

# CASE STUDY: ABERDEENSHIRE COUNCIL

Aberdeenshire Council received funding to trial three different types of RotG units across town centres and outside schools to assess performance and durability.



## Key facts

- Aberdeenshire Council is trialling 3 different types of RotG container to assess which style performs best and is the most durable.
- The units are all similar in that they are a housing unit for a 240 or 330 litre wheeled bin.
- Six towns now have RotG units installed.

## Location

Located in north-east Scotland, the Aberdeenshire Council area has a population of 236,260, representing 4.6% of the Scottish total. The number of households is 104,724<sup>1</sup>.

<sup>1</sup> Source: <http://www.gro-scotland.gov.uk/files2/stats/council-area-data-sheets/aberdeenshire-factsheet.pdf>

## Rationale

Aberdeenshire Council wanted to build on its excellent network of public recycling bring sites, all of which are very well-used, with an estimated tonnage yielding as much material as the kerbside collection service. As it is proven that bring sites are well used, the Council decided that the addition of smaller RotG sites in more convenient locations (nearer to points of consumption) would be beneficial and complement the existing service.

Aberdeenshire Council successfully applied for Zero Waste Scotland's "Recycling on the Go" Capital Support funding to introduce RotG schemes as a trial.

## Scheme overview

The location of the RotG units was governed by the towns on the existing bring site collection vehicles as it was anticipated that the RotG units may need emptied on a higher frequency than the bring sites. Therefore the towns that were selected (Banff, Inverurie, Ellon, Aboyne and Stonehaven) are the ones where dedicated collection vehicles are already stationed and therefore can service the RotG units on a daily basis (other than weekends), if necessary.

The types of containers Aberdeenshire received funding for are recycling units that are akin to traditional litter bins that can house wheeled bins. Several companies supply these and examples of the type of container to be used are the Glasdon Nexus 360, Leafield Eco Envirosite and the Broxap Trojan. Where possible, the RotG units are made from recycled material. All containers are of the same type and style and feature 'Recycle for Scotland' branding.

There are 2 Broxap Trojan sites (3rd one to be installed shortly) installed near to 3 academies in 3 towns, and a mixture of 6 Leafield Envirobank sites and 4 Glasdon Nexus 360 sites in another 3 towns. Each site consists of 3 bin housings: one for plastic bottles, one for mixed cans and foil, and one for litter. Whilst the fund was for recycling, Aberdeenshire Council is of the view that to successfully install recycling units in high profile areas they must be aesthetically pleasing and the existing litter bins did not match the RotG units. They also felt it is important that there is a litter bin adjacent to the recycling units as this is key in reducing contamination of the recycling units. As recycling is an integral part of waste management and not a separate service from other waste services such as litter bins, it was very important to Aberdeenshire that the RotG units are fully integrated to include an option for litter. Therefore the funding included the purchase of litter bins to match the RotG units.

The types of areas targeted are town centre shopping areas primarily with a focus on the routes that young people use at lunchtimes to move between the academies and shops. It has been noted that these routes are particular litter hot spots and that much of this litter is beverage containers. For this reason, cans and foil, and plastic bottles are the targeted materials collected. Paper has been excluded due to concerns over contamination from food waste or other contaminants. Aberdeenshire's paper collection is a news and pams service and as such requires high quality material that is not contaminated with cardboard, food or other materials. This type of paper is not likely to be a material that is readily available for recycling on the go in any significant volume in these locations.

## Planning

The RotG project interfaces well with Aberdeenshire's existing collection systems for bring sites and trade waste recycling collections. There was no requirement for any additional investment in collection infrastructure as the RotG units could be accommodated within existing collection service capacity.

The Council currently operates over 180 bring sites plus a number of small mini-recycling points in high density flatted developments and sheltered housing areas. In addition, they collect recyclables from approximately 1500 trade waste customers using the same fleet of vehicles that the bring sites are serviced by. Both of these services are collected source-segregated: cans (and glass for trade and bring sites) are collected in a four-compartment top loader vehicle (one compartment each for cans and 3 colours of glass). Plastic bottles are collected either in a small 2-sided caged vehicle with a bin-lift, or, in the cases of Ellon and Aboyne, by a local social work recycling project using a net system. The plastic bottles are tipped straight into a compactor at the depot from the vehicle or baled locally by the recycling projects. As an extension of an existing service, if the RotG scheme proves successful, there is scope for further expansion.

The towns selected were specifically chosen because current servicing collection vehicles are based in these towns, which means the sites can be serviced as much as 10 times per week (at the beginning and end of each working day) or as little as once per week. This has reduced the need for additional transport between towns.

The schools sites, based next to academies, came about as a result of an approach to the schools and resulting consultation with the pupils. The selected schools (Banff Academy, Ellon Academy and Aboyne Academy) assisted in the design of the units with the children having buy-in and being asked which unit they liked from various brochures and deciding on the precise location for the units. Due to this initial involvement, the schools have taken ownership of the units, monitoring usage and reporting any issues back to the Council.

No planning permission was required for installation at any of the sites. There were no street scene requirements in terms of design restrictions. However, an issue arose with one selected site that was in a conservation area. It is important to check the local conditions relating to this as there may be other specific local planning requirements in these areas, and these can vary from area to area.

## Containers



**Figure 1** Banff Academy site, Broxap Trojan units.



**Figure 2** Stonehaven promenade site, Leaffield Eco Envirobank units.



**Figure 3** Inverurie Garioch Shopping Centre car park site, Glasdon Nexus 360 units.

**Table 1** Details of containers provided by Aberdeenshire council

Types of site	School	Town centre	Town centre
Number of containers	9	18	12
Type of container	Wheeled bin housing unit	Wheeled bin housing unit	Wheeled bin housing unit
Container capacity (litres)	240 or 330	240 or 330	240 or 330
Make of container	Broxap Trojan	Leaffield Eco Envirobank	Glasdon Nexus 360
Cost per container	£740	£441	£530
Waste streams segregated	Cans, plastic bottles, litter	Cans, plastic bottles, litter	Cans, plastic bottles, litter

## Signage

Each site has 3 units: one for cans, one for plastic bottles and one for litter. The same signage and colours used for all sites and are in line with the Recycle for Scotland branding – cans are grey, plastics bottles are red and litter (general waste) is black on a white background. All units also display the material icons.



**Figure 4** Example signage using the Recycle for Scotland branding.

## Capital expenditure

The main area of capital expenditure was the units. The service is carried out as part of the existing collection contract with no increase in costs as the units replaced existing litter bins. No additional resource was required.

## Collection and storage arrangements

The plastic bottles and cans are collected alongside existing bring site collections that already operate in each of the towns included within the scheme. Materials are sent for reprocessing along with all of the other materials collected by the Council for recycling. Currently, steel cans are sent to EMR, aluminium cans to Novelis and plastic bottles to JFC Recycling.

Given that collection from the RotG units is fully part of the existing service all materials are treated in the same way as those collected from bring sites. Collection crews check containers for acceptability before they are emptied. If there is an unacceptable level of contamination this will be reported to Recycling Officers for noting and action. If contamination is minor the materials are “cleaned” by the crews (by transferring any unwanted materials to the neighbouring litter bin) and the remaining acceptable materials are collected. Where contamination is serious this is collected by an alternative waste collection vehicle and sent to landfill.

Aberdeenshire Council is very interested in how levels of contamination at these sites will compare to those at bring sites and Recycling Officers and the collection crew are monitoring this closely. Some of the collections from the RotG units are carried out by a local social work project that manually sorts the material collected. As a result, the project has been monitoring usage and contamination and has found the contamination levels to be very low. According to the feedback, the odd glass bottle appears in with the cans. Aberdeenshire Council feels that having a litter bin as part of RotG unit has really helped to keep the litter out of the recycling units. To date, no units have been collected as waste. The units are working well.

## Communication

The RotG sites installed in April / May 2012 have been promoted in the local schools, both at primary and secondary level by use of e-mail, posters (as shown below), and flyers. The schools were involved in the installation of the sites outside the academies, therefore it is hoped that as a result, this will be reflected in the way they are received by school children and their families.

A press release was also issued to the local publications in each area.

The units have been added to the list of bring sites on the council’s website and there is a link to a news story on the [council’s homepage](#).



Figure 5 Draft Aberdeenshire RotG poster.

Aberdeenshire Council is in the process of enlisting the assistance of local businesses that retail beverage containers to promote the RotG units, both by displaying posters and by face-to-face contact. The types of businesses include sandwich shops, bakeries, convenience stores, chip shops and other fast food outlets. There are also other targeted opportunities for selected sites. For example, it is expected that one site will be Stonehaven Beach where there are two caravan parks, a leisure centre, as well as a number of other tourist attractions. In this case the unit will be promoted (along with the local bring site in that area) to all of those organisations and their users.

The Council is working with Alupro through their 'Metal Matters' campaign, which promotes can recycling. Alupro has been very supportive of RotG and has experience of this in other parts of the UK. A direct mailshot and leaflets are being sent out to all Aberdeenshire households to promote the campaign (see below).



**Figure 6** Leaflet sent to Aberdeenshire households promoting the Alupro Metal Matters campaign.

## Performance, contamination and monitoring

In terms of tonnage, in the absence of on-board weighing facilities, Aberdeenshire Council is not able to accurately record details of actual weights collected. However, it can estimate tonnage by converting the volume collected using conversion factors. The conversion factors are those tried and tested by the Council and they are satisfied that this provides a meaningful estimate.

To estimate the weight collected, the collection crews are recording how full the containers are on each visit (level of fill), with this information being used to gauge the approximate tonnage of materials that is being collected from these units. This is recorded in both kilogrammes and carbon metric equivalents.

This monitoring is undertaken weekly by collection crews on each collection (or twice weekly dependent upon usage). Site visits are undertaken by Recycling Officers as a minimum on a bi-monthly basis for a period of 3 months and monthly thereafter, with opportunist checks undertaken whenever staff are in the area.

Aberdeenshire Council is also monitoring the contents of the litter bins to see whether any bottles and cans are placed in these containers (instead of the RotG units). The project will be monitored by Recycling Officers. Staff are committed to regular visits to the sites to check how well they are being used, gain feedback from any members of the public using the facilities, and also feedback will be sought from the local schools.

## Lessons learned

Aberdeenshire Council purchased containers to house a 240 litre wheeled bin as this suited the existing collection services. However, this meant the unit as a whole is large which can look quite obtrusive in a small town centre or slightly out of place in a conservation area. It was more challenging to find sites for big containers than smaller litter-bin-style containers.

Certain RotG units are a large black mass when looking from behind if not placed up against something (for example, next to a wall). In a freestanding position (i.e. not against something) perhaps, in hindsight, a smaller unit with a dual litter and

recycling option may have been more aesthetically pleasing. These would also have had the option for being used from both sides, which is more versatile in a free-standing position and may have increased use. Although these may look more like traditional litter bins, in certain situations they may have been a better option.

Five towns were selected based on existing routes for collection vehicles; it might have been better to target one town and install a number of units / change all the litter bins for RotG units instead of splitting it out to two units per town across five towns. However, existing infrastructure was not there to allow for a more targeted, blanket approach, but this means there is a wider spread of RotG across the area, which may be better for feedback for trial purposes.

Aberdeenshire Council has been surprised at how well received the RotG units have been overall. They expected some negative feedback but there has been very little to date since the installation began in April/May 2012.

The Litter Patrol Operative in Inverurie has commented that there has been a difference in litter in the Inverurie town centre area although this is difficult to quantify.

Securing of containers - containers are best secured to concrete or slabs. Tarmac is not ideal but can work as long as it is of a suitable depth and condition. The Glasdon Nexus 360s were secured onto a lock block area in Inverurie Town Centre- this worked but the fixings were placed between blocks rather than into them. In future it would be better to try to ensure the units are installed on concrete where they can be secured more satisfactorily.

## Acknowledgements

With thanks to Pam Walker, Principal Waste Management Officer, Diane Rotherham, Recycling Officer, Lorna Hogg, Recycling Officer and Melanie Baldwin, Waste Promotions Officer at Aberdeenshire Council.

**For further information about  
Recycle on the Go please visit:  
[www.wrapcymru.org.uk/rotgwales](http://www.wrapcymru.org.uk/rotgwales)**

While we have tried to make sure this case study is accurate, we cannot accept responsibility or be held legally responsible for any loss or damage arising out of or in connection with this information being inaccurate, incomplete or misleading. This material is copyrighted. You can copy it free of charge as long as the material is accurate and not used in a misleading context. You must identify the source of the material and acknowledge our copyright. You must not use material to endorse or suggest we have endorsed a commercial product or service. Please note that this information was correct at the time of writing, but the regime is liable to change with government policy. WRAP will endeavour to update this document when changes are made to the regime.

For more details please see our terms and conditions on our website at [www.wrapcymru.org.uk](http://www.wrapcymru.org.uk)

**[www.wrapcymru.org.uk/rotgwales](http://www.wrapcymru.org.uk/rotgwales)**

**Waste & Resources  
Action Programme**

Helpline freephone: 0808 100 2040

E-mail: [info@wrap.org.uk](mailto:info@wrap.org.uk)



**Working together for  
a world without waste**



**Home**