

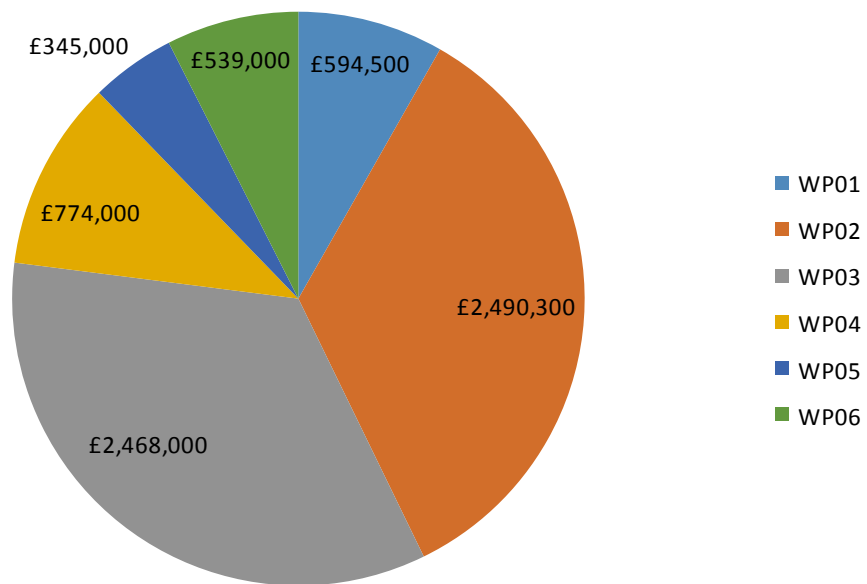
Gas Network Innovation Competition Full Submission
Supplementary Answer Form

Project: Real-Time Networks

Tick if this answer has been provided verbally: ☐

| | | | |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------|
| Project code | SGN_GN_03 | Question Number | 28 |
| Question date | 29/09/15 | Answer date | 02/10/15 |
| Submission section question relates to | Bilateral Meeting clarification question 4 | | |
| Topic | Renewable Energy Technologies | | |
| Question | Please can you look again and provide a more detailed justification of the costs and benefits of WP4. Could much of the benefit be achieved at a lower cost, with a strengthened value for money case? | | |
| Notes on question | | | |
| Answer | <p>There was an error in the data used for the pie chart presented at the bi-lateral meeting and the cost of <i>WP04 – Downstream Renewables Testing</i> was overstated (£1,284,000 instead of £774,000) due to a formula error in our project spreadsheet. This overstated figure is at odds with what was included in the bid submission and actual cost for WP04. WP04 forms approximately 11% of the total project cost. We apologise for any confusion and the corrected pie chart is shown below.</p> | | |

Real-Time Networks Project



A techno-economic study will be carried out in WP01 to identify those renewable technologies that are economically viable and most likely to be installed by consumers in GB. The output from WP01 will then be used to inform the scope of work in WP04. This will ensure that the work delivered in WP04 is relevant and appropriate for future-proofing demand models for the GB gas networks.

Establishing robust, reliable data from the installation of renewable technologies in consumer premises is difficult, expensive and has many pitfalls. It is possible to learn high-level lessons about consumer behaviour from this approach but it would be the statistical equivalent of taking a very small random sample that may or may not inform the project about typical consumer behaviour. The alternative of using fully instrumented houses that have been fitted with renewable technologies was considered but long test periods would be required to cover the seasonal impacts. The impact of local weather conditions is strongly correlated with gas demand and the use of GB data, rather than data from elsewhere, is likely to be the most informative.

The use of the test rig simulator enables different modes of energy inputs to be studied to optimise project learning about different house types, heat demands and seasonal effects without the additional expense of installing numerous different systems in the field. A test rig will also ensure that there is a reference point for comparative studies to determine the benefits of the renewable and low carbon technologies. We understand that the project may be able to access some data from studies undertaken by DECC and the Carbon Trust that represents some GB consumer behaviours and other sources of data may be considered. When combined with laboratory simulations, the project will have a powerful and robust data set for determining the impact of renewable technologies on gas demand modelling and provide forecasting for a range of future scenarios.

| | |
|-------------|--|
| Attachments | |
|-------------|--|