

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
1	Ahlem Farms Dairy Biogas	Ahlem Farms Dairy Biogas	\$ 1,546,738	\$ 6,104,242	Ahlem Farms Dairy is part of the new Hilmar dairy biogas to fuel cluster in Merced County, CA. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station (shared with the neighboring Charles Ahlem Ranch digester project) will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading and interconnection facility. Biomethane, meeting PG&E specifications, will be injected into the nearby point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Merced	153,151
2	Albert Goyenette Dairy Biogas	Albert Goyenette Dairy Biogas	\$ 1,609,316	\$ 8,602,883	Albert Goyenette Dairy is part of the Buttonwillow dairy biogas to fuel cluster in Kern County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connected to the centralized biogas upgrading facility and interconnection located nearby. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Kern	199,706
3	Art Leyendekker Dairy Biogas	Art Leyendekker Dairy Biogas	\$ 769,784	\$ 3,685,068	Art Leyendekker Dairy is part of the established North Visalia dairy biogas to fuel cluster in Tulare County, CA. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor (shared with both the Gerben Leyendekker and GP Dairy neighboring digester projects) will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line extension connecting to centralized biogas upgrading and interconnection facility. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	77,697
4	Bar 20 Dairy Biogas, LLC	Bar 20 Dairy Biogas	\$ 3,000,000	\$ 16,989,069	Bar 20 Dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning station will remove hydrogen sulfide and meter and move the clean biogas directly into a co-located, ultra-clean, high efficiency 2.0 MW Bloom Energy fuel cell interconnected to PG&E. CalBio will generate LCFS credits by directly matching generation and supplying the renewable energy credits to in-state electric vehicle re-charging load. California Bioenergy is the project developer.	Fresno	374,390

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
5	Calgren Dairy Fuels LLC	Hettinga Centralized Dairy Digester Pipeline Project	\$ 2,352,909	\$ 4,705,818	Hettinga Centralized Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure at Hettinga Dairy in Tulare County, California. The project is owned by Calgren Dairy Fuels and will be a part of the Calgren Dairy Fuels (CDF) Cluster, developed by Maas Energy Works. This Cluster is operational, producing biogas from five digesters and injecting renewable natural gas into the SoCalGas pipeline. CDF has started physical construction on all 6 of its DDRDP awards received in 2018 and all are scheduled to be online in 2019. The biogas from this new digester will be transported via the Cluster's private, low-pressure pipeline to the cluster's hub near the Calgren ethanol refinery. Once there, it will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Tulare	167,339
6	Calgren Dairy Fuels LLC	Northstar Dairy Digester Pipeline Project	\$ 1,576,438	\$ 3,152,876	Northstar Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure at North Star Dairy in Tulare County, California. The project is owned by Calgren Dairy Fuels and will be a part of the Calgren Dairy Fuels (CDF) Cluster, developed by Maas Energy Works. This Cluster is operational, producing biogas from five digesters and injecting renewable natural gas into the SoCalGas pipeline. CDF has started physical construction on all 6 of its DDRDP awards received in 2018 and all are scheduled to be online in 2019. The biogas from this new digester will be transported via the Cluster's private, low-pressure pipeline to the cluster's hub near the Calgren ethanol refinery. Once there, it will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Tulare	170,658
7	Calgren Dairy Fuels LLC	Schott Dairy Digester Pipeline Project	\$ 1,444,592	\$ 2,889,184	Schott Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure at Schott Dairy in Tulare County, California. The project is owned by Calgren Dairy Fuels and will be a part of the Calgren Dairy Fuels (CDF) Cluster, developed by Maas Energy Works. This Cluster is operational, producing biogas from five digesters and injecting renewable natural gas into the SoCalGas pipeline. CDF has started physical construction on all 6 of its DDRDP awards received in 2018 and all are scheduled to be online in 2019. The biogas from this new digester will be transported via the Cluster's private, low-pressure pipeline to the cluster's hub near the Calgren ethanol refinery. Once there, it will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Tulare	129,082
8	Calgren Dairy Fuels LLC	Simoes Centralized Digester Pipeline Project	\$ 2,036,460	\$ 4,072,920	Simoes Centralized Digester Pipeline Project is a new covered lagoon digester processing dairy manure at Simoes Dairy in Tulare County, California. The project is owned by Calgren Dairy Fuels and will be a part of the Calgren Dairy Fuels (CDF) Cluster, developed by Maas Energy Works. This Cluster is operational, producing biogas from five digesters and injecting renewable natural gas into the SoCalGas pipeline. CDF has started physical construction on all 6 of its DDRDP awards received in 2018 and all are scheduled to be online in 2019. The biogas from this new digester will be transported via the Cluster's private, low-pressure pipeline to the cluster's hub near the Calgren ethanol refinery. Once there, it will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Tulare	161,275

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
9	Charles Ahlem Ranch Dairy Biogas	Charles Ahlem Ranch Dairy Biogas	\$ 1,373,697	\$ 7,131,972	Charles Ahlem Ranch Dairy is part of the new Hilmar dairy biogas to fuel cluster in Merced County, CA. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station (shared with the neighboring Ahlem Farms Dairy digester project) will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading and interconnection facility. Biomethane, meeting PG&E specifications, will be injected into the nearby point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Merced	136,018
10	Clauss and Sunwest Dairy Biogas	Clauss and Sunwest Dairy Biogas	\$ 1,572,301	\$ 6,352,597	Clauss and Sunwest Dairies are part of the new Hilmar dairy biogas to fuel cluster in Merced County, CA. The dairy will install a shared Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station (shared with the neighboring Yosemite dairy digester project) will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading and interconnection facility. Biomethane, meeting SoCalGas Rule 30, will be injected into the nearby point of receipt. The project's biomethane as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Merced	155,682
11	Curtimade Dairy Biogas	Curtimade Dairy Biogas	\$ 1,747,336	\$ 4,773,194	Curtimade Dairy joins the South Tulare dairy biogas to fuel cluster. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility. Biomethane, meeting SoCalGas Rule 30, will be injected into co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	174,734
12	Dairyland Farms Dairy Biogas	Dairyland Farms Dairy Biogas	\$ 1,760,347	\$ 4,900,813	Dairyland Farms Dairy joins the South Tulare dairy biogas to fuel cluster. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility. Biomethane, meeting SoCalGas Rule 30, will be injected into co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	177,475

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
13	DG Energy LLC	Avalon Dairy Digester Project	\$ 1,917,757	\$ 3,835,514	Avalon Dairy Digester Project is a new covered lagoon digester processing dairy manure in Kern County, California. The project is 100% producer-owned by host dairy Rock View Farms / DeGroot family, and developed and operated by Maas Energy Works. The project will deliver biogas to the Calgren Dairy Fuels cluster. This Cluster is operational, producing biogas from five digesters and injecting renewable natural gas into the SoCalGas pipeline. The methane-rich biogas from the digester will be compressed on site and then hauled using clean-burning renewable CNG-fueled trucks and compressed natural gas tube trailers to create a virtual pipeline the to the cluster's central hub. Once at the hub, it will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the adjacent SoCalGas utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Kern	159,758
14	El Nido Biogas LLC	Double Diamond Dairy Digester Pipeline Project	\$ 2,037,766	\$ 4,075,532	Double Diamond Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California. The project is a part of the Merced Pipeline cluster, developed by Maas Energy Works. This cluster was selected as an SB-1383 CPUC Pilot Project. The digester will be 100% owned by the host dairy Double Diamond, and developed and operated by Maas Energy Works. The methane-rich biogas from the digester will be transported via private, low-pressure pipe to the cluster's hub near Vander Woude Dairy. Once there, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be conditioned and injected into the PG&E utility pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state. The model is similar to the Project Team's and DDRDP's successful Calgren Dairy Fuels cluster, currently in operation and producing pipeline-injected CNG.	Merced	290,633
15	Elk Creek Dairy Biogas	Elk Creek Dairy Biogas	\$ 512,706	\$ 4,109,208	Elk Creek Dairy joins the South Tulare dairy biogas to fuel cluster. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility. Biomethane, meeting SoCalGas Rule 30, will be injected into co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	59,555
16	Elkhorn Dairy Biogas	Elkhorn Dairy Biogas	\$ 2,125,882	\$ 6,645,917	Elkhorn Dairy is part of the established North Visalia dairy biogas to fuel cluster in Tulare County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line extension connecting to centralized biogas upgrading and interconnection facility. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	211,940

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
17	Tipton Pipeline LLC	Fern Oaks Dairy Digester Pipeline Project	\$ 1,688,894	\$ 3,377,788	Fern Oaks Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure at Fern Oaks Dairy in Tulare County, California. The project is owned by Calgren Dairy Fuels and will be a part of the Calgren Dairy Fuels (CDF) Cluster, developed by Maas Energy Works. This Cluster is operational, producing biogas from five digesters and injecting renewable natural gas into the SoCalGas pipeline. CDF has started physical construction on all 6 of its DDRDP awards received in 2018 and all are scheduled to be online in 2019. The biogas from this new digester will be transported via the Cluster's private, low-pressure pipeline to the cluster's hub near the Calgren ethanol refinery. Once there, it will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Tulare	169370
18	Friesian Farms Dairy Biogas	Friesian Farms Dairy Biogas	\$ 639,602	\$ 3,814,785	Friesian Farms Dairy joins the South Tulare dairy biogas to fuel cluster. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility. Biomethane, meeting SoCalGas Rule 30, will be injected into co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	63,145
19	Gerben Leyendekker Dairy Biogas	Gerben Leyendekker Dairy Biogas	\$ 845,589	\$ 3,748,357	Gerben Leyendekker Dairy joins the North Visalia dairy biogas to fuel cluster in Tulare County, CA. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor (shared with both the Art Leyendekker and GP Dairy neighboring digester projects) will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line extension connecting to centralized biogas upgrading and interconnection facility. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	85,419
20	GP Dairy Biogas	GP Dairy Biogas	\$ 502,554	\$ 3,418,177	GP Dairy is part of the established North Visalia dairy biogas to fuel cluster in Tulare County, CA. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor (shared with both the Gerben Leyendekker and Art Leyendekker Dairy neighboring digester projects) will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line extension connecting to centralized biogas upgrading and interconnection facility. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	50,722

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
21	James Ahlem Dairy Biogas	James Ahlem Dairy Biogas	\$ 830,349	\$ 5,691,700	James Ahlem Dairy is part of the new Hilmar dairy biogas to fuel cluster in Merced County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading and interconnection facility. Biomethane, meeting PG&E specifications, will be injected into the nearby point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Merced	82,216
22	L&J Vanderham Dairy	Vanderham Dairy Digester Pipeline Project	\$ 1,984,951	\$ 3,969,902	Vanderham Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Fresno County, California. The project is 100% farmer owned by the host L&J Vanderham Dairy. The project is a part of the Five Points Pipeline cluster, developed by Maas Energy Works. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the operational Open Sky Ranch digester. That digester was funded by CDFA in 2015, brought online in 2016, and is host to an older PG&E pipeline injection facility which is being restarted for the Five Points cluster. Once at the hub, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the adjacent PG&E utility pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Fresno	186,037
23	Lakeside Energy LLC	Lakeside Dairy Digester Pipeline Project	\$ 2,213,063	\$ 4,426,126	Lakeside Dairy Digester Pipeline Project is a new covered lagoon digester processing in Kings County, California. The project is a part of the Lakeside Pipeline cluster, developed by Maas Energy Works and majority owned by participating dairy families. This cluster was selected as an SB-1383 Pilot Project. This individual digester 100% producer-owned by the host dairy family, and developed and operated by Maas Energy Works. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near River Ranch dairy. There, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas utility pipeline for delivery to contracted CNG fueling stations around the state--similar to the Project Team's and DDRDP's successful Calgren Dairy Fuels cluster, which is currently injecting utility-grade renewable natural gas.	Kings	218,679
24	Lone Oak Energy LLC	Dixie Creek Dairy Digester Pipeline Project	\$ 2,436,030	\$ 4,872,060	Dixie Creek Dairy Digester Pipeline Project is a new covered lagoon digester processing in Kings County, California. The project is a part of the Lakeside Pipeline cluster, developed by Maas Energy Works and majority owned by participating dairy families. This cluster was selected as an SB-1383 Pilot Project. This individual digester 100% producer-owned by the host dairy family, and developed and operated by Maas Energy Works. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near River Ranch dairy. There, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas utility pipeline for delivery to contracted CNG fueling stations around the state--similar to the Project Team's and DDRDP's successful Calgren Dairy Fuels cluster, which is currently injecting utility-grade renewable natural gas.	Kings	271,176

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
25	Maya Dairy Biogas	Maya Dairy Biogas	\$ 2,015,393	\$ 8,969,975	Maya Dairy is part of the Buttonwillow dairy biogas to fuel cluster in Kern County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connected to the centralized biogas upgrading facility and interconnection located nearby. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Kern	250,090
26	McMoo Farms Dairy Biogas	McMoo Farms Dairy Biogas	\$ 1,598,893	\$ 3,920,532	McMoo Farms joins the Kern dairy biogas to fuel cluster near Bakersfield, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station, shared with the neighboring dairy, will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility and interconnection located at BV Dairy. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Kern	164,384
27	Merced Pipeline LLC	Homen Dairy Digester Pipeline Project	\$ 1,640,419	\$ 3,280,839	Homen Dairy Digester Pipeline Project is a new covered lagoon digester processing manure at Homen Dairy in Merced County, California. The project is a part of the Merced Pipeline cluster, developed by Maas Energy Works. This cluster was selected as an SB-1383 Pilot Project. The digester will be owned by Maas Energy Works under a profit sharing agreement with the host dairy family. The methane-rich biogas from the digester will be transported via private, low-pressure pipe to the cluster's central hub near Vander Woude Dairy. Once there, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be conditioned and injected into the PG&E utility pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state. The model is similar to the Project Team's and DDRDP's successful Calgren Dairy Fuels cluster, which is currently in operation and producing pipeline-injected CNG.	Merced	124,000
28	Merced Pipeline LLC	Melo Dairy Digester Pipeline Project	\$ 2,910,554	\$ 5,821,109	Melo Dairy Digester Pipeline Project is a new covered lagoon digester processing manure at Melo Dairy in Merced County, California. The project is a part of the Merced Pipeline cluster, developed by Maas Energy Works. This cluster was selected as an SB-1383 Pilot Project. The digester will be owned by Maas Energy Works under a profit sharing agreement with the host dairy family. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near Vander Woude Dairy. Once there, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be conditioned and injected into the PG&E utility pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state. The model is similar to the Project Team's and DDRDP's successful Calgren Dairy Fuels cluster, which is currently in operation and producing pipeline-injected CNG.	Merced	272,690

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
29	Newhouse Dairy Biogas	Newhouse Dairy Biogas	\$ 1,665,037	\$ 4,610,610	Newhouse Dairy will join the established Kern dairy biogas to fuel cluster near Bakersfield, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility and interconnection located at BV Dairy. Biomethane, meeting SoCalGas Rule30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Kern	171,098
30	Nyman Brothers Dairy Biogas	Nyman Brothers Dairy Biogas	\$ 687,006	\$ 5,341,908	Nyman Brothers Dairy is part of the new Hilmar dairy biogas to fuel cluster in Merced County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading and interconnection facility. Biomethane, meeting PG&E specifications, will be injected into the nearby point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Merced	68,026
31	Poplar Lane Dairy Biogas LLC	Poplar Lane Dairy Digester Pipeline Project	\$ 1,756,966	\$ 3,513,932	Poplar Lane Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure from ### dairy, in ### County, California. The project is a part of the Lakeside Pipeline cluster, developed by Maas Energy Works and majority owned by participating dairy families. This cluster was selected as an SB-1383 Pilot Project. This individual digester is owned Maas Energy Works, under a profit-sharing agreement with the host dairy family. The methane-rich biogas from the digester will be transported via private, low-pressure pipe to the cluster's central hub near River Ranch dairy. There, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas utility pipeline for delivery to contracted CNG fueling stations around the state-similar to the Project Team's & DDRDP's successful Calgren Dairy Fuels cluster, which is currently injecting utility-grade RCNG.	Kings	131,195
32	Rib-Arrow Dairy Biogas	Rib-Arrow Dairy Biogas	\$ 657,231	\$ 4,175,150	Rib-Arrow Dairy joins the South Tulare dairy biogas to fuel cluster. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility. Biomethane, meeting SoCalGas Rule 30, will be injected into co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	76,343

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
33	Ribeiro Dairy Biogas	Ribeiro Dairy Biogas	\$ 1,124,962	\$ 3,814,042	Ribeiro Dairy joins the South Tulare dairy biogas to fuel cluster. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility. Biomethane, meeting SoCalGas Rule 30, will be injected into co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	132,348
34	Rio Blanco Dairy Biogas	Rio Blanco Dairy Biogas	\$ 1,002,797	\$ 3,558,815	Rio Blanco Dairy joins the South Tulare dairy biogas to fuel cluster. The dairy will install a Tier 1 designed manure-only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading facility. Biomethane, meeting SoCalGas Rule 30, will be injected into co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Tulare	100,886
35	River Ranch Farms LLC	High Roller Dairy Digester Pipeline Project	\$ 1,412,136	\$ 2,824,272	High Roller Dairy Digester Pipeline Project is a new covered lagoon digester processing in Kings County, California. The project is a part of the Lakeside Pipeline cluster, developed by Maas Energy Works and majority owned by participating dairy families. This cluster was selected as an SB-1383 Pilot Project. This individual digester 100% producer-owned by the host dairy family, and developed and operated by Maas Energy Works. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near River Ranch dairy. There, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas utility pipeline for delivery to contracted CNG fueling stations around the state--similar to the Project Team's and DDRDP's successful Calgren Dairy Fuels cluster, which is currently injecting utility-grade renewable natural gas.	Kings	105,257
36	Skyview Dairy Biogas	Skyview Dairy Biogas	\$ 686,620	\$ 8,372,792	Skyview Dairy is part of the Buttonwillow dairy biogas to fuel cluster in Kern County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connected to the centralized biogas upgrading facility and interconnection located nearby. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Kern	85,174

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
37	Southern Cross Dairy Biogas	Southern Cross Dairy Biogas	\$ 1,019,121	\$ 9,091,188	Southern Cross Dairy is part of the Buttonwillow dairy biogas to fuel cluster in Kern County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connected to the centralized biogas upgrading facility and interconnection located nearby. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Kern	125,872
38	Southpoint Ranch Dairy Biogas	Southpoint Ranch Dairy Biogas	\$ 3,000,000	\$ 16,642,393	Southpoint Ranch Dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning station will remove hydrogen sulfide from this dairy's digester gas and from the neighboring Capstone Ranch dairy's digester gas and then meter and move the clean biogas directly into a co-located, ultra-clean, high efficiency 3.5 MW Bloom Energy fuel cell interconnected to PG&E. CalBio will generate LCFS credits by directly matching generation and supplying the renewable energy credits to in-state electric vehicle re-charging load. California Bioenergy is the project developer.	Madera	484,999
39	Tipton Pipeline LLC	De Boer Dairy Digester Pipeline Project	\$ 1,825,261	\$ 3,650,523	De Boer Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure at De Boer Dairy in Tulare County, California. The project is owned by Calgren Dairy Fuels and will be a part of the Calgren Dairy Fuels (CDF) Cluster, developed by Maas Energy Works. This Cluster is operational, producing biogas from five digesters and injecting renewable natural gas into the SoCalGas pipeline. CDF has started physical construction on all 6 of its DDRDP awards received in 2018 and all are scheduled to be online in 2019. The biogas from this new digester will be transported via the Cluster's private, low-pressure pipeline to the cluster's hub near the Calgren ethanol refinery. Once there, it will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the SoCalGas pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Tulare	191,647
40	Van Der Hoek Dairy Biogas LLC	Van Der Hoek Dairy Digester Pipeline Project	\$ 2,061,968	\$ 4,123,936	Van Der Hoek Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure from Van Der Hoek Dairy, in Fresno County, California. The project is a part of the Five Points Pipeline cluster, developed by Maas Energy Works. The project is owned Maas Energy Works, under a profit sharing agreement with the host dairy family. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the operational Open Sky Ranch digester. That digester was funded by CDFA in 2015, brought online in 2016, and is host to an older PG&E pipeline injection facility which is being restarted for the Five Points cluster. Once at the hub, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the adjacent PG&E utility pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Fresno	168,447

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.

**CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Projects Selected for Award of Funds**

#*	Applicant Organization	Project Name	CDFA Funding Award**	Total Project Cost	Description (as submitted by applicant)	County	GHG Emission Reduction Over 10 Years*** (MTCO _{2e})
41	Van Der Kooi Power LLC	Van Der Kooi Dairy Digester Pipeline Project	\$ 1,897,438	\$ 3,794,876	Van Der Kooi Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Fresno County, California. The project is 100% farmer owned by the host Charles Van Der Kooi Dairy. The project is a part of the Five Points Pipeline cluster, developed by Maas Energy Works. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the operational Open Sky Ranch digester. That digester was funded by CDFA in 2015, brought online in 2016, and is host to an older PG&E pipeline injection facility which is being restarted for the Five Points cluster. Once at the hub, the biogas will be used to fuel partner and public trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be injected into the adjacent PG&E utility pipeline for delivery to contracted CNG fueling stations around the Central Valley and the state.	Fresno	170,089
42	Whiteside Dairy Biogas	Whiteside Dairy Biogas	\$ 960,043	\$ 8,150,245	Whiteside Dairy is part of the Buttonwillow dairy biogas to fuel cluster in Kern County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connected to the centralized biogas upgrading facility and interconnection located nearby. Biomethane, meeting SoCalGas Rule 30, will be injected into the co-located point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Kern	119,137
43	Yosemite Jersey Dairy Biogas	Yosemite Jersey Dairy Biogas	\$ 946,644	\$ 5,044,334	Yosemite Jersey Dairy is part of the new Hilmar dairy biogas to fuel cluster in Merced County, CA. The dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. An on-dairy biogas conditioning and compressor station (shared with the neighboring Clauss and Sunwest Dairies digester project) will remove hydrogen sulfide and moisture and then meter and move the clean biogas into a gathering line connecting to the centralized biogas upgrading and interconnection facility. Biomethane, meeting PG&E specifications, will be injected into the nearby point of receipt. The project's biomethane will be delivered as R-CNG to fleets and CNG fueling stations in California. California Bioenergy is the project developer.	Merced	93,734
Total			\$ 67,393,550	\$ 234,047,173			6,961,273

*Selected projects are displayed in alphabetic order by "Applicant Organization".

**Subject to change based upon budget evaluation by CDFA.

***Initial greenhouse gas (GHG) reductions calculated using the [CARB Quantification Methodology tool](#). Actual GHG reductions may differ. MTCO_{2e}: Metric tons of carbon dioxide equivalent.