and Connections:

Acceptable Electricity Service Routes

Unacceptable Electricity Service Routes

Note - the above examples demonstrate the requirement for all service cables to take the most direct route from the property towards the point of connection with the mains cable. The service cable must not cross any other land other than that of the property it is supplying.
Positioning of services in the highway (NJUG):


Recommended Positioning of Utility Apparatus in a 2 Metre Footway.

Note - the same positioning should apply in the carriageway / service strip (if safe and practical to do so) where a development has no footway(s) available for services and / or the boundary of the property is on the carriageway (please refer to minimum depths in carriageways). For further advice please contact the asset owner.
Outdoor Meter Box locations:

Outdoor meter boxes must be mounted into or onto an external wall located at the front or side elevation of a property. Meter boxes must not be positioned behind a gate or fence as this could restrict access.

✔ Meter boxes must be installed at:
• Maximum height of 1800mm from ground level to the top of the box - to enable access without ladders of steps.
• Minimum height of 450mm from ground level to the bottom of the box - to reduce the risk of water entering the box in the event of flooding or fire-fighting activities.

✗ Outdoor boxes must not be installed:
• Inside a property
• At the rear of a property
• At the side of the property behind a fence or gate
• Inside a dustbin, coal or refuse store.
• Inside a garage or porch
• Underneath a window unless the minimum installation height of 450mm is achievable.

Single phase service cables must be installed vertically up the surface of the wall and enter the meter box from the underside. The cable must be protected by a cable guard or contained within a pipe.

Outdoor boxes should be installed at:

The customer's consumer unit must be located so that the conductors from the electricity cut out are no longer than 3m, in order to comply with BS7671 regulations. If the unit exceeds this requirement then suitable switch fused protection must be installed. This protective device must be installed within the 3m limit.
Indoor Meter Box locations:

Indoor meters are accepted as long as the following conditions are met:

- The design of the indoor position does not put tradesmen or occupiers at risk of coming into contact with live equipment during installation and subsequent building work.
- The service cable must be ducted and routed inside or under the building by the shortest and most direct route possible. The internal end of the duct must be sealed immediately after the cable has been installed.
- If a suitable brick or block work wall is not available, then a steel sheet at least 1mm thick and earthed should be fixed behind the service cable, cut out and meter.
- Electric services must have a minimum spacing of 300mm from other services.
- Where a meter is installed in a cupboard in a main access or egress route, then this shall be designated as a “protected area” and as such shall be 30 minute fire rated.
- Unimpeded access to be provided for cut out with 1.5m fall back distance from cut out to opposite wall.

Standard fibreglass outdoor meter boxes are not suitable for indoors as they do not comply with the appropriate British standards for fire resistance and fume emissions. Meter boxes must fully comply with the fire regulations and any local by-laws.

Indoor Meters Cannot be installed:
- Inside a dustbin, coal or refuse store.
- In a kitchen or Bathroom.
- Above doorways.
- On partition walls made of plasterboard, drywall or similar material (without steel plate).
- Under stairs where headroom is less than 2m.
- In any location which is in breach of the current edition of BS7671 “Requirements for Electrical Installations”.

If a suitable brick of block work wall is not available, a steel sheet at least 1mm thick and earthed should be fitted behind the service cable, cut out and meter.

Note:
- Standard detail only.
- Cupboard size and locations may vary from plot to plot.
- Unimpeded access to be provided for cut out with 1.5m fall back distance.
- The indoor position shall not put tradesmen or occupiers at risk of coming into contact with live equipment during installation and subsequent building work and occupiers at risk thereafter.
- The service equipment must be installed on a brick or block work wall.
Cable Installation

UKPS are responsible for the supply, and installation of all electrical cables on site in trenches that are to be pre-excavated by the client (unless otherwise stated). The following minimum depths shall be adhered to when carrying out trench excavations in advance of a cable installation.

Service Cable:

<table>
<thead>
<tr>
<th>Service Cable</th>
<th>Installation</th>
<th>Depth of duct / top of cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footpath</td>
<td></td>
<td>450mm</td>
</tr>
<tr>
<td>Roadway / Crossing</td>
<td></td>
<td>600mm</td>
</tr>
<tr>
<td>Verges</td>
<td></td>
<td>450mm</td>
</tr>
<tr>
<td>Agricultural</td>
<td></td>
<td>1000mm</td>
</tr>
</tbody>
</table>

Cable entry into building

- Leave duct plugged
- Extend duct clear of foundations
- Duct normally required to be 450mm (18") below ground level
- Extend duct to the back of the footpath with draw cord
- Bottom of trench must be level and free from sharp stones
Low Voltage Mains Cable:

<table>
<thead>
<tr>
<th>Installation</th>
<th>Depth of duct / top of cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footpath</td>
<td>450mm</td>
</tr>
<tr>
<td>Roadway / Crossing</td>
<td>600mm</td>
</tr>
<tr>
<td>Verges</td>
<td>450mm</td>
</tr>
<tr>
<td>Agricultural</td>
<td>1000mm</td>
</tr>
</tbody>
</table>

Bottom of trench must be level and free from sharp stones

Electric Marker Tape
Sand/Finefill

25 Int Ø

Bottom of trench must be level and free from sharp stones

125 Int Ø

### High Voltage (11kV) Mains Cable:

<table>
<thead>
<tr>
<th>Low Voltage Cable</th>
<th>Installation</th>
<th>Depth of duct / top of cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footpath</td>
<td>600mm</td>
<td></td>
</tr>
<tr>
<td>Roadway / Crossing</td>
<td>750mm</td>
<td></td>
</tr>
<tr>
<td>Verges</td>
<td>600mm</td>
<td></td>
</tr>
<tr>
<td>Agricultural</td>
<td>1000mm</td>
<td></td>
</tr>
</tbody>
</table>

- **Footway**
  - Bottom of trench must be level and free from sharp stones
  - Electric Marker Tape
  - Sand/Finefill
  - 125 Int Ø

- **Roadway**
  - 125 Int Ø
  - 300
  - Sand/Finefill

- **Road Crossing**
  - 125 Int Ø
  - 300
  - 300
  - Spare duct for road crossing

- **Agricultural**
  - Bottom of trench must be level and free from sharp stones
  - 125 Int Ø
Service Connection Request

Date of Request:                      UKPS Project No:
Site Name:                           Site Contact:
Site Address:                       
Tel No:                             Email:                      Fax No:  

PLEASE NOTE: A minimum of 15 working day’s notice for service connections is required and a minimum of 5 plots to be connected per visit. In the event of a cancellation/postponement a minimum of 5 day’s notice is required. A separate connection request form is required for each proposed date and a new connection request form is required for any amendments to booking. Site will be required to sign off any aborted works in the box below.

The requested connections works will not take place until the below requirements of the adopting network owner have been met prior to our site attendance:

•Premises are watertight and lockable.
•Meter boxes/hockey sticks are fixed.
•Jointing excavations are suitable and safe.
•A minimum of 1.2m of main is required for service jointing
•Final ground lines and levels are appropriate
•Ducting/containment has been installed to the correct specification and position

<table>
<thead>
<tr>
<th>Proposed Date:</th>
<th>For UKPS Use Only</th>
<th>Confirmed Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plot Number</td>
<td>Service Type (tick)</td>
<td>Comments</td>
</tr>
<tr>
<td></td>
<td>Outside Meter Box</td>
<td>Internal</td>
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I confirm that the above listed requirements will be met and that the site will be ready for UKPS attendance on the above requested date, failure to meet the above requirements will lead to aborted works and incur further costs:

Requested by:                      Signed:  

For UKPS Office Use Only

No. of service connection visits in proposal:  Visit No:  Signed:  

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Notes:
Contacts

**Project Manager:**

Mobile:

Office:

Email:

**Connections Co-ordinator:**

Mobile:

Office:

Email:

**Regional Construction Manager:**

Mobile:

Office:

Email:

**Electricity Network Owner:**

Emergency Number: