

I To be completed by the UKCCS: Details of Household / School

Phase I Measurement

Date:

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

Time:

Hours	Minutes
<input type="text"/>	<input type="text"/>

 to

Hours	Minutes
<input type="text"/>	<input type="text"/>

Please use 24 hour clock Please use 24 hour clock
Start Time Two Hours Later

Year of Interest

From:

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

To:

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

Regional UKCCS Contact: Dr. Anthony Staines, LRF Centre for Clinical Epidemiology,
17 Springfield Mount, Leeds LS2 9NG. Tel. (0113) 2333918

Address of Interest: Home / School If school, type of measurement: Single / Multiple Classroom
(circle as appropriate) (circle as appropriate)

If single classroom, has a sketch map of its location been attached?
Please tick: Yes No Don't Know

Postcode:

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Grid Reference: 100 km Grid Square Easting Northing OS Map Sheet No. (1:50 000 series)
(to 10m)

<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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<input type="text"/>	<input type="text"/>	<input type="text"/>
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Regional Electricity Company: _____

Date form sent to REC

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

 Date returned by REC

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

 Date copy sent to NRPB

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

National Grid Company Circuits:

By referring to the 1:50 000 OS Maps supplied by the NGC, which are overprinted with NGC overhead lines and underground cables, please indicate whether the address is:

- 1) Within 400m (8 mm on the map) of an NGC overhead line
Please tick: Yes No Don't Know
- 2) Within 100m (2 mm on the map) of an NGC underground cable
Please tick: Yes No Don't Know
- 3) Was a NGC line or cable identified by the REC on page 4?
Please tick: Yes No Don't Know

If yes to 1), 2) or 3) above then: please send a copy of the NGC form to the NGC contact (Nigel Simmonds, NGC, St. Catherine's Lodge, Bearwood Road, Sindlesham, Nr Wokingham, Berkshire RG11 5BN.)

Form sent to National Grid Company?
Please tick: Yes No Don't Know

II To be completed by the REC: Details of External Sources

REC Contact: _____

This section is used to determine:

- Whether there were any external sources (substations, underground cables, overhead lines or three phase distribution circuits) of interest near the address.
- If so, whether they were operating typically at Phase I measurement and during the year of interest.

Unless otherwise stated, all distances are to the centre of the home / school. BUT, for single classroom school measurements with sketch map attached (see p1), please measure distances to the centre of that classroom.

Typicality: Is there anything unusual about the local network, which might have made Phase I measurements unrepresentative?
 Yes No Don't Know

If yes, please describe: _____

Substations: During Phase I measurement, was there an operating substation within 20m of the location?
 Yes No Don't Know

If yes to substation:
 Was the substation operating typically throughout the year of interest?
 Yes No Don't Know

Distance (metres) from nearest point of substation to the centre of home / school / classroom:

Primary Voltage (kV) Circuits: Underground / Overhead (Please circle) Secondary Voltage (kV) Circuits: Underground / Overhead (Please circle)

Separated Phase Underground Cables (33 kV and above):
 Most underground cables have conductors bundled together. We want only those with separated phases. During Phase I measurement or at any time during the year of interest, were there any separated-phase REC cables of ≥ 33 kV within 20m of the centre of the home / school (multiple) / classroom (single)?
 Yes No Don't Know

If yes, please complete for each circuit:
 Please note that all measured distances are of closest horizontal approach to centre-line of cable route.

Cable Circuit 1	Distance from residence (m) <input style="width: 40px;" type="text"/>	*Cable outage at Phase I date & time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NK	Estimate of total outage (in weeks) over year of interest if ≥ 4 weeks (within 4 wks) <input style="width: 40px;" type="text"/>
Voltage (kV): 33 / 66 / 132	Date if cable was added during the year of interest: <input style="width: 100px;" type="text"/>	Date if cable permanently disconnected in year of interest: <input style="width: 100px;" type="text"/>	
Cable Circuit 2	Distance from residence (m) <input style="width: 40px;" type="text"/>	*Cable outage at Phase I date & time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NK	Estimate of total outage (in weeks) over year of interest if ≥ 4 weeks (within 4 wks) <input style="width: 40px;" type="text"/>
Voltage (kV): 33 / 66 / 132	Date if cable was added during the year of interest: <input style="width: 100px;" type="text"/>	Date if cable permanently disconnected in year of interest: <input style="width: 100px;" type="text"/>	

Where there is more than one cable circuit present, Circuit 1 is the one closer to the address

II To be completed by the REC: Details of External Sources (cont.)

REC High Voltage Overhead Lines: During Phase I measurement or at any time during the year of interest, were there any high voltage REC overhead lines within the following distances of the school / home? Please tick: Yes No Don't Know

132 or 66 kV design-rated at > 1200 A within 200 m 11 or 33 kV double circuit within 80 m
 " 600 - 1200 A within 140 m or " single circuit within 50 m
 " < 600 A within 100 m

If yes, please complete for each circuit:

Please note that all measured distances are of closest horizontal approach to centre-line of overhead line.

Line A Circuit 1	Dist (m) from residence <input type="text"/> <input type="text"/> <input type="text"/>	OH line outage at Phase I date & time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NK	Estimate of total outage (in weeks) over year of interest if ≥ 4 weeks (within 4 wks) <input type="text"/> <input type="text"/>
Voltage (kV): 33 / 66 / 132	Date if circuit was added during the year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Date if cable permanently disconnected in year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Rating (A): < 600 / 600-1200 / >1200			
Line A Circuit 2	Dist (m) from residence <input type="text"/> <input type="text"/> <input type="text"/>	OH line outage at Phase I date & time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NK	Estimate of total outage (in weeks) over year of interest if ≥ 4 weeks (within 4 wks) <input type="text"/> <input type="text"/>
Voltage (kV): 33 / 66 / 132	Date if circuit was added during the year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Date if cable permanently disconnected in year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Rating (A): < 600 / 600-1200 / >1200			
Line B Circuit 1	Dist (m) from residence <input type="text"/> <input type="text"/> <input type="text"/>	OH line outage at Phase I date & time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NK	Estimate of total outage (in weeks) over year of interest if ≥ 4 weeks (within 4 wks) <input type="text"/> <input type="text"/>
Voltage (kV): 33 / 66 / 132	Date if circuit was added during the year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Date if cable permanently disconnected in year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Rating (A): < 600 / 600-1200 / >1200			
Line B Circuit 2	Dist (m) from residence <input type="text"/> <input type="text"/> <input type="text"/>	OH line outage at Phase I date & time? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NK	Estimate of total outage (in weeks) over year of interest if ≥ 4 weeks (within 4 wks) <input type="text"/> <input type="text"/>
Voltage (kV): 33 / 66 / 132	Date if circuit was added during the year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Date if cable permanently disconnected in year of interest: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	
Rating (A): < 600 / 600-1200 / >1200			

For double circuit lines, Circuit 1 is the one closer to the address.
 If there are more than two overhead lines, please attach and complete a copy of this page.

Additional Information: _____

II To be completed by the REC: Details of External Sources (cont.)

Additional Information (cont.): _____

Low Voltage Three Phase Distribution Circuits, household addresses only:

Is there a 3 phase LV distribution circuit within 2m of the home exterior walls? Yes No Don't Know
Please tick:

If yes:

Is the above circuit overhead phase separated (open wire)? Yes No Don't Know
Please tick:

Is the above circuit a mural (undereaves) attachment to the residence? Yes No Don't Know
Please tick:

Is the above circuit feeding other houses on Economy 7/White Meter regimes? Yes No Don't Know
Please tick:

Is there any obvious reason (apart from E7/White Meter regimes) for the circuit to have a much higher average load during the night compared to day? Yes No Don't Know
Please tick:

If yes, please describe: _____

NGC Lines and Cables: Are there any National Grid lines of > 132 kV within 400m of the home/school, or 132 kV lines within 200 m, or cables within 20m? Yes No Don't Know
Please tick:

If yes:

Please note that all measured distances are of closest horizontal approach to centre of lines.

	<u>Voltage</u> (circle as appropriate)	<u>Distance From Residence</u> (in metres)
Line / Cable	132 kV / 275 kV / 400 kV / Other: _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Line / Cable	132 kV / 275 kV / 400 kV / Other: _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Line / Cable	132 kV / 275 kV / 400 kV / Other: _____	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

III To be completed by the REC: Line Load Data

If no REC underground cables or overhead lines were identified in Section II, this section can be ignored.

- As line load data from the REC may be needed for some cables or lines, this section is designed to -
 - Establish for which circuits (if any) line load data are required.
 - Indicate the format of the data.
- Provide further information about the underground cable or overhead line.

If there was more than one line or cable, then please complete a separate copy of pages 5 and 6.

Type of circuit: Overhead Line / Separated Phase Underground Cable
(Please circle)

If Overhead Line:

Standard tower type (e.g. L132, PL16, S2, etc.) _____

Conductor name: _____ or Cross-sectional area (m)

(e.g. Lynx)

If line does not have standard towers, please supply a sketch showing relative location of conductors, with dimensions and phases, together with position of residence / school.

If Underground cable: (separate-phase cables only)

Please supply a sketch showing relative location of conductors, with dimensions and phases.

Information Needed for Load Data Decision

⇒ Operating voltage rating (kV): ⇒ Design rating (A): < 600 600 - 1200 > 1200
(Please tick)

⇒ Horizontal distance (m) from centre of address to centre-line of cable or overhead line (from p.3)

If distance between address and centre-line of the overhead line route is < 20m:

Height (m) of lowest conductor at its nearest point to the address.

This can be measured or obtained from records. The height should be given relative to the floor of the lowest normally occupied level of the address. Where the lowest conductor is below this level (e.g. cables), the height is negative.

Circuit Phasing: (for double circuit lines or cables only):

Please indicate Red, Yellow and Blue phasing: (top to bottom or left to right)

Circuit 1: R Y B R Y B
Y B R B Y R
B R Y Y B R

Circuit 2: R Y B R Y B
Y B R B Y R
B R Y Y B R

The line or cable is transposed if the phase order for Circuit 1 is the exact reverse of the order of Circuit 2.

⇒ Is the line / cable transposed?

Please tick: Yes No Don't

III To be completed by the REC: Line Load Data (cont.)

Load Data Decision

To determine whether load data are required please indicate, using the information marked with a "⇒" on the previous page, whether the following statements are true:

Is the operating voltage less than 66 kV?

Please tick: Yes No Don't Know

An underground cable which does not have separated phases?

Please tick: Yes No Don't Know

An overhead line, which is transposed, and the horizontal distance is more than 60m (for rating <600 A); 80m (for 600-1200 A); 120m (for >1200 A)

Please tick: Yes No Don't Know

An overhead line, phasing not transposed, and the horizontal distance is more than 100m (for rating <600 A); 140m (for 600-1200 A); 200m (for >1200 A)

Please tick: Yes No Don't Know

If you have answered "Yes" to any of the above, line load data are **not** required for the line / cable.

Are line load data required?

Please tick: Yes No Don't Know

If yes to load data required:

Are line/cable load data available for the Phase I measurement date and time?

Please tick: Yes No Don't Know

Are line/cable load data available for the year of interest?

Please tick: Yes No Don't Know

Are line/cable load data available for the most recent year*?

Please tick: Yes No Don't Know

* Note: Load data for the year of interest are preferred, but it is accepted that data for the most recent year might be all that are available. This is adequate.

If yes to load data available:

Two files of data are needed: one for the time of Phase I measurement, and the other containing one year's data (either the year of interest or the most recent year). If possible, please supply them as follows:

- As an ASCII file on a floppy disk.
- Disks to be labelled with REC name & the Identifying No. (on top RH corner of this form).
- Half hourly measurement intervals are sufficient.
- One file line per measurement interval, each line being identified by the date and time.
- If the load currents in the circuit(s) are available, then no other quantity is needed.
- If the current is *not* available, then MW is required, and, if possible, MVar and Voltage.

Phase I: File name: _____ Line no. for first line of data: _____

Description of each field on a line of data: _____

One year's data: File name: _____ Line no. for first line of data: _____

Description of each field on a line of data: _____