

**SB 1383 –
Dairy & Livestock
Greenhouse Gas Reduction
Working Group**

**Final Dairy Working Group
Meeting**

**December 3, 2018
1:00 pm to 4:00 pm**

**California Air Resources Board:
Working Group Conclusion**



CARB's Dairy-Related Efforts in 2018

- Coordination and logistical support of the Dairy Working Group and Subgroups
- Development and posting of:
 - Dairy digester emissions matrix
 - Pilot financial mechanism white paper
- Technical support for:
 - CPUC's pilot biomethane pipeline injection projects
 - CDFA's alternative manure management, dairy digester research and development incentive programs
- On-going research efforts
 - Methane and ammonia emissions monitoring
 - Enteric fermentation literature review



CDFA 2018 Updates: Dairy and Livestock Methane Reduction



- 2018 Dairy Digester Research and Development Program (DDRDP)
 - 42 Projects awarded \$72.4 million, expected to be completed June 2020.
 - Estimated GHG reductions of 7.6 million MTCO₂e* over 10 years.
- 2018 Alternative Manure Management Program (AMMP)
 - 40 Projects awarded \$21.6 million, expected to be completed August 2020.
 - Estimated GHG reductions of ~389,000 MTCO₂e* over 5 years.
- Assistance for Applicants
- 2019 DDRDP and AMMP Release: December 2018
 - Demonstration Projects to showcase innovative technologies and strategies for methane reduction.



<https://www.cdfa.ca.gov/oefi/AMMP/>

<https://www.cdfa.ca.gov/oefi/ddrdp/>

*Reductions are calculated using a global warming potential (GWP) for methane of 25 (i.e., 100-year GWP, IPCC Fourth Assessment).

CEC's Dairy-Related Efforts in 2018

- Participated in dairy workgroup and subgroup meetings
- Initial funding supported progress of CalBio and Calgren dairy cluster projects
- Incentivized delivery of 1,000 near zero and low NOx trucks in CA
- Adopted 2017 Integrated Energy Policy Report evaluating cost effectiveness of several biomethane options and highlighting policy recommendations to increase development and use
- Conducting funding solicitations (dairy industry/methane eligible) for:
 - Biomethane production for transportation fuels
 - Pilot demonstrations of emerging fuels/advanced technologies
 - Food processing plant improvements
- Conducting renewable hydrogen and power to gas technology assessments
- Approved \$25 million allocation (\$12.5M ARFVTP/\$12.5M GGRF) for low carbon fuel development in FY 2018-19 Investment Plan



CPUC's Dairy-Related Efforts in 2018

- SB 1383 pilot biomethane injection projects
 - Pilot solicitation published, applications received and evaluated.
 - Projects to be selected in 2018.
- Biomethane pipeline injection standards
 - Contracted with CCST to assess the minimum heating value and the maximum siloxane specifications for pipeline-injected biomethane.
 - Re-opened Rulemaking (R.) 13-02-008 to re-evaluate biomethane pipeline injection standards, interconnection issues, interconnection incentives, among other topics.
- Bioenergy Market Adjusting Tariff (BioMAT)
 - Nine dairy BioMAT contracts executed (9.1 MW).
 - BioMAT Program Review and Staff Proposal.

