



# Options for Irish Water

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## Summary of Recommendations

1. 'Irish Water' must be established as a regulated commercial semi-state company with access to international bond markets to fund investments using the standard Regulatory Asset Base model for determination of tariffs/prices.
2. It must be responsible for all aspects of investments and operations.
3. We need to set a single national water strategy for abstraction and delivery.
4. No major increase in water prices for businesses can be justified.
5. No free water allowance for domestic users. Instead the Department of Social Protection should cover costs for vulnerable users as it does with the Electricity allowance.
6. Volumetric discounts (i.e. price reductions for higher volume usage) should be made available for Business users.
7. System failures should be addressed especially regarding unaccounted for water (ufw)
8. Water charging will underpin strategies to encourage conservation at reasonable cost.
9. Security and Quality of Supply and service must be a prerequisite for establishing and regulating Irish water while also protecting the raw water supply in the aquatic environment
10. A vital prerequisite must be the provision of an agreed transition plan for the creation of Irish Water. Such a transition plan would determine the value of all assets and ensure that Local Authorities are able to recover costs associated with previous investments in this area.

## Foreword

*“Water will be the new oil, and societies will thrive or fail in large part on the basis of how smartly they address supply and demand”<sup>1</sup>*

The expeditious roll-out of residential water charges in Ireland is an environmental and financial imperative, the continued delay of which will have serious and inevitable future repercussions. This report by Chambers Ireland on water service charges and metering discusses issues surrounding the establishment of a new water charging regime and the consolidation of local authority water providers into a new entity, Irish Water. In our view, this entity can deliver significant cost savings for all stakeholders, optimise investment and secure Ireland’s reputation as a clean, green economy, society and tourism market.

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<sup>1</sup> The Elephant in the Room, Meeting Dublin’s Water Needs –the Shannon or Pricing, Professor Frank Convery, 2008.

## **Introduction**

In the current environment of water quality problems, infrastructural deficit and climate change, we can no longer ignore the need to conserve water as a natural resource. Chambers Ireland has long called for the introduction of water charges in order to ensure that water providers have a sustainable and predictable source of income to fund infrastructure investments and to reduce the high levels of unaccounted for water (ufw) in the Irish water system. The abolition of domestic water charges in urban areas on 1 January 1997 has ensured that business is currently the only user that is contributing to the cost of water provision. This has also meant that business is paying locally for the problems that we encounter daily due to inadequate provision of funding at a national level. Chambers Ireland believes that the cost of providing a clean, safe and reliable water system should not be shouldered by the business community alone but shared in a reasonable, transparent and consolidated charging scheme with domestic users. Other bodies in support of the reintroduction of domestic water charges include the National Competitiveness Council, NCC, the Economic and Social Research Institute, ESRI, and the Organisation for Economic Co-operation and Development, OECD, the Irish Academy of Engineering and Engineers Ireland.

## **Background of Ireland's Water Legislation**

In April 2007, the Water Services Act was passed by the Oireachtas. The Bill was first drafted in 2003 but gained momentum following the cryptosporidium crisis in Galway. The former Department of Environment, Heritage and Local Government (DoEHLG) stated that the delay in the Bill's enactment was due to complications around technical issues such as engineering and mechanical difficulties. While the Act made headway in terms of the consolidation of over 18 previous Acts which govern or partly govern water services and also updating the legislation, some of the principal Acts date back to the nineteenth century. It also specifically precluded charging domestic customers for water services and supply. Although the EU Water Framework Directive 2000 required the implementation of a 'polluter pays principle' subject to established practice, meaning all water users should pay the full costs of their use of water and waste water services, the Irish Government secured a derogation from the Directive in relation to domestic water users on grounds that there was no established practice of charging for their use of water services. Changes in economic circumstances in Ireland and the resulting EU-IMF bailout has led to a re-evaluation of this decision. A condition of the bailout, agreed with Government in November 2010, obliges Ireland to introduce charges for

domestic water by the end of the programme at the end of 2013. Chambers Ireland believes that water charges should be introduced in a fair manner and that it should be the responsibility of the Department of Social Protection to cover costs for those unable to afford to pay for water charges. This would protect the independence of Irish Water and also ensure that the true level of social welfare expenditure by the State is not disguised.

### **NewERA: Restructuring of Semi-State Sector**

Under NewERA, Fine Gael has established a new State holding company “NewERA Ltd.” which will act as a “Manager” for the Semi-State sector as a whole. It will oversee the restructuring of the sector through a combination of mergers, divestments and the creation of a small number of new companies. As a result of the NewERA consolidation programme there will be a net reduction in public bodies, companies or agencies. NewERA Ltd. will be held to account for its performance by the Taoiseach of the day, who will appoint the CEO and the board of the company. NewERA Ltd. will be a commercially driven State company with a staff of 100 professionals. It was also established with a “sunset clause” which will require its dissolution after seven years. In relation to water, NewERA plans to invest €4.2 billion to upgrade Ireland’s water infrastructure and to deliver real economies of scale by bringing all of Ireland’s water assets under the ownership of one State company, “Irish Water”. Ireland currently spends €700 million (excluding capital expenditure) each year to produce clean drinking water and treat wastewater; yet on average approximately 43% of water is wasted through leakages in the water system. The fragmented nature of the water industry, in which 34 local authorities are responsible for sourcing water; delivering water; dealing with waste water; planning investment and on-going maintenance, also means that there are currently no real economies of scale outside of Dublin.<sup>2</sup>

### **The Need for Domestic Metering**

The Local Government Efficiency Review Group report, published in July 2010, found that health and safety requirements in the area of water provision increasingly place a heavy financial burden on the sector, having regard to the dispersed and diverse range of local authority operations, and it can be expected that this will be an area of significant continuing cost growth for the future. The report proposed that domestic water charges be reintroduced, arguing that pending the installation of water metering in domestic dwellings, a flat rate fee could be introduced, followed by a pay by use

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<sup>2</sup> NewERA Economic Stimulus Plan, Fine Gael, 2010

system. It also proposed that water services be delivered through a national agency rather than the local government system.<sup>3</sup>

There is a significant need for investment in water infrastructure in order to maximise inward investment opportunities, especially in the pharmaceutical sector, which needs a reliable water system in order to function. Irish Water must deliver consistent compliance with standards for quality, availability and reliability; support balanced regional economic development and play a significant role in attracting foreign direct investment to Ireland. The roll-out of domestic water charging will also guarantee that revenues needed to meet both the significant capital and operating expenses associated with delivery of this vital resource are generated. Proper centralised planning is needed to ensure optimal levels of extraction from river basins to achieve economies of scale in water treatment and provision. The current running of Ireland's water as 34 individual business units with significant associated costs is not sustainable. At present every local authority is a water authority that has to meet its costs via a mix of charges on the commercial sector and 'hope' that the department's grant will cover the balance. Recent cuts to the Local Government Fund (LGF) indicate that business is once again the main target for making up funding shortfalls. If there was only one water company serving Ireland then it would still be smaller than the majority of the water companies in Britain.

Considerable improvements have been made in the past 10 years. The OECD Environmental Performance Reviews: Ireland 2010 report notes how substantial investment has been made in Ireland since 2000 in drinking water and wastewater treatment infrastructure, increasing the compliance rate with the EU Urban Waste Water Directive from 25pc to 92pc. However the report also outlines Ireland's 'uncommonly high leakage rate from its urban supply systems despite recent improvements.' The OECD recommends that Ireland introduce water pricing for households, in a way that takes account of environmental, economic and social considerations.<sup>4</sup>

Furthermore, according to Global Water Intelligence, providers of analysis of the International water industry, Ireland is the only country in the EU that does not charge for domestic water on a universal basis. It is estimated that the supply of water and provision of wastewater services in Ireland is costing more than €1 billion annually.<sup>5</sup> This is not sustainable. Preliminary results of the Central Statistics Office (CSO) 2011 Census have shown that the total population enumerated on census

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<sup>3</sup> Report of the Local Government Efficiency Review Group, July 2010

<sup>4</sup> OECD Environmental Performance Reviews: Ireland 2010

<sup>5</sup> <http://www.globalwaterintel.com/pinsent-masons-yearbook/2009-2010/part2/32/>

night, 10th April 2011, was 4,581,269 - an increase of 341,421 on the 2006 census equating to an 8.1% rise.<sup>6</sup> The CSO estimate that this trend will continue with the population estimated to be approximately 5.7 million by 2026.<sup>7</sup> Rising population coupled with more stringent environmental legislation, rising energy prices and increased operational costs after increased investment in water treatment plants will lead to serious issues if the current structure of water management is not changed. The operational costs associated with providing domestic water and waste water services to over 1.1 million households in 2009 are estimated at over €700 million. This does not take account of the capital investment in providing new infrastructure which serves existing domestic requirements – this capital investment is currently provided for the most part from the Exchequer through the Water Services Investment Programme.<sup>8</sup> According to the OECD Ireland Environmental Performance Review 2010 report, the absence of universal metering and charging and the resulting absence of basic water balance information means that Ireland may be consuming and producing unnecessarily large amounts of water i.e. we are overspending on water treatment, distribution and wastewater collection and treatment. This is waste that we cannot afford to allow continue.

A recent review of local government financing that was carried out by the Commission on Taxation in 2009 also noted that local government would face significant expenditure demands in the future arising from population growth, the implementation of the National Development Plan, implementation of new legislation in waste management and water supply and protection. The Commission recommended the reintroduction of domestic water charges, starting with low flat fees, gradually increasing, and structured so as to incentivise the installation of meters.<sup>9</sup>

## How Water Metering Works

Water meters are used to measure the volume of water that passes a point in a pipe using mechanical, magnetic or electronic devices. The simplest mechanical meters measure the displacement of rotary pistons or loosely suspended disks as water flows past. Newer meters use electromagnetic energy or ultrasonic transducers to measure flow in large-volume situations. Most residential meters are positive displacement meters. These accurate meters fit into pipes from five-eighths to two inches in diameter. In these meters, the movement of the piston or a disk by water triggers a magnetic set of gears that drive a dial around a face on a face plate called a "register." The

<sup>6</sup> Central Statistics Office (CSO) Census Of Population 2011 Preliminary Results

<sup>7</sup> <http://www.cso.ie/releasespublications/documents/population/current/poppro.pdf>

<sup>8</sup> Report of the Local Government Efficiency Review Group, July 2010

<sup>9</sup> Commission on Taxation Report 2009, July 2010

dial turns, triggering an odometer-type meter that keeps track of units (gallons, cubic feet or other measure) used. Meters that measure higher volumes in larger supply pipes are usually fitted with filters to prevent dirt or grit from getting into the "works" of the metering mechanism.<sup>10</sup>

## **Structure of Irish Water**

In terms of its structure, the government must decide whether Irish Water will be an agency such as the National Roads Authority (NRA) or a commercial state-owned body. The key feature of agencies such as the NRA is that they are funded by way of annual votes from the Exchequer in respect of both capital and current expenditure. This will not work for Irish Water. Irish Water's capital funding and borrowing needs should be met by the application of a Regulated Asset Base (RAB) model of funding - as is used by the Commission for Energy Regulation (CER) to support multibillion-euro investments by commercial State companies such as Bord Gáis Éireann (BGÉ) and ESB Networks. This model of funding cannot be used under the "agency model" approach, such as used for the NRA. What this means is that Irish Water should be able to raise revenues from its customers in a manner similar to BGÉ and the ESB. Given the difficulties that we are in at the moment with our own bond spreads and lock out from the international bond market, it is also imperative that the organisation appointed has independent funding capacities through the bond markets. This is essential for Irish Water to reach its potential, as is the case with both Bord Gáis and the ESB.

With regard to the equality of the water metering, households that cannot afford to pay for water should be covered via funding from the Department of Social Protection. This would protect the independence of Irish Water and also ensure that the true level of social welfare expenditure by the State is not disguised. The skills requirements of personnel should also be carefully considered in the decision process of potential bidders for Irish Water. Financial managers as well as water engineers will be essential for the successful running of the company.

It is also crucial that the roles of regulatory bodies associated with Irish Water are clearly defined, i.e. the Environmental Protection Agency (EPA) and the Commission for Energy Regulation (CER). Also the question of what residual role the local authorities will assume once operations have been passed to Irish Water will also need to be examined. In future, local authorities should play the vital role of being custodians of the raw water in the natural aquatic environment.

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<sup>10</sup> [http://www.nesc.wvu.edu/pdf/dw/publications/ontap/2009\\_tlb/water\\_meters\\_DWFSOM67.pdf](http://www.nesc.wvu.edu/pdf/dw/publications/ontap/2009_tlb/water_meters_DWFSOM67.pdf)



Ultimately Irish Water needs to be set up as a single commercial state enterprise that is responsible for providing water and waste water services on a national basis; that can balance where and how we draw on our national water resources; that can provide a national investment programme for our water services that is based on best value for money; that can provide a single national tariff for water charges; that will maintain and operate a national water system and that operates independently of government; and all this while being subject to regulatory supervision such as that in place for Bord Gáis and the ESB. Chambers Ireland calls on Government to introduce the allocation and metering system on a fair and equitable basis where businesses are not shouldering the bulk of the responsibility.

Establishing a price point will also be essential for Irish Water as in order for water metering to provide value for money for the consumer, the average customer needs to be able to reduce consumption below the cost of the meter. Chambers Ireland would expect that with proper funding and regulation that Irish Water will eventually provide a valuable revenue stream through dividends for the State and have ambitious targets to reduce ufw, to a level for example of less than 20%. A number of Irish group water schemes have achieved this level following infrastructure investments - including re-laid water mains and the metering of every connection. Irish Water should ensure that those investments with the potential to achieve the greatest returns would be prioritised.

### **No Free Allowance**

Chambers Ireland opposes the proposed introduction of a 'free allowance' to be introduced in the water charging system. This is counter-intuitive. The lack of charging for water amongst domestic users has led to a perception of it being free – whereas the cost of supply and treatment of water exceeds €1bn annually. The success of domestic water charging will be dependent on a professional communications programme to ensure that customers begin to appreciate the value of water and understand the true costs associated with its supply and of wastewater treatment. The introduction of a free allowance will send a mixed message to the public and will weaken the strength of the overall communications objective.

Professor Frank Convery, UCD, has suggested that the most effective and fair way to charge for water and ultimately to reduce consumption is to have a sliding scale of charges– for example, a very low charge for the first 50 litres per person, and then rising sharply with each 50-litre increment or 'block' above that. This would ensure that basic needs can be met very cheaply, and consumers are

more cautious with the amount used after that. This method of charging can also provide an incentive for buying water-efficient technology – washing machines, dishwashers, showers.<sup>11</sup> In our view the sliding scale is most pertinent when applied to domestic users as ‘industrial scale’ users should in our view be offered volumetric discounts.

## **Evidence of the Success of Metering**

A study of water policy in Aurora, Colorado, USA shows how effective block pricing can be. The area suffered from a severe drought over the 2000-2005 period and, in 2002, introduced a sliding scale of rising charges – with a five-fold spread between the cheapest and most expensive block. It also subsidised the availability of ‘smart meters’ for households that showed them how much they were using as they used it, and also provided rebates for water-efficient indoor appliances, ranging from \$100 for one low-flow toilet to \$400 for one water-efficient washer and two dual-flush toilets. They found that responsiveness of consumption to price was high – with almost immediate reductions in total annual deliveries of 8 per cent and 26 per cent in 2002 and 2003 respectively relative to the 2000-2001 period.<sup>12</sup>

Similarly, research conducted by the European Environment Agency (EEA) in to the affects of water prices in Denmark and Estonia concluded that increased water prices decreased household water use significantly (Appendix 1). For Ireland, the introduction of charges should have a similar affect. The EEA also noted and that households with water meters installed generally use less than 10% less water. As fixed costs represent approximately 75-85% of the overall production cost, the marginal cost of the difference is even smaller.<sup>13</sup>

## **Climate Change and Conservation**

Water conservation and climate change related issues should also be a consideration for Irish Water, in conjunction with the Environmental Protection Agency. Ireland could position itself as a leader in this field and aim to surpass the EU Water Framework Directive basic requirements in the

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<sup>11</sup> The Elephant in the Room, Meeting Dublin’s Water Needs –the Shannon or Pricing, Professor Frank Convery, 2008.

<sup>12</sup> The Elephant in the Room, Meeting Dublin’s Water Needs –the Shannon or Pricing, Professor Frank Convery, 2008.

<sup>13</sup> <http://www.eea.europa.eu/themes/water/water-resources/policies-and-measures-to-promote-sustainable-water-use>

area of water conservation and reduced carbon emissions. The EU Water Framework Directive came into force in December 2000 to establish a framework for the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. The Directive has set out a series of implementation deadlines which stretch to December 2015 which Ireland has stretched to 2017, for each country to meet various environmental objectives. However the means by which these objectives are met can vary considerably, thus Irish Water will need to be mindful of the cost implication of commitments made in this area.

The water shortages experienced by business and consumers during the past two winters show how important this resource is for a functioning economy. Despite a largely cold and wet summer, we continue to face water shortages. The annual Liffey Descent Competition, due to take place in September, was been pushed back to October because of historically low water levels at the Poulaphouca Reservoir in Co. Wicklow.

## **Water Supply Project – Eastern Region**

Research has shown that the water supply area of the Dublin region will require a new source of supply within the next ten years in order to meet projected growth in water demand due to forecast population increases and economic growth. Current supplies are operating with little or no headroom with demand growth over the past decade in the Dublin Region largely being met by water savings from leakage management, water conservation initiatives, incremental expansion of Ballymore Eustace water treatment plant and operation of all treatment plants beyond their sustainable production capacities. In order to address this issue, technical, environmental and economic studies (including extensive stakeholder consultations) have been underway since 2004 in relation to the development of a potential new water supply source for the Dublin Region (Water Supply Area). In total, 10 potential new water supply options were evaluated.<sup>14</sup>

The most viable option that was chosen involves the abstraction of raw water from Lough Derg (River Shannon) and pumping the abstracted water through a new pipeline to a proposed storage reservoir covering approximately 1,400 acres (567 hectares) at the Garryhinch cut-away bog (near Portarlington, Co. Laois), forming part of a proposed midlands water based eco-park. The water will

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<sup>14</sup> <http://www.watersupplyproject-dublinregion.ie/index.php?page=work-to-date>

be treated to drinking water standards at this location and the treated water transported in a series of pipelines to the Dublin Region Water Supply Area with provision for local supplies.<sup>15</sup>

The Plan, Water Supply Project, Dublin Region report published in October 2010 outlines how demand for treated water in the Dublin Region (Water Supply Area) currently exceeds the sustainable production capability of the existing water treatment plants at Ballymore Eustace, Leixlip, Roundwood and Ballyboden. As a consequence, these plants are being operated in an unsustainable manner in order to meet day to day demand requirements. This 'knife – edge' operational regime and lack of 'headroom' availability in the Region presents an ever increasing risk to continuous supply availability, particularly from supply network failure, as critical infrastructure components cannot be taken out of service and upgraded as appropriate.

Currently, approximately 85% of Dublin's water is abstracted from two locations on the River Liffey. Water abstracted from Poulaphuca on the Upper Liffey is treated at Ballymore– Eustace Water Treatment Plant (BME WTP) and water abstracted from Leixlip on the Lower Liffey is treated at Leixlip Water Treatment Plant (WTP). The remainder of the Region's supply is abstracted from the River Vartry and River Dodder and some groundwater sources in Fingal and Kildare. This illustrates the need to look at water as a national resource; not a local or regional resource.

It is estimated that demand for water in the Dublin Region will reach 800 Mld (million litres a day) by 2040. This compares with demand being on average just 460 Mld in 1996. The Plan also recommends the introduction of domestic metering and volumetric charging combined with leakage management to encourage valuable water savings over the planning period of the project.<sup>1617</sup>

### **Local Authority Spending on Water**

The Local Authority Annual Financial Statement Outturn 2009 outlines that budgeted current expenditure on water services in 2009 was €786 million. Expenditure increased by 167% in the period 2000-10 and reflects the considerable expansion that has taken place in the provision of water services infrastructure in the period, according to the Local Government Efficiency Review Group report. According to figures collected by the Department of the Environment, Heritage and

<sup>15</sup> <http://www.dublincity.ie/WaterWasteEnvironment/waterprojects/Pages/WaterSupplyProject-DublinRegion.aspx>

<sup>16</sup> The Plan, Water Supply Project, Dublin Region, October 2010

<sup>17</sup> While there has been some opposition expressed to abstraction from members in the Clare area, this is a major project of strategic national importance that will benefit the Midlands and East of the Country in particular.

Local Government from local authorities, in early 2010 the number of staff working in the water services area in local government was in excess of 3,000, accounting for about one in ten of all local authority staff. It is planned through the current Water Services Investment Programme and future cycles of investment to further improve quality of treatment and capacity for water and waste water services, and this will have consequences for operational costs. While a portion of these costs will fall to be met by the non-domestic sector, we need to optimise operational efficiencies to reduce the rising cost curve associated with improved compliance. The Group also noted the increased expenditure by local authorities in recent years on professional fees and payments made to consultants in various service areas, including water services. Observers have argued that this is an example of difficulties for local authorities to scale up for new projects in a particular thematic area. This drives the necessity to recruit external consultants. Use of professional consultants is also a very significant feature of most local authority capital expenditure. A central capital projects office within Irish Water would do this more cost effectively.<sup>18</sup> However it should be acknowledged that engineering consultants play an important role in the delivery of water services and are entitled to operate within a stable and sustainable supply chain to the industry.

### **The Cost of Domestic Water Metering**

Government has stated that it intends to introduce domestic water charges based on metered consumption and that a budget of €500m is required to achieve universal metering of the domestic sector. Engineers Ireland has indicated that International experience suggests that the cost is more likely to approach €1bn. Engineers Ireland also provided a cautionary example of how UK water companies have an average of only 30% and a maximum of 65% of domestic customers that are metered after 25 years of privatisation. It was concluded that water metering is a complex and costly exercise and may not necessarily prove to be value for money. The costs and benefits together with the national and individual affordability of universal water metering must be carefully considered before the initial programme is rolled out nationwide. Engineers Ireland recommends that the charging system must cater for both metered and unmetered users. This may be a key role for the Water Regulator and is in itself a strong argument for independent regulation of not only charges but also the justification of the expenditure that underlies those charges.

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<sup>18</sup> Report of the Local Government Efficiency Review Group, July 2010

## **Domestic Water Metering – What We Will Gain**

According to the Local Government Efficiency Review report, the introduction of domestic water charges and associated water metering will yield savings based on reductions in demand. These savings ought to arise from enhanced information on water usage and leakage which will allow local authorities to pro-actively manage their water distribution networks, and increased demand reduction measures by householders as they become aware of their consumption patterns and associated costs. This would be supported by greater utilisation of shared resources on a regional basis – potential €15 million per annum in the long term (this estimate does not include the capital costs of metering).

The report continues to outline that investment in water metering will generate operational savings (through reduced water demand) as well as reduced future capital requirements. In summary, it is estimated that if metering leads to a reduction in consumption of 10% per day of the estimated 1,670 megalitres/day treated for domestic consumption and if supply side leakage could be reduced by 20 litres per property per day, savings in operational costs with a net present value of €630 million could be achieved over a twenty year timeframe. It is also estimated that the reduction would provide savings on capital expenditure with a net present value of €151 million leading to total savings of €781 million. However, with more ambitious conservation targets, greater savings could be achieved. For example, a reduction in consumption of 15% combined with a reduction in supply side leakage of 40 litres per property per day would provide savings in operational costs with a net present value of approximately €980 million. The installation of water meters in households would strengthen the capacity of water providers to pro-actively manage their water distribution networks and complement the significant acceleration of Exchequer investment on water conservation measures recently announced. The installation of meters in households would also stimulate increased demand-reduction measures by householders as they become aware of their consumption patterns and the associated costs. The Local Government Efficiency Review Group endorses both the proposal for an annual local tax and the reintroduction of domestic water charges and suggests that from an efficiency perspective they be implemented as soon as possible. It considers them to be consistent with the need to ensure a relatively stable and sustainable revenue base, a rational and responsible use of resources, as well improving the accountability of local government and bringing Irish local government into line with international norms. In summary, the Group considers that greater efforts should be made to ensure that the costs incurred by local authorities in the provision of services are passed on to the end-user.<sup>19</sup>

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<sup>19</sup> Report of the Local Government Efficiency Review Group, July 2010

## Water Quality Issues

The most recent water quality report published earlier this year by the Environmental Protection Agency (EPA) has shown that while significant improvements place Irish water quality better than the EU average, major investment will be required over the coming years if Ireland is to meet binding EU water framework Directive targets set for 2015 and 2021 in relation to water quality and anti-pollution targets. The report also highlights the need for ongoing investment in treatment plants and their operation and maintenance, in order to reach these targets.<sup>20</sup>

Micheál Ó Cinnéide, Director of the EPA's Office of Environmental Assessment outlined that the three challenges for water quality management were "firstly, eliminating serious pollution associated with point sources, that is, waste water treatment plants; secondly, tackling diffuse pollution, meaning pollution from farming and septic tanks; and thirdly using the full range of legislative measures in an integrated way to achieve better water quality".<sup>21</sup>

The focus of local authorities, media and central government regarding water quality issues is generally firmly placed on the domestic consumer, which is disappointing as domestic customers currently do not pay for their water supply. Focus should be on all consumers, both domestic and non-domestic, and a 100% rebate system guaranteed for periods where water is not potable, such as a further outbreak or cryptosporidium.

## How Water Service Charges Are Currently Applied

Local authorities were originally granted powers to make and fix water service charges under the Local Government (Sanitary Services) Act 1962. This provided for the charging of 'water supplied', although these charges did not relate to the supply of water for domestic use. The 2007 Act specifically precludes charging for domestic supply in many sections of the Act, reinforcing the prohibition. For example, section 105<sup>22</sup>:

"1) A water services authority shall not charge for water supplied to or discharged by—

(a) a household, which is used by that household for domestic purposes, or

<sup>20</sup> Environmental Protection Agency, Water Quality in Ireland 2007-2009

<sup>21</sup> <http://www.irishtimes.com/newspaper/ireland/2011/0224/1224290733862.html>

<sup>22</sup> Water Services Act 2007, Section 105: Power to Make and Fix Charges for Non-Domestic Water Services

(b) a person, other than another water services authority, providing water services to a household for domestic purposes.”

The Government’s current Water Pricing Policy requires local authorities to recover the cost of providing water services to the nondomestic sector from users of these services. Full cost includes the marginal capital cost, meter installation and ongoing operational and administrative costs. The non-domestic sector includes all industrial, commercial, agricultural and institutional users of water and waste water services. At present, the 34 councils are responsible for recovering the cost of providing water services from the users of these services within their areas, with the exception of households using the services for domestic purposes. The water charges for their functional area are set annually by each local authority and are based on metered consumption (the price is set per cubic metre consumed). However, as the local authorities set their own prices, there is no obvious incentive to provide for supply side efficiencies. There is no independent regulation of the charges set by individual councils and this has led to a variation in the charges being levied (for example, water charges this year range from €1.49 per cubic metre to €3.04). There is no mechanism to ensure that all local authorities are achieving cost recovery as required by the Government’s pricing policy. We note that commercial water charges in Ireland are on comparable with charges that apply in the UK and other parts of Northern Europe average.

The responsibility for charging for water services rests primarily with individual local authorities. There are two types of commercial water charges. You can either pay a flat rate or your water usage can be monitored using a meter. It is worth noting that the metered charge also includes a standing charge that can vary from less than €100 up to €200 per local authority. Chambers Ireland research has found that income from water service charges have increased dramatically over the last 4 years:

Total Water	Year	County Councils	City Councils	Totals
	2006	€95,928,776	€33,220,664	€129,149,440
	2007	€114,282,127	€32,450,763	€146,732,890
	2008	€135,036,134	€38,247,425	€173,283,559
	2009	€143,841,692	€50,938,019	€194,779,711
	2010	€136,144,807	€46,291,154	€182,435,961

Chambers Ireland Research, Budgeted Income from Water Service Charges from Local Authority<sup>23</sup>

### Flat Charges

Under the flat charging system, a business pays a single charge for water services as determined by the local authority. The method of calculating this flat charge varies across local authority area,

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<sup>23</sup> Excludes Wexford County Council



with no single prescribed formula. The actual level of the flat charge varies considerably, with charges based on differing definitions of business type or activity, with different charges often applied according to the size of the connecting pipe. This makes comparisons across local authority areas difficult.

This flat charge is a relatively blunt instrument in the recovery of water service costs as it cannot accurately reflect the quantity of water consumed. The fact that there is such considerable variation in current flat charges makes it somewhat difficult to determine how much of a change an individual businesses will see a reduction in their water services bill after the introduction of metering. The original deadline of December 2006 for the metering of all non-domestic consumers has not been met by all Councils, effectively rendering the flat charge obsolete.

An assessed charge may be better than a flat charge; i.e. relate the charge to the size of the property or the number of occupants. Charging could prove very beneficial for a vast array of domestic users. In many households, especially in more rural areas of Ireland there could be difficulties with installing a metering service. Having the option of a paying an assessed charge could ensure that these domestic users are still contributing to the cost of the water they consume without incurring the costly efforts of installing meters.

## **Metered Charges**

Metered accounts are subject to a minimum charge per year as well as a rental charge for the meter itself. The rental charge is usually paid on a quarterly basis. The minimum charge can vary, depending on each local authority.

Meters are generally used to monitor the amount of water used by large premises, e.g., factories and breweries. The meter is installed by the local authority and is read by water inspectors on a quarterly basis. At the moment, all new premises must make provision for a water meter in their planning application.

## **Costs of Doing Business in Ireland: Water**

The average cost of treated water services in Ireland increased by 0.8 percent between 2010 and 2011. Based on the internationally comparable data (2009 is the most recent data available) Ireland is competitive with our main trading partners on this measure. Waste water services increased by 4.1 percent between 2010 and 2011. Chambers Ireland echoes the opinion of the National Competitiveness Council that the introduction of user charges for consumers (e.g. water charges for households) which broaden the tax base. The average charge of waste water services in Ireland in 2009 was €1.20 per metre cubed, an increase of 18.8 percent on 2008. This brought the average consolidated water services charge per metre cubed in Ireland to €2.29, an increase of 10.5 percent on 2008<sup>24</sup> Yet local authorities dramatically reduced their expenditure on water services in the same period by 20%. This is clearly in conflict with national water pricing policy. Charges should go up or down in line with investment expenditure.

### **Importance of Commercial Rates and Water Revenue**

Our research indicates that revenue from water charges are an increasingly important source of revenue for local authorities. For example, in 2011

- In Limerick City Council, commercial rates accounted for 34.90% of expenditure, while non-domestic water charges accounted for 5.73%
- In Kildare County Council, commercial rates accounted for 30.33% of expenditure, while water charges accounted for 7.53%
- In Fingal County Council commercial rates accounted for 46.78% of expenditure, while water charges accounted for 2.95%
- The national average for 2007 (34 county and city councils) is 25.25% commercial rates and 3.98% water charges as a percentage of expenditure

Appendix 2 shows the income from water services and commercial rates as a percentage of expenditure across the 34 water services authorities (county and city councils) in 2005, 2006 and 2007. Clearly, there is no overall trend of significant reduction in commercial rates income as water services income rises. Limerick City Council is the only local authority to show an actual decrease in

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<sup>24</sup> National Competitiveness Council, Forfás, 'Cost of Doing Business in Ireland', June 2011

commercial rates in 2006 where their Annual Rate on Valuation dropped by 0.5% and in 2007 where their commercial rate decreased by 1%. These unprecedented reductions were accompanied by an increase in consolidated water charges of 8% in 2007 (over 2006). Non-domestic water charges account for 5.79% and commercial rates account for 33.9% of expenditure in Limerick City in 2007 (5.78% and 36.09% respectively in 2006).

As charges set by local authorities in relation to water services are not formally monitored by DoECLG, it is unclear how they can ensure or observe the requested commercial rates reductions.

## Conclusion

The financing of Ireland's water system solely through revenues raised by local authorities through charges imposed on non-domestic consumers including businesses is not sustainable. Rising population, increased regulation, climate change and resulting water shortages, high leakage rates and lack of domestic charging are overburdening an already struggling and outdated system of water provision.

That is why Chambers Ireland is calling for the immediate introduction of a domestic water charging system in Ireland and the development of an overall water authority that is set up as a single commercial state enterprise.

Full cost recovery of water charges can help to generate the necessary funds for infrastructure development, renewal and maintenance, and provide incentives for efficient water use.<sup>25</sup> There is a very real opportunity to future-proof Ireland's water management system. Substantial metering should be introduced both as a water management tool and as the basis for an equitable charging system that fully reflects the principle of 'polluter pays'. Charging on metered usage protects domestic consumers from cross-subsidising the business or farming sectors.

Equitable burden-carrying should mean that all sectors of society pay their fair share towards the infrastructural development of their localities. Charging people for their water usage will not just encourage water conservation but simultaneously generate the funds needed to ensure that water supply, water quality and Ireland's consumption levels per capita are up to international norms. Water wasters will no longer be subsidized by those who conserve. As the Commission on Taxation

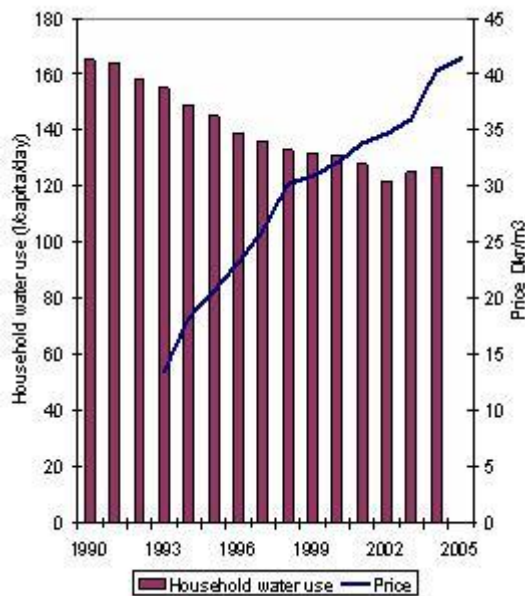
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<sup>25</sup> OECD, (2006), *Policy Brief*, OECD: Paris

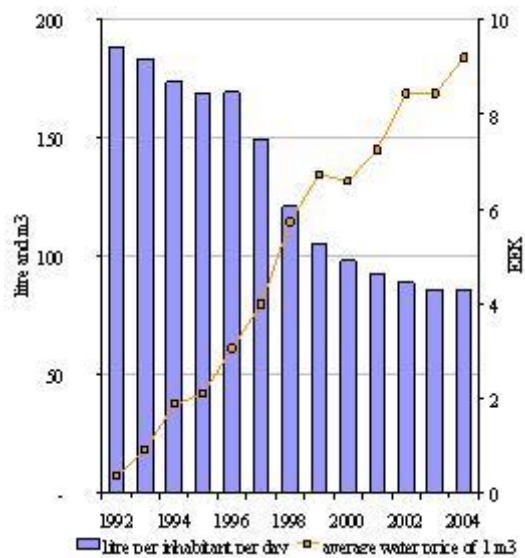
Report (2009) pointed out; “those who use water irresponsibly are in effect subsidised by those who use it sparingly”.<sup>26</sup>

## Appendix 1:

### The European Environment Agency (EEA) - the affects of water prices in Denmark and Estonia



Denmark



Estonia

<sup>26</sup> Commission on Taxation, (2009), Report,

## Appendix 2:

Unaccounted for water (UFW) as a % of total volume of water supplied under water supply schemes<sup>27</sup>

Local Authority	UFW Rate
Carlow County Council	40.57
Cavan County Council	36.83
Clare County Council	38.11
Cork City Council	51.51
Cork County Council	47.40
Donegal County Council	45.50
Dublin City Council	43.05
Dún Laoghaire/Rathdown County Council	29.25
Fingal County Council	27.35
Galway City Council	47.42
Galway County Council	47.87
Kerry County Council	48.72
Kildare County Council	26.60
Kilkenny County Council	48.22
Laois County Council	34.10
Leitrim County Council	35.69
Limerick City Council	58.50
Limerick County Council	34.85
Longford County Council	45.30
Louth County Council	47.14
Mayo County Council	45.88
Meath County Council	46.64
Monaghan County Council	31.75
North Tipperary County Council	48.18
Offaly County Council	48.84
Roscommon County Council	55.59
Sligo County Council	43.00
South Dublin County Council	21.45
South Tipperary County Council	53.47
Waterford City Council	46.58
Waterford County Council	29.03
Westmeath County Council	43.81
Wexford County Council	37.44
Wicklow County Council	28.84
<b>Average</b>	<b>41.60</b>

<sup>27</sup> Local Authority Service Indicators 2009