

## Energy - Docket Optical System

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**From:** Steve Uhler [sau@wwmpd.com]  
**Sent:** Tuesday, July 15, 2014 8:47 AM  
**To:** Energy - Docket Optical System  
**Subject:** 14-CHP-1, Docket Number, Staff Workshop on Combined Heat and Power, July 14, 2014

**DOCKETED**

**14-CHP-1**

**TN 73396**

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14-CHP-1, Docket Number, Staff Workshop on Combined Heat and Power on July 14, 2014

Dear [docket@energy.ca.gov](mailto:docket@energy.ca.gov),

Here are my comments on Staff Workshop on Combined Heat and Power on July 14, 2014, Docket Number 14-CHP-1.

Please see that these distributed generation issues shown in the below webpage link are solved before proceeding.

[http://ilookup.us/VoltageSupportPV.htm#phrase\\_04](http://ilookup.us/VoltageSupportPV.htm#phrase_04)

Please see that more data analysis is performed before proceeding. Don't repeat the "Duck Chart", by this I mean study the problem first. The problem illustrated by the "Duck Chart" should of been known before the any decision to offer incentives for solar based generation. Don't let CHP suffer a similar fate.

Do not allow a chart to be published without suppling the supporting data and factors used to make the chart. The CEC has published charts with errors, errors that still exist after being notified of such errors.

This CEC "Duck Chart" in figure 1 is unsupported and is easily shown to not represent the data the CEC says it is based upon.

[http://www.energy.ca.gov/renewables/tracking\\_progress/documents/resource\\_flexibility.pdf](http://www.energy.ca.gov/renewables/tracking_progress/documents/resource_flexibility.pdf)

Here are examples of what I would consider minimum of data analysis would be like.

Provide more resource charts to show that the problem has been studied, not just the summary charts shown at the CHP workshop and handful of charts like the "Duck Charts".

Create and index of charts and data for easy review of the data supporting any conclusions your may make. Complete the study and have it scientifically reviewed before proceeding. Make it easy to review the data and you will reduce the errors in your publications and improve your outcomes.

You will need a modern browser supporting HTML 5 to view these links to samples of charts that allow more visualization of the data.

[http://ugemrp.com/caiso/dashboard/lmd\\_shc/dh\\_model\\_hummingbird\\_chart\\_load\\_caiso\\_20131103.svg](http://ugemrp.com/caiso/dashboard/lmd_shc/dh_model_hummingbird_chart_load_caiso_20131103.svg)

[http://ugemrp.com/caiso/dashboard/lmd\\_shc/index.svg](http://ugemrp.com/caiso/dashboard/lmd_shc/index.svg)

[http://ugemrp.com/caiso/dashboard/lmd\\_th\\_nl/index\\_week\\_48.svg](http://ugemrp.com/caiso/dashboard/lmd_th_nl/index_week_48.svg)

<http://ugemrp.com/caiso/dashboard/lmdresh/index.svg>

I believe that what you are calling CHP, with the addition more efficient use of energy through the use real-time energy measurement to allow better understanding and control of energy use will lead us to a better future.

Conversion of energy to electricity in connection with a "Electric Power Grid" should not be the goal. Seek competing solutions and you will improve your outcome.

One competing solution is to do away with the inefficient use of energy caused by producing electricity by burning natural gas to then produce heat from that electricity at another location. Use the natural gas to directly produce the heat at the location of use of the heat. This technology is well developed and has been used homes for years, the gas furnace.

The use of CHP to produce the heat from natural gas could allow the exploration of Sliding-Cycle CHP. By Sliding-Cycle CHP, I mean CHP that is moved from Topping-Cycle to Bottoming-Cycle as needed. This could allow dual storage solar power systems, storing energy in less electrical batteries and using energy in chemical bonds of a fuel with properties of like natural gas when the solar production falls short. It will be easy to know the Green House Gas produced per kWh.

If a target is given in the form of Green House Gas per person, one could easily know if they are doing their part. It will also allow more people to know how well the "Grid" is doing when it comes to Green House Gas per person.

Measure Green House Gases per person. Do away with Renewables Portfolio Standard with all of it's rules and reporting.

Thermal (Natural Gas) Generation is rising, there are more Green House Gases in a kWh in 2014 than 2011, see [http://ugemrp.com/caiso/dashboard/lst\\_th\\_nl/index\\_week\\_09.svg](http://ugemrp.com/caiso/dashboard/lst_th_nl/index_week_09.svg) and compare amounts of Thermal Production for the CAISO.

Renewables Portfolio Standard does not intrinsically ensure reduction of Green House Gases. Take the funds for Renewables Portfolio Standard, use them to support Green House Gas goals and intrinsically Green House Gas reducing systems.

Having CHP because someone says we will have CHP, is not a reason to proceed. Don't repeat the failures of the Renewables Portfolio Standard.

sincerely,

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