



Local Partnerships is jointly owned by



Review of RRC and WMRC contracts managed by MRWA

Version No: Final

Issue Date: December



Table of Contents

1	MRWA contract review.....	3
1.1	Introduction	3
2	Waste management and recycling contract.....	4
2.1	Examination of key saving target topics	4
1.1.1	Change in law reserve	4
1.1.2	Life cycle profile	4
1.1.3	Refinancing/capital injection	4
1.1.4	Third party income sharing	5
1.1.5	Payment terms.....	6
1.1.6	Contract term.....	6
1.1.7	Performance Management Framework (PMF).....	6
1.1.8	Insurance.....	7
1.1.9	MRFs.....	7
1.1.10	Additional MRF capacity	8
1.1.11	HWRC operation	10
2	Resource Recovery Contract	15
2.1	Saving Opportunities	15
2.1.1	Change in law reserve	15
2.1.2	Lifecycle profile	16
2.1.3	Refinancing/capital injection	16
2.1.4	Increasing contract waste	17
2.5.2	Third party income sharing	20
2.5.3	Insurance.....	20
3	Summary of savings opportunities explored	21
3.1	Savings actions already enabled.....	23

1 MRWA contract review

1.1 Introduction

The treatment and disposal of the residues generated by the collection systems are by and large managed through the Merseyside Recycling and Waste Authority (MRWA). MRWA manage the wastes delivered to it by the districts. Currently MRWA has two significant contracts in place to manage separate aspects of the service,

- Waste management and recycling contract (WMRC) that provides management of the HWRCs, MRF and transfer stations and any subsequent haulage of the waste to subsequent treatment or disposal
- Resource Recovery Contract (RRC) that provides disposal of the residual waste principally via energy from waste (EfW) and landfill of untreatable wastes. This contract will commence during 2016 and is expected to be fully operational by 2017.

In addition, there are a number of smaller contracts to deal with specific waste streams and landfill and treatment provision for the residual waste prior to the RRC contract becoming fully operational. For the purpose of this report it is assumed that the RRC will be fully operational prior to any future savings initiative recommended by the report and therefore the analysis has been based upon the costs of operating this contract.

The review of these contracts has been undertaken to assess where there are opportunities to achieve savings through negotiation of the terms of the contract with the contractor. The approach taken has been to examine the contract for savings as set out in Treasury guidance that has been adapted by Local Partnerships for the Waste Operational Saving Programme. A traffic light system has also been used to illustrate what the opportunities are for savings. It should be noted that the report does not examine the mechanism by which these savings might be negotiated with the contractor or the risks that this might involve; it simply identifies the potential for savings and the magnitude.

The broad subject headings of the savings are listed below; these are examined in detail firstly to determine if there is any potential for savings and secondly to estimate the potential value that may be achieved.

- Change in law reserve
- Lifecycle maintenance profiles
- Refinancing
- Capital contribution
- Third party income sharing
- Asset utilisation
 - Increased through put
 - Reduced service provision
 - Extended range of materials captured
- Increased diversion
- Performance management framework
- Insurance provisions

In addition to these subjects, the overall rates agreed in the contract are benchmarked against similar contract rates using information available to Local Partnerships to assess whether there is any potential to approach the contractor regarding renegotiation these rates.

2 Waste management and recycling contract

The waste management and recycling contract includes the following operations;

- The household waste recycling centres (HWRC)
- The treatment of the dry recyclates collected at the kerb side at the materials recycling facility (MRF)
- The transfer stations (TS).

Green and food waste is sent to third party treatment facilities, the former to open windrow composting (OWC) and the latter to vessel composting (IVC)

Residual waste is not treated in the contract but transferred by the contractor either the RRC or where this is not possible landfill.

2.1 Examination of key saving target topics

1.1.1 Change in law reserve

The change in law (CiL) provisions in the contract does not contain a specific CiL reserve fund and therefore there is no scope in this contract for the Authority recover this fund and make a saving.

1.1.2 Life cycle profile

Many projects suffer extra interest payments by having lifecycle expenditure that is highly variable from year to year. Typical project financed funding projects link the repayment terms so the Debt Service Cover Ratio (DSCR) remains above 1 i.e. there is always sufficient funding in the project to pay the bank. If the capital expenditure varies between years, this can lead to the DSCR falling below 1 in some years. In project financed deals this would result in a higher funding cost to reflect the risk of non-payment of the debt in that year. Examination of the financial model shows that the DSCR does fall below unity in 2019, 2021 and 2022. Traditionally this would be avoided by smoothing the lifecycle expenditure so that large cost elements are split over financial years to reduce the exposure to the project. This project is funded corporately and as such should be subject to the same strictures but there does not appear to have enhanced funding terms to reflect this and is probably representative of the added flexibility that having Veolia fund the capital corporately.

Thus whilst there may be some value in re-profiling the capital expenditure, given that the loan only runs until 2023 and its relatively modest size will limit the ability to make savings from managing the DSCR at this stage of the project.

1.1.3 Refinancing/capital injection

The outstanding loan in the model from 2017 is £16.6m. This is a low amount in terms of project finance and it is unlikely that alternative cheaper funds would be available in the market. Once again as the project is corporately funded this makes this type of approach inherently difficult.

An alternative option may be to use funds the Authority can raise through the Public Loans Works Boards (PLWB) (or through reserves) to pay off this debt. The current PWLB rate is 1.68%¹ which is a much lower interest rate than the 6.5% charged within the contract. The remaining interest charge under the contract at 6.0% amounts to £4.595m. If this was replaced by funds from the PWLB at

¹ 6 to 6 ½ years annuity rate viewed 26/5/16,

[http://www.dmo.gov.uk/reportView.aspx?rptCode=D7A.2&rptName=11a6b7b3-c28f-42ca-9bcf-3d379fc88cc1|PWLB%20\(2\)&reportpage=Current_PWLB_Fixed](http://www.dmo.gov.uk/reportView.aspx?rptCode=D7A.2&rptName=11a6b7b3-c28f-42ca-9bcf-3d379fc88cc1|PWLB%20(2)&reportpage=Current_PWLB_Fixed)

1.68% the amount of interest would reduce to £1m giving a potential saving of £3.6m. However, the contractor would be expecting a return on this investment and the financial model notes a 1% margin rate (which is low), this represent an amount of £600k which the contractor would, as a minimum, expect to be paid for replacement of their capital in the project. In similar projects the market rate for the margin is typically 2.5-3.5% and thus this 1% may underestimate the anticipated return and reduce the potential saving to circa £1.5-2m. The fact is that the contract does not provide a formal mechanism for capital contributions so the issue of margin and whether the contractor could be induced to enter into such an agreement would be subject to negotiation. Experience in other projects suggests that Veolia are not minded to agree to such changes unless there is a lever elsewhere in the contract that can be used to persuade them. However, this is something that might be tested.

1.1.3.1 Summary

Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Capital contribution	One off	£16.6m		Nil to £2m

Description

Paying off of capital in a project and providing this via a loan from the PWLB or from authority reserves.

Status

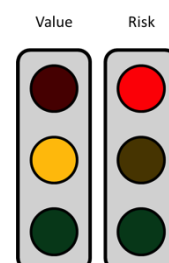
Requires discussion with contractor to determine if there is any appetite for taking this forward as there is no right in the contract to progress this.

Assumptions

This is a corporately financed project and the marginal rate in the model is below market rates at 1% and implies that further margin is taken elsewhere in the structure. Assume that Veolia would require to be recompensed at 3.5% in line with market norms.

Key Considerations

The structure of the funding is opaque and the underlying hedging arrangements and swaps are unknown. It is possible that this is not hedged and thus there would be limited administrative costs for breaking the loan agreements. Alternatively an estimate of the potential for swap breakage cost are circa £1.5m-£2m which mirrors the potential savings in interest rates and thus would remove the rationale for enacting this if these costs were required.



1.1.4 Third party income sharing

The income sharing mechanism for recycle is largely standard in structure consisting of a guaranteed element and an element that is variable and shared with the contractor. The authority shares in the upside if income from recycles increases but does not lose any income if the net income falls below zero. This can be described as an asymmetric risk sharing arrangement, the authority having the potential of higher income sharing as recycle prices increase but protected from paying should the price of recycle fall below zero pounds. The contractor is exposed to the fluctuations in market prices; when prices fall they suffer and when prices rise they get a share of the upside. Initially the sharing starts at 50:50 but the contractor gets a larger share as the quantity of excess income increases in to band B and above². The predicted levels of recycling income are reassessed every 5 years using market testing. This approach has been adopted so that the contractor takes the short-term risk in market prices, whilst the authority takes the long-term risk.

² Band A is where income is up to 50% of the guaranteed level sharing 50% of income, Band B upto 75% sharing 60% of income and Band C up to 100% where 75% of income is shared

This is a good arrangement for the authority, as has been demonstrated in recent years as prices for recyclates have fallen. It is therefore not an area where it would be in the authorities interest to accept more risk on price movements in exchange for higher income sharing.

1.1.5 Payment terms

The debtor days in the financial model are based on an average period of 45 days between issue of the invoice and payment. This is not a typical arrangement (30 days is normal) but Veolia will have factored in this delay in payment in its cashflow calculations. If the debtor days were reduced to zero the model indicates an impact of circa 40-50k in the annual cashflow. The cash flow amounts drive the project IRR and thus there will be potential to achieve a cost saving by reducing the time between receiving the invoice and paying it. The exact value of this would require detailed modelling but it is estimated to be less than £50k per year saving.

The authority have already moved slightly on this issue as they have agreed to pay the recycling bonus on the forecast levels and only reconcile at the end of the year rather than quarterly as set out in the contract. This generates no overall payment difference between the authority and contract on an annual basis but does reduce the administrative burden in assessing and evaluating the returns. This saving originates from a reduced requirement for administrative staff in MRWA but it is difficult to be precise over the actual time and thereby cost, saved.

1.1.5.1 Summary

Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Improving payment terms	annual	nil	<£50k	nil

Description

Reducing the debtor days from the current 45 days to zero to improve the cashflow performance of the contractor.

Status

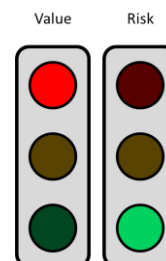
Investigate further: Detailed financial modelling and an understanding of the impacts on the project IRR will only determine the true value.

Assumptions

The sum of £40k-£50k is based on reducing the annual £40k-£50k impact shown in the financial model linked to the interest of the outstanding sums.

Key Considerations

The impacts are limited.



1.1.6 Contract term

The contract naturally terminates on 31st May 2029 but there is potential to extend the contract by up to 5 years. Contractors typically value the opportunity to extend contracts as it can provide them with greater certainty over future cash flows and market share. They will therefore often offer a saving for the final term of the contract. However, as there are 13 years remaining in this contract it is probably too early to consider this as an opportunity as market conditions, policy and other factors will be difficult to predict that far in advance and the Authority may in event need a completely different type of contract.

1.1.7 Performance Management Framework (PMF)

The PMF is typical of standard drafting and applies Key Performance Indicators (KPI's) that the contractor has to comply with; failure to do so results in financial deductions or penalty points. If the penalty points accumulate and breach certain thresholds as set out in the contract then this triggers failure notices.

As the contract has been operating for several years the Authority should re-evaluate the KPI's and assess whether they remain relevant to the services being delivered or if the risks associated with the measures have dissolved. If either of these has occurred then the Authority can evaluate whether these KPIs are required and if there is a case to trade the removal of these obligations with the Contractor.

The rationale for a particular KPI being irrelevant may be changes in the regulatory framework or that the KPI is effectively addressed through other measures. For example the environmental KPIs; it could be argued that these are now covered by the contractors environmental permit responsibilities e.g. KPI 30 which specifically links to legal compliance of weighbridge operation. Given that failure of this KPI will also potentially incur the sanction from the relevant body (Environment Agency (EA) or trading standards) and the key risk to the authority would be that the regulatory body does not impose a sanction and thereby poor performance occurs.

Thus a review of each of the KPIs needs to be conducted to determine

- the frequency which these KPIs have been failed
- the alternative sanctions that arise from non-performance of the particular activity and which organisation is responsible for monitoring compliance
- has the need for the particular KPI been eroded or removed by change in the service or regulatory background.

This review will then inform a decision if any others are potentially redundant or removable without significant impact on the contractor performance. Removal of the KPIs from the PMF would have a risk exposure benefit to the contractor as whilst any deductions would be received by the authority, if it is only applied to those KPIs that are unlikely to be transgressed then it will not affect the authority income.

1.1.8 Insurance

Investigation of the insurance provisions indicates that the entire risk of premium inflation sits with the contractor. There is therefore no opportunity to make savings in this area.

1.1.9 MRFs

There are two MRFs within the contract at Gillmoss and Bidston, these accept the recyclates collected at the kerbside by the councils and separates them so that they can be sold on to reprocessors. Bidston has a contract threshold of 85,000 tpa and Gillmoss 65,000tpa. There is a potential opportunity to add further processing capacity to the existing MRF operations in the form of plastics separation. Presently mixed plastics are separated from other recycle in the MRF and dispatched for further separation and processing at specialist facilities. This opportunity arises, as the value of separated plastics is considerably higher than mixed plastics. If the value of separated plastics exceeds the capital and operating costs of the plastics sorting equipment (over time), and the value of mixed plastics, then a business case can be developed.

Examination of the prices of recycled plastic prices and the differentials between the mixed plastics fraction and the separated polymers is shown in Figure 1 below **Error! Reference source not found.** It can be seen that there has been a gradual increase in the value of separated polymers (HDPE and PET) compared to mixed plastics.

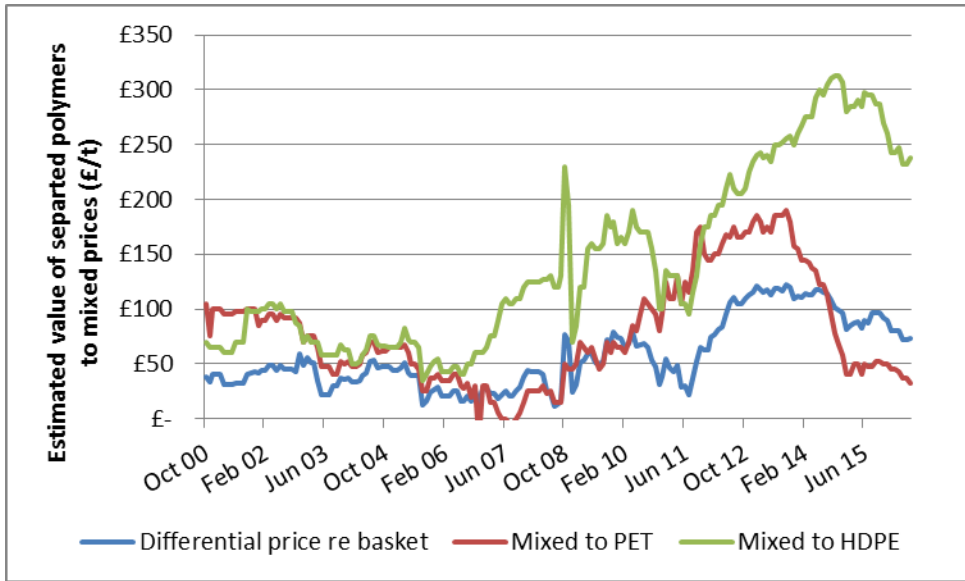


Figure 1 Differentials between mixed bottles prices and single polymer fractions

There may be other reasons for implementing this type of change even if the benefit still does not outweigh the additional costs to the project. The production of single polymer fractions locally may facilitate additional options within the region for recycling which might benefit the local businesses, reduce transport costs, support local employment and facilitate the move towards a “circular economy”. It may also be possible to process mixed plastics from other Councils and obtain third party income.

1.1.10 Additional MRF capacity

The plants were designed with spare capacity of around 20%³. This additional capacity was included to deal with unforeseen stoppages and variations to the waste supply (as set out in the method statements). As considerable operating experience has now been gained there will be an evidence base that will allow a quantitative assessment of the use of this “spare” capacity. If a review of the past operational history reveals that this “headroom” has not been used it would be worthwhile exploring the opportunities for securing additional third party waste. If this spare capacity could be filled at a viable market rate this would provide additional third party income to the authority.

There will be additional costs associated with this initiative, in particular this will mean that essential maintenance and cleaning activities will probably have to be scheduled in around the increased operating hours. This could mean that these activities will have to be performed out of hours, which will increase operating costs. An alternative would be to extend the operating hours such that the plants operate on a 3-shift system. Adding a 3rd shift is rarely as cost effective, as the lost time for maintenance and cleaning leads to inefficiencies but the additional staffing would add up to 50-75kpta to the capacity of the facilities. The revenue derived from this depends on the gate fee that might be secured for this waste and the value of the recyclates, given the uncertainties it is impossible to be precise on this but assuming net revenue to the authority of £10-20/t would place the additional revenue between £500k and £1,500k/a

1.1.10.1 Summary Plastics Separation

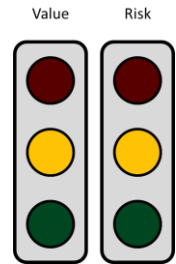
Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Adding MRF	Annual	To be evaluated est	£0 -£1m	

³ MRF services plan, para 2.13.1

polymer separation		£500k-£1.5m		
--------------------	--	-------------	--	--

Description

Introducing specialist sorting equipment to separate individual plastics. Given movements in material prices it may be beneficial to install additional polymer separation to gain added value from selling individual polymer materials against a mixed plastics fraction.



Status

Investigate Further: The costs for the new equipment have come down since the start of the contract and the differential between mixed plastics and individual polymers has increased and thus may have made it worthwhile to provide the added separation in house. An evaluation is required to test the costs and potential income from this approach.

Assumptions

The costs for implementing the process changes is based on 1-3 additional NIR separators and associated machinery and the value of the product is based on the cost benefit of individual polymers over a mixed polymer fraction of between £20 and £120 /t reflecting the range seen in the data above. The throughput of the MRF is assumed to be 100ktpa and 10% of the recyclate fraction is assumed to be plastics.

Key Considerations

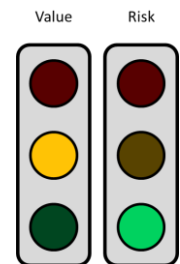
The key risks are that whilst oil prices are low the differential improves but this is a volatile market and other factors also influence the prices and this price differential could change. The remaining life of the project also places a constraint, as any improvement has to be viable within the remaining life of the contract. Thirdly whilst additional space was allowed for in the design, this may have been occupied by other activities since the start of the project and the technical requirements allowed for originally may not be valid for the current new sorting machines.

1.1.10.2 Summary Third Party Input

Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Additional MRF capacity	Annual	none	£500k-£1.5m	

Description

Expanding the capacity of the MRFs by increasing the operational hours may be possible as the original contract allowed for 20% spare capacity. This will allow third party inputs of recyclate and the associated income from this.



Status

Investigate Further: There is value in exploring the scope and cost for treating additional capacity within the existing MRFs and the potential and market price for 3rd party recyclate streams that may be available in the market.

Assumptions

Net revenue of between £10-£20/t with an additional 50-75ktpa processed.

Key Considerations

The expansion of the operating hours is possible but there are always requirements for cleaning and maintenance which will limit this potential. Key issues are

- Allowance for cleaning and maintenance impacting on operational time
- Storage space for products and feedstock
- Logistic issues of moving materials off site at night or weekends

1.1.11 HWRC operation

HWRC opening hours

There are 16 HWRC sites operating in the area. These sites open on an 8am till 8pm basis and accept a wide range of recyclate and other wastes brought in by the public.

The cost of the HWRC operation is made up of two components, firstly the waste that is collected and requires treatment or recycling and secondly from the staffing and operational requirements.

Many HWRC sites experience regular low use periods, typically Tuesdays or Wednesdays, which may offer the opportunity to reduce opening times. Options are closure for the day or reduced opening hours. In planning any reduced operating hours consideration should be given to ensuring that when a site closes neighbouring sites remains open. This would be the advantage of planning these changes on a regional basis.

The savings that can be gained from this type of change are modest and related to the degree of change. Closing a site on a whole day might gain a saving of £500 per day which when aggregated up, assuming 8 sites have single day closures amounts to £200kpa. Reduced hours of operation would provide smaller savings but if linked with some adjustment to cater for early mornings or later evenings may be more acceptable to the public. It is important to note that the current programme of opening has an 8 till 8 pattern, which requires a two-shift arrangement. If the opening hours are reduced to approximately 8 hours this allows moving to a single shift which will provide the most cost effective reduction as it will avoid more costly working patterns for the staff.

Site rationalisation

The option to make savings can also arise from closing sites; the current service provision across the region is shown in Figure 2. This shows a very good spread and coverage of sites providing most (87%) of the population with a site within 10 minutes drive-time and 99.8% within 20 minute drive time. Whilst there is no national standard for provision, WRAP⁴ indicate that a 20 minute drive time for 90% of the population is viewed as good practice.

⁴ WRAP – Household Waste Recycling Centre (HWRC) Guidance – October 2012, http://www.wrap.org.uk/sites/files/wrap/INH0449_HWRC_Guide_%20final.pdf

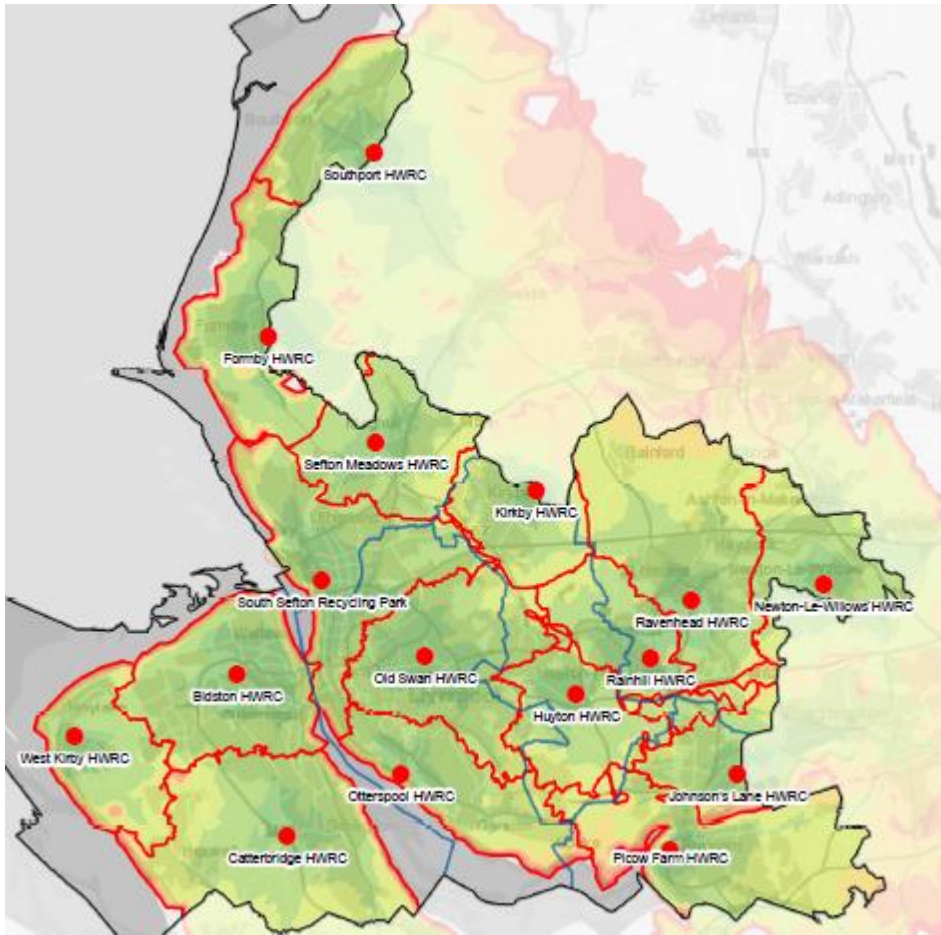


Figure 2 Distribution of HWRCs and associated travel times

The one site that may be overlapped by others is Rainhill. This site serves a relatively small population (24.4k households). If this were removed from the network, the current users would largely divert to the next nearest sites of Huyton or Ravenhead. This change would save the annual service charge of £242k (indexed) and would affect the public travel times by increasing the average travel time from 6.6 minutes to 7.0 minutes. However the specific impacts of Rainhill closure on Huyton and Ravenhead users specifically is more relevant and there would be increase from 8.1 and 7.3 minutes to 8.4 and 7.5 minutes respectively, which is a modest impact of circa 3%.

An alternative scenario would be to close several of the smaller and outlying sites to concentrate the activity in the larger more central facilities. Whilst there are many permutations that could be considered an example might be the closure of 4 sites

- Formby
- Johnson's lane
- Rainhill
- West Kirby

Collectively these might provide gross savings of up to £1.27m less the added costs that the contractor would require given the extra flow at the remaining sites and costs to maintain their IRR. It is impossible to predict the costs but a 5% increase on the remaining sites would cost circa £225k and thus there should be approximately £1m of savings available. However, this is not a comfortable decision by a local authority as it will reduce the service level to the public and the travel times on average would increase from the current 6.6 minutes to 7.5 minutes and increase the proportion of households that travel longer than 15 minutes to get to a site from 0.8% to 3.7%. The resultant travel time map is shown in Figure 3.

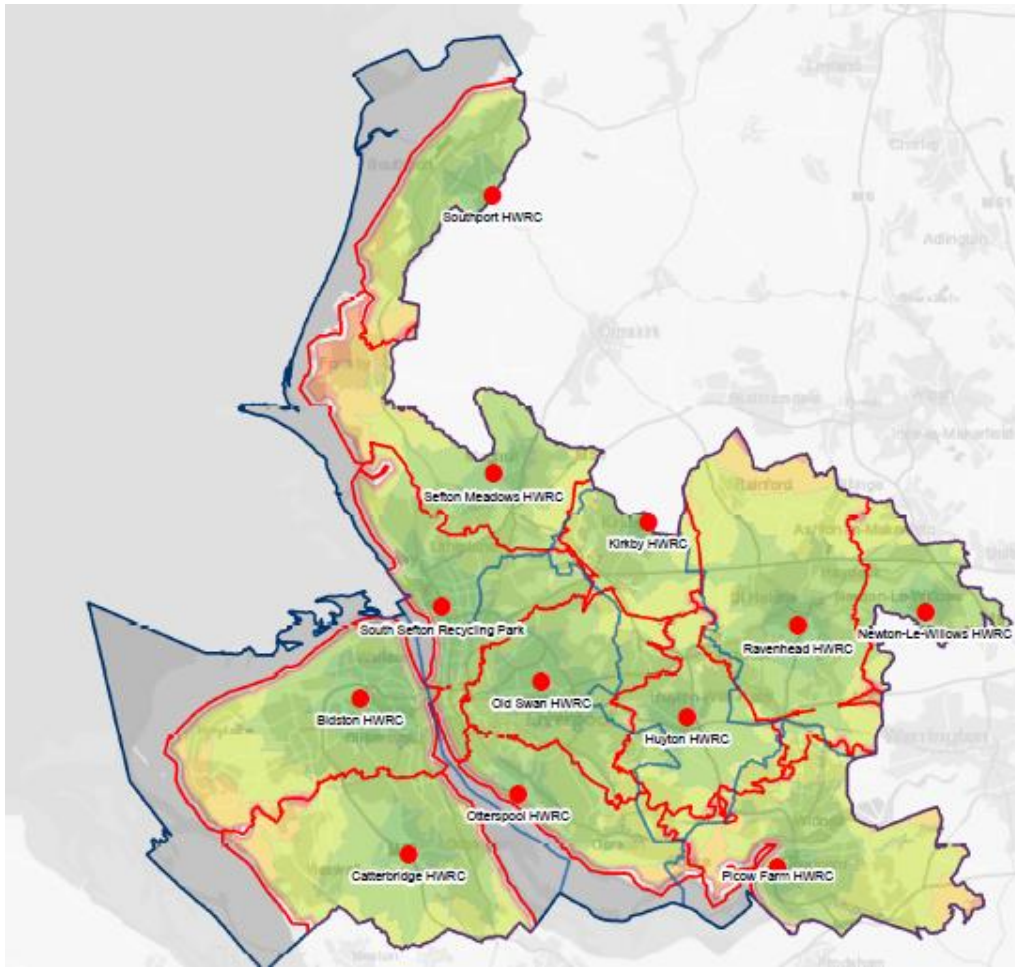


Figure 3 Travel time map with 4 HWRCs withdrawn

Controls on access

It can also be seen that several sites are geographically convenient for the public from neighbouring authorities (most significantly Johnson's Lane, Newton Le-Willows, Kirby, Formby and Southport) and there will be a portion of the users from outside the area. The waste these users bring will add cost to MRWA as this waste will have disposal costs that will need to be met. Whilst this is a zero sum gain for the public sector it is worthwhile opening discussions with the neighbouring authorities to see if there is opportunity to apportion costs to the appropriate authority. If these discussions cannot resolve any imbalance in flows then there are a number of mechanisms to limit site use to residents. The main systems centre around providing the resident with a permit or ticket to use the site or a requirement to provide evidence of appropriate residency when challenged by site operative. The main principles of this may be linked with the trade waste systems that are being rolled out so that where a user arrives without appropriate permission, they have the opportunity to pay for tipping waste and thereby reduce the potential for flytipping. Obviously there is an administrative burden in issuing permits and this will involve most households in the areas surround the affected sites rather than the current schemes to issue permits to owners of large vehicles. To avoid this, evidence based schemes have been adopted but there is some anecdotal evidence that there can be some "sharing" of documents thereby bypassing the system, but there is no quantitative evidence of this being significant.

Without evidence to estimate the scale of the problem it is hard to estimate the amount of savings that may be accrued but these sites together process approximately 50-55 ktpa and the residual element is circa 20ktpa. Assuming that use by non-residents is 10% as an upper limit this would indicate that upto 2 ktpa of residual and a further 3ktpa of recyclables may be being handled and paid for by MWRA inappropriately, which suggests an annual value of £200-300k as an upper limit that may be recouped from the neighbouring authorities. This estimate is dependant to the degree of use by non-residents and this will have to be determined by surveying the site use and the 10% estimate is very

much an upper estimate thus the saving are also an upper bound value and will be proportionate to the amount of non-resident use.

A note of caution does have to be raised, in that this effect is not one way and LCR residents may also use sites in the neighbouring areas. It is sensible to understand the quantum of this use as the balance of flows and cost may be small and not worth complex arrangements to account for them. Alternatively it may be that the LCR is a net exporter and opening these discussions may lead to additional costs that are currently borne by your neighbours being repatriated and thereby increasing costs for the Authority.

1.1.11.1 Summary Reduction in HWRC Operating Hours

Saving opportunity descriptor	Periodicity	Invest to Requirement (2015/16 prices)	to Save (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
HWRC hours of operation	annual	Minimal (education programme)	(education)	£50-200k	N/A

Description

A reduction in the opening hours of HWRC sites to save on operational costs. Potential to reduce opening hours and/or open days across the service.

Status

Investigate Further: The saving from this approach will be linked to the cost of operating the sites as charged by the contractor.

Assumptions

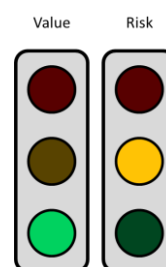
It is assumed that 8 sites close one day per week at a cost saving of £500/day. The £500/day is derived from saving 4 staff over the 12 hour opening period. The existing site base charge is approximately £1150/day (including indexation).

It is not expected that there would be any impact on the quantities of waste generated for recycling or disposal.

Key Considerations

Where sites are closed on whole days it would be advisable to stagger closure days to ensure that the public have options to take waste to alternative sites.

Options to limit HWRC use to only LCR residents needs to be handled with care as there is no public sector saving and will depend on the balance of use of other residents using LCR sites and LCR residents using neighbouring authority sites.

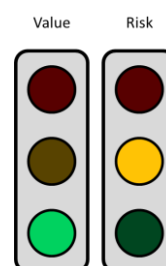


1.1.11.2 Summary Reduction in HWRC Numbers

Saving opportunity descriptor	Periodicity	Invest to Requirement (2015/16 prices)	to Save (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
HWRC site reduction in numbers	Annual	Nil		Up to £1m	Dependant on which sites are closed and land values

Description

A reduction in the number of HWRC sites. The saving derived from this approach would be linked to the charge levied by the contractor for each site. The sites selected (and these are only examples at this stage) are the smaller sites, which the contract currently charges £1.2m/annum to operate. However it has to be expected that the



contractor would claim that there would be increased operating costs at other sites due to a transfer of waste inputs. On this basis a saving of £1m per year is estimated.

Status

Investigate Further: A business case would need to be developed in order to provide an accurate assessment of the savings, the impact on waste flows, the necessary communication process and transition costs and the mechanism for negotiating this change with the Contractor.

Assumptions

The cost savings are simply the contractual base costs for the sites by closing 4 sites

- Formby
- Johnson’s lane
- Rainhill
- West Kirby

An assumption of a 5% increase in costs for the remaining sites derives a £200k extra cost.

It is not expected that there would be any substantial impact on the quantities of waste generated for recycling or disposal.

Key Considerations

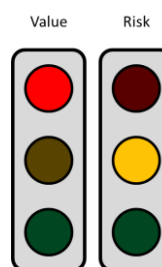
This change would require political support. There would be some requirement to increase the monitoring for fly-tipping but experience in other authorities has shown limited (but not zero) problems with increases in fly-tipping when HWRC sites are closed.

1.1.11.3 Summary Permit System

Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Excluding Commercial and Trade waste and resident from neighbouring Councils outside of the Liverpool City Region.	One Off	£50k to develop permit system	Varies with flow of traffic and could be upto £250k or could cost the authority if there are more LCR residents using neighbouring sites	Nil

Description

Restricting HWRC use to residents from within the Liverpool City Region and excluding commercial and trade waste. Savings would be transfer between neighbouring authorities and MRWA. Savings may be as high as £250k but equally could lead to similar increased costs if the balance of use is that more LCR residents use neighbouring authority sites than neighbouring authority residents use LCR sites.



Status

Investigate Further: Work would have to be undertaken to assess the tonnage of trade and commercial waste currently deposited at the HWRC sites and therefore an accurate assessment of savings.

Assumptions

This aspect does require additional survey work to understand the extent of the issue and if the magnitude is sufficient require action.

Key Considerations

Alternative options may be monitoring and a payment from or to the neighbouring authorities so that the public are not inconvenienced but the costs are accurately allocated. As previously stated this is not a saving to the overall public purse only addresses the allocation of costs for the services used by

residents. In addition the costs to MRWA may be increased if the flow of material is outwards rather than inwards due to more LCR residents using other sites than non-LCR residents using LCR sites.

2 Resource Recovery Contract

The RRC is the main disposal contract for municipal waste in Merseyside. The project consists of two facilities, a rail transfer loading station in Huyton and a 444 ktpa combined heat and power (CHP) energy recovery facility (ERF) at Teesside. The contractor, Merseyside Recovery Limited (a joint venture between SUEZ and Sembcorp) are responsible for accepting the waste at the Huyton transfer facility, operating the rail transfer systems to transport the waste to the ERF and then operating the ERF facility and dealing with the residues from that facility.

The contract is for all residual municipal waste arisings collected by the councils in the Merseyside and Halton areas but excludes a small amount of ad hoc waste streams that require alternative treatment/disposal.

2.1 Saving Opportunities

2.1.1 Change in law reserve

The CiL account or reserve is a facility that is available for funding any capital requirements that arise from a general CiL. This is an account that is largely required by the banks to provide the contractor with an immediate source of funds should a CiL arise that requires a capital investment.

There is a saving opportunity for the authority whereby it takes back the risk of any capital payment as a result of a CiL and recovers the funds in the CiL account and any future payments into that fund. This position has now become a market standard in more recent PFIs as the risk of any significant CiL and the requirement for a large capital payment is usually capped by the contractor and therefore the main cost risk remains with the authority. In the contract this facility is termed Headroom Funding with the concept of a low, medium or high value change

The Headroom Funding in the financial model is set at approximately £7.7m. The contribution to the fund is approximately £120k per year. Therefore it should be possible to make this saving if the authority is able and willing to take on the added risk.

2.1.1.1 CiL Summary

Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Removal of the Change in law reserve loan facility	annual		£120k	

Description

This would remove the requirement to hold a loan facility to cover CiL expenditure and thereby remove the annual contribution to this fund.

Status

Investigate Further: The commitment fees for the loan facility of £7.7m is approximately £120k pa and thus this is the available saving opportunity.

Assumptions

This assumes that the Authority take on the responsibility of paying for the change in law expenditure in the event of a change that has capital expenditure requirement.

Key Considerations

Obviously this is an extension of the authority's risk exposure and given the potential for legislative or regulatory change has substantially increased as a result of the proposed UK exit from the EU.

2.1.2 Lifecycle profile

As discussed for the recycling contract the profile of lifecycle expenditure can have a cost impact and having large peaks and troughs can increase the key ratios.

It can be seen below in Figure 4 that the profile has been optimised, with peaks in expenditure only occurring in 2027 and in the final half year of the contract. These peaks are explainable; the mid cycle peak is likely to be linked with an upgrade of they control system and the final expenditure is linked to bringing forward expenditure prior to the final 6 months in preparation for the hand back of the facility. There will be choices to be made towards the end of the contract as to the desirability of taking over and continuing to operate the facility. If it is decided that the facility is no longer needed at that stage, reducing the lifecycle expenditure during the final 5 years of the contract could make savings. However, at this stage, it would be inadvisable to take this action but this might be reassessed later in the contract.

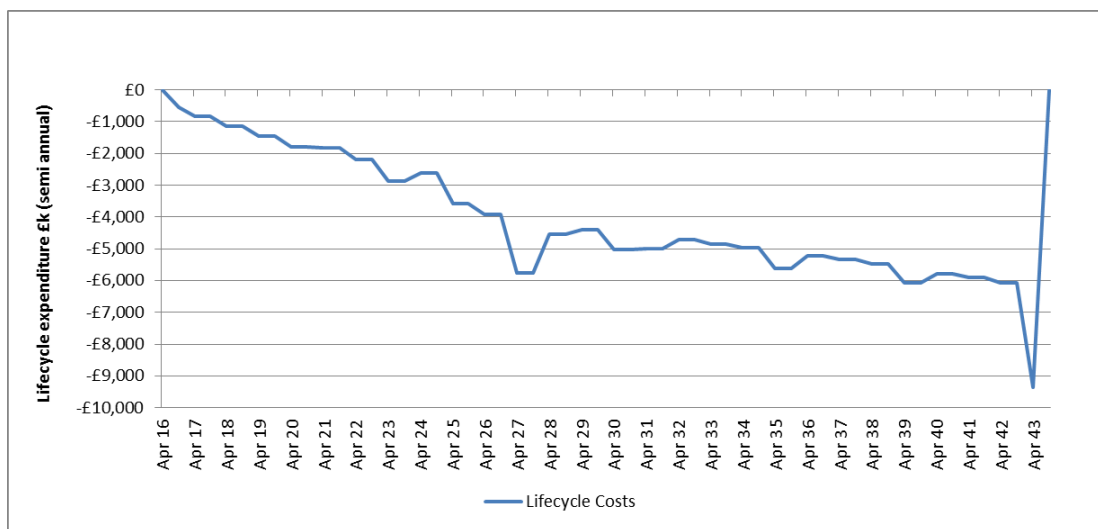


Figure 4 Lifecycle CapEx profile

2.1.3 Refinancing/capital injection

2.1.3.1 Capital injection

The injection of capital in a project is an option that can be adopted to reduce the cost of finance. In effect the authority replaces private debt in the project with public debt, which attracts a much lower interest rate and thereby reduces the Unitary Charge.

Assuming a 30%⁵ contribution to the base case capital cost (£122m) would be applied to take £97m off the debt and pay off the £25m swap breakage costs. This would lead to a reduction in the annual borrowing costs of £9.1m pa. However, the authority would have to borrow this money from the PWLB and this is estimated at £6m pa thus leaving a potential benefit of approximately £3m pa.

The funders do not have to agree to this and are very likely to object unless there is an upside for them and thus this saving would have to be shared with the relevant parties. This would be a negotiated settlement but at first principles a 50:50 share seems plausible outcome. Therefore the saving to the authority is likely to be approximately £1.5m pa whilst taking on a debt of £122m and the associated risks in the operation of the project.

Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Capital injection	annual	£122m	£1.5m	

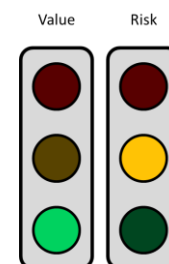
⁵ 30% is currently the limit set by Treasury

Description

Provision of capital funding of the project from public lending facilities (PWLB) to reduce the expenditure on interest. Provision of 30% funding provides a balance of the reduced costs benefits but also taking on a smaller portion of the risk.

Status

Investigate further: The provision of a capital contribution of 30% should provide a saving of £3m, which potentially would be shared with the contractor and its funders and so a conservative assumption of £1.5m saving is possible.



Assumptions

The assumption that the Swap breakage cost and interest rates from the PWLB remain similar to the current levels.

Key Considerations

The authority would be taking on additional risk in the project and will adding to its capital borrowing requirements that may limit other activities that they may require capital expenditure.

2.1.4 Increasing contract waste

There is an opportunity to obtain revenue for the project by selling the spare capacity in the ERF, this however must be waste that is defined as Contract Waste, which means it must be collected either by or on behalf of the Councils and within the area of the MRWA and Halton; it can include municipal and trade waste. The revenue potential is the difference between the market price for this waste and the UC set out in the contract.

Arrangements to treat other local authority waste would be classified as third party waste and the contractor would share in the added revenue, thereby reducing the value of this income to the authority. But there is always the possibility of negotiating with the contractor, as it is likely that this waste could be secured under longer term compared to the commercial markets and this might be more attractive to the contractor as it would underwrite electricity income.

Like most PFI contracts the UC is banded and the price varies according to the tonnage of waste supplied by the authority. In the RRC contract this is best illustrated by reference to Figure 5 below.

This shows how the price bands vary according to tonnage; the key point to note is that the band 2 price, which is the lowest price, is triggered at increasingly lower tonnages from 2018 until 2031 when it plateaus. This means that any spare capacity that can be delivered within this price band is likely to produce a higher level of revenue.

Using the base case financial model assumptions the marginal cost of the gate fee and the shared electricity revenue are approximately equivalent and thus adding additional band 2 tonnage is approximately free and thus the value of the gate fee from the third party waste is the 80% revenue share of this if taken in as 3rd party waste (£56/t)⁶. This calculation of the equivalence of the energy revenue and Band 2 gate fee does assume the base case electricity price and in reality the power sales are currently above this value and the savings will be greater depending on the power market. Thus the base case is shown below on the assumption of 430kt of contract waste.

2018/19	Tonnes	Used	Rate	Total
Contract waste	430,000			
Band 1	395,711	395,711	£92.92 (£91.81)	£36.77m
Band 2	43,968	34,289	£5.20 (£5.00)	£0.18
Spare band 2 capacity		9,679		
Band 3	24,019	0	£72.83	0

⁶ A note of caution should be attached to these estimates as the gain share varies according to the band into which the waste has fallen.

			(£70.00)	
Guaranteed revenue				£12.46m
Energy revenue	302,017 MWh		£40/MWh	£12.08m
Additional 3 rd party waste revenue if filled by contractor		9,679	80% of £85/t	£0.54m
Cost if contractor supplied 3 rd party waste				2.2 £23.95m
Cost if 3 rd party waste supplied as contract waste				£23.86

The future quantity of spare band 2 capacities is unknown and will depend on the amount of diversion achieved through additional recycling or waste minimisation. In 2017/18 the GMT and band 2 tonnages are 401,743 t and 44,638t respectively. The most recent waste statistics for 2014/15 show that there was 387,869t of residual waste. However MRWA have suggested that their forecast for 2017/18 is circa 430kt of residual waste which would reduce the spare band 2 capacity to 13ktpa. As the band 1 level falls a greater tonnage of band 2 capacity becomes available and in consequence the opportunity for income sharing also increases.

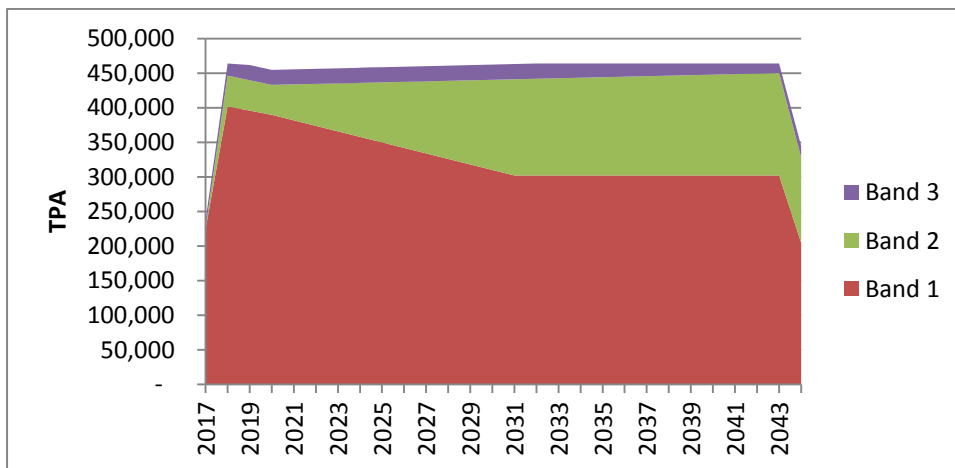
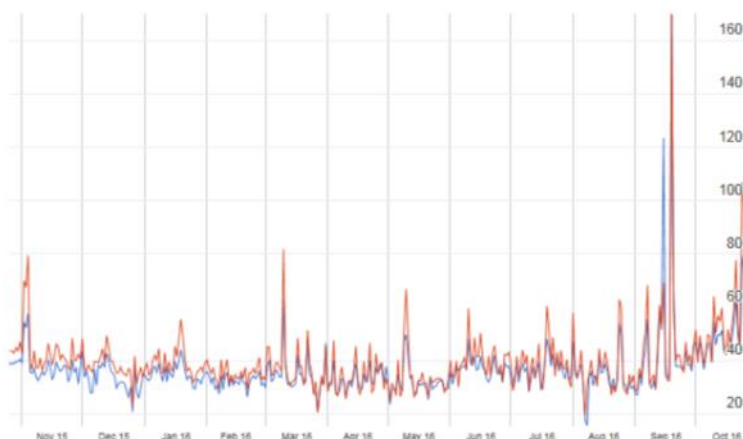


Figure 5 RRC banding structure

The income from the contract is dependent on the markets for energy and 3rd party waste and these variances will feed directly in to the income generated. Falls in the prices that bring the revenue below the guaranteed level will not be transferred to the authority but the excess will be shared. Thus an increase in the gate fee achieved would increase revenue, for example if an average of £75/t were achieved by the contractor then the income from the band 3 tonnage supplied by the contractor would increase revenue by £120k which would be shared equally thus the Authority would gain £60k. In addition if the contractor were filling the spare band 2 tonnage the shared income from that would increase from £542k to £581k and additional £39k providing a total increase in revenue of £99k.

In a similar way if the energy process increase above the base case price of £40/MWh then the revenue generated will be shared. For example if the price increased to £45/MWh the generated revenue would be £13.908m, which is £1.133m above the guarantee. This would be shared equally so the authority would gain a further £567k. This shows that energy sharing has the potential to provide more additional revenue than the 3rd party waste although the authority has no control over this and will just see a windfall if prices rise. Energy prices are volatile but the most recent indications are that whole sale prices have been depressed due to the falling oil price but are currently just above the base line £40/MWh.

Figure 6 Wholesale power pricing 2016⁷



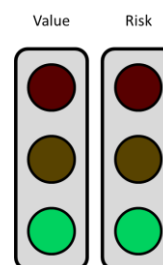
Appendix 1 contains 2 worked examples of how the authority could generate income from reducing the tonnage of residual waste by increasing recycling and creating spare capacity at the RRC that could be sold to the market.

2.2.1.1 Summary

Saving opportunity descriptor	Periodicity	Invest to Save Requirement (2015/16 prices)	Opex Saving (2015/16 prices)	Capex Saving (2015/16 prices)
Increasing contract waste utilisation	Annual		Up to £0.54m	

Description

The project is estimated to have spare capacity of up to 60ktpa in the initial years if the proposed recycling options are taken up. In part this is due to success in increases in recycling and lower waste growth rates. This spare capacity needs to be utilised to provide the gate fee and electricity revenue. The contractor can source additional waste to fill this capacity. If the contractor supplies this waste they take a share of the gate fee revenue.



Status

The saving in this measure is calculated as approximately £0.54m pa depending on the delivery of 60kt of extra waste to fill the plant to the capacity of Band 2.

Assumptions

- Available capacity 60,000tpa
- Market price £85/t
- Electricity price of £45/MWh

Key Considerations

The contractor supplies the additional waste the benefit will be shared and they will receive a 20% (possibly more depending on the banding) of the excess revenue once costs are accounted for and this will have an impact on the authority revenue.

⁷ Source Energy Solutions, <http://www.energybrokers.co.uk/electricity/historic-price-data-graph.htm>

If the contractor supplies the additional waste the benefit will be shared and they will receive a 20% of the excess revenue once costs are accounted for and this will significant impact on the authority revenue.

2.2.2 Third party income sharing

There are three sources of income identified in the Contract, third party waste gate fees, energy sales and recycle income arising from materials extracted at the Huyton transfer station. Third party income sharing occurs when the combined projected income from these sources exceeds the guaranteed income in the base case. Where income is above these values this is shared equally with the authority, where below the contractor bears the loss in income. The calculation is performed on the cumulative contract values so that where income has been below the guaranteed value in previous years this has to be caught up before the excess income is shared. This protects the Authority from low electricity prices or the failure to attract 3rd party waste.

Power sales

One potential that may need to be explored is the direct purchase of power from the plant for the LCR authorities via a direct wire or sleeving arrangement. In other projects this can be attractive due to the quantities of power and the lower costs of transmission as the project is local to the user. This type of arrangement has potential benefits in that it provides a natural hedging to the authority's power purchasing giving long term cost certainty rather than being subject to general market movements. In addition, it can also provide lower costs as a layer of margin and administrative costs are removed from the power purchase structure.

In this project, the power is largely taken up by the Sembcorp site and thus only a small amount of excess power is available for sale back to Merseyside and also there would be higher costs due to the transmission losses over the distance that would have to be accounted for. Thus it is not considered likely that any benefits can be gained from a direct power purchase arrangement.

Consequently there are no opportunities to make savings in these areas.

2.2.3 Insurance

The contract drafting for insurance follows WIDP standard drafting fairly closely, this means it has well established risk sharing mechanism for changes in premiums. The principle is that the authority are responsibility for large scale ($\pm 30\%$) general industry price changes to premiums whilst the contractor is responsible for all other premium price changes, which includes site and waste industry specific factors referred to as Project Insurance Changes (PIC).

At this stage there is no saving to be had but once the Joint Insurance Cost Review report is issued it is worthwhile ensuring that these principles are carefully checked as the broker assessments in other projects have generally failed to adequately separate the cost changes in premiums for the project and the Relevant Insurance Market (PPP and power and engineering). This has led in some instances to authorities paying too when premiums rise much or receiving too little when they fall.

3 Summary of savings opportunities explored

Savings opportunity	Value	Issues	Actions
Recycling contract			
Change in law reserve	Nil	No savings	None
Life cycle profile	Nil	No saving potential due to limited life of outstanding loans	None
Refinancing/capital injection	Nil to £2m	Savings depends on the willingness of Veolia to give up the debt, which they have not been inclined to do in other contracts and the method of hedging this debt and the requirements to break swaps.	Will require an invest to save of £16m of capital but worthy of a initial discussion with Veolia to assess their appetite.
Third part income sharing adjustment	Impossible to estimate the savings available	Exposes the authority to market downturn condition	Not recommended
Payment terms	<£50k	Some opportunities have already been explored and taken up. Further cashflow improvements may have value, but overall benefit will be small	Worthy of discussion with Veolia.
Contract term	Unknown and only available from 2029	Extending the current contract would lock in current prices to some extent. As the capital is largely paid off there would be limited scope to offer savings now. Will remove the opportunity for competitive bid process to test prices	Worth discussing with Veolia to assess their appetite and thus potential savings that they may offer.
Performance management framework	Very limited	Possible poor performance permitted.	Requires a review of the KPIs so that redundant ones can be negotiated away
Insurance	N/A		This risk sits with Veolia
MRF costs Polymer sorting	£0k-£1.0m	Will require some investment to upgrade sorting equipment. Highly dependent on international plastic prices	Worth a discussion with Veolia as to the technical capacity given changes in technology and the costs/value.
Additional capacity	£500k-£1.5m	Dependent on being able to source 3 rd party dry recyclates and the ultimate capacity of the plant	Initiate discussion with Veolia to assess limit of capacity given space and maintenance requirements.

HWRC opening hours	Up to £200k/pa	Will require political support as decreasing service level is contentions	Initiate soundings with stakeholders
HWRCs rationalisation	£200k-£1m	Will require political support as decreasing service level is contentions	Initiate soundings with stakeholders
Controls on access	Up to £300k	Is a zero sum gain for the public purse as waste is household waste. May lead to "tit for tat" restrictions on neighbouring sites.	Further assessment of external use and use of sites outside area by residents
Resource Recovery Contract			
Change in law reserve	£120k	Authority would take on additional risk of regulatory change.	Investigate further
Lifecycle profile	Nil	Profile has been optimised whilst there may be options at the end of the contract, this is too far in the future to assess.	No action
Refinancing/capital injection	£1.5m pa	Taking on £122m of debt with PWLB	Worth investigation once full operation is achieved and all construction risks are full resolved.
Increased contract waste	Depends on spare capacity but potentially up to £0.54mpa	Waste has to be sourced by contractor	Investigate the forecast waste arisings and recycling levels so that the capacity available is known.
3 rd party income share	Nil	Renegotiation of the 3 rd party income share to provide a greater proportion to MWRA would result in a reduced guaranteed income and therefore greater risk.	Not recommended given current uncertainty in energy prices.
Insurance review	N/A	Essentially a precautionary measure to ensure that the insurance cost review is conducted correctly and that the savings (if any) are correctly allocated.	Prepare data for insurance review prior to the due data for the review and ensure that specialist advice is secured.

3.1 Savings actions already enabled

This above review has assessed the contracts to explore the opportunities for potential savings in the future. However, savings have already been made in the WMRC and these are described below. As the RRC contract has not yet entered into full service there are no historical savings.

HWRCs service fees

The original rates of operational costs were agreed when the contract was signed and were based on the facilities at that time. Since then three sites Kirkby, Huyton and Ravenhead have all been upgraded. These upgrades have improved site performance and the experience of the users. The upgrades allowed the contractor to revise the service charges and also facilitated savings to the operations. Whilst the overall service charges have increased the negotiation that ensued at the time provided a £160k reduction in the service fees for these sites compared with the proposal from the contractor.

Site chemist

One innovation has been the introduction of a site chemist to assess hazardous waste that arrives on the sites. Previously hazardous waste was segregated and sent to a single reprocessor and effectively the costs were high due to the charging of a standard rate for all materials. The introduction of the chemist allows segregation of the waste on arrival so that the appropriate treatment option can be applied reducing the cost for disposal.

3rd Party waste

The authority have established a methodology of assessing all new 3rd party waste supply deals in to the Veolia contract and require a business case to be performed for each waste supply contract. Whilst this is not necessarily a saving it is a methodology that ensures that all contracts of this type benefit the authority.

Similarly, business cases are made for materials such as mattresses, batteries and hazardous waste; this ensures that prices for these materials are at competitive market rates.

Trade waste reception

The abuse of HWRCs by traders is common and at two sites the authority has introduced a mechanism for charging for trade waste directly. This has a two fold effect in that it reduces the tension of turning away traders and risking fly tipping but also provides a small income. Contractually this tonnage is not added to the 3rd party waste tonnage as currently it is a modest amount.

HWRC recycle share

The contract targets for recycling at HWRCs were being exceeded but limited additional recycling being gained. Therefore to increase the amount of recycling achieved the sharing mechanism was adjusted to a 60:40 arrangement (from a 50:50) to give the contractor greater incentive to recycle a greater proportion of the HWRC waste.

Baler

A baler has been installed at one of the HWRCs to allow the baling of cardboard which increases the storage capacity of this material. Veolia have been permitted to use this baler for commercial wastes with a royalty fee being paid.

Recycling bonus payment schedule

The recycling bonus is contractually set to be paid monthly and this has been reduced to a quarterly payment as the calculation and verification process is time consuming. Conducting the process quarterly releases administrative effort for other contract management activity. There is no detrimental effect from making this payment quarterly as opposed to monthly.

Contact details

Duncan Powell, Director, Local Partnerships

Email: duncan.powell@local.gov.uk

Tel: 020 7187 7379



Disclaimer

This report has been produced and published in good faith by Local Partnerships and Local Partnerships shall not incur any liability for any action or omission arising out of any reliance being placed on the report (including any information it contains) by any organisation or other person. Any organisation or other person in receipt of this report should take their own legal, financial and/or other relevant professional advice when considering what action (if any) to take in respect of any associated initiative, proposal or other arrangement, or before placing any reliance on the report (including any information it contains).

Copyright

© Local Partnerships LLP 2016

