

**Introduction of external specification for the design of system extensions,
connections and services to below 7bar National Grid systems (T/SP/NP/14/E)
(UIP/iGT Briefing Note 13)**

1. Introduction

In accordance with its Licence Condition 4B Statement National Grid provides UIP/iGT's with a matrix of standard source pressures for the purpose of the design of certain connections to our gas distribution network. In consultation with the industry National Grid has made modifications and enhancements to the standard source pressure table which will further reduce the number of enquiries requiring individual network analysis and reduce the time taken to obtain a connection.

In addition to this National Grid has also consulted on the opportunity to publish it's technical design criteria with the aim of standardising design systems and sharing the principles applied to the validation of UIP/iGT design submissions.

The above initiatives have been developed into an externally available document '*The design of system extensions, connections and services to below 7bar National Grid systems*' (T/SP/NP/14/E) which National Grid will publish on it's external website.

This briefing note details the impacts of the consultation on the current UIP/iGT connection requirements. In addition, this briefing note in conjunction with T/SP/NP/14/E supersedes the externally published '*Standard Source Pressure*' document.

2. Overview

The key contents of T/SP/NP/14/E & the consultation are detailed below, with a more detailed breakdown of how each change impacts on the current connection requirements are detailed in Appendix A and summarised in Appendix B of this briefing note.

- Extended scope of standard table for connection point pressures and minimum supply pressures to include single load and larger load requests.
- The removal of the Network Analysis service for load requests \leq 900KWh/85scmh.
- Requirement for iGT's to provide the actual mains extension pressure drop utilised, once the iGT confirms that the load is to be connected.
- Publication of National Grid standard design tables applied to the validation of UIP/iGT design submissions.
- The removal of method statement requirements at design stage.
- Withdrawal of published '*Standard Source Pressure*' document.
- Implementation of T/SP/NP/14/E.

3. Impacted Documentation

- T/SP/NP/14/E – new document implemented.
- Standard Source Pressure – document withdrawn.
- Introduction of the Standard Source Pressure Table for multiple premise requests to low pressure systems (UIP/iGT Briefing Note 4) – document withdrawn.

- FM139 - Design Submission Requirements Checklist – form amended.
- FM138 - UIP Quotation Request Form – form amended.
- FM138a - UIP 'Fast Track' Self Quotation Acceptance Form – form amended.
- FM153 - Request for quotation of an NDM GT Connected System Exit Point Schedule 1 (Annex B) – form amended.
- FM153a - GT 'Fast Track' self quotation Acceptance for an NDM GT Connected System Exit Point - Schedule 1&2 (Annex B) – form amended.
- FM172 Land enquiry for an NDM GT Connected System Exit Point – form amended.
- Licence Condition 4B Charging Statement – Amended to remove reference to chargeable network analysis service.

4. Implementation

Implementation of this briefing note will apply for new requests or design submissions received from 3 July 2006. Any Design Submission received before close of business on 30 June 2006 will be progressed under the existing arrangements. Revised documentation will be available from 3 July 2006 on the National Grid website at the following address <http://www.nationalgrid.com/uk/Gas/Connections/>

Appendix A – Impacts of T/SP/NP/14/E on UIP/GT process

1.0 Changes to Standard Source Pressure Matrix.

Currently customers are able to utilise standard source pressures to multiple meter point loads requests, for connection to National Grid's low pressure system, as detailed in the externally published '*Standard Source Pressure*' document. Under the new arrangements the scope of the standard source pressures has been extended to guarantee pressures for single meter points, larger load and Medium Pressure requests.

These changes have been incorporated into the new external T/SP/NP/14/E document as follows;

Table A.2: Connection Point Pressures for Low Pressure Systems.

- Guaranteed pressures are now provided for load requests up to 1733KWh (except off ≤ 2 " parent mains).
- Guaranteed capacity is also available for single meter point load requests up to 1733KWh (except off ≤ 2 " parent mains).
- Low pressure service designs ≥ 180 mm diameter based on 2mb pd can now utilise up to 5mb by applying standard available mains pressures.
- When faced with system reinforcement, the minimum LP supply pressure to be used has been capped and reduced to a maximum of 26mb.

Table A.3: Connection Point Design Pressure (loads < 1733 KW/160scmh) and Minimum Supply Pressure for all MP mains extensions.

- The Medium Pressure table is new and introduced to mirror the same principles as Table A.2 but for MP load requests up to 1733KWh. However, pressures covered by the new table are independent of parent mains sizes.

1.1 Impact of changes on UIP/GT connection Process.

- All LP/MP pressure system extensions to supply single or multiple premises which fall within the boundaries of Table A.2 or A.3 can be designed without the requirement for National Grid to carry out Network Analysis as part of the connection request, providing a suitable main exists in the public highway.
- Network analysis for LP or MP loads up to 1733KWh (except non typical loads) within the boundaries of Table A.2 and A.3 will no longer be offered or be required at the quotation stage. This means that requests for the chargeable network analysis service will no longer be available for loads that would otherwise be provided with a standard (guaranteed) pressure.
- Previously published '*Standard Source Pressure*' document has been withdrawn and has been replaced by T/SP/NP/14/E.

Note: In accordance with Annex C of Licence Condition 4b Statement it is sometimes necessary for National Grid to reinforce its system to install sufficient capacity and enable additional gas to be offtaken. This may incur an additional lead-time in excess of any date(s) specified as part of the quotation.

For those requests that fall within the red cells of Table A.2 and MP requests above the thresholds for load v mains size in Table A.1 National Grid will inform

UIP/iGT customers at the acknowledgement of acceptance of the connection request, how long a proposed reinforcement project is likely to take and consequently when gas may be offtaken. Any reinforcement cost, in respect of jobs quoted using the standard pressure matrix will be borne by National Grid.

Note: Any applicable design charges, as published in the ‘Gas Distribution Connection Standard Charges’

<http://www.nationalgrid.com/uk/Gas/Connections/Publications/> will need to be submitted as part of the connection request before network analysis is carried out. Where the request involves ‘A’ and ‘B’ (Condition 13) load details, a single charge will apply provided that the A plus B load only falls within the Table A.2 criteria.

A cheque for payment should be made payable to ‘National Grid’.

2. Standard Design Criteria.

In order to provide clarity on the principals National Grid applies to the design of efficient, fit for purpose mains and services extensions, a number of design tables have been developed for external use. These tables form the basis of National Grid’s validation of UIP/iGT design submissions and set out the required design criteria with the aim of standardising design principles. Where UIP/iGT designs fit within these tables a reduced design submission will be required.

These design tables have been incorporated into the new external T/SP/NP/14/E document as follows;

Table A.3: Connection Point Design Pressure (loads <1733KW/160scmh) and Minimum Supply Pressure for all MP mains extensions.

- Provides confirmation of fit for purpose pressures for use in mains and/or service extensions.
- Clarity of the maximum pressure drops for new and replacement MP service designs.

Table A.4: Standard Connection Diameter for Multiple Premises (Final Connection for UIP/iGT Requests).

- Clarity of default connection pipe diameter to supply multiple premises sites by maximum demand.
- 63mm standardised as minimum size for any new mains extension. This ensures that the network can be maintained and / or repaired without temporarily isolating consumers during the works, as would be required for pipe diameters of 32mm.

Table A.5: Standard Service Designs for LP Networks.

- Clarity of 32mm as the default service pipe diameter to LP mains only using standard manufacturer’s connection. This allows the pressure drop to be minimised on new services, offering better utilisation of the pressures across the mains distribution network.

Table A.6: Above Ground Standard Service Laterals & Table A.7: Default service design for all MP systems & Default service design for all MP systems.

- Clarity on standard above ground service laterals for LP Domestic Premises.
- Clarity on service design length on to 63mm.

Table A.8: Maximum length of pipe to be retained where a large pressure drop (>2mb) is available to be used.

- Evaluates the design or retention of LP services

2.1 Impact of changes on UIP/GT connection Process.

- Where the UIP/iGT request has been designed in accordance with T/SP/NP/14/E standard design tables, items marked '3' on the '*Design Submission Requirements Checklist*' (FM139) are no longer required.
- Where the UIP/iGT confirms that the standard design tables have been utilised then only load(s), length, pipe size, connection size and plan showing proposed connection route (UIP only) and connection point will be required at design submission stage.
- iGT's will now be required to provide the actual mains extension pressure drop utilised, once the iGT confirms that the load is to be connected.

3. The removal of method statements from connection design submissions.

- National Grid has removed the requirement for a method statement to be submitted for validation at design approval stage where the UIP/GT has the appropriate GIRS registration for the proposed works.
- For mains that contain non-standard materials such as asbestos, PVC or to mains that have been relined then a the method statement will still be required at design stage to allow alternative designs or connection locations to be considered and avoid delays that could occur when the routine or non-routine operation is submitted to National Grid. Therefore, in these instances the method statement would still remain part of the design authorisation.

3.1 Impact of changes on UIP/GT connection Process.

- Where the UIP/iGT has appropriate GIRS registration no method statement will be required until the submission of a Routine or Non-Routine Operation, where applicable, in accordance with National Grid's Safe Control of Operations.

Appendix B – Summary of Impacts

Modification	Previous Requirement	Requirement from 3 July 06
T/SP/NP/14/E. Tables A.2 & A.3	Restricted to LP requests for multiple meter points only as detailed in UIP/GT briefing note 4.	Pressures guaranteed for LP & MP single or multiple load requests up to 1733Khh (except off <=2" parent mains).
The removal of the Network Analysis service for load requests <= 900KWh/85scmh.	Previously UIP/GT's were able to request for National Grid to undertake specific network analysis of any connection request.	Network analysis for LP or MP loads up to 1733KWh (except non typical loads) within the boundaries of Table A.2 and A.3 will no longer be available.
Use of standard design tables within T/SP/NP/14/E.	Full design submission, in accordance with FM139.	Where the UIP/iGT request has been confirmed as being designed in accordance with T/SP/NP/14/E only load(s), length, pipe size, connection size and plan showing proposed connection route (UIP only) and connection point will be required.
Confirmation at acceptance of iGT's mains extension pressure drop utilised.	Not previously required.	To be confirmed at acceptance.
Removal of method statement submission for GIRS registered UIP/iGT's.	Previously required at design submission for all GIRS registered UIP/iGT's.	To be submitted at Routine or Non-Routine Operation, where applicable, in accordance with National Grid's Safe Control of Operations. Full design submission still required for non GIRS registered UIP/iGT's.