March 15, 2024

Via email to dana.ashford@usda.gov

Dana Ashford-Kornburger
National Climate Coordinator
U.S. Department of Agriculture
1400 Independence Ave., SW
Washington, DC 20250

Re: NRCS's Climate-Smart Agriculture and Forestry Mitigation Activities List for FY2025

Dear Dana,

Together with the over 50 undersigned environmental, community advocacy, animal welfare, and farmer organizations, Earthjustice writes to urge the Natural Resources Conservation Service ("NRCS") to exclude anaerobic digesters from its upcoming Climate-Smart Agriculture and Forestry Mitigation Activities List for FY2025 ("Climate-Smart List"), thereby ensuring that digesters do not improperly receive funding under the Inflation Reduction Act ("IRA"). NRCS has included digesters on prior climate-smart lists, meaning that digesters likely have received IRA funds in the past.[1] However, IRA funds are restricted to agricultural practices that mitigate climate change, and NRCS must rely on scientific literature to develop the Climate-Smart List. For the reasons discussed below, NRCS lacks authority to deem digesters eligible for IRA funding.

NRCS has not identified *any* peer-reviewed studies supporting its prior conclusions that digesters mitigate climate change. In fact, a significant and growing body of scientific evidence demonstrates that digesters' short-term benefits are uncertain at best, because digesters and associated infrastructure leak methane, and their byproduct digestate emits methane and nitrous oxide, another powerful greenhouse gas. Studies suggesting that digesters reduce emissions frequently fail to compare digesters to other methods of manure management and, therefore, calculate emissions reductions from an inappropriate baseline. And, over the long term, producers who install digesters often counteract any climate benefits by increasing animal herds or shutting down digesters altogether. In light of this uncertainty, a decision to include digesters on the Climate-Smart List would conflict with IRA. In addition, funding digesters would divert money from proven climate-smart practices, while exacerbating environmental injustice.

We also urge NRCS to improve transparency and public participation with respect to its annual process for preparing the climate-smart list. NRCS must uphold its commitment to

[1] *See* NRCS, USDA, *Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List for FY2024*, at 2 (2023), https://www.nrcs.usda.gov/sites/default/files/2023-10/NRCS-CSAF-Mitigation-Activities-List.pdf (including digesters); *see also* NRCS, USDA, *Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List FY2023*, at 2 (2023), https://www.nrcs.usda.gov/sites/default/files/2023-03/Climate-Smart-Agriculture-and-Forestry-%28CSAF%29-Mitigation-Activities-2023.pdf (same).

"making publicly available the underpinning literature, methodology, and assumptions."[2] In addition, NRCS must provide the public with a meaningful opportunity to comment on the process and selected practices. As a result of the current lack of transparency and public participation, it is difficult to determine whether NRCS is properly allocating the nearly $20 billion in IRA funds made available for climate change mitigation.

I. NRCS must not make digesters eligible for IRA funding because doing so conflicts with IRA's express requirement and NRCS's own criteria.

A. IRA funds are available only for agricultural practices that mitigate climate change, and NRCS must rely on scientific literature to develop the Climate-Smart List.

IRA is a groundbreaking law that aims to reduce agriculture's significant contributions to climate change by linking approximately $20 billion in public funding for agriculture to the adoption of climate-smart agricultural practices.[3] Congress has made clear that IRA funds are available *only* for agricultural practices that "directly improve soil carbon, reduce nitrogen losses, or reduce, capture, avoid, or sequester carbon dioxide, methane, or nitrous oxide emissions, associated with agricultural production."[4] NRCS is responsible for identifying practices eligible for IRA funding, and each year, it includes eligible practices on its climate-smart list.[5]

NRCS applies a two-part test to determine whether a practice satisfies IRA's requirements: "(1) The activity must result in a direct impact on net greenhouse gas emission reduction or removal within a given scope as supported by the scientific literature, and (2) NRCS must have a science-based methodology for quantitatively estimating mitigation benefits using available NRCS activity data."[6] In applying this test, NRCS reviews the "scientific literature demonstrating expected climate change mitigation benefits" of the practice.[7] It follows that when the scientific literature shows that a practice's ability to mitigate climate change is uncertain—or worse—the practice cannot be eligible for IRA funding.

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[2] Georgina Gustin, *The Biden Administration is Spending its 'Climate Smart' Funding in the Wrong Places, According to New Analyses*, Inside Climate News (Mar. 4, 2024), https://insideclimatenews.org/news/04032024/biden-administration-spending-climate-smart-funding-in-wrong-places/.

[3] *See* Inflation Reduction Act of 2022, Pub. L. No. 117-169, § 21001, 136 Stat. 1818, 2015 (2022).

[4] *Id.* § 21001(a)(1)(B)(iii).

[5] *See* NRCS, USDA, *NRCS Climate-Smart Mitigation Activities*, https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/climate/climate-smart-mitigation-activities (last visited Mar. 5, 2024).

[6] NRCS, USDA, *FAQs: Climate-Smart Agriculture and Forestry Mitigation Activities and Inflation Reduction Act Funding*, https://www.nrcs.usda.gov/faqs-climate-smart-agriculture-and-forestry-mitigation-activities-and-inflation-reduction-act (last visited Nov. 8, 2023).

[7] *See* NRCS, USDA, *NRCS Climate-Smart Mitigation Activities*, https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/climate/climate-smart-mitigation-activities (last visited Mar. 5, 2023); *see also* NRCS, USDA, *FAQs: Climate-Smart Agriculture and Forestry Mitigation Activities and Inflation Reduction Act Funding*, https://www.nrcs.usda.gov/faqs-climate-smart-agriculture-and-forestry-mitigation-activities-and-inflation-reduction-act (last visited Nov. 2, 2023) (explaining that evaluation teams evaluate conservation practice standards based on "available scientific literature for the practice").

B. NRCS's process for selecting climate-smart practices is not transparent, and NRCS has not identified any peer-reviewed scientific literature underlying its conclusion that digesters support climate change mitigation.

NRCS provides little transparency with respect to its annual process for preparing the climate-smart list. Although NRCS recently stated that it is "in the process of making publicly available the . . . literature, methodology, and assumptions" that "underpin" its selection of eligible practices,[8] it has failed to make this information public during the more than two years that it has prepared climate-smart lists. As a result, the public has no idea how NRCS gathers, compares, or weighs the information it considers. In addition, NRCS has not provided the public with a meaningful opportunity to comment on its selection process. To our knowledge, NRCS did not announce the present opportunity for comment in the Federal Register, a failure that likely prevented many interested organizations and individuals from commenting.

NRCS's general lack of transparency also infects its decision to include digesters on climate-smart lists.[9] NRCS has not made publicly available *any* information supporting its previous conclusions that digesters mitigate climate change. In response to a Freedom of Information Act request seeking the evidence upon which NRCS relied to include digesters on the climate-smart list for FY2024,[10] NRCS produced just four studies, none of which offer adequate support. Two of the studies purport to show that digesters reduce methane emissions from industrial animal operations.[11] However, these studies are approximately two decades old, are not peer reviewed, and evaluate only one digester each. In addition, they inflate emissions reductions attributable to digesters by also assessing the reductions in carbon dioxide emissions that would result from using digester-generated biogas, rather than fossil fuels, to generate electricity.[12] But the carbon dioxide reductions are hypothetical and untethered to any actual emission reductions at the operations where the digesters were installed. Further, the studies conflict with more recent, peer-reviewed work that casts doubt on digesters' climate benefits, discussed in more detail below. The third study considered by NRCS, while peer-reviewed, in fact shows that the digestate remaining after the digestion process has significantly *increased* ammonium nitrogen concentrations relative to conventional manure,[13] which can cause water pollution. This study does not shed light on digesters' climate benefits—or lack thereof. And

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[8] Gustin, *supra* note 2.

[9] *See* NRCS, USDA, *Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List for FY2024*, at 2 (2023), https://www.nrcs.usda.gov/sites/default/files/2023-10/NRCS-CSAF-Mitigation-Activities-List.pdf (including digesters); *see also* NRCS, USDA, *Climate-Smart Agriculture and Forestry (CSAF) Mitigation Activities List FY2023*, at 2 (2023), https://www.nrcs.usda.gov/sites/default/files/2023-03/Climate-Smart-Agriculture-and-Forestry-%28CSAF%29-Mitigation-Activities-2023.pdf (same).

[10] The request sought the scientific literature, white papers, or reports that NRCS relied upon to conclude that anaerobic digesters reduce greenhouse gas emissions, among other things.

[11] *See* John H. Martin, *A Comparison of Dairy Cattle Manure Management with and without Anaerobic Digestion and Biogas Utilization* (2003), attached as Exhibit 1; *see also* John H. Martin, *An Evaluation of Mesophilic, Modified Plug Flow Anaerobic Digester for Dairy Cattle Manure* (2005), attached as Exhibit 2.

[12] *See, e.g.*, Exhibit 1, *supra* note 11, at 3, 26.

[13] *See* Xiaoquian Zhang et al., *Long-Term Performance of Three Mesophilic Anaerobic Digesters to Convert Animal and Agro-Industrial Wastes into Organic Fertilizer*, 307 J. Cleaner Prod. 1 (2021).

the fourth study assessed the conditions necessary for venting hydrogen sulfide from digesters without risking worker safety,[14] which also does not bear on digesters' climate impacts.

NRCS's inability to provide meaningful support for its previous determinations that digesters mitigate climate change demonstrates that those determinations were not grounded in recent, reliable science. Therefore, NRCS's previous determinations are inconsistent with NRCS's own two-part test, which requires not only that a practice result in a scientifically supported direct reduction or removal of greenhouse gas emissions, but also that NRCS identify a science-based methodology for quantitatively estimating the practice's mitigation benefits. Without scientific support, NRCS lacks authority to deem digesters eligible for IRA funds—and as described below, the scientific literature shows that digesters' benefits are uncertain at best.

C. Peer-reviewed scientific literature casts doubt on whether anaerobic digesters mitigate climate change.

1. The short-term benefits of digesters are uncertain.

Ample scientific evidence shows that there is serious uncertainty as to whether digesters mitigate climate change. In the short term, digesters may not mitigate climate change for at least three reasons: (1) digesters and biogas transportation infrastructure release methane due to leaks and malfunctions, (2) digestate emits both methane and nitrous oxide, and (3) many studies suggesting that digesters offer climate benefits—including two of the studies on which NRCS has relied—are flawed because they fail to compare digesters to other methods of manure management and, therefore, calculate emissions reductions from an inappropriate baseline.

First, numerous studies show that digesters and biogas transportation infrastructure release methane due to leaks and malfunctions.[15] Indeed, during the digestion process, digesters can leak 15 percent of the methane they initially capture.[16] And during periods of repair, maintenance, malfunction, or other suboptimal performance, digesters can release 13 to 25 percent of methane initially captured.[17] In addition, infrastructure used to transport biogas also leaks, releasing more methane.[18] Energy companies typically transport biogas through existing

[14] *See* Memorandum from Paul Wade, Montrose Air Quality Servs., LLC to Cal. Bioenergy, LLC (June 12, 2020), attached as Exhibit 3.
[15] *See* Thomas K. Flesch et al., *Fugitive Methane Emissions from an Agricultural Biodigester*, 35 Biomass & Bioenergy 3927 (2011); *see also* Nicole D. Miranda. et al., *Meta-Analysis of Greenhouse Gas Emissions from Anaerobic Digestion Processes in Dairy Farms*, 49 Env't Sci. & Tech. 5211 (2015); Felipe Montes et al., *Mitigation of Methane and Nitrous Oxide Emissions from Animal Operations: A Review of Manure Management Mitigation Options*, 91 J. Animal Sci. 5070 (2013); Semra Bakkaloglu et al., *Methane Emissions Along Biomethane and Biogas Supply Chains are Underestimated*, 5 One Earth 724 (2022).
[16] *See* Jin Zeng et al., *Evaluation of Methane Emission Flux from a Typical Biogas Fermentation Ecosystem in China*, 257 J. Cleaner Prod. 120441 (2020).
[17] *See* Flesch et al., *supra* note 15.
[18] *See* Bakkaloglu et al., *supra* note 15.

natural gas pipelines,[19] which leak as much as 2.6 million tons of methane each year in the United States.[20] Even relatively small leakage rates from digesters and their associated infrastructure can undermine any climate benefit attributed to digesters, especially when considered along with methane and nitrous oxide emissions from digestate, discussed below.

Second, digestate left over after the digestion process emits both methane and nitrous oxide when stored in open pits and applied to fields.[21] Digestate emits methane because digestion does not eliminate all the methane-generating organic matter in animal manure.[22] And digestate emits *more* nitrous oxide than manure[23] because biogas generation consumes manure carbon, leaving relatively high-nitrogen digestate as a byproduct.[24] Nitrous oxide emissions are particularly concerning from a climate perspective because nitrous oxide is 300 times more potent than carbon dioxide over a 100-year period.[25] Methane and nitrous oxide emissions from digestate thus further erode any climate benefits that digesters offer. Indeed, a recent report found that, after considering emissions from all stages of biogas production and using "worst case scenario" leakage rates, the methane-only component of biogas—known as biomethane—likely "provide[s] minimal to zero climate benefits on a 100-year timescale."[26]

Third, many studies suggesting that digesters help to mitigate climate change are flawed because they fail to consider less climate-harming methods of manure management and, therefore, calculate emissions reductions from an inappropriate baseline. Digesters are best suited to operations that employ liquid manure management systems with uncovered, anaerobic waste storage pits. Because anaerobic environments facilitate methane generation,[27] these systems are unquestionably the most climate-harming method of managing manure.[28] Other

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[19] *See* Cameron Oglesby, '*This Plan Is a Lie': Biogas on Hog Farms Could Do More Harm than Good*, Energy News Network (Mar. 28, 2022), https://energynews.us/2022/03/28/this-plan-is-a-lie-biogas-on-hog-farms-could-do-more-harm-than-good/.

[20] *See* Renee McVay, *Methane Emissions from Gas Pipeline Leaks*, at 5 (2023), https://www.edf.org/sites/default/files/documents/Pipeline%20Methane%20Leaks%20Report.pdf.

[21] *See* Bakkaloglu et al., *supra* note 15.

[22] *See* Carlos Rico et al., *Anaerobic Digestion of the Liquid Fraction of Dairy Manure in Pilot Plant for Biogas Production: Residual Methane Yield of Digestate*, 31 Waste Mgmt. 2167 (2011).

[23] *Id.*

[24] *See* Fanjing Kong et al., *Does the Application of Biogas Slurry Reduce Soil N20 Emissions and Increase Crop Yield?—A Systematic Review*, 342 J. Env't Mgmt. 118339 (2023).

[25] *See* Ann Marie Gardner, *Understanding Greenhouse Gases* (July 7, 2022), https://climatetrace.org/news/understanding-greenhouse-gases. Methane is 80 times more potent than carbon dioxide over a 100-year period. *Id.*

[26] Yuanrong Zhou et al., *Life-Cycle Greenhouse Gas Emissions of Biomethane and Hydrogen Pathways in the European Union* 19 (2021), https://theicct.org/sites/default/files/publications/lca-biomethane-hydrogen-eu-oct21.pdf; *see* A. R. Ravishankara et al., *Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions* 13 (2021), https://www.unep.org/resources/report/global-methane-assessment-benefits-and-costs-mitigating-methane-emissions (concluding that technological measures like digesters have "limited potential" to address agricultural methane emissions).

[27] *See* Frederik R. Dalby et al., *Understanding Methane Emission from Stored Animal Manure: A Review to Guide Model Development*, 50 J. Env't Quality 817 (2021).

[28] *See* Olga Gavriolova et al., *Emissions from Livestock and Manure Management* 10.58, Tbl. 10.14 (2019), https://www.ipcc-nggip.iges.or.jp/public/2019rf/pdf/4_Volume4/19R_V4_Ch10_Livestock.pdf.

manure management systems, such as solid-liquid separation and dry manure management, generate far less methane in the first instance.[29] But many studies evaluating emissions reductions from digesters—including two of the studies on which NRCS relied—fail to account for the high-pollution baseline associated with liquid manure management, meaning that they do not compare emissions reductions from digesters with emissions levels associated with alternative methods of manure management. If emissions reductions from digesters were compared to baseline emissions from a dry-manure system, for example, as opposed to baseline emissions from a liquid-manure system, digesters would appear far less beneficial.

2. The long-term benefits of digesters are uncertain.

Over the long term, digesters may not mitigate climate change for at least two reasons: (1) digesters incentivize operations to increase their herd sizes, and larger herds result in increased methane emissions that are not captured by digesters, and (2) nearly a quarter of digesters tracked by the Environmental Protection Agency ("EPA") have stopped operating, leaving behind their methane-emitting liquid manure management systems.

First, offering public funds for digester installation maximizes opportunities for industrial animal operations to profit from methane generation, thereby incentivizing them to generate more methane, which in turn, encourages them to confine additional animals. A recent study of 73 dairy operations across eight states indicates that digesters often drive operations to increase herd sizes.[30] The study found that herd sizes at facilities with digesters grew 3.7 percent year-over-year, or by an average of 177 cows per year, which was 24 times the growth rates for overall dairy herd sizes.[31] But in addition to manure methane, cattle and other ruminants also generate methane due to enteric fermentation. When the number of cows at an industrial dairy increases, so too do the dairy's methane emissions from enteric fermentation, and enteric emissions cannot be captured by digesters. Increased enteric emissions can offset any climate benefits that digesters offer. For example, each year, 177 cows emit 23 metric tons of methane through enteric fermentation alone;[32] by a conservative calculation, these enteric emissions are equivalent to the emissions from over 150 gas-powered cars.[33]

[29] *Id.*; *see also* Ruthie Lazenby, *Mitigating Emissions from California's Dairies: Considering the Role of Anaerobic Digesters*, UCLA Law Emmett Inst., at 8 (2024), https://law.ucla.edu/news/mitigating-emissions-californias-dairies-considering-role-anaerobic-digesters.
[30] *See* Chloe Waterman & Molly Armus, *Biogas or Bull****? The Deceptive Promise of Manure Biogas as a Methane Solution* 35–38 (2024), https://foe.org/wp-content/uploads/2024/02/Factory-Farm-Gas-Brief_final-v2.pdf.
[31] *Id.* at 38.
[32] *See* Hongmin Dong et al., *Emissions from Livestock and Manure Management* 10.29, Tbl. 10.11 (2006), https://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_10_Ch10_Livestock.pdf.
[33] *See* EPA, *Greenhouse Gas Equivalencies Calculator* (Jan. 2024), https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results.

Second, EPA data suggests that digesters often shut down, definitively eliminating any climate benefits.[34] A review of the 441 digesters that EPA has tracked in its Livestock Anaerobic Digester Database shows that 22 percent, or 98 digesters, have shut down.[35] The reasons for the shut-downs vary but include poor economic returns from the digesters, digester equipment failures, and odor issues from the digesters.[36] Operations that shut down their digesters but continued operating likely reverted to their original, methane-heavy liquid manure management systems, eroding any benefit provided by the digesters. Given the uncertainty around digesters' longevity, their climate benefits also are highly uncertain.

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In light of the uncertainty around whether digesters support climate change mitigation, NRCS must not include digesters on the Climate-Smart List. As discussed above, it is at best unclear whether digesters result in net greenhouse gas reductions in the short term, as digesters and their associated infrastructure leak methane, and digestate emits methane and *more* nitrous oxide than conventional manure. And over the long term, producers who install digesters often counteract any climate benefits by increasing animal herds or shutting down digesters altogether. Thus, including digesters on the Climate-Smart List directly conflicts with IRA's requirement that funds go *only* to practices that reduce, capture, avoid, or sequester methane emissions.[37] It also contravenes NRCS's own requirement that the practice result in a direct impact on net greenhouse gas emission reduction, as supported by scientific literature.[38] For these reasons, NRCS must not allow IRA funds to go to digesters.

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[34] *See* Waterman & Armus, *supra* note 30 at 34 (citing EPA's Livestock Anaerobic Digester Database). Although NRCS can terminate a contract for funding if an operator fails to install, operate, or maintain a digester in accordance with the contract, NRCS may only do so during the duration of the contract. *See* 7 C.F.R. §§ 1466.21, 1466.26 After the contract expires, NRCS cannot require an operator to return the funding it received. *See id.* § 1466.26. Contracts for funding under the Environmental Quality Incentives Program, which supports digesters, can last up to 10 years, but most last for just one to three years. *See* Nat'l Sustainable Agric. Coal., *Environmental Quality Incentives Program* (May 2019), https://sustainableagriculture.net/publications/grassrootsguide/conservation-environment/environmental-quality-incentives-program/. Thus, many operators that receive public funding for digesters likely are free to shut down the digesters after one to three years.

[35] Waterman & Armus, *supra* note 30 at 34.

[36] *See* EPA, *Livestock Anaerobic Digester Database*, https://www.epa.gov/agstar/livestock-anaerobic-digester-database (last visited Mar. 6, 2024).

[37] *See* Inflation Reduction Act of 2022, Pub. L. No. 117-169, § 21001(a)(1)(B)(iii), 136 Stat. 1818, 2016 (2022).

[38] *See* NRCS, USDA, *FAQs: Climate-Smart Agriculture and Forestry Mitigation Activities and Inflation Reduction Act Funding*, https://www.nrcs.usda.gov/faqs-climate-smart-agriculture-and-forestry-mitigation-activities-and-inflation-reduction-act (last visited Nov. 8, 2023).

II. NRCS must not make digesters eligible for IRA funding because doing so takes funds away from proven climate-smart practices and exacerbates environmental injustice.

A. NRCS must not make digesters eligible for IRA funding because doing so takes funds away from proven climate-smart practices.

In addition to conflicting with IRA and NRCS's criteria, making digesters eligible for IRA funding will divert funds from practices that are truly climate smart. Digesters are extremely costly to construct[39] and, as a result, they threaten to deplete a sizeable portion of IRA funding. For example, a review of federal funding awarded under the Environmental Quality Incentives Program ("EQIP")—which receives additional funding under IRA—found that digesters were the single costliest practice eligible for funding in 2022.[40] EQIP awarded a total of $1,983,965 to just seven digesters that year,[41] which could have been used instead to help 238 farmers plant cover crops,[42] a practice that offers clear climate benefits.[43] EQIP and other federal conservation programs are consistently oversubscribed—indeed, in 2020 and 2022, approximately 70 percent of producers were turned away from EQIP funding.[44] For example, Charlene Gatson, a cattle farmer in Mississippi, applied for EQIP funding to build fencing that would have allowed her to practice rotational grazing, which protects the soil from erosion and increases its ability to sequester carbon,[45] but her application was rejected.[46] Allowing IRA funds to support digesters means that truly climate-smart practices likely will continue to go unfunded, despite Congress' express intent that IRA funds support those practices. NRCS should not undermine the purpose of IRA in this way.

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[39] *See, e.g.*, Michael Boerman et al., *Anaerobic Digestion at Swiss Valley Dairy: Case Study*, Cornell Univ. Env't Systems Program, at 4 (2014), https://ecommons.cornell.edu/server/api/core/bitstreams/5be73af9-0f29-422a-89c2-213754f5b7e5/content (describing a digester system that cost $1.7 million to construct).

[40] *See* Michael Happ, *Waste and Water Woes: Popular Conservation Programs Should Focus on Small-Scale and Sustainable Farms, Not Industrial-Scale Farms*, Inst. for Agric. & Trade Pol'y, at 3 (2023), https://www.iatp.org/sites/default/files/2023-10/Wastewaterwoes_combinedfinal.pdf.pdf.

[41] *Id.*

[42] *Id.* at 4.

[43] *See* Jason P. Kaye & Miguel Quemada, *Using Cover Crops to Mitigate and Adapt to Climate Change. A Review*, 37 Agronomy for Sustainable Dev. 3 (2017); *see also* Jinshi Jian et al., *A Meta-Analysis of Global Cropland Soil Carbon Changes Due to Cover Cropping*, 143 Soil Biology & Biochemistry 107735 (2020).

[44] *See* Michael Happ, *Still Closed Out*, Inst. for Agric. & Trade Pol'y (2023), https://www.iatp.org/still-closed-out.

[45] *See* Peter H. Lehner & Nathan A. Rosenberg, *Farming for Our Future: The Science, Law, and Policy of Climate-Neutral Agriculture* 91 (2021).

[46] *See* Erin Jordan et al., *Farmers Left Wondering Why They Were Denied Federal Conservation Grants*, Star Tribune (Nov. 20, 2023), https://www.startribune.com/farmers-left-wondering-why-they-were-denied-federal-conservation-grants/600321213/.

B. NRCS must not make digesters eligible for IRA funding because doing so exacerbates environmental injustice.

Finally, digesters worsen the environmental injustice that industrial animal operations cause. A well-established and growing body of scientific evidence shows that these operations are located disproportionately in communities of color and low-income communities across the country.[47] For example, in North Carolina—where numerous swine operations have contracted with energy companies to produce biogas[48]—the percent of Black, Hispanic, and American Indian residents living within three miles of a swine operation is disproportionately high, at 1.34, 1.37, and 2.05 times higher, respectively, than the percent of non-Hispanic Whites.[49] And the percent of North Carolina residents in low-income census blocks living within three miles of a swine operation is up to nine times higher than the percent of residents in higher-income census blocks.[50] As a result, the air and water pollution that these operations generate unequally burdens environmental justice communities.

NRCS acknowledges that digesters cause additional air and water pollution. In the digester conservation practice standard, NRCS explains that "digestate has increased potential for some air and nutrient emissions compared to raw manure,"[51] and "compounds such as nitrogen, phosphorus, and other elements become more soluble due to anaerobic digestion and therefore have higher potential to move with water."[52] Numerous studies support NRCS's conclusions.[53] In light of the additional harms that digesters cause, a group of North Carolina residents living near industrial swine operations with digesters filed a complaint with EPA under Title VI of the Civil Rights Act of 1964, alleging that the state's issuance of permits for the

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[47] *See* Julia Lenhardt & Yelena Ogneva-Himmelberger, *Environmental Injustice in the Spatial Distribution of Concentrated Animal Feeding Operations in Ohio*, 6 Env't Just.133 (2013); *see also* Arbor J.L. Quist et al., *Disparities of Industrial Animal Operations in California, Iowa, and North Carolina* 5 (2022), https://earthjustice.org/wp-content/uploads/quistreport_cafopetition_oct2022.pdf; Ji-Young Son et al., *Distribution of Environmental Justice Metrics for Exposure to CAFOs in North Carolina, USA*, 195 Env't Rsch. 110862 (2021); Sacoby M. Wilson et al., *Environmental Injustice and the Mississippi Hog Industry*, 110 Env't Health Persps. 195, 199 (2002); Steve Wing et al., *Environmental Injustice in North Carolina's Hog Industry*, 108 Env't Health Persps. 225, 229 (2000).

[48] *See* Food & Water Watch, *The Big Oil and Big Ag Ponzi Scheme: Factory Farm Gas* 3, 10 (2024), https://www.foodandwaterwatch.org/wp-content/uploads/2024/01/RPT2_2401_GreenwashingBiogas-WEB3.pdf.

[49] *See* Quist, *supra* note 41, at 27, Supp. Tbl. 1.

[50] *Id.* at 28, Supp. Tbl. 2.

[51] NRCS, USDA, Conservation Practice Standard Anaerobic Digester 366-CPS-8 (2023), https://nrcs.usda.gov/sites/default/files/2023-08/366_NHCP_CPS_Anaerobic_Digester_2023.pdf.

[52] *Id.* at 366-CPS-9.

[53] *See* F. Battini et al., *Mitigating the Environmental Impacts of Milk Production via Anaerobic Digestion of Manure: Case Study of a Dairy Farm in the Po Valley*, 481 Sci. Total Env't 196 (2014); *see also* Marc Carreras-Sospedra et al., *Assessment of the Emissions and Air Quality Impacts of Biomass and Biogas Use in California*, 66 J. Air & Waste Mgmt. Ass'n 134 (2015); Adel Ghoneim et al., *Analysis of Nitrogen Dynamics and Fertilizer Use Efficiency in Rice Using the Nitrogen-15 Isotope Dilution Method Following the Application of Biogas Slurry or Chemical Fertilizer*, 3 Int'l J. Soil Sci. 11 (2008); Roger Nkoa, *Agricultural Benefits and Environmental Risks of Soil Fertilization with Anaerobic Digestates: A Review*, 34 Agronomy for Sustainable Dev. 473 (2014).

digesters had discriminatory impacts.[54] EPA accepted the complaint for investigation, meaning that if the allegations are true, they may violate EPA's prohibitions against discrimination.[55] Other digesters likewise threaten to worsen the environmental injustice that industrial animal operations cause.

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Deeming anaerobic digesters eligible for IRA funding contravenes the statute's express requirements, diverts money from proven climate-smart practices, and exacerbates environmental injustice. We therefore urge NRCS to exclude digesters from the Climate-Smart Agriculture and Forestry Mitigation Activities List for FY2025. We also ask NRCS to make publicly available the scientific literature and methods it relies upon to select the practices on the list and provide the public with a meaningful opportunity to comment on the selection process.

Respectfully submitted,

Animal Kind Alliance Inc.
Animal Legal Defense Fund
Anthropocene Alliance
Buffalo River Watershed Alliance
Campaign for Family Farms and the Environment
Cape Fear River Watch
Catskill Mountainkeeper
Center for Biological Diversity
Center for Food Safety
Climate Land Leaders
Coastal Carolina Riverwatch
Dakota Rural Action
Earthjustice
Endangered Habitats League
Environment America
Environmental Justice Community Action Network
Environmental Law & Policy Center
Family Farm Defenders
Farm Aid
FarmSTAND
Food & Water Watch

[54] *See* Letter from Blakely Hildebrand, Staff Att'y, S. Env't Law Ctr., to Michael S. Regan, Adm'r, EPA & Lilian S. Dorka, Dir., External Civil Rights Compliance Off., EPA (Sept. 27, 2021), https://www.southernenvironment.org/wp-content/uploads/2021/09/2021-09-27-Title-VI-Complaint-Index-DEQ-Biogas-Permits.pdf.
[55] *See* Letter from Lilian S. Dorka, Dir., External Civil Rights Compliance Off., EPA, to Blakely Hildebrand, Staff Att'y, S. Env't Law Ctr., at 1 (Jan. 13, 2022), https://www.southernenvironment.org/wp-content/uploads/2022/01/2022.01.13-Final-CP-Acceptance-Ltr.-EPA-Complaint-No.-05RNO-21-R4-NCDEQ-copy.pdf.

Food Animal Concerns Trust
Friends of the Earth
Friends of Toppenish Creek
GreenLatinos
Illinois Stewardship Alliance
Institute for Agriculture and Trade Policy
Kansas Rural Center
Lake Erie Waterkeeper
Land Stewardship Project
Latino Farmers & Ranchers International, Inc.
Maine Organic Farmers and Gardeners Association
Michigan Organic Food and Farm Alliance
Milwaukee Riverkeeper
Missouri Coalition for the Environment
National Sustainable Agriculture Coalition
Northeast Organic Dairy Producers Alliance
Northeast Organic Farming Association of New Hampshire
Northeast Organic Farming Association Massachusetts Chapter
Ohio Environmental Council
Organic Farming Research Foundation
Pesticide Action Network
Rural Coalition
Sierra Club
Socially Responsible Agriculture Project
Southern Environmental Law Center
Sprout
Upper Valley Super Compost Project
Vermont Healthy Soils Coalition
Virginia Association for Biological Farming
Waterkeepers Chesapeake
Women, Food and Agriculture Network