DOCKETED	
Docket Number:	24-BUSMTG-01
Project Title:	2024 Business Meeting Agendas, Transcripts, Minutes, and Public Comments
TN #:	259443
Document Title:	Steve Uhler Comments - Smart meter queries, Cartesian Products, Sub metering, and data security
Description:	N/A
Filer:	System
Organization:	Steve Uhler
Submitter Role:	Other Interested Person
Submission Date:	10/4/2024 8:02:21 AM
Docketed Date:	10/4/2024

Comment Received From: Steve Uhler Submitted On: 10/4/2024 Docket Number: 24-BUSMTG-01

BUSMTG-2024-01 Smart meter queries, Cartesian Products, Sub metering, and data security

BUSMTG-2024-01 Smart meter queries, Cartesian Products, Sub metering, and data security

Attached are Energy Commission public records I believe disclose features of smart meter data that causes to harm SMUD, therefore harming the people of Sacramento County.

The harm I believe happened, is for each of us to decide.

Take care,

Steve Uhler sau@wwmpd.com

Additional submitted attachment is included below.

BUSMTG-2024-01 Smart meter queries, Cartesian Products, Sub metering, and data security

In SQL (Structured Query Language), combining rows from two or more tables, resulting in a new table, known as a Cartesian product with a set of all possible combinations of rows from the original tables.

Cartesian products can quickly become large, especially when dealing with big tables. This can result in performance issues. Therefore, use them cautiously and only when necessary. If you try to pull too much data, you're going to probably crash your computer.

With smart meter data, latitude and longitude may be a good limiting and matching category to create a zone.

One should be careful to not assume all meters in such a zone as belonging to a single entity. One should be careful to not assume all meters in a building in the zone belong to a single entity.

Sub metering is the process of having a master meter and multiple downstream sub meters all belonging to a utility's smart meter service provider. Sub meters may also act as a master meter having sub meters belonging to the same smart meter service provider.

A master meter is assigned to the electric utility to bill their customer, the sub meters are assigned to the customer of the utility so the customer can bill their customers. All of the meters may be assigned to the same building.

Sum all meters in a building without knowing the master and sub meter relationships, you could double count the measurements such as watts.

Smart meter data should be kept private. It is the Energy Commission's responsibility to not disclose any feature of the smart meter data in a way that causes harm to anyone.

Attached are Energy Commission public records I believe disclose features of smart meter data that causes to harm SMUD, therefore harming the people of Sacramento County.

Please read the attached transcript section for item 4 of the attached agenda. Look for "all of my addresses were in Sacramento", "every associated Building Code in Sacramento", "data centers because they can consume a lot", "difference between that 79 and the 78 is it's just one data center", "biggest data center that we found and it was consuming about a gigawatt of electricity during the summer of 2019", and "And kind of like just even that one data point you showed about one of the data centers moving away, you know, I think I know which one it is. It's SMUD? Sacramento? MS. PETERSEN: Yes.".

I believe the "gigawatt of electricity" claimed is not correct because SMUD's minimum electricity demand can be less than half that value. Perhaps the error is the result of not knowing master and sub meter relationships. It could also be a meter not correctly installed and maintained. Have you had your smart meter checked lately?

Perhaps the people Sacramento County should ask why they should support 79 data centers as "they don't respond to flex alerts, at least the ones that I was working with. They didn't seem to be on a location of marginal pricing scheme, because they didn't respond to it so much.". Perhaps that "biggest data center that we found" is Ragingwire.

See attached ragingwire-sacramento-california-data-center.pdf. Last downloaded 05/30/2016 from http://www.ragingwire.com/sites/default/files/pdf/ragingwire-sacramento-california-data-center.pdf

SMUD asks us to use less electricity between 5:00 and 8:00PM by raising rates daily during that time.

I was not able to attach the presentation "MS. PETERSEN" presented to the Energy Commission because it was not made available on the meeting website, <u>https://www.energy.ca.gov/files/september-11-2024-</u> <u>business-meeting-presentations</u> or the docket, <u>https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=24-</u>

```
BUSMTG-01.
```

At the time of my writing this, the presentation is still not available as the other meeting presentations were.

The Chair of the Energy Commission is the Director of the Energy Commission. The Chair required the public attending the public meeting to make comment on agenda item 4 at item 1, before ever hearing the presentation given at item 4.

The harm I believe happened, is for each of us to decide.

Take care,

Steve Uhler <u>sau@wwmpd.com</u>

Agenda link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=259087

Transcript link: https://efiling.energy.ca.gov/GetDocument.aspx?tn=259438