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Please see attached comments

New Mexico Environment Department
Air Quality Bureau
Permitting Section

July 6, 2026

Filed electronically through NMED's online portal

Re: Air Quality Construction Permit Application 10883 for Project Jupiter Power Plant by Yucca Growth Infrastructure, LLC.

Dear New Mexico Environment Department:

On behalf of the undersigned elected officials, community and environmental organizations, and individuals, we submit these comments and request that the New Mexico Environment Department ("NMED" or the "Department") reject the air quality permit application 10883 ("Application"), authorizing Yucca Growth Infrastructure, LLC ("YGI" or the "Applicant") to construct a methane-fueled power plant near Santa Teresa, New Mexico in southern Doña Ana County (the "Power Plant").

The State's primary job under our Air Quality Control Act is to prevent or abate air pollution. NMSA § 74-2-5(A). To achieve that mandate, NMED has the legal authority to deny any permit application that will cause or contribute to a violation of state or federal health-based pollution standards. NMSA § 74-2-7(C)(1)(b). Indeed, the regulations require it. 20.2.72.208 NMAC. While YGI claims it will cause no such harm to our health and environment, it fails to include most of its pollution in the Application and fails to properly analyze the effects of the pollution it does include. Therefore, NMED must reject this application for two reasons. First, the Application is a violation of our air quality laws because the proposed pollution will harm our environment, our climate, and our public health; in order to prevent or abate air pollution, the permit must be denied. Second, the Application is incomplete and therefore legally deficient—YGI must re-submit the application with all required information, and the public must be given full notice and comment opportunity to review any future completed application.

YGI seeks to build a Power Plant to power the Project Jupiter data center with thousands of methane fuel cells capable of generating up to 2,461 megawatts of electricity. YGI wants to release over 20,000,000,000 (**20 billion**) pounds of greenhouse gases and 798,000 pounds of toxic air pollution every year in an area that already suffers from unhealthy air quality, not to mention an increasingly hot, arid climate driven primarily by the burning of fossil fuels.

If approved by NMED, pollution from this Power Plant will harm people and the environment. YGI's pollution will add to the already unhealthy levels of both ozone and nitrogen oxides that New Mexicans are being exposed to in Doña Ana County, two toxic chemicals that cause harm to our lungs, hearts, and brains, among many other health issues. This pollution will also harm the surrounding ecosystem and ultimately add to the global climate crisis. If allowed to proceed, the Power Plant will be *the single largest source of greenhouse gas emissions in the state of New Mexico*, emitting more carbon pollution than New Mexico's three largest cities – Albuquerque, Santa Fe and Las Cruces – combined. It will erase decades of progress of reducing planet-warming gasses in New Mexico and make our state climate goals impossible to reach.

As explained in more detail below, NMED must reject the application for the following reasons:

- YGI's pollution limits are based on inadequate data, have no real-world monitoring, and are therefore legally unenforceable and invalid.
- YGI seeks to exempt pollution from startup, shutdown, and maintenance, in violation of the law.
- YGI fails to analyze ozone impacts from heat generation in addition to nitrogen oxide and volatile organic compound pollution, as required by law.
- YGI seeks to emit greenhouse gas pollution that would destroy New Mexico's climate goals.
- YGI and NMED have failed to consult with Mexico on the international environmental effects of this Application, as required by the La Paz Agreement.

For these reasons, the Application is contrary to the New Mexico Air Quality Control Act and the federal Clean Air Act, and wholly incompatible with the Department's mission to protect human health and the environment. The Department must reject the Application in order to protect air quality, public health and the environment. At the very least, NMED must find the Application incomplete and provide additional public notice and comment on any future completed application.

I. **YGI's Application is Incomplete and its Pollution Limits Are Unenforceable and Invalid.**

A. YGI's pollution limits are based on woefully inadequate data and are therefore a fiction.

YGI bases its pollution calculations on a miniscule and inadequate series of stacks tests of a single tiny unit in 2023 (for nitrogen oxides and carbon monoxide) and 2026 (for particulate matter). This data is an insufficient foundation on which to base pollution limits and compliance demonstrations, especially for a source of this magnitude. YGI fails to accurately assess the actual pollution impacts of its fuel cells, and YGI fails to show that its pollution will not cause or contribute to a violation of health-based air quality standards. YGI thus fails to meet the basic requirements of any air permit application.

YGI's pollution calculations are based on tests of a single "Energy Server 6.5" unit rated at 65 kilowatts, or 0.065 megawatts. At 2,461 megawatts, the proposed Power Plant will be comprised of approximately 37,800 of these energy server units. The Power Plant will thus release 37,800 times as much pollution as the test unit, and any variance in the amount of pollution in the brief tests will be magnified by a factor of 37,800.

YGI has provided two sets of stack test data. One, from Montrose Environmental, includes a test conducted in April 2026 on a single 65kw unit operating at 71kw. This test is the basis for YGI's particulate matter calculations. The other test was conducted by Blue Sky Environmental in December 2023 on a single 65 kw unit operating at 67kw. This test is the basis for YGI's nitrogen oxides, carbon monoxide, and volatile organic compound calculations.

Even in these brief tests of a single unit, pollution levels varied widely. Looking closely at the test data, the average measurements of carbon monoxide in the three runs varied from 1 ppm to 1.4 ppm.[1] The peak measurement from the three tests was 18 ppm.[2] The highest average measurement of the three tests was 40% higher than the lowest.

The average measurements of nitrogen oxides in the three runs varied from <0.20 ppm to 0.23 ppm.[3] The peak measurement of NOx was as high as 0.42 ppm.[4] This highest of the three averages was >15% higher than the lowest.

The average measurements of volatile organic compounds in the three runs varied from 1.26 ppm to 1.73 ppm.[5] This highest of the three averages was 37% higher than the lowest.

Variances of 40% become extremely significant when the pollution is being multiplied by 37,800 times, as it is here. The difference is potentially hundreds of tons of toxic air pollution each year. These ranges are simply too wide to provide the kind of certainty needed in air permits that must protect human health and the environment. YGI has added a 15% "safety margin" to its proposed pollution limits – an unusual move – but this is still much less than the 40% variance seen across the carbon monoxide test or the 37% variance seen across the volatile organic compound test.

Further, these tests are based on a single new unit operating firmly within the rated temperature range. We know that YGI plans to replace the fuel cells approximately every five years.[6] This raises important questions about the performance of the fuel cells during their lifespan. The Application assumes that the fuel cells will maintain the same pollution efficiency throughout their entire lifespan, but YGI provides no evidence for this assumption.

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[1] YGI Application at 323.
[2] YGI Application at 450.
[3] YGI Application at 323.
[4] YGI Application at 450.
[5] YGI Application at 323.
[6] YGI Application Amendment Section 3, Page 1.

Finally, the Bloom Energy Data Sheet included in the Application lists the operating temperature range for the fuel cells as -20 ºC to 45 ºC (-4 ºF to 113 ºF).[7] YGI is proposing to deploy thousands of these fuel cells in one of the hottest parts of the country, where nearby local temperatures have reached and exceeded 113 ºF. For example, in Las Cruces, NM, temperatures have reached 110 ºF in June and 109 ºF in July and August.[8] Temperatures in Santa Teresa, NM have repeatedly reached 108 ºF.[9] And temperatures in El Paso, TX have reached 114 ºF.[10] And these extreme temperatures do not include the staggering amount of heat that the Power Plant would produce. According to YGI's application, the 2,275 pollution stacks at the Power Plant will each be pushing out 857 cubic feet per second of air at 350 ºF.[11] That means the power plant will release 1,949,675 cubic feet of air every second, and that air will be 350 ºF. This volume of superhot air will doubtless increase ground temperatures in and around the Power Plant, and lead to operating conditions outside of Bloom's specifications. That does not even account for the heat from the data center itself, which is currently unquantified but expected to be significant. Nor does it account for global warming from greenhouse gas pollution, like the 20 billion pounds of carbon dioxide that YGI wants to release here every year. Temperatures are predicted to continue rising for the foreseeable future, and we can expect an increasing number of days when temperatures at the Power Plant exceed the operating conditions of these fuel cells. YGI's Application includes no information about what happens to these fuel cells when ambient temperatures exceed their operating limit of 113 ºF.

The fuel cell technology proposed by YGI is new and largely untested, especially at this scale. From our review of public records, it appears that the largest operating Bloom fuel cell plant in the United States is only 24.9 MW, about 1/100th the size of YGI's proposed plant for Project Jupiter.[12] That 24.9 MW plant, the Red Lion facility in Delaware, reports carbon monoxide emissions over two times higher per megawatt hour and volatile organic compound emissions over 60% higher per megawatt hour compared to YGI.[13] If YGI's plant pollutes at the same level of the Bloom fuel cells at the Red Lion plant, then it would exceed the major source threshold for carbon monoxide. The health of surrounding communities depends on getting these

[7] Bloom Energy Server 6.5 Data Sheet, YGI Application at 523.
[8] https://www.extremeweatherwatch.com/cities/las-cruces
[9] https://www.weather.gov/epz/santateresa_extremes
[10] https://www.weather.gov/epz/elpaso_extreme_weather
[11] YGI Application, Table 2-H: Stack Exit Conditions, at 74-130.
[12] In fact, the proposed Power Plant would require more fuel cells than Bloom has deployed in the entire existence of the company. See total installed fuel cell capacity of 1.5 GW as of October 2025 (https://fortune.com/2025/10/16/bloom-energy-stock-fuel-cells-ai-data-center-power/). It is unclear that Bloom has the capacity to actually deliver the proposed fuel cells and unclear if the Power Plant could be completed in a reasonable time. If the Power Plant could not be completed in a reasonable time, NMED must reject the Application. 20.2.7.208.G NMAC.
[13] Diamond State Generation Partners, LLC, Red Lion Project, Permit Application APC-2019/0031-CONSTRUCTION to Delaware Department of Natural Resources and Environmental Control (Oct. 23, 2018) (Red Lion estimates 0.034 pounds of carbon monoxide per megawatt hour compared to 0.013 for YGI; Red Lion estimates 0.016 pounds of volatile organic compounds per megawatt hour compared to 0.01 for YGI).

numbers right, and YGI has simply not provided enough information to do that in its incomplete application.

To accurately assess the performance of the fuel cells, YGI must provide more test data. That test data must include larger units at various stages of their useful life, and in conditions that accurately reflect the range of temperatures likely at this Southern New Mexico Power Plant in the coming years.

Lacking adequate pollution measurements and data, YGI's Application is incomplete and fails to provide substantial evidence that it will not cause air pollution – that it will not release "one or more air contaminants in quantities and of a duration that may with reasonable probability injure human health or animal or plant life or as may unreasonably interfere with the public welfare, visibility or the reasonable use of property". NMSA § 74-2-2(B). NMED cannot grant the proposed permit because neither NMED nor YGI have established that it will comply with the requirements of the Air Quality Control Act. 20.2.72.208.A NMAC.

B. YGI's Application is incomplete because it fails to include any actual monitoring, making all pollution limits unenforceable.

Compounding the varied and inadequate test data, the permit contains no ongoing monitoring requirements to ensure that YGI meets its proposed pollution limits. YGI proposes no continuous emissions monitoring equipment nor parametric monitoring equipment.[14] In fact, YGI proposed no emission monitoring or measurement at all. With no real-world monitoring, it will be impossible for anyone to know how much pollution YGI is actually releasing from the Power Plant. Air pollution permit applications must include "a description of the equipment or methods proposed by the applicant to be used for emission measurement." 20.2.72.203.A(9) NMAC. YGI's Application does not include any such description – it is therefore incomplete and must be rejected.

Additionally, YGI admits it is subject to Title V Operating Permit requirements at 20.2.70.200, 201, and 300 NMAC.[15] YGI's Title V Operating Permit will be required to contain "emissions monitoring requirements, and analysis procedures or test methods, required to assure and verify compliance with the terms and conditions of the permit and applicable requirements…" 20.2.70.203.C(1) NMAC. YGI's permit lacks any real-world monitoring and is simply not capable of assuring compliance with its proposed pollution limits. In the current Application, no one will know how much pollution is actually coming out of YGI's power plant – even YGI and NMED will be in the dark. NMED cannot verify the environmental compliance of this Power Plant by closing its eyes and holding its nose. The Application must therefore be rejected.

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[14] YGI Application, Table 2-N: CEM Equipment, Page 136; YGI Application, Table 2-O: Parametric Emissions Measurement Equipment, Page 137.
[15] YGI Application, Section 13, Page 2.

II. YGI improperly excludes pollution from startup, shutdown and maintenance activities.

YGI wrongly claims that the pollution it will release from startup, shutdown and maintenance activities is exempt from regulation. It claims that these activities will release less than 1000 pounds of pollution per year and so they do not have to be included in the permit per 20.2.72.202.B(5) NMAC. But YGI provides no data to support this claim, only baseless assumptions, rendering the Application incomplete.

The main startup, shutdown and maintenance activity is the purging of the desulfurization canisters. In the fuel cells, methane gas is run through an adsorbent-based sulfur removal process prior to steam reformation. This desulfurization process removes toxic sulfur compounds, as well as other harmful impurities like benzene and metals, from the methane that would otherwise damage or reduce the efficiency of the fuel cell. The sulfur and other hazardous waste collect in two vessels in each desulfurization canister. The desulfurization media can only absorb so much sulfur and other hazardous waste before it has to be replaced. According to YGI, they plan to replace the desulfurization media in the canister vessels every two years. They plan to have "approximately" 95 such canisters, with two vessels each. Each vessel will have a volume of 1,370 cubic feet. Each time YGI starts a fuel cell (startup), they say they will purge both vessels in the canister three times. Each time YGI replaces the desulfurization media (maintenance), they say they will purge a single vessel four times. And they say they will do this for approximately 95 canisters, venting as much as 780,900 cubic feet of pollution per year for startup and/or 520,600 cubic feet of pollution per year for maintenance.

According to YGI's Application, the only thing that will be released during these startup and maintenance purges is pipeline gas consisting of 98% methane and 2% volatile organic compounds. But YGI fails to provide any actual measurements to support this assumption. Indeed, YGI even calls the input data "assumptions."[16] We know that the pipeline gas can contain a variety of hazardous air pollutants and carcinogens like benzene, ethylbenzene, toluene, xylene, as well as other toxic pollutants like hydrogen sulfide and radioactive particles like radon.[17] And we know that the desulfurization canisters contain toxic sulfur pollutants as well as hazardous air pollutants like benzene.[18] If any of those pollutants could be released from repeated canister purging, that pollution must be accounted for in the permit.

YGI has not even provided a precise number of desulfurization canisters – just that it will be "approximately" 95. Assuming YGI does in fact build 95 canisters, that will mean that each

[16] YGI Application Amendment at 1.
[17] Curtis L Nordgaard, et al, *Hazardous air pollutants in transmission pipeline natural gas: an analytic assessment,* Environmental Research Letters Vol. 17 No. 10 (Oct. 3, 2022), available at: https://iopscience.iop.org/article/10.1088/1748-9326/ac9295.
[18] U.S. Environmental Protection Agency Consent Decree and Final Order, In the Matter of: Bloom Energy (May 12, 2020), Attachment 1.

canister aggregates the hazardous waste from roughly 26 MW worth of fuel cells. From public records, we find no evidence that 26 MW of Bloom Fuel Cells has ever been routed through a single desulfurization canister, so it likely that neither YGI nor Bloom knows exactly how that would behave. Bloom has a troubled history with its desulfurization hazardous waste disposal - it been fined over $1,300,000 by the U.S. Environmental Protection Agency for mishandling of hazardous waste from its desulfurization canisters in Pennsylvania and Maryland.[19] YGI must not be allowed to mishandle or downplay the dangers of pollution its hazardous waste here. NMED must reject YGI's requested exemption for startup, shutdown and maintenance pollution based on unsupported assumptions.

III. NMED Must Require YGI to Eliminate its Carbon Pollution

New Mexico Cannot Meet its Climate Targets if the Applicant is Permitted to Dump its Carbon Pollution into the Atmosphere. As explained in New Mexico's Climate Action Plan:

> New Mexico, a land rich in natural beauty and cultural diversity, faces significant and undeniable risks from a changing climate. New Mexicans recognize the threats posed by rising temperatures, prolonged and severe droughts, increasingly frequent wildfires, deadly flash flooding, and decreasing freshwater availability to the livelihoods and futures of all who call this place home, and to New Mexico's environment and economy.
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> In recognition of these threats, New Mexico set a target six years ago to reduce greenhouse gas emissions 45% by 2030 (compared to 2005 emissions) in Executive Order 2019-003. New Mexico subsequently set a goal to achieve net-zero emissions by 2050, while building the workforce to support transformative clean and advanced energy and investing in infrastructure development to make communities more resilient during these transformative times.[20]

Reducing emissions from the electricity generation sector has been a core part of the state's strategy for fighting climate change. Between 2005 and 2023, the state made significant progress in this area, reducing emissions from this sector by 9.73 million metric tons (MMT) per year, from 16.33 MMT in 2005 to 6.6 MMT in 2023.[21]

Approving this Application, without a plan to mitigate the Power Plant's carbon emissions, would almost completely undo the state's progress to reduce emissions from the electricity sector and render it impossible to achieve the state's goal of reducing emissions by

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[19] U.S. Environmental Protection Agency Consent Decree and Final Order, In the Matter of: Bloom Energy (May 12, 2020), Attachment 1; Letter from Karen Melvin, Director of Enforcement and Compliance Assurance EPA Region 3, *Re: Bloom Energy Corporation, EPA Docket No. RCRA-HQ-2020-501, Demand for Pre-Agreed Upon Penalties* (Dec. 12, 2020), Attachment 2.
[20] Climate Action Plan: State of New Mexico
[21] *Id.* at 24, tbl. 4.

45% by 2030. The Power Plant would emit 10,144,115 short tons of CO_2 equivalent per year—or 9.2 MMT. In other words, this Power Plant would increase electric sector emissions in New Mexico by a staggering 140%. The Power Plants's emissions would be greater than the total emissions from Albuquerque, Las Cruces, and Santa Fe combined.

The state will not meet its 2030 climate targets if this Power Plant is approved in its current form. To achieve the state's goal of reducing emissions by 45% relative to 2005 levels, the state can emit no more than 55 MMT per year in 2030.[22] The Climate Action Plan indicates that, under a business as usual scenario, the state will emit 64.34 MMT per year in 2030—9.3 MMT ***more*** than the target.[23] Approving this Power Plant would ***double*** the distance we have to travel to meet our goal, putting the state on a trajectory to miss its 2030 target by 18.5 MMT. (And this is not even including upstream emissions associated with the production of the methane used at the facility, or the impact of methane leakage at the facility itself). Even aggressive measures to eliminate emissions from other sectors would not be enough to compensate for the massive amount of pollution from this Power Plant.

IV. NMED Must Study Whether the Power Plant's Emissions of NOx, VOCs, and Heat Will "Cause or Contribute" to Ozone Exceedances

A. Southern New Mexico is Experiencing Dangerous Levels of Ozone

Ozone is an air pollutant that forms in the atmosphere when NOx reacts with volatile organic compounds (VOC) in the presence of sunlight. Ozone is a corrosive pollutant that irritates the lungs, constricts breathing, exacerbates asthma, and can cause a variety of serious respiratory and cardiovascular illnesses, even premature death. Consequently, EPA has established a national ambient air quality standard (NAAQS) for eight-hour ozone of 70 parts per billion (ppb).

In its 2025 State of the Air report, the American Lung Association ranked El Paso-Las Cruces at number 18 on a list of the most ozone-polluted metropolitan areas in the United States.[24] This ranking reflects the fact that the borderlands region experiences a weighted-average of 15.2 high ozone days per year.

EPA has designated both Sunland Park and El Paso, Texas as nonattainment areas for the 2015 NAAQS for ozone, and monitors in both cities continue to report violations of the NAAQS.

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[22] This is equal to the state's 2005 emissions (96.44 MMT per year) times 0.55.

[23] See Climate Action Plan at 24, tbl 4. To achieve the states' 45% reduction target, 2030 emissions must not exceed 55.04 tons per year, which is equal to the state's 2005 emissions (96.44 MMT per year) times 0.55.

[24] El Paso-Las Cruces, TX-NM | American Lung Association, available at https://www.lung.org/research/sota/city-rankings/msas/el-paso-las-cruces-tx-nm.

In addition, the La Union monitor, also in southern Doña Ana County, is also reporting a design value of 76 ppb that violates the NAAQS.[25]

These elevated pollution levels cause real harm to individuals living in the entire region. According to analysis by researchers at New York University and the American Thoracic Society, elevated ozone levels in the El Paso-Las Cruces area cause, on an annual basis, about 22 premature deaths, 110 emergency room visits, and over 224,000 missed work or school days.[26]

NMED is required to deny an application for an air quality permit if the pollution "will cause or contribute to air contaminant levels in excess of" the ozone NAAQS "unless ambient air impact is offset." 20.2.72.208 NMAC; NMSA § 74-2-7(C)(1)(b). NMED must consider all relevant information in deciding whether the Power Plant will cause or contribute to violations of the NAAQS. *See Alto Coal. for Env't Pres. v. Roper Constr., Inc.*, 2025-NMCA-018, ¶¶ 14-15, 572 P.3d 268, 274 ("Nothing in the plain language of Section 74-2-7(C)(1)(b), or any other section of the AQCA or the applicable rules and regulations, limits what the [Environmental Improvement Board] may consider in determining whether construction will cause or contribute to air contaminant levels in excess of a national or state standard."). Clearly, if allowed to proceed, this power plant will contribute to violations of the NAAQS and the application must therefore be denied.

B. The Power Plant Will Generate Vast Amounts of Waste Heat

The Power Plant will dump close to 5 GW of heat into the surrounding region whenever the power plant is operational. The Power Plant expects to generate 2.45 GW of electricity to send to the data center. Bloom states that its fuel cells operate at 53% electrical conversion efficiency when processing natural gas.[27] The Power Plant will need to consume 4.6 GW of energy from methane gas in order to supply 2.45 GW of electricity to the data center. All of this energy is ultimately converted into heat which will be released into the ambient atmosphere, whether released immediately by the power plant, or released from the data center's cooling system when the electricity is used. This would release 397 terajoules of heat into the atmosphere per day, more than 6 times the amount of heat released by the atomic bomb dropped on Hiroshima.

The release of this heat will unquestionably increase ambient temperature in Santa Teresa, Sunland Park, and nearby parts of El Paso. A growing body of literature demonstrates

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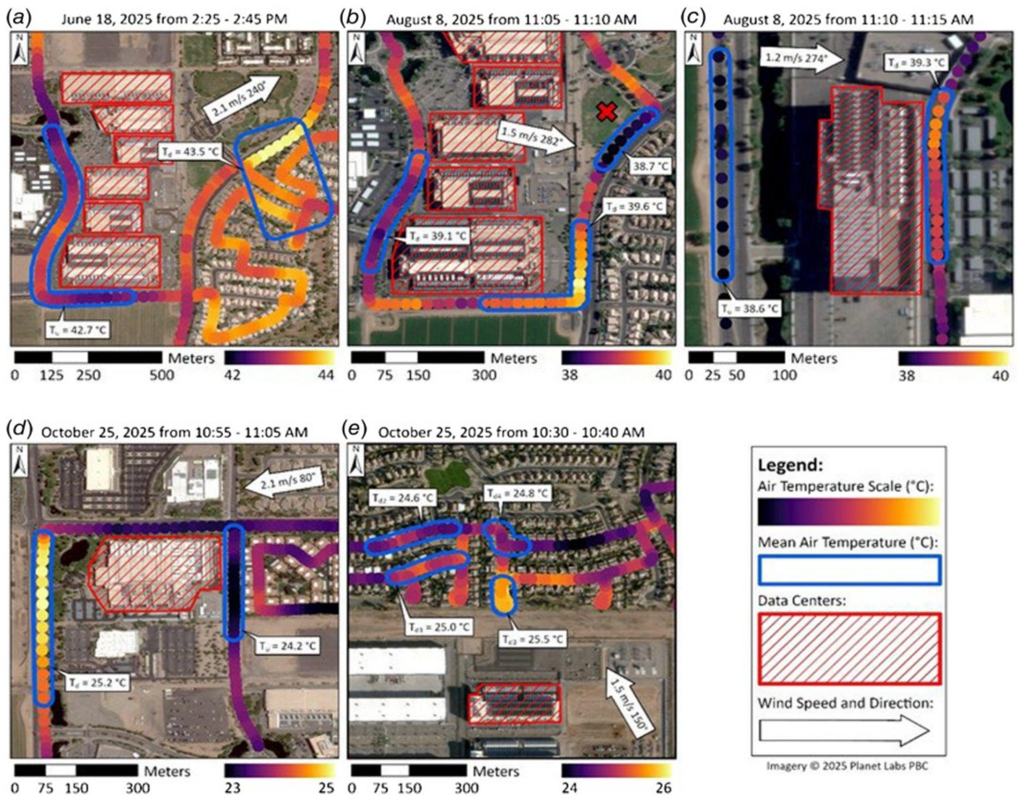
[25] U.S. EPA, *Design Values Design Values in Areas Previously Designated Nonattainment for the 2015 8-Hour Ozone NAAQS* (5/28/2025), available at https://www.epa.gov/system/files/documents/2025-05/o3_designvalues_2022_2024_final_05_28_25.xlsx, Table 5.

[26] https://healthoftheair.org (in 2023, El Paso County experienced 16 premature deaths, 87 emergency room visits, and 173,158 impacted days, while Doña Ana County experienced 6 premature deaths, 23 emergency room visits, and 50,960 impacted days)

[27] *Bloom's Fuel Cells Provide Highly Efficient Power Generation for the Marine Ecosystem — and Now Have ABS Type Approval* (BloomEnergy.com, Sept. 23, 2025)

how waste heat emissions from data centers directly affect ambient temperature in surrounding areas. For example, Sailor (2026) studied four data centers in the Phoenix area, and found that downwind air temperatures were up to 2.2°C higher than the corresponding upwind locations. The data centers studied there were significantly smaller than Project Jupiter (ranging from 34 MW to 169 MW, compared to 2,450 MW for Project Jupiter), and did not have co-located power generation.[28]

This figure demonstrates the temperature increases that were observed in this study:



Notably, the data centers reviewed in this study produced heat flux densities of 2,000 to 6,000 W/m^2. While massive (larger than the heat flux from Tokyo's central business district of ~1,600 W/m^2), it pales in comparison to the anticipated impact of Project Jupiter. Project Jupiter has a footprint of 3 million square feet (278,709.12 m^2). With a heat output of 4.6 GW, the Jupiter's heat output has an intensity of 16,504 W/m^2—2.75 times the most heat-intensive data center studied by Sailor (2026), and approximately 8 times greater than the least heat intensive data center studied.

[28] Sailor, D. J., Abolhassani, S. S., and Martin, E. P., *Data Center Waste Heat as an Emerging Urban Thermal Hazard: First Field Measurements of Neighborhood-Scale Air Temperature Impacts,* ASME. *J. Eng. Sustain. Bldgs. Cities* (May 18, 2026), available at https://doi.org/10.1115/1.4071922.

Another paper (Marinoni, prepublished 2026) reports that "land surface temperature increases by 2°C on average after the start of operations of an AI data centre."[29] The study found that the impact was not limited to areas in the immediate vicinity of the data center, but that the impact could be observed up to 10 km from the campus. The study was focused on the data centers themselves, and did not specifically consider situations where electricity is produced at a microgrid that is co-located with the data center.

Analysis performed by Dr. Rob Davies, a Professor of Physics at Utah State University, found that a 5 GW AI data center in Box Elder County, Utah—which does include a co-located microgrid—would increase daytime temperatures in the area by up to 2.8 °C, with nighttime temperatures increasing by up to 6.7 °C.[30] Dr. Davies noted that a temperature increase of this magnitude would have an "extreme" ecological impact, causing additional desiccation due to elevated evaporation and reduced condensation during the day.

C. Heat Emissions Contribute to Ozone Formation

In most parts of the United States, "the relationship between summertime O_3 and temperature is approximately linear."[31] In the western part of the country, ozone levels typically increase by about 1.1 to 1.7 ppb for every 1°C increase in temperature.[32]

One reason that ozone levels increase with ambient temperature is that chemical reactions, including those that produce ozone, proceed more quickly at higher temperatures. The photochemical reactions between volatile organic compounds (VOCs) and nitrogen oxides (NOx) proceed more quickly at higher ambient temperatures.[33] Further, warmer ambient temperatures cause thermal decomposition of peroxyacetyl nitrates (PAN) into NOx, which then can react to form ozone; warmer temperatures also increase emissions of biogenic VOCs.[34]

It is widely recognized that increased ambient temperatures due to the urban heat island effect contributes to ozone formation. For example, the Lawrence Berkeley National Lab has a

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29 Andrea Marinoni, et al., *The data heat island effect: quantifying the impact of AI data centers in a warming world* (March 2026 preprint).
30 Rob Davies: Stratos Project: Thermal Load Summary (May 5, 2026) https://drive.google.com/file/d/1pFqgfN6nF1vos8LRRMpsvTK3qpvE5Tjf/view
31 Ninneman, M., Jaffe, D, *Observed Relationship between Ozone and Temperature for Urban Nonattainment Areas in the United States*, Atmosphere 2021, 12, 1235, available at https://doi.org/10.3390/atmos12101235.
32 *Id.*
33 Ruixun Xia, Qi Qi, Jiyuan Yang, Bailiang Li, Yaoqi Li, Andrew P. Morse, Tenglong Li, Qing Mu, *Extreme heat exacerbates atmospheric ozone pollution: Holistic data-based causal investigation in China,* iScience, Volume 29, Issue 3, 2026, available at: https://doi.org/10.1016/j.isci.2026.114854 (internal citations omitted).
34 Nolte, C. G., Spero, T. L., Bowden, J. H., Sarofim, M. C., Martinich, J., & Mallard, M. S. (2021). *Regional temperature-ozone relationships across the U.S. under multiple climate and emissions scenarios,* Journal of the Air & Waste Management Association, *71*(10), available at: https://doi.org/10.1080/10962247.2021.1970048 (internal citations omitted).

webpage on the urban heat island effect, which explains that "[u]rban heat island can negatively affect the urban community and the environment" because "[w]armer air accelerates the formation of smog (ozone) from airborne pollutants like nitrogen oxides and volatile organic compounds." Song et al. (2025) reported a positive correlation between urban heat island intensity and ozone formation.[35] Cardelino and Chameides (1990) confirmed a positive linear association between temperature and ozone based historical data for Atlanta, and performed modeling which showed that a 2 °C increase in ambient temperatures due to the urban heat island effect would cancel out the ozone benefit of a −50% reduction in ozone emissions.[36]

D. YGI Must Conduct Modeling to Demonstrate that its NOx, VOC, and Heat Emissions will Not Cause or Contribute to Ozone Violations

The Power Plant will emit ozone-precursors directly, including 37.20 tons per year of NOx and 124.01 tons per year of VOCs. In addition, the tremendous amount of waste heat produced by the center is likely to significantly increase ozone levels, due to increased reactivity of precursors already present in the atmosphere, increased thermal breakdown of PAN into NOx, and increased emissions of biogenic VOCs. The increased heat will also increase evaporation, changing atmospheric chemistry in unpredictable ways. All of this warrants careful study.

If the linear relationship between temperature and ozone formation that has been observed in the western United States applies, an increase in ambient temperature of 2°C—the average increase reported in the Marinoni (2026) preprint—would be expected to increase ambient ozone levels by up to 3.4 ppb. An increase of this magnitude would unquestionably "cause or contribute to air contaminant levels in excess" of the ozone NAAQS.

At the very least, YGI must be required to perform modeling to determine how its emissions of NOx, VOC, and heat will affect regional ozone levels. Air quality modeling tools typically include ambient temperature as an input. Performing several modeling runs—one that includes baseline levels of NOx, VOC, and historical temperatures, a second run that includes the increased NOx and VOC emissions, plus an anticipated increase of 2 °C for each day during the ozone season—would allow NMED to determine whether the Power Plant will significantly worsen regional ozone levels.

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[35] Song, X., Shi, H., Jin, L., Pang, S., & Zeng, S., *The Impact of the Urban Heat Island Effect on Ground-Level Ozone Pollution in the Sichuan Basin, China. Atmosphere* (2025), available at: https://doi.org/10.3390/atmos16010014 (noting "a positive correlation between [urban heat island intensity] and O3 concentration, although with a time lag. The UHI effect influences O3 concentration in two main ways: first, by altering the local heat balance, which promotes O3 production, and second, by generating local winds that facilitate the diffusion and accumulation of O3, resulting in distinct zones of high O3 concentration.").

[36] Cardelino, C. A., and W. L. Chameides (1990*), Natural hydrocarbons, urbanization, and urban ozone,* J. Geophys. Res., 95(D9), 13971–13979. *See also* Ulpiani G. *On the linkage between urban heat island and urban pollution island: Three-decade literature review towards a conceptual framework,* Sci Total Environ. 2021 Jan. 10, 751:141727 (literature review, discussing Cardelino et al. 1990).

V. The Department Must Comply with its Obligations under the La Paz Agreement

Under the La Paz Agreement of August 14, 1983 ("Agreement"), the United States is required "to the fullest extent practical, to adopt the appropriate measures to prevent, reduce and eliminate sources of pollution in their respective territory which affect the border area of the other."[37] The term "'border area'" is defined in Article 4 of the Agreement as "the area situated 100 kilometers on either side of the inland and maritime boundaries between the Parties." The Power Plant is located in the "border area" as it is defined in the Agreement.

Article 5 provides: "The Parties agree to coordinate their efforts, in conformity with their own national legislation and existing bilateral agreements to Address problems of air, land and water pollution in the border area." This coordination is accomplished by providing notice to each party's designated "national coordinator." In the case of Mexico, the national coordinator is "the Secretaría de Desarrollo Urbano y Ecología, through the Subsecretaría de Ecología."

Article 7 of the Agreement provides: "The Parties shall assess, as appropriate in accordance with their respective national laws, regulations and policies, projects that have significant impacts on the environment of the border area, that appropriate measures may be considered to avoid or mitigate adverse environmental effects."

In order to effectuate the United States' obligations under the La Paz Agreement (which, as federal law, are binding on the Department by virtue of the Supremacy Clause), the Department must notify Mexico's national coordinator of the Power Plant and its potential impact on the air quality in the border area, so that Mexico can exercise its consultation rights with respect to this Power Plant.

VI. NMED Must Find the Application Incomplete and Hold a Formal Hearing After Providing Public Notice and Comment on a Completed Application

As explained, YGI's Application is incomplete, violates the NM Air Quality Control Act, and must be rejected. Short of rejecting the application outright, another solution is to require YGI to submit a completed application and NMED to restart the public participation process to give the public adequate time to review and comment on any completed application.

If NMED proceeds with this Application despite these fatal deficiencies, state law requires that NMED hold a formal hearing on applications that receive significant public interest. "The department shall hold a public hearing if the secretary determines that there is a significant public interest." NMAC 207.2.72.206(C).

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[37] La Paz Agreement, Agreement Between the United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area, Article II, available at https://www.epa.gov/sites/default/files/2015-09/documents/lapazagreement.pdf.

This Application has clearly generated significant public interest and therefore merits a public hearing. The first proposal for this power plant generated over 7,000 public comments, almost entirely opposed to the terrible environmental and public health impacts from the plant. At the time of filing, this Application has already received over 16,600 comments. Project Jupiter's Power Plant and its staggering air pollution proposals have received widespread media coverage in the Las Cruces Sun-News, the Albuquerque Journal, the Santa Fe New Mexican, Source New Mexico, the Colorado Sun, and National Public Radio. For the now-withdrawn original proposal, a Virginia corporation calling itself "Elevate New Mexico" put up multiple billboards and sent glossy postcards across the state asking people to support the Power Plant air permits. For this current Application, a corporation has hired canvassers to talk with people at their homes and at public places like grocery stores, gather names and email addresses, and submit boilerplate comments on behalf of those individuals in support of this Application. Some people who oppose YGI's Application have discovered that these canvassers have submitted false comments in support of the Application in their names.[38]

Based on this unprecedented level of public interest in an air pollution permit, the Secretary must find that there is a significant degree of public interest and must hold a public hearing.

VII. Conclusion

The proposed Power Plant would be a disaster for our environment and climate. The Power Plant would threaten the health and imperil the environment of people in New Mexico, Texas, and Mexico. The Application violates state and federal air quality laws, and NMED must reject it.

Respectfully,

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Attorney for Sierra Club

[38] *See, for example*, Comment from Fred Bemis, submitted 6/6/2026 at 10:19 AM; Comment from Dawn Martinez, submitted 6/26/26 at 11:42 PM; Joshua Bowling, *New Mexico residents say their names used without permission to support Project Jupiter data center*, SourceNM (June 30, 2026), available at https://sourcenm.com/2026/06/30/new-mexico-residents-say-their-names-used-without-permission-to-support-project-jupiter-data-center/

Jeff Steinborn
Senator - District 36

Carrie Hamblen
Senator - District 38

Micaela Lara Cadena
Representative - District 33

YOUTH UNITED FOR CLIMATE CRISIS ACTION
Adrastos

FIGHT CHIHUAHUAN DESERT EXTRACTION
Leadership Team

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Glenn Wikle

CONCERNED CITIZENS FOR NUCLEAR SAFETY
Joni Arends

350 SANTA FE, INC.
Robert Cordingley

EARTHWORKS
Andrew Forkes-Gudmundson

NEW MEXICO CLIMATE JUSTICE
Anni Hanna

Common Ground Rising
Elaine Cimino

Philip Simpson
Las Cruces

Attachment 1

FILED
May 12 2020
Clerk, Environmental Appeals Board
INITIALS ER

ENVIRONMENTAL APPEALS BOARD
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

In re: Bloom Energy Corporation.	)	Docket No. RCRA-HQ-2020-501

FINAL ORDER

Pursuant to 40 C.F.R. § 22.18(b)-(c) of EPA's Consolidated Rules of Practice, the attached Consent Agreement resolving this matter is incorporated by reference into this Final Order and is hereby ratified.

The Respondent is ORDERED to comply with all terms of the Consent Agreement, effective immediately.

So ordered.[1]

ENVIRONMENTAL APPEALS BOARD

Dated: **May 12 2020**

Mary K Lynch
Mary Kay Lynch
Environmental Appeals Judge

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[1] The panel ratifying this matter is composed of Environmental Appeals Judges Mary Kay Lynch and Kathie A. Stein.

BEFORE THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:	:	
	:	
Bloom Energy Corporation **4353 North First Street** **San Jose, CA 95134**	:	**U.S. EPA Docket No. RCRA-HQ-2020-501**
	:	**Proceeding under Section 3008(a) and (g) of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6928(a) and (g)**
Respondent.	:	
The "Pennsylvania Customer Facility" **The "Maryland Customer Facilities"**	:	
Facilities.	:	

CONSENT AGREEMENT AND FINAL ORDER

CONSENT AGREEMENT

PRELIMINARY STATEMENT

1. This Consent Agreement is entered into by the Director of the Waste and Chemical Enforcement Divison, Office of Civil Enforcement, Office of Enforcement and Compliance Assurance ("Complainant") and Bloom Energy Corporation ("Respondent") (collectively the "Parties"), pursuant to Section 3008(a) and (g) of the Resource Conservation and Recovery Act ("RCRA" or the "Act"), as amended, 42 U.S.C. § 6928(a) and (g), and the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation, Termination or Suspension of Permits ("Consolidated Rules of Practice"), 40 C.F.R. Part 22.

2. Section 3008(a) of RCRA authorizes the Administrator of the U.S. Environmental Protection Agency ("EPA" or the "Agency") to assess penalties and undertake other actions required by this Consent Agreement. The Administrator has delegated this authority to the Complainant.

3. Section 3008(g) of RCRA, 42 U.S.C. § 6928(g), authorizes the assessment of a civil monetary penalty against any person who violates any requirement of RCRA Subtitle C, EPA's regulations thereunder, or any regulation of a state hazardous waste program which has been authorized by EPA.

4. This Consent Agreement and the attached Final Order resolve Complainant's civil penalty claims against Respondent under RCRA for the violations alleged herein.

5. In accordance with 40 C.F.R. §§ 22.13(b) and 22.18(b)(2) and (3) of the Consolidated Rules of Practice, Complainant hereby simultaneously commences and resolves this administrative proceeding.

JURISDICTION

6. The U.S. Environmental Protection Agency has jurisdiction over the above-captioned matter, as described in Paragraph 1, above.

7. Consolidated Rules of Practice govern this administrative adjudicatory proceeding pursuant to 40 C.F.R. § 22.1(a)(4).

8. The Commonwealth of Pennsylvania has received federal authorization to administer a Hazardous Waste Management Program (the "Pennsylvania Hazardous Waste Management Program") in lieu of the federal hazardous waste management program established under RCRA Subtitle C, 42 U.S.C. §§ 6921-6939g. Effective January 30, 1986, the Commonwealth of Pennsylvania Hazardous Waste Regulations were authorized by EPA pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), and 40 C.F.R. Part 271, Subpart A. The Commonwealth of Pennsylvania has revised, and EPA has re-authorized, the Commonwealth of Pennsylvania Hazardous Waste Regulations several times subsequent to this original authorization. The most recent authorized (revised) regulations became effective on June 29, 2009 (74 Fed. Reg. 19453). The provisions of the current authorized (revised) Commonwealth of Pennsylvania Hazardous Waste Regulations, codified at 25 Pa. Code Chapters 260a-266a, 266b, and 268a-270a ("PAHWR"), have thereby become requirements of RCRA Subtitle C and are enforceable by EPA pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a).

9. On February 11, 1985, pursuant to Section 3006(b) of RCRA, 42 U.S.C. § 6926(b), and 40 C.F.R. Part 271, Subpart A, the State of Maryland was granted final authorization to administer its Hazardous Waste Management Regulations ("MDHWMR") set forth at the Code of Maryland Regulations ("COMAR"), Title 10, Subtitle 51 et seq., in lieu of the federal hazardous waste management program established under RCRA Subtitle C, 42 U.S.C. §§ 6921-6939e. Through this final authorization, the provisions of the MDHWMR became requirements of RCRA Subtitle C and are, accordingly, enforceable by EPA on and after that date pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a). A revised Maryland hazardous waste management program set forth at COMAR, Title 26, Subtitle 13 was authorized and effective on July 31, 2001, September 24, 2004, and most recently on October 31, 2016. Accordingly, the provisions of the revised MDHWMR are enforceable by EPA on and after those dates pursuant to § 3008(a) of RCRA, 42 U.S.C. § 6928(a).

10. This Consent Agreement addresses alleged violations by Respondent of Subtitle C of RCRA, 42 U.S.C. §§ 6921–6939g, certain federally-authorized PAHWMR and MDHWMR, as well as certain of the federal hazardous waste regulations, set forth at 40 C.F.R. Parts 260–268, for which the State of Maryland has not been granted authorization to administer in lieu of the federal hazardous waste management program under HSWA, in connection with Respondent's facilities, described below.

11. On January 8, 2018, EPA sent letters to the Commonwealth of Pennsylvania, through the Pennsylvania Department of Environmental Protection ("PADEP"), and the State of Maryland, through the Maryland Department of the Environment ("MDE"), giving prior notice of this enforcement action in accordance with Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2).

GENERAL PROVISIONS

12. For purposes of this proceeding only, Respondent admits the jurisdictional allegations set forth in this Consent Agreement and Final Order.

13. Except as provided in Paragraph 12, above, Respondent neither admits nor denies the specific factual allegations and conclusions of law set forth in this Consent Agreement.

14. Respondent agrees not to contest the jurisdiction of EPA with respect to the execution of this Consent Agreement, the issuance of the attached Final Order, or the enforcement of this Consent Agreement and Final Order.

15. For purposes of this proceeding only, Respondent hereby expressly waives its right to contest the allegations set forth in this Consent Agreement and waives its right to appeal the accompanying Final Order.

16. Respondent consents to the assessment of the civil penalty stated herein, to the issuance of any specified compliance order herein, and to any conditions specified herein.

17. Respondent shall bear its own costs and attorney's fees in connection with this proceeding.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

18. In accordance with 40 C.F.R. §§ 22.13(b) and 22.18(b)(2) and (3) of the Consolidated Rules of Practice, Complainant alleges and adopts the Findings of Fact and Conclusions of Law set forth immediately below.

BLOOM OPERATIONS

19. Respondent Bloom is, and at all times relevant to the allegations set forth against it in this Consent Agreement was, a Delaware corporation.

20. Respondent is, and at all times relevant to the allegations set forth against it in this Consent Agreement, was a "person," as defined in Section 1004(15) of RCRA, 42 U.S.C. § 6903(15), 25 Pa. Code § 260a.10 and COMAR 26.13.01.03(B)(61).

21. Respondent developed, sells and/or leases to its customers, and operates solid oxide fuel cell technology that converts natural gas into electricity without combustion. This technology is contained inside of equipment, known as "Bloom Energy Servers" or "Energy Servers".

22. Respondent has installed its Energy Servers at multiple customer facilities at locations in the United States.

23. Respondent installed Energy Servers at three customer facilities located in Pennsylvania and Maryland (respectively referred to as the "Pennsylvania Customer Facility," the "Maryland Customer 1 Facility" and the "Maryland Customer 2 Facility"). Collectively, these facilities will be referred to herein as the "Customer Facilities."

24. Respondent installed Energy Servers at the Pennsylvania Customer Facility, the Maryland Customer 1 Facility and the Maryland Customer 2 Facility, in 2012, 2014 and 2015, respectively.

25. Each Energy Server at the customer facilities utilizes natural gas. Each Energy Server contains (1) a group of fuel cell modules ("Fuel Cells"); (2) a fuel processing module; and (3) detachable canisters (referred to herein as "Desulf Canisters").

26. Inside each Fuel Cell, natural gas is converted into electricity through an electrochemical reaction.

27. The Desulf Canisters operate within an Energy Server and are located upstream of the Fuel Cells. The materials inside the Desulf Canisters remove sulfur compounds that were added as an odorant to the natural gas by the gas company, before the natural gas reaches the Fuel Cells.

28. Each Desulf Canister contains granular desulfurization material and carbon (collectively referred to as "media") which can adsorb a finite amount of sulfur compounds from the incoming natural gas.

29. At all times relevant to the allegations set forth against Respondent in this Consent Agreement, each Desulf Canister also incidentally adsorbed other compounds in the natural gas including, but not limited to, benzene. These contaminants were captured by the media within the Desulf Canisters.

30. The media in a Desulf Canister were only able to adsorb a finite amount of sulfur compounds, after which the media became exhausted and/or "spent."

31. When the adsorption capacity of the Desulf Canister degraded to a significant degree, the spent media in a Desulf Canister had to be replaced. Respondent made the determination as to when media became spent. Respondent replaced the spent Desulf Canister and its contents with a Desulf Canister containing fresh media. Respondent would then arrange for the disposal of the spent media.

32. Respondent detached the Desulf Canisters from the Energy Servers located at its customer facilities. Respondent then arranged to ship these Desulf Canisters offsite to receiving facilities so that the spent media could be removed and disposed. Respondent then replaced these Desulf Canisters containing spent media with other Desulf Canisters containing fresh media.

SHIPPING OF SPENT DESULF CANISTERS

33. From approximately June 2013 to the present, Respondent sent Desulf Canisters which were used at the Customer Facilities and contained spent media, from the Customer Facilities to receiving facilities.

34. Respondent sent Desulf Canisters containing spent media from the Customer Facilities to these receiving facilities, during the following timeframes:

    a. VLS Recovery Services LLC ("VLS"), located in Pasadena, Texas – March 2015 – February 2017;

    b. Advanced Chemical Treatment, Inc. ("ACT"), located in Albuquerque, New Mexico – October 2016 – June 2019.

    c. Ross Incineration Services, Inc. ("Ross"), located in Grafton, Ohio – October 2019 – the present.

    (Collectively referred to as the "Receiving Facilities.")

35. At the time that VLS received Respondent's spent media, this facility was a treatment, storage or disposal facility which was not permitted under RCRA Subtitle C, 40 C.F.R. Part 270, or Pa. Code § 270a.1 (which incorporates by reference 40 C.F.R. Part 270), or COMAR 26.13.07, or 30 TAC Chapter 335, to treat, store or dispose hazardous waste.

LEGAL CONCLUSIONS

36. At some point prior to the time that Respondent disconnected each Desulf Canister from a Fuel Cell and removed it from an Energy Server at a customer facility, and at all times thereafter relevant to the violations alleged herein, the spent media in the Desulf Canisters was a "solid waste" as this term is defined in 25 Pa. Code § 260a.1 (which

incorporates by reference 40 C.F.R. § 260.10, which further incorporates by reference 40 C.F.R. § 261.2), and COMAR 26.13.01.03(B)(73).

37. Pursuant to 25 Pa. Code § 260a.1 (which incorporates by reference 40 C.F.R. § 260.10), and COMAR 26.13.01.03(B)(31), and 25 Pa. Code § 261a.1 (which incorporates by reference 40 C.F.R. § 261.3), and COMAR 26.13.02, a solid waste is a hazardous waste if it is not excluded from regulation as a hazardous waste under 25 Pa. Code § 261a.1 (which incorporates by reference 40 C.F.R. § 261.4(b)), and COMAR 26.13.02.04 and, inter alia, it exhibits any of the characteristics of a hazardous waste set forth in 25 Pa. Code § 261a.1 (which incorporates by reference 40 C.F.R. Part 261, Subpart C), and COMAR 26.13.02.10 - .14.

38. Based upon the information above, EPA has determined that spent media generated at and shipped from the Maryland Customer 1 Facility and the Pennsylvania Customer Facility, at all times relevant to the allegations herein, was a "solid waste" as defined by 25 Pa. Code § 260a. (which incorporates by reference 40 C.F.R. § 260.10) and COMAR 26.13.01.03(B)(73).

39. Based upon the information above, EPA has determined that spent media generated at and shipped from the Maryland Customer 1 Facility and the Pennsylvania Customer Facility, at all times relevant to the allegations herein, was a "hazardous waste" as defined by 25 Pa. Code § 260a.1 (which incorporates by reference 40 C.F.R. § 260.10) and COMAR 26.13.01.03(B)(31), because it exhibits the characteristic of toxicity for benzene (EPA Waste Code D018), as described in 40 C.F.R. § 261.24.

40. EPA has determined that the spent media contained in the Desulf Canisters generated at the customer facilities was not "excluded from regulation as a hazardous waste" under 25 Pa. Code § 261a.1 (which incorporates by reference 40 C.F.R. § 261.4(b)), or COMAR 26.13.02.04.

41. 25 Pa. Code § 260a.1 (which incorporates by reference 40 C.F.R. § 260.10), defines "generator" as any person, by site, whose act or process produces hazardous waste identified or listed in 40 C.F.R. Part 261 or whose act first causes a hazardous waste to become subject to regulation.

42. COMAR 26.13.01.03(B)(29) defines "generator" as "any person, by site, whose act or process produces hazardous waste identified or listed in COMAR 26.13.02 or whose act first causes a hazardous waste to become subject to regulation."

43. Each of the customer facilities is a separate site.

44. At all times relevant to the allegations set forth in this Complaint, Respondent was a "generator" of hazardous waste generated in and "stored" within the Energy Servers at Respondent's Customer Facilities, as these terms are defined in 25 Pa. Code § 260a.1

(which incorporates by reference 40 C.F.R. § 260.10), and COMAR 26.13.01.03(B)(29) and (76).

COUNT I
(Failure to Prepare a Manifest for Offsite Shipment of Hazardous Waste)

45. The allegations of each of the preceding paragraphs are incorporated herein by reference as though fully set forth at length.

46. 25 Pa. Code § 262a.10 (which incorporates by reference 40 C.F.R. § 262.20(a)(1)), provides that "[a] generator who transports, or offers for transport a hazardous waste for offsite treatment, storage, or disposal, or a treatment, storage, and disposal facility who offers for transport a rejected hazardous waste load, must prepare a Manifest (OMB Control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A, according to the instructions included in the appendix to this part."

47. COMAR 26.13.03.04.A(1) similarly provides that "[a] generator who transports, or offers for transport a hazardous waste for off-site treatment, storage, or disposal, or a treatment, storage, and disposal facility who offers for transport a rejected hazardous waste load, shall prepare a manifest (OMB control number 2050-0039) on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A, according to the instructions included in the appendix to 40 CFR Part 262 before the waste is transported off-site."

48. Respondent shipped Desulf Canisters storing spent media which contained benzene (EPA Hazardous Waste No. D018) from two Customer Facilities in Pennsylvania and Maryland, without first preparing a Hazardous Waste Manifest for each of these shipments, on at least the following dates:

    a. From the Pennsylvania Customer Facility: 2/11/16 (1 Desulf Canister, about 95 lbs of spent media), 11/23/16 (9 Desulf Canisters, about 855 lbs of spent media)

    b. From the Maryland Customer 1 Facility: 9/23/15 (32 Desulf Canisters, about 3,040 lbs of spent media), 10/7/16 (31 Desulf Canisters, about 2,945 lbs of spent media)

49. On at least four occasions, Respondent violated 25 Pa. Code § 262a.10 (which incorporates by reference 40 C.F.R. § 262.20(a)(1)) and COMAR 26.13.03.04.A(1), by offering for transport a hazardous waste (the spent media in the Desulf Canisters) for offsite treatment, storage, or disposal without first preparing a Manifest.

COUNT II
(Failure to Adequately Respond to Information Requests)

50. The allegations of each of the preceding paragraphs are incorporated herein by reference as though fully set forth at length.

51. Section 3007(a) of RCRA, 42 U.S.C. § 6927(a), provides, in part: "Access Entry. For purposes of developing or assisting in the development of any regulation or enforcing the provisions of this chapter, any person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous wastes shall, upon request of any officer, employee or representative of the Environmental Protection Agency, duly designated by the Administrator, or upon request of any duly designated officer, employee or representative of a State having an authorized hazardous waste program, furnish information relating to such wastes and permit such person at all reasonable times to have access to, and to copy all records relating to such wastes. . . ."

52. On or about December 31, 2015, Respondent installed a Bloom Energy Server which became operational at a Customer Facility in Maryland, known as the "Maryland Customer 2 Facility."

53. In an information request letter ("IRL") that EPA sent to Respondent, dated January 20, 2017 ("IRL #1), Question 1, EPA asked Respondent to: "Identify all facilities where a Bloom Energy Server has been installed within the States of Pennsylvania, Maryland, Virginia, West Virginia, and the District of Columbia."

54. In an information request letter that EPA sent to Respondent, dated September 1, 2017 ("IRL #2"), Question 9, EPA asked Respondent to update its response to the original IRL with any new information generated since January 1, 2017, up to the date of Respondent's receipt of the letter, and not already included in the previous submittal.

55. Respondent failed to provide any information related to the Maryland Customer 2 Facility in either its IRL Response #1, dated March 24, 2017, or its IRL Response #2, dated October 4, 2017.

56. On March 24, 2017 and October 4, 2017, Respondent violated the requirements of Section 3007(a) of RCRA, 42 U.S.C. § 6927(a), by failing to provide information about the Maryland Customer 2 Facility in response to an EPA information request that asked Respondent to identify all facilities where a Bloom Energy Server has been installed within the State of Maryland.

CIVIL PENALTY

57. In settlement of EPA's claims for civil penalties for the violations alleged in this Consent Agreement, Respondent consents to the assessment of a civil penalty in the amount of **TWO HUNDRED TEN THOUSAND DOLLARS ($210,000.00)**, which Respondent shall be liable to pay in accordance with the terms set forth below.

58. The civil penalty is based upon EPA's consideration of a number of factors, including the penalty criteria ("statutory factors") set forth in Section 3008(a)(3) of RCRA, 42 U.S.C. § 6928(a)(3)**,** including, the following: the seriousness of the violation and any good faith

efforts to comply with the applicable requirements. These factors were applied to the particular facts and circumstances of this case with specific reference to EPA's October, 1990 RCRA Civil Penalty Policy, as revised in June, 2003 ("RCRA Penalty Policy"), which reflect the statutory penalty criteria and factors set forth at Section 3008(a)(3) and (g) of RCRA, 42 U.S.C. §§ 6928(a)(3) and (g), the appropriate Adjustment of Civil Monetary Penalties for Inflation, pursuant to 40 C.F.R. Part 19, and the applicable EPA memoranda addressing EPA's civil penalty policies to account for inflation.

59. Payment of the civil penalty amount, and any associated interest, administrative fees, and late payment penalties owed, shall be made by either cashier's check, certified check or electronic wire transfer, in the following manner:

a. All payments by Respondent shall include reference to Respondent's name and address, and the Docket Number of this action, *i.e.*, RCRA-HQ-2020-501;

b. All checks shall be made payable to the "United States Treasury";

c. All payments made by check and sent by regular mail shall be addressed and mailed to:

U.S. Environmental Protection Agency
Cincinnati Finance Center
P.O. Box 979077
St. Louis, MO 63197-9000

d. For additional information concerning other acceptable methods of payment of the civil penalty amount see:

https://www.epa.gov/financial/makepayment

e. A copy of Respondent's check or other documentation of payment of the penalty using the method selected by Respondent for payment shall be sent simultaneously to:

Natalie Katz
Senior Assistant Regional Counsel
U.S. EPA, Region III (3RC40)
1650 Arch Street
Philadelphia, PA 19103-2029
katz.natalie@epa.gov

60. Pursuant to 31 U.S.C. § 3717 and 40 C.F.R. § 13.11, EPA is entitled to assess interest and late payment penalties on outstanding debts owed to the United States and a charge to cover the costs of processing and handling a delinquent claim, as more fully described below. Accordingly, Respondent's failure to make timely payment of the penalty as

specified herein shall result in the assessment of late payment charges including interest, penalties and/or administrative costs of handling delinquent debts.

61. Payment of the civil penalty is due and payable immediately upon receipt by Respondent of a true and correct copy of the fully executed and filed Consent Agreement and Final Order. Receipt by Respondent or Respondent's legal counsel of such copy of the fully executed Consent Agreement and Final Order, with a date stamp indicating the date on which the Consent Agreement and Final Order was filed with the Clerk of the Environmental Appeals Board, shall constitute receipt of written initial notice that a debt is owed EPA by Respondent in accordance with 40 C.F.R. § 13.9(a).

62. INTEREST: In accordance with 40 C.F.R § 13.11(a)(1), interest on the civil penalty assessed in this Consent Agreement and Final Order will begin to accrue on the date that a copy of the fully executed and filed Consent Agreement and Final Order is mailed or hand-delivered to Respondent. However, EPA will not seek to recover interest on any amount of the civil penalties that is paid within thirty (30) calendar days after the date on which such interest begins to accrue. Interest will be assessed at the rate of the United States Treasury tax and loan rate in accordance with 40 C.F.R § 13.11(a).

63. ADMINISTRATIVE COSTS: The costs of the EPA's administrative handling of overdue debts will be charged and assessed monthly throughout the period a debt is overdue. 40 C.F.R. § 13.11(b). Pursuant to Appendix 2 of EPA's *Resources Management Directives – Case Management*, Chapter 9, EPA will assess a $15.00 administrative handling charge for administrative costs on unpaid penalties for the first thirty (30) day period after the payment is due and an additional $15.00 for each subsequent thirty (30) days the penalty remains unpaid.

64. LATE PAYMENT PENALTY: A late payment penalty of six percent per year will be assessed monthly on any portion of the civil penalty that remains delinquent more than ninety (90) calendar days. 40 C.F.R. § 13.11(c). Should assessment of the penalty charge on the debt be required, it shall accrue from the first day payment is delinquent. 31 C.F.R. § 901.9(d).

65. Respondent agrees not to deduct for federal tax purposes the civil penalty assessed in this Consent Agreement and Final Order.

SETTLEMENT CONDITION - COMPLIANCE AUDIT

66. As a condition of this settlement, Respondent agrees to conduct a Compliance Audit. Respondent shall retain an independent third party (the "Auditor") to perform the Compliance Audit, which shall consist of an audit of each of the records of Respondent's shipments of Desulf Canisters containing spent media from all of its customer facilities in the United States outside of Region III (DC, DE, MD, PA, VA, WV), for the time period beginning September 8, 2015 through December 31, 2019. (This Compliance Audit will not include records of shipments of Desulf Canisters containing spent media that

Respondent sent to the Shoremet LLC facility in Valparaiso, Indiana.) Respondent agrees to undertake the following activities, described below, with regard to the performance of the Compliance Audit.

67. Within forty-five (45) days of the effective date of this Consent Agreement and Final Order, Respondent shall provide to EPA the following: the name and address of the Auditor that Respondent has selected to perform the Compliance Audit, and documentation that such Auditor satisfies the requirements described below in Paragraph 68 of this Consent Agreement and Final Order.

68. At a minimum, the Auditor selected by Respondent for performance of the Compliance Audit shall:

   a. have no less than 3 years of experience in performing RCRA compliance audits;

   b. have a trained and experienced staff for the performance of such audits;

   c. have no past or present relationship or affiliation with the Respondent nor anticipate any prospective relationship or affiliation with the Respondent as a result of performing the Compliance Audit.

69. Upon completion of a review by EPA of the materials described in Paragraph 68, relating to the name and qualifications of the proposed Auditor, EPA will, in its sole discretion (but subject to the Dispute Resolution provisions of Paragraphs 94 through 98), either: (1) notify Respondent in writing of EPA's approval of the selection of the proposed Auditor, or (2) notify Respondent in writing of EPA's rejection of the proposed Auditor. If EPA rejects Respondent's proposed Auditor, EPA will state the reasons for the rejection in writing and will allow Respondent thirty (30) days to make a new submittal.

70. Within thirty (30) days of receipt of notice of EPA's approval of the proposed Auditor, Respondent shall provide to EPA a proposed plan (the "Compliance Audit Plan") describing the procedures which satisfy the requirements set forth in Paragraphs 72 through 77, and Appendix A of this Consent Agreement and Final Order. The Audit Plan shall reflect the scope of the records audit provided herein and in Appendix A.

71. Upon completion of a review by EPA of the proposed Compliance Audit Plan, EPA will, in its sole discretion (but subject to the Dispute Resolution provisions of Paragraphs 94 through 98), either: (1) notify Respondent in writing of EPA's approval of the proposed Compliance Audit Plan, or (2) notify Respondent in writing of EPA's rejection of the proposed Compliance Audit Plan. EPA's decision regarding approval of the Compliance Audit Plan shall be consistent with the agreed scope of the Compliance Audit as reflected in Paragraph 66 and Appendix A. If EPA rejects any or all of Respondent's proposed Compliance Audit Plan, EPA will state the reasons for the rejection and will provide to Respondent in writing a reasonable timeframe to make a new submittal. The performance of the Compliance Audit shall commence only upon Respondent's receipt of

approval by EPA of the Compliance Audit Plan. If Respondent fails to submit the name of the proposed Auditor or the Compliance Audit Plan within the deadline for submission or fails to revise and re-submit any of the items by EPA's deadline, EPA shall have the right to terminate this Consent Agreement and Final Order by providing written notice to Respondent, and EPA shall have the right to seek and collect the maximum penalty allowed by law for any and all violations of Subtitle C of RCRA at any of Respondent's customer facilities.

72. Respondent shall fully cooperate with requests made by the EPA-approved Auditor concerning performance of the Audit in accordance with the Compliance Audit Plan and preparation of the Final Audit Report.

73. Within ninety (90) days of receipt of EPA's approval of the proposed Auditor and Compliance Audit Plan, Respondent shall have the Compliance Audit completed, and submit to EPA a Final Audit Report.

74. The Final Audit Report shall contain the information set forth in Appendix A.

75. Respondent shall maintain for inspection by EPA the original records pertaining to the actual implementation and/or performance of the Compliance Audit for a period of three years from the date of approval of the Final Audit Report.

76. The Final Audit Report shall be certified by Respondent in the following manner:

> I certify that the information contained in or accompanying the Final Audit Report is true, accurate, and complete. As to [the/those] identified portions of the Final Audit Report for which I cannot personally verify [its/their] accuracy, I certify under penalty of law that the Final Audit Report and all attachments, including any and all supporting information, were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who participated in development of the Final Audit Report, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.
>
> Signature:
>
> Name:
>
> Title:

77. Upon completion of a review by EPA of the Final Audit Report, EPA shall, in its sole discretion (but subject to the Dispute Resolution provisions of Paragraphs 94 through 98),

either: (1) notify Respondent in writing of its approval of the Final Audit Report, or (2) notify Respondent in writing of its rejection of all or any part of the Final Audit Report because of a failure to include information required in accordance with Appendix A. If EPA rejects all or any part of the proposed Final Audit Report, EPA will state the reasons for rejection and will provide to Respondent in writing a reasonable time to make a new submittal. In the event that Respondent fails to revise and re-submit any or all of the items addressed in EPA's notice of rejection for the Final Audit Report within the deadline provided by EPA in the notice, EPA shall have the right to investigate any and all of Respondent's shipments from customer facilities that are within the scope of the Compliance Audit as set forth in Paragraph 66, but that were not properly addressed in the Final Audit Report. In that case, pursuant to Section 3008(g) of RCRA, 42 U.S.C. § 6928(g), EPA also has the right to seek and collect the maximum civil penalty allowed by law for any and all violations of RCRA, at any such facility related to any such shipments.

78. Upon completion of a review by EPA of the Final Audit Report, EPA shall, in its sole discretion (but subject to the Dispute Resolution provisions of Paragraphs 94 through 98), determine whether facts reported by the Compliance Audit resulted in any violations of Subtitle C of RCRA, 42 U.S.C. § 6921 et seq., federal regulations promulgated thereunder, or state hazardous waste management requirements authorized by EPA pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926. For purposes of determining whether the Audit findings resulted in any violations, the Parties stipulate that spent media generated at and/or shipped from the customer facilities listed in the Final Audit Report constituted a "hazardous waste" as defined by 40 C.F.R. § 260.10, and the applicable state hazardous waste management regulations.

79. Respondent shall immediately undertake any and all actions necessary to correct any ongoing violation of Subtitle C of RCRA, 42 U.S.C. § 6921 et seq., federal regulations promulgated thereunder, or state hazardous waste management requirements authorized by EPA pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926, and remediate any harm caused or threatened by such violation discovered during the course of the performance of the Compliance Audit, and institute effective measures to ensure that any such violation does not reoccur in the future. Nothing in this Paragraph shall relieve Respondent of any obligation imposed by any applicable federal, state and/or local laws and requirements concerning compliance.

80. In the event EPA determines that there was a violation as described in Paragraph 85, below, Respondent agrees to pay penalties in accordance with the penalty schedule in Paragraphs 85 through 87 of this Consent Agreement and Final Order, for each violation. Each violation shall be resolved and settled by paying the assessed penalty in accordance with Paragraphs 59 through 65 of this Consent Agreement and Final Order. EPA reserves any rights and remedies available to it under RCRA, the regulations promulgated thereunder and any other federal law or regulation to resolve any violations identified through the Compliance Audit that are not listed in Paragraph 85.

81. In the event EPA determines that there was a violation as described in Paragraph 85, below, Respondent will certify to EPA, upon personal investigation and to the best of its knowledge and belief, that it currently is in compliance with regard to the violations identified in the Compliance Audit. Respondent will submit this certification to EPA within 30 Days of receiving the EPA's written demand letter pursuant to Paragraph 82.

CIVIL PENALTIES FOR VIOLATIONS DISCOVERED THROUGH THE COMPLIANCE AUDIT

82. Following EPA's review of the approved Final Audit Report, EPA will furnish to Respondent a demand letter, which establishes the pre-agreed penalties to be paid for violations described in Paragraph 85, below, and identified through the Compliance Audit and Final Audit Report. Once paid, the penalty payment would resolve the claims for civil penalties EPA may have against Respondent for those violations identified through the Compliance Audit and Final Audit Report. A copy of the demand letter will also be sent to the EPA Cincinnati Finance Office.

83. No criminal violation or civil violation that results in serious actual harm or that may present an imminent and substantial endangerment to public health or the environment, shall qualify for the imposition of penalties under this Section and satisfaction under this Consent Agreement and Final Order, and EPA reserves the right to seek and obtain injunctive relief and the imposition of the maximum civil penalty or criminal sanction allowed by law for any such violation.

84. Subject to the provisions and terms of this Consent Agreement and Final Order, the period commencing May 31, 2018 and ending December 31, 2020 (the "Tolling Period"), inclusive, will not be included in computing the running of any statute of limitations applicable to any action brought by EPA or on behalf of EPA, pursuant to 3008(a) and (g) of RCRA, 42 U.S.C. § 6928(a) and (g), for civil penalties and/or other remedies provided by law in relation to any violation of the regulations identified through the Compliance Audit. Respondent shall not assert, plead or raise against EPA, or the U.S. Department of Justice on behalf of EPA, in any fashion, whether by answer, motion or otherwise, any defense or avoidance based on the running of any statute of limitations during any portion of the Tolling Period, and any statute of limitations shall be tolled during and for that period.

85. Respondent shall be liable and agrees to pay civil penalties, upon demand by EPA, for any violation discovered through the Compliance Audit and disclosed in the Final Audit Report, as set forth below:

   a. Violations of 40 C.F.R. § 262.20(a)(1), for offering for transport spent media in a Desulf Canister from a customer facility to a permitted TSD, without first preparing a manifest:

$2,000 per shipment for violations occurring between September 8, 2015 and October 3, 2016.

$4,000 per shipment for violations occurring on or after October 4, 2016

b. Violations of 40 C.F.R. § 262.20(a)(1), for offering for transport spent media in a Desulf Canister from a customer facility to a non-permitted receiving facility, without first preparing a manifest:

$3,000 per shipment for violations occurring between September 8, 2015 and October 3, 2016.

$7,500 per shipment for violations occurring on or after October 4, 2016.

c. Violations of Section 3001(d)(5) of RCRA, 42 U.S.C. § 6921(d)(5), for ultimate disposal of spent media from a Desulf Canister at a facility not permitted for treatment, storage or disposal of hazardous waste

$10,000 per shipment for violations occuring on or after September 8, 2015.

86. Penalties shall be individually assessed for each separate shipment identified through the Compliance Audit.

87. Respondent shall pay any penalty within 30 Days of receiving the EPA's written demand for payment.

88. EPA may, in the unreviewable exercise of its discretion, reduce or waive penalties otherwise due it under this Consent Agreement and Final Order.

89. Respondent shall pay penalties owing to EPA in the manner set forth and with the confirmation notices required by Paragraph 59, except that Respondent's transmittal letter shall state that the payment is for penalties for violations discovered through the Compliance Audit, and it shall state for which violation(s) the penalties are being paid.

90. If Respondent fails to pay penalties for violations discovered through the Compliance Audit, according to the terms of this Consent Agreement and Final Order, Respondent shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit EPA from seeking any remedy otherwise provided by law for Respondent's failure to pay any penalties.

91. Non-Exclusivity of Remedy. Penalties are not the EPA's exclusive remedy for violations discovered through the Compliance Audit. EPA expressly reserves the right to seek any other relief it deems appropriate for Respondent's violation of this Consent Agreement and Final Order or applicable law, including but not limited to an action against

Respondent for statutory penalties, additional injunctive relief, mitigation or offset measures, and/or contempt. However, the amount of any statutory penalty assessed for a violation shall be reduced by an amount equal to the amount of any penalty assessed and paid pursuant to this Consent Agreement and Final Order. EPA will not seek further penalties for violations addressed pursuant to Paragraph 85.

GENERAL SETTLEMENT CONDITIONS

92. By signing this Consent Agreement, Respondent acknowledges that this Consent Agreement and Final Order will be available to the public and represents that, to the best of Respondent's knowledge and belief, this Consent Agreement and Final Order does not contain any confidential business information or personally identifiable information from Respondent.

93. Respondent certifies that any information or representation it has supplied or made to EPA concerning this matter was, at the time of submission true, accurate, and complete and that there has been no material change regarding the truthfulness, accuracy or completeness of such information or representation. EPA shall have the right to institute further actions to recover appropriate relief if EPA obtains evidence that any information provided and/or representations made by Respondent to the EPA regarding matters relevant to this Consent Agreement and Final Order, including information about respondent's ability to pay a penalty, are false or, in any material respect, inaccurate. This right shall be in addition to all other rights and causes of action that EPA may have, civil or criminal, under law or equity in such event. Respondent and its officers, directors and agents are aware that the submission of false or misleading information to the United States government may subject a person to separate civil and/or criminal liability.

DISPUTE RESOLUTION

94. The dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Agreement and Final Order.

95. If Respondent disagrees, in whole or in part, with any decision by EPA under this Consent Agreement and Final Order, Respondent shall notify EPA through the Branch Chief of the Air, RCRA and Toxics Branch, EPA, Region III, and the parties shall use their best efforts to informally and in good faith resolve all disputes or differences of opinion relating to this Consent Agreement and Final Order.

96. In the event that the parties cannot resolve a dispute by informal negotiations under the preceding paragraphs, Respondent may pursue the matter by submitting its objection to the Branch Chief of the Air, RCRA and Toxics Branch, EPA, Region III, in writing. Respondent's written objections must set forth the specific points of the dispute, the basis for Respondent's position and any matters which it considers necessary for EPA's determination.

97. EPA and Respondent shall have thirty (30) days from receipt of Respondent's written objections to attempt to resolve the dispute through formal discussions.

98. If EPA and Respondent cannot resolve the dispute through formal discussions, EPA, through the Branch Chief of the Air, RCRA and Toxics Branch, EPA, Region III, will provide to Respondent in writing EPA's decision on the pending dispute, and that decision will be binding upon the Respondent.

NOTICE

99. Except as otherwise specified herein, whenever this Consent Agreement and Final Order requires notice or submission of reports, information, or documents, such notice or submission shall be provided to the following persons via certified mail, return receipt requested, first class mail, overnight mail (Express or priority), hand-delivery or any reliable commercial delivery service. Either party may substitute another person to receive notice on its behalf or change the address to which notices are to be sent by sending written notification of the substitution or change to the other party.

a. For EPA:

Leslie Oif
Attorney/Advisor (2249A)
Officer of Civil Enforcement
Office of Enforcement and Compliance Assurance
1200 Pennsylvania Avenue, NW
Washington DC 20004
oif.leslie@epa.gov

Martin Matlin
Enforcement and Compliance Officer (3ED22)
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029
matlin.martin@epa.gov

Natalie Katz
Senior Assistant Regional Counsel (3RC40)
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029
katz.natalie@epa.gov

b. For Respondent:

Shawn Soderberg
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
shawn.soderberg@bloomenergy.com

Patrick McCormick
Vice President, Regulatory
Bloom Energy Corporation
200 Christina Parkway
Newark, DE 19713
patrick.mccormick@bloomenergy.com

Michael Roesch
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
michael.roesch@bloomenergy.com

CERTIFICATION OF COMPLIANCE

100. Respondent certifies to EPA, upon personal investigation and to the best of its knowledge and belief, that it currently is in compliance with regard to the violations alleged in this Consent Agreement.

OTHER APPLICABLE LAWS

101. Nothing in this Consent Agreement and Final Order shall relieve Respondent of its obligation to comply with all applicable federal, state, and local laws and regulations, nor shall it restrict EPA's authority to seek compliance with any applicable laws or regulations, nor shall it be construed to be a ruling on the validity of any federal, state or local permit. This Consent Agreement and Final Order does not constitute a waiver, suspension or modification of the requirements of RCRA, or any regulations promulgated thereunder.

RESERVATION OF RIGHTS

102. This Consent Agreement and Final Order resolves only EPA's claims for civil penalties for the specific violation[s] alleged against Respondent in this Consent Agreement and Final Order and for violations identified through the Compliance Audit. EPA reserves the right to commence action against any person, including Respondent, in response to any condition which EPA determines may present an imminent and substantial endangerment to the public health, public welfare, or the environment. This settlement is

subject to all limitations on the scope of resolution and to the reservation of rights set forth in Section 22.18(c) of the Consolidated Rules of Practice, 40 C.F.R. § 22.18(c). EPA reserves any rights and remedies available to it under RCRA, the regulations promulgated thereunder and any other federal law or regulation to enforce the terms of this Consent Agreement and Final Order after its effective date.

EXECUTION /PARTIES BOUND

103. This Consent Agreement and Final Order shall apply to and be binding upon EPA, the Respondent and the officers, directors, employees, contractors, successors, agents and assigns of Respondent. By his or her signature below, the person who signs this Consent Agreement on behalf of Respondent is acknowledging that he or she is fully authorized by the Respondent to execute this Consent Agreement and to legally bind Respondent to the terms and conditions of this Consent Agreement and Final Order.

EFFECTIVE DATE

104. The effective date of this Consent Agreement and Final Order is the date on which the Final Order, signed by the Environmental Appeals Board is filed along with the Consent Agreement with the Hearing Clerk for the Environmental Appeals Board pursuant to the Consolidated Rules of Practice.

ENTIRE AGREEMENT

105. This Consent Agreement and Final Order constitutes the entire agreement and understanding between the Parties regarding settlement of all claims for civil penalties pertaining to the specific violations alleged herein and there are no representations, warranties, covenants, terms, or conditions agreed upon between the Parties other than those expressed in this Consent Agreement and Final Order.

For Respondent: BLOOM ENERGY CORPORATION

Date: 4/2/20

By: Shawn Soderberg, Esq.
Executive Vice President, General
Counsel and Secretary

Shawn M. Soderberg

For the Complainant: U.S. ENVIRONMENTAL PROTECTION AGENCY

Date: 5/5/2020

By: NATALIE KATZ Digitally signed by NATALIE KATZ Date: 2020.05.05 12:23:48 -04'00'

Natalie L. Katz
Sr. Assistant Regional Counsel
Office of Regional Counsel, EPA, Region III

Date: 5/5/2020

By: LESLIE OIF Digitally signed by LESLIE OIF Date: 2020.05.05 13:54:26 -04'00'

Leslie A. Oif
Attorney
Waste and Chemical Enforcement Division

After reviewing the Consent Agreement and other pertinent matters, the Environmental Compliance and Enforcement Division of the U.S. Environmental Protection Agency, recommends that the Administrator, or his/her designee issue the attached Final Order.

Date: 05/05/2020

By: DIANA SAENZ Digitally signed by DIANA SAENZ Date: 2020.05.05 14:57:12 -04'00'

Diana Saenz, Acting Director
Waste and Chemical Enforcement Division
Office of Civil Enforcement
Office of Enforcement and Compliance Assurance
United States Environmental Protection Agency

APPENDIX A

The purpose of the Compliance Audit shall be to audit each of the records of Respondent's shipments of Desulf Units containing spent catalysts from all of its customer facilities in the United States outside of Region III (DC, DE, MD, PA, VA, WV) for the time period beginning September 8, 2015 through December 31, 2019. The Final Audit Report, required by Paragraph 73 and 74 of this Consent Agreement and Final Order, shall include the following information:

1. Identification of all facilities where a Bloom Energy Server has been installed outside of Region III states (DC, DE, MD, PA, VA, WV). For each such facility, please provide the following:

    a. Name of customer, name of facility, address of facility, and EPA ID number of facility (if applicable)
    b. Date(s) of each Energy Server installation.
    c. Number and volume of all Desulf Canisters present at the facility.

2. For each of the facilities listed in response to question 1a. above, provide the date(s) and number of instances when any Desulf Canisters were removed from any installed Energy Server during the period of September 8, 2015 through December 1, 2019. For each such instance, provide the following:

    a. Date of removal
    b. Number of Desulf Canisters removed
    c. Date of off-site transport
    d. Name, address, and EPA ID number (if applicable) of transporter(s) utilized
    e. Copies of the following types of documents showing each shipment of the Desulf Canisters, including: bills of lading, manifests, hazardous waste manifests, shipping invoices, electronic records, LDR notices and certifications.

3. For each facility or location that received a Desulf Canister shipment ("Receiving Facility"), provide the following:

    a. Name, address, and EPA ID number (if applicable) of Receiving Facility
    b. Date of receipt for each Desulf Canister shipment
    c. For any and all material removed from a Desulf Canister ("Removed Material") at this location, provide the following:
        (1) Date of removal and volume removed
        (2) Whether Removed Material was shipped from the Receiving Facility to another location and the date and method of such shipment(s). If it has not been shipped from that location, state its current location and explain why it has not been shipped from the Receiving Facility.
        (3) If the Removed Material was shipped from the Receiving Facility, provide copies of the following types of documents reflecting each shipment, including: bills of lading, manifests, hazardous waste manifests, shipping

invoices, electronic records, LDR notices and certifications that accompanied and/or refer to each off-site shipment of this material.

4. For each facility or location that received material removed from a Desulf Canister ("Final Destination"), please provide the following:

   a. Name, address, and EPA ID number (if applicable) of Final Destination
   b. Date of receipt for each shipment of Removed Material from a Desulf Canister
   c. Whether the Removed Material was ultimately disposed of. If so, provide:
      (1) date of disposal
      (2) volume disposed
      (3) disposal facility name, address and EPA ID number (if applicable)
      (4) method of disposal
      (5) copies of all documents related to the disposal.
   d. State whether the Removed Material was ultimately reclaimed or recycled. If so, provide:
      (1) whether the Removed Material was reclaimed or whether it was recycled
      (2) date of reclamation or recycling
      (3) name, address and EPA ID number (if applicable) of reclamation or recycling location
      (4) method of reclamation or recycling
      (5) copies of all documents related to the reclamation or recycling.

5. If Bloom is not in possession of documents (in any format) reflecting the information listed above, Bloom shall: i) specify which information and categories of documents it does not have; ii) formally request in writing and diligently pursue for the benefit of the auditor documents including such information from applicable transporters, receiving facilities, destination facilities, and any other entities likely to have such documents; and iii) inform EPA regarding the response of each entity to the request for documents.

6. A statement indicating any problems or difficulties, in performing the Compliance Audit, and the measures taken to address such problems or difficulties.

CERTIFICATE OF SERVICE

I certify that copies of the foregoing "Consent Agreement" and "Final Order," in the matter of *Bloom Energy Corporation*, Docket No. RCRA-HQ-2020-501were sent to the following persons in the manner indicated:

By E-mail:

Shawn Soderberg
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
shawn.soderberg@bloomenergy.com

Patrick J. McCormick III, Esq.
Bloom Energy Corporation
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Natalie Katz
Sr. Asst. Regional Counsel
ORC – 3RC40
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Diana Saenz
Acting Director
Waste and Chemical Enforcement Division
Office of Civil Enforcement
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Martin Matlin
Enforcement Officer
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matlin.martin@epa.gov

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Officer of Civil Enforcement
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1200 Pennsylvania Ave., NW
Washington DC 20004
oif.leslie@epa.gov

Dated: **May 12 2020**

Eurika Durr
Eurika Durr
Clerk of the Board

Attachment 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

12/15/2020

VIA ELECTRONIC MAIL

Shawn Soderberg
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
shawn.soderberg@bloomenergy.com

Marisa Blackshire, Esq.
Bloom Energy Corporation
4353 North First Street
San Jose, CA 95134
marisa.blackshire@bloomenergy.com

RE: Bloom Energy Corporation, EPA Docket No. RCRA-HQ-2020-501
Demand for Pre-Agreed Upon Penalties

Dear Ms. Soderberg and Ms. Blackshire:

In accordance with Paragraph 82 of the Consent Agreement and Final Order, EPA Docket No. RCRA-HQ-2020-501, entered into by the United States Environmental Protection Agency ("EPA") and Bloom Energy Corporation ("Bloom"), EPA hereby demands payment of pre-agreed upon penalties for shipments of hazardous waste sent by Bloom without first preparing a hazardous waste manifest, from the period September 8, 2015 through December 31, 2019. EPA received Bloom's Final Audit Report ("Report") prepared by its consultant, Roux Associates, and submitted by Bloom on November 2, 2020. Based on the data in that Report, EPA has determined that Bloom is liable for $1,161,000.00 in penalties. In accordance with Paragraph 85 of the Consent Agreement, penalties were calculated for the following shipments:

33 shipments of hazardous waste sent without a hazardous waste manifest to a permitted receiving facility, from September 8, 2015 to October 3, 2016

225 shipment of hazardous waste sent without a hazardous waste manifest to a non-permitted receiving facility, from September 8, 2015 to October 3, 2016

105 shipments of hazardous waste sent without a hazardous waste manifest to a permitted receiving facility, after October 3, 2016

Please remit payment of the stipulated penalty within 30 days of receipt of this demand letter, in the manner described in Paragraphs 59 and 87 of the Consent Agreement. Please send documentation of payment of the penalty to EPA, referencing Docket No. RCRA-HQ-2020-501, via email, to the following: (1) Natalie Katz (katz.natalie@epa.gov), (2) Leslie Oif (oif.leslie@epa.gov), (3) Finance

Office (CINWD_AcctsReceivable@epa.gov), (4) Clerk of the Environmental Appeals Board (Clerk_EAB@epa.gov) and (5) Regional Hearing Clerk (R3_Hearing_Clerk@epa.gov).

EPA appreciates your cooperation in this matter. If you have any questions about this penalty demand, please contact Natalie Katz, Senior Assistant Regional Counsel, at 215-814-2615, or katz.natalie@epa.gov.

Sincerely,

Karen Melvin, Director
Enforcement & Compliance Assurance Division

cc: Natalie Katz, EPA (katz.natalie@epa.gov)
Martin Matlin, EPA (matlin.martin@epa.gov)
Sara Kinslow, EPA (kinslow.sara@epa.gov)
Leslie Oif, EPA (oif.leslie@epa.gov)
Regional Hearing Clerk (R3_Hearing_Clerk@epa.gov)
Clerk of the EPA EAB (Clerk_EAB@epa.gov)
EPA Finance Office (CINWD_AcctsReceivable@epa.gov)