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Comment on CCST Smart Meter report

I am a journalist and a director of a self-help group for Multiple Chemical Sensitivity (MCS) and Electromagnetic Hyper Sensitivity (EHS) in Japan. I am also a patient of MCS and EHS. So, I have been working to improve the environment for sensitivity people and vulnerable children.

The smart grid program is planning all over the world including Japan. In our country, Smart Meters have installed in some area, and other utilities are planning to install it as demonstratively experiment. So, I have interested in Smart Meter issues in California and CCST report.

Why did not show the major factors?

CCST expressed the RF level was $40 \mu \text{W}/\text{cm}^2$ at 3 feet from Smart Meter. But, CCST did not show the important factors related to this calculation, such as a number of meters, an assumed environmental, and reflection of building materials.

FCC limit never provide safety

FCC limits that based on thermal effects never provide safety to general people. Many studies have been described the adverse health effect occurred by non-thermal effects under the limit of International Commission of Non-Ionizing Radiation Protection (ICNIRP) that is same to FCC. The Bioinitiative Report mentioned *“the body of evidence at hand suggests that bioeffects and health impacts can and do occur at exquisitely low exposure levels: levels that can be thousands of times below public safety limits”* and recommended the value of $0.1 \mu \text{W}/\text{cm}^2$ for RF. This value is ten

thousand times below FCC limits.

Why did not CCST describe about EHS ?

There is an important EHS article by P. Levallois et al. (2002). They estimated the prevalence of self-reported sensitivity to EMF was 3.2%, with 24.4% of those surveyed reporting sensitivity to chemicals, in California. It was necessary to have forecast the adverse health effect at the early stage of the smart grid program. In actually, many people have been already claimed many symptoms by Radio Frequency (RF) emission from PG&E Smart Meters. CCST have to seriously consider these claims.

The rights of person with EHS

I carried out a questionnaire survey in 2009 about health problem, economical, and social issues related to EHS in Japan. The valid responses were only 75, however the total cost to avoid EMF, such as moving to low EMF area, RF shielding reconstruction and replacing to low emission household appliances, reached to about 168 million yen (about 1.8 million US dollars). Fifty-three percent had a job before the EHS onset, but 65% of them lost their work or experienced a decrease in income. Major symptoms were "fatigue/tiredness" (85%), and "headache", "difficulty of concentrating, remembering and thinking" (81%, respectively) . Sixty five percent indicated they experienced symptoms attributable to radiation from other passengers' mobile phones aboard public transportation, and 12.0% said they could not use any public transportation due to their serious symptoms. The survey indicated EHS people are significantly limited their daily life due to EMF exposure.

EHS and MCS are publicly recognized as disabilities in U.S.A. under the ADA. Federal Register (Sept. 3, 2002) mentioned "*The (Architectural and Transportation Barriers Compliance) board recognizes that multiple chemical sensitivities and electromagnetic sensitivities may be considered disabilities under the ADA if they are so severely impair the neurological, respiratory or other functions of an individual that it substantially limits one or more the individual's major life activities.*"

In 2005, National Institute of Building Science (NIBS) published the report "Indoor Environmental Quality (IEQ) " in according with the request from the Architectural and Transportation Barriers

Compliance Board.

IEQ report mentioned ;

“For people who are electromagnetically sensitive, the presence of cell phones and towers, portable telephones, computers, fluorescent lighting, unshielded transformers and wiring, battery re-chargers, wireless devices, security and scanning equipment, microwave ovens, electric ranges and numerous other electrical appliances can make a buildings inaccessible.”

Then, they established the recommendations to increase the access for sensitivity people. It includes;

- *Cell Phones Turned off*
- *Ability to turn off or unplug computers and other electrical equipment by occupant or staff*
- *Ability to turn off fluorescent lighting by occupant or staff*

“ The focus of the project was on commercial and public buildings, but many of the issues addressed and recommendations offered in residential settings”.

However, the radiation from Smart Meters is making the harmful environmental that EHS people can't access to their house. Moreover, EHS people will increase more and more due to RF radiation from Smart Meters. It might cause economical huge damage of California. The radiation is also affect to vulnerable people, such as children and elderly people. CCST have to stand on precautional principle, and to recommend to replace wired meters from wireless Smart Meters, as soon as possible.

References;

P. Levallois, .R.Neutra, G. Lee and L. Histova, Study of self reported hypersensitivity to electromagnetic fields in California, Environ. Health. Perspect. 110(4) (2002) 619-623

Bioinitiative Report: A rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)

Federal Register Vol. 67, No. 170/Tuesday, September 3, 2002/ Eiles
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National Institute of Buildings Sciences, "IEQ Indoor Environmental
Quality" (2005)