



Los Angeles County Conversion Technology Program Update

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What are Conversion Technologies?

- Conversion technologies (CTs) are processes capable of converting post-recycled residual solid waste into useful products and chemicals, including green fuels and renewable energy.
- Includes non-combustion thermal, biological, mechanical and chemical processes



Conversion technology feedstocks

- Agricultural waste
- Food waste
- Biosolids
- Post-recycled municipal solid waste
- Specific commercial streams

Where are conversion technologies located?

Countries with operating facilities (partial list)

- Japan
- Germany
- Australia
- Israel
- England
- France
- Spain
- India

Projects in varying stages of development (partial list)

- Mississippi
- Idaho
- Ohio
- New York
- California
 - County of Los Angeles
 - City of Los Angeles
 - Monterey County
 - Santa Barbara
 - Glendale

Long Term Benefits of Conversion Technologies

Landfill diversion -- In California, we are required to divert 50% from landfill disposal. Many of the technologies we have evaluated can divert 80%+.

Job creation -- A conversion technology facility would create construction/design jobs, as well as long-term operation and engineering jobs.

Environmental benefits -- Reduced truck traffic through communities = reduced air emissions, GHG emissions.

Local control over waste -- Exporting waste is more expensive and politically sensitive. Biofuel and renewable energy production

L.A. County's Role in Conversion Technology Development

- National leader in evaluating and promoting the development of conversion technologies
- Incorporate conversion technologies into solid waste management approach
- Conduct in-depth evaluation of technology processes
- Support state and federal legislation
- Through landfill permit conditions provide funding and support for facility development

Successful Development Based on Methodical, Phased Approach

- **Phase I:** Evaluation of hundreds of technologies from around the world, initial recommendation
- **Phase II:** Vetting of technologies and potential sites, 4 technologies and sites recommended
- **Phase III:** Development of demonstration projects in Southern California
- **Phase IV:** Development of commercial scale facilities, strategically sited throughout Los Angeles County

Technology Categories Recommended for Final Demonstration:

Anaerobic Digestion >



< Pyrolysis/Gasification

Pyrolysis >



< Gasification

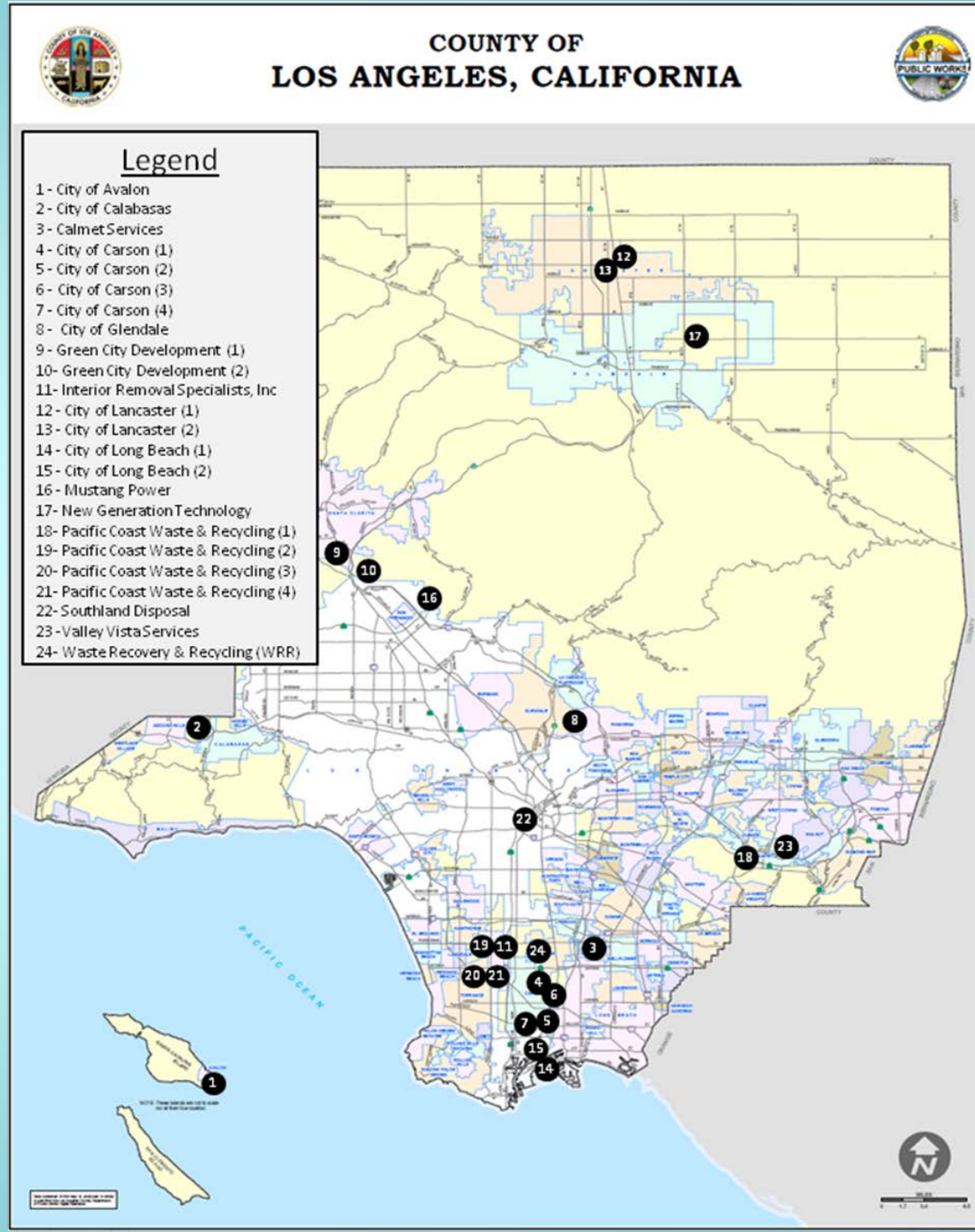
Status of Phase III Demonstration Projects

- Three demonstration projects
 - Approved by Board of Supervisors in April 2010
 - Each project in varying stages of financing and permitting.
 - The California Energy Commission awarded a \$4.5 Mil grant to CR&R Inc to use process MRF residuals into biomethane for use in their truck fleet. The project will use anaerobic digestion.

Status of Phase IV Commercial Projects

- 24 sites submitted to the County for consideration
- Sites located throughout County in all five supervisorial districts
- Sites include: active landfills, MRFs/Transfer Stations, and industrially-zoned vacant property
- Sites were proposed by the property/facility owner OR suggested by the city in which the site is located

- Antelope Valley
- Avalon
- Calabasas
- Carson
- Gardena
- Glendale
- City of Industry
- Lancaster
- Long Beach
- Paramount
- Santa Clarita
- Sylmar
- Unincorporated L.A. County



Technology Evaluation

- In August 2011, sent 'Request for Expressions of Interest' (RFEI) to technology vendors
- Purpose was to obtain information on conversion technology companies offered in the U.S. market and would be available for application in one or more projects in LA County
- 35 technology vendors submitted responses
 - 20 thermal
 - 11 biological
 - 4 combined processes
- 11 financial firms submitted responses to the Financial Services RFEI

Useful Resources for SGV Cities

- www.SoCalConversion.org - the County's website dedicated to conversion technologies
 - Municipal, university, environmental reports
 - Project information
 - Resources on legislation and regulations
- Biannual reports to the Board of Supervisors
- Technology and financial firm online database – ***coming soon!***
- Economic modeling template – ***coming soon!***

If your city is considering development of a CT facility, please contact us – we have many resources to assist you.

**For more information on the County's
conversion technology projects, please visit:**

www.SoCalConversion.org

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