CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2018 Dairy Digester Research and Development Program
Projects Selected for Award of Funds

Updated on December 24, 2018

#*	Organization Name	Project Title	CDFA Funding Award**	Total Project Cost	Project Description	Location	GHG Emission Reduction Over 10 Years*** ($MTCO_2e$)
1	Calgren Dairy Fuels LLC	4K Dairy Digester Pipeline Project	$1,780,588	$3,561,176	4K Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. The Calgren Dairy Fuels Cluster has already laid four miles of pipeline and begun construction of three digesters awarded CDFA funds in late 2017--scheduled to provide the state's first pipeline diary biogas fuel by June of 2018. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the Calgren ethanol refinery. 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.	Pixley, Tulare Co.	192,143
2	Aemetis Advanced Fuels Inc.	Ackerman Dairy Digester Pipeline Project	$1,331,291	$2,662,582	Ackerman Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Stanislaus County, California. The project is a part of the Aemetis 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 at the Aemetis ethanol refinery. Once at the hub, most of the biogas will be used to fuel partner trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be used on site to fuel boilers at the Aemetis ethanol refinery to make very low carbon vehicle fuel.	Ceres, Stanislaus Co.	89,574
3	Aukeman Farms Dairy Biogas	Aukeman Dairy Biogas	$1,765,457	$4,998,508	Aukeman Farms Dairy, a dairy operation located in Tulare CA will build a Tier 1 designed manure only covered lagoon digester with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor and meter station will deliver biogas via a biogas gathering line to the centralized "Tipton Dairy Biogas Cluster" shared upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the biomethane pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Tulare, Tulare Co.	207,701
4	Belonave Dairy Biogas LLC	Belonave Dairy Biogas LLC	$1,918,099	$5,458,162	Belonave, a dairy operation located in Bakersfield, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Bakersfield, Kern Co.	225,659

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5	BV Dairy LLC	BV Dairy Biogas	$1,749,596	$3,835,451	BV Dairy, a dairy operation located in Bakersfield, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Bakersfield, Kern Co.	205,835
6	Calgren Dairy Fuels LLC	Cornerstone Dairy Digester Pipeline Project	$1,266,053	$2,532,107	Cornerstone Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. The Calgren Dairy Fuels Cluster has already laid four miles of pipeline and begun construction of three digesters awarded CDFA funds in late 2017--scheduled to provide the state's first pipeline diary biogas fuel by June of 2018. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the Calgren ethanol refinery. 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.	Tipton, Tulare Co.	185,238
7	De Groot Dairy North Biogas	De Groot North Dairy Biogas	$1,442,440	$3,844,218	North Dairy, LP, a dairy operation located in Hanford, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Hanford, Kings Co.	169,699
8	De Groot Dairy South Biogas	De Groot South Dairy Biogas	$1,542,697	$3,301,643	South Dairy, LP, a dairy operation located in Hanford, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Hanford, Kings Co.	181,494

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9	Decade Energy LLC	Decade Centralized Dairy Digester Pipeline Project	$1,773,587	$3,547,174	The Decade Centralized Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure from two dairies in Tulare County, California. The project is 100% farmer owned by the host dairymen Eric and Clarinda Westra & Richard and Donna Westra. The project is a part of the Hanford-Lakeside 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 River Ranch. 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.	Tulare, Tulare Co.	192,558
10	DJ South Dairy Biogas LLC	DJ South Dairy Digester Pipeline Project	$1,810,526	$3,621,051	DJ South Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is owned by DJ South Dairy Biogas LLC and is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Chowchilla, Madera Co.	150,175
11	Aemetis Advanced Fuels Inc.	Double D Dairy Digester Pipeline Project	$1,822,668	$3,645,336	Double D Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Stanislaus County, California. The project is a part of the Aemetis 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 at the Aemetis ethanol refinery. Once at the hub, most of the biogas will be used to fuel partner trucks at an on-site compressed natural gas fueling station. The remainder of the gas will be used on site to fuel boilers at the Aemetis ethanol refinery to make very low carbon vehicle fuel. The project can begin generating greenhouse gas reductions very quickly since it does not require utility pipeline interconnection during this first phase.	Ceres, Stanislaus Co.	189,850
12	Double J Dairy Biogas	Double J Dairy Biogas	$2,426,716	$6,716,522	Double J Dairy, a dairy operation located in Visalia, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	285,496

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13	Double L Dairy Biogas LLC	Double L Dairy Digester Pipeline Project	$1,762,347	$3,524,694	Double L Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in King's County, California. The project is owned by Double L Dairy Biogas LLC and is part of the Hanford-Lakeside 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 River Ranch. 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.	Hanford, Kings Co.	136,148
14	Dykstra Dairy Biogas	Dykstra Dairy Biogas	$2,260,454	$5,696,457	Dykstra Dairy, a dairy operation located in Tulare, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor and meter station will deliver biogas via a biogas gathering line to the centralized "Tipton Dairy Cluster" shared upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the biomethane pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Tulare, Tulare Co.	265,936
15	The El Monte Dairy Biogas	El Monte Dairy Biogas	$1,010,674	$4,132,977	The El Monte Dairy, a dairy operation located in Tipton, CA proposes to build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pretreatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Tipton, Tulare Co.	118,903
16	5H Dairy Biogas LLC	Five H Dairy Digester Pipeline Project	$1,851,297	$3,702,594	Five H Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is owned by Five H Dairy Biogas LLC and is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Merced, Merced Co.	122,183

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17	FM Jersey Biogas LLC	FM Jerseys Dairy Digester Virtual Pipeline Project	$2,010,747	$4,021,494	FM Jerseys Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. FM Jerseys (located on the opposite of the highway and railroad tracks) will greatly expand the reach of this cluster by delivering gas via virtual pipeline--rapidly growing the geographic area served by the state's first dairy fuels cluster. The methane-rich biogas from the digester will be hauled using clean-burning renewable CNG-fueled trucks and compressed natural gas tube trailers to create a virtual pipeline to the cluster's central hub at the Calgren ethanol refinery. 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.	Tipton, Tulare Co.	161,960
18	Hoogendam Dairy Biogas LLC	Hoogendam Dairy Digester Pipeline Project	$1,809,452	$3,618,905	Hoogendam Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is owned by Hoogendam Dairy Biogas LLC and is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Merced, Merced Co.	142,354
19	Horizon Jersey Dairy Biogas	Horizon Jersey Dairy Biogas	$2,850,886	$6,985,835	Horizon Jersey Dairy, a dairy operation located in Tipton, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Tipton, Tulare Co.	335,398
20	California Bioenergy LLC	Jacobus De Groot #2 Dairy Biogas	$523,736	$3,381,424	Jacobus De Groot #2 Dairy, a dairy operation located in CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	61,616

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21	Calgren Dairy Fuels LLC	Little Rock Centralized Dairy Digester Pipeline Project	$2,096,578	$4,193,156	Little Rock Dairy Centralized Digester Pipeline Project is a new covered lagoon digester processing dairy manure from two smaller dairies in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. The Calgren Dairy Fuels Cluster has already laid four miles of pipeline and begun construction of three digesters awarded CDFA funds in late 2017--scheduled to provide the state's first pipeline diary biogas fuel by June of 2018. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the Calgren ethanol refinery. 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.	Tipton, Tulare Co.	146,839
22	Lone Oak Energy LLC	Lone Oak #1 Dairy Digester Pipeline Project	$1,869,269	$3,738,538	Lone Oak #1 Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in King's County, California. The project is 100% farmer owned by the host dairy family members of the 2000 TeVelde Trust. The project is a part of the Hanford-Lakeside 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 at River Ranch. 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 around the Central Valley and the state.	Hanford, Kings Co.	247,703
	~~Calgren Dairy Fuels LLC~~	~~Meadowlake Dairy Digester Pipeline Project~~	~~$2,191,655~~	~~$4,383,310~~	~~Meadowlake Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. The Calgren Dairy Fuels Cluster has already laid four miles of pipeline and begun construction of three digesters awarded CDFA funds in late 2017--scheduled to provide the state's first pipeline diary biogas fuel by June of 2018. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the Calgren ethanol refinery. 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.~~ Awardee declined award offer prior to execution of grant agreement with CDFA.	~~Corcoran, Tulare Co.~~	~~258,134~~
23	Meirinho Dairy Biogas LLC	Meirinho Dairy Digester Pipeline Project	$1,832,358	$3,664,715	Meirinho Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is owned by Meirinho Dairy Biogas LLC and is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Merced, Merced Co.	147,352

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24	Mellema Dairy Biogas	Mellema Dairy Biogas	$1,292,485	$5,213,701	Mellema Dairy, a dairy operation located in Visalia, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	152,057
25	Milky Way Dairy Biogas	Milky Way Dairy Biogas	$2,953,427	$7,198,161	Milky Way Dairy, a dairy operation located in Visalia, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	347,462
26	Mineral King Dairy Biogas	Mineral King Dairy Biogas	$1,655,384	$5,071,416	Mineral King Dairy, a dairy operation located in Visalia, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	194,751
27	Rancho Sierra Vista Dairy Biogas	Rancho Sierra Vista Dairy Biogas	$1,470,143	$4,944,161	Rancho Sierra Vista Dairy, a dairy operation located in Visalia, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	172,958

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28	Red Rock Dairy Biogas LLC	Red Rock Dairy Digester Pipeline Project	$2,031,126	$4,062,252	Red Rock Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is owned by Red Rock Dairy Biogas LLC and is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Merced, Merced Co.	156,242
29	River Ranch Farms LLC	River Ranch Dairy Digester Pipeline Project	$1,994,860	$3,989,721	River Ranch Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in King's County, California. The project is 100% farmer owned by the host dairy family Jack and Nicole De Jong. The project is a part of the Hanford-Lakeside 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 dairy. 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.	Hanford, Kings Co.	187,884
30	Riverbend Dairy Biogas	Riverbend Dairy Biogas	$2,090,404	$4,822,385	Riverbend Dairy, a dairy operation located in Tulare, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Tulare, Tulare Co.	245,930
31	Calgren Dairy Fuels LLC	Riverview Dairy Digester Pipeline Project	$1,332,070	$2,664,140	Riverview Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. The Calgren Dairy Fuels Cluster has already laid four miles of pipeline and begun construction of three digesters awarded CDFA funds in late 2017--scheduled to provide the state's first pipeline diary biogas fuel by June of 2018. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the Calgren ethanol refinery. 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.	Pixley, Tulare Co.	90,093

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32	Rob Van Grouw Dairy Biogas	Rob Van Grouw Dairy Biogas	$1,193,757	$4,945,654	Rob Van Grouw Dairy, a dairy operation located in Visalia, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	140,442
33	Rocking Horse Dairy Biogas	Rocking Horse Dairy Biogas	$1,016,091	$3,697,629	Rocking Horse Dairy, a dairy operation located in Hanford, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Hanford, Kings Co.	119,540
34	Rockshar Dairy Biogas LLC	Rockshar Dairy Digester Pipeline Project	$1,679,093	$3,358,186	Rockshar Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is owned by Rockshar Dairy Biogas LLC and is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Merced, Merced Co.	124,664
35	Scheenstra Dairy Biogas	Scheenstra Dairy Biogas	$1,873,064	$5,469,911	Scheenstra Dairy, a dairy operation located in Tulare, CA proposes to build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Tulare, Tulare Co.	220,360

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36	Calgren Dairy Fuels LLC	Sousa & Sousa Dairy Digester Pipeline Project	$886,934	$1,773,868	Sousa and Sousa Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. The Calgren Dairy Fuels Cluster has already laid four miles of pipeline and begun construction of three digesters awarded CDFA funds in late 2017--scheduled to provide the state's first pipeline diary biogas fuel by June of 2018. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the Calgren ethanol refinery. 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.	Tipton, Tulare Co.	68,700
37	Udder Dairy Biogas	Udder Dairy Biogas	$1,153,459	$3,202,804	The Udder Dairy Biogas Project is a new covered lagoon digester processing manure in Tulare County, California. This project is part of the West Visalia Cluster, developed by California Bioenergy LLC. The Udder Dairy proposes to build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Visalia, Tulare Co.	135,701
38	Valadao Dairy Biogas	Valadao Dairy Biogas	$1,028,545	$2,906,395	Valadao Dairy, a dairy operation located in Hanford, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Hanford, Kings Co.	121,005
39	Calgren Dairy Fuels LLC	Vander Poel Dairy Digester Pipeline Project	$1,972,485	$3,944,970	Vander Poel Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Tulare County, California. The project is a part of the Calgren Dairy Fuels Cluster, developed by Maas Energy Works. The Calgren Dairy Fuels Cluster has already laid four miles of pipeline and begun construction of three digesters awarded CDFA funds in late 2017--scheduled to provide the state's first pipeline diary biogas fuel by June of 2018. The methane-rich biogas from the digester will be transported via private, low-pressure pipeline to the cluster's central hub near the Calgren ethanol refinery. 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.	Pixley, Tulare Co.	290,060

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40	Vander Woude Dairy	Vander Woude Dairy Digester Pipeline Project	$1,863,562	$3,727,124	Vander Woude Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is 100% farmer-owned by host dairy family Simon and Chris Vander Woude. The project is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Merced, Merced Co.	188,575
41	Vista Verde Dairy Biogas LLC	Vista Verde Dairy Digester Pipeline Project	$1,594,109	$3,188,217	Vista Verde Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure in Merced County, California--opening up digester development in California's second largest dairy county. The project is owned by Vista Verde Dairy Biogas LLC and is a part of the Merced-South 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 at the center of the dairy group. Once at the hub, the biogas will be used to fuel partner and public trucks at a new compressed natural gas fueling station. The remainder of the gas will be injected into the PG&E utility pipeline for delivery to other CNG fueling stations around the Central Valley and the state.	Chowchilla, Madera Co.	140,653
42	Western Sky Dairy Biogas	Western Sky Dairy Biogas	$2,820,762	$5,722,951	Western Sky Dairy, a dairy operation located in Bakersfield, CA will build a Tier 1 designed manure only covered lagoon with enhanced gas storage, gas pre-treatment and effluent distribution. The project will include a sand lane, screens and mechanical separator with screw press for solid separation pre-digester. A compressor will deliver biogas via a biogas gathering line to a centralized upgrading facility where CO2, N2, O2, and further H2S removal produces biomethane meeting SoCalGas Rule 30 specifications. A gas compressor lifts the gas pressure to SoCalGas's point of receipt acceptance specification. Gas marketing, dairy processor and hauler commitments guarantee 100% delivery of the project's biomethane as R-CNG for vehicle fuel use in California. California Bioenergy, 4 Creeks Engineering, Anaergia, 4C Global and SoCalGas comprise the project team.	Bakersfield, Kern Co.	352,595
		Total	**$72,409,276**	**$174,288,365**			**7,611,486**

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