Better Community Outcomes Through Waste to Energy Partnership

January 30, 2018
City of Tempe Grease Cooperative Program: What would a truly, holistically-sustainable program look like? One that accounts for the public concerns as well as private stakeholders, producing a better outcome for both?
About the Alliance

Convene and Engage Networks of Thought Leaders

Provide Training to help Organizations Build and Sustain a Culture of Innovation

Identify, Distribute Leading & Emerging Practices/Trends Important to Local Gov

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Inspiring Innovation to Advance Communities

ICMA
Arizona State University

Important to Local Gov
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All attendees are muted, but we do want your participation!

Please ask your questions using your Go To Webinar Toolbox throughout the webinar.
Today’s Presenters

David McNeil
Environmental Services Manager, City of Tempe, AZ

Cassandra Mac
Program Administrator, City of Tempe, AZ
Waste-to-energy through local partnership: The Tempe Grease Cooperative

Cassandra Mac and David McNeil
January 30, 2018
Agenda

- Fats, oils and grease (FOG)
- Why a Grease Cooperative?
- Tempe’s experience and results
- Where are we headed next?
- Highlights and recommendations
What is FOG?

“Fats, oils and grease are the cholesterol of our sewer system”
What else is FOG?

- FOG has a high energy potential
- Boosts anaerobic digestion and gas production

http://www.americanbiogascouncil.org
Current management of FOG

- Requirements to install and maintain a grease trap/interceptor
Traditional model of FOG management

- Regulate: DIFFICULT to enforce
- Service Transaction
- NO accountability
- NO responsibility
- NO control over waste disposition
Challenges for Codigestion

No control over:
- Quality
- Security
- Receiving logistics
- Economics of tipping
Retailers Cooperative

Traditional buying

Restaurant A needs 100 heads of lettuce.

Farm X buys them for $0.10 each.

Total cost $10.00
Restaurant A needs 100 heads of lettuce.

Restaurants B and C each need 100 heads of lettuce.

Agent goes to Farm X. Since they are buying 300, Farm X offers a slight discount, and gets each for $0.09.

Restaurants A, B and C work with a buying agent to get their lettuce.

Total = $27.00
$9.00 per restaurant
$1.00 savings each!
What is a Grease Cooperative?

Grease Cooperative model of FOG management
Effective Resource Recovery

- Quality
- Security
- Logistics
- Economics

= certainty

Codigestion
Tempe’s Experience

- 2010: EPA/ADEQ Audit
- 2011: Stakeholder Engagement
- 2011: Ordinance Modifications
- 2012: Resolution: Terms of Enrollment
- 2013: Vendor Procurement
- 2013: Marketing Strategy
- 2014: First TGC Service

EECBG Study
Results to Date

- **200 members**
- **$89,544.67** in savings to restaurants (CY17)
- Virtual inspections of **1,445** services (CY17)
- Diverted **600,000 gallons** of grease trap waste (CY17)

**Ownership:** 1,600 gallons/day
Lessons Learned

1. Effective enforcement for non-members
2. Procurement efficiency
3. Recruitment efforts
4. Tempe-specific opportunities for biogas production

91st Avenue Regional WWTP, Phoenix, AZ
Where are we headed next?

**TGC core goals:**
- Sustainable infrastructure
- Explore resource recovery

**Goals made measurable:**
- 500 members by 2023
- Roadmap to codigestion by 2022
How do we get there?

**Strategic Direction:** Regionalization
Strategic Initiatives

1. Conduct a cost/benefit analysis of the TGC
2. Development and deployment of software solution
3. Infrastructure Assistance Program for TGC
4. Develop a commercial food waste/scrap collection and recovery program
Highlights and Recommendations
Partnerships

LOCAL FIRST ARIZONA

Arizona Restaurant Association

TEMPE CHAMBER

Your Success is Our Business
Student Interns
This model is not just for FOG
  • Sustainability Cooperatives

Resources available
Any questions?

This is your sewer...

This is your sewer on partnership.

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Q&A

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Driving Innovation
The Alliance for Innovation is inspiring innovation to advance communities. Is your community ready to take the step forward and invest in innovation, future-proof your community, and build a culture of action-leaders?
Join today...

INSPIRING INNOVATION TO ADVANCE

ICMA ASU

Webinar Resources
Questions? Need Handout Copies? Contact Ryan Spillers at rspillers@transformgov.org
Save the Date!

Upcoming learning events:


- **2/6/2018:** The Secrets to Making the Most of your Transforming Local Government Conference Experience - [https://discover.transformgov.org/events/secrets-making-most-your-transforming-local-government-conference-experience](https://discover.transformgov.org/events/secrets-making-most-your-transforming-local-government-conference-experience)

- **2/21/2018:** How to Build Agritourism to Trigger Economic Development - [https://transformgov.org/events/how-build-agritourism-trigger-economic-development](https://transformgov.org/events/how-build-agritourism-trigger-economic-development)

- **Workforce of the Future Workshop – IL on 4/26/2018**

- Transforming Local Government Conference: April 3 – 6!
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Thank you for joining us today!