

**California Biomass Collaborative 4<sup>th</sup> Annual Forum**  
*Advanced Bioenergy Technologies and  
Biofuels from Municipal Wastes*

March 27-29  
California EPA Building  
1001 I Street  
Sacramento, California

27 March: Advanced Bioenergy Technologies  
Session 1: Climate Change, Carbon Policies, Renewable Energy and  
the Role of Biomass  
Session 2: Technology and Standards for Sustainable Bioenergy  
Session 3: Industry Integration and Advanced Bioenergy Systems  
Commercialization  
Session 4: Biorefineries: Resources and Technologies

Reception: Sheraton Grand Hotel, 1230 J Street

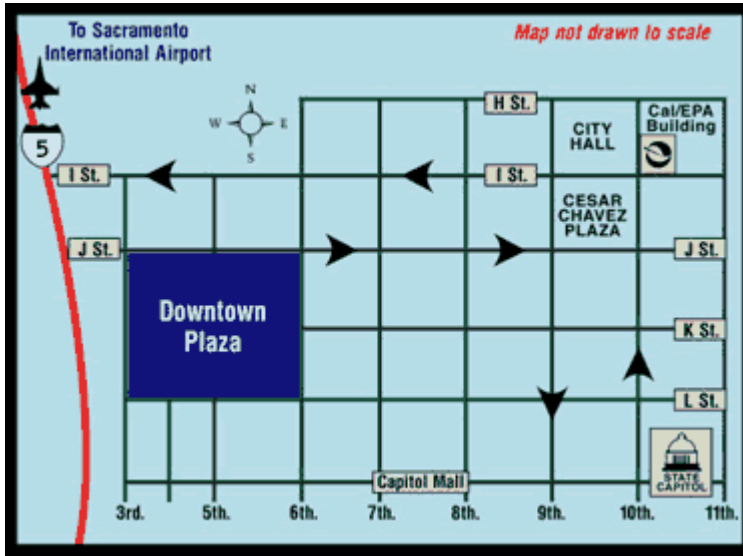
28 March: Producing Biofuels from Waste: research and commercialization  
strategies for upgrading waste to fuels and chemicals  
Session 1: Policies Affecting Use of Biomass in Municipal Wastes  
Session 2: Biofuel Production from Municipal Wastes  
Session 3: Breakout Sessions: Pathways to Commercialization  
Session 4: Breakout Sessions: Research Needs

29 March: Facility Tours  
University of California Research Projects  
Yolo County Landfill Energy Projects  
Woodland Biomass to Energy Facility

Full Registration (27 and 28 March)	\$125
One-day Registration	75
Facility Tour	35
Student Registration (with valid ID)	35



## Maps and Directions



### Cal/EPA Headquarters Building

1. Exit I-5 at J Street.
2. Take J St. east to 11th and turn left.
3. Go one block and turn left on I St.
4. The Cal/EPA headquarters building will now be on your right. It fills the block bordered by I St. on the south (1-way west), H St. on the north (1-way east), 10th St. on the west (1-way north) and 11th St. on the east (2-way).
4. There are 1- and 2-hour meters around the building, and a per-hour lot directly across from the building on I St.
5. Go to the information/security desk in the lobby if you need to meet with a staff person.

Hotels in Vicinity	Distance to Forum (blocks)		
Best Western Inn	1100 H St.	916-441-1314	0.1
Sheraton Grand	1230 J St	916-447-1700	3
Sterling Hotel	1300 H St	916-448-1300	4
Hyatt	1209 L St	916-443-1234	5
Quality Inn Downtown	818 15th St	916-444-3980	6
Clarion Hotel	700 16th St	916-444-8000	7
Econo Lodge	711 16th St	916-443-6631	8
Holiday Inn	300 J St	916-446-0100	8
Embassy Suites	100 Capital Mall	916-326-5000	13

### Sponsored By:



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Cal EPA Building, 1001 I Street, Sacramento, California

<b>Day One</b>			
<b>Tuesday, March 27</b>			
<b>Advanced Bioenergy Technologies</b>			
<b>8:00 - 8:30 Registration</b>			
8:30	<b>Opening</b> – Forum logistics, agenda and introductions	<b>Bryan Jenkins</b>	California Biomass Collaboration
8:35	<b>Welcome and Keynote Speaker</b>	<b>Jim Boyd</b>	Commissioner, California Energy Commission
8:55	<b>Keynote Speaker</b>	<b>Nathan Dietrich</b>	Representative Matsui's Office
9:05	<b>Session 1 - Climate change, carbon policies, renewable energy and the role of biomass</b>		Moderator - John Shears
	State policies and initiatives for bioenergy development and greenhouse gas emission reductions	Steve Shaffer	CA Dept. of Food & Ag
	Climate effects on agricultural and forest landscapes and potential impacts for biomass supply	Amy Luers	Union of Concerned Scientists
	Overview of European policies and technologies for bioenergy development and greenhouse gas mitigation	Sven Sommer	University of Aarhus, Denmark
	Utility perspectives on bioenergy for California	Hal LaFlash	PG&E
	<b>Discussion</b>		
<b>10:35 BREAK</b>			
10:45	<b>Session 2- Technology and standards for sustainable bioenergy</b>		Moderator - Ken Krich
	Research, development, and demonstration of advanced bioenergy concepts in California	Val Tiangco	California Energy Commission
	AB 1007 report on biofuels and fuel cycle analysis	Tim Olson	California Energy Commission
	California's low carbon fuel standard and implications for biofuel development	Marc Melaina	UCDavis-Institute of Transportation Studies
	Forestry or dedicated crops	Bruce Goines	US Forest Service
	<b>Discussion</b>		
<b>12:15 - 1:30 Lunch</b>			
1:30	<b>Session 3 – Industry integration and advanced bioenergy systems commercialization</b>		Moderator - George Simons
	Integrating biofuels into the petroleum industry	Rick Zalesky	Chevron
	Vehicle design for biofuels	Mary Beth Stanek	GM
	Power plant greenhouse gas emission standards and impacts on bioenergy development	Judith Ikle	California Public Utilities Commission
	Biofuels initiatives in the Philippines	Raphael Lotilla	Secretary, Philippines Dept. of Energy
	<b>Discussion</b>		
<b>3:10 BREAK</b>			
3:20	<b>Session 4 – Biorefineries: Resources and Technologies</b>		Moderator - Martha Gildart
	Advanced system concepts for biorefineries	Eric Larson	Princeton University
	Research and development needs for biorefinery processes	David Dayton	National Renewable Energy Laboratory
	Demonstrating commercial scale biorefineries: DOE biorefinery solicitation results	John Ferrell	US DOE
	Bio-Renewable fuels : Green Diesel	Amar Anumakonda	UOP
4:40	<b>Discussion</b>		
5:00	<b>Wrap-up</b>		
		Bryan Jenkins	
<b>5:30-7:30 CBC Reception--Sheraton Grand Hotel, Glide's Market</b>			
<b>Sponsored by: BlueFire Ethanol, Pacific Gas &amp; Electric, Real Energy, and Waste Management Inc.</b>			

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**Day 2**  
**Wednesday**  
**March 28**

**Producing biofuels from waste: research and commercialization strategies for upgrading waste to fuels and chemicals**

**8:00 - 8:30**                      **Registration**

8:30    **Opening** – Forum logistics, agenda                      **Bryan Jenkins**                      CBC

8:40    **Welcome and Keynote Speaker**                      **Margo Brown**                      Chair, California Integrated Waste Management Board

9:00    **Session 5 - Policies Affecting Use of Biomass in Municipal Wastes**                      Moderator - Fernando Berton

Overview of waste management techniques for fuels and power in the US and Europe	Luis Diaz	Cal Recovery
Bioenergy and landfill policies in Europe and the UK: lessons learned and prospects for future development	Kit Strange	Resource Recovery Forum, UK
Feedstock quality, separation, and markets	Chuck White	Waste Management Inc

**10:00**    **BREAK**

10:15    **Session 6- Biofuel production from municipal wastes**                      Moderator - Rob Williams

Ethanol from MSW	Necy Sumait	BlueFire Ethanol
Enzymatic hydrolysis of cellulose for ethanol	Bin Yang	UC-Riverside
The challenge of MSW as feedstock for biofuels	Don Stevens	PNNL
Advanced biogas production and upgrading in Europe	Peter Knecht	Kompogas, Switzerland
Renewable CNG, LNG, and other fuels from landfill gas--prospects for future development	Patrick Sullivan	SCS Engineers

**12:00- 1:30**    **Lunch**

1:30    **Breakout Sessions: background and purpose**                      **Howard Levenson**                      CIWMB

2:00    **Session 7 – Breakout Sessions: Pathways to Commercialization**

A1    Alcohol Fuels	A2    Biogasoline & renewable diesel	A3    Biogas
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**3:00**                      **Break**

3:10    **Session 8 – Breakout Sessions: Research Needs**

B1    Alcohol Fuels	B2    Biogasoline & renewable diesel	B3    Biogas
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4:10    **Session 9 - Breakout summary reports/Recommendations for RD&D and technology commercialization**

5:00 - 5:15    **Next steps in RD&D planning for bioenergy from municipal wastes**                      **Howard Levenson**

5:15 - 5:30    **Wrap-up**                      **Bryan Jenkins**

**Day 3**  
**Thursday**  
**March 29**

**Bioenergy Tour (Combined California Biomass Collaborative and US EPA Clean Diesel Collaborative)**

8:00    Buses load at Cal EPA Building

Tour of UC-Davis APS Pilot Bio-Digester, Long-term Research in Agricultural Systems (LTRAS) sustainable production systems, Western Center for Agricultural Equipment, USEPA Clean-diesel projects, Yolo County Bioreactor Landfill Project, and the Woodland Biomass Powerplant.

3:00    Return to Cal-EPA, Sacramento