

Network Innovation Allowance Closedown Report

Notes on Completion: Please refer to the appropriate NIA Governance Document to assist in the completion of this form.

Network Licensees must publish the required Project Progress information on the Smarter Networks Portal by 31st July 2014 and each year thereafter. The Network Licensee(s) must publish Project Progress information for each NIA Project that has developed new learning in the preceding relevant year.

Project Closedown

Project Title

Alternative Jointing Techniques for Small Diameter PE Pipe

Project Reference

NIA_NGGD0012

Project Licensee(s)

National Grid Gas Distribution

Project Start Date

Sep 2013

Project Duration

4 Months

Nominated Project Contact(s)

Tom Neal – Project Manager and Darren White – Innovation Portfolio Manager

Scope

The primary objectives of this stage are to:

1. Conduct a gap analysis to compare the requirements of Standards that selected fittings conform to, with the requirements of established UK Gas Industry Standards.
2. Demonstrate, under laboratory conditions, the assembly of all mains-to-meter mechanical fittings from 4 different manufacturers and compare against a conventional electrofusion mains-to-meter assembly.
3. Undertake laboratory tests of selected fittings for both leaktightness and pull-out resistance.
4. Undertake a cost benefit analysis and undertake field observations.

Objective(s)

Identify feasible efficient alternative jointing techniques for small diameter PE pipe that could be utilised for domestic services and risers

Success Criteria

The processes and outputs from tasks presented in this proposal will be documented in a final technical report and accompanying cost benefit model in Microsoft Excel format. Also included will be a digital video file showing the construction of laboratory test assemblies.

The success criteria of the Project are:

- 1 Efficiency - How does the process perform in terms of cost, and customer impact
- 1 Effectiveness – Can the solution be deemed safe over the life of the asset
- 1 Practicability – Is it practical and easy to adopt and what are the training requirements

Performance Compared to the Original Project Aims, Objectives and Success Criteria

The original project aims, objectives and success criteria have been met, and feasible efficient alternative jointing techniques for small diameter PE pipes have been identified.

Required Modifications to the Planned Approach During the Course of the Project

There have been no modifications to the planned approach.

Lessons Learnt for Future Projects

The assessment of the fittings throughout the project delivered the required level of analysis, which was achieved through a review of standards, laboratory evaluation and assessment and cost benefit analysis. This approach should be used in future projects to deliver positive results.

Note: The following sections are only required for those projects which have been completed since 1st April 2013, or since the previous Project Progress information was reported.

The Outcomes of the Project

The final report has screened a number of different non-heat fusion methods of jointing PE service pipe and ranked them based on NGG techno-economic criteria.

Planned Implementation

The planned next steps are to undertake a further NIA Project ensure that the fittings meet the design and performance minimum criteria, in order to progress to a field trial.

Other Comments

No further comments.