COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.MauiCounty.us

January 17, 2024

Ms. Brittany Zimmerman, Chief Executive Officer
Yummet Hawai'i LLC
1143 Kukuau Street
Hilo, Hawai'i 96720

Via E-mail: brittany@yummet.com

Dear Ms. Zimmerman:

SUBJECT: **ALTERNATIVE 2023 WILDFIRE DEBRIS PROCESSING SOLUTIONS** (DRIP-2(14))

Thank you for the knowledge and expertise you shared at the Maui County Council's Disaster, Resilience, International Affairs, and Planning Committee meeting of January 10, 2024.

May I please request your response to the following:

1. As it relates to your proposed technology for processing ash and debris resulting from the August 2023 wildfires on Maui Island:

   a. There is an estimated 400,000 tons of ash and debris that will need to be removed from the Lahaina burn zones. Has your proposed technology been applied commercially at a similar scale for similar materials? If so, please provide as much details of this past occurrence including when, where, and how the technology was applied, what the resulting product was, how the end product was used, if at all, and photos.

   b. Has the proposed technology been used to process ash and debris in the United States? If so, please describe at what scale, the feedstock, and the daily input and output. If not, please explain why the process has not been used before in the U.S.

c. I understand that the proposed process uses a technology where feedstock, or what you put in the system, determines the output. Will all ash and debris be considered feedstock? If not, which materials will be omitted from the process? How will these be identified and separated? What would the intended use of the omitted materials be?

d. What are the specific outputs that can be expected from the sole feedstock of ash and debris?

e. Will soil be considered feedstock? If not, how will soil be separated? What will the intended use of the separated soil be?

f. Have there been any instances where contaminated feedstock was used to produce char and then the char was used to produce concrete, similar to your organization's process?

    i. If so, please provide the sampling procedures or sampling and analysis plans, and sampling data on the contaminants in the feedstock, char, and concrete.

    ii. If not, please share the sampling and analysis plans your organization has prepared in anticipation for this use, if any. Are there any criteria that such testing will be using as limits? Will Environmental Action Levels be taken into account?

g. The State Department of Health has released its sampling results from the wildfire ash and debris at https://health.hawaii.gov/news/files/2023/12/Lahaina-Ash-Data.pdf. Has your organization utilized this information to ensure the proposed technology will work as anticipated? If so, please describe how.

h. Has a sample of Lahaina's ash mixed with debris (i.e., soil, rock, brick, tile, granite, concrete, asphalt, steel, glass, plastic, rubber, metal, wood, drywall, plaster, etc.) been obtained for evaluation and analysis to ensure it is compatible with the proposed technology?

i. Will ash and debris need to be screened, sorted, or separated for use with the proposed technology?

j. How long will the proposed technology take to process materials from start to completion? How long will it take to process all ash and debris resulting from the Lahaina burn zones?

k. Parcels impacted by the wildfires have been treated with SoilTac. Will the presence of SoilTac impact the efficacy of the proposed technology? If so, please describe how. If not, please describe why.

l. Will materials be processed on or off Maui Island? If materials will be processed on Maui, please provide a facility design and operations plan. If materials will be processed off-island, please provide the operations plan including environmental controls.

m. How much land will be needed to operate your proposed technology?

n. Please state the necessary control environment conditions (i.e., moisture, temperature, oxygen, substrate, nutrients, manpower, energy, etc.) to ensure the proposed technology will work as anticipated.

o. What environmental controls, if any, will be in place to prevent materials from running off-site or from infiltrating into the environment during the proposed process?

p. What is the anticipated end use or disposition of the treated product? Is there an established market, application, product, and viable end user with contracts in place for the utilization of the end product?

q. How will the proposed technology, outputs, or end product impact the environment?

r. Are there established engineering or agricultural specifications for application of the end product?

s. Are there any byproducts generated by the process or in the final product that will need to be managed, disposed of, or could leach into the surrounding environment?

t. Has the proposed technology been evaluated for potential impacts on a High-Density Polyethylene liner system? If so, please state the results.

u. Will any additional feedstock, such as carbon-containing materials like mulch made from woody materials, be required to process the ash and debris? If so, please state the ratio of supplementary materials to ash and debris.

v. If a material has already been combusted and is used in the proposed process, what will the output be?

w. Will the proposed technology produce a safe, usable biochar or concrete aggregate? Will it produce any other usable product?

x. Can the proposed technology be used to process abandoned vehicles, solar panels, electronics, lithium-ion batteries, or any other types of waste?

y. Please share why Yummet Hawai‘i LLC should be considered to implement the proposed technology.

z. Please provide three professional references.

2. As it relates to the proposed technology's interaction with toxic materials:

a. There are five known heavy metals contained within the ash and debris in the Lahaina burn zones. Will the proposed technology render these heavy metals, or any other contaminant such as dioxins or polychlorinated-biphenyls, inert?

b. Does the proposed technology separate toxins from the ash and debris so that they may be safely disposed? Or would heavy metals and other toxins remain mixed with the ash aggregate? If so, would they become inert when bound within concrete?

c. Does the proposed technology separate toxins from ash and debris? If so, please describe how.

d. Would scrubbers or another tool be used to capture emissions of toxins during the technology's process?

e. Has a sample of the Lahaina ash and debris been bench- or field-tested to prove how much it will reduce heavy metal contamination levels? Please explain why or why not.

f. Please quantify the effect the proposed technology will have on reducing heavy metal contamination levels, if any.

g. What toxins, if any, does the proposed technology not treat?

h. Please describe how it can be proven that the proposed technology and its end products will not produce toxins that will leach over time.

i. Unpainted concrete may be used as fill material. Will toxins be present in the concrete produced by your technology that are above unrestricted Environmental Action Levels? If so, what is the plan to address the presence of this concrete and its potential for future demolition and reuse?

3. As it relates to regulatory measures associated with the proposed technology:

a. Please provide a timeline for the proposed process from present until fully operational.

b. What approvals at the Federal, State, and County levels will be needed to utilize your proposed process?

c. Please list the regulatory permits required for the proposed process. Typically, how long does it take to obtain all necessary permits?

d. What type of land use zoning is required for the proposed process?

e. Are you aware of a property with requisite space and zoning needed to operate the proposed technology? If so, where is it and what is its proximity to the Central Maui Landfill?

4. As it relates to funding for the proposed technology:

a. Please provide a breakdown of the total cost to implement the proposed process including start-up costs and typical operating fees.

b. Please state the cost per ton of the entire process cycle for treatment in the proposed process.

c. Please state the proposed funding sources for the proposed process.

d. Does your organization intend to seek funding from any governmental entities? If so, please state which governmental agencies funding will be sought from, how much may be requested, for what purpose, and at what stage in the process the funding will be sought.

e. Will the County be charged a tipping fee for ash, debris, or municipal solid waste once the proposed process is operational? If so, please indicate the estimated tipping fee per ton.

f. Will your organization utilize a procurement process to facilitate any part of the technology's process? If so, please describe what part of the process your organization will seek an outside vendor via procurement.

g. If a procurement process is expected, what process - Invitation for Bid, Request for Proposals, Qualifications-Based Selection, or other process - will be utilized?

h. If a procurement process is expected, what is the timeline for the process?

i. If a procurement process is expected, will it impact the work being done to store debris at the Temporary Disposition Site at

Olowalu? If so, please describe how. If not, please describe why not.

May I respectfully request your written response by **January 22, 2024.** To ensure efficient processing, please transmit your response to drip.committee@mauicounty.us and include the relevant Committee item number in the subject line of your response.

Should you have any questions, please contact me or the Committee staff (Paige Greco at 808-270-7660, or Maria Leon at 808-270-7866).

Sincerely,

TAMARA PALTIN, Chair
Disaster, Resilience, International Affairs, and Planning Committee

drip:ltr:002(14)a01:pmg