

Comments on Tasmania's energy strategy draft report: "Restoring Tasmania's Energy Advantage"

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Attention:

Energy Strategy Submissions
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Table 1

Electric System Message Type [a]	Transmission Frequency Per 24-Hour Period: Average [b]	Transmission Frequency Per 24-Hour Period: Maximum (99.9 th Percentile) [c]
Meter Read Data	6	6
Network Management	15	30
Time Synch	360	360
Mesh Network Message Management	9,600	190,000
Weighted Average Duty Cycle	45.3 Seconds⁴	875.0 Seconds

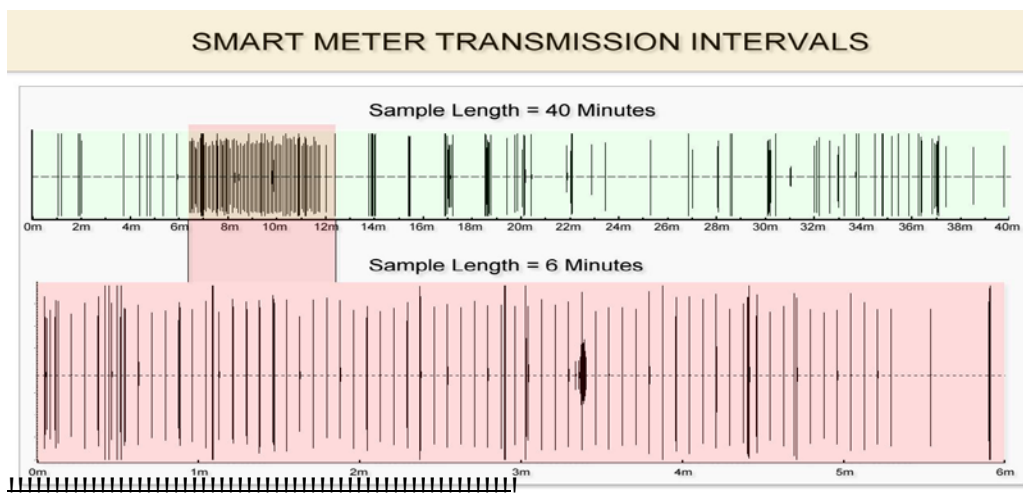
Table 1 presents scheduled smart meter system messages and their durations. This is only for the 900Mhz smart meter transmitter radio and represents data for all scheduled messages that are required to sustain the mesh network communications.

As for the reason for all these brief transmissions, a 2013 report by Richard Tell Associates, states the following:

Smart meters emit short duration pulses of RF energy in their communication with other meters and data collection points. These emissions generally happen all through the day. Besides the normal three (in the case of BED) or four (in the case of GMP) times a day that electric energy consumption data are reported back to a data collection point for subsequent transmission to the company, smart meters must maintain their organization within the RF LAN to which they belong and this necessitates the transmission of beacon signals from time to time. Additionally, each meter can, when required by the mesh network, assist neighbouring smart meters by transmitting the neighbour’s data on to another meter or data collection point. Further, the HAN radio can produce pulsed fields in its search for and communication with IHDs. All of this means that most smart meters remain relatively active in terms of brief signals being transmitted.⁵

As for what this pulsing might look like in a ‘real world’ situation, **Table 2** shows measurements taken outside, one metre from a smart meter on a suburban house in Melbourne, Victoria Australia.⁶

Table 2



⁵ Richard Tell Associates, An Evaluation of Radio Frequency Fields Produced by Smart Meters Deployed in Vermont, : http://publicservice.vermont.gov/sites/psd/files/Topics/Electric/Smart_Grid/Vermont%20DPS%20Smart%20Meter%20Measurement%20Report%20-%20Final.pdf

⁶ Using a Gigahertz Solutions HF 35C RF meter, January 2013. They are only meant to illustrate the frequent transmission intervals of the smart meter measured

So, will the Tasmanian government rush ahead with allowing the installation of smart meters on every home and business in Tasmania with no consideration of the evidence of harm from such an action? A prudent public health precautionary policy would be to place a moratorium on the planned roll-out of smart meters in Tasmania until research clarifies the health effects issue. This is especially important because, to date, absolutely no research has been conducted specifically on the possible biological effects of smart meter emissions.

For the decision makers who read this submission I ask the following: Considering the evidence mentioned in this submission, would you feel comfortable if a smart meter was placed on a bedroom wall of a family member?

Don Maisch PhD

Appendix A

Case 1: “My symptoms started the night the smart meter was installed (externally on the bedroom wall). Waking with heart palpitations and a racing heart and internal shakiness. A surging feeling that went right through my body now and then. Head pain and a burning pain on the left side of the head. Depleted immune system, leading to flu and cold. I am now getting nausea and maybe 2 -3 hours sleep a night.”

Case 2: “Since installation, I wake up with headaches every single morning and go to bed with something very much like vertigo every night. I have had this ever since the smart meter was installed. It is also installed on my front porch which is right outside my bedroom, so I am very close to it.”

Case 3: “Since my smart meter was installed, I have experienced shortness of breath, palpitations, and headaches mainly at the back of my head. Could it be because the position of the meter is on the other side of the wall where I sit every night while watching TV? What can I do about it? I have no room to change the position of the couch and my symptoms are getting worse by the day.”

Case 4: “It is very likely that your new smart meter or your neighbour’s (if their meter is close by) is affecting you. I experienced the same issues as you described from my neighbour’s two smart meters located three metres from my bedroom. After complaining to Powercor, I found that they must have reconfigured them as they are not communicating as much (confirmed with an EMF meter). My heart palpitations/pain in my chest has gone but I still am waking up with headaches (although they are not as intense as before the meter was reconfigured).”

Case 5: “I have developed ringing in my ears that would go away when I went to work. Now I have had two months off work, the ringing is constant. I have developed a thyroid problem since the smart meter was installed. I wake up aching. The meter is next to my bedroom wall.”!

Case 6: “Our smart meter was installed about two years ago. Our town in central Victoria was one of the earliest in the roll-out. Since its installation (outside my bedroom window), my health and the general health of my family has gone downhill rapidly...I suffer from severe headaches, memory loss, loss of motor skills. I feel as though I am walking around in a haze. I lie awake until daylight some nights, and others it is 1-2 pm when I wake up. There is also the high-pitched squeal that the smart meter emits constantly.”

Case 7: “I came to Australia after a smart meter was fitted two metres below my bedroom window in NZ. I was not informed of the radiation danger. I subsequently experienced severe health problems and was at a loss to explain this. One of my students wrote a report about her own experiences with smart meters and I had to mark it. I began to put two and two together. The report probably saved me serious health problems.”

Case 8: “A smart meter installed Aug 2012 unbeknown to homeowner. A high-pitched sound started that night, kept him awake. His inspection the next day found the new smart meter in his meter box. Ongoing insomnia, tinnitus and overall deterioration in health since then. Shielding has helped, but ongoing difficulty in sleep and tinnitus continues.”

Case 9: “My son, aged 22, started work in a small graphic design studio in Fitzroy. After only being there a few weeks, he started to become quite unwell. He was getting severe

dizziness, headaches, couldn't see straight or concentrate and was getting heart palpitations and extreme kidney pain, so much so that he had to take several days off to recover. On returning to work, the same thing happened again and by lunchtime he had to leave. As it was a Friday, he was able to have the weekend away and started to improve." The next week, his problems recurred yet again and it was then that he discovered that there was a smart meter situated inside a wooden box only about two metres from his head. Just to rule out any other cause, he underwent medical tests – ECG, blood test and kidney scan – which all came back clear. Finding that he was only getting worse at work, he felt he had no alternative but to resign. He is now 'sensitised' to EMR and gets quite dizzy when exposed to it."

Case 10: "I've been trying to find the answers to the question of the nightmare of noise mostly at night emitting through the walls of my home , it all started when a smart meter was installed on the outside wall of our home in Sebastopol Victoria ...It has taken a tremendous toll on my health as the noise is ongoing. Many people I have spoken to have the same story to tell. We also have a neighbors' smart meter facing our bedroom window. I can't say this is the answer, but its strange to think it all started with the installation of the meter. I have such a problem sleeping now I am always exhausted. I've been unable to get a response from the installers they simply do not want to reply."