



Department
for Environment
Food & Rural Affairs

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Refuse derived fuel market in England

Defra response to the call for evidence

December 2014



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Ministerial foreword

The Government is keen to ensure that the Refuse Derived Fuel (RDF) market delivers clear environmental benefits in terms of waste management and fully respects the principles of the waste hierarchy and of free trade.

The practice of producing RDF and exporting it to energy from waste facilities elsewhere in the European Union is becoming a more commonplace method of managing residual waste. It provides an important outlet for waste that would otherwise have gone to landfill and instead is used to produce energy, usually in the form of both electricity and heat. The growing popularity of this waste management option is demonstrated by the rapid increase in exports of RDF from virtually nil before 2010 to 1,585,781 tonnes in 2013 (provisional figure)¹. Exporting RDF for energy recovery complies with global market principles and, for most materials, is environmentally preferential to disposing of the waste in landfill, especially where the facilities use both the heat and electricity produced.

However it is vital that the waste hierarchy is followed in the production, use and export of RDF. This will ensure that only truly residual waste, which has been properly treated, is exported. That is why we will look to develop a definition of RDF and a standard for its treatment, so we can be confident that all practicably recyclable materials are removed. We see a definition and a standard as also providing greater clarity and consistency across the RDF market, ensuring that any waste, which is still technically mixed municipal waste following minimal treatment, is not classed as RDF.

The storage of RDF can cause environmental problems such as leaching, odour and pests, especially where storage sites are poorly managed. There is also the risk of fires on sites where waste is stored. The storage of waste is subject to environmental permitting. Both Defra and the Environment Agency are undertaking a combination of actions that will address poor standards of waste management and other issues associated with regulation and enforcement.

¹ Source: The Environment Agency

We should like to thank stakeholders for their full and detailed responses to the call for evidence on the RDF market in England and we look forward to working closely with them as we progress the actions set out in this response.



Dan Rogerson
Parliamentary Under Secretary of State
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Contents

Foreword.....	
A. Introduction.....	1
B. Summary of main points raised	2
C. Government intervention in the RDF market in England	4
D. Actions that will be taken forward	5
D1. Introducing a standard or definition for RDF.....	5
D2. Quality of RDF.....	8
D3. Regulation and Enforcement.....	10
E. RDF market.....	15
F. Interventions that will not be taken forward as a follow-up to the call for evidence....	17

A. Introduction

1. In March 2014 the Department for Environment, Food & Rural Affairs (Defra) published a call for evidence on the Refuse Derived Fuel (RDF) market in England. The call for evidence invited views and evidence on any issues affecting the RDF market in England, the need for Government intervention and the form such intervention might take. The call for evidence closed on 9 May. Defra received 47 written responses.

B. Summary of main points raised

2. Respondents welcomed the opportunity to provide their views on the RDF market in England. They raised a number of common points about the market.

3. There were concerns that the requirements relating to RDF are not always followed as closely as they should be and there were calls for tighter enforcement. The time taken for authorities to investigate illegal activity enables operators to move on before any action can be taken. This includes operators who accept waste under the guise of making it into RDF for export and then deliberately abandon it without ever exporting it. There were also concerns that some operators store large quantities of RDF for long periods, resulting in environmental problems such as leaching, odour and pests with clean-up costs having to be met by the public authorities. These points are explored more fully in section D3.

4. Respondents noted that some operators are producing poor quality RDF that contains significant quantities of recyclates. This does not always represent the best waste management option for the waste in terms of environmental impact as set out in Directive 2008/98/EC of the European Parliament and of the Council on waste (the Waste Framework Directive)². This problem is magnified by the lack of a definition and/ or standard for RDF, setting out the treatment it must undergo and/ or its composition. This is explored more fully in sections D1 and D2.

5. Respondents also noted that some operators produce RDF on a speculative basis and await the most favourable market conditions before entering into a contract. This can result in the stockpiling of RDF as it awaits an end-user. Some respondents claimed that such practice undermines operators who enter into a contract before producing RDF, and results in environmental problems from storage or stockpiling. This is explored more fully in section E.

6. A small number of respondents were concerned that exports of RDF are reducing the availability of RDF on the domestic market. This discourages investment in new 'energy from waste' facilities in England, especially merchant plants. Domestic energy from waste plants find it hard to compete with the gate fees charged by plants on the Continent, encouraging export of waste as RDF. Potential investors are aware that any new facilities would be competing with plants abroad and they may not get sufficient return from gate fees to make their investment worthwhile. Some respondents were concerned that exporting waste as RDF results in a loss of potentially valuable resource to the domestic economy, undermines domestic energy security and results in the loss of renewable energy sources that could contribute towards the UK's renewable energy targets. This is explored more fully in section F.

² <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0098&from=EN>

7. Other concerns raised by respondents included the lack of spare capacity in domestic energy from waste facilities, which encourages the export of RDF. A few respondents also stated that the planning process for new facilities is too bureaucratic and restrictive, hampering the development of new infrastructure. This is explored more fully in section F.

C. Government intervention in the RDF market in England

8. The majority of respondents supported at least some form of government intervention. There was a range of views on what form such intervention should take, ranging from a light-touch approach such as educating those dealing with RDF about environmental issues, to a more formal approach of introducing standards for the production of RDF. A significant number of respondents were of the view that enforcement practices and permitting requirements should be strengthened.

9. A small number of respondents stated that they felt the RDF market was currently operating effectively and they saw no need for any government intervention. However, when some of these responses were analysed in further detail, it was apparent that they did call for actions such as improved enforcement that should be classed as government intervention.

Government response

10. Defra welcomes the views and evidence provided on the need for government intervention in the RDF market.

11. Defra notes that the overriding message from the responses provided is that some form of government intervention in the RDF market in England is necessary to address existing 'market failures'. The issues raised and potential interventions that might address these are considered in more detail below.

12. Defra is of the view that there is an environmental rationale for intervention in the RDF market in England. The production of RDF for use either domestically or abroad may be a cost effective option for local authorities and businesses compared to alternatives such as landfill and is also generally preferable in terms of the environment. However, the production of RDF is recovery and is therefore lower in the waste hierarchy than recycling; and it presents an environmentally inferior treatment option for materials that are potentially recyclable. There is a market failure in that the environmental cost of RDF compared to recycling is not fully taken into account by those generating RDF. This means that materials that could be recycled are sometimes used in RDF. The pathway of RDF from production to end-user involves operations that are also likely to have environmental impacts such as the storage or stockpiling of RDF. Many operators are unlikely to fully take these environmental costs into account during their day to day operations.

D. Actions that will be taken forward

13. The Government is already addressing a number of the issues raised, particularly those relating to enforcement. There are other issues that Defra is considering and options for taking these forward are set out below. Defra intends to work closely with the industry as these are developed.

D1. Introducing a standard or definition for RDF

14. One of the potential options for intervention in the RDF market was the introduction of an RDF standard. Defra asked for evidence on a standard that would address the issues around RDF production and use. It also asked for details of how a standard might be applied and what it should include.

Responses

15. Only two respondents called for a prescriptive compositional standard for RDF that sets a minimum quality requirement for waste to be classed as RDF. A number of respondents specifically stated that they would not support such a standard as each end-user has their own production specification for RDF, which includes the calorific value, chlorine content and biogenic content. There were concerns that such a standard would not sit easily with different end-user specifications for RDF.

16. However, there were more calls for a treatment standard that sets out the processing required to be classed as RDF. Respondents were of the view that a treatment standard would help improve the quality of RDF and provide clarity for the sector on when waste can be classed as RDF. It could be based on existing standards or best practice. There were various suggestions as to what could be covered by a treatment standard. These included requirements for shredding, such as the size of granulator or the size of particle permitted in RDF. Processing should also involve the removal of materials such as glass, metal, aggregates, biodegradable content and potentially valuable materials. Following processing, the RDF should be significantly different from mixed municipal waste and might include changes to moisture content and calorific value. Operators should be required to demonstrate that their processing meets these standards and quantify the amount of non-combustible items recovered.

17. A number of respondents called for the introduction of a definition for RDF, which would help standardise treatment and improve the image of RDF production with regulators and the public. Unlike a treatment standard that would go into detail on the processing required for waste to be classed as RDF, a definition would be a simple description setting out the distinction between waste and RDF. This could involve a simple reference to the treatment that the waste has gone through to make RDF, such as

mechanical treatment to remove recyclable materials. In this way, the definition could form a basis for a treatment standard that goes into further detail on the processing required.

Defra response

18. Defra proposes to investigate further the feasibility of introducing a definition and treatment standard for RDF, what these might cover and how they might be delivered. Introducing both a simple definition for RDF and a more detailed treatment standard that sits on top of the definition in the way described in paragraph 17 could provide clarity to the industry and help with the standardisation of processing, reducing the amount of recyclate in RDF.

19. Defra does not intend to introduce a compositional standard for RDF as there is very little support for it and it would not sit easily with the range of end-user specifications that exist.

20. There is currently no EU-wide definition of RDF and it is unlikely that such a definition will be developed in the near future. However, there may be scope to develop a national definition, possibly in tandem with the Devolved Administrations. Further assessment is needed on what a definition would cover, how it would be delivered and suitable wording. Defra is of the view that any definition should be relatively simple but clear, requiring some form of processing but without being too prescriptive. This would form the basis for a treatment standard to provide further detail.

21. A treatment standard would need to distinguish RDF from waste and solid recovered fuel. The 'treatment' would also need to be at a level to reflect the change in European Waste Code from mixed municipal waste/ mixed commercial & industrial waste to RDF. Northern Ireland has introduced a regulatory position statement, which sets out the treatment processes³ necessary for waste to be classed as RDF and the evidence⁴ that operators need to provide that such processes have been followed. This could be used as a starting point for considering what the treatment standard should cover and what is required. Thought will also need to be given as to whether a definition and treatment standard can be delivered through guidance or whether legislation is necessary.

22. Defra is aware that the introduction of a definition and treatment standard could result in additional costs and burdens to some operators in the RDF market. These might include the costs of reporting processing techniques to the authorities, the purchase of

³ This includes treatments processes that substantially alter the properties of the waste i.e. trommeling or screening combined with other processes (magnets, manual picking, blowers, wind shifters, eddy currents, etc); mechanical/ biological treatments, crushing, grinding, shredding, washing, cooking, homogenisation, baling, compaction, etc. The net calorific value of the RDF must be increased as a result of the processing.

⁴ Operators also need to provide the authorities with substantive evidence including details of the specification required by the end-use facility, evidence of a robust sampling procedure for RDF feedstock, robust statistical results to verify compliance with the specification and that the RDF consistently meets the required standards.

new equipment in order to meet the standard, and administrative costs. Defra is mindful of the need to minimise additional costs and burdens for businesses and will consider this as it takes the work forward. Any proposal that might result would be subject to impact assessment to ensure that all points are considered carefully.

23. Developing and testing the feasibility of a definition and a treatment standard will require significant input from the industry, which has the necessary technical knowledge and experience to ensure they are effective and workable.

Next steps

24. Defra's next steps will be:

- To work with the industry, the Environment Agency and the Devolved Administrations to consider a possible definition for RDF.
- To work with the industry to consider a possible treatment standard for RDF including what it should cover, how it should work and how it should tie in with a definition of RDF.
- To consider the potential costs and burdens to operators resulting from introducing a definition and treatment standard.
- If a proposal to introduce a definition and treatment standard results from this work, to consider whether these should be delivered through guidance or legislation.

D2. Quality of RDF

25. Several respondents noted that some operators are producing low quality RDF that has undergone minimal treatment. Some observed that it is relatively easy for operators to produce low quality RDF as there is currently no definition or standard for RDF and many mass-burn facilities in Northern Europe are set up to burn untreated municipal waste and are willing to take RDF that has undergone minimal treatment.

26. Poor quality RDF is likely to contain significant quantities of recyclable or potentially recyclable materials. This is particularly the case with RDF derived from commercial & industrial waste where there are fewer incentives for removing recyclable materials from the waste stream.

27. Respondents noted that there are economic and technological barriers to the removal of recyclates from RDF, especially where the recyclable materials have been contaminated or are in small pieces that are mixed with the residual waste. It can be challenging and costly to remove such materials and there is likely to be little incentive to do so as they are likely to be of little value. Some respondents stated that recyclates should be separated from the residual waste stream at the point of collection.

28. Several respondents commented that government intervention in the quality of RDF could result in more materials going to landfill. This could be the case where contaminated recyclates that have no market or alternative treatment options are removed from RDF. Some respondents raised concerns that intervention to address the quality of RDF could also raise processing costs for operators, adding additional burdens to businesses.

Defra response

29. Defra notes that a combination of a market for minimally treated RDF and a lack of clarity over what RDF actually is has encouraged the production of low quality RDF. Defra is also aware of the technological and economic issues surrounding the presence of recyclates in RDF, especially the challenges faced with removing smaller pieces of contaminated recyclable material.

30. Wider recycling policies and targets are likely to have an impact on the presence of recyclates in RDF. These will influence the actions taken with regard to recycling (such as improving the collection of recyclates at source and/ or removal of recyclates further down the waste stream), affecting the volume and type of recyclable materials in the waste streams from which RDF is derived. Regulation 13 of the Waste (England & Wales) Regulations 2011⁵ will result in changes to the collection of recyclates from January 2015, with the introduction of requirements for the separate collection of waste paper, metal, plastic and glass for both municipal and commercial & industrial waste where this is

⁵ SI 2011/988

necessary to promote high quality recycling and is technically, environmentally and economically practicable. Furthermore, once separated, all reasonable steps must be taken to keep items separate wherever this is necessary to provide high quality recyclates. The current EU review of waste targets may also result in new requirements for the recycling sector or new recycling targets.

31. It is likely that the introduction of a definition for RDF and/ or a treatment standard for the processing of RDF would help address quality issues associated with RDF, including the presence of recyclates. However, the potential costs and burdens to operators resulting from this will need careful consideration (see paragraph 22).

32. In view of the above, Defra will consider how a definition and treatment standard would address the quality issues associated with RDF. As the issue of recyclates in RDF is closely bound up with wider recycling policy, it would be sensible to review the situation after wider policies and measures, including the separate collection requirements that come into force in January 2015 and any revised recycling targets falling out of the EU review, take effect.

Next steps

33. Defra will:

- Review the situation after the separate collection requirements for waste have come into effect and it is clearer what the revised recycling targets from the EU review of waste targets will be.
- Consider how the introduction of a definition and/ or a treatment standard could address the issues relating to the quality of RDF.

D3.Regulation and Enforcement

34. Regulation and enforcement was a major theme raised by respondents to the call for evidence. A significant number of respondents raised issues around enforcement and/or noted that several issues related to the RDF market could be addressed by tighter regulation and enforcement.

35. Defra secured £5 million of additional funding in Budget 2014 for the Environment Agency to tackle waste crime. Defra has been working with the Environment Agency to use this funding to deliver more action to tackle illegal operations, the deliberate mis-description of waste and the illegal export of waste. Defra and the Environment Agency have also developed a joint Waste Crime Action Plan which will bring about speedy and tough enforcement action, greater intelligence sharing, the application of the principle of the polluter pays and the better use of regulatory controls. Defra will work with the sector to deliver this plan. Paragraph 40 below explores how this work will address the RDF enforcement issues raised by respondents.

Responses

36. There was a significant number of calls for enforcement practices to be tightened so that regulatory and permitting requirements are followed more effectively. In line with this, a number of respondents suggested that it should be made harder for operators to obtain permits, with a greater assessment of an operator's competence before a permit is issued.

37. Some respondents noted that operators were not always inspected on a regular basis, which encouraged some less scrupulous operators to operate outside the legislative and permit requirements. This was compounded by the time taken for illegal activity to be investigated by the authorities, which results in operators moving on before any action can be taken. The respondents called for some form of risk assessment to be introduced to identify operators who should be inspected more frequently, whilst detection, investigation and prosecution should also be improved.

38. Several respondents raised concerns about the storage of RDF, including the volumes stored and the duration of storage. RDF will degrade over time, especially if storage is poorly managed or the RDF is baled incorrectly, leading to environmental problems such as leaching, odour and pests. Some respondents noted that there is a risk of RDF self-combusting in storage, which could increase the likelihood of fire. A significant number of respondents called for regulatory controls around the storage of waste to be improved, with stricter measures to limit and investigate persistent stockpiling, the amounts of RDF stored and the duration of storage. Some respondents referred to RDF that has been stockpiled and abandoned by the operator under the guise of being produced for export; they felt that more should be done to address this problem, which is a criminal offence. If the waste is abandoned, clean-up costs must be met by the land owner.

39. In order to ensure that operators respect the waste hierarchy and the environmental implications of RDF production are taken into account, there was a call for a 'duty of care' to be introduced that would require operators to justify how and why the RDF they have produced for export is the best environmental treatment route for the materials included in it.

Defra response

40. Defra and the Environment Agency agree that regulation and enforcement need to be tightened. The actions that Defra and the Environment Agency are undertaking in the Waste Crime Action Plan should address most of the issues raised by respondents in the call for evidence. This will include addressing illegal operations more effectively, ensuring RDF storage is subject to an environmental permit (other than where it is incidental to its transport) and targeting inspections and enforcement at high risk and poor performing sites. These actions will contribute towards minimising instances of unscrupulous operators accumulating, and in some cases abandoning, significant quantities of combustible waste purporting to be RDF. Whilst the actions are designed to address issues associated with waste in general, the RDF enforcement issues raised by respondents will remain central to Defra and the Environment Agency's thinking and actions as they take this work forward. Defra and the Environment Agency are also undertaking other actions that between them will address the enforcement issues raised.

The main actions that Defra and the Environment Agency are undertaking of relevance to RDF include:

- **Tightening up of regulation and enforcement practices so that regulatory and permitting requirements are followed more effectively**

The Environment Agency will ensure RDF production and storage is subject to an environmental permit and increase its interventions at permitted sites that are deemed poor performers with the ambition that none remain as such for more than 18 months (subject to circumstances beyond the Environment Agency's or the operator's control). This will include sites that produce and/ or store RDF where the operation is deemed to be poor performers.

- **More checks on operators and more effective tackling of illegal activities**

The Environment Agency is currently consulting on proposals to apply greater scrutiny to newly permitted sites within their first year of operation. This will include more detailed and robust checks of the management system to ensure that it is fit for purpose and is being fully implemented on site. The Environment Agency is also consulting on revised permits for sites storing combustible waste to require a fire prevention plan. The Environment Agency will integrate checks on site records, waste transfer notes and where appropriate hazardous waste consignment notes into its routine checks for targeted waste streams such as RDF. When waste transfer documents are checked the Environment Agency will follow the waste up and down stream to check producer details and permit details of subsequent sites.

The Environment Agency will take appropriate enforcement action against producers of waste in cases of clear failure by them to meet their obligations under the duty of care

The Environment Agency will also continue to develop links with intelligence sources to help target organised and systematic waste crime including fly tipping, adopting National Intelligence models and best practice and optimising the use of multi-agency actions. The Environment Agency will also work with industry to review and where possible improve the existing arrangements for reporting alleged illegal operations and the gathering and feedback of the use of intelligence. Defra and the Environment Agency will investigate the potential for improving collation and access to records of convictions for waste and associated offences to prevent, where possible, past offenders being issued with permits.

- **Assessment of an operator's competence before issuing a permit**

The Environment Agency will introduce revised procedures for assessing operator competence. These procedures will focus on a series of financial, technical and behavioural indicators during permit application, variation and transfer. Defra and the Environment Agency will also review the case for strengthening the fit and proper person test of applicants. This would ensure that only those who can fulfil their permit obligations will be granted or retain a permit. It will include an assessment of whether there is a genuine end market for the proposed output from the recovery process.

- **Duty of care requirements**

Defra is committed to publishing an updated Duty of Care Code of Practice in 2015. This will provide a steer on the Duty of Care requirements set out in Section 34 of the Environmental Protection Act 1990⁶. It will clarify the Duty of Care requirements for operators in the waste sector as well as responsibilities in the case of export. One of the obligations, which will be highlighted in the updated Code of Practice, is the requirement for operators to take the waste hierarchy into account when making decisions on the management of their waste.

- **Introduction of new legislation and more robust permitting requirements to tackle the storage of RDF**

Defra considers that the existing legislative framework (the Environmental Permitting Regulations 2010⁷ (the EPRs)) is sufficient to manage the environmental impacts of the production and storage of RDF. Nevertheless, Defra and the Environment Agency recognise the case for speedier and tougher enforcement by the Environment Agency. The Environment Agency will need to

⁶ <http://www.legislation.gov.uk/ukpga/1990/43/part/II/crossheading/duty-of-care-etc-as-respects-waste>

⁷ SI 2010/675

continue to seek the right balance between helping legitimate business to comply with tackling those who deliberately or repeatedly flout the rules or pose a significant risk of harm or nuisance.

Defra and the Environment Agency will be taking forward a range of measures during 2014 and 2015 to ensure there is effective enforcement of the existing regulatory regime. The Environment Agency is currently consulting on additional requirements within the site management system regarding the appropriate and specific minimum standards relating to storage of combustible materials, reducing the risk of fire, the impact of amenity issues and ensuring sustained good performance. This would include the length of time that waste can be stored, the continued integrity of packaging e.g. where bales or wrapping is damaged it is quickly repaired, stock rotation and labelling, etc.

A number of respondents called for storage of RDF to be more closely controlled by the EPRs by way of standard rules permits. The Environment Agency already requires permits for the storage of RDF.

- **Duration of storage and clean-up costs**

The Environment Agency will ensure that storage time limits are not exceeded and that there is stock rotation on sites through active enforcement. It will not allow waste to be stored outside permitted areas nor agree extensions to storage areas, unless in exceptional temporary circumstances where a sound environmental case and an appropriate risk assessment and mitigation plan is provided by the operator.

With regard to clean-up costs, Defra will evaluate the possibility of introducing legislation to allow the Environment Agency to charge waste sites for pollution clean-up costs in the same way that water polluters can be re-charged.

- **Addressing the removal of RDF that is abandoned with no intention of export**

Defra and the Environment Agency will review the sanctions and penalties available to aid effective enforcement for environmental offences with the aim of increasing the scope of enforcement options available to the Environment Agency.

With regard to the cost of removing abandoned waste, Defra and the Environment Agency will work with industry and stakeholders to establish how best to notify landowners that actual or proposed waste activities are taking place and to share advice on the potential legal obligations that may arise from leasing land to waste operations.

Next steps

41. Defra and the Environment Agency will take forward the following actions that will address regulatory and enforcement issues relating to RDF production, storage and use:

- The Environment Agency will ensure RDF storage is subject to an environmental permit (other than where incidental to transport), increase interventions at permitted sites that are deemed high risk, including high risk sites that produce and/ or store RDF, and take action on serial poor performance and deliberate non-compliance.
- The Environment Agency is consulting on increased fees to carry out greater scrutiny to newly permitted sites within their first year of operation.
- The Environment Agency will continue to develop links with intelligence sources to help target organised and systematic waste crime.
- The Environment Agency will introduce revised procedures for assessing operator competence before granting a permit.
- The Environment Agency is consulting on revised standard permits to ensure that site management systems contain the appropriate and specific minimum standards relating to the storage of combustible materials.
- The Environment Agency intend to regulate and enforce to ensure that storage time limits are not exceeded and there is stock rotation. They will also evaluate the possibility of introducing a statutory mechanism to allow the Environment Agency to charge for clean-up costs.

E. RDF market

42. A number of respondents provided comments and evidence on market issues associated with RDF, including the production of RDF with no end-user and the associated stockpiling of RDF.

43. Respondents noted that the production of RDF with no end user often results in the stockpiling of RDF. However, it is important to distinguish between stockpiling as a result of market activity and stockpiling connected with criminal activity. Whilst there are cases of unscrupulous operators deliberately abandoning RDF with no intention of either exporting or using the fuel, other operators may produce RDF with no end-user as a rational market decision i.e. storing the RDF until end-use costs (including gate fees and transportation costs) are favourable.

44. Respondents provided other reasons why RDF may have no end-user, which results in stockpiling or abandonment. RDF producers may build up stocks of RDF for a bulk shipload of approximately 4000 tonnes and seek an end-user once they are in a position to export. As it may take time before enough RDF has been produced for shipment, it may be necessary to stockpile the RDF for a period. There may also be cases where RDF has been produced for an end-user but the contract fails due to unforeseen circumstances or a fall in demand for the energy produced by the facility.

45. Several respondents suggested ways of addressing the issues associated with the production of RDF with no end-user. These included making it a requirement that an operator can only be granted an environmental permit to produce RDF if there is clear evidence of a contract with an end-user. This would link with the EPRs. Further suggestions were to require RDF producers to pay a financial guarantee or bond that would only be released once the RDF has reached the end-user. This could be utilised to cover clean-up costs if RDF was abandoned or caused problems during storage. A few respondents developed this concept by suggesting that the transfrontier shipments procedure could be extended to cover the production of RDF as well as exports.

Defra response

46. Defra notes that the production of RDF with no end-user can result in the stockpiling of RDF. The stockpiling of RDF as a result of criminal activity is explored more fully in the enforcement section above.

47. With regard to the speculative production of RDF, the Environment Agency is revising procedures for assessing the competence of operators that apply for a permit or request a permit variation or transfer. One option under consideration is a requirement for the operator to have to demonstrate that they have a suitable business model and end-user contract in place for their outputs. There could be a further requirement for operators to demonstrate that they have a contingency plan in place in case an end-user contract fails. In this model, only those operators that could demonstrate their competence would

be granted or retain a permit. This would identify speculative operators to the authorities and should discourage the stockpiling of RDF on a long term basis.

48. The procedure for the export of waste requires the exporter to arrange a financial guarantee that is payable to the authorities, which is then released once the waste is recovered (i.e. when the waste is burnt or mixed with other fuel). The financial guarantee can also be in the form of insurance covering the costs of transport; the costs of recovery or disposal, including any necessary interim operation, and the costs of storage for 90 days. The introduction of a similar requirement for RDF producers would provide an incentive for operators to have an arrangement with an end-user in place, reducing the likelihood of environmental problems associated with stockpiling. If the RDF failed to be recovered, the financial guarantee would not be released and could be used by the authorities to tackle any problems such as clean-up costs. Defra and the Environment Agency's joint Waste Crime Action Plan will review the case for strengthening the fit and proper person test of applicants for environmental permits including their financial ability to meet their obligations. It is intended that part of this work will include considering the case for financial guarantees or bonds for permitted sites as a way of ensuring financial ability to meet the obligations of permit.

49. Controls applying to shipments of waste are set out in Regulation (EC) No 1013/2006 of the European Parliament and of the Council on shipments of waste⁸ (the Waste Shipments Regulation), as supported in the UK by the Transfrontier Shipments of Waste regulations 2007⁹). Being specific to exports, it is not the correct regime to tackle environmental problems associated with the domestic storage of RDF. Also, the controls are set out in EU legislation that applies to all Member States and an individual Member State cannot make changes to this legislation. In order to make such a change, the EU would have to agree to the change and make the amendment.

Next steps

50. Next steps on the RDF Market will be:

- Defra and the Environment Agency will consider the case for financial guarantees or bonds for permitted sites as part of the Waste Crime Action Plan review of the fit and proper person test of applicants for environmental permits.
- The Environment Agency will consider the option of requiring operators applying for a permit to demonstrate they have a suitable end-user contract in place for their outputs as part of its revised procedures for assessing applications for environmental permits.

⁸ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006R1013&qid=1413814417024&from=EN>

⁹ SI 2007/1711

F. Interventions that will not be taken forward as a follow-up to the call for evidence

51. There were a number of interventions suggested in responses to the call for evidence that the Government does not propose to take forward. Some of these contradict longstanding Government policy on the free market whilst others relate to work that is being undertaken by the other Government departments. The interventions that are not being taken forward are summarised below:

Banning or taxing exports of RDF

52. In light of concerns about the export of RDF, a small number of respondents called for exports of RDF to be banned or taxed. This included taxing exports of RDF that contain significant quantities of recyclates, taxing the storage of RDF for export and banning exports of RDF to the Continent from 1 January 2020.

53. The UK is a firm believer in free trade and does not want to impose unnecessary barriers to trade. In addition, the free movement of goods (which includes RDF) within the European Union (EU) is a fundamental principle underpinning the EU single market. If the UK were to apply stricter requirements on exporters of RDF to other Member States compared to those covering production of RDF for the UK market (provided that it is shipped in accordance with the controls set out in the Waste Shipments Regulation), this would be likely to constitute a breach of EU law. Furthermore, the World Trade Organisation does not permit countries to discriminate between their own and foreign products.

54. In line with this, Defra does not wish to discriminate between RDF produced for domestic plants and RDF produced for plants abroad in the tax regime.

55. Some respondents called for exports of RDF to be banned in order to ensure that the waste is used domestically so the energy recovered contributes towards domestic energy security and renewable energy targets.

56. Waste makes a useful contribution to the Government's objectives of delivering a secure, low carbon and affordable energy system and can make further contributions, in particular by supplying heat via heat networks. The Government wants this to continue where its application is consistent with the principles of the waste hierarchy. Rather than restricting exports, the Government believes its focus should be to encourage greater competitiveness in UK-based energy from waste deployment, such as expanding markets for renewable energy. There are a range of government interventions and incentive schemes to encourage increased deployment of low carbon energy, and the Heat Networks Delivery Unit has been set up by the Department of energy & Climate Change (DECC) to encourage an expansion of district heating.

Increasing landfill tax

57. In light of concerns about the availability of RDF on the domestic market and its impact on the development of new infrastructure, there was a call for the amount of landfill tax to be raised. Respondents stated that this would drive more waste out of landfill, increasing the amount of waste available for energy recovery, and provide a stimulus for investment in energy from waste infrastructure. There was a call for the Government to continue the landfill tax escalator (raising landfill tax by £8 per tonne per year, a process which ended in 2014/15) combined with a ban on exports from 1 January 2020.

58. From April 2015 both the standard and lower rates of landfill tax will increase in line with inflation. This measure will build on the progress already made with driving residual waste out of landfill and should encourage genuinely residual waste to go to energy from waste plants where this is the best treatment option in terms of the environment. Responsibility for landfill tax, including landfill tax rates, lies with HM Treasury.

Subsidising UK gate fees

59. In light of concerns about domestic energy from waste plants being unable to compete with the lower gate fees offered by plants on the Continent and the impact of this on potential investment in the domestic sector, there was a call for the Government to subsidise the gate fees of energy from waste facilities. The Government could provide minimum gate fee guarantees at a level to underpin debt finance for new infrastructure. The gate fee 'floor' should be sufficiently low to deter operators from being reliant on the guarantee but sufficient to provide comfort to debt providers.

60. Defra is of the view that cost effective and efficient domestic facilities should be able to attract feedstock without government intervention. If such facilities were only competitive as a result of the Government subsidising the gate fee, it is unlikely they will prove cost effective and efficient in the long term.

61. In order to maximise their contribution to the economy on the longer term, energy from waste plants need to be robust to future changes in the composition of waste and advances in technology. This requires flexibility to adapt to changes in the residual waste stream, including calorific value and biogenic content, and to maximise their efficiency going beyond electricity only generation. "Energy from waste: a guide to the debate"¹⁰ sets out the principles on which government policy for energy from waste is currently based and which are likely to underpin decisions in the future.

¹⁰ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284612/pb14130-energy-waste-201402.pdf

Tighten ‘Recovery’ (‘R1’) criteria

62. One respondent was concerned that the ‘recovery’ (R1) criteria set out in the Waste Framework Directive are meant to ensure high efficiency energy recovery but the threshold can be met relatively easily. This means that a very large proportion of the incineration market on the Continent is classed as a ‘recovery’ facility and is able to accept the UK’s RDF, which can only be exported to facilities that have R1 status. There was a call for the criteria to be made stricter to ensure that only the most efficient plants can take exported RDF.

63. The R1 criteria are part of the Waste Framework Directive and apply across all Member States. It is unlikely that the European Commission would be willing to re-open negotiations on the R1 definition given the current EU waste review and the fact that they have recently concluded discussions on introducing a climate correction factor for the R1 criteria. It is unclear in any event how the current definition could be improved. We note that a higher proportion of energy from waste facilities in Continental Europe produce heat in addition to electricity when compared with domestic facilities.

Speeding up the planning process

64. In light of concerns that the planning process is too bureaucratic and restrictive, there were calls for changes to be made to the process in order to facilitate the development of merchant plants.

65. The planning system plays an important role in the delivery of domestic infrastructure to manage waste effectively. The Government has embarked on an ambitious reform of the planning system to decentralise power, encourage sustainable growth, make it more accessible and streamline its processes to make it more efficient. This includes taking active steps to ensure that planning authorities take high quality and timely decisions on planning applications. The Department for Communities & Local Government has recently published updated waste planning policy and guidance¹¹ to bring the policy and guidance into line with the focused, streamlined style set out in the National Planning Policy Framework and Planning Practice Guidance.

11

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364295/141015_Summary_of_consultation_responses_-_National_Planning_Policy_for_Waste.pdf

Increasing UK incineration capacity

66. In line with concerns that there is insufficient domestic energy from waste capacity, which encourages exports of waste as RDF, there were calls for the Government to incentivise the development of domestic infrastructure that could compete with facilities on the Continent. This included both political and financial support for new projects and greater encouragement for the use of heat from the incineration process. There were calls for a greater understanding of heat networks and how these could be integrated into new builds, as well as better collaboration between Government departments to identify barriers to using heat and identifying ways forward. Respondents also stated that the Government should do more to encourage the use of advanced conversion technologies on the domestic market.

67. Treatment capacity for municipal solid waste (including the 44% of commercial & industrial waste that is like municipal waste) in England is currently around 5.1 million tonnes¹². Further capacity is in construction and over the next few years this is expected to add approximately an extra 4 million tonnes¹³, and by 2020 there is expected to be capacity to treat approximately 25% of municipal solid waste (including municipal-like commercial & industrial waste) in England¹⁴. This will provide an increased domestic market for waste, which is likely to have an impact on the volume of RDF that is exported in the mid-term as facilities come online.

68. In the longer term EU recycling and landfill targets for 2025 and 2030 together with waste prevention activity will have a bearing on the extent to which further domestic energy from waste capacity is necessary. On 1 July 2014 the Commission proposed a new range of targets for 2025 and 2030 and it is only once EU negotiations have substantively concluded that we expect to have sufficient clarity to consider what further action, including on infrastructure, will be necessary to meet any new targets that may be agreed.

69. Commercial opportunities may exist for the further development of energy from waste facilities, particularly for facilities processing commercial and industrial waste. It is for industry to assess the scale of those opportunities and to respond accordingly. The Government has sought to facilitate this process by publishing guidance that sets out the key principles underpinning energy from waste policy and that highlights the importance of developing energy outputs beyond electricity such as combined heat and power. It also funds the Green Investment Bank to help reduce the risks of investment in new technology in the waste sector and lower the cost of capital and has worked with the waste

¹² Source: The Environment Agency:

<http://webarchive.nationalarchives.gov.uk/20140328084622/https://brand.environment-agency.gov.uk/mb/BNrnzY>

¹³ This is based on plants that are currently under construction (November 2014)

¹⁴ p42, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364243/forecasting-2020-hertfordshire-analysis-20141016.pdf

and resources sector to improve data available to the market on the nature and volume of commercial & industrial waste produced.

70. The Government has been taking action to encourage the uptake of heat produced by energy from waste facilities. The Heat Networks Delivery Unit is helping to address some of the barriers to heat network deployment, providing engineering and commercial expertise, with £7 million funding available to local authorities for feasibility studies, heat mapping and master planning. Work is in hand to take forward the commitment from the 2013 Heat Strategy to endorse an industry-led consumer protection scheme for heat network users, and Ministers in Defra and DECC hosted round-table meetings with the energy from waste industry and local authorities last year to discuss the opportunities and barriers to the future development of the energy from waste sector, including increasing heat uptake. Issues identified at the round-table meetings are being considered with a view to incorporating these in further government action to encourage heat uptake.