

1 PLACE: Dobbs Building, Raleigh, North Carolina  
2 DATE: Monday, February 8, 2016  
3 TIME: 7:00 p.m. - 8:27 p.m.  
4 DOCKET NO: E-100, Sub 141  
5 BEFORE: Commissioner Bryan E. Beatty, Presiding  
6 Chairman Edward S. Finley, Jr.  
7 Commissioner ToNola D. Brown-Bland  
8 Commissioner Don M. Bailey  
9 Commissioner Jerry C. Dockham  
10 Commissioner James G. Patterson  
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13 **IN THE MATTER OF:**

14 General Electric

15 2015 Biennial Integrated Resource Plans and Related  
16 2015 REPS Compliance Plans  
17

18 VOLUME: 1  
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1 A P P E A R A N C E S :

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1     **LARRY BURK;**                    was duly sworn and  
2                                        testified as follows:

3                                        DIRECT EXAMINATION

4     BY MR. GILLAM:

5     Q     Would you state your name and address for the  
6             record?

7     A     Yes, Larry Burk, [REDACTED], [REDACTED]  
8             and Duke Energy is my power company. I don't  
9             know whether it's Progress or Carolina.

10    Q     In Durham, I expect it would be Duke Energy  
11            Carolinas. Are you here speaking as an  
12            individual?

13    A     Yes.

14    Q     And have you previously filed comments in written  
15            form as a consumer statement of position letter  
16            in this case?

17    A     Yes.

18    Q     Please proceed with your statement.

19    A     I am a radiologist and I've been doing Magnetic  
20            Resonance Imaging for over 30 years. I was one  
21            of the first to write academic papers on an MRI  
22            of the knee and MRI of the shoulder, which are  
23            now -- and back in the '80's that was an  
24            experimental technique. We didn't know what we

1           were doing. We were testing things out to see  
2           how they worked. It turns out now it's in common  
3           use everywhere around the world. Back in those  
4           days, I also joined the National Safety Committee  
5           on MRI because, frankly, we didn't know what  
6           health affects were going to happen putting  
7           millions of people in these MRI scanners.

8                         The long-term effects over the  
9           last 30 years appear to be negligible in terms of  
10          health risks for putting someone in an MRI scan,  
11          pulsing them with what was essentially a  
12          high-powered wireless device -- and we're careful  
13          to keep them underneath the thermal limit so we  
14          don't heat them up because you could cook someone  
15          in an MRI scanner if you cranked it up and so  
16          that has limits for that -- so the effects of the  
17          MRI scanner are strictly at the athermal level.  
18          It resonates with the hydrogen protons in your  
19          body and it sends a picture back and the computer  
20          turns it into a magic picture.

21                        So I decided to go investigate  
22          this in a little more detail by going to some of  
23          the academic societies, the Bioelectromagnetics  
24          Society in particular, where engineers and

1           physicists and other people concerned with the  
2           basic science of these modalities would give me a  
3           little more understanding into what happens if  
4           you chronically expose someone to these fields.  
5           And I was relieved to find out that they didn't  
6           think a short-term exposure would be of any harm.  
7           But I was alarmed to find out that there were a  
8           significant number of basic science studies  
9           showing that chronic exposure to wireless fields  
10          causes health damage. And that was back in the  
11          early days when the main concerns were radar and  
12          power lines. But since -- in the last 30 years,  
13          the use of wireless devices has really exploded,  
14          and the data accumulated by these scientists is  
15          accumulating rapidly and exponentially and  
16          becoming even more alarming to the point where  
17          they've -- and they're classifying them as stage  
18          2 to be potential carcinogens.

19                           And in my house I can read my MRI  
20          scans without any wireless devices and it works  
21          perfectly well. I've gotten rid of all my  
22          wireless devices. I do everything on a wired  
23          system. I think the real issue we're facing now  
24          is that MRI has proven benefits and the health

1 risks are negligible.

2 In terms of smart meters, the  
3 benefits are questionable and the health risks  
4 are uncertain at best and suspicious, if you  
5 really look into the literature on wireless  
6 devices. So I'm not seeing the cost benefit  
7 analysis being coming down in favor of a smart  
8 grid when I'm not convinced that it's saving us  
9 any money and I am concerned that it's exposing  
10 us all to potential long-term risks from magnetic  
11 fields. It reminds me a lot, unfortunately, of  
12 the early days of tobacco research where they  
13 reassured us that there was really no health risk  
14 to any of these things and, in the meantime,  
15 their scientists knew there were health risks and  
16 they were covering it up. We're in the same  
17 exact situation now because the papers -- in my  
18 statement there's a paper that documents the  
19 studies that are funded by the industry that show  
20 no health effects. All of the studies funded by  
21 independent sources, all show health effects.

22 I've had four friends die of  
23 malignant brain tumors from -- who were heavy  
24 cell phone users. So these are all cautionary

1 things we should be keeping in mind. And I think  
2 the precautionary principle is certainly the  
3 place to start. That means that it's really the  
4 onus is on the utility companies to prove these  
5 are safe, not on us to prove that there is a  
6 harm, and they have not proven that these are  
7 safe, and I think the benefits are also  
8 questionable. So I would urge us to make smart  
9 meters be -- a lot of people to substitute the  
10 extended analog meters, if they want, and there  
11 would be no charge for that. That concludes my  
12 comments.

13 Q Thank you. Let me ask you one or two questions.

14 A Sure.

15 Q You mentioned that you have friends that have  
16 suffered --

17 CHAIRMAN FINLEY: Mr. Gillam, pull your mike  
18 up so we can hear you, please.

19 BY MR. GILLAM:

20 Q You had some friends that have suffered cancer  
21 related to cell phone use.

22 A Uh-huh.

23 Q And that's comparable to these smart meters, the  
24 hazard is comparable?

1 A I'm not an expert on the technology of the  
2 particular wireless devices. It is a wireless  
3 exposure to electromagnetic radiation. And the  
4 exposure from a smart meter is chronic, much like  
5 the cell phone use is chronic. The frequencies  
6 may be different. The intensity may be  
7 different. And a lot of it depends on whether  
8 you have the smart meter against your bedroom  
9 wall or if it's a block away. There's a  
10 difference.

11 Q Now, would televisions and the routers that  
12 enable us to get the internet on our computers,  
13 would they also be wireless devices?

14 A As I said, I work from home with no wireless  
15 devices. Time Warner Cable comes into my house.  
16 I don't have any wireless routers in my house. I  
17 do all of my work without any wireless.

18 MR. GILLAM: No further questions.

19 COMMISSIONER BEATTY: Any other questions?

20 Thank you very much, sir. We appreciate you coming  
21 this evening.

22 (The witness is excused.)

23 MR. GILLAM: Michele Dubow.

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