



Customer Energy Solutions Programs

Austin Hotel & Lodging Utilities Education Seminar
August 16, 2017





Overview

- Austin Energy
 - Who We Are
 - Who Do We Serve
- City of Austin Clean Energy Goals
- Programs to Save Energy & Money



TOPICS



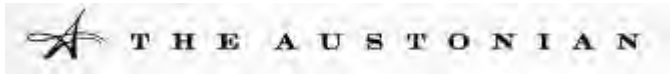
Austin, TX

A nighttime photograph of the Austin, Texas skyline. The city is illuminated with warm yellow and white lights, with several prominent skyscrapers. A bridge with light trails from traffic is visible in the foreground, crossing a body of water. The sky is a deep blue.

[Click](#) To Book A Hotel



Helping Save Energy & Money



AUSTIN DOWNTOWN/CONVENTION CENTER





Clean Energy Goals



55%



900
MW



950
MW



30
MW



0
CO₂

Implement by 2025:

Implement
by 2050:

Energy
from
Renewable
Resources

Savings
from
Energy
Efficiency
and
Demand
Response

750 MW
Utility-Scale
Solar

200 MW Local
Solar by 2025
including 100
MW
Customer-
sited PV)

Local
Storage
10 MW

20 MW
Thermal
Energy
Storage

Net zero
community-
wide GHG
emissions

*All subject to meeting **Affordability Goals**:
<2% rate increase per year; AE rates in lower half of Texas utilities.



Austin Energy: Who We Are

Public Power Utility

- (8th Largest; 3rd largest muni)

\$1.3 billion annual revenue budget

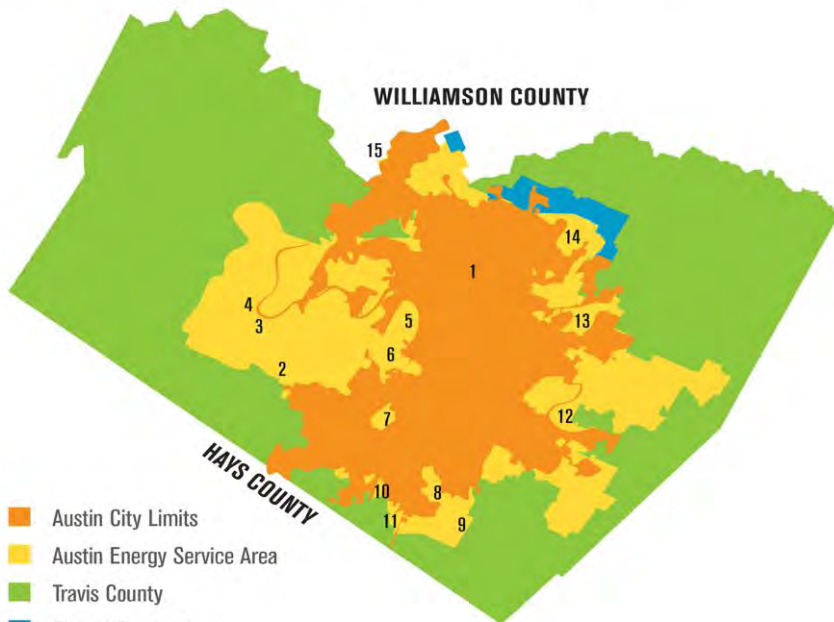
2,800 MW Peak Demand



455,000 Customers

1 Million Residents

437 Square Miles



- Austin City Limits
- Austin Energy Service Area
- Travis County
- Shared Service Area



Customer Testimonial

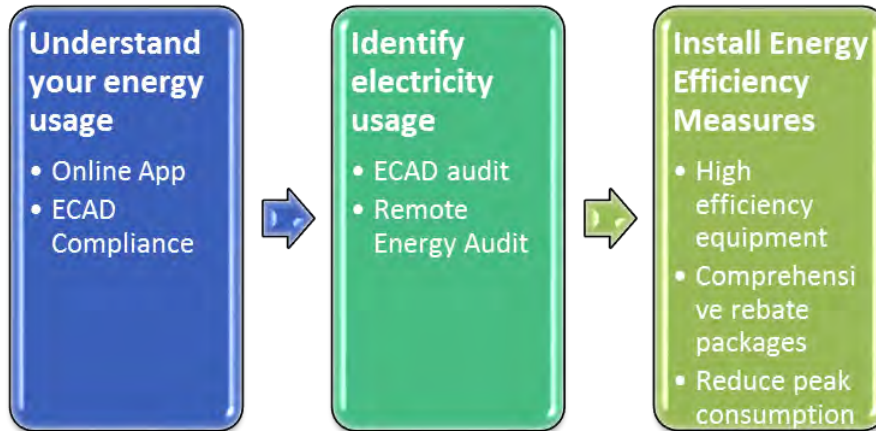
*“We have been involved with the Demand Response Load Coop program for several years and have found it very easy to participate. Austin Energy does a **great** job notifying us which gives us plenty of time to reduce load. The mechanical items we scale back on are not critical for the short term and the operation is not affected in a negative way.*

*It is a **win-win** situation for the participants, you get the rebate if you save, no penalty if you don't.....not to mention we are helping the environment and long term financial health of our energy supplier.”*



*-David Greis
Director of Property Management
Four Seasons Hotel Austin*

Comfort, Safety and Savings



- Air Conditioning
- Chillers
- Cooling towers, etc.
- Variable Frequency Drives (VFD)
- Lighting & Occupancy Controls
- Guest Room Controllers
- Solar Film
- Custom rebates (i.e. Elevators, Demand Control Ventilation)



Paying Our Customers to Conserve

**Get paid to perform:
\$1.45/kWh**

Voluntary:
No penalties for non-performance

Receive at least 1 hour **advanced notice** of an event

Reduce your billed demand peak

Promote grid reliability

Other Programs

- Wi-Fi Thermostat Program
- Thermal Energy Storage
- Load Co-op
- Solar performance based incentives
- Green Building Ratings & Code
- Energy Conservation Audit & Disclosure Ordinance (ECAD)



Questions?

Call our Key Account
Manager

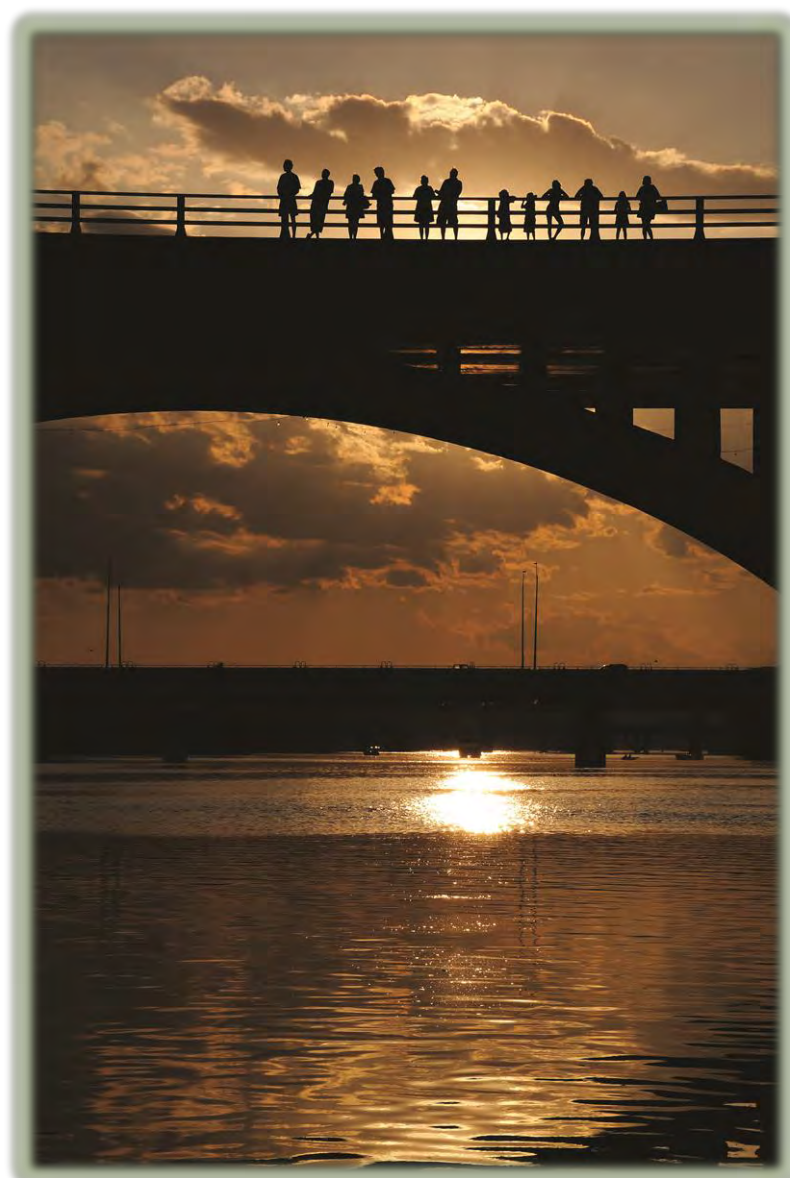
(512) 972-7863



Program Contacts

Denise Kuehn,
Director Energy
Efficiency Services

Rick Dodge,
Key Account
Manager





Austin Water Conservation Update

Austin Hotel & Lodging
Association

August 16, 2017

Mark Jordan

Water Conservation Program Coordinator



“Bucks for Business” Rebate

- \$0.50/1,000 gallons saved over ten year lifetime or 50% of equipment costs, whichever is less, not to exceed \$100,000
- Examples of eligible projects:
 - Laundry water use reduction (e.g., ozone treatment)
 - Hybrid, dry cooling or geo-thermal systems
 - Reuse of rinse water used in the high tech industry

SFA Intercontinental Hotel Ozone Treatment Laundry System

- Laundry water use dropped by 35%
- Peak daily savings over 3,200 gallons
- Annual water and wastewater cost savings of \$18,250
- Decreased use of chemicals
- Increased life of linens
- Total rebate amount \$5,844
- Investment \$22,000
- Payback period less than one year



Water Efficiency Audit Rebate

- 75% of audit cost up to \$5,000, whichever is less
- Must have annual water use 100,000 gallons or more
- Must commit to fixing leaks and adjusting equipment settings to qualify



Irrigation System Upgrade Rebate

- Central Irrigation Computer Controller
 - \$50 per station, or 50% of cost, not to exceed \$5,000
- Master Valves
 - \$100 each on systems installed before Jan. 1, 2009;
- Flow Sensors
 - \$300 each
- Multi-trajectory Rotor Nozzles
 - \$4 per nozzle



Central Irrigation Controllers

- Makes following City watering restrictions easier
- Avoids travel time and costs by controlling irrigation from your office computer or mobile device
- Allows for easier and more frequent seasonal scheduling adjustments
- Helps quickly detect and stop leaks by monitoring water flows
- Reduces over-watering by automatically adjusting watering times based on rainfall or soil moisture



UT Austin



- Irrigation system “Dashboard”
- Irrigation system efficiency upgrades
- 66% water use reduction
- 90-100 million gallons saved annually
- Extensive reclaimed water use



Auxiliary Water Programs

- Rainwater Harvesting Rebate:
 - \$0.50-\$1.00 per gallon capacity up to \$5,000
- Reclaimed Water:
 - \$1.99/1000 gallons
(versus \$5.97 - \$6.57/1000 gal. potable water for commercial customers)



Rebate Process Summary



- AWU has a rebate for almost every kind of water saving device and equipment
- Must be an AWU customer to qualify
- Must exceed code requirements
- Rebate goes to AWU customer/account holder
- Incentive programs – application must be submitted before purchase
- Larger rebate programs require pre- and post installment inspections
- Rebates are taxable income – customer’s W-9 is required
- Invoices must be marked “paid”
- Don’t leave money on the table – AE and Texas Gas rebates
- Do ROI based on water, wastewater, energy and operational savings

Adoption of 2015 UMC/UPC and Local Amendments

- A/C condensate recovery for new Com/MF development
- All cooling towers must meet efficiency standards, equipment, and reporting requirements
- Steam boilers must have conductivity controllers
- Water using commercial kitchen equipment must meet EPA Energy Star/WaterSense Criteria



Cooling tower requirements

- All Cooling Towers
 - Conductivity controllers
 - Makeup and blowdown meters
 - Overflow alarms
 - Drift eliminators
 - Min. 5 cycles of concentration when potable water is used
- New Cooling Towers ≥ 100 tons:
 - Blowdown reuse or 10% of makeup water offset with alternative water sources (e.g., AC condensate)
 - Connection to CEMS or UMD



AC Condensate Recovery

- New commercial and multifamily facilities with a combined cooling capacity of ≥ 200 tons must have an AC condensate recovery system
- Potential uses include, but not limited to:
 - cooling tower makeup
 - irrigation
 - toilet flushing
 - ornamental fountains and water features
 - vehicle washing
 - manufacturing processes
 - fire suppression



Other requirements



- Plumbing Fixtures:

- 1.28 gpf low-flow tank and 1.0 gpf flush valve toilets; 0.5 gpf urinals (new or replacement toilets)
- Public bathroom faucet aerators max. 0.5 gpm



- Food Service Establishments

- Restaurants in Austin may only serve water upon request.
- Ice machines must be air cooled or if water-cooled, must use recirculating water.
- Pre-rinse spray heads must not use more than 1.28 gallons per minute.
- Food waste disposal systems (food grinders) are prohibited.

Other requirements



- Automatic irrigation systems
- Mandatory Irrigation System Inspections
- Commercial Car Wash Certification
- Mandatory reclaimed water hookup

Other requirements

- One-Day-Per-Week for Automatic Irrigation Systems
- Two-Days-Per-Week for Hose-end Sprinkler Systems
- New Landscape Variance only for WaterWise Landscapes
- Large Property Variance Still Available
- Unchanged - No restrictions:
 - Drip irrigation; Hand-held watering; Tree and foundation watering with bubblers; irrigation bags or soaker hoses



Mark Jordan

Water Conservation Program Coordinator

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BALCONES BACKGROUND

“We started as paper recyclers, but we’ve transformed into a full service environmental company that works with our customers to reach zero waste goals, streamline waste, educate employees, achieve LEED certification, or simply take the first step towards a new recycling program.” – Kerry Getter, CEO

Established corporate headquarters in Austin, 1994

Facilities in Austin, Dallas, and Little Rock

Austin MRF opened in 2012; \$25 million capital investment

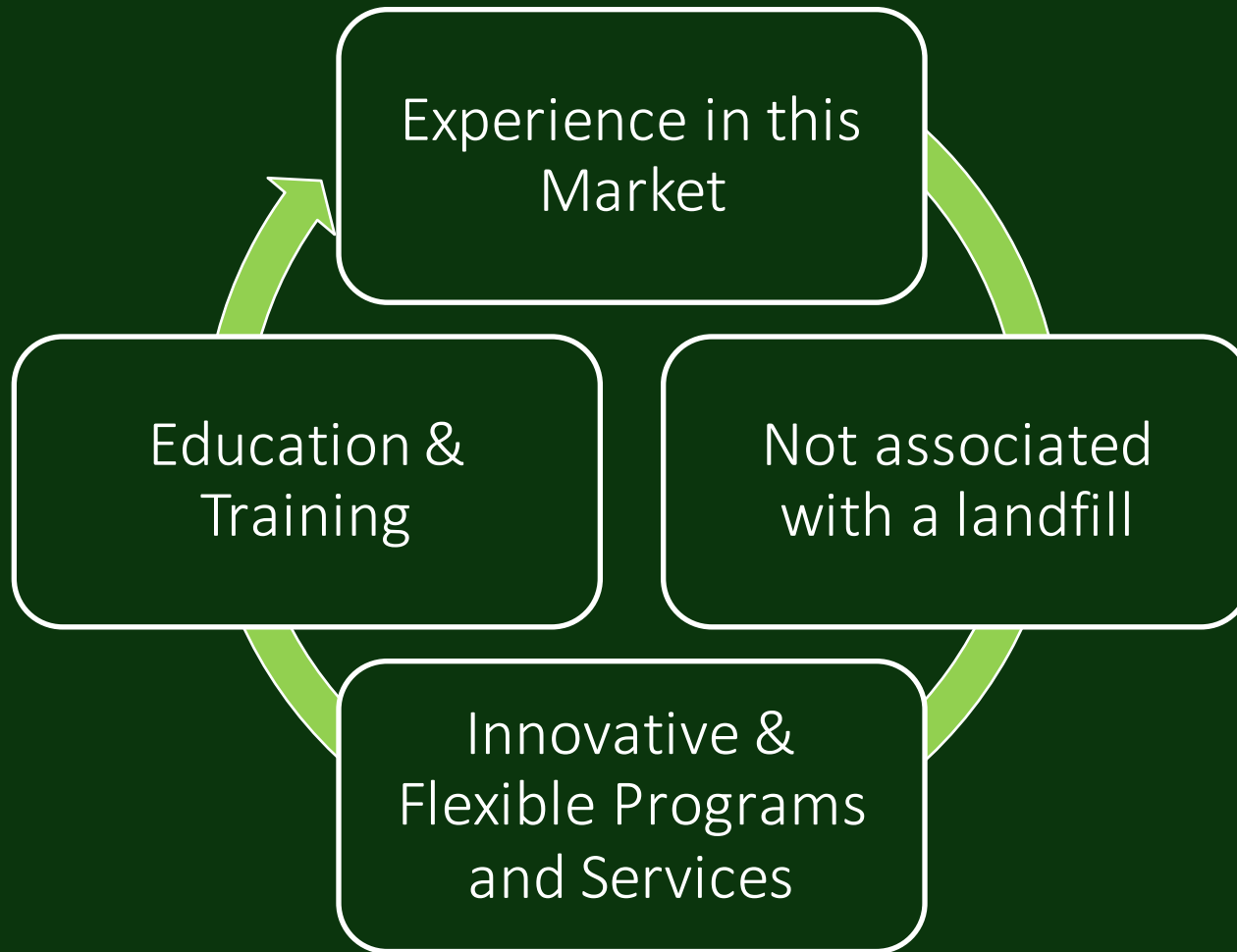
Austin MRF recycles for 16 communities and 500+ commercial customers including the City of Austin.

Single stream processor for most major haulers in the Austin market.

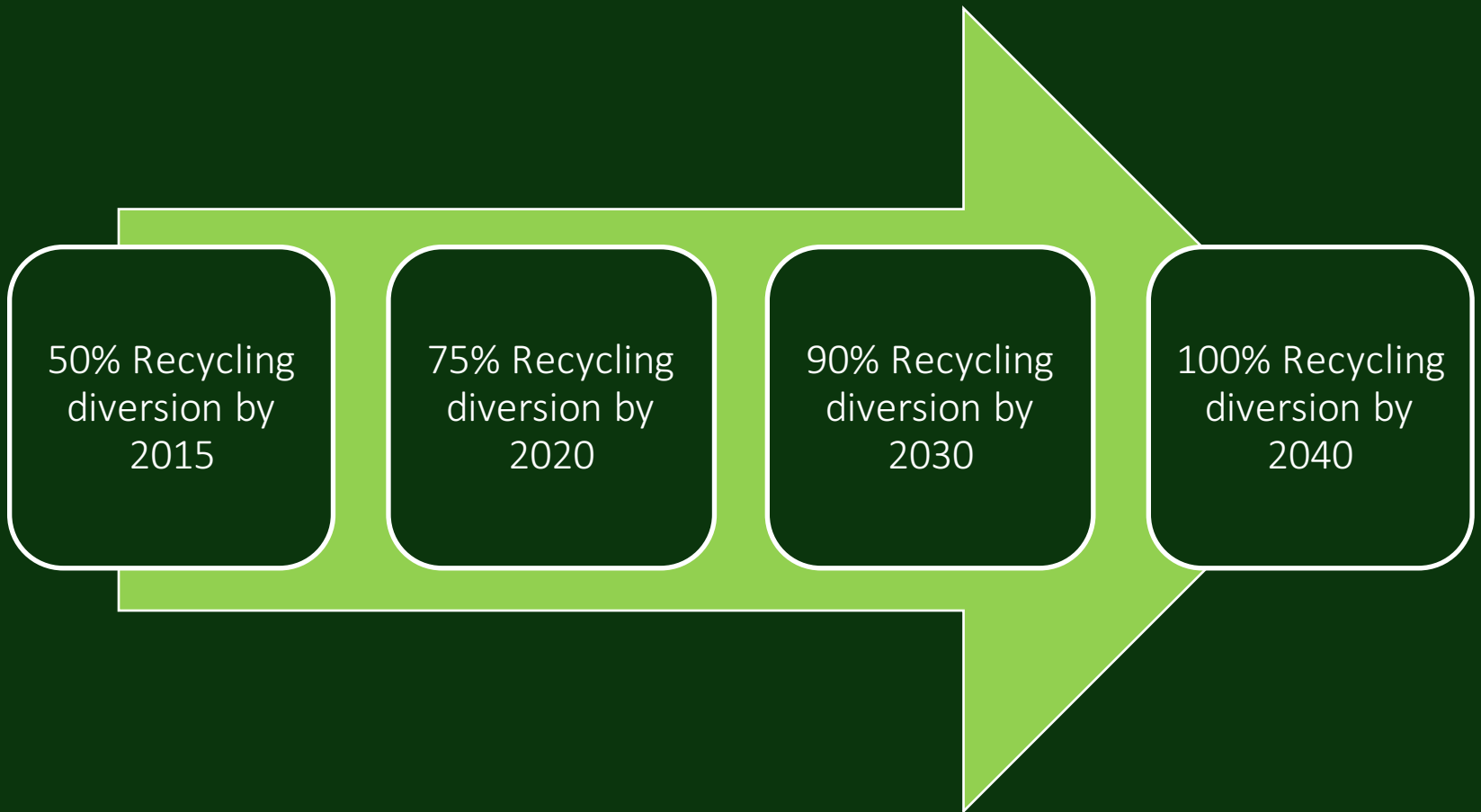
Austin MRF employs over 100 people



WHAT SETS US APART



CITY OF AUSTIN URO GOALS



ACCEPTED RECYCLABLES

FIVE OR MORE TO COMPLY:

1. Mixed Paper
2. Corrugated Cardboard
3. Aluminum Cans
4. Plastics #1 and #2
5. Glass Bottles and Jars
6. Other materials may be added or substituted if it will equal or increase the diversion rate



HOW CAN BALCONES HELP?



Q&A?





Universal Recycling Ordinance: Organics

August, 2017

Teresa Chapman

Senior Waste Diversion Planner

Austin Resource Recovery | City of Austin

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ARR: Business Outreach Team

- Free Consulting
- Onsite Technical Assistance
- Educational Resources Online
- Presentations and Training
- Ordinance Verification
- Guidance for Best Practices

More information at:

<http://www.austintexas.gov/departments/zero-waste-business-services>

Zero Waste Goal

2015 Diversion
Rate: 42%



Universal Recycling Ordinance (URO)

This is NOT a Compost Ordinance!!

Organics requirements

- Food-permitted **business**
- Business owner/manager
- Organics Diversion Plan (ODP)

Recycling requirements

- Commercial properties
- Property owner/manager
- Annual Diversion Plan (ADP)



Green = Business

Blue = Property



Organics Diversion under the URO

By Oct. 1, 2018, all food permitted businesses must have an organics diversion program.

Food Permitted Area (sq ft)	15k+	5k+	All
Organics Diversion	Oct. 1 2016	Oct. 1 2017	Oct. 1 2018

FOOD SERVICE ENTERPRISES (FSEs)

- Assisted living
- Child care
- Bars
- Cafeterias/Bufferet
- Coffee/Beverage
- Catering/School
- Commercial kitchens
- Distributors
- Entertainment
- Grocers
- Hotels/Hospitality
- Restaurants
- Food trucks



Organics Diversion Requirements

I. Divert organic materials generated onsite from being sent to the landfill or incinerator on a weekly basis

↓ Food Donations Here ↓

II. Signs and labels

↓ DAILY SPECIAL ITEMS HERE ↓

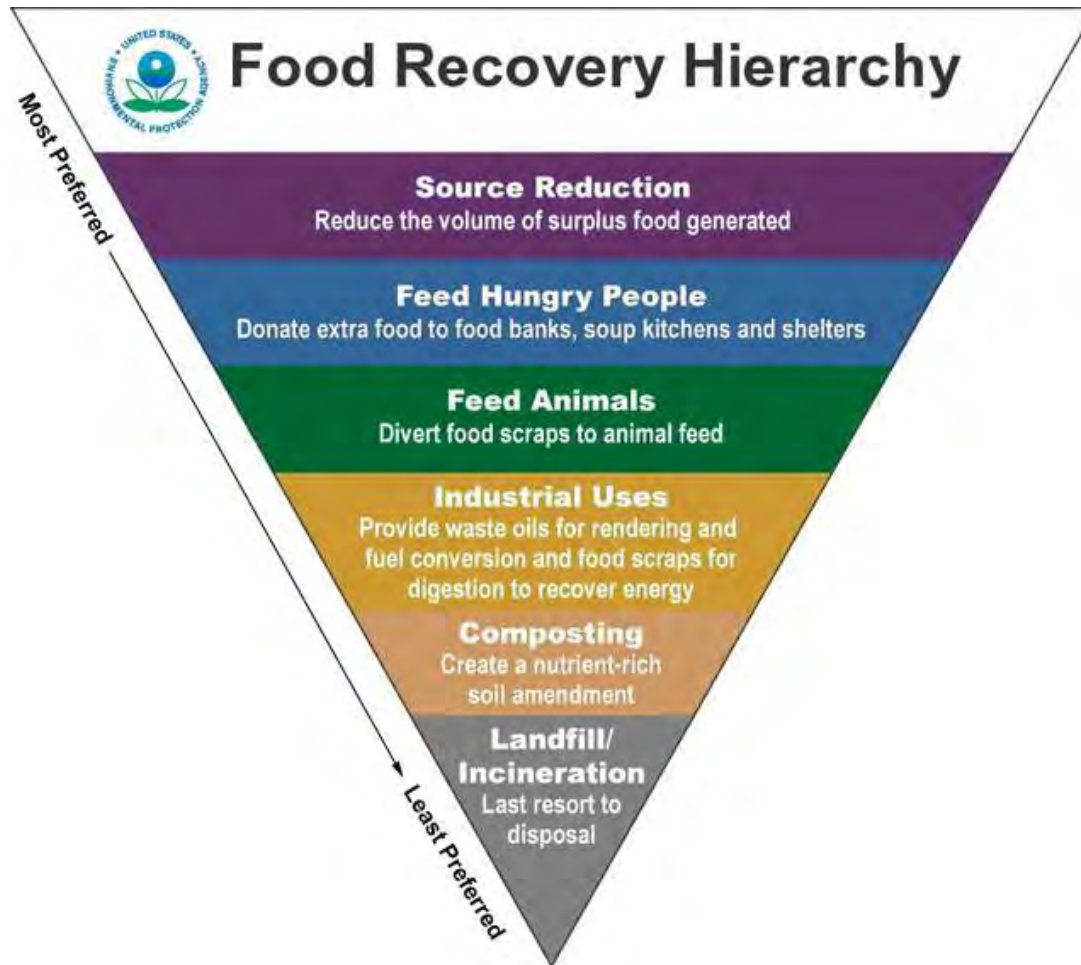
III. Annual education

IV. Online Organics Diversion Plan (due Feb. 1)

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More information at: austintexas.gov/bizorganics

I. Organics Diversion Program



This is NOT a Compost Ordinance!!



Organics Diversion Options

- Food Waste Prevention
- Food Recovery
 - Food Donations for People
 - Food Donations for Animals
- Purchasing and packaging
- Composting
- Other – [Tell us what are you doing!](#)

Listed on
online
Organics
Diversion
Plan
(ODP)

Organic Diversion Option: Food Waste Prevention

Food Waste Prevention: Identify discards and deliberately implement processes to reduce waste.

- Formal waste tracking system (e.g. logs weight discarded, material type, reason for discard)
- Regular waste audits
- Food prep training (e.g. knife skills, keeping skin on produce)
- Formal inventory control process
- Standardized equipment to reduce oversized portions
- Batch cooking early and cooking to order later in the day
- Purchase perishable items in smaller quantities, with more frequent deliveries
- Offer half-sized portions without financial disincentive
- Switch to smaller plates
- Repurpose produce that does not meet standards (e.g. for soups)
- Remove trays from cafeteria/buffet line

Organic Diversion Option: Food Waste Recovery

Food Recovery: Implement a system to capture food that is normally discarded and use it towards a higher and better use.

- Donate to local nonprofits to feed people
- Donate to commercial animal food producers
- Resell aesthetically imperfect produce at a reduced rate
- Use damaged but safe-to-consume products for events (e.g. chips in bags for sampling)
- Repackage products to sell (e.g. if box breaks open)
- Use surplus ingredients in new menu items (e.g. limited time offers)
- Reduce price of soon-to-expire products towards end of day or week
- Implement sharing program: users place food they do not need for others

Organic Diversion Option: Purchasing and Packaging

Packaging and Purchasing: Through purchasing reduce the amount of packaging for organics and/or transition to recyclable or compostable.

- Bulk purchasing
- Reusable shipping containers
- Replace single-use items with reusable items
- Incentivize customers to bring personal, reusable take-out containers (e.g. personal mug, plastic container)
- Replace Styrofoam with recyclable or compostable products
- Review purchasing options to select reusable or recyclable packaging

Examples:

- Dishware
- Cutlery
- Napkins
- Condiment containers



Reusable
Recyclable
Compostable

Organic Diversion Option: Composting

Options:

- Onsite
- Community Garden
- Collection service via bike
- Commercial (accepts meat, dairy, bones)

Factors to Consider:

- Space/Density
- Capacity
- Types of materials
- Maintenance
- Cost





Thank you! Questions?

Austin Resource Recovery

Business Outreach Team

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Evaluation Survey for a free organics bin:

<https://www.surveymonkey.com/r/ARR-BOT>

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