Indaver Ireland response to the Public Consultation on a new Waste Action Plan for a Circular Economy

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Indaver Ireland welcomes the opportunity to respond to this timely and important consultation on the development of a new Waste Action Plan for Ireland as part of the transition to a Circular Economy.

Indaver is keen to support this transition whereby waste at all stages of the economic cycle is reduced to the greatest degree possible and all materials including waste, are used as efficiently as possible.

Indaver owns and operates a Waste to Energy in Duleek, Co. Meath which is designed to safely and effectively treat municipal solid waste. This form of sustainable waste technology has the added benefit of producing electricity and has greatly assisted in the diversion of waste from landfill in the State. Indaver is also proposing to develop similar thermal recovery facilities in Cork and Belfast (arc21).

Focus of Indaver's Submission

As the Consultation document at hand seeks stakeholder input on an extensive range of existing and proposed policy initiatives, it is not proposed to provide a response to all consultation questions.

As an alternative, specific responses will be provided to relevant sections of the consultation and which may be said to directly pertain to Indaver's existing and planned business operations.

Our response thus focuses on the following key policy areas, including:

1. Waste management Infrastructure: the need for additional waste to energy (WtE) recovery capacity;

2. Waste Planning on an all island basis & Post-Brexit regulatory equivalence;

3. Up to date and accurate waste data;

4. End of Waste (EoW): the sustainable reuse of aggregates in a circular economy; and

5. The Development of the Bioeconomy: the need for alternative biosolid treatment infrastructure.

1. The need for additional waste to energy (WtE) recovery capacity

Section 11 of the Consultation document on 'Waste Management Infrastructure' seeks input on the best manner to provide much needed waste management infrastructure and the associated need for contingency capacity in the waste management sector.

In the context of an integrated waste management system, thermal recovery capacity must form a constituent part given that the role it plays in diverting waste from landfill, thereby reducing environmentally detrimental impacts on land, air and groundwater quality.

This need for thermal recovery capacity is laid down in all three regional waste plans, the Southern, Connaught-Ulster and Eastern-Midlands Plans, wherein a national requirement for 300,000 tonnes thermal recovery capacity is identified.

Specifically, the Sothern Regional Waste Plan Waste Management Plan (SRWMP) 2015-2021 underlines this need and is accordingly referred to in Indaver's planning application to develop a resource recovery centre (including waste-to-energy facility) in Ringaskiddy in County Cork (and pursuant to Board Order 04.P40045).

In this context, the Southern Region Waste Management Plan (SRWMP) 2015 – 2021 identifies a national thermal recovery capacity need of 300,000 pursuant to Policies E15a – E16:

> *'The waste plan supports the development of up to 300,000 tonnes of additional thermal recovery capacity for the treatment of non-hazardous wastes nationally to ensure there is adequate active and competitive treatment in the market and the State's self-sufficiency requirements for the recovery of municipal waste are met. This capacity is a national treatment need and is not specific to the region.*[1]

Having regard to the European and national policy framework for waste Management including the Southern Region Waste Management Plan as outlined above, the National Hazardous Waste Management Plan 2014-2420 and the National Planning Framework (NPF), the development of indigenous waste treatment facilities for the treatment of hazardous and non-hazardous wastes is prioritised therein in unequivocal terms.

Similarly, additional recovery treatment capacity is needed to continue to move away from disposal and the exporting of Ireland's residual and hazardous wastes and is further warranted given the ongoing landfill capacity crisis and fundamental lack of contingency in the waste management sector.

The Environmental Protection Agency (EPA) in its publication *Ireland's Environment 2016*[2], has highlighted that the export of waste represents a lost resource for the State, and there is a risk that, should the capacity of the export markets decrease at short notice, the infrastructure capacity in the State (landfill disposal and waste to energy recovery) will not be adequate to cope with increased demand.

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[1] Southern Region Waste Management Plan: http://southernwasteregion.ie/sites/default/files/Part%203_0.pdf at page 187.

[2] Ireland's Environment 2016: http://www.epa.ie/pubs/reports/indicators/SoE_Report_2016.pdf at page 95.

Given projected increases in population[3], and the fact that Ireland still generates more waste per capita than the Euro area average and is in the upper range in the Organisation for Economic Co-operation and Development (OECD), in addition to established policy requirements at national and EU level, there is a recognized need for further thermal treatment capacity if Ireland is to comply with the principle of self-sufficiency and waste prevention and recycling targets as set out in EU legislation.

Given such projections, the future required need may well be over and above the 300,000 tonnes recovery capacity provided for in the present Regional Waste Management Plans (RWMP's). As such, the review of these Plans must be cognisant of such projections and must take such projections into account and the national capacity figures adjusted if the State is to be in a position to meet the enhanced targets as laid down in the Circular Economy Package.

The above factors cumulatively combine to highlight the now exigent need for additional residual waste treatment capacity in Ireland. Accordingly, this need as laid down in the Regional Waste Plans must be accorded priority in the new national waste policy.

Recommendation

- The need for further recovery infrastructure must be recognised in the updated national waste policy if the principles of self-sufficiency and landfill diversion are to be fully realised and the transition to a circular economy realised.

2. Waste Planning on an all island basis & Post-Brexit regulatory equivalence

Of equal importance is the need to address waste management in the updated national waste policy document in terms of an Ireland as seen in an all-island context. The potential implications on Northern Ireland's environmental law and policy framework given the UK's departure from the EU must now be considered given that both jurisdictions must comply with the requirements of EU law.

Whilst significant progress has been made in many and varying policy areas between the North and South over recent years, in light of Brexit and the UK's recent departure from the European Union, enhanced cooperation will be of even greater importance going forward.

The North South Ministerial Council (NSMC) has agreed to optimise North-South joint planning and engagement on many key issues following on from this decision. The Council was established to develop consultation, cooperation and action within the Ireland of Ireland.

In the waste management sphere, the Environmental Sector of the Council make decisions on common policies and approaches in areas such as environmental protection, pollution, water quality management and waste management in a cross-border context and seeks to identify strategies and activities which would contribute to a coherent all-island approach to the achievement of sustainable development.

[3] Central Statistics Office (CS0) publication *'Population and Labour Force Projections: 2016-2046'*[3], it is estimated that the national population will increase to 5.1 million by 2031 and to just over 5.6 million by 2046.

Further collaboration in the context of the waste sector and sustainable waste management policy, would serve to ensure that all disposal and treatment options available on the island would be firstly exhausted before relying on export. The export option is unlikely to be available into the long term given the increasing difficulties with securing outlets on continental Europe for waste exported from Ireland.

Thus, the availability of sufficient domestic waste management capacity is essential in order to reduce Ireland's vulnerability to external forces due to dependency on the export market for the treatment of recyclable waste.

Moreover, the export of municipal waste for recovery abroad represents a lost economic and resource opportunity and is at odds with the envisaged transition to a circular economy whereby such waste streams should be regarded as valuable material resources and adhere to the principles of self-sufficiency. An all-island approach to waste management is a key element of a sustainable waste management solution and the transition to a circular economy.

All-Island Cohesion in Managing the Environment - Examples of North-South Co-operation in Environmental Policy and Regulation

Numerous examples of cross-border co-operation exist in the field of environmental protection as the island effectively forms a unique single unit in terms of natural environment and plant and animal life.

Such examples include:

- the implementation of the EU Habitats Directive;
- the operation of the all-island single electricity market which has provided proven benefits for citizens throughout the island since its inception and which has contributed to the achievement of key energy policy objectives;
- the management of river basins and water quality and resources which has been managed effectively in a cross-border context; and
- the cross-border repatriation plan established under the auspices of the EU Waste Shipment Regulation, wherein both governments worked in tandem to deal with illegally dumped waste in Northern Ireland.

With this framework in mind and given projected increases in population figures and correspondent waste arisings, a coordinated and strategic approach to waste management on an all-island basis and alignment with key policy objectives in both jurisdictions is of fundamental importance if the island is to be in a position to manage such increased levels of waste in an environmentally sound manner.

An all-island waste strategy, informing the four regional waste plans (including a newly constituted single waste region in Northern Ireland, the Connaught-Ulster, the Eastern Midlands and the Southern regions) would facilitate a collaborative approach and would serve to ensure that all disposal and treatment options available on the island would be firstly exhausted before relying on export. Furthermore, it would also provide much needed contingency and flexibility in the management of waste should this be required on an all-island basis.

Contingency could be provided at existing landfills and would serve to provide resilience in the sector. This would help to ensure that in case of a short term emergency which could be detrimental to the health and well-being of citizens, the same could be managed in an environmentally sound manner and on an all-island basis.

Moreover, the development of an all-island approach to waste management and resource efficiency would help to ensure a joined up approach to strategic infrastructure and investment decisions that have a cross-border dimension and would also assist in the development of mutually beneficial policy to address common environmental challenges including those likely to be posed by the Brexit process.

It would also help to ensure that economies of scale are achieved regarding the development of new waste management infrastructure and would contribute to compliance with the EU principle of self-sufficiency by ensuring that all disposal and treatment options on the island are exhausted before relying on export.

Environmental Governance Framework Post-Brexit

The risks associated with the absence of a properly functioning oversight and governance regime in Northern Ireland are particularly acute and the same could have serious consequences regarding unregulated waste disposal activities and cause damage to the island's natural environment.

It is abundantly clear that in the absence of the above shared EU economic and policy framework, the island as a whole could face significant and unparalleled challenges. Should regulatory divergence occur, this would amount to a significant barrier to EU-UK trade post-Brexit and would consequently impact cross-border businesses, infrastructure investment decisions and ultimately consumers across the island, and ultimately could lead to the dilution of environmental protections by proxy.

In the context of environmental services and resource utilisation the risks associated with such divergence are particularly acute. Should two regulatory regimes emerge, the scope for circumvention becomes more likely with the potential for unlawful movements of waste and tariff avoidance, whilst increasing the administrative and cost burdens for legitimate businesses.

Thus, the importance of maintaining equivalence in environmental standards between Northern Ireland and the Republic cannot be underestimated. As such, serious consideration must now be given to instituting a new oversight regime necessary to protect Northern Ireland's unique environment and which is of fundamental importance if gaps in governance are to be avoided post Brexit.

For example, with regard to the regulation of cross border movements of waste pursuant to the EU Waste Shipment Regulation 2006 which incorporates the provisions of the Basel Convention as transposed nationally through UK and Ireland regulations, there is a need to ensure that this framework continues post-Brexit.

Under this Regulation which aims to ensure the environmentally sound and efficient management of waste, the Northern Ireland Environment Agency and the National

Transfrontier Shipment of Waste Office apply and enforce the Regulation to transfers of waste across the island.

In this regard, the Protocol on Ireland/Northern Ireland[4] included in the revised Withdrawal Agreement from the European Union as agreed in 2019 with the EU, provides that Northern Ireland remains aligned to the EU from the end of the transition period in 2020 for at least four years (provided consent is provided by Stormont). Northern Ireland must therefore continue to apply the align with the EU Environment Acquis (the existing body of EU environmental legislation).

Accordingly, the existing waste shipments framework and the EU environmental protection framework should be preserved in full in order that environmental equivalence is maintained between the two jurisdictions.

There is a fundamental need to ensure that waste shipments can continue post-Brexit notwithstanding the fact that the UK is no longer a member of the EU.

Recommendations

- It is vital that regulatory divergence and policy differentiation are avoided at all costs and specific account taken of the unique impact any departure from EU predicated norms would have on environmental regulation and on the proper functioning of the all-island economy;

- The provisions of the Waste Shipment Regulation must be preserved in full in order that free movement of waste shipments between the jurisdictions can continue after the expiry of the transition period; and

- Consideration must also now be given to further evolving the Good Friday Agreement, along with the political and legal framework underpinning the same in order to strengthen cross border and intergovernmental coordination and collaboration that will be unquestionably needed post-Brexit and particularly in the context of environmental governance.

3. Up to date and accurate waste data

In line with a coordinated approach to waste management on an all-island basis, there is an associated need for up to date and accurate waste data. Section 17 of the Consultation document specifically queries if such data should be made available on a more regular basis.

Indaver submits that the availability of accurate and timely data on waste data and data flows is a prerequisite to achieving policy alignment at national, regional level and all-island level. The provision of timely data would support the assessment of policy effectiveness and help to identify any waste treatment capacity gaps in the market and across the island.

[4] The Protocol on Ireland/Northern Ireland in the Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community, 17 October 2019: https://ec.europa.eu/commission/sites/beta-political/files/revised_withdrawal_agreement_including_protocol_on_ireland_and_nothern_ireland.pdf

Such data would also help to prevent over capacity occurring in the market and thus prevent potential market imbalances. This is particularly relevant in the context of the long lead time required to obtain the required consents for delivery of strategically important waste treatment infrastructure on an all-island basis.

The provision of timely and robust data would also assist with meeting the Waste Statistics Regulation (2150/2002/EC) reporting requirements as required in both jurisdictions.

Recommendations

- The availability of accurate and timely data on waste data and data flows is a prerequisite to achieving policy alignment at national, regional level and all-island level; and

- It is also essential in terms of planning strategic waste infrastructure and identifying any potential capacity gaps.

4. End of Waste (EoW): the sustainable reuse of aggregates in a circular economy

Section 13 of the Consultation document seeks stakeholder input on the provision of end-of-waste (EoW) status for waste materials including incinerator bottom ash (IBA).

In this regard, residues from treatment technologies such as incinerator bottom ash (IBA) produced from the WtE process should be reused in a sustainable manner and in line with circular economy principles (and after a comprehensive mechanical screening process has been carried out).

Such reuse is compatible with the principle of self-sufficiency as laid down in the Waste Framework Directive and the proper application of the waste hierarchy. This material is routinely used in EU countries, including the UK, Netherlands and Belgium, and is processed for use as an aggregate in construction of roads or other large-scale projects.

Accordingly, the development of dedicated policy measures including EoW status for this material should now be given due consideration if this material is to reused and the option of export and diversion to landfill avoided in the long term.

Finally and in line with the above section on waste planning on an all-island basis, the development of a dedicated recovery facility for IBA could provide an all-island solution for the treatment of such residues and would provide economies of scale. The availability of EoW status for this material would undoubtedly assist from a policy and business case perspective with such a private sector development.

Recommendations

- The development of a policy framework centred on reuse and EoW for materials such as IBA should be afforded priority in order that all materials can be reused in line with circular economy principles;

- A dedicated working group should also be established to focus on EoW for appropriate materials including IBA and should include a wide and representative group of stakeholders from government, industry and academia;

- The introduction of Green Public Procurement specifications for public construction contracts to use recycled material such as IBA should be considered; and

- Incentives to encourage the use of recycled materials should also be introduced in order to promote the sustainable and circular use of all waste materials.

5. The Development of the Bioeconomy: the need for alternative biosolid treatment infrastructure

Section 22 of the Consultation document seeks input on how best to bring about a transition to a circular bio economy wherein all resources including those such as municipal solid waste and wastewater (including the waste stream compromising of biosolids generated from wastewater) are reused.

In this regard, the National Policy Statement on the Bioeconomy (2018)[5] addresses the production of renewable biological resources and includes such resources as municipal solid waste and wastewater (including the waste stream compromising of biosolids[6] generated from wastewater).

As such, the development of a new national waste policy provides an ideal opportunity to assess the value that may be extracted from wastes which may be regarded as carbon containing and unavoidable in nature such as biosolids. The new national waste policy should consider the immediate need for alternatives to land spreading for proper and environmentally sound biosolid management.

Currently in Ireland, recycling to agricultural land is considered the most economical and beneficial way for municipal sewage sludge management with approximately 80% of sludge[7] produced in Irish wastewater treatment plants applied each year as fertiliser to agricultural land. This practice is not permitted in many other European countries due to stringent regulations on quality and heavy metal content[8].

In light of such serious concerns, this practice is being phased out and limited and is increasingly being dealt with by means of more environmentally safe means including incineration.

The Environmental Protection Agency (EPA) has in a Research Report entitled '*Health and Water Quality Impacts Arising from Land Spreading of Biosolids'*[9] found that there are many

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[5] National Policy Statement on the Bioeconomy: https://www.dccae.gov.ie/documents/20180312-Bioeconomy%20-%20National%20Policy%20Statement.pdf

[6] Treated sewage sludge, commonly referred to as 'biosolids', is the organic by-product of urban wastewater treatment

[7] EPA Destination routes for the national load of sewage sludge in 2015 (EPA, 2016), http://www.engineersjournal.ie/2017/04/13/wastewater-treatment-biosolids-sludge-damage-land/

[8] Eurostat, Eurostat, 2014. Sewage Sludge Production and Disposal: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env_ww_spd&lang=en - For example, in the Netherlands, 92.6% of sewage sludge produced from urban waste water in 2012 was incinerated with none disposed of by agricultural use. In Germany in 2013, approximately 57% was incinerated and 27% used in agriculture

[9] EPA Research Report , 2012, prepared for the EPA by the National University of Galway: http://www.epa.ie/pubs/reports/research/land/research200.html

risks associated with the spreading of biosolids on agricultural land including the presence of emerging contaminants and metals in sewage sludge and the potential for surface runoff of harmful contaminants into receiving waters. Furthermore, An Bord Bia quality assurance programmes also prohibit the use of raw or treated sewage/biosolids on Bord Bia certified farms.

The foregoing has serious implications for the future development of the agri-food sector in Ireland and for the protection of human health and well-being. It is therefore of vital importance that alternatives to the landspreading of biosolids are now given due and proper consideration.

Furthermore, it is expected that Biosolid volumes will increase as a direct result of the improvement of Waste Water Treatment Plant services as directed by the Water Framework Directive 2000/60/EC, with the quantity of wastewater sludge expected to increase significantly by 2040.[10] When linked to expected population growth which is expected to increase to 5.1 million by 2031 and to just over 5.6 million by 2046, the need to develop alternative treatment infrastructure cannot be underestimated.

In policy terms, Irish Water's National Wastewater Sludge Management Plan outlines the strategy for managing wastewater sludge over the next 25 years, and includes proposals for the investment in future treatment, transport, storage and reuse (or disposal) of the sludge. One of the objectives includes extracting energy and other resources where economically feasible.

In addition, the National Planning Framework (NPF) provides that planning for waste treatment requirements to 2040[11] will require:

> 'Additional sewage sludge treatment capacity and a standardised approach to managing waste water sludge and including options for the extraction of energy and other resources'.

In light of the foregoing, there now exists a need to develop alternative biosolid treatment facilities as a matter of urgency and to end the current practice of spreading biosolids on agricultural land as the primary means of municipal sludge management in Ireland which is prohibited in many European countries due to environmental and health concerns.

This waste stream should therefore be treated in a more sustainable and environmentally sound manner and in line with circular and bio economy principles.

Recommendations

- An alternative to landspreading for biosolid management should be considered as it is a resource which, if exploited fully, is capable of adding further value in terms of energy extraction and utilisation of ash residues produced thereafter; and

- If compliance with EU measures designed to protect Ireland's waters from pollution is to be achieved, the practice of landspreading must be phased out and prohibited in the medium to long term.

[10] National Wastewater Sludge Management Plan, Irish Water, October 2016.
[11] National Planning Framework (NPF) http://npf.ie/wp-content/uploads/Project-Ireland-2040-NPF.pdf at page 151.