

## **THE IRISH WATER SAGA – WHAT NOW FOR ENSURING SUPPLY TO FUTURE GENERATIONS?**

*Address by Michael McNicholas, CEO Ervia to MacGill Summer School July 2015*

### **INTRODUCTION**

The question posed to the speakers today is how we ensure a water supply to future generations in Ireland. Water services are a utility, i.e. a fundamental service that is needed to support the basic functioning of an economy and a society. I am an engineer by background, with 37 years experience running utilities in Ireland and internationally. So I can talk to you about the best utility engineering solution to deliver our water services for future generations. But as we have learned over the past two years, the provision of water services is not simply a utility engineering problem. This is an issue that raises fundamental questions of public policy.

Your preferred solution to delivering this utility service depends on the kind of society you want. There are big questions here about which products and services are seen in our society simply as goods to be bought and sold, and which are seen to be a human right, and therefore not simply to be traded in the marketplace.

And if something is deemed to be a human right – and to my mind access to clean water certainly is – then do we fund it through central taxation, or through user charges, or through a combination of both?

Water is also a finite precious natural resource. Like land, we are not making any more of it in the world. The total volume of water on our planet is fixed and exists in our oceans, rivers, lakes and in frozen masses at the earth's poles. We use and recycle water constantly on this planet of ours. So - how do we fund this utility service and how do we act responsibly in its use for today and for future generations. These are questions of national policy and it is for politicians to put forward their policy position, and then to persuade the public

to support their view. I am glad I am being followed today by three politicians and I look forward to their thoughts on this with interest.

Can I say I am not a politician. My job is to run public utilities in line with government policy. So while I know the others on this evening's panel hold strong views on Government policy in this area, I am not a Government representative. I will explain and give account for how well or otherwise we run our utilities in Ervia, but I don't set government policy and so my role here is neither to defend nor to criticise it.

I will just make a couple of observations on the policy issues at stake here before moving onto matters of engineering and business that I actually know something about.

Until very recently, Ireland had a different approach to payment for water and wastewater services than every other country in the OECD. In every OECD country, water services are paid for partly by public funding, and partly by water charges levied on households. Nobody in those countries objects particularly strongly, and claims that they pay for water twice. People understand the logic of a combination of central funding, and direct payment by the individual users of water. Even in Greece, where the user charges for water are considerably higher per litre than they are here, people are not protesting about water charges. It is the norm for people in a modern society to pay for water services, we have not introduced something unusual or out of step here in Ireland.

However the timing of the move to introducing water charges in Ireland was an issue. Coming at a time of austerity it was easy to depict water charges as a by-product of austerity, just another tax imposed on a weary population.

With hindsight, more could have been done to make the case for the payment model to explain that people are not paying twice, but that the money paid in water charges would be used to fix the creaking infrastructure.

Specifically, we in Ervia and Irish Water came up short. We could have been clearer about just how unfit for purpose the current water infrastructure is, and just how much work was required to give us an infrastructure that is needed for a modern economy. We could have explained better how we harnessed some of the best young Irish talent and international expertise build up a new public utility from scratch at half the cost of international benchmarks and in a very short timeframe. Instead it has been characterised as lavish spending on consultants. In similar vein Irish water's competitive performance pay model has been described as a bonus culture. I strongly reject both assertions, but perhaps that's a discussion for another day.

However, our failure to explain these things properly has contributed to a broader failure to build a consensus around the need for a transformation of our water and wastewater services, and the need to have this project led by a national utility.

For the rest of my time I want to explain just why this funding is needed, and why the change from the old local authority model to having a national water utility was of critical importance.

## **THE PROBLEM**

There is a view that there was no problem, and that there is no problem with our current water services. This is a significant issue. Before we will ever get agreement on a solution, we must first agree there is a problem, and precisely what the problem is.

Let me be clear we have a problem, our water and wastewater services are not fit for purpose today- here are some of the facts:

- We lose almost 50% of expensively treated clean water before it even makes it to our taps through leakage.
- In 2014 we had 23,000 people in Roscommon on boil water notices. Thanks to the work of Irish Water we have reduced this to 6,000 this year but a situation remains in which thousands of people must boil water that comes out of their taps before they drink it.
- 121 water treatment plants which serve nearly 1 million people require major upgrading to avoid the risk of contamination.
- More than one in every three of our water treatment plants have insufficient capacity – they're just not big enough to treat all the raw sewage that goes through them.
- Our capital city is operating with 2% spare capacity, and demand for water in Dublin is forecast to increase by 50% by 2050. Highly disruptive water shortages in Dublin have recently cost in excess of €78m per day.
- Two thirds of the sewer network is in need of repair.
- On average, our water infrastructure is twice as old as the European average and we have pipes dating back to the 19th century.

Today we are pumping untreated sewage in 44 locations across Ireland. Ireland has received a "Letter Of Formal Notice" from the European Court of Justice for continuously and systematically failing to address the issue of pumping raw sewage in to our rivers, lakes and beaches. We have made commitments to address this issue for years and have singularly failed to deliver on each plan put forward. In frustration Europe is pursuing Ireland because we have to be forced to clean up and protect our own natural environment. Our utility engineers have been to Europe to seek to address this matter. We have been clear we can not deliver the previous promises made by Ireland, the proposals are too expensive and can't be done in the timeframe set out, but we have put forward a realistic engineering plan and made a commitment to deliver on this plan. We fully intend to do so.

Our water services delivery model is also too expensive, for example:

- It costs twice as much to deliver water services in Ireland than in an equivalent water utility in the UK
- We have twice the length of water pipes
- We have 856 water treatment plants to serve our needs. That is TEN times more than is required in a similar sized water utility in the UK.

All of this costs a lot more money than it should. This is a direct result of delivering water services in a dispersed way through 31 different local authorities. It makes no sense in a country the size of Ireland with a population the size of Manchester to have 31 different agencies delivering this critical infrastructure and services.

## **WHAT WE NEED?**

Our water services and infrastructure are not fit for purpose; they suffer from decades of underinvestment and the lack of a utility approach to planning operating and maintaining this infrastructure. There is no quick fix; it will take many years and a multi billion euro investment programme to address this challenge. I believe it makes most sense to have a single national utility responsible for water services (as we do for electricity and gas).

This provides a single national view on what is needed and how to deliver it efficiently, it provides economy of scale and allows us to reduce much of the duplication and additional cost of the 31 LA operating model. Since taking over responsibility for national water services in January 2014 we have set about developing a seven year plan focused on addressing the critical challenges we face as a nation. The plan sets out clear goals and targets and in short the plan states that by 2021 we will:

- Invest €5.5bn in our water services

- Eliminate all boil water notices
- Ensure no waste water will be discharged without treatment
- Reduce leakage from 50% to 38% (it is 22% in the UK after 20 years)
- Improve the water supply capacity for all major urban centres to international standards
- Upgrade the 121 water plants supplying over 1 million people to eliminate the contamination risk.
- Eliminate the lead services for over 100,000 people
- Reduce the energy we use in delivering water services by 33%

The plan is extremely ambitious and seeks to do in seven years what has take almost 20 years for other utilities to achieve.

In short what we require is a national transformation programme to address the challenges we face with our water services, it is fundamental to meeting our economic needs.

The reality is that we have not been investing efficiently or sufficiently in our water services. So when people say introducing water charges means we are paying twice, the reality is we have not even been paying once for our water services. We need more investment as a matter of urgency and this additional investment has to be paid for in some shape or form by society and by business.

How we pay for our water services is the element of the whole water debate that has caused the most controversy. We could look at a model in which water services are funded 100% by the exchequer. Or we could go for a contrasting model in which water was seen purely as a privately purchased consumer product, and you pay for what you use. The current model, which involves a combination of business and domestic charges, central funding and

debt, seems to me to be the one that makes the most sense, and is the norm throughout Europe.

As a single national utility, Irish Water is directly responsible and accountable for water services in Ireland. It must account for its use of funds and show transparently that the monies were used to invest in water services and demonstrate each year what progress has been made in fixing our water and waste water infrastructure. Unlike additional taxes into central government, domestic charges are paid directly to the utility and the funding can be tracked to ensure it goes into fixing the problems with our water infrastructure.

But however we pay for it, there must be political and public consensus around that choice. And currently there is not a broad consensus. Utilities invest in building long term infrastructure, to do this they must have clarity and certainty over how they are to be funded into the medium to long term. The lack of this clarity is what has bedevilled the Local Government model of funding water services in the past. The on/off decision making on exchequer funding makes it impossible to plan and deliver major infrastructure which is critical to fixing our water and wastewater services.

At Ervia we are very clear what the engineering and utility solutions are that are needed to fix our water services and we have a plan and a funding estimate of what is needed to do that. But the past 18 months have made it very obvious that this isn't enough if we are going to fix this national problem.

For Irish Water to work it must have political and public support. And it is clear that some sections of the public remain sceptical about it, and some of the political voices in Ireland are totally dismissive of it. In many cases they don't believe there is a problem in our water services at all, they don't think we need a national solution, they don't believe it requires higher funding, and they certainly don't believe any part of the cost of providing water should be paid

for directly by the people who use it. I met a politician recently, and he told me that he had been drinking tap water all his life and so far hadn't been poisoned by it; that local authorities had been maintaining water infrastructure for years and it works fine; and therefore he really couldn't see that there was any need for a new approach to water services at all.

We therefore find ourselves grappling with the question in the title of this session – how to ensure water supply for future generations – in an environment in which some influential voices don't accept that there is a problem at all, or certainly don't believe it is of the scale that it is.

What is required is a long-term commitment to a project of national importance – the transformation of our water and waste water services. It must be supported and driven by the political system, and supported by the general public.

I worked in ESB for 28 years and the ethos of the company is rooted in its origins, the development of the hydroelectric project at Ardnacrusha and the rural electrification programme that came from that.

The Ardnacrusha scheme emerged from the first major national strategic infrastructure plan made by the newly independent Irish Government. It was begun in 1925, and completed in 1929, and it cost 5.2 million pounds. In case you think that wasn't a lot, it was one fifth of the State's total budget in 1925. There was a lot of political controversy over the costs, and over what the workers were paid. But back then, the complaint was that they were paid too little – at least some things have changed.

Irish engineers and labourers under the guidance of Siemens harnessed the natural energy of the River Shannon. The project was fundamental to Ireland

emerging as a modern society and economy. When it was opened in 1929 the electricity created travelled over a new network of high tension power lines to households all over the country, some of which were switching on electric lights, irons, cookers and other modern devices for the first time.

It brought “the light” to rural Ireland, changed peoples lives and allowed young people access to time and ‘light’ to study and so helped create an educated workforce. By 1935 Ardnacrusha was supplying 80% of Ireland’s electricity.

It is still operating today.

Tremendous vision was shown by our political leaders in 1925 in a fledgling Irish State. They were clear what was needed to develop the economic and social well being of our country and set about doing it in the face of much criticism and risk at the time. Ireland is blessed with a plentiful supply of a finite natural resource, i.e. water. Harnessing this resource, using it efficiently and returning it to our waterways clean and safe for reuse is core to sustaining this resource for today and for future generations. We need a new national vision and consensus to address the challenges we face with our water services.

I don’t want to over-dramatise what Irish Water is doing. But our €5.5 billion programme of investment is a nationally vital project designed to give Ireland a safe, world-class supply of a product even more basic than electricity – clean water and efficient sanitation. However it cannot happen properly unless we first agree on what the problem is, and then agree on the solution.