CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
2019 Dairy Digester Research and Development Program
Applications Submitted to CDFA

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Title	Description	County	GHG Emission Reduction Over 10 Years ($MTCO_2e$)**	Requested Grant Funds	Matching Funds
Ahlem Farms Dairy Biogas	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	154,674	$ 1,546,738	$ 4,557,504
Ahlem Farms Dairy Digester Project	Ahlem Farms Dairy Digester Project is a new covered lagoon digester processing dairy manure at Ahlem Dairy in Stanislaus County, California. The project is owned by Maas Energy Works, under a profit sharing agreement with the host dairy family. The project will utilize a proven, farm-reliable, low emissions engine to convert biogas to electricity. 100% of project criteria pollutant emissions will be offset by purchasing verifiable, local emissions reductions. The renewable electricity will then be used to supply carbon-negative power to charge electric vehicles including contracted school buses, transit buses, industrial vehicles, and passenger vehicles. The project has secured commitments from fleets to replace existing conventional vehicles with Zero Emission electrical vehicles, at a scale sufficient to use all of the project's electrical output and generate significant reductions in baseline GHG and criteria pollutant emissions from these vehicles.	Stanislaus	196,550	$ 2,245,229	$ 2,245,229
Ahlem Farms Jerseys - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Ahlem Farms Jerseys in Stanislaus County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion to negative-carbon-intensity renewable natural gas and sold at an onsite fueling station to local fleets, such as A.L. Gilbert. With a $30-million private investment round, Aemetis has resources to immediately start work on the project and stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster in Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Stanislaus	109,828	$ 1,534,367	$ 1,674,367
Albert Goyenetche Dairy Biogas	Albert Goyenetche 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	189,331	$ 1,609,316	$ 6,993,567

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Albert Mendes Dairy - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Albert Mendes Dairy in Stanislaus County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion to negative-carbon-intensity renewable natural gas and sold at an onsite fueling station to local fleets, such as A.L. Gilbert. With a $30-million private investment round, Aemetis has resources to immediately start work on the project and stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster in Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Stanislaus	95,749	$ 1,337,889	$ 1,783,890
Art Leyendekker Dairy Biogas	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	73,313	$ 769,784	$ 2,915,284
Avalon Dairy Digester Project	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	164,538	$ 1,917,757	$ 1,917,757
Bar 20 Dairy Biogas	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	390,315	$ 3,000,000	$ 13,989,069

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Bar Vee Dairy Inc. - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Bar Vee Dairy in Stanislaus County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Stanislaus	35,405	$ 707,041	$ 1,958,501
Bear Mountain and J&R Dairy Biogas	Bear Mountain & J&R dairies join the Kern dairy biogas to fuel cluster near Bakersfield, CA. They 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 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	172,549	$ 1,920,785	$ 5,524,103
Borba Dairy Farms - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Borba Dairy Farms L.P. in Merced County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via the PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Merced	169,144	$ 1,606,868	$ 2,988,269
Capstone Ranch Dairy Biogas	Capstone Ranch Dairy will install a Tier 1 designed manure only covered lagoon digester with integrated gas storage and pre-treatment. The digester gas will be moved a short distance over to the Southpoint Ranch dairy where the shared biogas conditioning station will remove the hydrogen sulfide and 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	264,614	$ 3,000,000	$ 6,933,182

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Charles Ahlem Ranch Dairy Biogas	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	137,370	$ 1,373,697	$ 5,758,275
Clauss and Sunwest Dairy Biogas	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	157,230	$ 1,572,301	$ 4,780,296
Clearlake Dairy Digester Pipeline Project	Clearlake Dairy Digester Pipeline Project is a new covered lagoon digester processing in Tulare 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.	Tulare	108,296	$ 1,394,648	$ 1,394,648
Curtimade Dairy Biogas	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	$ 1,747,336	$ 3,025,858

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Dairy Central - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Dairy Central in Merced County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via the PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Merced	106,511	$ 1,011,857	$ 2,046,335
Dairyland Farms Dairy Biogas	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	179,338	$ 1,760,347	$ 3,140,466
De Boer Dairy Digester Pipeline Project	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	$ 1,825,261	$ 1,825,262
Dixie Creek Dairy Digester Pipeline Project	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	306,489	$ 2,436,030	$ 2,436,030

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Double Diamond Dairy Digester Pipeline Project	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	283,267	$ 2,037,766	$ 2,037,766
Elk Creek Dairy Biogas	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	60,318	$ 512,706	$ 3,596,502
Elkhorn Dairy Biogas	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	202,465	$ 2,125,882	$ 4,520,035
Fern Oaks Dairy Digester Pipeline Project	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	191,376	$ 1,688,894	$ 1,688,894

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Friesian Farms Dairy Biogas	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	63,960	$ 639,602	$ 3,175,183
Gerben Leyendekker Dairy Biogas	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	80,532	$ 845,589	$ 2,902,768
GP Dairy Biogas	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 Leyendecker 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	47,862	$ 502,554	$ 2,915,623
Hettinga Centralized Dairy Digester Pipeline Project	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	185,592	$ 2,352,909	$ 2,352,909

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High Roller Dairy Digester Pipeline Project	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	119,428	$ 1,412,136	$ 1,412,136
Hilmar Holsteins - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Hilmar Holsteins Inc. in Merced County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Merced	119,445	$ 1,134,737	$ 1,744,243
Homen Dairy Digester Pipeline Project	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	122,651	$ 1,640,419	$ 1,640,420
James Ahlem Dairy Biogas	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	83,035	$ 830,349	$ 4,861,351

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JR Dairy Digester Pipeline Project	JR Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure at JR 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	189,950	$ 1,753,185	$ 1,753,185
K&R Blount Dairy - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at K&R Blount Dairy in Stanislaus County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion to negative-carbon-intensity renewable natural gas, and sold at an onsite fueling station to local fleets, such as A.L. Gilbert. With a $30-million private investment round, Aemetis has resources to immediately start work on the project and stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, in Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Stanislaus	67,972	$ 949,585	$ 1,656,162
Lakeshore Dairy Digester Project	Lakeshore Dairy is a new covered lagoon digester processing dairy manure in Kings County, California. The project is 100% producer-owned by Rock View Farms / DeGroot family. The project is developed and operated by Maas Energy Works. The project will utilize a proven, farm-reliable, low emissions engine to convert biogas to electricity. 100% of project criteria pollutant emissions will be offset by purchasing verifiable, local emissions reductions. The renewable electricity will then be used to supply carbon-negative power to charge electric vehicles including contracted school buses, transit buses, industrial vehicles, and passenger vehicles. The project has secured commitments from fleets to replace existing conventional vehicles with Zero Emission electrical vehicles, at a scale sufficient to use all of the project's electrical output and generate significant reductions in baseline GHG and criteria pollutant emissions.	Kings	198,613	$ 2,320,882	$ 2,320,883
Lakeside Dairy Digester Pipeline Project	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	247,258	$ 2,213,063	$ 2,213,063

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Martins Brothers Dairy Farms - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Martins Brothers Dairy Farms in Merced County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via the PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Merced	154,475	$ 1,467,661	$ 1,587,900
Mattos Bros Dairy Digseter Pipeline Project	Mattos Bros Dairy Digseter 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	119,604	$ 1,495,277	$ 1,495,278
Maya Dairy Biogas	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	237,105	$ 2,015,393	$ 6,954,582
McMoo Farms Dairy Biogas	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	166,952	$ 1,598,893	$ 2,321,639

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Melo Dairy Digester Pipeline Project	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	237,285	$ 2,910,554	$ 2,910,555
Morris Family Enterprises - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Morris Family Enterprises in Stanislaus County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion to negative-carbon-intensity renewable natural gas, and sold at an onsite fueling station to local fleets, such as A.L. Gilbert. With a $30-million private investment round, Aemetis has resources to immediately start work on the project and stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, in Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Stanislaus	40,531	$ 566,234	$ 1,984,900
Newhouse Dairy Biogas	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	173,776	$ 1,665,037	$ 2,945,573
Northstar Dairy Digester Pipeline Project	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	192,753	$ 1,576,438	$ 1,576,438

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Nyman Brothers Dairy Biogas	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	68,701	$ 687,006	$ 4,654,902
Oliveira Dairy - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Oliveira Dairy in Merced County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Merced	84,396	$ 801,952	$ 2,357,156
Poplar Lane Dairy Digester Pipeline Project	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	145,566	$ 1,756,966	$ 1,756,966
Poso Creek Family Dairy Biogas	Poso Creek Family 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 1.2 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.	Kern	268,430	$ 3,000,000	$ 10,090,897

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Rib-Arrow Dairy Biogas	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	77,321	$ 657,231	$ 3,517,919
Ribeiro Dairy Biogas	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	$ 1,124,962	$ 2,689,080
Rio Blanco Dairy Biogas	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	$ 1,002,797	$ 2,556,018
RuAnn Dairy Digester - Biogas to Electricity	RuAnn Dairy plans to build a DVO mixed plug flow anaerobic digester system. The digester is designed to help optimize manure management practices at the dairy while creating renewable energy through the capture of methane-rich biogas. Dairy manure is the digester feedstock. Biogas will be scrubbed and utilized as fuel to drive an engine/generator that will produce electricity (estimated at 500 kW/hr) for sale to the utility under the BioMAT tariff. Digested manure will be separated with the solids utilized as cow bedding material. The separated liquid will be field-spread as a nutrient-rich soil amendment.	Fresno	59,551	$ 500,000	$ 5,074,982

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S&S Dairy Inc. - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at S&S Dairy Inc. in Stanislaus County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via the PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Stanislaus	93,312	$ 1,302,932	$ 1,992,035
Schott Dairy Digester Pipeline Project	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	143,137	$ 1,444,592	$ 1,444,592
Simoes Centralized Digester Pipeline Project	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	182,808	$ 2,036,460	$ 2,036,460
Skyview Dairy Biogas	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	80,779	$ 686,620	$ 7,686,172

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Southern Cross Dairy Biogas	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	119,897	$ 1,019,121	$ 8,072,067
Southpoint Ranch Dairy Biogas	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	511,207	$ 3,000,000	$ 13,642,393
Van Der Hoek Dairy Digester Pipeline Project	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	192,287	$ 2,061,968	$ 2,061,968
Van Der Kooi Dairy Digester Pipeline Project	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	19,411	$ 1,897,438	$ 1,897,438

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Vanderham Dairy Digester Pipeline Project	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	212,312	$ 1,984,951	$ 1,984,951
Whiteside Dairy Biogas	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	112,946	$ 960,043	$ 7,190,202
Wickstrom Jersey Farms - AAFK Central Dairy Digester Cluster	The project will install a covered lagoon digester at Wickstrom Jersey Farms Inc. in Merced County. When complete, it will produce biogas for transfer to the Aemetis Advanced Fuels Keyes facility for conversion into negative-carbon-intensity renewable natural gas for sale via the PG&E pipeline to fleet customers, such as UPS. With a $30-million private investment round, Aemetis has the resources to begin work on the project immediately and to stay on schedule through completion—without extensions, additional grants, or funding-related delays. Aemetis has assembled a strong, proven team to design, build, and operate the digester—a team with deep experience on projects of even greater scope, budget, and complexity, as well as 37 dairy digesters. The project will serve as one of 16 foundational digesters in the Aemetis Central Dairy Digester Cluster, which spans Stanislaus and Merced Counties—an area with minimal CDFA investment. Aemetis plans to grow this cluster to 30 dairies by 2022.	Merced	132,388	$ 1,258,095	$ 1,418,261
Wilson Dairy Digester Pipeline Project	Wilson Dairy Digester Pipeline Project is a new covered lagoon digester processing dairy manure from Wilson 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	210,774	$ 1,988,938	$ 1,988,939

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** Total GHG emission reduction is estimated by the applicant and has not been verified.

Title	Description	County	GHG Emission Reduction Over 10 Years ($MTCO_2e$)**	Requested Grant Funds	Matching Funds
WTE-Tollcrest - Biogas-to-Transportation Fuel	WTE-Tollcrest, LLC is looking to build an anaerobic digester system at Tollcrest Dairy, located in Yuba County near Wheatland, CA. It is a modern flush dairy where the owners want to collaborate with WTE-Tollcrest to establish an anaerobic digester to digest dairy-derived manure into biogas, quality animal bedding and nutrient-rich digestate. The digester will be a mixed plug flow design provided by DVO, Inc. Captured biogas will be scrubbed, conditioned, and injected utilizing systems provided by DMT Clear Gas Solutions ("DMT") into a PG&E gas main that runs through dairy property. Bio-methane will be purchased under a long-term 10-year offtake for use as transportation fuel consumed in California.	Yuba	121,176	$ 1,000,000	$ 8,900,000
Yosemite Jersey Dairy Biogas	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	94,664	$ 946,644	$ 4,097,690
		Total	**10,128,127**	**$ 101,691,712**	**$ 237,566,968**