

In May 2016
Leichhardt
Council merged
with Ashfield and
Marrickville
Councils to form
the Inner West
Council.

# Using the power of food waste to create energy

Residents living in multi-unit complexes in the Leichhardt area have given a 'thumbs up' to their organics collection service, which turns waste into electricity.

'I'm more realistic about my food shopping now because I can see the waste isolated in a bin.'

Leichhardt resident

## Recycling food to create electricity

The amount of food waste collected from 216 multi-unit dwellings in the former Leichhardt Council area increased by 76% after the council implemented a successful community engagement and participation plan in 2014. This was double the council's target of a 30% increase in tonnage of food collected for recycling. The collected food waste is processed at the Earthpower anaerobic digester in Camelia. It is converted into biogas, which is then converted into electricity with a by-product of fertiliser.

Residents in this historic, culturally diverse area have been enthusiastic about the recycling service, describing the food waste collection system as 'fantastic'.



Over several years the volume of food waste diverted in Leichhardt had declined from around 130 tonnes collected in 2008–09 to about to about 70 tonnes in 2011–12. The most common contaminants were building materials, plastic bags and film, packaged food, large shells, bone and garden vegetation.

## **Engaging the community**

After a successful three-month trial in 2007, the then Leichhardt Council introduced a food organics recycling collection service in 2008 to multi-unit dwellings of 10 or more units who shared their bins. Each household in the unit complexes was given:

- a benchtop bin with side vents
- a pack of 150 biodegradable corn starch bags (sufficient to last one year)
- an educational brochure and information sheet.

For every 10 households in a complex, the council supplied one 240 litre maroon-lid food organics bin.

## Breaking down barriers to recycling

Building or strata managers of several blocks had requested the removal of the maroon-lid bins for food in the common areas.

The council commissioned the Institute of Sustainable Futures (ISF) at the University of Technology Sydney to review the food recycling service, identify the barriers residents experienced in using it and draw up a community engagement and participation plan.

The ISF report contained 43 recommendations, including:

- improving council processes and systems
- reviewing bench-top bin design because the vented bins leaked
- increasing the frequency of compostable bag delivery
- creating clearer communication material and more effective messaging.

Among the recommendations was compiling briefing sheets for cleaners in multi-unit dwellings as the cleaners might not be familiar with a food organics service.

In 2014, with the assistance of \$60,409 of Organics Collections Grant funding from the Environment Protection Authority, the council implemented the recommendations in the ISF report. It introduced newly designed kitchen benchtop bins and arranged quarterly delivery of slim-line compostable bags in a pack that could be posted into letterboxes instead of left on doorsteps. Branded signage showing what could go into food bins was also developed for noticeboards, stairwells, lifts and bin rooms.

Residents were door-knocked in the early evening and offered a household kit that included a new bench-top food organics bin, a pack of biodegradable bags and a flash card to show what could be put in the bins. Residents were also invited to give feedback to council.

A resident of a unit block described it as a 'fantastic initiative' and said they were 'excited to have a new style kitchen bin'. Another said their household had stopped using the old system because the bins and bags were 'not effective', adding 'the new bin looks much sturdier' so they would give it another go. Managers of buildings where the food organics recycling scheme was about to be implemented or with low numbers of users could select a smaller, nonvented 120 litre maroon-lid food-only bin if they preferred it to the existing 240 litre maroon-lid bins.

**'Ongoing** resourcing is required until food waste recycling becomes the norm and is embraced by the community in the same way as container or paper recycling.' **Inner West** Council



spokesperson

The Environment Protection Authority's **Organics Collections Grants** provide up to \$1.3 million to councils and business to introduce new food only or food and garden collection services. They are administered by the Environmental Trust and open for applications over several funding rounds.

## Results and savings: Doubling waste in bins

During the door-knocking campaign, more than 3,500 bin and education kits were delivered to units and more than 500 residents had conversations about the scheme with the consultants.

Following the engagement campaign, unit block residents put much more material into their food organics bins. Audits showed the average weight of food organics in the bins doubled, increasing from 6 kilograms in 2014 to 12 kilograms in 2016. Four of the 21 blocks are recovering more than 80% of their food waste.





Figure: Example of updated education material



Residents made comments such as 'very positive – whole building excited about the food waste service' during the door-knocking campaign. This kind of comment highlighted the social potential of the scheme to bring neighbours together around the daily act of food recycling. Using information from strata and building managers, the council updated its information database, including information on bin bay rooms, to assist with future mailouts of communication material.

#### **Looking forward**

Council project managers, collection staff plus building or strata managers gained a more comprehensive understanding of the issues and relationships that contribute to food organics program success. These insights now guide the ongoing food waste recycling service.

The food bin audits also provided the council's resource recovery team with further understanding of householder behaviour. A council spokesperson said: 'Residents need further education focused on unpacking food from containers to ensure only food waste was placed into the food bins'.

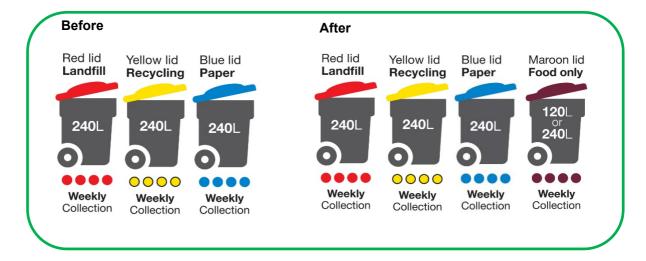


Figure: Changes to Leichhardt Council's kerbside bin collection service in multi-unit dwellings of 10 or more units

NSW Environment Protection Authority Email: <u>info@epa.nsw.gov.au</u> Website: <u>www.epa.nsw.gov.au</u> ISBN 978 1 925790 29 0 | EPA 2018P0751

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