From:	Yardman-Frank, Brian, ENV
To:	Jennifer Bradfute
Cc:	Kelsea Sona
Subject:	YGI Permit Application 10883 - AQB Information Requests
Date:	Friday, October 23, 2026 4:48:04 PM
Attachments:	2026.10.23 AQB Information Requests to YGI.pdf Outlook-Logo__Desc.png

Hello Jennifer,

Please see the attached letter requesting information from the applicant YGI.

Thank you,

Brian Yardman-Frank (he/him)
Assistant General Counsel, AQB
New Mexico Environment Department
Office of General Counsel
5401 Watson Drive SE, Bldg. B
Albuquerque, NM 87106
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Via E-mail Only:
Jennifer L. Bradfute, Esq.
Bradfute Sayer, P.C.
jennifer@bradfutelaw.com
Counsel for Yucca Growth Infrastructure, LLC

Subject: Air Quality Permit No. 10883

Dear Jennifer Bradfute:

Thank you for submitting additional materials to the Air Quality Bureau on behalf of YGI on October 16, 2026, in recognition that YGI's air dispersion modeling must reflect the statements in its air quality permit application (No. 10883).

The Air Quality Bureau has completed a preliminary review of the October 16 materials and confirms that YGI has submitted:

1. A partial UA1, a partial UA2, a partial UA3 which includes Sections 3, 5, 6, 6a, 10, 12, 20, a PDF file with the updated calculations, and a UA4.

2. Two additional modeling scenarios (to add to scenarios 1 and 2 that YGI previously submitted) that demonstrate: (1) a 100% load (2462 MW) and (2) a 65% load (1600 MW).

The Air Quality Bureau also received the computation of calculations required under 20.2.72.203(A)(3) NMAC and a correction of a typographical error on October 22.

Please confirm that there are no other changes to YGI's application beyond the ones listed above, excluding those that may be provided in response to the Air Quality Bureau's requests.

At this point in its review, the Air Quality Bureau has identified missing and/or outstanding questions as follows:

<u>Missing and/or Outstanding Questions (Application):</u>

1. Please provide UA1, UA3, and UA4 as Word versions of the application. The partial UA1 section is missing Sections 1-A, 1-E, 1-F, 1-G, and 1-H. Will YGI be providing additional updates?

2. As noted, YGI has submitted information for (1) a 100% load (2462 MW) and (2) a 65% load (1600 MW). Please advise as to if YGI is proposing an alternative operating scenario and how YGI would like the Air Quality Bureau to evaluate both sets of information. Please clarify this information provided in Tables 2G and 2H.

3. SSMs must be entered in Table 2-B of UA2. All exempt equipment, including previously reported SSMs must be disclosed. Is YGI intending to use the original SSMs from the May 19 application?

4. YGI states: "*If desulfurization canisters are used, there will be no associated SSM emissions.*" YGI also states, "*If CDS is used, air emissions (natural gas venting) will occur during CDS media replacements and during desulfurization unit initial start-ups. Approximately ninety-five CDS skids/blocks will be installed, consisting of two vessels in a lead/lag configuration for desulfurization. Each vessel has a volume of 1,370 standard cubic feet. This activity is exempt pursuant to 20.2.72.202.B(5) NMAC.*" YGI's two statements are contradictory. As previously established, the process requires the use of desulfurization filters, and the facility retains the initial reported 95 CDS. YGI provided identical SSM calculations with the updated material. Thus, "if" is misleading since YGI has previously established there will be venting emissions associated with the process. Please reconcile.

5. Considering the energy servers consist of 260 kW and 325 kW, can you please confirm all servers/clusters at the facility associated with a single stack have identical configurations, emissions rates, and emissions limits with the exception of one? Can you please justify why the single server was not listed as a separate unit in the updated application (Tables 2D, 2E, and 2I)?

6. Based on publicly available information regarding YGI and El Paso Electric, please provide information regarding:

    a. How will the YGI Microgrid connect with the electric grid? Please describe process and equipment.

    b. How will these connections impact the current facility design and what permit modifications can be expected from YGI to submit regarding regulated equipment and exempt equipment connections?

    c. Does YGI plan to add exempt equipment considering the newly acquired contract with El Paso Electric? If a permit is issued to YGI, will backup generators be added as exempt equipment through Permitting Administrative Multi-Form (PAM) revisions?

    d. Will the data center connect to the electric grid and how is this connection expected to impact the permitting process and/or future permit

Administrative Record NSR 10833_012228

modifications?

e. Are there any current/future considerations in regard to a Single Source Determination (SSD) to include the YGI Microgrid and data center (or any other facility) in light of the current relationship between YGI and El Paso Electric?

Missing and/or Outstanding Questions (Modeling):

Per the Air Quality Bureau's October 9, letter, the Air Quality Bureau can confirm that the two additional modeling scenarios (for the 100% load and the 65% load) now incorporate TCEQ emissions data, provide specific emissions per stack and explain how the emissions relate to the number of clusters, servers, and power modules for each respective stack.

As YGI did not provide a complete detailed description as to the specific changes that YGI is making compared to YGI's 10/18/20 power module configuration, the Air Quality Bureau conducted an initial review and would like to confirm that YGI changed the following parameters:

1. The stacks are now modeled as one circular stack instead of splitting into three sub-stacks.
2. The number of stacks changed from 2275 to 1263.
3. Stacks have increased in height from 30 ft to 45 ft.
4. The number of buildings has decreased from 425 to 254 buildings and are now 3 floors instead of 2 floors. Building heights have changed from 25 ft to 32 ft.
5. The stack exit parameters temperature is now 217° F (65% load scenario) and 163° F (100% load scenario) instead of 327° F.
6. All stacks except one have the same number of power modules attached instead of 10/18/20 power modules configuration.

For YGI's information regarding the flow rate, temperature, and other stack parameters with respect to flow composition and all supporting calculations used to justify the parameters and associated emissions, please provide answers to the following:

1. Will the facility operate 65% of the power modules at 100% load or operate 100% of the power modules at 65% load for the 1600 MW case, or a mixture of the two?

2. Please show exhaust temperature calculations using density-based methods. The warmer hotbox exhaust is less dense and accounting for that difference compared to the cabinet ventilation and DC module exhaust's colder, high-density air may lead to a lower exhaust temperature than what YGI modeled.

Administrative Record NSR 10833_012229

3. Please provide the % moisture from each of the three components: hotbox, cabinet ventilation, and DC module, and explain how the final moisture concentration in the stack exhaust is 7.9%.

4. Please provide the calculations for stack exit flow rates (606 and 660 acfs) in the 65% and 100% load scenarios, respectively. Do the cabinet ventilation and DC module flow rates remain the same regardless of the load?

5. Please specify the changes between the original submission and this submission's flow rate makeup assumptions? YGI's 10/18/20 power module configuration had 11.95 acfs from the hotbox coming out at 440° C whereas the October 16 version has 2.62 acfs (assuming 65% load, so 4.04 acfs assuming 100% load?) and 364° C hotbox exhaust.

6. The building height changed from 25 ft to 32 ft whereas the stack (rectangular plenum) height changed from 30 ft to 45 ft. Please justify why the modeled building height was not selected to be 45 ft to model downwash? Provide supporting calculations.

The Air Quality Bureau understands that YGI is interested in a follow-up meeting to discuss the additional information. For the Air Quality Bureau to prepare for such meeting, please provide the information above via letter as soon as possible so that the Air Quality Bureau can best prepare any remaining questions it may have. Rolling production of the requested information is acceptable to ensure the Air Quality Bureau has a reasonable amount of time to review.

Thank you,

Brian Yardman-Frank
Assistant General Counsel, AQB
New Mexico Environment Department

Cc: Kelsea Sona

Administrative Record NSR 10833_012230

From: Yardman-Frank, Brian, ENV
To: Jennifer Bradfute
Cc: Kelsea Sona
Subject: Re: YGI Permit Application 10883 - AQB Information Requests
Date: Monday, October 26, 2026 2:42:48 PM
Attachments: Outlook-Logo__Desc.png
Outlook-Logo__Desc.png

Hello Jennifer,

Thank you for returning our call. We look forward to the first set of responses this afternoon. We will keep an eye out for the second set from your team members that were unavailable in the next day or two.

Thank you,

Brian Yardman-Frank (he/him)
Assistant General Counsel, AQB
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Office of General Counsel
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From: Yardman-Frank, Brian, ENV
Sent: Friday, October 23, 2026 4:48 PM
To: Jennifer Bradfute <jennifer@bradfutelaw.com>
Cc: Kelsea Sona <kelsea@roblesrael.com>

Subject: YGI Permit Application 10883 - AQB Information Requests

Hello Jennifer,

Please see the attached letter requesting information from the applicant YGI.

Thank you,

Brian Yardman-Frank (he/him)
Assistant General Counsel, AQB
New Mexico Environment Department
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5401 Watson Drive SE, Bldg. B
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From:	John Ke
To:	Kuhn, Julia, ENV
Cc:	Rob Liles; Yardman-Frank, Brian, ENV; Jennifer Bradfute
Subject:	[EXTERNAL] YGI Response to ABQ Oct. 23 Information Request
Date:	Monday, October 26, 2026 2:56:07 PM
Attachments:	image001.png A-XXXX-YGI Microgrid-UA1.docx A-XXXX-YGI Microgrid-UA3.docx A-XXXX-YGI Microgrid-UA4.docx YGI Response to AQB October 23 Information Request.pdf

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CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hi Julia,

Please see the attached letter with the initial response to questions from AQB on October 23, 2026. In addition, we have included word document versions of the UA-1, UA-3, and UA-4 forms that were previously submitted the week before. Please let us know if you have any further questions at this time.

Thanks!

John Ke
Senior Consultant

O 651.275.9900 x2406
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2155 Woodlane Drive, Suite 101, Woodbury, MN 55125
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View our capabilities in the Environmental Consulting, Built Environment, Life Sciences, and Water & Ecology markets.

Trinity Consultants
9400 Holly Ave NE, Bldg 3, Ste B, Albuquerque, NM 87122 / P 505.266.6611 / **trinityconsultants.com**

October 26, 2026

Julia Kuhn
Major Sources Manager
Permits Section
NMED Air Quality Bureau
525 Camino de los Marquez, Suite 1
Santa Fe, NM 87505-1816

RE: Response to Air Quality Bureau Information Requests Dated October 23, 2026
Air Quality Permit Application No. 10883 (Agency Interest No. 41351 – PRN20260001)
Yucca Growth Infrastructure, LLC – YGI Microgrid

Ms. Kuhn:

On behalf of Yucca Growth Infrastructure, LLC (YGI), Trinity Consultants is providing the following responses to certain of the Air Quality Bureau's (AQB) information requests dated October 23, 2026. The requests were transmitted by letter from Brian Yardman-Frank, Assistant General Counsel, to Jennifer Bradfute, counsel for YGI. AQB indicated that responses may be provided on a rolling basis. YGI provides responses to Application items 1 through 6 and responses to the first set of Modeling items 1 through 6 below and continues to develop responses to the remaining AQB questions. Each AQB request is repeated in bold, followed by YGI's response.

CONFIRMATION OF APPLICATION UPDATES

The Air Quality Bureau has completed a preliminary review of the October 16 materials and confirms that YGI has submitted:

1. A partial UA1, a partial UA2, a partial UA3 which includes Sections 3, 5, 6, 6a, 10, 12, 20, a PDF file with the updated calculations, and a UA4.

2. Two additional modeling scenarios (to add to scenarios 1 and 2 that YGI previously submitted) that demonstrate: (1) a 100% load (2462 MW) and (2) a 65% load (1600 MW).

The Air Quality Bureau also received the computation of calculations required under 20.2.72.203(A)(3) and a correction of a typographical error on October 22.

Please confirm that there are no other changes to YGI's application beyond the ones listed above, excluding those that may be provided in response to the Air Quality Bureau's requests.

YGI confirms that it has made no updates to Application No. 10883 that were not previously submitted other than (a) the updates described in YGI's October 14, 2026 letter, (b) the October 16, 2026 submittal of updated application forms and modeling files, and (c) the October 22, 2026 submittal of the compiled UA2 workbook in Excel format, which corrected the display format of the safety factor in the Fuel Cells tab. That correction altered no calculated value. For the AQB's convenience, Attachment 1 lists each update those submittals made to the application. The clarifications and corrections provided in this response are identified individually below.

YGI also clarifies the status of the modeling. The two October scenarios **supersede** the September 21, 2026 modeling of the 10/18/20 power-module configuration; they do not supplement it. That configuration is no longer proposed, and YGI does not ask the AQB to rely on it.

APPLICATION REQUESTS

1. Please provide UA1, UA3, and UA4 as Word versions of the application. The partial UA1 section is missing Sections 1-A, 1-E, 1-F, 1-G, and 1-H. Will YGI be providing additional updates?

YGI provides a word version of UA1, UA3 and UA4 along with this response. To avoid confusion and ensure that neither AQB nor any other party interpreted submittal of the entirety of UA1 and UA3 as a new application, on October 16, 2026, YGI provided only those sections of UA1, UA2, and UA3 that contained updates from previous submissions. At the request of AQB, YGI recently submitted the entire UA2 workbook containing the revisions submitted on October 16, 2026. YGI interprets this as a request by AQB that YGI submit the entirety of the compiled UA1 and UA3 in a word version and understands that this will support AQB's review to have all materials compiled in one location. As such, YGI has compiled a complete UA1 and UA3 reflecting the updates. YGI notes that this should not be considered a new application despite providing all aspects of the application. The specific updates in UA1 and UA3 are reflected in Attachment 1.

2. As noted, YGI has submitted information for (1) a 100% load (2462 MW) and (2) a 65% load (1600 MW). Please advise as to if YGI is proposing an alternative operating scenario and how YGI would like the Air Quality Bureau to evaluate both sets of information. Please clarify this information provided in Tables 2G and 2H.

YGI is not proposing an alternative operating scenario within the meaning of UA3 Section 15, and draft permit Condition A115 ("Alternative Operating Scenario – Not Required") can remain as drafted. The Energy Server System (Unit SOFC, 2,462.005 MW nameplate) will operate under an enforceable facility-wide output cap of 1,600 MW (hourly) and 14,016,000 MWh per year (annual). The requested allowable emissions in Table 2-E are based on this cap and are the proposed basis for the permit's emission limits.

The two sets of Tables 2-G and 2-H describe two **modeling cases** used to establish reasonable bounds for demonstrating compliance with the NAAQS and PSD increments. Air dispersion modeling should adequately represent site operations including assumptions that result in conservative or higher end modeled impacts. Modeling the entire facility at 100% of the 2,462 MW capacity and 100% of its emissions (even though those emissions and operations will be limited by the 1600 MW requested operational limitation) ensures that conservative conditions are adequately represented while ensuring compliance with the NAAQS and PSD Increments. In its October 23, 2026 requests, AQB sought additional information related to the modeling parameters, and YGI continues to work on its responses to those questions. Stack parameters for each modeling scenario were established by Bloom's internal power module design model. YGI recommends addressing any outstanding questions on the modeling scenarios as part of the anticipated upcoming meeting in order to best facilitate the AQB's review. YGI contends that the two modeling scenarios demonstrate the microgrid's compliance with the NAAQS and PSD increments under a range of scenarios.

3. SSMs must be entered in Table 2-B of UA2. All exempt equipment, including previously reported SSMs must be disclosed. Is YGI intending to use the original SSMs from the May 19 application?

YGI is retaining, unchanged, the SSM emissions estimate it submitted with its May 19, 2026 revised application pages. Please see the response under Question 4 regarding the pending design choice to use centralized desulfurization system (CDS) and/or canisters for desulfurization. If canisters are used instead of CDS, there will be no SSM emissions. The SSM emissions for the CDS covers venting from 95 Central Desulfurization System (CDS) skids during initial startup and during desulfurization media replacement:

- VOC: 0.34 tpy
- CH_4: 16.5 tpy

These emissions are exempt under 20.2.72.202.B(5) NMAC because the combined potential emission rate of all CDS venting, aggregated across the 95 skids, is below 0.5 tpy of VOC and has no criteria-pollutant

component. SSM is listed in Table 2-B of the UA2 Excel workbook YGI submitted on October 22, 2026, and the SSM calculation is on the workbook's "SSM" tab.

4. YGI states: "If desulfurization canisters are used, there will be no associated SSM emissions." YGI also states, "If CDS is used, air emissions (natural gas venting) will occur during CDS media replacements and during desulfurization unit initial start-ups. Approximately ninety-five CDS skids/blocks will be installed, consisting of two vessels in a lead/lag configuration for desulfurization. Each vessel has a volume of 1,370 standard cubic feet. This activity is exempt pursuant to 20.2.72.202.B(5) NMAC." YGI's two statements are contradictory. As previously established, the process requires the use of desulfurization filters, and the facility retains the initial reported 95 CDS. YGI provided identical SSM calculations with the updated material. Thus, "if" is misleading since YGI has previously established there will be venting emissions associated with the process. Please reconcile.

As indicated in the October 16, 2026 submission, YGI will utilize CDS and/or canisters to desulfurize the natural gas before utilization by the fuel cells. If CDS is utilized, there will be associated SSM emissions up to a maximum described in previously submitted emissions for SSM. If canisters are chosen, there will be no emissions, including SSM emissions, associated with the process of installing or replacing canisters. As such, YGI has chosen to represent CDS SSM emissions to retain this design flexibility but requests that the draft permit reflect the ability to utilize CDS and/or canisters.

5. Considering the energy servers consist of 260 kW and 325 kW, can you please confirm all servers/clusters at the facility associated with a single stack have identical configurations, emissions rates, and emissions limits with the exception of one? Can you please justify why the single server was not listed as a separate unit in the updated application (Tables 2D, 2E, and 2I)?

Confirmed. Of the 1,263 clusters, 1,262 (Type A, stacks SOFC-1 through SOFC-1262) are identical:

- Six 325-kW Energy Servers each (30 power modules of 65 kW; 1.95 MW rated).
- One stack each, with identical stack parameters and identical per-stack emission rates (Tables 2-G and 2-H).

In an effort to design the 2,462.005 MW capacity at the microgrid in the most uniform manner, 99.9 percent of the clusters are uniform with a 1.95 MW capacity for each cluster. The remaining one cluster (Type R, stack SOFC-1263) reflects the remaining 0.1 percent of capacity (at 1.105 MW):

- One 325-kW and three 260-kW Energy Servers (5 + 12 = 17 power modules; 1.105 MW rated).
- A stack height of 30 ft rather than 45 ft, on its own 25-ft structure (reflecting the height of the second floor platform) in the dispersion model.
- Stack flow and velocity as listed for SOFC-1263 in Table 2-H.

Tables 2-D, 2-E and 2-I report the Energy Server System as a single emission unit (SOFC) for three reasons:

- The original application and draft permit have consistently treated the emissions unit as the entire Energy Server System.
- Draft permit Tables 104.A and 106.A group all clusters under one unit entry ("SOFC-1 through SOFC-2275") with combined limits and the draft permit requires that the maximum results from the performance tests be attributed across the entirety of the system.
- The requested 1,600 MW cap is a facility-wide limit that does not allocate output to individual clusters.

Estimated, per-stack emissions, including those of SOFC-1263, appear in Tables 2-G and 2-H.

6. Based on publicly available information regarding YGI and El Paso Electric, please provide information regarding:

a. How will the YGI Microgrid connect with the electric grid? Please describe process and equipment.

b. How will these connections impact the current facility design and what permit modifications can be expected from YGI to submit regarding regulated equipment and exempt equipment connections?

c. Does YGI plan to add exempt equipment considering the newly acquired contract with El Paso Electric? If a permit is issued to YGI, will backup generators be added as exempt equipment through Permitting Administrative Multi-Form (PAM) revisions?

d. Will the data center connect to the electric grid and how is this connection expected to impact the permitting process and/or future permit modifications?

e. Are there any current/future considerations in regard to a Single Source Determination (SSD) to include the YGI Microgrid and data center (or any other facility) in light of the current relationship between YGI and El Paso Electric?

YGI has not yet entered a formal, signed agreement with EPE. However, YGI provides the following responses to clarify the air permitting impacts assuming interconnectivity will be established in the future.

Response to 6.a: How will the YGI Microgrid connect with the electric grid? Please describe process and equipment.

The project's EPE connection, if finalized, will be through a new, privately owned substation that will connect to existing EPE infrastructure. The microgrid will supply all primary project power for data center operations.

Response to 6.b: How will these connections impact the current facility design and what permit modifications can be expected from YGI to submit regarding regulated equipment and exempt equipment connections?

The EPE connection will not involve installation of any emitting equipment and therefore will not require any permit modifications or design changes relevant to the microgrid's air emissions.

Response to 6.c: Does YGI plan to add exempt equipment considering the newly acquired contract with El Paso Electric? If a permit is issued to YGI, will backup generators be added as exempt equipment through Permitting Administrative Multi-Form (PAM) revisions?

There is currently no executed contract with EPE. There is a pending proposal for EPE to provide power for Project Jupiter supporting commissioning of the microgrid and data center, black start of the microgrid and to meet emergency fire protection requirements. Given that EPE will serve as emergency backup power for the fire protection requirements there are no plans to add backup generators as exempt equipment through PAM revisions.

Response to 6.d: Will the data center connect to the electric grid and how is this connection expected to impact the permitting process and/or future permit modifications?

This connection is not expected to impact the permitting process and/or future permit modifications because it will not involve the installation of any emitting sources.

Response to 6.e: Are there any current/future considerations in regard to a Single Source Determination (SSD) to include the YGI Microgrid and data center (or any other facility) in light of the current relationship between YGI and El Paso Electric?

EPE has no ownership interest in, and no control over, YGI or the microgrid. A contract to purchase utility service (which exists at numerous, if not most, facilities with issued air permits) does not give either party the power to direct the other's operations or air-permitting decisions. There are no changes to the single source determination currently included in the AQB's draft Statement of Basis.

PARAMETER REQUESTS

As YGI did not provide a complete detailed description as to the specific changes that YGI is making compared to YGI's 10/18/20 power module configuration, the Air Quality Bureau conducted an initial review and would like to confirm that YGI changed the following parameters:

YGI sought to provide extensive information indicating the refinements that were made as part of its October 14, 2026 letter to the AQB. YGI also provided the detailed information associated with the modeling in its October 16, 2026 submission. YGI provides specific responses to the AQB's questions below.

1. **The stacks are now modeled as one circular stack instead of splitting into three sub-stacks**. Correct. Each stack is one singular rectangular stack that is modeled as one circular stack. No stack has (and has never had) three sub-stacks (also previously referred to as three release points) associated with it. AERMOD, the relevant modeling software, treats all stacks as circular stacks regardless of geometry. As such, in its April modeling and October modeling, pursuant to standard modeling practice, YGI determined the equivalent diameter (where a diameter inherently represents a circle) of each singular rectangular stack. Under this standard approach, each stack's exhaust is modeled as one point source with an 8.16-ft equivalent diameter, the same 52.25 ft² discharge area as the rectangular stack. In September, at the request of the AQB, YGI provided modeling treating each stack as three separate stacks even though there are not three discrete release points associated with each stack. YGI and the AQB discussed the concerns with this methodology in the October 5, 2026 meeting and YGI proceeded to model each singular stack as one stack consistent with standard modeling protocols and as representative of the stack configuration.

2. **The number of stacks changed from 2275 to 1263.** Confirmed: 1,262 Type A stacks plus one Type R stack.

3. **Stacks have increased in height from 30 ft to 45 ft.** Confirmed for SOFC-1 through SOFC-1262 (13.716 m). The exception is SOFC-1263 (Type R, model ID T16_10_1), which is modeled at 30 ft (9.144 m).

4. **The number of buildings has decreased from 425 to 254 buildings and are now 3 floors instead of 2 floors. Building heights have changed from 25 ft to 32 ft.** Confirmed with respect to downwash structures, with one exception. The BPIP input (v8c_layout.inp) contains 254 downwash structures:

    - 253 three-tier downwash structures for the Energy Servers, each 32 ft (9.75 m) tall with a 97.7 × 52.8 ft (29.8 × 16.1 m) footprint. Of these, 252 contain five stacks and one contains two.
    - One 25-ft (7.62 m) two-tier downwash structure, 97.7 × 27.6 ft (29.8 × 8.4 m), carrying the Type R cluster (SOFC-1263).

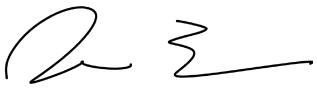
5. **The stack exit parameters temperature is now 217° F (65% load scenario) and 163° F (100% load scenario) instead of 327° F.** Confirmed.

6. **All stacks except one have the same number of power modules attached instead of 10/18/20 power modules configuration.** Confirmed. 30 power modules per stack, except SOFC-1263, which has 17.

YGI appreciates the opportunity to provide the AQB with this information and will provide additional information related to questions on the modeling as expeditiously as YGI can. YGI looks forward to setting a meeting with the AQB.

Sincerely,

TRINITY CONSULTANTS



John Ke
Senior Consultant

Attachments:
Attachment 1 – Application Form Updated by Universal Application Section (October 14–22, 2026)
Enclosed: Revised UA1, UA3 and UA4

cc: [Jennifer Bradfute, Bradfute Sayer, P.C. (counsel for YGI)]
[Brian Yardman-Frank, NMED Office of General Counsel]

Attachment 1– Application Form Updates by Universal Application Section

October 14–22, 2026 submittals – Air Quality Permit Application No. 10883 (YGI Microgrid)

Impacted UA	Form element (section / table / item)	Reason for Update
UA1	Section 1-A, Item 5 and 5.a (Preparer)	Mr. Lovegren is no longer with Trinity.
UA1	Section 1-C, Item 1.b (Proposed maximum input capacity) and Item 2.b (Proposed maximum production rate)	Fuel use and output recalculated based on the 1,600 MW cap and a 970 Btu/scf heating value.
UA2	Table 2-A, SOFC row – Requested Permitted Capacity	Requested permitted capacity: 2,462.005 → 1,600 MW (application continues to request permit for 2,462.005 MW with a limitation on operational capacity at 1,600 MW).
UA2	Table 2-D, SOFC row	Table 2-D now differs from Table 2-E because of the cap so that Table 2-D has now been updated to reflect that.
UA2	Table 2-E, SOFC row	Requested allowables are based on the 1,600 MW cap.
UA2	Table 2-G (now two versions: "1600 MW" and "Full Load")	Three-tier cluster design (with one two-tier cluster) and two modeling scenarios.
UA2	Table 2-H (now two versions: "1,600 MW Operating Cap" and "100% Load") – all stack rows	Exhaust parameters for the three-tier design (with one two-tier cluster) and the two modeling scenarios.
UA2	Table 2-I, SOFC row	Total HAPs now reflect the emissions based on the 1,600 MW cap.
UA2	Table 2-J, SOFC row (Lower Heating Value; Hourly and Annual Usage)	Revised fuel basis (Btu/scf) and the 1,600 MW cap.
UA2	Table 2-M, natural gas / electricity row	Revised fuel basis (Btu/scf) and the 1,600 MW cap.
UA2	Table 2-P, SOFC row	GHG emissions now reflect the emissions based on the 1,600 MW cap.
UA3	Section 3 – Application Summary and Process Summary	Requested operational cap.
UA3	Section 3 – SSM paragraph	Design clarification for SSM calculations and option to use non-emitting canisters.
UA3	Section 5 – Plot plan	Replaced with the three-tier layout (with one two-tier cluster)(1,263 clusters on 254 structures).
UA3	Section 6 – Calculations narrative	Requested cap; GHG basis.
UA3	Section 10 – Routine operations	Three-tier design (with one two-tier cluster); requested cap.
UA3	Section 12.A – PSD applicability, Item B (project emissions)	Project emissions revised to the 1,600 MW basis.
UA3	Section 20 – Other relevant information	Added: request for an enforceable 1,600 MW hourly and annual cap; description of the two modeling scenarios.

Impacted UA	Form element (section / table / item)	Reason for Update
UA4	16-A, Items 4 and 6 (modeler)	Updated firm contact.
UA4	16-G, Item 2 (surrounding sources)	TCEQ sources added at NMED's request; Houston-area IDs excluded; Refined NMED nearby sources data
UA4	16-H, Items 1 and 4 (downwash structures)	Downwash structures: 425 → 254. 253 three-tier structures at 32 ft; one 25-ft structure for SOFC-1263.
UA4	16-J, Items 1–2 (modeling scenarios)	Requested cap; and modeling scenario addition.
UA4	16-L, Items 4–5 (ozone MERP)	Lower NO_X and VOC emissions result in new MERPs calculations.
UA4	16-O, Items 1–2 and attachment (source IDs)	Model IDs revised. SOFC emissions are split across 1,263 stacks.
UA4	16-R, Item 1 (background concentrations)	NO_2 cumulative analysis; updated background values.
UA4	16-U (modeling files)	File list replaced with S1 and S2 file sets for the modeling scenarios.
UA4	16-W (modeling results)	Single results table replaced with two tables (1,600 MW; 100% Load).
UA4	16-X (conclusion)	Revised to state compliance in both scenarios.

Mail Application To:		**For Department use only:**
New Mexico Environment Department Air Quality Bureau Permits Section 525 Camino de los Marquez, Suite 1 Santa Fe, New Mexico, 87505 Phone: (505) 476-4300 Fax: (505) 476-4375 www.env.nm.gov/aqb		

Universal Air Quality Permit Application

Use this application for NOI, NSR, or Title V sources.

Use this application for: the initial application, modifications, technical revisions, and renewals. For technical revisions, complete Sections, 1-A, 1-B, 2-E, 3, 9 and any other sections that are relevant to the requested action; coordination with the Air Quality Bureau permit staff prior to submittal is encouraged to clarify submittal requirements and to determine if more or less than these sections of the application are needed. Use this application for streamline permits as well.

This application is submitted as (check all that apply)**:** ☐ Request for a No Permit Required Determination (no fee)
☐ **Updating** an application currently under NMED review. Include this page and all pages that are being updated (no fee required).
Construction Status: ☑ Not Constructed ☐ Existing Permitted (or NOI) Facility ☐ Existing Non-permitted (or NOI) Facility
Minor Source: ☐ a NOI 20.2.73 NMAC ☑ 20.2.72 NMAC application or revision ☐ 20.2.72.300 NMAC Streamline application
Title V Source: ☐ Title V (new) ☐ Title V renewal ☐ TV minor mod. ☐ TV significant mod. TV Acid Rain: ☐ New ☐ Renewal
PSD Major Source: ☐ PSD major source (new) ☐ minor modification to a PSD source ☐ a PSD major modification

Acknowledgements:

☑ I acknowledge that a pre-application meeting is available to me upon request. ☐ Title V Operating, Title IV Acid Rain, and NPR applications have no fees.
☑ $500 NSR application Filing Fee enclosed OR ☐ The full permit fee associated with 10 fee points (required w/ streamline applications).
☑ Check No.: Enclosed Money Order in the amount of **$500**
☑ I acknowledge the required submittal format for the hard copy application is printed double sided 'head-to-toe', 2-hole punched (except the Sect. 2 landscape tables is printed 'head-to-head'), numbered tab separators. Incl. a copy of the check on a separate page.
☑ I acknowledge there is an annual fee for permits in addition to the permit review fee: www.env.nm.gov/air-quality/permit-fees-2/.
☐ This facility qualifies for the small business fee reduction per 20.2.75.11.C. NMAC. The full $500.00 filing fee is included with this application and I understand the fee reduction will be calculated in the balance due invoice. The Small Business Certification Form has been previously submitted or is included with this application. (Small Business Environmental Assistance Program Information: www.env.nm.gov/air-quality/small-biz-eap-2/.)

Citation: Please provide the **low level citation** under which this application is being submitted: **20.2.72.200.A NMAC**
(e.g. application for a new minor source would be 20.2.72.200.A NMAC, one example for a Technical Permit Revision is 20.2.72.219.B.1.b NMAC, a Title V acid rain application would be: 20.2.70.200.C NMAC)

Section 1 – Facility Information

Section 1-A: Company Information

		AI # if known (see 1st 3 to 5 #s of permit IDEA ID No.): TBD	Permit/NOI #: TBD
1	Facility Name: YGI Microgrid	Plant primary SIC Code (4 digits): 4911	
		Plant NAICS code (6 digits): 221112	
a	Facility Street Address (If no facility street address, provide directions from a prominent landmark): From the intersection of Airport Rd and NM-136W in Santa Teresa NM, go south on NM-136 for 2.6 miles and turn left. Continue for 0.3 mi to site on right.		
2	Plant Operator Company Name: Bloom Energy Corp	Phone/Fax: (214) 435-4587	
a	Plant Operator Address: 4353 North First Street, San Jose, CA 95134		

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b	Plant Operator's New Mexico Corporate ID or Tax ID: 77-0565408	
3	Plant Owner(s) name(s): Yucca Growth Infrastructure, LLC	Phone/Fax: (336) 339-2363
a	Plant Owner(s) Mailing Address(s): 600 Congress Ave, Suite 15041, Austin, TX 78701	
4	Bill To (Company): Yucca Growth Infrastructure, LLC	Phone/Fax: (336) 339-2363
a	Mailing Address: 600 Congress Ave, Suite 15041, Austin, TX 78701	E-mail: notices@borderplexdigital.com
5	☑ Preparer: Trinity Consultants	Phone/Fax: 505-266-6611
a	Mailing Address: 9400 Holly Avenue NE, Building 3, Suite B, Albuquerque, NM 87122	E-mail: Trinitynm@trinityconsultants.com
6	Plant Operator Contact: Amanda Marruffo	Phone/Fax: (214) 435-4587
a	Address: 4353 North First Ave, San Jose, CA 95134	E-mail: Amanda.marruffo@bloomenergy.com
7	Air Permit Contact 1: Amanda Marruffo	Title: Director, EH&S
a	E-mail: amanda.marruffo@bloomenergy.com	Phone/Fax: (214) 435-4587
b	Mailing Address: 4353 North First Ave, San Jose, CA 95134	
	Air Permit Contact 2: Jacques Greyling	Title: Director
a	E-mail: jgreyling@borderplexdigital.com	Phone/Fax: (210) 400-0591
b	Mailing Address: 600 Congress Ave, Suite 15041, Austin, TX 78701	
c	The designated Air permit Contact will receive all official correspondence (i.e. letters, permits) from the Air Quality Bureau.	

Section 1-B: Current Facility Status

1.a	Has this facility already been constructed? ☐ Yes ☑ No	1.b If yes to question 1.a, is it currently operating in New Mexico? ☐ Yes ☐ No
2	If yes to question 1.a, was the existing facility subject to a Notice of Intent (NOI) (20.2.73 NMAC) before submittal of this application? ☐ Yes ☐ No	If yes to question 1.a, was the existing facility subject to a construction permit (20.2.72 NMAC) before submittal of this application? ☐ Yes ☐ No
3	Is the facility currently shut down? ☐ Yes ☑ No	If yes, give month and year of shut down (MM/YY): N/A
4	Was this facility constructed before 8/31/1972 and continuously operated since 1972? ☐ Yes ☑ No	
5	If Yes to question 3, has this facility been modified (see 20.2.72.7.P NMAC) or the capacity increased since 8/31/1972? ☐Yes ☐No ☑N/A	
6	Does this facility have a Title V operating permit (20.2.70 NMAC)? ☐ Yes ☑ No	If yes, the permit No. is: N/A
7	Has this facility been issued a No Permit Required (NPR)? ☐ Yes ☑ No	If yes, the NPR No. is: N/A
8	Has this facility been issued a Notice of Intent (NOI)? ☐ Yes ☑ No	If yes, the NOI No. is: N/A
9	Does this facility have a construction permit (20.2.72/20.2.74 NMAC)? ☐ Yes ☑ No	If yes, the permit No. is: N/A
10	Is this facility registered under a General permit (GCP-1, GCP-2, etc.)? ☐ Yes ☑ No	If yes, the register No. is: N/A

Section 1-C: Facility Input Capacity & Production Rate

1	What is the facility's maximum input capacity, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: N/A	Daily: N/A	Annually: N/A
b	Proposed	Hourly: 12.46 MMscf/h	Daily: 299.11 MMscf/d	Annually: 109,175.88 MMscf/y

2	What is the facility's maximum production rate, specify units (reference here and list capacities in Section 20, if more room is required)			
a	Current	Hourly: N/A	Daily: N/A	Annually: N/A
b	Proposed	Hourly: 1,600 MW	Daily: 38,400 MWh/d	Annually: 14,016,000 MWh/y

Section 1-D: Facility Location Information

1	Section: 35	Range: 2E	Township: 28S	County: Doña Ana	Elevation (ft): 4124
2	UTM Zone: ☐ 12 or ☑ 13			Datum: ☐ NAD 27 ☐ NAD 83 ☑ WGS 84	
a	UTM E (in meters, to nearest 10 meters): 341,072 m			UTM N (in meters, to nearest 10 meters): 3,521,528 m	
b	**AND** Latitude (deg., min., sec.): 31° 49′ 06″			Longitude (deg., min., sec.): –106° 40′ 45″	
3	Name and zip code of nearest New Mexico town: Santa Teresa, 88008				
4	Detailed Driving Instructions from nearest NM town (attach a road map if necessary): From the intersection of Airport Rd and NM-136W in Santa Teresa NM, go south on NM-136 for 2.6 miles and turn left. Continue for 0.3 mi to site on right.				
5	The facility is **3.6** (distance) miles **south** (direction) of **Santa Teresa** (nearest town).				
6	Status of land at facility (check one): ☑ Private ☐ Indian/Pueblo ☐ Federal BLM ☐ Federal Forest Service ☐ Other (specify)				
7	List all municipalities, Indian tribes, and counties within a ten (10) mile radius (20.2.72.203.B.2 NMAC) of the property on which the facility is proposed to be constructed or operated: Municipalities: El Paso (4.6 mi), Sunland Park (6.0 mi), Vinton (9.85 mi) Indian tribes: N/A Counties: Doña Ana				
8	**20.2.72** NMAC applications **only**: Will the property on which the facility is proposed to be constructed or operated be closer than 50 km (31 miles) to other states, Bernalillo County, or a Class I area (see www.env.nm.gov/air-quality/modeling-publications/ http://www.nmenv.state.nm.us/aqb/modeling/class1areas.html)? ☑ Yes ☐ No (20.2.72.206.A.7 NMAC) If yes, list all with corresponding distances in kilometers: State of Texas border is 7 km to the East				
9	Name nearest Class I area: Guadalupe Mountains National Park				
10	Shortest distance (in km) from facility boundary to the boundary of the nearest Class I area (to the nearest 10 meters): 156.5 km				
11	Distance (meters) from the perimeter of the Area of Operations (AO is defined as the plant site inclusive of all disturbed lands, including mining overburden removal areas) to nearest residence, school or occupied structure: 1500 m				
12	Method(s) used to delineate the Restricted Area: Continuous fencing. "**Restricted Area**" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area.				
13	Does the owner/operator intend to operate this source as a portable stationary source as defined in 20.2.72.7.X NMAC? ☐ Yes ☑ No A portable stationary source is not a mobile source, such as an automobile, but a source that can be installed permanently at one location or that can be re-installed at various locations, such as a hot mix asphalt plant that is moved to different job sites.				
14	Will this facility operate in conjunction with other air regulated parties on the same property? ☑ No ☐ Yes If yes, what is the name and permit number (if known) of the other facility?				

Section 1-E: Proposed Operating Schedule (The 1-E.1 & 1-E.2 operating schedules may become conditions in the permit.)

1	Facility **maximum** operating ($\frac{\text{hours}}{\text{day}}$): 24	($\frac{\text{days}}{\text{week}}$): 7	($\frac{\text{weeks}}{\text{year}}$): 52	($\frac{\text{hours}}{\text{year}}$): 8760		
2	Facility's maximum daily operating schedule (if less than 24)? Start:		☐AM ☐PM	End:		☐AM ☐PM
3	Month and year of anticipated start of construction: Upon Permit Issuance					

4	Month and year of anticipated construction completion: November 2029
5	Month and year of anticipated startup of new or modified facility: December 2026
6	Will this facility operate at this site for more than one year? ☑ Yes ☐ No

Section 1-F: Other Facility Information

1	Are there any current Notice of Violations (NOV), compliance orders, or any other compliance or enforcement issues related to this facility? ☐ Yes ☑ No If yes, specify:		
a	If yes, NOV date or description of issue:		NOV Tracking No:
b	Is this application in response to any issue listed in 1-F, 1 or 1a above? ☐ Yes ☑ No If Yes, provide the 1c & 1d info below:		
c	Document Title: N/A	Date: N/A	Requirement # (or page # and paragraph #): N/A
d	Provide the required text to be inserted in this permit: N/A		
2	Is air quality dispersion modeling or modeling waiver being submitted with this application? ☑ Yes ☐ No		
3	Does this facility require an "Air Toxics" permit under 20.2.72.400 NMAC & 20.2.72.502, Tables A and/or B? ☐ Yes ☑ No		
4	Will this facility be a source of federal Hazardous Air Pollutants (HAP)? ☑ Yes ☐ No		
a	If Yes, what type of source? ☐ **Major** (☐ ≥10 tpy of any single HAP **OR** ☐ ≥25 tpy of any combination of HAPS) **OR** ☑ **Minor** (☑ <10 tpy of any single HAP **AND** ☑ <25 tpy of any combination of HAPS)		
5	Is any unit exempt under 20.2.72.202.B.3 NMAC? ☐ Yes ☑ No		
a	If yes, include the name of company providing commercial electric power to the facility: _____N/A_____ Commercial power is purchased from a commercial utility company, which specifically does not include power generated on site for the sole purpose of the user.		

Section 1-G: Streamline Application (This section applies to 20.2.72.300 NMAC Streamline applications only)

1	☐ I have filled out Section 18, "Addendum for Streamline Applications." ☑ N/A (This is not a Streamline application.)

Section 1-H: Current Title V Information - Required for all applications from TV Sources

(Title V-source required information for all applications submitted pursuant to 20.2.72 NMAC (Minor Construction Permits), or 20.2.74/20.2.79 NMAC (Major PSD/NNSR applications), and/or 20.2.70 NMAC (Title V))

1	Responsible Official (R.O.) (20.2.70.300.D.2 NMAC): Marisa Blackshire	Phone: (805) 231-0912
a	R.O. Title: Vice President, Environment and Regulatory Law	R.O. e-mail: marisa.blackshire@bloomenergy.com
b	R. O. Address: 4353 North First Street, San Jose, CA 95134	
2	Alternate Responsible Official (20.2.70.300.D.2 NMAC): Amanda Marruffo	Phone: (214) 435-4587
a	A. R.O. Title: Director, EH&S	A. R.O. e-mail: Amanda.marruffo@bloomenergy.com
b	A. R. O. Address: 4353 North First Street, San Jose, CA 95134	
3	Company's Corporate or Partnership Relationship to any other Air Quality Permittee (List the names of any companies that have operating (20.2.70 NMAC) permits and with whom the applicant for this permit has a corporate or partnership relationship): None	
4	Name of Parent Company ("Parent Company" means the primary name of the organization that owns the company to be permitted wholly or in part.): N/A for Bloom Energy Corp	

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a	Address of Parent Company: N/A
5	Names of Subsidiary Companies ("Subsidiary Companies" means organizations, branches, divisions or subsidiaries, which are owned, wholly or in part, by the company to be permitted.): N/A
6	Telephone numbers & names of the owners' agents and site contacts familiar with plant operations: See Section 1-A.
7	Affected Programs to include Other States, local air pollution control programs (i.e. Bernalillo) and Indian tribes: Will the property on which the facility is proposed to be constructed or operated be closer than 80 km (50 miles) from other states, local pollution control programs, and Indian tribes and pueblos (20.2.70.402.A.2 and 20.2.70.7.B)? If yes, state which ones and provide the distances in kilometers: States: Texas (7 km) Local pollution control programs: Texas Commission on Environmental Quality El Paso Regional Office (7 km) Indian tribes and pueblos: N/A

Section 1-I – Submittal Requirements

Each 20.2.73 NMAC (**NOI**), a 20.2.70 NMAC (**Title V**), a 20.2.72 NMAC (**NSR** minor source), or 20.2.74 NMAC (**PSD**) application package shall consist of the following:

Hard Copy Submittal Requirements:

1) One hard copy **original signed and notarized application package** **printed double sided** **'head-to-toe'** **2-hole punched** as we bind the document on top, not on the side; except Section 2 (landscape tables), which should be head-to-head. Please use **numbered tab separators** in the hard copy submittal(s) as this facilitates the review process. For NOI submittals only, hard copies of UA1, Tables 2A, 2D & 2F, Section 3 and the signed Certification Page are required. Please include a copy of the check on a separate page.

2) If the application is for a minor NSR, PSD, NNSR, or Title V application, include one working hard **copy** for Department use. This copy should be printed in book form, 3-hole punched, and **must be double sided**. Note that this is in addition to the head-to-to 2-hole punched copy required in 1) above. Minor NSR Technical Permit revisions (20.2.72.219.B NMAC) only need to fill out Sections 1-A, 1-B, 3, and should fill out those portions of other Section(s) relevant to the technical permit revision. TV Minor Modifications need only fill out Sections 1-A, 1-B, 1-H, 3, and those portions of other Section(s) relevant to the minor modification. NMED may require additional portions of the application to be submitted, as needed.

3) The entire NOI or Permit application package, including the full modeling study, should be submitted electronically. Electronic files for applications for NOIs, any type of General Construction Permit (GCP), or technical revisions to NSRs must be submitted with compact disk (CD) or digital versatile disc (DVD). For these permit application submittals, **two** CD copies are required (in sleeves, not crystal cases, please), with additional CD copies as specified below. NOI applications require only a single CD submittal. Electronic files for other New Source Review (construction) permits/permit modifications or Title V permits/permit modifications can be submitted on CD/DVD or sent through AQB's secure file transfer service.

Electronic files sent by (check one):

☐ CD/DVD attached to paper application

☑ secure electronic transfer.
Air Permit Contact Name: Trinity Albuquerque Office
Email: TrinityNM@trinityconsultants.com
Phone number: 505-266-6611

a. If the file transfer service is chosen by the applicant, after receipt of the application, the Bureau will email the applicant with instructions for submitting the electronic files through a secure file transfer service. Submission of the electronic files through the file transfer service needs to be completed within 3 business days after the invitation is received, so the applicant should ensure that the files are ready when sending the hard copy of the application. The applicant will not need a password to complete the transfer. **Do not use the file transfer service for NOIs, any type of GCP, or technical revisions to NSR permits.**

4) Optionally, the applicant may submit the files with the application on compact disk (CD) or digital versatile disc (DVD) following the instructions above and the instructions in 5 for applications subject to PSD review.

5) If **air dispersion modeling** is required by the application type, include the **NMED Modeling Waiver** and/or electronic air dispersion modeling report, input, and output files. The dispersion modeling ***summary report only*** should be submitted as hard copy(ies) unless otherwise indicated by the Bureau.

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6) If the applicant submits the electronic files on CD and the application is subject to PSD review under 20.2.74 NMAC (PSD) or NNSR under 20.2.79 NMC include,
   a. one additional CD copy for US EPA,
   b. one additional CD copy for each federal land manager affected (NPS, USFS, FWS, USDI) and,
   c. one additional CD copy for each affected regulatory agency other than the Air Quality Bureau.

   If the application is submitted electronically through the secure file transfer service, these extra CDs do not need to be submitted.

Electronic Submittal Requirements [in addition to the required hard copy(ies)]:

1) All required electronic documents shall be submitted as 2 separate CDs or submitted through the AQB secure file transfer service. Submit a single PDF document of the entire application as submitted and the individual documents comprising the application.

2) The documents should also be submitted in Microsoft Office compatible file format (Word, Excel, etc.) allowing us to access the text and formulas in the documents (copy & paste). Any documents that cannot be submitted in a Microsoft Office compatible format shall be saved as a PDF file from within the electronic document that created the file. If you are unable to provide Microsoft office compatible electronic files or internally generated PDF files of files (items that were not created electronically: i.e. brochures, maps, graphics, etc,), submit these items in hard copy format. We must be able to review the formulas and inputs that calculated the emissions.

3) It is preferred that this application form be submitted as 4 electronic files (3 MSWord docs: Universal Application section 1 [UA1], Universal Application section 3-19 [UA3], and Universal Application 4, the modeling report [UA4]) and 1 Excel file of the tables (Universal Application section 2 [UA2]). Please include as many of the 3-19 Sections as practical in a single MS Word electronic document. Create separate electronic file(s) if a single file becomes too large or if portions must be saved in a file format other than MS Word.

4) The electronic file names shall be a maximum of 25 characters long (including spaces, if any). The format of the electronic Universal Application shall be in the format: "A-3423-FacilityName". The "A" distinguishes the file as an application submittal, as opposed to other documents the Department itself puts into the database. Thus, all electronic application submittals should begin with "A-". Modifications to existing facilities should use the core permit number (i.e. '3423') the Department assigned to the facility as the next 4 digits. Use 'XXXX' for new facility applications. The format of any separate electronic submittals (additional submittals such as non-Word attachments, re-submittals, application updates) and Section document shall be in the format: "A-3423-9-description", where "9" stands for the section # (in this case Section 9-Public Notice). Please refrain, as much as possible, from submitting any scanned documents as this file format is extremely large, which uses up too much storage capacity in our database. Please take the time to fill out the header information throughout all submittals as this will identify any loose pages, including the Application Date (date submitted) & Revision number (0 for original, 1, 2, etc.; which will help keep track of subsequent partial update(s) to the original submittal. Do not use special symbols (#, @, etc.) in file names. The footer information should not be modified by the applicant.

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Section 3

Application Summary

The **Application Summary** shall include a brief description of the facility and its process, the type of permit application, the applicable regulation (i.e. 20.2.72.200.A.X, or 20.2.73 NMAC) under which the application is being submitted, and any air quality permit numbers associated with this site. If this facility is to be collocated with another facility, provide details of the other facility including permit number(s). In case of a revision or modification to a facility, provide the lowest level regulatory citation (i.e. 20.2.72.219.B.1.d NMAC) under which the revision or modification is being requested. Also describe the proposed changes from the original permit, how the proposed modification will affect the facility's operations and emissions, de-bottlenecking impacts, and changes to the facility's major/minor status (both PSD & Title V).

The **Process Summary** shall include a brief description of the facility and its processes.

Startup, Shutdown, and Maintenance (SSM) routine or predictable emissions: Provide an overview of how SSM emissions are accounted for in this application. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions.

Application Summary

Yucca Growth Infrastructure, LLC (Yucca) is proposing to construct a microgrid power generation facility (YGI Microgrid) in Dona Ana County, NM. Bloom Energy Corp (Bloom) will be the operator of the YGI Microgrid. The YGI Microgrid site will consist of a Bloom Energy Server System. This application is an initial NSR application being submitted under 20.2.72.200.A(1) NMAC. The site will be a major source for Title V (20.2.70 NMAC).

The proposed facility will consist of the following emission sources:

- A Bloom Energy Server System

Process Summary

The facility utilizes a Bloom Energy Server System, which is a type of solid oxide fuel cell system (EUID: SOFC). The SOFC converts natural gas into electricity through an electrochemical reaction without combustion. Each individual fuel cell is composed of three layers: a solid ceramic electrolyte sandwiched between a cathode and an anode, where the anode and cathode are made from inks that coat the electrolyte. No precious metals, corrosive acids, or molten materials are required. Natural gas enters the anode side, where it mixes with steam to produce reformed fuel. As the reformed fuel crosses the anode, it attracts oxygen ions from the air on the cathode side. The oxygen ions combine with the reformed fuel to produce electricity, water, heat, and carbon dioxide. The water and heat are recycled to produce the steam needed to reform the fuel, enabling a highly efficient electrochemical reaction that requires no water other than during system startup. The electrochemical reaction occurs at 700–900 degrees Celsius. Individual cells are combined into stacks, then into power modules containing hundreds of individual fuel cells that produce direct current power. The modules are packaged into Energy Servers, which combine the power modules with a fuel processing module and an AC module containing DC-to-AC converters and transformers to produce 325 kW of net AC power. A minority of units are smaller and produce 260 kW of net AC power.

The proposed Bloom Energy Server System deploys co-functioning Energy Servers to create an integrated system capable of sustaining the target output represented for each applicable scenario. Depleted anode exhaust, which is approximately 95 percent carbon dioxide once dried, is discharged to the atmosphere. The air emissions from the Energy Servers consist of depleted anode exhaust, which contains lower criteria air pollutants due to the absence of combustion, and use no water during steady-state operation.

The facility is being constructed with redundancy to ensure reliability for electricity delivery. Whereas the maximum rated load for the Bloom Energy Server System is 2,462 MW (nameplate capacity), a maximum operational capacity of 1,600 MW is proposed. Facility operation would still be 24 hours a day for 365 days a year (i.e., 8,760 hours).

Startup, Shutdown, and Maintenance (SSM) routine or predictable emissions:

Natural gas desulfurization will be achieved via sealed canisters or a Central Desulfurization System (CDS).

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Minimal startup, shutdown, and maintenance emissions are expected through use of the CDS, if selected for desulfurization. Maintenance activities with potential emissions include replacement of desulfurization bed media at a nominal frequency of once per two years.

If CDS is used, air emissions (natural gas venting) will occur during CDS media replacements and during desulfurization unit initial start-ups. Approximately ninety-five CDS skids/blocks will be installed, consisting of two vessels in a lead/lag configuration for desulfurization. Each vessel has a volume of 1,370 standard cubic feet. This activity is exempt pursuant to 20.2.72.202.B(5) NMAC.

If desulfurization canisters are used, there will be no associated SSM emissions.

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Section 4

Process Flow Sheet

A **process flow sheet** and/or block diagram indicating the individual equipment, all emission points and types of control applied to those points. The unit numbering system should be consistent throughout this application.

A process flow diagram is attached to this application.

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Section 5

Plot Plan Drawn To Scale

A **plot plan drawn to scale** showing emissions points, roads, structures, tanks, and fences of property owned, leased, or under direct control of the applicant. This plot plan must clearly designate the restricted area as defined in UA1, Section 1-D.12. The unit numbering system should be consistent throughout this application.

A plot plan is attached to this application.

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Section 6

All Calculations

Show all calculations used to determine both the hourly and annual controlled and uncontrolled emission rates. All calculations shall be performed keeping a minimum of three significant figures. Document the source of each emission factor used (if an emission rate is carried forward and not revised, then a statement to that effect is required). If identical units are being permitted and will be subject to the same operating conditions, submit calculations for only one unit and a note specifying what other units to which the calculations apply. All formulas and calculations used to calculate emissions must be submitted. The "Calculations" tab in the UA2 has been provided to allow calculations to be linked to the emissions tables. Add additional "Calc" tabs as needed. If the UA2 or other spread sheets are used, all calculation spread sheet(s) shall be submitted electronically in Microsoft Excel compatible format so that formulas and input values can be checked. Format all spread sheets and calculations such that the reviewer can follow the logic and verify the input values. Define all variables. If calculation spread sheets are not used, provide the original formulas with defined variables. Additionally, provide subsequent formulas showing the input values for each variable in the formula. All calculations, including those calculations are imbedded in the Calc tab of the UA2 portion of the application, the printed Calc tab(s), should be submitted under this section.

Tank Flashing Calculations: The information provided to the AQB shall include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., NOI, permit, or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis. If Hysis is used, all relevant input parameters shall be reported, including separator pressure, gas throughput, and all other relevant parameters necessary for flashing calculation.

SSM Calculations: It is the applicant's responsibility to provide an estimate of SSM emissions or to provide justification for not doing so. In this Section, provide emissions calculations for Startup, Shutdown, and Routine Maintenance (SSM) emissions listed in the Section 2 SSM and/or Section 22 GHG Tables and the rational for why the others are reported as zero (or left blank in the SSM/GHG Tables). Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on calculating SSM emissions. If SSM emissions are greater than those reported in the Section 2, Requested Allowables Table, modeling may be required to ensure compliance with the standards whether the application is NSR or Title V. Refer to the Modeling Section of this application for more guidance on modeling requirements.

Glycol Dehydrator Calculations: The information provided to the AQB shall include the manufacturer's maximum design recirculation rate for the glycol pump. If GRI-Glycalc is used, the full input summary report shall be included as well as a copy of the gas analysis that was used.

Road Calculations: Calculate fugitive particulate emissions and enter haul road fugitives in Tables 2-A, 2-D and 2-E for:

1. If you transport raw material, process material and/or product into or out of or within the facility and have PER emissions greater than 0.5 tpy.
2. If you transport raw material, process material and/or product into or out of the facility more frequently than one round trip per day.

Significant Figures:
A. All emissions standards are deemed to have at least two significant figures, but not more than three significant figures.
B. At least 5 significant figures shall be retained in all intermediate calculations.
C. In calculating emissions to determine compliance with an emission standard, the following rounding off procedures shall be used:

(1) If the first digit to be discarded is less than the number 5, the last digit retained shall not be changed;
(2) If the first digit discarded is greater than the number 5, or if it is the number 5 followed by at least one digit other than the number zero, the last figure retained shall be increased by one unit; **and**
(3) If the first digit discarded is exactly the number 5, followed only by zeros, the last digit retained shall be rounded upward if it is an odd number, but no adjustment shall be made if it is an even number.
(4) The final result of the calculation shall be expressed in the units of the standard.

Control Devices: In accordance with 20.2.72.203.A(3) and (8) NMAC, 20.2.70.300.D(5)(b) and (e) NMAC, and 20.2.73.200.B(7) NMAC, the permittee shall report all control devices and list each pollutant controlled by the control device regardless if the applicant takes credit for the reduction in emissions. The applicant can indicate in this section of the

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application if they chose to not take credit for the reduction in emission rates. For notices of intent submitted under 20.2.73 NMAC, only uncontrolled emission rates can be considered to determine applicability unless the state or federal Acts require the control. This information is necessary to determine if federally enforceable conditions are necessary for the control device, and/or if the control device produces its own regulated pollutants or increases emission rates of other pollutants.

Emissions from the Bloom Energy Server System are provided by the manufacturer based on output-based emission factors (lb/MW-hr) determined through CARB certification or other stack testing for the particular unit. Each such emission factor is multiplied by the installed capacity of the Bloom Energy Server System to obtain an hourly emission rate. Annual emission rates are obtained by multiplying by the operating schedule (hr/yr) and converting to units of tons/yr. While Bloom Energy does not customarily recommend the use of safety factors for similar projects in other jurisdictions, a 15% safety factor was added to all hourly and annual emissions, except for GHGs, to account for potential variability in operating conditions and to ensure a conservative assessment of source impacts, consistent with local practice. For example, VOC emissions for the nameplate capacity of 2,462.005 MW can be calculated as follows:

ER = MW× EF×(1+15%)

0.01 lb VOC/MW-hr × 2,462.005 MW×(1+15%) = 28.31 lb/hr

Note that this value represents the VOC emissions based on the nameplate capacity (as shown in Table 2-D). To calculate the requested allowable emissions (as shown in Table 2-E), the MW value is based on 1,600 MW capacity as shown below.

0.01 lb VOC/MW-hr × 1,600 MW×(1+15%) = 18.40 lb/hr

For GHG emissions, the CO_2 emission factor indicated in the vendor data has been used. The vendor represents that the fuel cells do not emit detectable amounts of other GHGs and the CO_2 emission factor is based on Bloom's entire fleet.

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Section 6.a

Green House Gas Emissions

(Submitting under 20.2.70, 20.2.72 20.2.74 NMAC)

Title V (20.2.70 NMAC), Minor NSR (20.2.72 NMAC), and PSD (20.2.74 NMAC) applicants must estimate and report greenhouse gas (GHG) emissions to verify the emission rates reported in the public notice, determine applicability to 40 CFR 60 Subparts, and to evaluate Prevention of Significant Deterioration (PSD) applicability. GHG emissions that are subject to air permit regulations consist of the sum of an aggregate group of these six greenhouse gases: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Calculating GHG Emissions:

1. Calculate the ton per year (tpy) GHG mass emissions and GHG CO_2e emissions from your facility.
2. GHG mass emissions are the sum of the total annual tons of greenhouse gases without adjusting with the global warming potentials (GWPs). GHG CO_2e emissions are the sum of the mass emissions of each individual GHG multiplied by its GWP found in Table A-1 in 40 CFR 98 Mandatory Greenhouse Gas Reporting.
3. Emissions from routine or predictable start up, shut down, and maintenance must be included.
4. Report GHG mass and GHG CO_2e emissions in Table 2-P of this application. Emissions are reported in **short** tons per year and represent each emission unit's Potential to Emit (PTE).
5. All Title V major sources, PSD major sources, and all power plants, whether major or not, must calculate and report GHG mass and CO2e emissions for each unit in Table 2-P.
6. For minor source facilities that are not power plants, are not Title V, and are not PSD there are three options for reporting GHGs in Table 2-P: 1) report GHGs for each individual piece of equipment; 2) report all GHGs from a group of unit types, for example report all combustion source GHGs as a single unit and all venting GHGs as a second separate unit; 3) or check the following □ By checking this box, the applicant acknowledges the total CO2e emissions are less than 75,000 tons per year.

Sources for Calculating GHG Emissions:

- Manufacturer's Data
- AP-42 Compilation of Air Pollutant Emission Factors at http://www.epa.gov/ttn/chief/ap42/index.html
- EPA's Internet emission factor database WebFIRE at http://cfpub.epa.gov/webfire/
- 40 CFR 98 Mandatory Green House Gas Reporting except that tons should be reported in short tons rather than in metric tons for the purpose of PSD applicability.
- API Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry. August 2009 or most recent version.
- Sources listed on EPA's NSR Resources for Estimating GHG Emissions at http://www.epa.gov/nsr/clean-air-act-permitting-greenhouse-gases:

Global Warming Potentials (GWP):
Applicants must use the Global Warming Potentials codified in Table A-1 of the most recent version of 40 CFR 98 Mandatory Greenhouse Gas Reporting. The GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to that of one unit mass of CO_2 over a specified time period.

"Greenhouse gas" for the purpose of air permit regulations is defined as the aggregate group of the following six gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. **(20.2.70.7 NMAC, 20.2.74.7 NMAC).** You may also find GHGs defined in 40 CFR 86.1818-12(a).

Metric to Short Ton Conversion:
Short tons for GHGs and other regulated pollutants are the standard unit of measure for PSD and title V permitting programs. 40 CFR 98 Mandatory Greenhouse Reporting requires metric tons.
1 metric ton = 1.10231 short tons (per Table A-2 to Subpart A of Part 98 – Units of Measure Conversions)

Greenhouse gases are calculated as described in Section 6.

Section 7

Information Used To Determine Emissions

Information Used to Determine Emissions shall include the following:

- ☑ If manufacturer data are used, include specifications for emissions units and control equipment, including control efficiencies specifications and sufficient engineering data for verification of control equipment operation, including design drawings, test reports, and design parameters that affect normal operation.
- ☑ If test data are used, include a copy of the complete test report. If the test data are for an emissions unit other than the one being permitted, the emission units must be identical. Test data may not be used if any difference in operating conditions of the unit being permitted and the unit represented in the test report significantly effect emission rates.
- ☐ If the most current copy of AP-42 is used, reference the section and date located at the bottom of the page. Include a copy of the page containing the emissions factors, and clearly mark the factors used in the calculations.
- ☐ If an older version of AP-42 is used, include a complete copy of the section.
- ☐ If an EPA document or other material is referenced, include a complete copy.
- ☐ Fuel specifications sheet.
- ☐ If computer models are used to estimate emissions, include an input summary (if available) and a detailed report, and a disk containing the input file(s) used to run the model. For tank-flashing emissions, include a discussion of the method used to estimate tank-flashing emissions, relative thresholds (i.e., permit or major source (NSPS, PSD or Title V)), accuracy of the model, the input and output from simulation models and software, all calculations, documentation of any assumptions used, descriptions of sampling methods and conditions, copies of any lab sample analysis.

Bloom Energy Server System (Unit ID: SOFC):

- Manufacturer specification sheet
- Testing performed in December 2023 and April 2026 (Emission Factors).

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Section 8

Map(s)

A map such as a 7.5 minute topographic quadrangle showing the exact location of the source. The map shall also include the following:

The UTM or Longitudinal coordinate system on both axes	An indicator showing which direction is north
A minimum radius around the plant of 0.8km (0.5 miles)	Access and haul roads
Topographic features of the area	Facility property boundaries
The name of the map	The area which will be restricted to public access
A graphical scale	

A map of the facility is attached.

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Section 9

Proof of Public Notice

(for NSR applications submitting under 20.2.72 or 20.2.74 NMAC)
(This proof is required by: 20.2.72.203.A.14 NMAC "Documentary Proof of applicant's public notice")

☑ **I have read the AQB "Guidelines for Public Notification for Air Quality Permit Applications"**
This document provides detailed instructions about public notice requirements for various permitting actions. It also provides public notice examples and certification forms. Material mistakes in the public notice will require a re-notice before issuance of the permit.

Unless otherwise allowed elsewhere in this document, the following items document proof of the applicant's Public Notification. Please include this page in your proof of public notice submittal with checkmarks indicating which documents are being submitted with the application.

New Permit and **Significant Permit Revision** public notices must include all items in this list.

Technical Revision public notices require only items 1, 5, 9, and 10.

Per the Guidelines for Public Notification document mentioned above, include:

1. ☑ A copy of the certified letter receipts with post marks (20.2.72.203.B NMAC)
2. ☑ A list of the places where the public notice has been posted in at least four publicly accessible and conspicuous places, including the proposed or existing facility entrance. (e.g: post office, library, grocery, etc.)
3. ☑ A copy of the property tax record (20.2.72.203.B NMAC).
4. ☑ A sample of the letters sent to the owners of record.
5. ☑ A sample of the letters sent to counties, municipalities, and Indian tribes.
6. ☑ A sample of the public notice posted and a verification of the local postings.
7. ☑ A table of the noticed citizens, counties, municipalities and tribes and to whom the notices were sent in each group.
8. ☑ A copy of the public service announcement (PSA) sent to a local radio station and documentary proof of submittal.
9. ☑ A copy of the classified or legal ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
10. ☑ A copy of the display ad including the page header (date and newspaper title) or its affidavit of publication stating the ad date, and a copy of the ad. When appropriate, this ad shall be printed in both English and Spanish.
11. ☑ A map with a graphic scale showing the facility boundary and the surrounding area in which owners of record were notified by mail. This is necessary for verification that the correct facility boundary was used in determining distance for notifying land owners of record.

Section 10

Written Description of the Routine Operations of the Facility

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A written description of the routine operations of the facility. Include a description of how each piece of equipment will be operated, how controls will be used, and the fate of both the products and waste generated. For modifications and/or revisions, explain how the changes will affect the existing process. In a separate paragraph describe the major process bottlenecks that limit production. The purpose of this description is to provide sufficient information about plant operations for the permit writer to determine appropriate emission sources.

The facility utilizes a Bloom Energy Server System, which is a type of solid oxide fuel cell system (EUID: SOFC). The SOFC converts natural gas into electricity through an electrochemical reaction without combustion. Each individual fuel cell is composed of three layers: a solid ceramic electrolyte sandwiched between a cathode and an anode, where the anode and cathode are made from inks that coat the electrolyte. No precious metals, corrosive acids, or molten materials are required. Natural gas enters the anode side, where it mixes with steam to produce reformed fuel. As the reformed fuel crosses the anode, it attracts oxygen ions from the air on the cathode side. The oxygen ions combine with the reformed fuel to produce electricity, water, heat, and carbon dioxide. The water and heat are recycled to produce the steam needed to reform the fuel, enabling a highly efficient electrochemical reaction that requires no water other than during system startup. The electrochemical reaction occurs at 700–900 degrees Celsius.

Individual cells are combined into stacks, then into power modules containing hundreds of individual fuel cells that produce direct current power. The modules are packaged into Energy Servers, which combine the power modules with a fuel processing module and an AC module containing DC-to-AC converters and transformers to produce 325 kW of net AC power. One of the units is also comprised of energy servers that produce 260 kW of net AC power. The proposed Bloom Energy Server System deploys co-functioning Energy Servers to create an integrated system capable of sustaining the target output represented for each applicable scenario. Depleted anode exhaust, which is approximately 95 percent carbon dioxide once dried is discharged to the atmosphere. The air emissions from the Energy Servers consist of depleted anode exhaust, which contains lower criteria air pollutants due to the absence of combustion, and use no water during steady-state operation. The Bloom Energy Server System is proposed to operate at 1,600 MW capacity for 8,760 hours per year. The facility is being constructed with redundancy to ensure reliability for electricity delivery. Whereas the maximum rated load for the Bloom Energy Server System is 2,462 MW, the proposed maximum operational capacity of 1,600 MW. Please refer to Section 20 for additional information.

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Section 11
Source Determination
Source submitting under 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC

Sources applying for a construction permit, PSD permit, or operating permit shall evaluate surrounding and/or associated sources (including those sources directly connected to this source for business reasons) and complete this section. Responses to the following questions shall be consistent with the Air Quality Bureau's permitting guidance, Single Source Determination Guidance, which may be found on the Applications Page in the Permitting Section of the Air Quality Bureau website.

Typically, buildings, structures, installations, or facilities that have the same SIC code, that are under common ownership or control, and that are contiguous or adjacent constitute a single stationary source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes. Submission of your analysis of these factors in support of the responses below is optional, unless requested by NMED.

A. Identify the emission sources evaluated in this section (list and describe)**: All sources listed in Table 2-A. The SOFC Unit includes a dedicated subsystem to supply backup power to the adjacent data center. Therefore, the data center, once constructed, will not require a permit and will have no regulated emission sources.**

B. Apply the 3 criteria for determining a single source:

SIC Code: Surrounding or associated sources belong to the same 2-digit industrial grouping (2-digit SIC code) as this facility, OR surrounding or associated sources that belong to different 2-digit SIC codes are support facilities for this source.

☑ **Yes** ☐ **No**

Common Ownership or Control: Surrounding or associated sources are under common ownership or control as this source.

☑ **Yes** ☐ **No**

Contiguous or Adjacent: Surrounding or associated sources are contiguous or adjacent with this source.

☑ **Yes** ☐ **No**

C. Make a determination:

☑ The source, as described in this application, constitutes the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes. If in "A" above you evaluated only the source that is the subject of this application, all "**YES**" boxes should be checked. If in "A" above you evaluated other sources as well, you must check **AT LEAST ONE** of the boxes "**NO**" to conclude that the source, as described in the application, is the entire source for 20.2.70, 20.2.72, 20.2.73, and 20.2.74 NMAC applicability purposes.

☐ The source, as described in this application, **does not** constitute the entire source for 20.2.70, 20.2.72, 20.2.73, or 20.2.74 NMAC applicability purposes (A permit may be issued for a portion of a source). The entire source consists of the following facilities or emissions sources (list and describe):

Section 12

Section 12.A
PSD Applicability Determination for All Sources

(Submitting under 20.2.72, 20.2.74 NMAC)

A PSD applicability determination for all sources. For sources applying for a significant permit revision, apply the applicable requirements of 20.2.74.AG and 20.2.74.200 NMAC and to determine whether this facility is a major or minor PSD source, and whether this modification is a major or a minor PSD modification. It may be helpful to refer to the procedures for Determining the Net Emissions Change at a Source as specified by Table A-5 (Page A.45) of the EPA New Source Review Workshop Manual to determine if the revision is subject to PSD review.

A. This facility is:

- ☑ **a minor PSD source before and after this modification (if so, delete C and D below).**
- ☐ **a major PSD source before this modification. This modification will make this a PSD minor source.**
- ☐ **an existing PSD Major Source that has never had a major modification requiring a BACT analysis.**
- ☐ **an existing PSD Major Source that has had a major modification requiring a BACT analysis**
- ☐ **a new PSD Major Source after this modification.**

B. **This facility is not one of the listed 20.2.74.501 Table I – PSD Source Categories. The "project" emissions for this modification are not significant. The "project" emissions listed below do only result from changes described in this permit application, thus no emissions from other [revisions or modifications, past or future] to this facility. Also, specifically discuss whether this project results in "de-bottlenecking", or other associated emissions resulting in higher emissions. The project emissions (before netting) for this project are as follows [see Table 2 in 20.2.74.502 NMAC for a complete list of significance levels]:**

a.	**NOx:**	**24.18**	**TPY**
b.	**CO:**	**104.77**	**TPY**
c.	**VOC:**	**80.59**	**TPY**
d.	**SOx:**	**0.049**	**TPY**
e.	**PM:**	**49.00**	**TPY**
f.	**PM_{10}:**	**49.00**	**TPY**
g.	**$PM_{2.5}$:**	**49.00**	**TPY**
h.	**Flourides:**	**N/A**	**TPY**
i.	**Lead:**	**N/A**	**TPY**
j.	**Sulfur Compounds (listed in Table 2):**	**0.049**	**TPY**
k.	**GHG:**	**5,732,544**	**TPY**

** The Bloom Energy Server System equipment vendor maintains that there are zero PM emissions from its equipment. Extant reference method testing has been used by the applicant to conservatively estimate emissions, given test method limitations. Vendor indicates that extant testing may exhibit positive sampling method bias and reflects filterable particulate matter from intake air passed through the system. For that reason, the Bloom Energy Server System equipment vendor does not specify particulate emission factors.*

Section 13

Determination of State & Federal Air Quality Regulations

This section lists each state and federal air quality regulation that may apply to your facility and/or equipment that are stationary sources of regulated air pollutants.

Not all state and federal air quality regulations are included in this list. Go to the Code of Federal Regulations (CFR) or to the Air Quality Bureau's regulation page to see the full set of air quality regulations.

Required Information for Specific Equipment:
For regulations that apply to specific source types, in the 'Justification' column **provide any information needed to determine if the regulation does or does not apply**. **For example**, to determine if emissions standards at 40 CFR 60, Subpart IIII apply to your three identical stationary engines, we need to know the construction date as defined in that regulation; the manufacturer date; the date of reconstruction or modification, if any; if they are or are not fire pump engines; if they are or are not emergency engines as defined in that regulation; their site ratings; and the cylinder displacement.

Required Information for Regulations that Apply to the Entire Facility:
See instructions in the 'Justification' column for the information that is needed to determine if an 'Entire Facility' type of regulation applies (e.g. 20.2.70 or 20.2.73 NMAC).

Regulatory Citations for Regulations That Do Not, but Could Apply:
If there is a state or federal air quality regulation that does not apply, but you have a piece of equipment in a source category for which a regulation has been promulgated, you must **provide the low level regulatory citation showing why your piece of equipment is not subject to or exempt from the regulation. For example** if you have a stationary internal combustion engine that is not subject to 40 CFR 63, Subpart ZZZZ because it is an existing 2 stroke lean burn stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, your citation would be 40 CFR 63.6590(b)(3)(i). **We don't want a discussion of every non-applicable regulation, but if it is possible a regulation could apply, explain why it does not. For example,** if your facility is a power plant, you do not need to include a citation to show that 40 CFR 60, Subpart OOO does not apply to your non-existent rock crusher.

Regulatory Citations for Emission Standards:
For each unit that is subject to an emission standard in a source specific regulation, such as 40 CFR 60, Subpart OOO or 40 CFR 63, Subpart HH, include the low level regulatory citation of that emission standard. Emission standards can be numerical emission limits, work practice standards, or other requirements such as maintenance. **Here are examples:** a glycol dehydrator is subject to the general standards at 63.764C(1)(i) through (iii); an engine is subject to 63.6601, Tables 2a and 2b; a crusher is subject to 60.672(b), Table 3 and all transfer points are subject to 60.672(e)(1)

Federally Enforceable Conditions:
All federal regulations are federally enforceable. All Air Quality Bureau State regulations are federally enforceable except for the following: affirmative defense portions at 20.2.7.6.B, 20.2.7.110(B)(15), 20.2.7.11 through 20.2.7.113, 20.2.7.115, and 20.2.7.116; 20.2.37; 20.2.42; 20.2.43; 20.2.62; 20.2.63; 20.2.86; 20.2.89; and 20.2.90 NMAC. Federally enforceable means that EPA can enforce the regulation as well as the Air Quality Bureau and federally enforceable regulations can count toward determining a facility's potential to emit (PTE) for the Title V, PSD, and nonattainment permit regulations.

INCLUDE ANY OTHER INFORMATION NEEDED TO COMPLETE AN APPLICABILITY DETERMINATION OR THAT IS RELEVENT TO YOUR FACILITY'S NOTICE OF INTENT OR PERMIT.

EPA Applicability Determination Index for 40 CFR 60, 61, 63, etc: http://cfpub.epa.gov/adi/

Table for State Regulations:

State Regulation Citation	Title	Applies? Enter Yes or No	Unit(s) or Facility	Justification: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.1 NMAC	General Provisions	Yes	Facility	*Applies sitewide. Yucca will comply with procedural requirements indicated in 20.1.114 NMAC, 20.1.115 NMAC, 20.1.116 NMAC, and 20.1.117 NMAC (concerning variance hearings, confidential information, significant digits, and electronic reporting) to the extent applicable.*
20.2.3 NMAC	Ambient Air Quality Standards NMAAQS	Yes	Facility	*Applies sitewide. Yucca understands that the NMAAQS represent objectives to preserve the State's air resources and that the NMAAQS are not applicable requirements under Part 70. See 20.2.3.9 NMAC.*
20.2.7 NMAC	Excess Emissions	Yes	Facility	*Applies sitewide. Yucca will implement a maintenance plan as required under 20.2.7.14 NMAC, and will comply with the notification, affirmative defense, and root cause requirements of 20.2.7.108–114 NMAC.*
20.2.23 NMAC	Fugitive Dust Control	Yes	Facility	*For operations not subject to the exemption at 20.2.23.108.B(3), the site will develop and implement a dust control plan pursuant to 20.2.23.111–112 NMAC*
20.2.33 NMAC	Gas Burning Equipment - Nitrogen Dioxide	No	N/A	*Gas burning equipment with a heat input greater than 1,000,000 MMBTU will not be installed at this facility.*
20.2.34 NMAC	Oil Burning Equipment: NO_2	No	N/A	*Oil burning equipment will not be installed. See 20.2.34.108 NMAC.*
20.2.35 NMAC	Natural Gas Processing Plant – Sulfur	No	N/A	*The facility is not a natural gas processing plant. See 20.2.109, 110 NMAC.*
20.2.37 and 20.2.36 NMAC	Petroleum Processing Facilities and Petroleum Refineries	N/A	N/A	*Repealed.*
20.2.38 NMAC	Hydrocarbon Storage Facility	No	N/A	*This facility is not a Hydrocarbon Storage Facility.*
20.2.39 NMAC	Sulfur Recovery Plant - Sulfur	No	N/A	*This facility is not a Sulfur Recovery Plant.*
20.2.50 NMAC	Oil and Gas Sector – Ozone Precursor Pollutants	No	N/A	*This facility is not part of the Oil and Gas Sector.*
20.2.61.109 NMAC	Smoke & Visible Emissions	No	N/A	*There are no sources subject to the 20% opacity limit in 20.2.61.109 NMAC. Yucca will not operate any locomotives or air curtain incinerators at the site.*
20.2.70 NMAC	Operating Permits	Yes	Facility	*Yucca will submit a timely and complete operating permit application as required under 20.2.70.200, 201, 300 NMAC.*
20.2.71 NMAC	Operating Permit Fees	Yes	Facility	*Yucca will comply with the fee provisions of Part 71. The department will provide an invoice for fees owed by April 1 of each year per 20.2.71.113.A NMAC.*
20.2.72 NMAC	Construction Permits	Yes	Facility	*This permit application is submitted to satisfy Part 72 requirements.*
20.2.73 NMAC	NOI & Emissions Inventory Requirements	Yes	Facility	*Because a permit is required, final action on the permit will satisfy requirements of 20.2.73.200.A(4) NMAC. Additionally, Yucca will comply with the emissions inventory requirements of 20.2.73.300 NMAC.*
20.2.74 NMAC	Permits – Prevention of Significant Deterioration (PSD)	No	Facility	*PSD permitting does not apply because the proposed new stationary source is not a major stationary source. Specifically, the source is not listed in table 1 (20.2.74.501 NMAC) and the potential to emit is less than 250 tons per year for each regulated new source review pollutant.*
20.2.75 NMAC	Construction Permit Fees	Yes	Facility	*This regulation applies since this application is being submitted pursuant to 20.2.72 NMAC.*

State Regulation Citation	Title	Applies? Enter Yes or No	Unit(s) or Facility	Justification: (You may delete instructions or statements that do not apply in the justification column to shorten the document.)
20.2.77 NMAC	New Source Performance	No	N/A	*The facility is not subject to any standard under 40 CFR Part 60.*
20.2.78 NMAC	Emission Standards for HAPS	No	N/A	*The facility is not subject to any standard under 40 CFR Part 61. See 20.2.78.9 NMAC.*
20.2.79 NMAC	Permits – Nonattainment Areas	No	N/A	*The facility is not located in a nonattainment area. The Sunland Park nonattainment area includes the "area bounded on the New Mexico-Texas state line on the east, the New Mexico-Mexico international line on the south, latitude N31°49'30" on the north, and longitude W106°36'36" on the west." See 83 Fed. Reg. 25776, 25820 (Jun. 4, 2018). The YGI Microgrid is not located within these boundaries.* *Additionally, the site will not cause or contribute to any existing NAAQS violation. As detailed more fully in Section 16 (relating to modeling), emissions of NO_X and VOC are less than the applicable 8-hr O_3 MERPs (Otero County). See 20.2.79.109.A. See sec. 2.6.5.2, Air Quality Modeling Guidelines.*
20.2.80 NMAC	Stack Heights	Yes	All stacks	*No stack will exceed good engineering practice stack height. See 20.2.80.109.*
20.2.82 NMAC	MACT Standards for source categories of HAPS	No	N/A	*This regulation applies to all sources emitting hazardous air pollutants, which are subject to the requirements of 40 CFR Part 63. The YGI Microgrid site is an area source under 40 CFR Part 63.*

Table for Applicable Federal Regulations:

Federal Regulation Citation	Title	Applies? Enter Yes or No	Unit(s) or Facility	Justification:
40 CFR 50	NAAQS	No	N/A	*The modeling and conditions developed from the modeling are the applicable requirements to demonstrate compliance with the NAAQS.*
NSPS 40 CFR 60, Subpart A	General Provisions	No	N/A	*The facility is not subject to any standard under 40 CFR Part 60.*
NSPS 40 CFR 60.330 Subpart GG	Stationary Gas Turbines	No	N/A	*There are no Stationary Gas Turbines being permitted as part of this application.*
NSPS 40 CFR Subpart IIII	Stationary Compression Ignition Internal Combustion Engines	No	N/A	*There are no Stationary Compression Ignition Internal Combustion Engines being permitted as a part of this application.*
NSPS 40 CFR 60.330 Subpart KKKK	Stationary Gas Turbines	No	N/A	*There are no Stationary Gas Turbines being permitted as part of this application.*
NSPS 40 CFR 60.330 Subpart KKKKa	Stationary Gas Turbines	No	N/A	*There are no Stationary Gas Turbines being permitted as part of this application.*

Federal Regulation Citation	Title	Applies? Enter Yes or No	Unit(s) or Facility	Justification:
NSPS 40 CFR 60 Subpart TTTT	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	No	N/A	*There are no Stationary Gas Turbines being permitted as part of this application.*
NSPS 40 CFR 60 Subpart TTTTa	Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	No	N/A	*There are no Stationary Gas Turbines being permitted as part of this application.*
NSPS 40 CFR 60 Subpart UUUU	Emissions Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units	No	N/A	*Repealed*
NSPS 40 CFR 60 Subpart UUUUb	Emissions Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units	No	N/A	*The rule provides guidelines for State plans under § 111(d) and does not directly apply to designated facilities. See 40 CFR § 60.5840b(a).*
NESHAP 40 CFR 61 Subpart A	General Provisions	No	N/A	*40 CFR Part 61 does not apply. The facility does not belong to any listed category or emit any listed pollutants that would trigger applicability.*
MACT 40 CFR 63, Subpart A	General Provisions	No	N/A	*The facility will not be subject to any Part 63 standard requiring compliance with Subpart A.*
MACT 40 CFR 63 Subpart YYYY	National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines	No	N/A	*There are no Stationary Gas Turbines being permitted as part of this application.*
40 CFR 64	Compliance Assurance Monitoring	No	N/A	*There are no sources subject to Compliance Assurance Monitoring pursuant to 40 CFR Part 64.*
Title IV – Acid Rain 40 CFR 72	Acid Rain	No	N/A	*There are no sources being permitted as part of this application that would be subject to 40 CFR Part 72.*
Title IV – Acid Rain 40 CFR 73	Sulfur Dioxide Allowance Emissions	No	N/A	*There are no sources being permitted as part of this application that would be subject to 40 CFR Part 72.*

Federal Regulation Citation	Title	Applies? Enter Yes or No	Unit(s) or Facility	Justification:
Title IV-Acid Rain 40 CFR 75	Continuous Emissions Monitoring	No	N/A	*There are no sources being permitted as part of this application that would be subject to 40 CFR Part 72.*
Title IV – Acid Rain 40 CFR 76	**Acid Rain** Nitrogen Oxides **Emission Reduction Program**	No	N/A	*The facility contains no coal-fired utility units. See 40 CFR § 76.1.*
Title VI – 40 CFR 82	Protection of Stratospheric Ozone	No	N/A	*While ozone depleting substances (ODS) will not be manufactured or imported or used as an integral part of the emission units, to the extent the facility incidentally handles or uses any regulated ODS as part of plant operations, it will comply with all applicable Title VI requirements.*

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Section 14

Operational Plan to Mitigate Emissions

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

☐ **Title V Sources** (20.2.70 NMAC)**:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Emissions During Startups, Shutdowns, and Emergencies** defining the measures to be taken to mitigate source emissions during startups, shutdowns, and emergencies as required by 20.2.70.300.D.5(f) and (g) NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☑ **NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has developed an **Operational Plan to Mitigate Source Emissions During Malfunction, Startup, or Shutdown** defining the measures to be taken to mitigate source emissions during malfunction, startup, or shutdown as required by 20.2.72.203.A.5 NMAC. This plan shall be kept on site to be made available to the Department upon request. This plan should not be submitted with this application.

☑ **Title V** (20.2.70 NMAC)**, NSR** (20.2.72 NMAC)**, PSD** (20.2.74 NMAC) **& Nonattainment** (20.2.79 NMAC) **Sources:** By checking this box and certifying this application the permittee certifies that it has established and implemented a Plan to Minimize Emissions During Routine or Predictable Startup, Shutdown, and Scheduled Maintenance through work practice standards and good air pollution control practices as required by 20.2.7.14.A and B NMAC. This plan shall be kept on site or at the nearest field office to be made available to the Department upon request. This plan should not be submitted with this application.

Section 15

Alternative Operating Scenarios

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

Alternative Operating Scenarios: Provide all information required by the department to define alternative operating scenarios. This includes process, material and product changes; facility emissions information; air pollution control equipment requirements; any applicable requirements; monitoring, recordkeeping, and reporting requirements; and compliance certification requirements. Please ensure applicable Tables in this application are clearly marked to show alternative operating scenario.

Construction Scenarios: When a permit is modified authorizing new construction to an existing facility, NMED includes a condition to clearly address which permit condition(s) (from the previous permit and the new permit) govern during the interval between the date of issuance of the modification permit and the completion of construction of the modification(s). There are many possible variables that need to be addressed such as: Is simultaneous operation of the old and new units permitted and, if so for example, for how long and under what restraints? In general, these types of requirements will be addressed in Section A100 of the permit, but additional requirements may be added elsewhere. Look in A100 of our NSR and/or TV permit template for sample language dealing with these requirements. Find these permit templates at: www.env.nm.gov/air-quality/permitting-section-procedures-and-guidance/. Compliance with standards must be maintained during construction, which should not usually be a problem unless simultaneous operation of old and new equipment is requested.

In this section, under the bolded title "Construction Scenarios", specify any information necessary to write these conditions, such as: conservative-realistic estimated time for completion of construction of the various units, whether simultaneous operation of old and new units is being requested (and, if so, modeled), whether the old units will be removed or decommissioned, any PSD ramifications, any temporary limits requested during phased construction, whether any increase in emissions is being requested as SSM emissions or will instead be handled as a separate Construction Scenario (with corresponding emission limits and conditions, etc.

N/A - There are no proposed alternative operating scenarios or construction scenarios proposed as part of this application.

Section 16

Air Dispersion Modeling

1) Minor Source Construction (20.2.72 NMAC) and Prevention of Significant Deterioration (PSD) (20.2.74 NMAC) ambient impact analysis (modeling): Provide an ambient impact analysis as required at 20.2.72.203.A(4) and/or 20.2.74.303 NMAC and as outlined in the Air Quality Bureau's Dispersion Modeling Guidelines found on the Planning Section's modeling website. If air dispersion modeling has been waived for one or more pollutants, attach the AQB Modeling Section modeling waiver approval documentation.
2) SSM Modeling: Applicants must conduct dispersion modeling for the total short term emissions during routine or predictable startup, shutdown, or maintenance (SSM) using realistic worst case scenarios following guidance from the Air Quality Bureau's dispersion modeling section. Refer to "Guidance for Submittal of Startup, Shutdown, Maintenance Emissions in Permit Applications (http://www.env.nm.gov/aqb/permit/app_form.html) for more detailed instructions on SSM emissions modeling requirements.
3) Title V (20.2.70 NMAC) ambient impact analysis: Title V applications must specify the construction permit and/or Title V Permit number(s) for which air quality dispersion modeling was last approved. Facilities that have only a Title V permit, such as landfills and air curtain incinerators, are subject to the same modeling required for preconstruction permits required by 20.2.72 and 20.2.74 NMAC.

What is the purpose of this application?	Enter an X for each purpose that applies
New PSD major source or PSD major modification (20.2.74 NMAC). See #1 above.	
New Minor Source or significant permit revision under 20.2.72 NMAC (20.2.72.219.D NMAC). See #1 above. **Note:** Neither modeling nor a modeling waiver is required for VOC emissions.	X
Reporting existing pollutants that were not previously reported.	
Reporting existing pollutants where the ambient impact is being addressed for the first time.	
Title V application (new, renewal, significant, or minor modification. 20.2.70 NMAC). See #3 above.	
Relocation (20.2.72.202.B.4 or 72.202.D.3.c NMAC)	
Minor Source Technical Permit Revision 20.2.72.219.B.1.d.vi NMAC for like-kind unit replacements.	
Other: i.e. SSM modeling. See #2 above.	
This application does not require modeling since this is a No Permit Required (NPR) application.	
This application does not require modeling since this is a Notice of Intent (NOI) application (20.2.73 NMAC).	
This application does not require modeling according to 20.2.70.7.E(11), 20.2.72.203.A(4), 20.2.74.303, 20.2.79.109.D NMAC and in accordance with the Air Quality Bureau's Modeling Guidelines.	

Check each box that applies:

☐ See attached, approved modeling **waiver for all** pollutants from the facility.
☐ See attached, approved modeling **waiver for some** pollutants from the facility.
☑ Attached in Universal Application Form 4 (UA4) is a **modeling report for all** pollutants from the facility.
☐ Attached in UA4 is a **modeling report for some** pollutants from the facility.
☐ No modeling is required.

Section 17

Compliance Test History

(Submitting under 20.2.70, 20.2.72, 20.2.74 NMAC)

To show compliance with existing NSR permits conditions, you must submit a compliance test history. The table below provides an example.

No compliance tests have been conducted at this facility since the facility has not yet been constructed.

Section 20

Other Relevant Information

Other relevant information. Use this attachment to clarify any part in the application that you think needs explaining. Reference the section, table, column, and/or field. Include any additional text, tables, calculations or clarifying information.

Additionally, the applicant may propose specific permit language for AQB consideration. In the case of a revision to an existing permit, the applicant should provide the old language and the new language in track changes format to highlight the proposed changes. If proposing language for a new facility or language for a new unit, submit the proposed operating condition(s), along with the associated monitoring, recordkeeping, and reporting conditions. In either case, please limit the proposed language to the affected portion of the permit.

Enforceable 1,600 MW operating cap:

To further address the NMED's guidance to ensure YGI prioritizes the environmental impact, YGI is requesting that a term and condition be added to the draft permit which limits the facility's operation of its 2,462 MW permitted capacity, through both an hourly limit and lower annual limits on output. The facility is being constructed with redundancy to ensure reliability for electricity delivery. As a result, YGI will not operate the facility at more than 1,600 MW, which represents 65% of the 2,462 MW. To more accurately reflect this operational limit and associated emissions, YGI requests a permit condition which would limit capacity for the microgrid in the form of an hourly and annual limit. This limit could either be in the form of an hourly and annual limit on the output capacity in annual MW-hour. This enforceable condition would significantly reduce maximum allowable emissions from the facility as shown in the table below. Emissions from the original application reflecting the entire nameplate capacity are shown, as are the reduced emissions based on the 65% operational limitation. YGI has included the emissions based on nameplate capacity in Table 2-D, and the requested allowable emissions in Table 2-E.

YGI has also completed modeling of a scenario representing 100% of the stacks (1,263) operating at 100% of their capacity (2,462 MW) and associated exhaust parameters, resulting in the most conservative model results (i.e., lowest exhaust temperature). This scenario assumes that all units will be running at 100% load capacity, at an ambient temperature of 0 °C. This was done to ensure that, regardless of how YGI meets the 1,600 MW operating cap, its operations will comply with the NAAQS. The facility will not operate above the requested 1,600 MW, this scenario models all 2,462 MW from all 1,263 stacks to provide assurance that the worst-case assumptions will be protective of the NAAQS. YGI has provided two versions of both Table 2-G and 2-H which reflect the associated emissions and stack parameters with each of these modeling scenarios. One set of Tables 2-G and 2-H (subtitled "1600 MW") represents the modeling scenario assuming the 1,600 MW operational cap, and requested allowable emissions from Table 2-E. The other set of Tables 2-G and 2-H (subtitled "Full Load") represents the modeling scenario assuming 100% of nameplate capacity (i.e., 2,462 MW) and maximum emissions prior to the voluntary limit as shown in Table 2-D.

Universal Application 4

Air Dispersion Modeling Report

Refer to and complete Section 16 of the Universal Application form (UA3) to assist your determination as to whether modeling is required. If, after filling out Section 16, you are still unsure if modeling is required, e-mail the completed Section 16 to the AQB Modeling Manager for assistance in making this determination. If modeling is required, a modeling protocol would be submitted and approved prior to an application submittal. The protocol should be emailed to the modeling manager. A protocol is recommended but optional for minor sources and is required for new PSD sources or PSD major modifications. Fill out and submit this portion of the Universal Application form (UA4), the "Air Dispersion Modeling Report", only if air dispersion modeling is required for this application submittal. This serves as your modeling report submittal and should contain all the information needed to describe the modeling. No other modeling report or modeling protocol should be submitted with this permit application.

16-A: Identification

1	Name of facility:	YGI Microgrid
2	Name of company:	Yucca Growth Infrastructure, LLC (YGI)
3	Current Permit number:	TBD
4	Name of applicant's modeler:	Trinity Consultants
5	Phone number of modeler:	505-266-6611
6	E-mail of modeler:	trinitynm@trinityconsultants.com

16-B: Brief

1	Was a modeling protocol submitted and approved? A modeling protocol has not been submitted for this permit application.	Yes☐	No☒
2	Why is the modeling being done?	New Facility	
3	Describe the permit changes relevant to the modeling.		
	This application is being submitted for a new facility, under a 20.2.72 NMAC application.		
4	What geodetic datum was used in the modeling?	WGS84	
5	How long will the facility be at this location?	More than 1 year	
6	Is the facility a major source with respect to Prevention of Significant Deterioration (PSD)?	Yes☐	No☒

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7	Identify the Air Quality Control Region (AQCR) in which the facility is located	153	
8	List the PSD baseline dates for this region (minor or major, as appropriate).		
	NO2	8/2/1995	
	SO2	N/A	
	PM10	6/16/2000	
	PM2.5	N/A	
9	Provide the name and distance to Class I areas within 50 km of the facility (300 km for PSD permits).		
	N/A – There are no Class I areas within 50 km of the facility.		
10	Is the facility located in a non-attainment area? If so describe below	Yes☐	No☒
	N/A		
11	Describe any special modeling requirements, such as streamline permit requirements.		
	N/A		

16-C: Modeling History of Facility

Describe the modeling history of the facility, including the air permit numbers, the pollutants modeled, the National Ambient Air Quality Standards (NAAQS), New Mexico AAQS (NMAAQS), and PSD increments modeled. (Do not include modeling waivers).

Pollutant	Latest permit and modification number that modeled the pollutant facility-wide.	Date of Permit	Comments
CO	N/A	N/A	This application is an initial permit application.
NO_2	N/A	N/A	This application is an initial permit application.
SO_2	N/A	N/A	This application is an initial permit application.
H_2S	N/A	N/A	This application is an initial permit application.
PM2.5	N/A	N/A	This application is an initial permit application.
PM10	N/A	N/A	This application is an initial permit application.
Lead	N/A	N/A	This application is an initial permit application.
Ozone (PSD only)	N/A	N/A	This application is an initial permit application.
NM Toxic Air Pollutants (20.2.72.402 NMAC)	N/A	N/A	This application is an initial permit application.

16-D: Modeling performed for this application

For each pollutant, indicate the modeling performed and submitted with this application.
Choose the most complicated modeling applicable for that pollutant, i.e., culpability analysis assumes ROI and cumulative analysis were also performed.

Pollutant	ROI	Cumulative analysis	Culpability analysis	Waiver approved	Pollutant not emitted or not changed.
CO	☒	☐	☐	☐	☐

	NO_2	☐	☒	☐	☐	☐
	SO_2	☒	☐	☐	☐	☐
	H_2S	☐	☐	☐	☐	☒
	PM2.5	☐	☒	☐	☐	☐
	PM10	☐	☒	☐	☐	☐
	Lead	☐	☐	☐	☐	☒
	Ozone	☐	☐	☐	☐	☒
	State air toxic(s) (20.2.72.402 NMAC)	☐	☐	☐	☐	☒

16-E: New Mexico toxic air pollutants modeling

1 List any New Mexico toxic air pollutants (NMTAPs) from Tables A and B in 20.2.72.502 NMAC that are modeled for this application.
N/A – there are no NMTAPs at this facility.

2 List any NMTAPs that are emitted but not modeled because stack height correction factor. Add additional rows to the table below, if required. N/A – there are no NMTAPs at this facility.

Pollutant	Emission Rate (pounds/hour)	Emission Rate Screening Level (pounds/hour)	Stack Height (meters)	Correction Factor	Emission Rate/ Correction Factor

16-F: Modeling options

1	Was the latest version of AERMOD used with regulatory default options? If not explain below.	Yes☒	No☐

16-G: Surrounding source modeling

1	Date of surrounding source retrieval	9/17/25

2 If the surrounding source inventory provided by the Air Quality Bureau was believed to be inaccurate, describe how the sources modeled differ from the inventory provided. If changes to the surrounding source inventory were made, use the table below to describe them. Add rows as needed.

AQB Source ID	Description of Corrections
TCEQ Sources	Per request from NMED, YGI is including nearby sources in Texas, which were provided by TCEQ. These are included as part of the submittal package.
TCEQ Sources: 730090 730095 730099 730100 730103	These sources (RN100220276) are located in Houston, TX and should have not been provided with the TCEQ files.
26582@1	$PM_{2.5}$, PM_{10}: For the Rinker Santa Teresa Pipe (AI# 26582) facility, PM_{10} and $PM_{2.5}$ emission rates were based off 95 tpy total suspended particulate from the GCP-5 #3602 permit for concrete batch plants.

		The emissions rates for PM_{10} and $PM_{2.5}$ were ratioed based on particle size multiplier constants taken from AP-42 Chapter 13.2.4 for Aggregate Handling and Storage Piles. The new values are 10.28 lb/hr PM_{10} and 1.55 lb/hr $PM_{2.5}$.
	38354@1	$PM_{2.5}$, PM_{10}: For the MiniConcrete Materials Concrete Batch Plant – No 7 (AI# 38354) facility, PM_{10} and $PM_{2.5}$ emission rates were based off 95 tpy total suspended particulate from the GCP-5 #7756 permit for concrete batch plants. The emissions rates for PM_{10} and $PM_{2.5}$ were ratioed based on particle size multiplier constants taken from AP-42 Chapter 13.2.4 for Aggregate Handling and Storage Piles. The new values are 20.56 lb/hr PM_{10} and 3.11 lb/hr $PM_{2.5}$.
	28823E1 28823E2 28823E3 28823E9 28823R1	All pollutants: For the NM SunTower facility (AI# 28823), the permitted source (NSR permit 4171, solar thermal) was never constructed. The project defaulted in 2010 and no equipment is present in satellite imagery at the permitted location. Sources removed from the inventory.
	133A9	$PM_{2.5}$, PM_{10}, CO: For the FXI Holdings – Santa Teresa Plant (AI# 133), the emission rate and discharge parameters were updated from permit 0624M5R7 (issued June 13, 2014) and the 2013 permit application (Table 2-H). The new emission rate for PM_{10} and $PM_{2.5}$ is 1.7 lb/hr and CO is 2.2 lb/hr, modeled as a 100-ft capped point source in place of the 10-m volume source.
	28218E1 28218E2 28218E3 28218E4 28218E8 28218R1 28218R2	All pollutants: For the Johnson Plate and Tower – Santa Teresa Facility (AI# 28218), the facility permanently closed following a 2014 bankruptcy and the paint booth and oven line were auctioned. No active source is listed in RSMT or EPA ECHO. Sources removed from the inventory.
	131A1	All pollutants: For the Hydro Conduit facility (AI# 131), the facility no longer exists and the site has been redeveloped as a residential subdivision. The successor operation is separately inventoried as AI# 26582. Source removed from the inventory.
	154A1	$PM_{2.5}$, PM_{10}: For the Georgia-Pacific Vista Corrugated Paper Plant (AI# 154), the source (waste paperboard particulate control device) was updated with Table 39 discharge parameters, and PM_{10} and $PM_{2.5}$ were ratioed from published emission factors for the same source type (NCASI trim and scrap handling cyclone testing, as adopted in ORCAA permit 21SMO1535). The new values are 0.51 lb/hr PM_{10} and 0.0086 lb/hr $PM_{2.5}$.

16-H: Building and structure downwash

1	How many buildings are present at the facility?	254		
2	How many above ground storage tanks are present at the facility?	0		
3	Was building downwash modeled for all buildings and tanks? If not explain why below.		Yes☒	No☐
	N/A – downwash was modeled for all buildings.			
4	Building comments	Downwash structures represent the modules that house the Bloom Energy Server System.		

16-I: Receptors and modeled property boundary

1	"Restricted Area" is an area to which public entry is effectively precluded. Effective barriers include continuous fencing, continuous walls, or other continuous barriers approved by the Department, such as rugged physical terrain with a steep grade that would require special equipment to traverse. If a large property is completely enclosed by fencing, a restricted area within the property may be identified with signage only. Public roads cannot be part of a Restricted Area. A Restricted Area is required in order to exclude receptors from the facility property. If the facility does not have a Restricted Area, then receptors shall be placed within the property boundaries of the facility. Describe the fence or other physical barrier at the facility that defines the restricted area.		
	The facility is enclosed by continuous fencing.		
2	Receptors must be placed along publicly accessible roads in the restricted area. Are there public roads passing through the restricted area?	Yes☐	No☒
3	Are restricted area boundary coordinates included in the modeling files?	Yes☒	No☐

4 Describe the receptor grids and their spacing. The table below may be used, adding rows as needed.

Grid Type	Shape	Spacing	Start distance from restricted area or center of facility	End distance from restricted area or center of facility	Comments
Variable Density	Square	100 m	0 m	500 m from ambient air boundary	Receptors located outside of the United States are not included in this analysis.
Variable Density	Square	500 m	500 m from ambient air boundary	5,500 m from ambient air boundary	Receptors located outside of the United States are not included in this analysis.
Variable Density	Square	1,000 m	5,500 m from ambient air boundary	20,500 m from ambient air boundary	Receptors located outside of the United States are not included in this analysis.
Variable Density	Square	1,250 m	20,500 m from ambient air boundary	50,000 m from center of facility	Receptors located outside of the United States are not included in this analysis.

5	Describe receptor spacing along the fence line. 25-m resolution along the ambient air boundary.
6	Describe the PSD Class I area receptors. N/A – There are no Class I areas within 50 km of the facility.

16-J: Modeling Scenarios

1	Identify, define, and describe all modeling scenarios. Examples of modeling scenarios include using different production rates, times of day, times of year, simultaneous or alternate operation of old and new equipment during transition periods, etc. Alternative operating scenarios should correspond to all parts of the Universal Application and should be fully described in Section 15 of the Universal Application (UA3). The UA-4 form contains two modeling scenarios. The first model scenario reflects the 1,600 MW operating cap that was proposed in the letter to the NMED sent on October 14, 2026, as total emission rates that are modeled reflect the facility's limited operation. Additionally, in order to ensure that regardless of how YGI meets the 1,600 MW operating cap, the facility will comply with the NAAQS, YGI is also including a model that represents 100% of the stacks operating at 100% of their capacity with exhaust parameters that would result in the most conservative model results. The facility will never

	operate above the requested 1,600 MW cap, but this scenario shows that regardless of the operating load of each individual stack in the model, the worst-case assumptions will be protective of the NAAQS.		
2	Which scenario produces the highest concentrations? Why?		
	The 100% load scenario produces higher concentrations as it has higher emission rates.		
3	Were emission factor sets used to limit emission rates or hours of operation? (This question pertains to the "SEASON", "MONTH", "HROFDY" and related factor sets, not to the factors used for calculating the maximum emission rate.)	Yes☐	No☒
4	If so, describe factors for each group of sources. List the sources in each group before the factor table for that group. (Modify or duplicate table as necessary. It's ok to put the table below section 16-K if it makes formatting easier.) Sources:		

5

Hour of Day	Factor	Hour of Day	Factor								
1		13									
2		14									
3		15									
4		16									
5		17									
6		18									
7		19									
8		20									
9		21									
10		22									
11		23									
12		24									

	If hourly, variable emission rates were used that were not described above, describe them below.		
	N/A – no variable emission rates were used.		
6	Were different emission rates used for short-term and annual modeling? If so describe below.	Yes☐	No☒
	N/A – emission rates match those presented in Table 2-G.		

16-K: NO_2 Modeling

1	Which types of NO_2 modeling were used? Check all that apply.	
	☒	ARM2
	☐	100% NO_X to NO_2 conversion
	☐	PVMRM
	☐	OLM
	☐	Other:
2	Describe the NO_2 modeling.	
	The ARM2 methodology was used with the default maximum and minimum ambient ratios.	

3	Were default NO_2/NO_X ratios (0.5 minimum, 0.9 maximum or equilibrium) used? If not describe and justify the ratios used below.	Yes☒	No☐
4	Describe the design value used for each averaging period modeled.		
	1-hour: 98th percentile as calculated by AERMOD Annual Other (Describe): : Highest Annual Average of Five Years		

16-L: Ozone Analysis

1	NMED has performed a generic analysis that demonstrates sources that are minor with respect to PSD do not cause or contribute to any violations of ozone NAAQS. The analysis follows. The basis of the ozone SIL is documented in *Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program*, EPA, April 17, 2018 and associated documents. NMED accepts this SIL basis and incorporates it into this permit record by reference. Complete documentation of the ozone concentration analysis using MERPS is included in the New Mexico Air Quality Bureau Air Dispersion Modeling Guidelines (Revised June 2026).		
2	The MERP values presented in Table 10 and Table 11 of the NM AQB Modeling Guidelines that produce the highest concentrations indicate that facilities emitting no more than 250 tons/year of NO_X and no more than 250 tons/year of VOCs will cause less formation of O_3 than the O_3 significance level. $$[O_3]_{8-hour} = \left(\frac{250 \frac{ton}{yr}}{340_{MERP_{NOX}}} + \frac{250 \frac{ton}{yr}}{4679_{MERP_{VOC}}} \right) \times 1.96\ \mu g/m^3$$ =1.546 µg/m³, which is below the significance level of 1.96 µg/m³. Sources that produce ozone concentrations below the ozone SIL do not cause or contribute to air contaminant levels exceeding the ozone NAAQS. Notwithstanding, permit applicants routinely perform hypothetical modeling calculations using the MERPs tool and the Dispersion Guidelines in order to demonstrate that the project will not cause or contribute to an ozone NAAQS. Such a project-specific calculation is presented in items 3–5, below, even though the facility will not emit more than 250 tons/year of NOx and 250 tons/year of VOC.		
3	Does the facility emit at least 250 tons per year of NO_X or at least 250 tons per year of VOCs? Sources that emit at least 250 tons per year of NO_X or at least 250 tons per year of VOCs are covered by the analysis above and require an individual analysis.	Yes☐	No☒

5 For new PSD Major Sources or PSD major modifications, if MERPs were used to account for ozone fill out the information below. If another method was used describe below. The facility is not a PSD Major source. It is a minor source and is providing MERPS information voluntarily in accordance with EPA's most recent MERP guidance.

NO_X (ton/yr)	$MERP_{NOX}$	VOCs (ton/yr)	$MERP_{VOC}$	$[O_3]_{8\text{-hour}}$
24.18	413.5	80.59	82121	0.0595 ppb

Secondary formation of ozone from the YGI Microgrid is estimated using Equation 2 from "Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ under the PSD Permitting Program" from EPA (MERPs guidance). Equation 2 is equivalent to the equation preceding Table 10 in the NM AQB Modeling Guidelines, understanding that the MERP (see below) is the inverse of the quotient in equation 2, and the ozone impact is the linear combination of the expressions for the NO_X and VOC-specific impacts, which result may be expressed in units of either ppb or µg/m³. Equation 2 was computed for NO_X and VOC-specific impacts; the results were added; and a final result was compared to the EPA-recommended de minimis level of 1.0 ppb. The hypothetical source in

	Otero County, NM was selected based on the criteria provided in the MERPs guidance, which include proximity, terrain and land use, climate, regional sources of pollutants, and background pollutant concentrations. Otero County's proximity to the East Microgrid along with similarities in terrain were the primary reasons for selecting it as a hypothetical source. Under EPA's guidance, the modeled air quality impact from a hypothetical source of 500 tons/yr (the closest value to the project's annual emissions) is 1.209116 ppb for a 500 tpy NOX source and 0.0006089 ppb for a 500 tpy VOC source. Comparing these results with the project emission rates, the project impact for ozone would be 0.0595 ppb, which is below the significance threshold of 1.0 ppb. Eq. 2: $Project\ Impact = Project\ emission\ rate \times \frac{Modeled\ Air\ Quality\ Impact\ from\ Hypothetical\ Source}{Modeled\ emission\ rate\ from\ Hypothetical\ Source}$ The Modeled Air Quality Impact for NOx and VOC were provided by EPA's MERPs View Qlik tool. YGI is using MERP values from the hypothetical source in Otero County, NM. Based on the range of stack heights, the modeled impacts associated with a 10 m stack were used from this analysis. To calculate the MERP value listed above, YGI used the following equation: $$MERP = \frac{500\ tpy}{Modeled\ Air\ Quality\ Impact}$$

16-M: Particulate Matter Modeling

1	Select the pollutants for which plume depletion modeling was used.				
	☐	PM2.5			
	☐	PM10			
	☒	None			
2	Describe the particle size distributions used. Include the source of information.				
	N/A				
3	Does the facility emit at least 40 tons per year of NO_X or at least 40 tons per year of SO_2? Sources that emit at least 40 tons per year of NO_X or at least 40 tons per year of SO_2 are considered to emit significant amounts of precursors and must account for secondary formation of PM2.5.			Yes☐	No☒
4	Was secondary PM modeled for PM2.5?			Yes☐	No☒
5	If MERPs were used to account for secondary PM2.5 fill out the information below. If another method was used describe below. N/A – the source emits less than 40 tons per year of NOx and SO2.				
	Pollutant	NO_X	SO_2		$[PM2.5]_{24\text{-hour}}$
	$MERP_{annual}$	N/A	N/A		N/A
	$MERP_{24\text{-hour}}$	N/A	N/A		$[PM2.5]_{annual}$
	Emission rate (ton/yr)	N/A	N/A		N/A
	N/A				

16-N: Setback Distances

1	Portable sources or sources that need flexibility in their site configuration requires that setback distances be determined between the emission sources and the restricted area boundary (e.g. fence line) for both the initial location and future locations. Describe the setback distances for the initial location.

	N/A
2	Describe the requested, modeled, setback distances for future locations, if this permit is for a portable stationary source. Include a haul road in the relocation modeling.
	N/A

16-O: PSD Increment and Source IDs

1	The unit numbers in the Tables 2-A, 2-B, 2-C, 2-E, 2-F, and 2-I should match the ones in the modeling files. Do these match? If not, provide a cross-reference table between unit numbers if they do not match below.	Yes☐	No☒
	Unit Number in UA-2	Unit Number in Modeling Files	
	SOFC	See attachment for Unit Number in Modeling Files	
2	The emission rates in the Tables 2-E and 2-F should match the ones in the modeling files. Do these match? If not, explain why below.	Yes☐	No☒
	SOFC emissions are split across 1,263 stacks. Refer to Table 2-G of the application for details regarding the stack configuration and associated emissions.		
3	Have the minor NSR exempt sources or Title V Insignificant Activities" (Table 2-B) sources been modeled?	Yes☐	No☒

4 Which units consume increment for which pollutants?

Unit ID	NO_2	SO_2	PM10	PM2.5
SOFC (All stacks)	X		X	

5	PSD increment description for sources. (for unusual cases, i.e., baseline unit expanded emissions after baseline date).	YGI is planning to install an energy server system.

6	Are all the actual installation dates included in Table 2A of the application form, as required? This is necessary to verify the accuracy of PSD increment modeling. If not please explain how increment consumption status is determined for the missing installation dates below.	Yes☐	No☒
	All units at this facility have not yet been constructed; therefore, no installation dates have occurred. All units are assumed to be increment consumers for pollutants that have a minor source baseline date established.		

16-P: Flare Modeling

1 For each flare or flaring scenario, complete the following

	Flare ID (and scenario)	Average Molecular Weight	Gross Heat Release (cal/s)	Effective Flare Diameter (m)
	N/A			

16-Q: Volume and Related Sources

1	Were the dimensions of volume sources different from standard dimensions in the Air Quality Bureau (AQB) Modeling Guidelines? If not please explain how increment consumption status is determined for the missing installation dates below.	Yes☐	No☐
	N/A – no volume sources were modeled as part of this facility.		
	Describe the determination of sigma-Y and sigma-Z for fugitive sources.		

2	N/A – no fugitive sources were modeled as part of this facility.
3	Describe how the volume sources are related to unit numbers. Or say they are the same.
	N/A – no volume sources were modeled as part of this facility.
4	Describe any open pits.
	N/A – there are no open pits as part of this facility.
5	Describe emission units included in each open pit.
	N/A – there are no open pits as part of this facility.

16-R: Background Concentrations

1	Were NMED provided background concentrations used? Identify the background station used below. If non-NMED provided background concentrations were used describe the data that was used.	Yes☒	No☐
	CO: Choose an item.		
	NO_2: US-Mexico Border Crossing (350130021)		
	PM2.5: Sunland Park (350130021) – See Comment below		
	PM10: N/A – See Comment below		
	SO_2: Choose an item.		
	Other:		
	Comments:	YGI is utilizing the PM_{10} 24-hour second high background concentration for the Sunland Park (6ZM Desert View) monitor and the $PM_{2.5}$ 24-hour 98th percentile background concentration and the $PM_{2.5}$ Annual background concentration for the 6ZN, Santa Teresa (350130022) monitor. The NO_2 1-hr 98th percentile background concentration for the US-Mexico Border Crossing was used in only the 100% load modeling scenario.	
2	Were background concentrations refined to monthly or hourly values? If so describe below.	Yes☐	No☒

16-S: Meteorological Data

1	Was NMED provided meteorological data used? If so select the station used. Sunland Park (Desert View)	Yes☒	No☐
2	If NMED provided meteorological data was not used describe the data set(s) used below. Discuss how missing data were handled, how stability class was determined, and how the data were processed.		
	N/A – NMED provided meteorological data was used.		

16-T: Terrain

1	Was complex terrain used in the modeling? If not, describe why below.	Yes☒	No☐

	N/A
2	What was the source of the terrain data?
	Terrain was incorporated into the modeling analysis through the use of AERMAP with the most recent 1/3 degree NED Data currently available from https://apps.nationalmap.gov/downloader

16-U: Modeling Files

1

Describe the modeling files:

Significant Impact Models
- Input file name format "YGIMG_Poll AvgPer_SIL Input.inp"
- Output file name format "YGIMG_Poll AvgPer_SIL Output.out"
- "Poll" = NO2 (nitrogen oxides), CO (carbon monoxide), PM10 (particulate matter, PM_{10}), PM2.5 (particulate matter, $PM_{2.5}$), SO2 (sulfur dioxide)
- "AvgPer" = averaging period. 1hr = 1 hour, etc. Ann = annual
- "SIL" – SIL designator
- "SX" – Scenario. S1 = 1,600 MW, S2 = 100% Load (2,462 MW)
- Files may contain multiple SIL for short-term, annual, and increment averaging periods and multiple scenarios.

NM/NAAQS and Increment Models
- Input file name format "YGIMG_Poll AvgPer_Standard Input.inp"
- Output file name format "YGIMG_Poll AvgPer_Standard Output.out"
- "Poll" = NO2 (nitrogen oxides), CO (carbon monoxide), PM10 (particulate matter, PM_{10}), PM2.5 (particulate matter, $PM_{2.5}$), SO2 (sulfur dioxide)
- "AvgPer" = averaging period. 1hr = 1 hour, etc. Ann = annual
- "Standard" = air quality standard. PSD = PSD Increment Class II, NAAQS = NAAQS
- "SX" – Scenario. S1 = S1 = 1,600 MW, S2 = 100% Load (2,462 MW)

BPIP and AERMAP files have also been included with this submittal.

File name (or folder and file name)	Pollutant(s)	Purpose (ROI/SIA, cumulative, culpability analysis, other)
YGIMG_CO 1-hr 8-hr_SIL S1 Input.inp	CO	ROI/SIA
YGIMG_NO2 1-hr_SIL S1 Input.inp	NO_2	ROI/SIA
YGIMG_NO2 24-hr_SIL S1 Input.inp	NO_2	ROI/SIA
YGIMG_NO2 Ann_SIL S1 Input.inp	NO_2	ROI/SIA
YGIMG_PM2.5 24-hr_SIL S1 Input.inp	$PM_{2.5}$	ROI/SIA
YGIMG_PM2.5 Ann_SIL S1 Input.inp	$PM_{2.5}$	ROI/SIA
YGIMG_PM10 24-hr_SIL S1 Input.inp	PM_{10}	ROI/SIA
YGIMG_PM10 Ann_SIL S1 Input.inp	PM_{10}	ROI/SIA
YGIMG_SO2 1-hr_SIL S1 Input.inp	SO_2	ROI/SIA
YGIMG_SO2 3-hr 24-hr Ann_SIL S1 Input.inp	SO_2	ROI/SIA
YGIMG_PM2.5 24-hr_NAAQS S1 Input.inp	$PM_{2.5}$	Cumulative – 24-hr NAAQS
YGIMG_PM2.5 Ann_NAAQS S1 Input.inp	$PM_{2.5}$	Cumulative – Annual NAAQS
YGIMG_CO 1-hr 8-hr_SIL S2 Input.inp	CO	ROI/SIA
YGIMG_NO2 1-hr_SIL S2 Input.inp	NO_2	ROI/SIA
YGIMG_NO2 24-hr_SIL S2 Input.inp	NO_2	ROI/SIA
YGIMG_NO2 Ann_SIL S2 Input.inp	NO_2	ROI/SIA

	YGIMG_PM2.5 24-hr_SIL S2 Input.inp	$PM_{2.5}$	ROI/SIA
	YGIMG_PM2.5 Ann_SIL S2 Input.inp	$PM_{2.5}$	ROI/SIA
	YGIMG_PM10 24-hr_SIL S2 Input.inp	PM_{10}	ROI/SIA
	YGIMG_PM10 Ann_SIL S2 Input.inp	PM_{10}	ROI/SIA
	YGIMG_SO2 1-hr_SIL S2 Input.inp	SO_2	ROI/SIA
	YGIMG_SO2 3-hr 24-hr Ann_SIL S2 Input.inp	SO_2	ROI/SIA
	YGIMG_PM2.5 24-hr_NAAQS S2 Input.inp	$PM_{2.5}$	Cumulative – 24-hr NAAQS
	YGIMG_PM2.5 Ann_NAAQS S2 Input.inp	$PM_{2.5}$	Cumulative – Annual NAAQS
	YGIMG_PM10 24-hr_NAAQS S2 Input.inp	PM_{10}	Cumulative – 24-hr NAAQS
	YGIMG_PM10 24-hr_PSD S2 Input.inp	PM_{10}	Cumulative – 24-hr Class II PSD Increment
	YGIMG_PM10 Ann_PSD S2 Input.inp	PM_{10}	Cumulative – Annual Class II PSD Increment
	YGI_NO2 1-hr_NAAQS S2 Input.inp	NO_2	Cumulative – 1-hr NAAQS
	YGIMG_CO 1-hr 8-hr_SIL S1 Output.out	CO	ROI/SIA
	YGIMG_NO2 1-hr_SIL S1 Output.out	NO_2	ROI/SIA
	YGIMG_NO2 24-hr_SIL S1 Output.out	NO_2	ROI/SIA
	YGIMG_NO2 Ann_SIL S1 Output.out	NO_2	ROI/SIA
	YGIMG_PM2.5 24-hr_SIL S1Output.out	$PM_{2.5}$	ROI/SIA
	YGIMG_PM2.5 Ann_SIL S1 Output.out	$PM_{2.5}$	ROI/SIA
	YGIMG_PM10 24-hr_SIL S1 Output.out	PM_{10}	ROI/SIA
	YGIMG_PM10 Ann_SIL S1 Output.out	PM_{10}	ROI/SIA
	YGIMG_SO2 1-hr_SIL S1 Output.out	SO_2	ROI/SIA
	YGIMG_SO2 3-hr 24-hr Ann_SIL S1 Output.out	SO_2	ROI/SIA
	YGIMG_PM2.5 24-hr_NAAQS S1 Output.out	$PM_{2.5}$	Cumulative – 24-hr NAAQS
	YGIMG_PM2.5 Ann_NAAQS S1 Output.out	$PM_{2.5}$	Cumulative – Annual NAAQS
	YGIMG_CO 1-hr 8-hr_SIL S2 Output.out	CO	ROI/SIA
	YGIMG_NO2 1-hr_SIL S2 Output.out	NO_2	ROI/SIA
	YGIMG_NO2 24-hr_SIL S2 Output.out	NO_2	ROI/SIA
	YGIMG_NO2 Ann_SIL S2 Output.out	NO_2	ROI/SIA
	YGIMG_PM2.5 24-hr_SIL S2 Output.out	$PM_{2.5}$	ROI/SIA
	YGIMG_PM2.5 Ann_SIL S2 Output.out	$PM_{2.5}$	ROI/SIA
	YGIMG_PM10 24-hr_SIL S2 Output.out	PM_{10}	ROI/SIA
	YGIMG_PM10 Ann_SIL S2 Output.out	PM_{10}	ROI/SIA
	YGIMG_SO2 1-hr_SIL S2 Output.out	SO_2	ROI/SIA
	YGIMG_SO2 3-hr 24-hr Ann_SIL S2 Output.out	SO_2	ROI/SIA
	YGIMG_PM2.5 24-hr_NAAQS S2 Output.out	$PM_{2.5}$	Cumulative – 24-hr NAAQS
	YGIMG_PM2.5 Ann_NAAQS S2 Output.out	$PM_{2.5}$	Cumulative – Annual NAAQS
	YGIMG_PM10 24-hr_NAAQS S2 Output.out	PM_{10}	Cumulative – 24-hr NAAQS

	YGIMG_PM10 24-hr_PSD Output.out	PM_{10}	Cumulative – 24-hr Class II PSD Increment
	YGIMG_PM10 Ann_PSD Output.out	PM_{10}	Cumulative – Annual Class II PSD Increment
	YGI_NO2 1-hr_NAAQS S2 Output.out	NO_2	Cumulative – 1-hr NAAQS

16-V: PSD New or Major Modification Applications – N/A

1	A new PSD major source or a major modification to an existing PSD major source requires additional analysis. Was preconstruction monitoring done (see 20.2.74.306 NMAC and PSD Preapplication Guidance on the AQB website)?	Yes☐	No☐
2	If not, did AQB approve an exemption from preconstruction monitoring?	Yes☐	No☐
3	Describe how preconstruction monitoring has been addressed or attach the approved preconstruction monitoring or monitoring exemption.		
4	Describe the additional impacts analysis required at 20.2.74.304 NMAC.		
5	If required, have ozone and secondary PM2.5 ambient impacts analyses been completed? If so describe below.	Yes☐	No☐

16-W: Modeling Results – 1,600 MW

1	If ambient standards are exceeded because of surrounding sources, a culpability analysis is required for the source to show that the contribution from this source is less than the significance levels for the specific pollutant. Was culpability analysis performed? If so describe below.	Yes☐	No☒
	N/A – no culpability analyses were performed for this application.		
2	Identify the maximum concentrations from the modeling analysis. Rows may be modified, added and removed from the table below as necessary.		

Pollutant, Time Period and Standard	Modeled Facility Concentration ($\mu g/m^3$)	Modeled Concentration with Surrounding Sources ($\mu g/m^3$)	Secondary PM ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Cumulative Concentration ($\mu g/m^3$)	Modeled Facility Concentration ($\mu g/m^3$)	Percent of Standard	Location		
								UTM E (m)	UTM N (m)	Elevation (ft)
CO 8-hr SIL	12.84	-	-	-	12.84	500	2.6%	341493	3522209	4092.75
CO 1-hr SIL	29.55	-	-	-	29.55	2000	1.5%	340900	3522500	4109.81
NO_2 Annual SIL	0.39	-	-	-	0.39	1	38.5%	340558	3521806	4116.14
NO_2 24-hr SIL	2.13	-	-	-	2.13	5	42.5%	340561	3521031	4113.98
NO_2 1-hr SIL	4.60	-	-	-	4.60	7.52	61.2%	340800	3522325	4109.09
$PM_{2.5}$ Annual SIL	0.84	-	-	-	0.84	0.13	645.3%	340558	3521831	4116.40
$PM_{2.5}$ 24-hr SIL	4.25	-	-	-	4.25	1.2	353.9%	340558	3521806	4116.14
PM_{10} Annual SIL	0.87	-	-	-	0.87	1	86.8%	340558	3521806	4116.14
PM_{10} 24-hr SIL	4.79	-	-	-	4.79	5	95.8%	340561	3521031	4113.98
SO_2 Annual SIL	0.001	-	-	-	0.001	1	0.1%	340558	3521856	4116.63

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Pollutant, Time Period and Standard	Modeled Facility Concentration (µg/m³)	Modeled Concentration with Surrounding Sources (µg/m³)	Secondary PM (µg/m³)	Background Concentration (µg/m³)	Cumulative Concentration (µg/m³)	Modeled Facility Concentration (µg/m³)	Percent of Standard	Location		
								UTM E (m)	UTM N (m)	Elevation (ft)
SO_2 24-hr SIL	0.005	-	-	-	0.005	5	0.1%	340561	3521031	4113.98
SO_2 3-hr SIL	0.008	-	-	-	0.008	25	0.0%	341520	3522113	4093.44
SO_2 1-hr SIL	0.010	-	-	-	0.010	7.8	0.1%	340800	3522325	4109.09
PM2.5 24-hr NAAQS	-	3.47	-	16	19.47	35	55.6%	340558	3521831	4116.40
PM2.5 Annual NAAQS	-	0.98	-	5.60	6.58	9	73.2%	340558	3521831	4116.40

16-W: Modeling Results – 100% Load

1	If ambient standards are exceeded because of surrounding sources, a culpability analysis is required for the source to show that the contribution from this source is less than the significance levels for the specific pollutant. Was culpability analysis performed? If so describe below.	Yes☐	No☒
	N/A – no culpability analyses were performed for this application.		
2	Identify the maximum concentrations from the modeling analysis. Rows may be modified, added and removed from the table below as necessary.		

Pollutant, Time Period and Standard	Modeled Facility Concentration (µg/m³)	Modeled Concentration with Surrounding Sources (µg/m³)	Secondary PM (µg/m³)	Background Concentration (µg/m³)	Cumulative Concentration (µg/m³)	Value of Standard (µg/m³)	Percent of Standard	Location		
								UTM E (m)	UTM N (m)	Elevation (ft)
CO 8-hr SIL	22.14	-	-	-	22.14	500	4.4%	341493	3522209	4092.75
CO 1-hr SIL	50.83	-	-	-	50.83	2000	2.5%	340900	3522400	4108.04
NO_2 Annual SIL	0.71	-	-	-	0.71	1	71.0%	341526	3521738	4102.07

Pollutant, Time Period and Standard	Modeled Facility Concentration (µg/m³)	Modeled Concentration with Surrounding Sources (µg/m³)	Secondary PM (µg/m³)	Background Concentration (µg/m³)	Cumulative Concentration (µg/m³)	Value of Standard (µg/m³)	Percent of Standard	Location		
								UTM E (m)	UTM N (m)	Elevation (ft)
NO_2 24-hr SIL	3.57	-	-	-	3.57	5	71.3%	340561	3521031	4113.98
NO_2 1-hr SIL	7.82	-	-	-	7.82	7.52	104.0%	340550	3522225	4117.42
$PM_{2.5}$ Annual SIL	1.54	-	-	-	1.54	0.13	1187.3%	341524	3521838	4098.62
$PM_{2.5}$ 24-hr SIL	7.19	-	-	-	7.19	1.2	599.2%	340558	3521806	4116.14
PM_{10} Annual SIL	1.60	-	-	-	1.60	1	159.9%	341526	3521738	4102.07
PM_{10} 24-hr SIL	8.03	-	-	-	8.03	5	160.6%	340561	3521031	4113.98
SO_2 Annual SIL	0.002	-	-	-	0.002	1	0.2%	341525	3521800	4098.85
SO_2 24-hr SIL	0.008	-	-	-	0.008	5	0.2%	340561	3521031	4113.98
SO_2 3-hr SIL	0.014	-	-	-	0.014	25	0.1%	341300	3522200	4091.83
SO_2 1-hr SIL	0.018	-	-	-	0.018	7.8	0.2%	340550	3522225	4117.42
NO2 1-hr NAAQS	-	70.42	-	87.3	157.72	188	83.9%	340625	3522350	4110.33
PM2.5 24-hr NAAQS	-	6.03	-	16	22.03	35	62.9%	340558	3521831	4116.40
PM2.5 Annual NAAQS	-	2.18	-	5.60	7.78	9	86.5%	345250	3526000	3768.21
PM10 Annual Increment	-	1.76	-	-	1.76	9	19.5%	341525	3521788	4099.41
PM10 24-hr NAAQS	-	7.66	-	119.30	126.96	150	84.6%	340558	3521856	4116.63
PM10 24-hr Increment	-	7.76	-	-	7.76	30	25.9%	340558	3521856	4116.63

16-X: Summary/conclusions	
	A statement that modeling requirements have been satisfied and that the permit can be issued.
1	YGI has demonstrated that the YGI Microgrid will neither cause nor contribute to an exceedance of any applicable standards for CO, NO_2, $PM_{2.5}$, PM_{10}, or SO_2 in both modeling scenarios: (1) the proposed 1,600 MW operating cap; and (2) the modeling scenario based on maximum emissions at 100% capacity (2,462 MW).