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State of Texas Alliance for Recycling (STAR)
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CURC Workshop – Recycling in Texas & its Economic Impacts
Who is STAR?

Our Mission: To increase recycling rates to the highest level afforded by balanced economic and environmental sustainability principles, for the benefit of the State and the people of Texas.

• YOUR State Recycling Organization
• 501c3 nonprofit membership organization
• Who are our members?

STAR's diverse membership allows us to provide a true forum for collaboration throughout the big wide world of recycling. We talk to universities, small towns, big cities, MRFs, processors, and end markets in order to create one strong voice that is able to get things done and increase recycling rates in Texas for the benefit of everyone.
What does STAR do?

- Educate Texans – “from school children to senators”
- Released the Texas Recycling Data Initiative (TRDI)
- Provide industry professionals with information, updates & training through webinars & workshops
- Liaison with the public
- Networking
- Facilitate communication
- Policy initiatives & legislative work
What makes something recyclable?

- **Collection**: What can the infrastructure handle? What kind of volume? What materials? Innovations? Education?

- **Processing**: Contamination/quality, advanced sorting technology, this is where the cost is to sort and bale material

- **End markets**: Materials aren’t actually recycled until they make it to a market!
Trends in recycling

The times they are a changin’

- Shift on the national level in past few years to materials management: many states adopting

- Sustainable materials management: a systemic approach to using and reusing materials more productively over their entire lifecycle (EPA definition)

- Life cycle assessment (LCA): technique to make more informed decisions through a better understanding of human health and environmental impacts of products, processes and activities (EPA definition)
Trends in Packaging
More trends... why??
Factors leading to painful markets:
- Oil prices
- Supply and demand
- China Sword!
- Increasing quality concerns
  - Measurement challenges
  - The bottom line
  - Hard-to-recycle or hard-to-handle items
  - Increased awareness around food waste/composting
  - Corporate dollars $\rightarrow$ boots on the ground work
  - Local policy (esp. in TX) as a tool to increase diversion or manage material
In 2014, Americans generated about 258 million tons of trash.

Of this, about 89 million tons of this material were recycled or composted.

Equates to 34.6 percent national recycling rate (EPA).

In Texas for 2015, 22.7 percent recycling rate (SEIR).

9.2 million tons recycled in 2015 (SEIR).
Why is this important?
Because Texas is a huge market.

- Other key economic points:
  - 9.2 million tons valued at $702 million (SEIR)
  - Overall impact of recycling MSW on the Texas economy exceeded $3.3 billion (SEIR)
  - Generated nearly $195 million of revenue for state and local govts.
  - Equivalent industries in TX are pipeline transportation, paper manufacturing, & broadcasting

- Key attributes of Texas:
  - 4 of the top 10 fastest growing cities in the US
  - More people = more material
  - Key corporations call Texas home
  - Low recovery = more opportunity
  - Low taxes & light regulation = investment opportunities
Why is this important?

Because recycling = jobs & economic development.

- For every 10K tons going to landfills, 1 job is created
- For every 10K kept out of landfills, 10 recycling jobs created (Institute for Local Self-Reliance)
- In 2015, US scrap recycling industry powerful enough to create almost 472,000 jobs (ISRI)
- Industry generates nearly $105.81 billion annually in economic benefits in the US (ISRI)
- In Texas, more than 17,000 jobs (SEIR)
- In Texas: Lots of opportunity for industry and job creation!
Recent Investments in Texas

CarbonLite shifts planned PET recycling plant to Dallas
$62 million investment, 100m lbs PET

FCC Environmental opens Dallas MRF
The plant processed more than 1,000 tons of single-stream materials during the last two weeks of December 2016.
$20-25 million investment

Avangard to invest $10 million in LDPE film recycling plant
Why is this important?
To save resources... water, energy, money, etc.

Energy Savings by Utilizing Recycled Commodities in Material Production

<table>
<thead>
<tr>
<th>Material</th>
<th>Recycled</th>
<th>Virgin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>5%</td>
<td>95%</td>
</tr>
<tr>
<td>Steel</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>Paper</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Plastic</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>Glass</td>
<td>70%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Source: STAR graph, data sources listed

*Aluminum Association
*Steel Recycling Institute
*Glass Packaging Institute
*Earth 911
What does this all mean?
What do we need more of?

We’re at a crossroads

And recycling is just one piece of the puzzle – and aren’t anywhere close to having all the answers
The industry needs... more AND better

- The single-stream debacle
  - Increased recovery = more contamination
  - Increased quality concerns with markets = lower value
  - “Wishful recycling”
- Educate, educate, educate!
  - Educating a community that’s constantly evolving is very difficult
  - Understanding your audience
  - Ad Council campaign examples
Education is key
The industry needs... more innovation & more domestic markets
The industry needs... more collaboration & leadership

- Public/private partnerships &
  - The Recycling Partnership
  - Closed Loop Fund
  - Southeast Recycling Development Council (SERDC)

- Trade association leadership & commodity representation
  - Voice of manufacturers

- State/Federal government leadership/policy

- Get involved with STAR! Professional development, student memberships, networking...
Thank you!

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