
POTENTIAL IMPACT OF ETS COSTS ON LANDFILL CHARGES

Department: Water and Waste

EXECUTIVE SUMMARY

- 1 This report seeks to inform the Council of the increased costs related to the Emissions Trading Scheme (ETS) due to anticipated changes to Government policy, and seeks a decision as to how the costs might be recovered.
- 2 The focus of this report is on the 2016/17 financial year to address the immediate impact of additional ETS costs. The 2016/17 draft budget for Landfill charges was based on a carbon unit price of \$7, which at the time was considered a conservative projection. A recent change in Government policy has stimulated the carbon market resulting in a price of up to \$13.50 as at 28 April 2016.
- 3 It is not anticipated that a change to the Long Term Plan will be triggered as, in the context of the Council activity, the changes are not considered material or substantial. The situation represents existing issues for which the quantity has changed.
- 4 There are three options presented to address the immediate budget shortfall, estimated to be \$354,600.

RECOMMENDATIONS

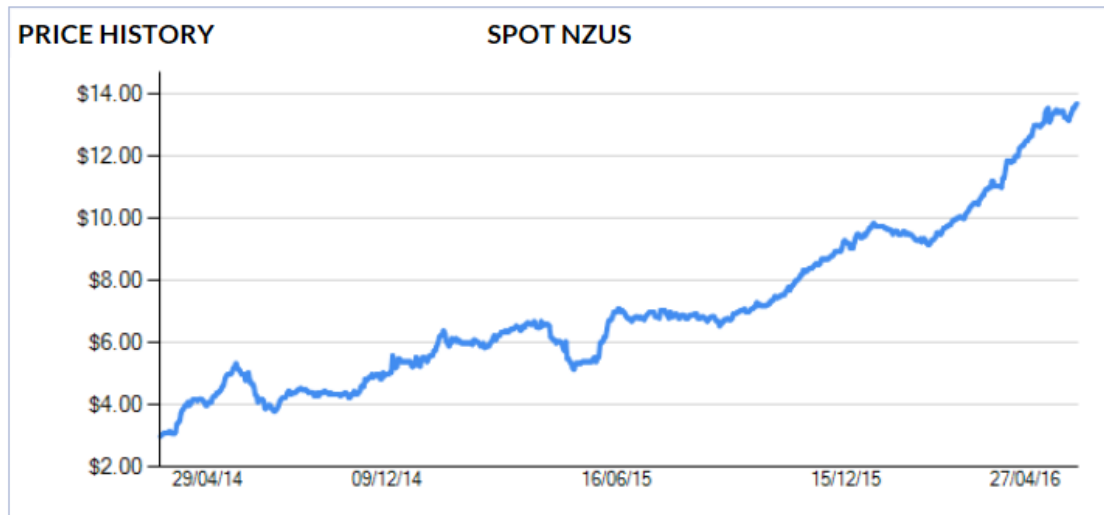
That the Annual Plan Hearings/Deliberations Committee:

- a) **Approves** an increase to the landfill Emissions Trading Scheme draft budget of \$354,600 for inclusion in the 16/17 Annual Plan.
- b) **Considers** an increase to landfill user charges only for those whose waste contributes to carbon emissions as detailed in Option 2.
- c) **Approves** the revised fees and charges schedule shown in Attachment A for inclusion in the 2016/17 Annual Plan.
- d) **Notes** that staff are exploring a range of options to reduce the Emissions Trading Scheme liability in the long term (e.g. tree planting, waste reduction).

BACKGROUND

- 5 The Emissions Trading Scheme (ETS) which includes a secondary market for carbon units has been in place since 2008. The scheme's impact has been modified by Government policy and initiatives.
- 6 The scheme was based on the approach that carbon emissions from particular activities such as a landfill should incur a penalty in the form of a flat cost of \$25 per tonne or the surrender of recognised carbon credits. The surplus carbon credits are the basis of the secondary market

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- 7 Surplus carbon credits are provided by those whose activity absorbs carbon with the most obvious being the growing of suitable trees. In parallel to the ETS scheme the Government also has the Permanent Forest Sink Initiative.
 - 8 The recently indicated change in Government policy has not yet come into legal effect, it has stimulated the secondary market. The current market for carbon credits is around \$13.50.
 - 9 The 2016/17 draft budget for Landfill charges was based on a carbon unit price of \$7, which at the time was considered conservative in its projection.
 - 10 The chart below shows the unit price increase of New Zealand carbon units over the last two years.



DISCUSSION

- 11 Under the ETS legislation, Council has made three carbon information returns to the Environmental Protection Authority. These are summarised in the table below. Each return covers a calendar period January to December with the surrender of units in the following May.

| Return Period | Emissions tonnes | Obligation to surrender | Date surrendered |
|--------------------------|------------------|-------------------------|------------------|
| 01/01/2013 to 31/12/2013 | 53,310.80 | 26,655 units | 31/05/2014 |
| 01/01/2014 to 31/12/2014 | 48,446.00 | 24,223 units | 31/05/2015 |
| 01/01/2015 to 31/12/2015 | 52,095.84 | 26,048 units | 31/05/2016 |

- 12 The price for carbon credits as at 28 April 2016 was \$13.50/unit. The estimated ETS cost for 2016/17 is therefore \$735,800 excluding GST (55,000 tonnes at \$13.50/tonne, multiplied by the Council Unique Emissions Factor of 0.991). As a result, there is a budget shortfall of \$354,600 when compared to the cost indicated in the draft 2016/17 Annual Plan.
- 13 The current year for which the next return is assessed has a surrender date of 31 May 2017 and the cost of those units to be surrendered has already exceeded what was expected. Those additional costs have already occurred on the material being accepted at the landfill this calendar year.
- 14 It should be noted that the recent shift in the ETS secondary market reflecting a hardening in the Government policy toward carbon emissions, requires the Council to

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make a response of a longer term nature and will require consideration of operational practices.

- 15 There is currently no formal Council policy or procedure as to how ETS liability is to be managed. This is currently being reviewed and developed.
- 16 The Waste Management and Minimisation Plan promotes the minimisation and diversion of waste from landfill. It identifies priority waste streams where supporting investment and development in resource recovery would provide future benefit. The biggest gains can be made by targeting organic waste (vegetation, food waste), paper, cardboard, timber (as a subset of construction and demolition waste) and sludge. Preventing the landfill disposal of these products by encouraging further investment and development in waste minimisation and resource recovery initiatives would reduce Council's ETS obligation.
- 17 Staff are investigating applying for a Unique Emissions Factor for the beneficial use of landfill gas. It will take about a year to fully investigate the options, collect and verify the data required for the application process. However once established, this will further offset Council's ETS obligation.
- 18 As part of the CEMARS (Certified Emissions Measurement and Reduction Scheme) and the carbNZero programme the Council is required to develop an 'Emissions Management and Reduction Plan'. As part of that plan there is a specific project to 'Consider strategic options for emissions sequestration within parks'. The change in the value of carbon units makes such long term considerations significantly more viable.
- 19 It should be noted that irrespective of the Government immediately removing the current concession of one NZ carbon unit for one tonne of emissions the secondary market will continue to operate reflecting a price based on numerous market factors. As the Government has clearly indicated its intention to remove the concession, the market will have already made an adjustment in the unit price.
- 20 With the knowledge that there is a budget shortfall for 2016/17, the immediate question arises as to how the additional costs are to be funded. There are three possible options.
- 21 The Solid Waste activity creates a cash surplus each year which is applied to offset the general rate requirement by way of dividend. The budgeted dividend for 2016/17 is currently \$1.3 million.

OPTIONS

Option One – Rate Funded

- 22 Under this option the dividend to general rates generated by the solid waste activity would be reduced by \$354,600 to cover the increased ETS costs. This dividend reduction would result in a rate increase of 0.3%.

Advantages

- This approach is simple in its application.
- It is unlikely to exacerbate the issue of illegal dumping.
- It provides an opportunity to develop and implement options to reduce or offset Council emissions in the longer term.

Disadvantages

- This approach does not focus on the actions of those dumping material that results in heightened emissions.
- All ratepayers, whether users or not of the landfill, will contribute to the increase in ETS costs.

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Option Two – Increase specific user charges

- 23 Under this option a more targeted approach is followed recovering the additional ETS costs only from those landfill users who dispose of material that generates carbon.
- 24 It is relevant to note that the current ETS costs are not targeted are spread across all waste types.
- 25 The revised fees and charges schedule for this option is shown as Attachment A.

Advantages

- This option recovers the additional ETS costs from those users who create the ETS liability and is therefore consistent with the exacerbator pays principle.
- The overall Council rate requirement is not affected by the increase in costs associated with the ETS.

Disadvantages

- This option could exacerbate the illegal dumping problem.

Option Three – Increase user charges across the board by 6%

- 26 Under this option all those who visit the landfill will have their charges increased to cover the additional ETS costs.
- 27 The revised fees and charges schedule for this option is shown as Attachment A.

Advantages

- This approach is relatively simple in its application.
- The approach is consistent with the current approach to recovering ETS costs.
- This approach targets landfill users rather than general ratepayers.
- The overall Council rate requirement is not affected by the increase costs associated with ETS.

Disadvantages

- There is no distinguishing between different landfill users, those who are adding to carbon emissions and those that do not.

- 28 Alternative options for reducing Council's ETS obligations will also be explored. Some of the options might include Council-owned land being used to plant trees, creating an offset to Councils ETS obligation by locking up a potentially significant amount of tonnes of CO₂ equivalents, development of waste reduction initiatives via the Waste Management and Minimisation Plan, and applying for a change to Council's Unique Emissions Factor relating to landfill gas.

NEXT STEPS

- 29 Once the Council has decided how the short-term funding shortfall is to be resolved, the final 2016/17 budget will incorporate that decision.
- 30 A new policy will be developed which encompasses all aspects of the Emissions Trading Scheme as it pertains to Council in the medium to long term. Initial work on this policy is underway.

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Signatories

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|-------------|---|
| Author: | Catherine Irvine - Solid Waste Manager |
| Authoriser: | Laura McElhone - Group Manager Water and Waste Ruth Stokes - General Manager Infrastructure and Networks |

Attachments

| | Title | Page |
|---|--------------------------------|-------------|
| A | Landfill Gate Charges Schedule | |

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SUMMARY OF CONSIDERATIONS

Fit with purpose of Local Government

This decision relates to providing a public service and it is considered good-quality and cost-effective.

Fit with strategic framework

| | Contributes | Detracts | Not applicable |
|---|-------------------------------------|--------------------------|-------------------------------------|
| Social Wellbeing Strategy | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Economic Development Strategy | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Environment Strategy | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Arts and Culture Strategy | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3 Waters Strategy | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Spatial Plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Integrated Transport Strategy | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Parks and Recreation Strategy | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Other strategic projects/policies/plans | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Contributes to the priority of a safe environment including safe community and protecting natural spaces and reserves. It is in line with the objectives for an environmentally sustainable and resilient city.

Māori Impact Statement

There are no known impacts for tangata whenua.

Sustainability

There are potential implications for sustainability because the investment contributes to protecting the natural environment.

LTP/Annual Plan / Financial Strategy /Infrastructure Strategy

This funding is currently not provided in the Annual Plan or draft LTP.

Financial considerations

There is an immediate financial implication of \$354,600 as detailed above.

Significance

The proposal is assessed as being of low significance in terms of the Council's Significance and Engagement Policy.

Engagement – external

There has been no external engagement.

Engagement - internal

There has been internal engagement between Finance and Solid Waste.

Risks: Legal / Health and Safety etc.

There are no identified risks.

Conflict of Interest

There are no identified conflicts of interest.

Community Boards

There are no implications for Community Boards.

| | 2015/16 \$ | 2016/17 3% increase | 2016/17 6% increase all charges | 2016/17 10% increase emmitting charges only |
|--|---------------|---------------------------|--|--|
| Waste Management - Solid Waste Charges | | | | |
| <i>Landfill Charges - For all DCC landfills and transfer stations</i> | | | | |
| <i>Small Vehicle Charges</i> | | | | |
| Refuse bag - per bag, (max size 60 litres) | 3.00 | 3.00 | 3.00 | 3.00 |
| Multiple bags will be charged at \$3 each. The maximum charge would be the appropriate vehicle rate. | | | | |
| Car - small load | 13.00 | 13.00 | 14.00 | 14.00 |
| Car - large load | 28.00 | 29.00 | 31.00 | 32.00 |
| Wool pack per pack or part pack | 13.00 | 13.00 | 14.00 | 14.00 |
| Wheelie Bin per bin or part bin | 13.00 | 13.00 | 14.00 | 14.00 |
| Station wagon - small load | 20.00 | 21.00 | 22.00 | 23.00 |
| Station wagons - large load cars and single axle | 45.00 | 46.00 | 49.00 | 51.00 |
| trailers, vans and utes - small load | 30.00 | 31.00 | 33.00 | 34.00 |
| trailers, vans and utes - large load | 56.00 | 58.00 | 61.00 | 64.00 |
| Clay Cover (clay) | 10.00 | 10.00 | 11.00 | 10.00 |
| Note: Clay cover charges are subject to seasonal variation in line with day light saving time i.e. is taken free of charge during the warmer months. Cover is not accepted at Middlemarch Transfer Station | | | | |
| Cleanfill | 18.00 | 19.00 | 20.00 | 19.00 |
| Note: Cleanfill is not accepted at Middlemarch Transfer Station | | | | |
| Demolition | 30.00 | 31.00 | 33.00 | 31.00 |
| Note: Demolition waste is not accepted at Middlemarch Transfer Station | | | | |
| Car tyres - each | 5.00 | 5.00 | 5.00 | 5.00 |
| Vehicle bodies | 80.00 | 82.00 | 87.00 | 82.00 |
| Vegetation | | | | |
| Car - small load | 9.00 | 9.00 | 10.00 | 10.00 |
| Cars - large load | 20.00 | 21.00 | 22.00 | 23.00 |
| Wool pack per pack or part pack | 9.00 | 9.00 | 10.00 | 10.00 |
| Wheelie Bin per bin or part bin | 9.00 | 9.00 | 10.00 | 10.00 |
| Station wagon - small load | 13.00 | 13.00 | 14.00 | 14.00 |
| Station wagon - large load | 31.00 | 32.00 | 34.00 | 35.00 |
| cars and single axle trailers, vans and utes - small load | 18.00 | 19.00 | 20.00 | 21.00 |
| trailers, vans and utes - large load | 39.00 | 40.00 | 42.00 | 44.00 |
| Large Vehicle Charges | | | | |
| Charges by weight at the Green Island Landfill (Weighbridge) per tonne | | | | |
| General solid waste per tonne (minimum \$74.00) | 135.00 | 139.00 | 147.00 | 153.00 |
| Green Waste per tonne (100% vegetation) (minimum charge \$44.00) | 85.00 | 88.00 | 93.00 | 88.00 |
| Mixed load per tonne (more than 60% vegetation) (minimum charge \$57.00) | 110.00 | 113.00 | 120.00 | 113.00 |
| Clean fill per tonne (dry) (minimum charge \$15) | 15.00 | 15.00 | 16.00 | 15.00 |
| Clean fill per tonne (minimum charge \$36.00) | 35.00 | 36.00 | 38.00 | 36.00 |

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| | 2015/16 \$ | 2016/17 3% increase | 2016/17 6% increase all charges | 2016/17 10% increase emmitting charges only |
|--|---------------|---------------------------|--|--|
| Cover per tonne (minimum charge \$5.00) | 5.00 | 5.00 | 5.00 | 5.00 |
| Demolition waste per tonne (no timber or organic material) (minimum charge \$36.00) | 35.00 | 36.00 | 38.00 | 36.00 |
| Public weigh (weigh only) | | 12.60 | 12.60 | 12.60 |
| <i>Charges by volume at transfer stations/landfills without a weighbridge (Middlemarch and Waikouaiti)</i> | | | | |
| General solid waste per cubic metre (minimum charge \$75.00) | 75.00 | 77.00 | 82.00 | 85.00 |

| | 2015/16 \$ | 2016/17 3% increase | 2016/17 6% increase all charges | 2016/17 10% increase emmitting charges only |
|---|-----------------------|---------------------------|--|--|
| Vegetation (minimum \$67.00) per cubic metre | 65.00 | 67.00 | 71.00 | 67.00 |
| Special/hazardous waste | | | | |
| Sludges and liquids (solids content at least 20%) - per tonne (minimum charge \$102.00) | 200.00 | 206.00 | 218.50 | 227.00 |
| Sludges and liquids (solids content less than 20%) per tonne (minimum charge \$102.00) | 250.00 | 258.00 | 273.00 | 284.00 |
| Foundry sands per tonne (minimum charge \$36.00) | 35.00 | 36.00 | 38.00 | 36.00 |
| Contaminated soils per tonne (low level) (minimum charge \$36.00) | 35.00 | 36.00 | 38.00 | 36.00 |
| Tyres (per tonne) | 335.00 | 345.00 | 366.00 | 345.00 |
| Oil (per litre) | 1.00 | 1.00 | 1.00 | 1.00 |
| Household chemicals (inclusive of Car small lead fuel) | 13.00 | 13.00 | 14.00 | 13.00 |
| Gas bottles (each) | 10.00 | 10.00 | 11.00 | 10.00 |
| Definitions: | | | | |
| Cover: | | | | |
| Cover is clay, sand and soil, which is free of contaminants that may cause harm to human health or the environment. | | | | |
| Cleanfill: | | | | |
| Cleanfill is a natural material such as clay, soil and rock and other such materials as concrete, brick or products which are free of combustible or organic materials and are therefore not subject to biological or chemical breakdown. | | | | |
| Demolition: | | | | |
| Demolition is concrete, bricks, roading material, concrete pipes and earthenware pipes. The maximum size of demolition material is one metre in any direction. Material is to be clean, no asbestos, no rubbish, no individual steel pieces included and contain less than 10% organic material (eg vegetation, wood) by volume. Reinforcing steel protruding from concrete must be less than 500 mm in length. | | | | |
| Special/hazardous waste: | | | | |
| The following materials require special handling to protect both the environment and human health. Green Island landfill is the only landfill in the city consented for special and hazardous waste disposal. You must advise the booth operator on your arrival to the landfill that you have special or hazardous waste on board. | | | | |
| Special Waste: | | | | |
| Materials that may pose a risk to the environment or human health if not disposed of carefully and include animal carcasses, commercial sludge's and bio-solids from septic tanks and the Council's waste water treatment plants. | | | | |
| Hazardous waste: | | | | |
| Materials that have the following properties; are flammable, explosive, oxidising, corrosive, toxic, eco-toxic, radioactive, infectious, mutagenic, carcinogenic, and teratogenic. Examples include solvents and industrial cleaning fluids, medical waste, agricultural chemicals and many industrial wastes. | | | | |
| Other Charges | | | | |
| e-Waste at the Recycling Centre | | | | |
| TVs | As per recovery costs | As per recovery costs | n/a | n/a |
| Computer Monitors | | | | |
| Desktop computers, laptops, laptop batteries and peripherals (keyboard/mouse/external hard drives) | | | | |

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| | 2015/16 \$ | 2016/17 3% increase | 2016/17 6% increase all charges | 2016/17 10% increase emmitting charges only |
|---|---------------|---------------------------|--|--|
| Printers, faxes and Photocopiers - at Recycling Centre | | | | |
| UPS Networking equipment | | | | |
| Special Waste | | | | |
| Special waste mixing pit - per hour (nearest hour) | 160.00 | 164.00 | 175.00 | 164.00 |
| After Hours Opening Fee | | | | |
| Opening Fee | 420.00 | 433.00 | 459.00 | 433.00 |
| Evening operation costs per hour (plus any additional machine fees) | 85.00 | 88.00 | 93.00 | 88.00 |
| Refuse Collection | | | | |
| All Council provided refuse collection services are provided by the Council. Council pays for the refuse collection services with the authorised bags being available at a number of outlets throughout the city including supermarkets and dairies. The authorised bags are also available from Council Customer Service Agencies. | | | | |
| 65 Litre bags | 2.30 | 2.40 | 2.55 | 2.65 |
| 40 Litre bags | 2.00 | 2.10 | 2.25 | 2.50 |