



A HIGHER STANDARD OF RESPONSIBILITY
WASTE & RECYCLING SERVICES



Service, Stewardship and Sustainability



Environmental Services



Bioenergy Potential in California



- More than 500 WWTFs, 278 landfills, 1600 dairies
- 16 million tons/year organic waste is landfilled
- **Organic waste can generate 5,000-6,000 MW or 2.1 Billion gallons/year**
- Lowest carbon fuels – or transportation – in existence



Agricultural and Forest Waste

- Agricultural and forest waste could generate **982 million gge's** or **> 2,000 MW**



EPIC brings clean energy ideas to the marketplace

Energy Innovation Pipeline



CEC EPIC Mission

Through EPIC, the Energy Commission will fill critical funding gaps within the energy innovation pipeline to advance technologies, tools, and strategies that provide California's IOU ratepayers with clean, affordable, and reliable electricity and help enable the 21st century power grid.

Energy Commission 2012-2014 EPIC Investment Plan Budget

Funding Element	Total
Applied Research and Development	\$158.7 M
Technology Demonstration and Deployment	\$129.8 M
Market Facilitation	\$43.3 M

PON 14-303-00

Total of \$19.5 million available, more than half going to bioenergy

- Purpose is R&D into biopower and photovoltaics
- Projects include “modular bioenergy systems for forest/urban interface” – total of \$6 million available, individual grants of \$500K to \$2 million.
- Waste to energy systems – total of \$4.5 million available, individual grants of \$500K to \$1.5 million

PON 14-305-00

\$27 Million for Bioenergy Technology Demonstration and Deployment (TD&D)

- Grants from \$500K to \$5 million, depending on the category below
- Purpose is to fund technology demonstration and deployment projects that demonstrate and appraise the operational and performance characteristics of pre-commercial biomass conversion technologies, generation systems, and development strategies.

PON 14-305-00

Projects must fall within the following project categories:

- 1. Group 1:** Advanced Pollution Control Equipment and Low Emission Generators;
- 2. Group 2:** Fuel Handling and Delivery Systems or Technologies;
- 3. Group 3:** Biochemical Conversion Technologies or Deployment Strategies;
- 4. Group 4:** Thermochemical Conversion Technologies or Deployment Strategies.

<u>Project Group</u>	<u>Available Funding</u>	<u>Minimum Award</u>	<u>Maximum Award</u>
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Group 1: Advanced pollution control equipment and low-emission generators	\$3,000,000	\$500,000	\$1,500,000
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Group 2: Fuel handling and delivery systems or technologies	\$4,000,000	\$500,000	\$2,000,000
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Group 3: Biochemical conversion technologies or deployment strategies	\$10,000,000	\$1,000,000	\$5,000,000
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Group 4: Thermochemical conversion technologies or deployment strategies	\$10,000,000	\$1,000,000	\$5,000,000
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Application Deadlines

**Deadline to Submit Applications October 20, 2014
3:00 p.m.**

Anticipated Notice of Proposed Award Posting Date
December 15, 2014

Anticipated Energy Commission Business Meeting Date
February 2015

Anticipated Agreement Start Date March 2015

Anticipated Agreement End Date March 2019

Energy Commission Proposed 2015-2017 EPIC Investment Plan Budget

Funding Element	Total
Applied Research and Development	\$151.63 M
Technology Demonstration and Deployment	\$145.02 M
Market Facilitation	\$53.27 M
New Solar Homes Partnership (Market Support)	*

* Up to \$130 million.

For More Information: EPIC Website

workshops; funding opportunities; join email lists

www.energy.ca.gov/research/epic

Laurie ten Hope, Deputy Director Energy Research & Development Div. laurie.tenhope@energy.ca.gov (916) 327-1521	Aleecia Gutierrez, Manager Energy Generation Research Office aleecia.gutierrez@energy.ca.gov (916) 327-1409
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Clean Fuels and Alternative Transportation (AB 118)

- Includes \$20 million per year for biofuels
- \$9 million for natural gas vehicle deployment
- \$15 million for medium and heavy duty advanced vehicle demonstration
- \$1.5 million for natural gas fueling infrastructure



THANK YOU

Julia Levin

Executive Director

Bioenergy Association of California

jlevin@bioenergyca.org

510-610-1733

www.bioenergyca.org



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California