

Submission to the Joint Oireachtas Committee on the Environment, Culture and the Gaeltacht – Irish Water Programme and Irish Water

1.0. Introduction

Cathaoirleach, Members of the Committee thank you for the opportunity to present to you today. We are here to talk to you about implementing Government Policy and the process involved in undertaking one of the largest reform projects in the history of the State.

We understand you have come here today to hear an explanation of four things:

- What money is being spent on establishing Irish Water?
- Is it being spent appropriately and are we getting good value?
- Are the proper controls in place to approve and control spending?
- Were consultants/external service providers required?

Bord Gais was given a mandate to establish Irish Water as a key part of the water reform programme. We set out for Government our approach for delivering Irish Water back in January 2012. Our proposal was to establish it as a modern utility that would deliver a world class water system and best possible value for the customer.

In order to deliver this, we established the Irish Water Programme and assembled a team comprising the best utility expertise of Bord Gais and combined that with the water and wastewater expertise of Local Authorities and the Department of the Environment Community and Local Government. This team scoped out the full project to deliver a new company with the capability to manage all of the public water and wastewater assets and deliver services to customers.

That programme was to run from April 2012 to April 2015 – with one of the key milestones to ensure that we had all of the systems, processes and capabilities in place to take over €11bn worth of assets from 1st of January 2014. The budget as submitted by Bord Gais for the programme was €150m with a project contingency of €30m. This entire programme and associated budget as well as the approach to resourcing and staffing the programme was rigorously examined and approved, by both the internal Bord Gais governance and approval processes, and by the relevant Government departments.

The full programme, associated work scope and full costs were presented to the Department and New ERA in September 2012.

Bord Gais standard programme management methodology has been applied to the Irish Water Programme, with monthly reports to the Bord Gais internal steering committee, the Bord Gais Board, the recently established Irish Water Board and to the Department.

Bord Gais set out clearly, from the outset, that while the core capability to define what was required to establish Irish Water existed within Bord Gais, it would require the use of

specialist service providers to help implement this programme. In essence the Bord Gais team in conjunction with secondees from the Local Authorities and the Department specified what was required. Bord Gais used its experience and its existing systems and processes to define the requirements for Irish Water. In the main this required us to specify and implement 5 major utility information systems to set up Irish Water

- Customer care and billing system
- Work and asset management system
- Financial system
- Procurement system
- Capital Project Management systems

All of these were based on existing Bord Gais systems but the specification had to reflect the needs of a water utility as distinct from an energy utility and meet the needs of an organisation approximately 3 times larger than Bord Gais today. In order to then design and implement these systems to the specifications set out by Bord Gais, we engaged external service providers through a competitive procurement process. They are experts in the building and integration of complex utility information systems. The use of such expertise is standard practice for utilities internationally and is seen as the most efficient practice both in terms of delivery and also of cost management.

These service providers have joined our team temporarily to help us build a hugely valuable asset. We did not bring in experts to tell us how to build Irish Water; we brought in contractors to help us build the systems and processes necessary to run the business. This is standard practice in utility businesses. In our case we simultaneously built five major systems and procured global specialist expertise to ensure that the most efficient industry practice is being deployed.

The following are the major companies that were used by the Irish Water Programme to help deliver the required systems and processes:

IBM

Accenture

Ernst & Young

KPMG

To date we have invested c.€100m in the delivery of the programme. Approximately €50m of this was used on such specialists..

The Irish Water Programme will run to April 2015 in order to finalise the above systems and deliver two more: a Geographic Information system and a Mobile Workforce Management System.

14th January 2014

The main scope of external work went out to public tender in 9 lots. Following a detailed evaluation of the bids we secured fixed price, lump sum contracts to deliver the major work scopes. Importantly we only pay out when we have a proven deliverable.

Based on the delivery of the full scope of work we expect the final cost of the work packages to be:

IBM Lots 1, 2 and 3	- €44.8m
Accenture Lots 4, 5 and 8	- €17.2m
Ernst & Young Lot 6	- €4.6m
KPMG Lot 9 and Financial Panel Works	- €2.2m

Detailed explanations of the work involved will come later in this document. These systems will enable Irish Water to deliver a minimum of €2bn worth of savings for the exchequer by 2021 and provide the Irish people with a fit for purpose water system that will ensure the public health and safety of our communities; facilitate economic development and protect our environment.

Bord Gais is privileged to have been selected as the company to establish Irish Water. It has been a hugely demanding task and the approach taken accords with best international practice.

The Irish Water Programme has been established to deliver this huge reform project and it is being delivered on time and within budget.

Irish Water as a new modern utility is up and running since 1st January 2014 as planned.

To go back to the beginning and the questions I posed:

- What money is being spent on establishing Irish Water? I have outlined the overall programme cost
- Is it being spent appropriately and are we getting good value? Yes it is because we procured on the open market on the basis of fixed price, it benchmarks favourably and has the capacity to save the exchequer €2bn by 2021
- Are the proper controls in place to approve and control spending? Yes the governance both internally and externally is rigorous
- Were consultants/external service providers required? From the very outset Bord Gais advised Government that this type of support was critical to deliver this programme and achieve the targets set in the demanding timeframe

14th January 2014

In terms of achieving targets to date, the performance has been outstanding in meeting the milestones set for the Metering Programme initially and now in having Irish Water in place to commence its work as Ireland's newest utility.

2.0 Government Policy

The proposal to establish Irish Water was contained in the Programme for Government announced in 2011.

It is worth reminding ourselves of the background at the time. The quality of water supply to customers on many of the 1,000 water schemes across the country was and still is at risk to bacterial and viral contamination. This is not acceptable.

Despite investment of some €4bn since 2000 in Wastewater treatment, and while major progress was made, environmental compliance remains a major factor. Currently the EU is taking an Infringement case against Ireland for non-compliance with EU standards on up to 80 plants. Many other plants cannot satisfy EPA license standards.

There were €11bn of assets, but there was no satisfactory record of many of them, and no reliable records of their condition and therefore limited ability to assess the risk to customers.

Despite spending over €100m on water conservation systems since 2000 leakage was still stubbornly high and despite the large investment in some schemes, there are still very old schemes on which we are critically dependent. The Vartry water scheme in Dublin and the Lee Road scheme in Cork are 19th century schemes, critical to customers in our two largest cities, operating on a knife edge.

Ireland's foul sewer networks were and still are leaking and also taking in ground water and large volumes of storm water. This is causing major extra costs in pumping and treatment and is a cause of local pollution from overflows to rivers and streams in times of rainfall. It also presents a risk of flooding of streets and in worst cases of houses and other property. We have no central or accurate database of the properties at risk and we face a major challenge to quantify the problem.

Sampling and monitoring of water quality and plant performance was performed locally to varying degrees of satisfaction to the EPA.

There is no standard method of working to optimise operation of plants leaving customers vulnerable to disruption in supply.

However before making a decision to go ahead with the establishment of Irish Water, the Department of the Environment, Community and Local Government had an Independent Assessment carried out for Government in 2012. This assessment made specific key findings

in the existing provision of water services for the utility model. I will refer to just some of these:-

- Leadership and coordination of water services nationally is fragmented with a range of actors able to influence and control directions
- The EPA represents a classic structure for technical and environmental regulation of water and wastewater services. However, there is no independent regulation of prices for non-domestic water customers;
- Local authorities are unable to achieve benefits of scale as they are generally too small. While there would be potential in the greater Dublin region for more shared resources, this opportunity is limited in the rest of the country;
- Unaccounted for water is a significant problem in the water distribution system in Ireland with the average level estimated at more than 41% which is very high by international standards. Unaccounted For Water is also highly variable across the country;
- The OPEX expenditure for water services in Ireland is very high compared with benchmarks for UK water companies, when measured against cost per connection and per customer;
- The current funding model for water services is not sustainable. It is clear that the direct income currently received by the local authorities is not sufficient to meet the operational expenditures of the authorities and that alternate income sources within the local authorities have been used to fund the gap;
- Although not possible to quantify, it is apparent that there is a significant compliance gap in relation to the provisions of the Water Framework Directive which may require several hundred million euro of additional capital investment annually in the years to 2027
- Collection levels for the current non-domestic charges, at 52% are very low compared to UK water companies. It may also be the case that full cost recovery for non-domestic water customers is not being achieved in setting these water charges.

Among its recommendations for the Irish Water Business Organisation (referred to as the Target Operating Model), the assessment found that:-

- As part of its operating model, Irish Water will need to deploy leading sector practices in terms of capital expenditure allocation and delivery; it will also need to develop leading practice asset management to be able to deliver the required investment as efficiently and effectively as possible.
- Irish Water will require heavy initial investment in collecting and maintaining asset information with a visible asset register being built and maintained including asset performance, condition and criticality grading according to standard methodology. In addition there will also be a need for a high quality granular a Geographic Information System for both water and wastewater assets (mainly underground/invisible assets)”
- Will need complete records of all interactions with the customer including notes of all phone conversations, emails, scanned letters, payment history and this is to be kept up to date in real time (this will require investment in systems)

- Experience of the water industry elsewhere suggests that strong centralised Management Information Systems will be required that will be supported by state of the art ICT systems. This is an essential ingredient to support a professional customer service, to drive efficiencies in operations and capital expenditure, to generate procurement savings, to allow standardisation of policies and procedures (Standard Operating Procedures – SOPs) and to report to the Regulator.

The report showed this in graphic form as an Executive Information System underpinned by systems for SCADA (Supervisory Control and Data Acquisition), GIS, Customer Relations Management (CRM)/ Customer Information System (CIS)/ Billing, Workflow, Asset Management & Capital Programme Planning, Stores Inventory, Payroll & HR Management, Finance & Accounting.

In summary, to establish Irish Water to deal with the chronic problems in the system there was a requirement for:

1. Utility standard asset management
2. Utility standard workflow practices
3. Utility standard procurement practices
4. An appropriate IT infrastructure to support this

3.0 Programme Strategy and Budget

As far back as January 2012, Bord Gais set out its strategy to Government for delivering Irish Water.

The model put forward, in response to what Government was requesting, was to utilise the core expertise of Bord Gais and supplement that with support from third party service providers for an intense short period of time in order to deliver Irish Water as cost effectively as possible. However the approach to building Irish Water is different to the approach to running Irish Water. The model for the enduring Irish Water business is to operate largely with Bord Gais and LA's together with a very small element of support from third party providers.

The Bord Gais expertise for the Irish Water Programme is in the area of Programme Management, Information Technology, Procurement, Health Safety Quality and the Environment (HSQE), Asset Management, Work Flow Management, Customer operations, Economic regulation, financial management, corporate governance, and risk management.

Bord Gais established the Irish Water Programme as a temporary vehicle to deliver Irish Water. Bord Gais placed 55 subject matter experts into the programme. These experts understand precisely what was needed to build a high performing utility and how best to deliver that in a compressed time frame. This minimised delay in scoping and understanding

the requirements, Bord Gais could hit the ground running. But in order to build a new utility and to also continue to safely run the national gas network and an energy business serving 700,000 customers, Bord Gais needed to bring additional resources into the business for a short period of time to deliver the Irish Water Programme. These resources came from LA's DECLG and third party providers.

The IW Programme required the simultaneous configuration, customisation and integration of a suite of major IT packages (Oracle Financials, Oracle Customer Care & Billing, Maximo Work & Asset Management, Core HR, Hyperion Business Analytics, Primavera Project Management) and in a very condensed timeline geared to meeting government objectives.

The cost and complexity involved in implementing any one such software package or indeed for an existing business transitioning to an alternate package means such implementations are typically 1 in 20 year events. Consequently organisations do not carry standing resources who are expert in these activities but hire them in when required. The consultancy resources procured for such implementations typically come into a business for a short period and move on when the work is completed. Apart from their expertise in translating business process requirements in to systems configuration or systems code they also bring experience of how other utility businesses have reflected their similar processes or resolved process problems within the systems.

Bord Gais understood the complexity and scale of the challenge because and in recent years had procured systems implementation consultancy to implement Oracle Customer Care & Billing in its Energy Supply business, Maximo Work & Asset Management in its Networks business and Oracle Financials and Core HR throughout the organisation. Bord Gais had the ability to rapidly, accurately and comprehensively specify requirements for these implementations and launch and conclude procurement processes for same. Its recent experiences placed it in an ideal position to structure procurement lots, contracts, financial terms and program structures to assure efficient, controlled delivery of the systems and the wider capabilities surrounding same. This knowledge was leveraged to initiate these processes more quickly when compared to a company inexperienced in this area.

The consultants (service providers) were hired on fixed price contracts, they were available for work immediately, had the relevant experience and project structures in place (they came to the project with existing team structures in place), there were no recruitment costs and timelines involved, they were not on the payroll of Irish Water/Bord Gais as an on going operational cost, and there was no obligation on Irish Water to continue to pay for these people once the work was completed. As the contract was designed around the deliverable (e.g. an IT system by a set date) the amount of programmers required could be fluid as determined by the consultancy with no cost repercussions for Irish Water in the long term.

IT development costs in many companies are detailed under Note 10 to the Financial Accounts under IFRS (accounting standards). As such they are recorded as part of the intangible assets of the company and are part of the overall balance sheet. In other words, moneys spent in building IT systems result in an asset that is valued in the company accounts. This is the case for Irish Water.

The following table summarises the budget submitted by Bord Gais to the DECLG in September 2012. Based on this budget the work was grouped into various Lots for the purpose of tendering activity.

IW Programme Budget		
Company Establishment	<i>Due Diligence</i>	6,286,639
	<i>Commercial & SLA</i>	3,730,886
	<i>Finance</i>	11,197,024
	<i>Governance and Regulation</i>	5,423,006
	<i>Customer Engagement and Brand Dev</i>	4,021,894
	<i>Facilities</i>	8,544,823
	<i>PM Sub-Prog Company & Org</i>	3,170,686
Business Capability	<i>WAM</i>	18,619,207
	<i>Customer</i>	14,372,469
	<i>Support Services</i>	8,373,268
	<i>PM</i>	4,090,988
	<i>IT Infrastructure</i>	32,088,944
Organisation Establishment	<i>Organisation Establishment</i>	7,134,924
Function Establishment	<i>Function Establishment</i>	5,137,706
PM	<i>PMO</i>	8,832,876
QA	<i>QA</i>	3,534,660
Corporate Structure	<i>Corporate Structure</i>	440,000
Mobilisation	<i>Mobilisation</i>	5,000,000
		150,000,000
Contingency		30,000,000
Total Project Budget		180,000,000

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Tender Process

In accordance with EU procurement rules, Bord Gais tendered at EU level for consultancy services to support the delivery of the Irish Water implementation programme. The contracts were advertised in the EU Official Journal (which is a Europe-wide publication) and on the Irish e-tenders website. The consultancy services were divided into nine contracts (lots). Bord Gais used a 'negotiated procedure' under EU rules which allows Bord Gais to negotiate on all aspects of tenders.

The tender process involved a two stage process – a pre-qualification stage and an invitation to tender stage. Bord Gais received 96 pre-qualification submissions in total for the nine lots advertised. Candidates were shortlisted on the basis of their pre-qualification submissions and between three and six bidders were invited to tender for each of the lots. Contracts were awarded to the most economically advantageous tenders. Various sub-criteria were included in the evaluation including technical capability of solution, proposed team and resources, approach and methodology and price. Price was weighted at 35% for lots 1-5 and at 40% for lots 6-8. The tender process was conducted in an open and transparent manner and a robust and competitive tender process was conducted. Bord Gais engaged in discussions with tenderers as part of the tender process on the contract terms and conditions. All tenderers were required to accept Bord Gais's terms and conditions of part of their final tenders.

Contract

Irish Water has successfully concluded contracts which contain detailed provisions to ensure that a number of key objectives are met. All successful bidders have been contracted to provide services in an efficient and cost effective manner so that Irish Water will (a) achieve optimum value for money; (b) receive a market competitive prices; and (c) benefit from a transparent pricing structure.

The contracts are fixed price contracts. Payments are linked to milestones and are paid on successful delivery of value to Irish Water in the form of specified deliverables. Consultants' performance, milestone delivery and charges are subject to detailed quality assurance, governance and fee retention contractual mechanisms

Summary of Significant Lots plus Legal Services tendered by IW for Consultants

IBM Lots 1, 2 and 3 - €44.8m

The work involved designing, delivering and integration of all roles, business processes, systems and data required to enable Customer Capability, Work and Asset Management capability and Support services capability across Irish Water.

Accenture Lots 4, 5 and 8 - €17.2m

This work involves Programme Management across the Business Capability areas of Irish Water as well as developing an integrated operating model. The Operating model includes the detailed development of an organisation structure. Central programme management across the entire programme is also included in scope here.

Ernst & Young Lot 6 - €4.6m

This work involves production of a project design and definition document for each project in Lot 6 around the areas of Finance, Governance and Regulation, facilities and Customer engagement. Programme Management of these projects is key part of Lot 6

KPMG Lot 9 and Financial Panel Works - €2.2m

KPMG will provide Quality Assurance Services on the operation and deliverables on the programme to Senior Executives and the Board of Irish Water to ensure the programme is fit for purpose for what it was designed to achieve.

Main Legal Services around the areas of SLA Development, Procurement, Regulation and Company establishment

McCann Fitzgeralds - €0.97m

A & L Goodbody - €2.9m

There is also approximately €13.3m covered by another 18 contractors who were procured to support the work on the major lots. A more detailed note on the works involved in the main Lots is covered in Appendix 1.

The approach to establishment of Irish Water within Bord Gais significantly de-risked the project and is enabling it to deliver on budget and on time.

4.0 Budget Process, Establishment and Timelines

It is important now to outline what occurred subsequent to the Government decision to reform public water services. In January 2012 BGE made a submission on establishing Irish Water as a subsidiary. In response to DECLG queries a detailed statement of capability was provided to the DECLG which confirmed that as part of the project BGE would have to use external service providers. In April 2012 it was announced that Bord Gais Eireann (BGE) was selected to establish Irish Water. Since then the process has been as follows:

May – August 2012	Mobilisation Phase:
August 2012	Project Implementation Document drafted by Irish Water Programme (IWP) within BGE.
September 2012	7th September 2012 - Budget for the Programme to establish was submitted to DECLG in the sum of €150m plus contingency of €30m (contingency requires further express approval of individual items from DECLG if it arises)
Sept- Nov 2012	There were a number of presentations took place on Programme Scope, Timeline and Budget to DECLG and New ERA during this period. Queries on budget breakdown, substantiation of items, and queries on procurement process for external consultancies were all dealt with.
October 2012	The Irish Water Programme presented on the Project to the Troika
Oct – Dec 2012	Procurement Phase – Programme Delivery Services
November 2012	On 6 th November 2012 BGE presented to the Joint Oireachtas Committee on the Environment on the project and also confirmed that subject matter experts would be used in the project 22nd November 2012 – IWP Shared Budget pack with Commissioner for Energy Regulation A presentation took place on Programme Scope, Timeline and Budget to the CER

14th January 2014

December 2012

14th December 2012 – Bord Gais received a cost recovery letter from DECLG amounting to €50m expenditure to the end of March 2013 and permission to enter capital commitments for totalling €80m with termination rights in contracts. Letter copied to DCENR and New Era. These were requirements of Bord Gais having regard to good governance prior to proceeding with the project.

Appointment of IW Programme Contractors and Mobilisation of Contracts Commenced

January 2013 – Feb 2013

Target Operating Model Developed - consists of a number of key elements centred on defining the functions, organisation and processes that Irish Water and nominated representatives from the DECLG and Local Authorities to ensure a broad consultation during the design process.

Jan to June 2013

Metering Programme commenced

February 2013

IWP met with Troika to present Progress Update LA & DECLG

Staff from LAs and DECLG begin to be seconded onto the IW Programme

March 2013

On 28th March 2013 BGE received a cost recovery letter from DECLG amounting to €60.9m expenditure to the end of April 2013 and permission to enter capital commitments of €98.3m with termination rights in contracts.

Commenced Financial Reporting Letters to DECLG on 14th March with submission of Financial IWP year to date budget for January and February 2013 – Budget - €37.9M Actual Spent €28.3M.

IWP also submitted an outline of Lots 1-8 definition of what each lot means and outcome of procurement process and an indication of scores.

Irish Water Bill 2013 was passed and signed into law by the president.

April 2013

IW met with Troika to present Progress Update

Financial Reporting Letter to DECLG on 11th April with submission of March year to date costs - Budget - €53.6m Actual Spent €38.8m

	<p>MD Irish Water business John Tierney takes up office</p>
May 2013	<p>Irish Water appointed Abtran Ltd to operate its Customer Contact Call Centre in Bishopstown, Co Cork creating 400 jobs in the area.</p> <p>On 1st May 2013 Bord Gais received a cost recovery letter from DECLG amounting to €72.6M expenditure to the end of May 2013 and permission to enter capital commitments of €106m with termination rights in contracts.</p> <p>Financial Reporting Letter to DECLG with submission of April year to date costs – Budget - €68.1m Actual Spent €47.0m</p>
June 2013	<p>On 5th June 2013 – Bord Gais received a cost recovery letter from DECLG amounting to €66.3M expenditure to the end of June 2013 and permission to enter capital commitments of €98.2m with termination rights in contracts.</p> <p>Financial Reporting Letter to DECLG with submission of May year to date costs - Budget - €79.8m Actual €55.0m</p>
July 2013	<p>Irish Water Incorporated</p> <p>IW Meet with Troika to present Progress Update</p> <p>On 3rd July 2013 Bord Gais received a cost recovery letter from DECLG for BGE amounting to €72.4M expenditure to the end of July 2013 and permission to enter capital commitments of €97.7m with termination rights in contracts.</p> <p>On 25th and 26th July Letter to IW from DCENR and DECLG – Consent for IW to enter into €250,000,000 loan facility with the National Pension Reserve Fund Commission to facilitate the metering programme and establishment costs.</p> <p>Metering Programme – 6 of 8 Contracts signed on 26th July 2013 with the other two contracts signed on 9th August 2013</p> <p>Financial Reporting Letter to DECLG on 15th July with submission of June year to date costs– Budget - €87.1m Actual Spent €61.6m</p>
September 2013	<p>Final Programme MOU agreed with DECLG reiterating Programme Budget approval</p>

14th January 2014

Establishment of Irish Water MOU agreed with DECLG
Financial Reporting Letter to DECLG on 18th September with
submission of August year to date costs - Budget - €101.8m
Actual Spent €78.8m

October 2013

Submitted material for review by the CER on Budget

Financial Reporting Letter to DECLG on 21st October with
submission of September year to date costs - Budget -
€109.8m Actual Spent €83.6m

IW Meet with Troika to present Progress Update

November 2013

Financial Reporting Letter to DECLG on 20th November with
submission of October year to date costs -Budget - €117.3m
Actual €92.9m

December 2013

CER recognized that the establishment of Irish Water is a
significant undertaking and efficiently incurred costs should be
allowed into Regulated Asset Base i.e. costs themselves being
treated as an asset. CER further noted that all of the activities
described by Irish Water are core to the delivering the
objective of a national integrated water service provider with
associated benefits to customers and other stakeholders in
Ireland. The CER also noted that Irish Water has drawn heavily
on BGE personnel and processes, which is the most efficient
means of establishing Irish Water i.e. the most cost-beneficial.

Following on from this advice, the Department has put in place
appropriate procedures to seek to ensure that any proposed
expenditure commitments which need to be made in advance
of full regulator review will ultimately meet the tests of cost
reasonableness and long-term value to the Custom

Financial Reporting Letter to DECLG on 16th December with
submission of November year to date costs with submission of
November year to date costs - Budget - €117.4m Actual Spent
€97.9m

Water Services No (2) Act 2013 signed by President on 25th
December 2013

34 SLA's were put in place by year end.

14th January 2014

January 2014

Irish Water formally takes over responsibility for all water and waste water services in Ireland

Sufficient capability was in place to enable Irish Water formally take over responsibility for water and waste water asset go-live including Work & Asset Management System (Maximo,) and Processes, Capital Programmes (Primavera and Contract Management) Support Services Capability (Oracle Financials including iProcurement) and Customer

5.0 Establishing Irish Water – What is the Money being Spent on

The setting up of a new Water Utility is a complex business requiring the development and integration of numerous processes and systems to ensure that the business can function effectively from start-up it is to be capable over time to deliver the objectives of improved service provision and compliance as efficiently and cost-effectively as possible. Bord Gais was able to model the development of systems on its own state of the art network and customer management systems. However the systems required for Irish Water involved much greater scale and complexity to address the diversity of asset types.

Work and Asset Management & Capital Programme Planning – Managing and Operating €11 billion of assets

A substantial part of the expenditure in setting up Irish Water is on building an asset management system. This allows the company to manage a large spatially distributed asset base by knowing where they are located, their condition, the service they are providing and where maintenance costs are arising.

A fully functioning asset management system allows a Utility to develop a Strategic Investment Plan for the business into the future. It allows the utility to better target capital investment to meet Regulators' and Customers' priorities in the most cost-effective manner. This means that any money spent by Irish Water in the future, is spent where it is needed most and gives the best return for the customer. The advantages of the asset management approach can only be realised with the development of a proper system. Utility companies worldwide have identified asset management capability as the key to delivering an affordable service to the standard required.

Currently:

- There is no common standard for asset registers either for above or below ground assets.

- Geographic Information System have been implemented for water networks in the early part of the previous decade but since then each local authority was responsible for keeping this system up to date and the usage has been variable due to lack of resources.
- No such system exists nationally for wastewater network assets.
- There is no common standard nationally for SCADA (live monitoring of assets) systems as they have been implemented by each local authority as deemed appropriate;
- Telemetry and remote control systems are implemented on a case by case basis.
- In summary, there are €11bn of water services assets, but there is no satisfactory record of many of them, have limited records of their condition so that the risk to customers cannot be systematically assessed. .

The solution Irish Water is putting in place in establishing Irish Water will address these problems. The systems will mean that for the first time we can build up a nation wide picture of:

- Asset location, condition, rated capacity, remaining life, and its current replacement cost with a modern equivalent asset (MEA).
- Performance of assets in relation to statutory requirements (e.g. water quality monitoring under the drinking water regulations).
- Measured flows, pressures, water treatment plant (WTP) production, reservoir level, waste water treatment plant (WWTP) influent and effluent flows and loads, pump operation, combined storm overflow (CSO) frequency and volume, etc.
- Tracking and trending levels of service and key performance indicators – performance failures such as bursts, pump failures, sewer flooding incidents, customer complaints, water quality results, CSO pollution events, etc.
- Comprehensive customer registers incorporating location, consumption history, demand category, discharge licence details, etc.
- Financial information, tracking all expenditure and revenue streams such as O&M costs and capital replacement costs across the asset base.
- Calibrated hydraulic network models of water distribution and waste water collection networks.

Asset Management systems provide an organisation-wide perspective to be taken with an integrated approach to maximising effectiveness and efficiency, as well as meeting customers' expectations for affordable and reliable services and regulators expectations for levels of service and compliance.

The benefits of asset management include, but are not limited to the following:

- Enhanced customer satisfaction from improved performance and control of service delivery to the required standards.

- Improved health, safety, and environmental performance.
- Evidence based capital investment planning
- Optimised return on investment (customer service level improvements) and/or growth through efficient stewardship of its asset base;
- The ability to demonstrate best value for money within a constrained funding regime.
- Evidence, in the form of controlled and systematic processes, to demonstrate legal and statutory compliance.
- Improved risk management and corporate governance and a clear audit trail for the appropriateness of decisions and risks taken.
- The ability to demonstrate that energy consumption and carbon footprint are actively considered.

None of this would be possible, without the up front investment in a system that can gather and analyse data. Through Asset Management planning, Irish Water can add major value by optimising operational and capital investment. To do this, Irish Water require systems to know where our assets are, what their condition is, how they are performing and what activities are being carried across the 2,000 water and waste water schemes and 50,000 km of network.

Workflow management systems for operations and maintenance gives a utility company essential information to effectively manage service provision costs as well as providing an important input into the asset management system for capital investment planning. Such systems provide job scheduling to dispatching work, order processing, forecasting, and performance management. Improved governance and reporting is achievable by capturing data at the point of performance thereby eliminating time consuming paperwork and double data entry. The system ensures the allocation of the appropriate skillset to respond to each job, thereby reducing response times, automatically tracks time, material and equipment inputs, improves quality, consistency and efficiency of response, and provides improved management of all field activities.

Currently, there is no common workflow or job management system in use in Ireland for water and wastewater services. There is no widespread use of advanced field force management systems for water and wastewater services delivery.

Similarly there is no common standard for stock control or spares management.

Customer Operations and Billing – Managing the expectations of 1.8 million customers (85% of the population)

Customers of modern utilities expect excellent customer care, both in relation to a professional and rapid response to issues they might be experiencing with their service and

in relation to billing. Substantial systems are required in order to manage the expectations and requirements of 1.8 million customers, of whom the 1.6m domestic customers will be billed four times a year.

The Customer operations and billing function is a critical business capability at the core of any Utility. It sets the direction for the brand and manages all the Utility's customer communication channels to deliver the type of engagement the customer will expect from its Utility. The Customer Contact and Billing System manages the customer contact channels and handles all of the contact types coming through them. It manages the data from meter reading, bills and manages all payment & collection channels to deliver accuracy, choice, flexibility & simplicity that modern utility customers expect.

Fundamental to the success of effective customer engagement and experience requires the establishment of:

- A Customer Contact Centre, including the design and testing of customer query handling and complaints resolution protocols for both operational and billing enquiries and support.
- Effective billing systems and charging plans
- Reliable and consistent customer operations support, responsible for obtaining, maintaining and managing essential customer data required for billing and operations
- Consistent review and evaluation of the strategic engagement with customers, regulators and other stakeholders from the outset, in order to develop and maintain the valued relationship so that the Utility can become recognised as the trusted provider of an essential public service

Support Services

Supporting the customer, asset management and operations functions within the business are the essential support services necessary to ensure the integration of the entire organisation. These support services include Payroll and Human Resource Management, Procurement and Financial Management Systems, Communications and Stakeholder Engagement, HSQE and Incident Management Systems, Capital Delivery, Economic and Environmental Regulation Management etc. It also includes putting place appropriate facilities including the regional offices.

These systems need to (for example)

- Support 4,300 staff to perform their roles to the standards agreed in the SLAs
- Take charge of some €300m per annum of procurement of supplies and services
- Take on a Capital works Order Book of projects valued at over €750m, with outlay in 2014 of €25m per month.

- Manage Service Level Agreement expenditure of over €400m per annum

Currently there are different systems in use for financial management around the country. There are also a number of systems in use for procurement.

6.0 Benefits

The Irish Water Establishment budget of €150m, plus possible contingency budget of up to €30m, represents the up-front, one-off investment in the water industry necessary to deliver on the Government objective of establishing a national water utility and transforming the water industry. This investment will deliver two types of benefit:

1. Significant quality improvements in terms of customer service quality and network quality, integrity and efficiency; and
2. Substantial Operating Expenditure (Opex) and Capital Expenditure Efficiencies (Capex) efficiencies into the future.

Each of these benefits is described in the following paragraphs.

Customer Service Quality and Network Quality, Integrity and Efficiency Benefits

To achieve the customer service quality standard improvement expected of a utility, Irish Water is investing in technology that will improve asset management practices while at the same time setting and enforcing best practice asset standards to reduce the risk of asset failure. This will lead to customer service quality benefits over time such as:

- Improved compliance with water quality standards;
- Better water pressure; and
- Reduced unplanned interruptions.

In terms of improving customer service, Irish Water is also introducing initiatives such as:

- A dedicated point of contact for customer queries;
- Introducing clear accountability for customer satisfaction in the field; and
- Standardising customer contact management in line with best practice utilities.

This will lead to an improved customer experience for contact, complaints resolution, service requests, billing and payments and new network connections.

The improved asset management practices referred to above involve implementing operational technologies to optimise leakage and pressure (e.g. active pressure management), introducing remote monitoring and increased sampling to rapidly identify and resolve compliance issues and related initiatives that will improve network integrity, quality and standards.

Operating Expenditure (Opex) and Capital Expenditure Efficiencies (Capex)

A key Irish Water objective is the achievement of very significant water industry efficiencies of circa €1.1bn in the period between 2015 and 2021. These efficiencies are subject to CER review but are projected to comprise Opex efficiencies of circa €600m and Capex efficiencies of circa €500m, both of which will be described further. Critical to the delivery of this projected €1.1bn of efficiencies is the investment in technology and processes being delivered by the Establishment budget. This investment will benefit the next 20 years at a minimum, will be paid back within 4 years (by the end of 2017) and:

- Yields a return for the government on its initial investment of over 600% over the period to 2021;
- Represents less than 3% of the expected annual cost of the water industry out to 2021, absent Irish Water;
- Represents a once-off cost of circa €100 per customer served, or €5 per annum per customer over 20 years; and
- Represents approximately 1.6% of the industry estimated current asset value of €11 billion.

Opex efficiencies of €600m will be achieved by delivering significant procurement, volume, billing and other efficiencies. Procurement efficiencies will result from contract review and category management and supply chain optimisation. In terms of volume efficiencies, these will result from the lower operational costs associated with factors such as reduced network and customer side leakage, increased energy efficiency, chemical optimisation and Fats Oils Greases (FOGs) campaign. Billing efficiencies will result from Irish Water taking over responsibility for billing non-domestic customers during 2014 and doing so at a cost that is much less than currently.

Capex efficiencies of €500m will be achieved from a number of factors such as standardising asset and design standards to drive reductions in contract tender prices and minimising asset whole life costs, centralising capital procurement spend, implementing best practice capital programme methods to reduce the risk of cost overruns and adopting a risk-based asset management approach to enable capital spend deferral.

Over the 8 year period to 2021, the combination of these total efficiencies of €1.1bn, along with other factors such as the increased income resulting from the introduction of domestic water charges, will result in a net reduction of at least €2bn in government exchequer funding of the water industry than would have been the case absent Irish Water.

7.0 Benchmarking

Established utility businesses continue to invest in certain parts of the business in order to drive efficiencies for the benefit of their customer. Published Price Control documents for UK show 3 examples of IT upgrades in mature utilities:

1. Severn Trent Water expects to spend £101M to upgrade its systems with the objective of achieving the "lowest possible charges"
2. Yorkshire Water has budgeted for £110M spend on IT systems in 2010-2015 on its IT Systems
3. Thames Water installed a new WAM system in 2011 – at a cost of £150m

The principle of investing in utilities to deliver savings to the customer is well demonstrated by the Scottish Water example. Under its Spend to Save programme, three Regional Water Authorities were amalgamated into one utility. In the period of 2002 – 2006 Scottish Water spent £200m on various initiatives which has resulted in a saving of £105 on the average customer bill.

Bringing systems together in a utility context in order to deliver saving to the customer (as is being done here by bringing 34 LA together) is not new in Ireland.

An all-island Single Electricity Market (SEM) was set up in 2005, bringing together the operation of electricity in the Republic of Ireland and Northern Ireland. The market encompasses approximately 2.5 million electricity consumers, 1.8 million in the Republic of Ireland and 0.7 million in Northern Ireland.

The SEM cost €256 million to set up, including new operating systems and the costs of consultancies and other advice to the regulatory authorities in designing the SEM. This has led to reduced end-user prices for the consumer.

8.0 Conclusion

The establishment of the new Irish Water Utility is unparalleled in modern Irish history in terms of its scale, complexity and importance to the future of the State. The return on the investment made in creating Irish Water is two fold:

- 1) Initial financial savings to the Exchequer of €2bn by 2021;
- 2) Over time a modern fit for purpose water system that will protect the health, safety and well being of our citizens, facilitate economic growth and protect our environmental.

The challenges of such a programme, set to such a tight timeframe, are without precedent particularly when compared to the reform process commenced over 30 years ago in England and Wales.

The water sector today faces major challenges. There is significant compliance and service quality issues; historic under-investment; and IT and work management practices are very different to utility norm. To address these challenges and at the same time function as a modern utility, Irish Water needs essential systems which ensure the Company has timely knowledge of asset condition, performance, customer experience and activity costs and processes in place to be able to effectively manage all facets of the business.

The funding for the set up of Irish Water has come from the NPRF (National Pension Reserve Fund). The NPRF has effectively invested in the set up of Irish Water. This means that no funding has been diverted from the Water Services Investment Programme or any other current government budgets.

The budget for the establishment of Irish Water was agreed with the DECLG in 2012. A robust procurement process was put in place to ensure best value for money. The management of costs has all necessary controls and governance processes in place and currently the establishment of Irish Water is on time and within budget and will be further assessed by the CER.

The work in setting up the Metering Programme and delivery by the business is already a good example of what can be achieved by the Utility. The Irish Metering Programme is installing 27,000 meters per month far more than any other comparable utility in the UK – some of which have set themselves a target of 2030 for completion as opposed to 2016 in Ireland

Irish Water needs to operate as a modern utility with all of the expectations and demands that brings. All establishment expenditure is focused in achieving that. Our ambitions as a company are to build out a high performing modern utility, the hallmarks of which are a focus on cost savings and efficient operations, quality customer service, and delivery of capital investments to time, to Quality and to Budget. The goal or the prize in the period to 2012 is a saving of over €2bn to the exchequer. To have the systems in place to deliver on its mandate are viewed as a matter of fiduciary duty by the Company to its Shareholders.

The reality of the situation is that Bord Gais/Irish Water were asked to deliver a project, based on Government policy within an incredibly exacting timeframe. This is what we are doing within time and on budget. And the people who have worked on this project to make this happen deserve great credit.

Appendix 1 – Significant Lots tendered

Below is a summary of the significant tenders undertaken for system and organisation design and implementation in the Programme

Lot 1: Operating Model - Delivery of Customer Capability

The scope of work to be carried out by the winning tenderer includes the design, delivery and integration of all roles, business processes, systems and data required to enable this Customer Capability and to provide an integrated framework of:

- Customer registration tools;
- Web-based customer self service;
- Call centre operations;
- Complaint module;
- Customer billing; and
- Meter Data Management System (“MDMS”) (and integration with meter read systems).

The systems to be delivered will primarily be based on the Oracle CC&B (“Customer Care and Billing”) platform. The roles and business processes delivered will be comprehensive for the entirety of Customer Capability and will cover all areas, both systems related and non-systems related. The Customer Contact Centre is an integral part of Customer Capability and, although procured separately, the scope of Lot 1 also extends to ensuring that this Contact Centre has the capability to provide a professional and consistent service to customers.

We can confirm that public procurement rules were fully observed in the tendering process. The Lot was awarded to the highest ranking tenderer – IBM

Lot 2: Operating Model - Delivery of Work & Asset Management Capability

Lot 2, Work & Asset Management Capability, relates to the design, delivery and integration of the roles, business processes, systems and data required to carry out Work & Asset Management activities in Irish Water. The overall purpose of this function is to deliver an integrated framework of asset planning, operations, and capital delivery to efficiently manage water and waste water infrastructure.

A primary objective of Lot 2 is to ensure that the business has the ability to optimise work programmes such that investment returns are maximised and asset risks minimised, taking into account resourcing constraints. Established BGE capabilities based on the Maximo, Click and Syclo systems will be leveraged. The roles and business processes delivered will be comprehensive and will cover all Work and Asset Management areas – both systems related and non-systems related.

We can confirm that public procurement rules were fully observed in the tendering process. The Lot was awarded to the highest ranking tenderer – IBM

Lot 3: Operating Model – Delivery of Support Services Capability

Lot 3, Support Services Capability, relates to the design, delivery and integration of the roles, business processes, policies and procedures, systems and data required to carry out Support Services activities in Irish Water. In delivering this capability, Lot 3 must provide an integrated framework and governance model for all Irish Water support services including Finance, Human Resources, Corporate Services, Regulatory Affairs, Commercial, HSQE and IT. The scope of Lot 3 also includes consideration and management of all support services impacts arising from regionalisation and shared services models.

Key systems deliverables will be the implementation of Oracle eBusiness (release 12), Hyperion, and Core HR for Irish Water. The roles and business processes delivered will be comprehensive and cover all support services areas, both systems related and non-systems related.

We can confirm that public procurement rules were fully observed in the tendering process. The Lot was awarded to the highest ranking tenderer – IBM

Lot 4: Integrated Programme Management of Business Capability Establishment projects and management of specialist vendors contracted by BGE

Lot 4 provides integrated Programme Management across the Business Capability development sub-programme, and will be responsible for overseeing the delivery of an integrated operating model and enabling solution. Specifically, Lot 4 will oversee the Customer, Work and Asset Management and Support Services capability development and IT infrastructure projects.

The Integrated Programme Management of Business Capability focuses on providing support in seven key areas throughout the different phases of the Programme:

- Delivery Management – Consolidating and managing an integrated business capability programme plan in conjunction with all projects and driving delivery against the plan
- Business Capability Development – Oversight of end to end business capability development to ensure an integrated operating and process model is delivered across the Customer, WAM and Support Service projects which is aligned to the Target Operating Model developed during the TOM phase
- Solution Architecture - Oversight of end to end solution design and implementation including integration to enable the business capability across the Customer, WAM and Support Service projects

- Test Management – Leadership of the solution testing approach and plan across the business capability and Infrastructure programme to ensure aligned, efficient and complete testing of the solution and the readiness of the organisation and its partners to run and support the solution
- Data Architecture – Development of data architecture competency and oversight of data architecture and ensuring the use of consistent meta data and model across workstreams for the business capability projects
- Infrastructure Architecture – Oversight of the underlying Technical Infrastructure delivered across Customer, WAM and Support services to ensure appropriate, consistent, robust Infrastructure solutions implemented
- Security Architecture – Ensure appropriate security in place in the delivered solutions and to ensure the solution aligns with agreed Information Security and Data Protection principles

We can confirm that public procurement rules were fully observed in the tendering process. The Lot was awarded to the highest ranking tenderer – Accenture

Lot 5: Delivery of Organisation Design and Development

The services to be performed by Lot 5 comprises the design and development of the new Irish Water organisation structure together with the development of the Target Operating Model for Irish Water

Set out below are the key deliverables of the 4 workstreams which comprise the Organisation Design and Development services

- Organisation Design: The design of the organisation and jobs required to establish Irish Water.
- Talent Management: The delivery of talent programmes, the Employee Value Proposition, and training required to establish Irish Water.
- Recruitment: Project managing the recruitment campaign based on detailed workforce forecasts and recruitment plans.
- Transition & Integration: The identification of the people to transition to Irish Water and the initiatives needed to manage their integration into the new organisation

The approach for the Target Operating Model is outlined below which covers an 8 week period of activity that is required to design and develop the Target Operating Model for Irish Water

- Development of the Target Operating Model Guiding Principles
- Function Definitions for all Business Capabilities and accompanying RACI for Critical Activities

- Key Cross Functional Scenarios to demonstrate the interaction between the functions to achieve critical business outcomes, including:
 - New Connections & Customer Take On
 - Domestic Meter Rollout Programme
 - Customer Contact Management
 - Customer Complaints Management
 - Capital Programme Delivery
 - Planned Maintenance
 - Others as required to support functional discussions within the project team
- Initial Inventory of all Business Processes and KPIs from Levels 1 to 3
- Completed Business Processes from Levels 1 to 3 for Customer Registration, Complaints Management, Support Services and Meter Rollout processes
- Irish Water Guiding Principles
- Remaining and revised Priority Level 1 to 3 Processes
- Organisation Design to Level 3
- Supporting Governance Model

We can confirm that public procurement rules were fully observed in the tendering process. The Lot was awarded to the highest ranking tenderer – Accenture

Lot 6: Integrated Programme Management and Resourcing Support for Company and Organisation Establishment projects

The scope of work under Lot 6 is the integrated programme management and resourcing support for the Company Establishment and Organisation Establishment sub-programmes.

The overall purpose of Lot 6 is to manage the projects within the Company and Organisation Establishment sub-programmes to ensure the delivery of all milestones on schedule. The projects within scope are Finance, Governance and Regulation, Commercial & SLA, Customer Engagement & Brand Development, Facilities, Organisation Design and Development, Pensions, and Employee Relations. Lot 6 also encompasses the project management of any specialist vendors contracted by BGE to support these projects. There is an additional option, at Bord Gais's sole discretion, for Lot 6 to provide direct resourcing support for the projects within scope.

In delivering programme management services for Company and Organisation Establishment, Lot 6 will:

- Work with BGE to produce a Project Design and Definition Document ("PDD") for each project in scope
- Actively oversee the projects to ensure that all plans, dependencies, and project activities are effectively aligned with each other and the wider programme
- Ensure that all risks and issues within these sub-programmes are effectively managed in accordance with the methodology and escalation criteria defined by the central Programme Management Office (PMO)

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- Provide consolidated sub-programme reporting to the central PMO, maintaining a clear focus on the key actions and decisions required to successfully deliver each project on schedule
- Working with the Central PMO and the individual project managers, co-ordinate the roll-out of Change Management at sub-programme level, ensuring that Stakeholder Management, Communications and Business Readiness activities are seamlessly delivered.

We can confirm that public procurement rules were fully observed in the tendering process. The Lot was awarded to the highest ranking tenderer – Ernst & Young

Lot 8: Central Programme Management Office Support

The scope of Lot 8 extends to the provision of central programme management office (PMO) services to deliver and integrate PMO activities across the entire Irish Water Programme. This includes provision of PMO services to support the Department of Environment, Community and Local Government (DCELG) in its programme and work-streams.

In delivering central PMO services, Lot 8 will maintain an overview of all projects and sub-programmes to ensure that all plans, dependencies, risks, issues and project activities are effectively aligned. Lot 8 will also provide consolidated programme reporting and will take the lead role in the delivery of Change Management across the programme, incorporating Stakeholder Management, Communications and Business Readiness.

As part of the Irish Water establishment Programme, Lot 8 also provides Programme Management activities to support DECLG's Water Sector Reform Programme (WSRP) and work-streams including the Policy and Legal Cluster, the Organisation Model Cluster and the Sustainable Funding Cluster with the following activities:

- Governance
- Planning
- Reporting
- Risks & Issues
- Stakeholder Engagement
- Communications

We can confirm that public procurement rules were fully observed in the tendering process. The Lot was awarded to the highest ranking tenderer – Accenture

Lot 9 - Quality Assurance Services to the Irish Water Programme

This contract relates to the provision of independent quality assurance services to all of the Water Programme (including the Irish Water Metering Rollout programme). The scope of the Services to be provided includes:

- Measurement of the quality of programme and project deliverables across the entire Water Programme.
- Measurement of the quality of all programme and project processes, procedures, methodologies, controls and governance. The successful tenderer's role includes quantitative and qualitative reviews to assess quality in a number of programme management areas, including:
 - Planning and Dependency Management,
 - Risk and Issue Management,
 - Benefits Management and Realisation,
 - Budgetary Management,
 - Scope Management,
 - Communications Management, and;
 - Resource Management
- Measurement of the quality of the Business Readiness plans and "Go-No-Go" activities across the programme, before implementation.
- Measurement of the quality of all programme testing and data gathering, migration, testing and validation activities.

We can confirm that public procurement rules were fully observed in the tendering process. The contract was awarded to the highest ranking tenderer – KPMG.

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Supplementary information provided to the Committee

Contractor Spend to End of Programme				
1	PWC			2,183,715
2	Abtran			1,600,000
3	Fujitsu			1,027,009
4	Neueda			835,723
5	Merc Partners			731,127
6	System Dynamics			727,950
7	Wipro Technologies			688,682
8	PFH Technology			628,325
9	Morgan McKinley			598,935
10	Frontier Economics			487,469
11	Deloitte			471,779
12	SQS			450,000
13	McKinsey			389,000
14	Nathean Technologies			276,506
15	Engineering Companies			1,460,539
	312k	JB Barry & Partners		
	262k	RPS Consulting Engineers		
	210k	Nicholas O'Dwyer Ltd		
	249k	Long o'donnell		
	483k	Arup		
16	Sigmar			184,094
17	Other Legal			315,805
	184k	Arthur Cox		
	132k	Mason Hayes Curran		
18	Tech Skills			70,000
19	Hays			210,000
				13,336,657