

Moore-Love, Karla

From: Moore-Love, Karla
Sent: Thursday, February 09, 2012 9:40 AM
To: Papaefthimiou, Jonna; Grumm, Matt; Crail, Tim; Schmanski, Sonia; Edwards, Kenneth; Oishi, Stuart
Cc: Rees, Linly
Subject: FW: LU 11-125536 CU AD : Final Recap and Conclusions
Attachments: 120208.Portland City Council response to submissions.pdf

Testimony from Chris Hill for Verizon land use case #11-125536 CU AD returning to Council on March 1st.

Karla

Karla Moore-Love | Council Clerk
Office of the City Auditor
503.823.4086

From: Chris Hill [mailto:chilltone@gmail.com]
Sent: Wednesday, February 08, 2012 4:15 PM
To: Moore-Love, Karla
Cc: Euro Guy; Neal Sutton; Cate, Sylvia
Subject: Re: LU 11-125536 CU AD : Final Recap and Conclusions

And here is my final submission.

C

On Wed, Feb 8, 2012 at 2:55 PM, Moore-Love, Karla <Karla.Moore-Love@portlandoregon.gov> wrote:

Marcel,

Received and I will distribute to all members of the Portland City Council as well as the appropriate city staff.

Regards,
Karla

Karla Moore-Love | Council Clerk
Office of the City Auditor
[503.823.4086](tel:503.823.4086)

From: Euro Guy [mailto:euroguy_pdx@yahoo.com]
Sent: Wednesday, February 08, 2012 12:50 PM

To: Moore-Love, Karla
Cc: Neal Sutton; Chris Hill; Cate, Sylvia
Subject: LU 11-125536 CU AD : Final Recap and Conclusions

Karla,

Attached please find a letter from the Mt. Scott-Arleta Neighborhood Association's Land Use Chair, Neal Sutton and myself. (For the convenience of you and all other parties involved in distributing this letter, we are submitting this letter in electronic PFD format.)

Please confirm whether you received this e-mail and specifically the attached letter correctly and that the letter will be entered into the record and provided to Mayor Adams and our City Commissioners as well as any others as applicable.

Thanks,

Marcel

Christopher T. Hill

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February 8, 2012

Portland City Council
City Hall
1221 SW Fourth Ave.
Portland, OR 97201

Re: Case File LU 11-125536 CU AD
PC # 10-194550

OPPONENT'S RESPONSE **TO SUBMISSIONS FROM BDS AND VERIZON**

Dear Mayor Adams and Councilmembers:

Response to BDS 1/25/12 Staff Memo

- 1. ERP is power output rather than power input and is the same under federal law and the City Code.**

The fundamental difference between power and effective radiated power is effective radiated power is the power at the output of a device rather than the input of the device. The FCC definition and equation specify the things to multiply—transmitter power, feedline loss ratio between transmitter and antenna, and antenna gain or how much the signal is multiplied by the focusing effect of the antenna—while the PCC specifies the result of that multiplication—the amount of power emitted from an RF antenna.

- 2. ERP is a measurement or a calculation of emissions.**

Whether the ERP is measured or calculated, it is an emission. The PCC uses the word “emitted” for that reason.

- 3. Legislative history shows that wireless providers told the Council that BDS interpreted ERP by channel, recommended changing the Code to match that interpretation, and the Council did not change the Code.**

Staff and Verizon both want the wattage estimate to apply to one channel of one antenna rather than to the facility as a whole. The legislative history on page 4 of the BDS report contradicts that position. During the 1997 Code amendments, the wireless industry requested

additional language in the definition of ERP to make it match agency interpretation—that it is interpreted and enforced by radio channel for the purpose of Title 33. The definition of ERP has not yet been updated, and the legislative inaction on that point shows that ERP is not based upon one channel of one antenna.

4. ERP is used as a review threshold in the Code, but the review threshold is facility ERP rather than antenna ERP or channel-of-an-antenna ERP

PCC 33.815.225.C applies to “facilities operating at 1000 watts ERP or less.” It does not necessarily apply to facilities with antennas operating at 1000W ERP or less, or to facilities with antennas with channels operating at 1000W ERP or less. ERP is simply a measurement or a calculation of the emissions power. The Code specifies the thing which must have an ERP of 1000W or less, which is the facility, which is an aggregation of channels and antennas, based upon how the word facility is used by the parties, Staff, the City Code, and the FCC.

The distinction between facility and antenna or channel wattage is analogous to a lamp with multiple bulbs. If a lamp has 3 bulbs which run at 50 watts each, what is the lamp’s emitted power? The lamp’s emitted power is 150W even though each individual emitter might emit less power. If the Code regulated “lamps operating at 100W or less” under a certain section, the 3 bulb lamp would not be regulated by that section. On the other hand, if the Code regulated “lamps with bulbs operating at 100W or less” under a certain section, then the 3 bulb lamp would be regulated by that section.

Staff appears to agree that the facility is the entire installation with all antennas and accessory equipment: “Verizon’s proposed facility is considered a discrete unit that is configured in three sectors... The zoning code utilizes this characteristics description to establish setbacks from property lines and distances from residential zones. These measurements are established by the closest corner of the perimeter security fencing that encloses these facilities.” Staff report, p. 7.

5. Even if the Code does not require a licensed engineer’s certification, the Council should not rely upon Verizon’s employees’ practice of engineering without a license.

Whether or not the Code requires a licensed engineer’s certification, the problem with reliance upon Mr. Culley is he is practicing engineering without a license, as outlined in point 4 of my response to Verizon’s hearing memo. The Council should not rely upon the unlicensed practice of engineering in making it’s decision in this case any more than the Council should rely upon a witness who provides testimony about disease without a physician’s license, or upon a witness who provides testimony about structural tolerance to human, wind, and earthquake loads without an engineering or architectural license.

Response to Verizon Submissions

I am responding to specific points in Verizon’s submissions which merit response and were not covered elsewhere. The personal attacks and name calling from Mr. Grillo, Mr. Gorton, and Mr. Pinion do not particularly merit response except to say that weak arguments

need help from personal attacks while strong arguments stand on their own merit.

1. Gorton and Pinion agree that ERP is aggregated for all antennas facing in the same direction for the purposes of the FCC's exposure guidelines.

"[W]hen calculating human exposure to radiofrequency electromagnetic fields, we consider the TOTAL ERP of all channels on all antennas oriented toward whatever location we wish to study...generally all antennas in a single sector of a site, NEVER all antennas of a sectorized site." Gorton 1/24/12 letter (Gorton), p. 2-3. "[F]or human RF exposure studies, the FCC requires one to consider the energy from all channels from all antennas that are oriented towards and individual." Pinion 1/25/12 letter (Pinion), p. 3. "My initial value for the maximum ERP per sector was 10,000 watts." Pinion, p. 8.

Those three quoted passages show that the FCC and Verizon's consultants both aggregate ERP of channels and antennas, and directly contradict the passage from Mr. Gorton quoted on page 1 of Mr. Grillo's 1/25/12 letter. To the extent that Verizon's position is that the FCC does not aggregate ERP of multiple channels or multiple antennas under any circumstances, Verizon's own evidence shows that position is incorrect.

2. Gorton and Pinion agree the FCC's per channel limits are 500W, 1000W, or 2000W.

Both Mr. Gorton and Mr. Pinion refer to the FCC's limits per transmitter. Gorton, p. 3-5; Pinion, p. 6. For cell phone service, that is 500W ERP in urban areas and 1000W ERP in rural areas, 47 CFR Part 22.913(a), (a)(2); for PCS, that is 1000W ERP in urban areas and 2000W ERP in rural areas, 47 CFR Part 24.232(a)(1), (b)(1); for upper C bands, that is 1000W ERP in urban areas and 2000W ERP in rural areas, 47 CFR Part 27.50(b)(1)-(2), (b)(3). Verizon's argument that the Code's reference to 1000W ERP is a reference to the FCC's power limit for cell towers is undercut by the two other power levels which the FCC allows for cell tower transmitter channels. If the legislative review threshold is 1000W ERP per transmitter, it does not match up neatly to the FCC's transmitter limits.

The legislative history submitted by Verizon at the 1/11/12 hearing showed that Staff believed the FCC imposed power limits of 1000W ERP per channel, but in the following sentence Staff noted that facilities could exceed those limits. Therefore, according to the legislative history, the ERP for a facility is an aggregate of channels and or antennas.

The FCC also makes it clear in OET Bulletin 56 that it considers transmitters and facilities as distinct things: "transmitters or facilities that are otherwise categorically excluded from evaluation may be required, on a case-by-case basis, to demonstrate compliance when evidence of potential non-compliance of the transmitter or facility is brought to the Commission's attention [see 47 CFR §1.1307(c) and (d)]." p. 17.

Even if we limit the consideration of FCC limits to urban areas, both the City Code and the FCC distinguish between channels/antennas and facilities, and both the Code and the FCC aggregate channels/antennas when considering facility ERP.

3. I retract my statements about the time limit of exposure, but Verizon's submissions still show the power density of the facility over the MPE limit.

I retract my statements about the facility's non-compliance with the MPE limit based upon time-averaging. Those statements were based upon OET Bulletin 65, which did not contain a statement that time averaging could only be applied to times shorter than the standard. OET Bulletin 65 says on page 11 that "It is very important to remember that time-averaging applies to *any* interval of t_{avg} ," (emphasis in original) and on page 10 that "It is important to note that for general population/uncontrolled exposures it is often not possible to control exposures to the extent that averaging times can be applied. In those situations, it is often necessary to assume continuous exposure." My interpretation of those statements was that time-averaging applies to any interval of time, and that a 24 hour period was a reasonable number to use for estimating continuous exposure. With the benefit of review of OET Bulletin 56, page 14, and asking the FCC, I now agree that time-averaging applies only to intervals of time less than the MPE standard, e.g. for exposures of less than 30 minutes for the general public.

Mr. Pinion corrected a technical detail about the mW/cm^2 , but the correct number which he re-asserted still proves the argument which I made: Verizon submitted numbers to the City at exhibit A4 with a power density of $0.59 mW/cm^2$, which is higher than allowed by the FCC according to Mr. Pinion's report, $0.497 mW/cm^2$.

4. Cell towers do not per se have a public benefit which outweighs their impacts.

City's broadband plan discusses mobile wireless on p. 32 and refers to upload and download speeds. Verizon put no evidence in the record about the upload or download speeds which would be provided by this particular project.

The bigger problem with Verizon's argument that cell tower benefits per se outweigh their impacts is that it would read PCC 33.815.225.C.5 and 33.815.225.D.2 out of existence. The rules of statutory construction require "where there are several provisions or particulars such construction is, if possible, to be adopted as will give effect to all." ORS 174.010. Verizon's construction would not give effect to the public benefits and impacts portions of the code (Mr. Pinion may disagree with Verizon in this regard when he writes "each facility must be viewed on its own merit," at page 7). Opponent's construction—that public benefit and impacts must be viewed on a project-by-project basis—gives effect to that language in the code.

5. Expert testimony is impeachable by lay argument.

At several points in their letters, Mr. Gorton and Mr. Pinion assert that they are the only experts who provided testimony. LUBA will disregard expert testimony and require submission of additional testimony when lay argument provides enough of a question about its reliability. "[W]e see no reason why even non-expert critical comment directed at expert evidence might not so undercut that evidence that some response to that critical comment, either in the findings or through submittal of additional responsive evidence, would be required before LUBA could conclude on review that a reasonable person would nevertheless rely on the evidence." *Knight v. City of Eugene*, LUBA No. 2001-139, p.15:9-13. The Hearings Officer and the Council are free

February 8, 2012

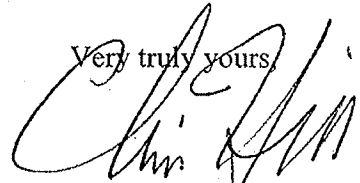
p. 5

to reject expert testimony which a reasonable person might reject, e.g. by finding that it is not credible, is internally inconsistent, is not sufficiently explained, or is based in part upon information tainted by other violations of the law.

Conclusion

If the Council is persuaded that Verizon did not meet any single element required for the permit, then the Council must deny this permit application. For the reasons outlined in this letter and others, I request that the City deny this permit application and make findings in accord with my proposed findings submitted on 1/25/12.

Very truly yours

A handwritten signature in black ink, appearing to read "Chris Hill", written over the typed name.

Christopher T. Hill