Public Comment

April 23, 2020
Board of Directors Meeting

From: Wendy Ring
To: Lori Taketa

Subject: [EXTERNAL] Fine particulates and vulnerability to COVID19

Date: Wednesday, April 1, 2020 3:46:00 PM

This is an EXTERNAL email. Do not click links or open attachments unless you validate the sender and know that the content is safe.

Hi Lori,

I hope you are well. Since there will not be public meetings in the near future, I'd appreciate it if you can find a way to share this with RCEA Board members.

I was on an international call of 800 health workers from around the world about climate change and the pandemic and this study of 4.5 million US veterans, published in JAMA, was cited to illustrate how low level air pollution increases vulnerability to the virus. The study found 7 conditions in addition to heart and lung disease, causally associated with low level fine particulate exposure: cerebrovascular disease, chronic kidney disease, dementia, type 2 diabetes, hypertension, lung cancer, and pneumonia; all of which increase mortality from COVID 19. The study found that 99% of the years of life lost (burden of death) from these diseases, in the absence of COVID, results from exposure to levels of pm2.5 below federal air quality standards, like the ones we see in our community. It's great that sheltering in place is temporarily improving air quality, but patients who already have these diseases from previous exposure will still die at higher rates.

Global warming, our other existential crisis, is moving slowly but inexorably toward the same type of global disruption caused by the pandemic, but with no prospect of recovery, COVID teaches us about the danger of exponentially increasing hazards and why we have to think on our feet and stay ten steps ahead, instead of relying on old definitions of clean air and renewable energy. If you have not seen this report from Lawrence Livermore National Lab Getting to Neutral: Options for Negative Carbon Emissions in Calfornia, it explains why carbon removal is essential for California to meet it's climate goals and how mill waste, used for the right things, is part of the solution.

If all of this is getting you down, the <u>Cool Solutions podcast</u> has uplifting stories about communities taking action to lower their greenhouse gas emissions. Some of the projects we cover are things RCEA could do, or is just starting to do. Cool Solutions airs on 40 radio stations across the US.

Thanks,

Wendy Ring MD, MPH

Get inspired by communities taking climate action with Cool Solutions Radio and Podcast

From: Wendy Ring
To: Lori Taketa

Subject: [EXTERNAL]Re: [EXTERNAL]Fine particulates and vulnerability to COVID19

Date: Thursday, April 9, 2020 5:26:09 PM

This is an EXTERNAL email. Do not click links or open attachments unless you validate the sender and know that the content is safe.

Sorry, I forgot to include the link to the study: <u>Exposure to air pollution and COVID-19 mortality in the United States</u>,

Wendy Ring

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On Thu, Apr 9, 2020 at 5:21 PM Lori Taketa < LTaketa@redwoodenergy.org > wrote:

Hello Dr. Ring,

Thank you for your email. We will add it to the public comment for the April 23 RCEA Board meeting.

Best Regards,

Lori Taketa

Executive Support Specialist & Clerk of the Board | Redwood Coast Energy Authority (707) 269-1700 | www.RedwoodEnergy.org

From: Wendy Ring

Sent: Thursday, April 9, 2020 5:17 PM

To: Lori Taketa

Subject: [EXTERNAL]Re: [EXTERNAL]Fine particulates and vulnerability to COVID19

This is an EXTERNAL email. Do not click links or open attachments unless you validate the sender and know that the content is safe.

Please include this addendum to my previous communication to the board on April 1st. This is a fast moving

topic.

Breaking research from Department of Biostatistics at Harvard Chan School of Public Health based on pandemic and air quality data covering 98% of the US population, finds that as little as 1 microgram higher long term exposure to pm2.5 (fine particulates) increases mortality from COVID 19 by 15%, even when air meets quality standards. This effect is 20 times greater than pm2.5's significant effect on death from heart and lung disease. If the data I presented to you prior to COVID wasn't enough to alarm you and make you question the community cost benefit ratio of biomass, the alarm bell just got 20 times louder.

Wendy Ring MD, MPH

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On Wed, Apr 1, 2020 at 4:05 PM Lori Taketa < LTaketa@redwoodenergy.org > wrote:

Hello Dr. Ring,

Thank you for your email.

The April 23 RCEA Board meeting will be held as a teleconference meeting and will be open to the public via phone and internet. The public will be able to comment on the agenda items via email.

I will include your email as public comment. If there is no agenda item that your email specifically addresses, I will ask that it be read during the open public comment period at the beginning of the meeting.

Please keep healthy during these stressful times.

Best Regards,

Lori Taketa

Executive Support Specialist & Clerk of the Board | Redwood Coast Energy Authority (707) 269-1700 | www.RedwoodEnergy.org

From: Jesse Noell

To: Public Comment

Subject: [EXTERNAL]V2G plays central role to achieving RCEA Mission

Date: Sunday, April 19, 2020 1:01:42 PM

This is an EXTERNAL email. Do not click links or open attachments unless you validate the sender and know that the content is safe.

With regards to Agenda item 6.1 and other Agenda items, please undertake the process of actively analyzing, assessing, synthesizing, evaluating the following information: https://www.forbes.com/sites/jeffmcmahon/2020/01/29/electric-vehicle-batteries-could-dwarf-the-grids-energy-storage-needs/#26b133275929 with regards to state authorized purchasing RA from pooled, behind-the-meter energy storage resources that reduce load and are California Independent Systems Operator demand-responsive. Will electric vehicle batteries dwarf Humboldt's Grid's energy storage needs? What information supports this? How was that information obtained? How have you questioned the information, ideas and conclusions to make reasoned judgements that are reasonable, logical and based on specific evidence supporting each conclusion and theory? How best to provide primary and secondary power reserves, fast frequency reserves, arbitrage, voltage control, and congestion management through load shifting and peak shaving?

How will V2G play its central role for Humboldt County?

I look forward to your response, Jesse Noell