The waste manifesto 2

Time to throw out the old thinking

2010

Veolia Environmental Services (UK) Plc
Veolia House, 154A Pentonville Road
London N1 9PE
Tel: 020 7812 5000
manifesto@veolia.co.uk
www.veolia.co.uk

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Reform | Transform

Waste management is evolving. Those leading the transformation are duty-bound to make clear their position on the challenges that emerge to guide the industry forwards.

Welcome to our position.

Welcome to the Waste Manifesto.

Welcome to our New Manifesto

A foreword from the Chief Executive

I am delighted to present to you our second Waste Manifesto. Our aim is to be transparent in our thoughts and everything we do.

Only by being open will we be able to move forward as an industry in a mature fashion. As a company we genuinely want to make a positive impact on the environment, now and for the long-term.

At a time when the new coalition Government has pledged its commitment to a low-carbon economy we believe it is more important than ever for the recycling and waste industry to show leadership.

With the UK striving for a cleaner, greener future and the ongoing impact of the landfill tax 'escalator' now really making its presence felt there is more scope for investment in proven recycling and recovery solutions.

We believe we are well positioned and can offer an informed perspective on how the UK's already much enhanced recycling performance can continue to be improved.

Beyond the technology, the importance of working with local communities, government and business on the issues and importance of new infrastructure and why landfill is no longer an option cannot be overestimated.

This is particularly relevant given the new 'Big Society' agenda and the importance of pro-active engagement.

We hope you enjoy our new Manifesto. If you would like any further information or have any comments on the subjects raised or others that you would like us to discuss and bring out into the open, please contact: manifesto@veolia.co.uk or visit: www.veolia.co.uk

Jean-Dominique Mallet
Chief Executive Officer

A Reference Point for Progress

Veolia Environmental Services' first Waste Manifesto was a reference point for the waste management industry amidst growing awareness and changing attitudes.

As we look toward new developments for 2010, we reflect on a year of transformation and the issues that dominated 2009.

1 - Waste management and climate change

Tackling climate change remains one of mankind's greatest challenges and an ongoing focus for Veolia Environmental Services.

The last year has seen us aid the Environmental Services Association in developing a Protocol for accounting and reporting on Greenhouse Gas (GHG) emissions. The Enterprise pour l'Environnement (EPE) GHG Accountancy Protocol helps to provide consistency of reporting between businesses.

This complements a number of other carbon reduction initiatives:

- Our Candles landfill is trialling a leachate treatment plant (LTP) to recover ammonia, which can subsequently be used to reduce NOx formation in our Energy Recovery Facility (ERF) processes. This minimises the use of virgin raw materials and diverts a valuable resource from disposal.
- While striving to reduce landfill, we must extract useful energy wherever it exists. Our Group has 450 researchers working on innovative waste treatments, such as the Methalia biogas purification process which is able to supply collection vehicles or the National Grid with renewable fuel.
- We are working closely with Volvo and Geesink Norba on the development of the UK's first 26t GVW Hybrid chassis and fully electronic body refuse collection vehicle, which minimises fuel consumption and reduces exhaust and noise emissions. One of the first vehicles started a trial with Westminster in September 2009.

Our view

The impact of waste collection, sorting and some treatments will always be contributors to GHG emissions. That's why we support the development of new technologies and actively investigate their application to reduce and manage the carbon contribution from our sector. Waste management processes must be robust, reliable and sustainable, and new technology only introduced if it provides an economic benefit after the cost of carbon is taken into account.

2 - Environmental Permitting and Exemptions

2009 heralded a number of legislative changes to EPP, which came into force on 6 April 2010 under the new Environmental Permitting Regulations 2010.

Requirements for new batteries and mining waste directives, radioactive substances, water discharge consents and groundwater permits were incorporated into the EPP system. Revamped waste exemptions also saw some existing exemptions become subject to full environmental permitting, with stricter controls on those remaining.

Our view

The EPP regulations have benefited both regulators and operators. Practical improvements include the ability to extend or partially transfer part of a waste site, while greater clarity has simplified the application process for all.

Looking forward, regulating bodies and operators must push for better delivery timescales and consolidation of permits to build on the improvements made over the last year.

3 - Integrated PFI contracts

DEFRA and Partnership UK (PUK) guidance issued in 2006 advises local authorities to procure waste facilities on an individual basis through Private Finance Initiatives (PFIs), rather than adopting a fully integrated waste management contract.

The aim is to increase competition and encourage tenderers without equity/debt funding to enter the market, giving procuring authorities greater choice and value.

Our view

PFI procurement remains a good idea in principle. However, the hurdles can be prohibitive for smaller operators and restrict the bidding process in favour of larger organisations. Moving forward, local authorities, regulators and the waste management industry must work to level the playing field for all.

While we will continue to support the development of waste facilities through the PFI process, quality of service remains the single most important element of any contract. Our standpoint remains that control of bidding costs and better co-ordination is achieved through an integrated contract, as is the high quality of service that the community deserves.

5 - Co-mingled collection

The last twelve months have seen us progress and continue implementation of co-mingled collections. Supporting this, the improving Near Infra Red (nIR) technology employed in Material Recovery Facilities (MRFs) has further enhanced our ability to efficiently sort materials and maximise material recovery and quality.

Our view

The Campaign for Real Recycling is committed to the segregation of waste streams at source and of course we fully support those Local Authorities that prefer the source-segregated approach. However, the impracticalities make co-mingling the smartest way forward. First-hand experience shows it provides value for money, safety and environmental protection – the watchwords of responsible waste management. Co-mingled collections are also easier for residents and help maximise recycling yields.

Improving the quality of the co-mingled material stream remains the single greatest challenge. In rising to meet this challenge, we will continue to put improvement of MRF output at the top of our agenda.

4 - Anaerobic Digestion (AD)

In 2009, the DEFRA AD Task Group issued a report on the development of AD technology and its role as part of an integrated waste management strategy. This was followed by a separate DEFRA report supporting the findings.

Our view

Veolia Environmental Services recognises that AD can play an important part in the management of organic waste. Our contribution to the DEFRA AD Task Group and European FP7 programme reflects an ongoing commitment to AD in the UK and further afield.

Where it offers the best-fit solution, we will continue to work hand-in-hand with our partners to develop and use AD for the efficient management of collected food waste.

6 - Hazardous waste

2009 saw the publication of DEFRA's Hazardous Waste Strategy, outlining the infrastructure developments needed to drive the treatment of hazardous wastes towards recovery and re-use.

Our view

Hazardous Landfill Derogations on WAC

The removal of derogations on the hazardous landfill Waste Acceptance Criteria will push appropriate management options. This will encourage recovery where it is considered environmentally sustainable, or more secure disposal operations to manage contaminants.

Organics to Landfill

Veolia Environmental Services backs the move to divert organics from landfill toward recovery and thermal treatment options and is undertaking a number of initiatives aimed at meeting this goal.

Waste Hierarchy and Lifecycle Thinking

We strive for recovery and recycling of hazardous waste at every turn. But our priority will always be to control contaminants in the waste stream and limit the release of contaminants into the environment.

The waste hierarchy must support decision making when managing hazardous waste. It should be approached on a case-by-case basis in conjunction with lifecycle thinking.

Export of Hazardous Waste

Veolia Environmental Services supports the objective of self-sufficient waste management. Where the capacity exists, waste produced in the UK should be treated in the UK. For the strategy to succeed, the visibility of future regulations, robust guidance and a clear timeline are paramount to promote investment.

Glass Recycling

What is Glass Recycling?

Glass manufacturing uses cheap and plentiful materials like sand, soda ash and limestone but it consumes large amounts of energy in the process. Typically, an efficient glass furnace will consume four GJ of energy for each tonne of product. Re-melting glass from used cullet avoids the need for these virgin raw materials and uses much less energy. Recycling glass back into new products is beneficial to the environment, cost effective and raises public awareness about recycling.

Whatever the product, we adhere to specifications issued by the British Standards Institute (BSI) that provide the expectations for good practice.

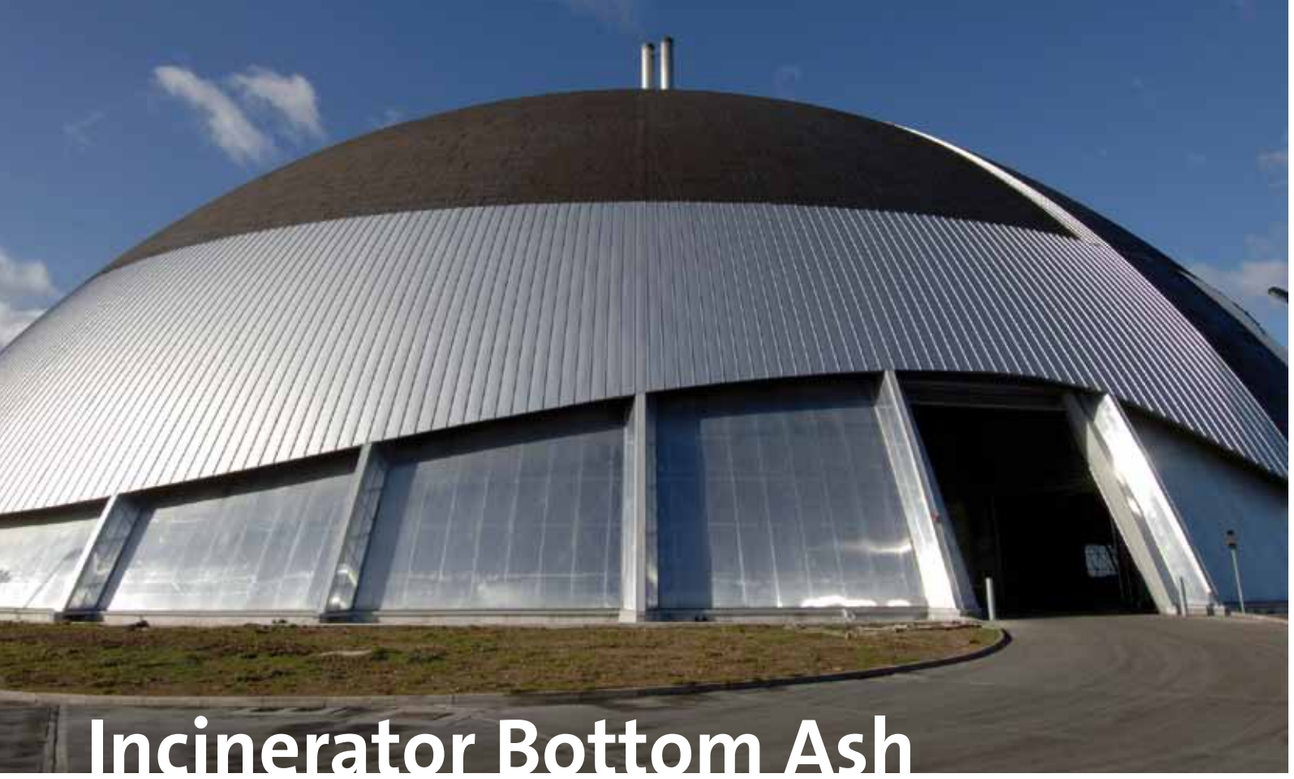
The GHG footprint should be considered and preference given to recycling the glass back to a usable product.

The Issues

- The main reason for recycling is usually to save material resources and reduce the carbon footprint associated with the materials concerned. But in the case of glass, silica (sand) and limestone are plentiful and the case for saving material resources is not particularly strong. It is the saving of energy, along with its greenhouse gas (GHG) emissions, that make a strong case for recycling glass.
- Government recycling targets are measured by the weight of the material recovered. This policy has led local authorities to prioritise glass collection. Packaging regulations also state that a Packaging Recovery Note (PRN) is payable by the producer for each tonne of container glass recycled. This particularly encourages collection of glass from commercial organisations. In both situations, the end use of recovered glass has often been ignored. Little consideration is given to the environmental impact of collection methods and subsequent treatment.
- Glass that is too fragmented, contaminated or not adequately sorted by colour cannot be used for recycling back into bottles. It may be crushed and used as a secondary aggregate which saves plentiful raw materials. However it does not create the large energy savings that recycling into new products does.

Our Position

- Veolia Environmental Services encourages the recycling of glass to produce new product and recognises that glass recycling increases public awareness of recycling in general.
- We believe that waste glass is best collected in bottle banks rather than co-mingled kerbside recycling collections. This minimises fragmentation, enabling the colours to be separated and the maximum amount of glass to be returned to new products. Kerbside sorting of glass may maintain glass integrity, but is slow and expensive and can expose collection operatives to health and safety risks. Bottle banks can be placed at regularly visited locations and capture high levels of used glass from householders.
- While we accept that crushing glass for use as a secondary aggregate may be beneficial by slowing the use of natural resources, the GHG footprint should be considered and preference given to recycling the glass back to a usable product.



Incinerator Bottom Ash

Using IBA as a secondary aggregate makes a positive contribution to lowering the carbon footprint of waste management, thus helping to mitigate climate change.

What is Incinerator Bottom Ash?

Incinerator Bottom Ash (IBA) is material discharged from an Energy Recovery Facility (ERF) incinerating municipal solid waste. The weight generally represents around 23% of the input waste. It can contain varying quantities of glass, ceramics, brick, concrete and metals in addition to clinker and ash, depending on the waste being burnt. Once large objects and metals have been screened out, the remaining ash can be processed into a secondary aggregate that has good pozzolanic (cement-like) properties, so can act as an excellent substitute for natural aggregates. This can be used in road sub-base, bulk fill, asphalts, foamed concrete and cement bound materials.

The Highways Agency accepts the use of processed IBA as an aggregate for bound and unbound layers in road construction.

By using IBA in this way, landfill avoidance of up to 99% can be achieved and valuable ferrous and non-ferrous metals and glass are recovered.

Veolia Environmental Services now recycles the majority of the IBA from all of its ERFs and will seek to develop this capacity at new facilities.

The Issues

- IBA is a sustainable source of competitively-priced aggregate that replaces primary aggregate extracted from quarries. It has a lower density than primary aggregate, so is more effective as bulk filler.
- Recycling IBA avoids landfill disposal and although it is essentially inert, containing no more than 3% carbon, using it as a secondary aggregate makes space available for other wastes, as well as avoiding the landfill tax liability.
- Secondary aggregate can use less transport than primary aggregate by utilising IBA processing plants close to the building developments.
- Substantial amounts of both ferrous and non-ferrous metals can be recovered from IBA and the cement-like properties of processed IBA can give enhanced performance over virgin aggregate for certain applications.
- IBA can contain metals such as lead and zinc, arising from the wastes treated at the ERF. However, it is rigorously tested in line with European and UK guidance to ensure that their concentrations do not constitute a hazard.
- IBA is derived from waste so under European and UK regulations, despite being treated, it remains a (non-hazardous) waste until it is put into the final application. Prior to being used, a permit application has to be submitted to the Environment Agency (EA), who will ensure it is not being located on watercourses and the application meets other EA requirements. In May 2002, the Environment Agency published a report on the safety of IBA, indicating that its use posed no exceptional risk to human health.

Our Position

- Veolia Environmental Services supports the use of IBA as a secondary aggregate and continues to develop the processing of incinerator ash for this use. Using IBA as a secondary aggregate makes a positive contribution to lowering the carbon footprint of waste management, thus helping to mitigate climate change.
- Our processed IBA meets the requirements laid down by the Environment Agency and is not hazardous.
- Veolia Environmental Services is following the establishment of an “end of waste” criteria. This will remove waste regulation obligations for prepared IBA materials. However, we are content to continue with the current regime if required, especially if that provides greater confidence in safe treatment and use.
- We believe that metals, glass and aggregate recovered from IBA are recycled in the same way as materials collected through municipal collections. This means they should be counted within local authority recycling performance, as they are in other EU countries.
- Veolia Environmental Services will continue to provide traceability of the ash it sends for conversion to secondary aggregate.

Incentivising Recycling

Trial schemes in two UK boroughs have achieved extremely positive results, leading to full roll-out in both cases.

Background

There has been substantial progress in reducing waste to landfill and over 91% of households are now involved with recycling. However, the UK recycling rate for household waste is about 35%. The European Waste Framework Directive requires 50%, so we have work to do. Encouraging more people to start remains an issue, but even current recyclers must be encouraged to do more.

In 2009, the Climate Change Act gave local authorities the right to implement charging schemes for household waste. Since then there has been a rapid increase in electronically chipped, waste weighing bins.

Veolia Environmental Services has entered into an agreement with RecycleBank® which has a successful track record in the US and is now able to offer incentive schemes to municipal waste customers in the United Kingdom.

The Issues

- Following a 2007 government consultation on 'incentives' to minimise household waste and increase recycling, this initiative was seen as punishing people for bad behaviour, rather than rewarding them for good. This resulted in negative perceptions and charging schemes were seen as an extra tax. Terms such as 'spy in the bin' were applied to the electronic chips and 'pay as you throw' to the schemes themselves. Stories emerged of penalty notices, large fines, threats of court action and an overall impression that 'Big Brother' would be watching the householder. This created public mistrust and there has been little enthusiasm to implement such schemes.
- This reaction is perhaps understandable. Behaviour change can be encouraged in two basic ways, either positive or negative reinforcement. Positive reinforcement provides incentives to reward change, whereas negative reinforcement punishes unwanted behaviour. The schemes proposed by Government in 2007 were perceived as the latter.
- Evidence shows that people are much more likely to recycle if they can see a benefit. As many retailers have shown, reward schemes are popular and widely used by consumers, so it is not surprising that schemes using these principles are proving successful.
- RecycleBank® is a popular loyalty and rewards scheme in the USA. It rewards residents for recycling with vouchers for money off local and national goods and services, allowing local authorities to reap the benefits of increased recycling, lower waste disposal costs and supporting residents and the local economy. Trial schemes in two UK boroughs have achieved extremely positive results, leading to full roll-out in both cases.

Our Position

- Veolia Environmental Services believes that positive reinforcement is the way to encourage recycling.
- We favour incentive schemes, but recognise that they work best when participants value the rewards on offer, the performance required is realistically achievable, the reward is worthy of the behaviour change and the scheme is easily understood.
- We will work with local authorities and schemes such as RecycleBank® to ensure that household recycling is maximised.

Compost-Like-Output (CLO)

We fully support the rigorous testing regime proposed by the Environment Agency and the overall approach to restrict the use of CLO on agricultural land.

What is Compost-Like-Output?

When mixed Municipal Solid Waste (MSW) is biologically treated in Mechanical Biological Treatment (MBT) plants or autoclave systems, the output is known as a 'compost-like-output' (CLO). This material can be landfilled and has the benefit of lower greenhouse gas emissions compared to raw waste. It is also claimed by some that CLO has agricultural benefits and can be used as a soil improver.

The Issues

Households use their residual bins to dispose of any objects not collected at the kerbside through source-separated recycling schemes. This can include items like batteries, paints and mineral oils. These items and many others contain Persistent Organic Pollutants (POPs) and their sub-products. The toxins have a number of adverse effects on flora, fauna and the food chain. It is estimated there are more than 30,000 hazardous substances that end up in residual waste. The environmental impact and effect on human health is still being investigated today.

The biological processing of MSW in MBT reduces the biodegradability of the waste and lessens the potential for methane production (another impact on climate change). But unless the harmful substances are physically extracted, the process does not lower the risk of harm to humans or animals if ingested. Due to the plethora of substances that can be found in MSW, it is difficult to perform a quantitative risk assessment and give assurance that the use of CLO as a soil conditioner is safe.

Concern over a build-up of contaminated material by the spread of CLO on land has been expressed by the Environment Agency. They feel it must be regulated and trialled under the 'precautionary principle' and have issued a consultation to consider public opinion. In the consultation document, the Agency states there is currently insufficient knowledge to assure the spreading of CLO does not incur risks to the population.

Our Position

- MBT of residual wastes is an industrial process that can only extract and treat a percentage of contaminants. MBT extraction efficiencies vary between 60-80% and the remaining contaminants can end up in the final organic product. If the concentrations measured in the final CLO product are low it is only because the MBT process is effectively 'diluting' the contaminants with other substances. If applied to land the contaminants will accumulate and may enter the food chain.
- Veolia Environmental services does not support the use of CLO in soil. We believe it should only be used in some applications such as land restoration and reclamation on clearly defined sites. These restrictions will prevent crops or livestock being exposed to possible contaminants.
- All CLO should be produced to a pre-defined specification that limits the potential for contamination.
- We fully support the rigorous testing regime proposed by the Environment Agency, and the overall approach to restrict the use of CLO on agricultural land. However, we suggest that permits for land-spreading CLO should be bespoke and specific, relating only to the location concerned.
- Quality of a product can only be guaranteed by tight control of the inputs and a rigorous sampling regime of outputs to ensure the process meets approved standards. If contaminants are accepted because they can be diluted, it defies the fundamental principles of hazardous waste treatment and could lower environmental standards.
- We support adherence to BSI Publicly Available Specification (PAS) 100 on composting. The introduction of a lower quality product in the compost market will affect public confidence in all waste-derived products, including those from green waste and food. This will have an adverse impact on local authority landfill avoidance. It has taken over 15 years to develop a market for such composts and assure the end user it is a consistently safe and beneficial product. Suggesting CLO has the same properties as compost from source-segregated green and food wastes will inevitably lead to a loss of credibility.

Combined Heat and Power

What is Combined Heat and Power?

Combined Heat and Power (CHP) - also known as 'Co-generation' - is an energy conversion process producing electricity and heat simultaneously. Due to the characteristics of steam turbo-generators, electricity generating plants have thermal efficiencies below 35%. In the case of waste-burning Energy Recovery Facilities (ERFs), this efficiency is typically limited to 23-32%. By adopting CHP, the ERF thermal efficiency can be raised to around 70%.

This is a vast improvement on coal-burning power stations that achieve around 27% and even compares favourably to modern gas-fired combined cycle power plants that manage around 60%.

The company strongly supports CHP and wishes to see it installed wherever viable.

The Issues

CHP is a well-established concept with a long history but is more common in Europe than the UK. Our production and use of energy is therefore less efficient compared to many other countries. The need to address this has never been more urgent. Due to new laws and an obligation to use energy more efficiently, CO_2 emissions must be reduced. An effective way of achieving this is to raise the efficiency of energy production. As a result, CHP or 'distributed energy' has become a key part in the strategy of most re-development schemes.

As an incentive for energy recovery from waste, the Government will award Renewable Obligation Certificates (ROCs) to ERFs that can produce 'Good Quality CHP'. This is CHP that meets the requirements of the CHPQA scheme and plants only generating electricity cannot receive this award or the subsidy that goes with it.

Development of any waste-related infrastructure receives a level of opposition and there is a particular pressure at local planning level to locate ERFs away from the communities that produce the waste and need the heat. To work effectively, CHP requires steady and constant consumption, so isolated and rural areas are not always viable locations.

Our Position

- Veolia Environmental Services is the largest energy from waste provider in the UK and proudly operates the country's most extensive waste powered CHP plant in Sheffield. This provides around 100,000MWh of heat per year in the form of hot water to major city-centre buildings and several housing schemes, as well as having the capacity to treat circa 225,000 tonnes of waste.
- The Veolia Environnement Group is one of the foremost operators of CHP schemes in the world and Veolia Environmental Services is the operator of the largest waste-fired CHP scheme in the UK. The company strongly supports CHP and wishes to see it installed wherever viable.
- Installing heat distribution pipework and fitting the heat exchangers in each building can be disruptive. However, with careful project planning and management, routes for the piping can usually be found and the heat exchange equipment installed.
- The only ERF operated by Veolia Environmental Services in the UK with CHP is Sheffield. At SELCHP (South East London CHP), it has not yet been possible to develop CHP even though the plant is correctly configured. This failure is not a result of unwillingness to develop CHP, or the difficulties of building the infrastructure, but the difficulty in attracting public bodies and private organisations to take the heat at a commercial price. We believe this market failure will only be corrected with direct intervention and support from the public sector. Actions like subsidies and the underwriting of housing associations would take away any risk involved and help CHP technology benefit the masses.
- Energy-from-Waste (EfW) will help de-carbonise energy generation within the UK. The Institution of Civil Engineers estimated that EfW could account for 17% of UK electricity consumption in 2020. ERFs are not as dependant on weather as wind turbines, so have greater availability. Appropriate subsidies will advance the generation of energy from waste, cutting down on fossil fuel consumption. Building ERF plants with CHP is not always possible due to lack of available energy consumers (district heating or industrial processes), and a level of subsidy should be available for all electricity generated by these plants, whether they have CHP or not.
- ERFs with CHP can receive ROCs under the Renewable Obligation (RO). These are currently issued for the electricity generation element of co-generation, not for the heat. The operational characteristics set out in the CHPQA scheme have to be respected. However, RO support is questionable because it offers incentive for the maximum generation of electricity, not the maximisation of thermal efficiency. It was hoped that the Renewable Heat Incentive would address this, but in the consultation issued on 1 February 2010, the proposals for large installations remain uncertain. We would like the Government to clarify the situation and support the specific development of heat networks, rather than energy conversion technologies. This will ensure that the subsidies encourage higher energy efficiency and sustainability. Subsidising less efficient energy conversion technologies will create a false economy and risk long-term failure.

Community Engagement

Veolia Environmental Services will strive to be a responsible neighbour that engages the community in two-way communication.

Introduction

If the UK is to meet its recycling and recovery obligations we must build new facilities, as well as maintain and operate our current infrastructure to exacting legal and environmental standards.

As part of the process we know that genuine engagement with all our stakeholders is key and we believe we have a duty to build a strong relationship with the communities we work in.

With increasing social awareness, lobbying and action groups, it is clear people want a greater say in local development so effective engagement is essential. With new developments we believe it is vital to take advantage of local knowledge. Effective community engagement requires active consultation about how facilities will affect local communities. This can be achieved with regular community liaison groups during the design, planning, construction and operational management process, on a day-to-day and long-term strategic basis.

We want to remove the 'myths' that grow from ill-informed communication. By listening to the experiences and ideas of people in these communities, and making community opinion count, we can find solutions that make a lasting difference.

The Issues

By the very nature of our business, the facilities we operate and the ones we want to build are designed to ensure that waste is treated and disposed of in the most environmental and socially acceptable way. These facilities are predominantly materials recovery facilities, compost sites, chemical treatment plants, waste transfer stations, energy recovery facilities and landfill.

There are a number of issues that we need to address as part of the engagement process. Foremost we must consider the noise, pollution, traffic, social issues and impact on asset value. Increasing trust within our company as well as understanding the role we play in both local employment and environmental education is vital. As a result, transparency and effective communication are key to our actions. We must not only engage with all our stakeholders including the hard to reach groups, but also measure and report on important issues and essential progress. In addition, we must generate acceptance of these facilities as belonging to the local communities and recognise the key components involved in promoting excellence in facility operation and its success. This is vital to local authorities that have entrusted this obligation to us on their behalf.

Our Position

- Veolia Environmental Services staff will be actively encouraged to inspire and engage with local communities through a range of Corporate Responsibility activities, including 'paid leave' employee volunteering, fundraising and sponsorship through the Veolia Foundation.
- We will encourage training and development of our staff to ensure they are well equipped to meet the challenges and subsequent benefits community engagement brings.
- We will encourage our staff to work with local community projects by offering advice and participating in the appropriate committee decisions.
- Veolia Environmental Services will actively promote links with local schools and other learning establishments to develop environmental education.
- Consultation with stakeholders should commence at the earliest opportunity. We will be honest and transparent regarding our operations and plans for facility development. Feedback will be given after all consultations detailing outcomes and reasons for them.
- To engage hard-to-reach groups we must research the diversity in each community and find out the best way to communicate with them.
- In order to discuss local issues that impact the whole community we will run regular liaison groups led by an impartial chair. Where appropriate we will also employ stakeholder surveys, residents' panels and community groups to help a mutual goal be achieved. Websites and email offer a range of opportunities for more targeted and instant communications and we strive to use this mix of media to improve communications and transparency. We will regularly invite residents to on site visits.
- We will respond in a timely manner for all reasonable requests for information.
- Through the Landfill Tax Credit Scheme and the operation of our own Landfill Tax charities and trusts, the company will continue to support community-led projects that meet ENTRUST regulations and guidance.
- We will report our community engagement activities through our Annual Review. This information will also be available for viewing and comment via our website.
- Veolia Environmental Services will strive to be a responsible neighbour that engages the community in two-way communication, giving them a sense of ownership and pride in what has been achieved.

A Conclusion for the Manifesto

A management strategy that serves society and protects it from the negative impacts of waste was at the heart of our very first Manifesto. As we set out our position in line with an evolving industry, it remains the ultimate reference point. With the demands on waste management growing, technology and learning will once again be pivotal in helping us to achieve our goal.

Energy recovery from waste is a viable alternative to landfill for residual waste which cannot be recycled, with a number of current and emerging technologies that can make valuable contributions. SRF is an effective fuel for energy recovery that can be stored, transported and traded. As well as supplementing indigenous energy production it reduces the use of fossil fuel and mitigates climate change.

Advanced Thermal Treatment (ATT) technology will also play a part in an integrated waste management strategy, particularly as the use of gas develops. However, further development is required before it replaces incineration and energy recovery as the most reliable and cost-effective treatment for non-segregated residual waste.

The use of Incinerator Bottom Ash as a secondary aggregate helps us to make a positive contribution to lowering our carbon footprint. Likewise, the use of crushed glass as a secondary aggregate may help to minimise the use of natural resources. However, a better Greenhouse Gas (GHG) footprint may be achieved by recycling the glass back into a usable product e.g. bottles or jars.

Biofuels will have a crucial role in reducing GHG and filling the gap left by dwindling oil reserves, but sustainability is key and production must not come at the cost of crop or population displacement.

A commitment to diverting waste away from landfill is paramount. While landfill bans in the UK may help to achieve this, we believe more time should be given to assess the impact of landfill taxes before any ban is imposed. While landfill must always be the last resort, Compost-Like Output (CLO) can help to reduce GHG compared to raw waste where there is no viable alternative. However, quality and composition must be tightly controlled in order to avoid contamination of land and crops.

Maximising recycling is a key focus as we develop the collection systems and sorting infrastructure to support participation. Positive reinforcement remains the best driver, but we recognise the role incentivisation has to play, underpinned by appropriate rewards and clear objectives for recyclers. We look forward to working with local authorities and schemes such as RecycleBank® to boost householder involvement.

An ever-increasing and diverse range of solutions must be reinforced by stakeholder engagement to safeguard a well-balanced and sensitive waste management strategy. Working hand-in-hand with industry partners and local communities is at the core of our ethos and our position as a beacon for the industry.

Final Thoughts

We recognise that not every issue or technique is covered by the Manifesto. As new legislation and policies emerge and we expand our learning, discover new technologies and develop our services, we will continue to make clear our position on the issues that dominate waste management. This year's Manifesto sets out to address the issues covered in the spirit of frankness and honesty – to guide the industry in making informed decisions on the future of waste. In the same spirit of openness, we would like to hear any comments or queries you may have as a stakeholder in this universal concern and responsibility.

Contact us at:
manifesto@veolia.co.uk