Summary Report

Newport City Council Business Planning Toolkit CBA Summary Report

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Executive summary

The role of the Cost Benefit Analysis (CBA) tool within the Business Planning Toolkit (BPT) is to support authorities in making balanced and sustainable decisions regarding the future of their waste and recycling services. To do this, the CBA compares the performance of each future scenario across four areas:

- Cost of service delivery;
- Performance of the service;
- Environmental impact of the service; and
- Employment generated by the service.

As part of this project, four future scenarios were examined against a business as usual baseline. All scenarios involved the implementation of the same waste a three weekly kerbside refuse service in September 2018 and four weekly service in April 2024, whilst testing the following additional changes:

- **Scenario 1** –None.
- **Scenario 2** –Three weekly garden waste collections in September 2018.
- **Scenario 3** –The commissioning of the trade recycling service in April 2017, alongside the growth of all trade collection services.
- **Scenario 4** – The commissioning of trade recycling in April 2017 alongside the growth of all trade collection services and the re-development of Docks Way HWRC is April 2018.
- **Scenario 5** – The commissioning of trade recycling in April 2017 alongside the growth of all trade collection services and the improvement works at Docks Way and develop a new HWRC on a new site

The following sections summarise the performance of each scenario against the four performance areas:

Cost of Service Delivery
All scenarios represent a saving against the baseline position. Scenario 4 requires the lowest overall budget in 2030 due to this scenario receiving the highest amount of income from the sale of dry recycling and lowest residual waste disposal costs. However, when NPV is take into account, all scenarios perform similarly, with scenario 2 having the lowest NPV at £66m closely followed by scenario 4 at £66.2m. NCC should note that all scenarios require an increase in the waste grant budget, due to the increase in recycling activities. However, as this is allocated centrally by Welsh Government, the amount received cannot be guaranteed and may result in NCC having to fill this shortfall. This would be the case in all future scenarios to a greater or lesser extent. As the CBA takes into account financial costs as well as the monetised environmental costs of waste and recycling activities, these have also been analysed as scenario 4 has the lowest combined financial and environmental costs at just over £5.326m in 2029, however Scenario 5 has a minimal additional net cost per annum when compared to Scenario 4 which makes it equally recommendable when considering the increased services delivered to residents by this option.

Performance of the service
The baseline position does not allow NCC to meet the 2019/2020 or 2024/2025 statutory recycling targets set by the Welsh Government. By not meeting these targets, NCC are at risk of potentially receiving fines from Welsh Government. All modelled CBA scenarios allow NCC to meet the 2019/2020 target of 64% recycling, however only scenarios 3, 4 and 5 will

meet the 2024/2025 statutory recycling target of 70% achieving recycling rates of 71%, 72.7% and 73.4% respectively.

Environmental Impact of the Service
All of the modelled CBA scenarios save more Greenhouse Gas (GHG) emissions (expressed in tonnes of CO_2) than the baseline, business as usual position. As the savings in GHG emissions are strongly linked to the recycling performance, the scenarios which have the highest recycling performance (scenarios 4 and 5) save the most greenhouse gas emissions when compared to the baseline. In all scenarios, GHG emissions savings noticeably increase in 2018 and then again 2024 when changes are made to the kerbside refuse service, as more material is driven into recycling. When the environmental impact of each scenario is monetised, all scenarios including the baseline have a net environmental cost saving. Although Scenario 4 and 5 have a relatively similar net environmental cost, Scenario 5 has the highest net environmental cost saving at £3.25m.

Employment generated by the service
The baseline number of people employed by or as a direct result of the delivery of NCC's waste and recycling services is modelled at 203 FTEs. Unlike the other measures, employment levels actually drop below the baseline in scenarios 1 and 2, this is due to the reduction in residual waste frequency and associated frontline resource levels. Within scenario 3 and 4 and 5 the number of FTEs increases to 246 and 252 (both Scenarios 4 and 5) respectively, largely driven by the additional employment generated by the commissioning of the trade recycling service and expansion of all trade waste and recycling collections.

Conclusions

The results of the CBA demonstrate that the implementation of any of the 5 scenarios would lead to lower costs, increased performance and a reduced environmental impact compared to the baseline. Comparison of scenarios provides clear evidence to suggest that Scenario 4 or Scenario 5 should be implemented, as there are there are minimal differences between the performance both scenarios. However, for a minimal additional net cost per annum, Newport City Council could open a new HWRC and increase the services delivered to residents, whilst achieving an increased recycling performance.

This would involve the following changes to waste and recycling services in Newport:

- Kerbside Refuse and Recycling Services - Current Service until **September 2018** when **three weekly refuse collections** are introduced. In **April 2024 four weekly refuse collections** are introduced.
- HWRCs - **Undertake improvements work to Docks Way HWRC**, whilst d**eveloping a new site** to open **September 2018**.
- Trade Waste and Recycling Collections - Current service until **April 2017** when the **trade recycling service is commissioned** to a third party.

These changes could lead to the following benefits for Newport City Council:

- **One of the lowest overall budget requirements in 2030**. The 2030 budget requirements of scenario 4 and scenario 5 are extremely similar (with £10k per annum) This is due to both scenarios receiving the highest amount of income from the sale of dry recycling and lowest residual waste disposal costs. When taking NPV into account, Scenario 5 is more costly than Scenario 2, however the difference is marginal. The

budget required for operating Scenario 5 in 2029/2030 is £6.17m compared to a business of usual baseline of £8.09m.

- **Successfully meeting the 2024/25 statutory recycling targets**. All scenarios lead to an improvement in recycling rates compared to the baseline, which would not allow NCC to meet the 2019/2020 or 2024/2025 statutory recycling targets set by the Welsh Government. However only scenarios 3, 4 and 5 will meet the 2024/2025 statutory recycling target of 70%, achieving recycling rates of 71% and 73% respectively. Furthermore, as NCC may be at risk of fines from Welsh Government of £200 per tonne for every tonne of material under the recycling target, only those will guarantee that no fines will be paid. This represents a potential £1.25 million saving in 2024/25 alone compared to the baseline.
- **The highest environmental cost saving of any option.** All of the modelled CBA scenarios save more Greenhouse Gas (GHG) emissions (expressed in tonnes of CO_2) than the baseline, business as usual position. Savings in GHG emissions are strongly linked to recycling performance, which is highest for Scenario 5. The CBA estimates a net environmental cost saving at £3.25 million (NPV, 2016-2030).
- **The greatest increase in employment of any option.** An additional 49 FTEs would be employed under Scenario 5 compared to the baseline, largely driven by the additional employment generated by the commissioning of the trade recycling service and expansion of all trade waste and recycling collections.

Figure 1 – Comparison Net Financial Costs Over Time

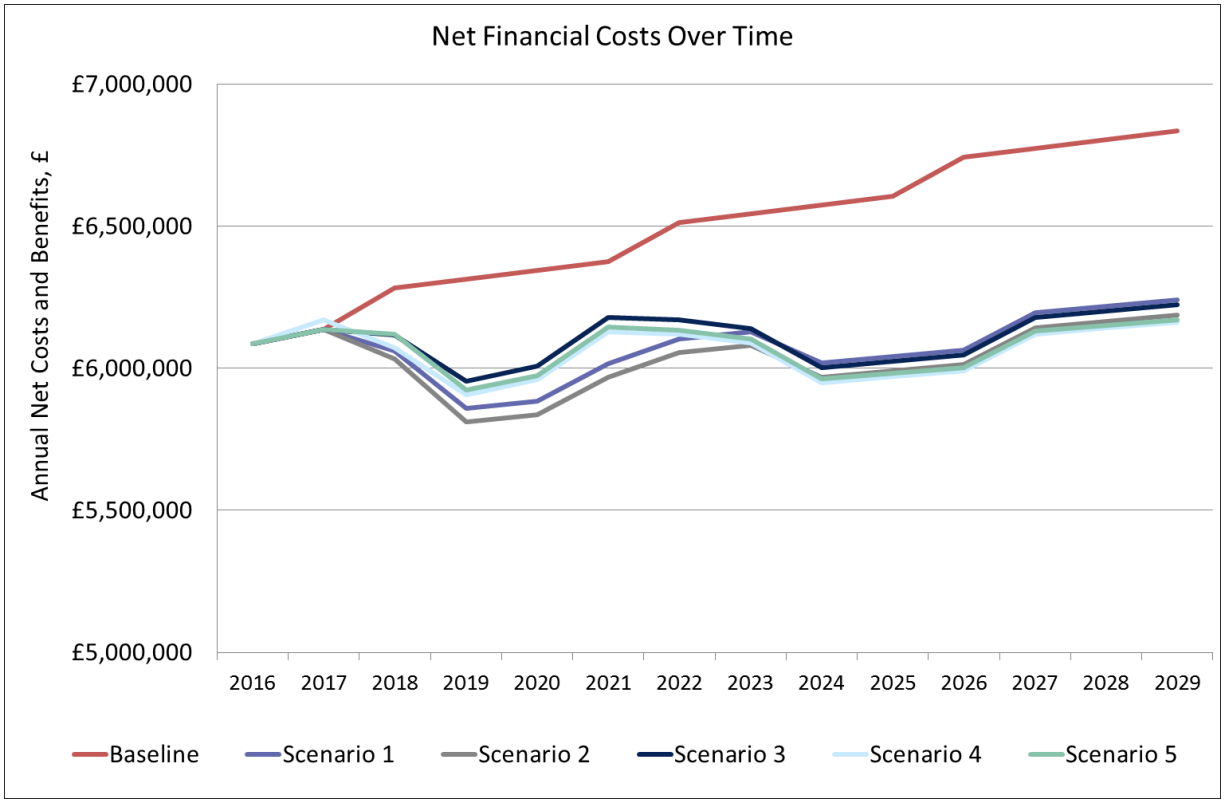


Figure 21 – Scenario 5 Mass Flows and Recycling Performance

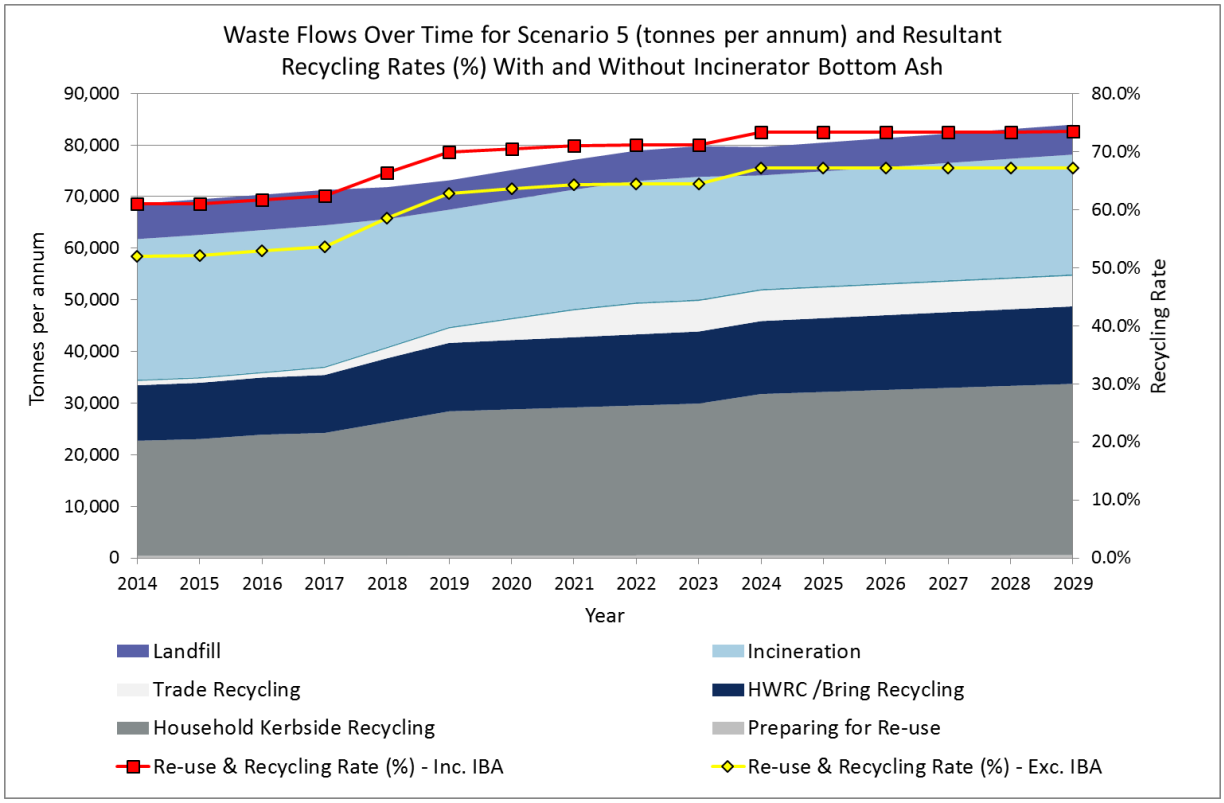


Figure 3 - Change in GHG Emissions Over Time Relative to the Baseline for Each Scenario

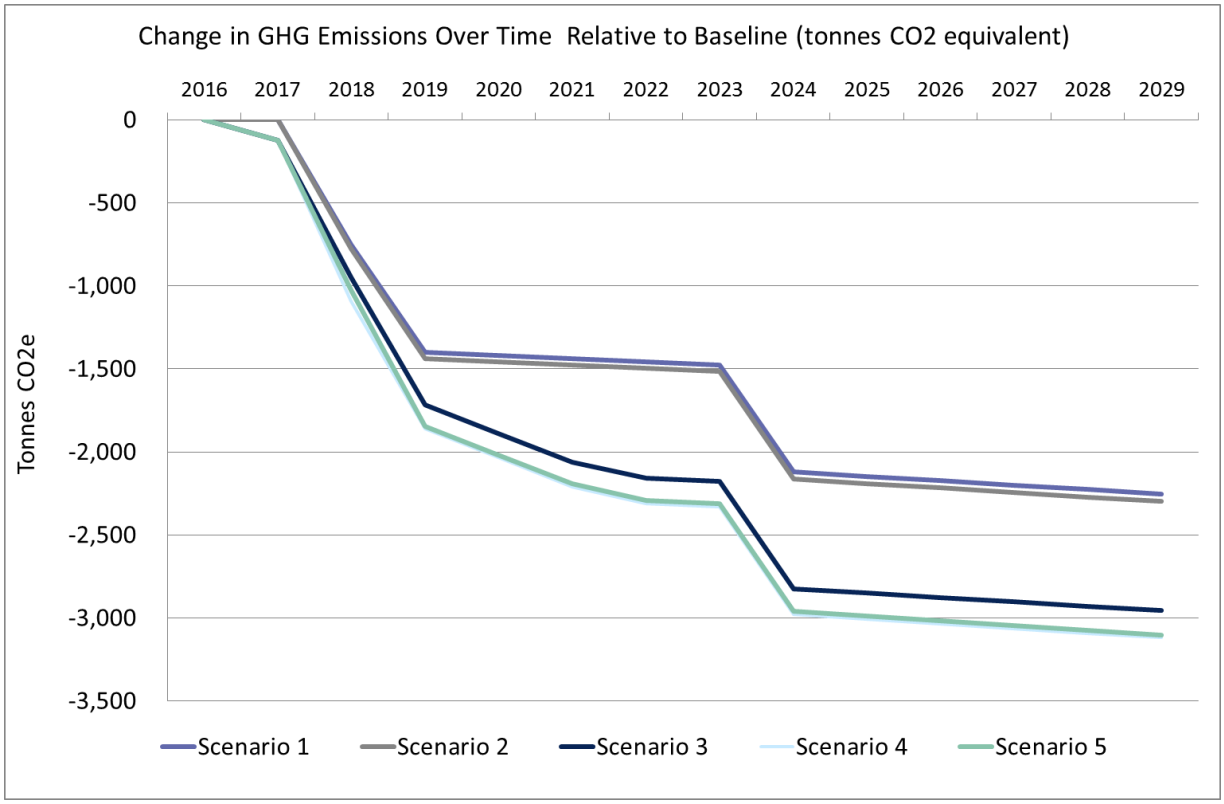
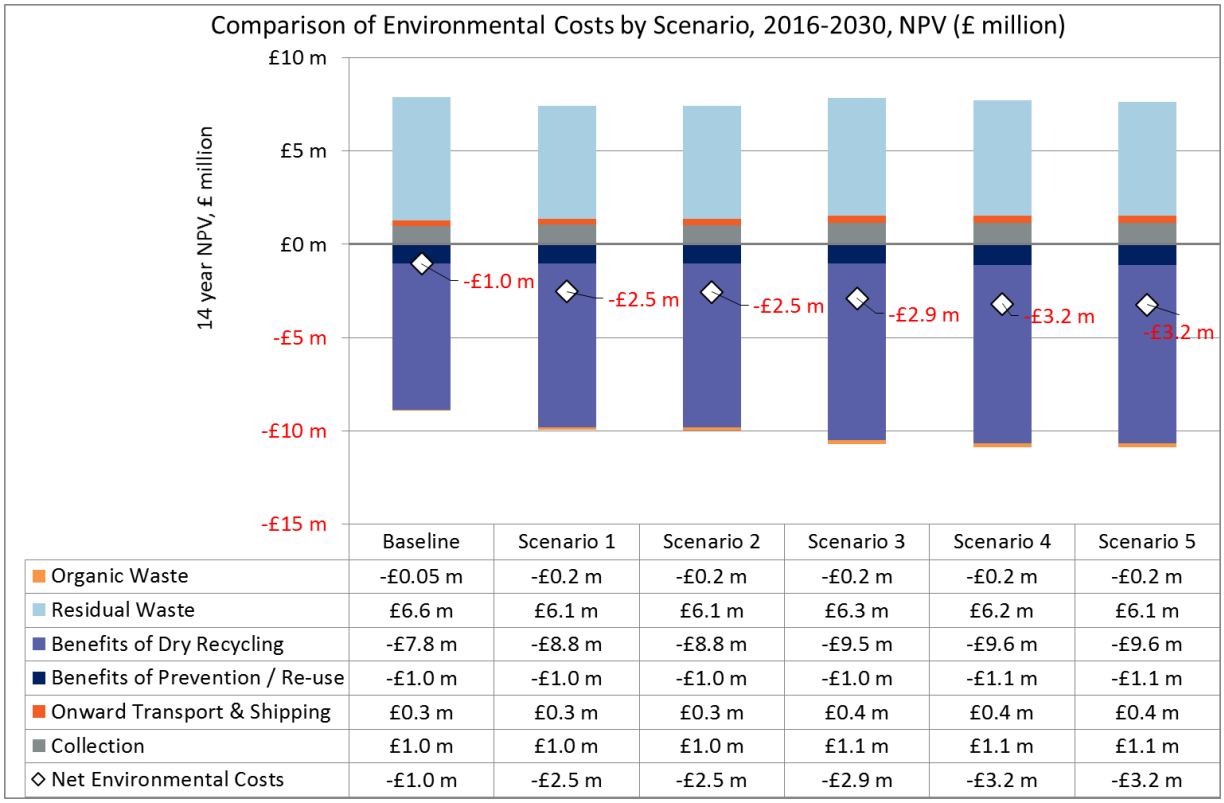
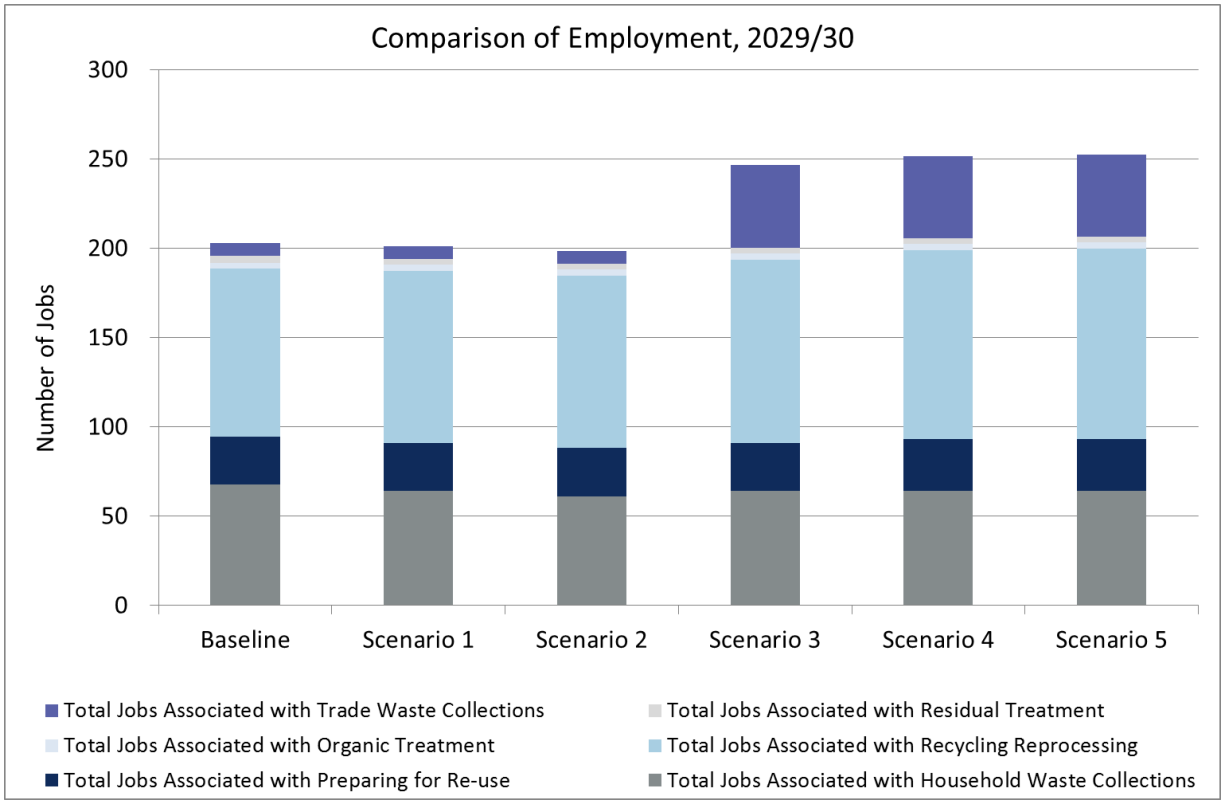


Figure 4 - Comparison of Environmental Costs by Scenario, 2016-2030, NPV



	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Organic Waste	-£0.05 m	-£0.2 m	-£0.2 m	-£0.2 m	-£0.2 m	-£0.2 m
Residual Waste	£6.6 m	£6.1 m	£6.1 m	£6.3 m	£6.2 m	£6.1 m
Benefits of Dry Recycling	-£7.8 m	-£8.8 m	-£8.8 m	-£9.5 m	-£9.6 m	-£9.6 m
Benefits of Prevention / Re-use	-£1.0 m	-£1.0 m	-£1.0 m	-£1.0 m	-£1.1 m	-£1.1 m
Onward Transport & Shipping	£0.3 m	£0.3 m	£0.3 m	£0.4 m	£0.4 m	£0.4 m
Collection	£1.0 m	£1.0 m	£1.0 m	£1.1 m	£1.1 m	£1.1 m
◇ Net Environmental Costs	-£1.0 m	-£2.5 m	-£2.5 m	-£2.9 m	-£3.2 m	-£3.2 m

Figure 5 - The Maximum Amount of People Employed in Each CBA Scenario in 2029/2030


Comparison of Employment, 2029/30
300
250
200
150
100
50
0
Number of Jobs
Baseline
Scenario 1
Scenario 2
Scenario 3
Scenario 4
Scenario 5
Total Jobs Associated with Trade Waste Collections
Total Jobs Associated with Residual Treatment
Total Jobs Associated with Organic Treatment
Total Jobs Associated with Recycling Reprocessing
Total Jobs Associated with Preparing for Re-use
Total Jobs Associated with Household Waste Collections