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ATTACHMENT G

- **Electric Energy Storage Workshop CPUC Headquarters – Golden Gate Room**
- **R10-12-007/AB 2514**
- **June 28, 2011**
- **<u>WORKSHOP THEME</u>**
- Addressing Barriers to Entry in Electric Energy Storage:
  Actions that the CPUC should consider and participation it can conduct at other forums.

IS IT REALLY AS COMPLICATED AS IT SEEMS?

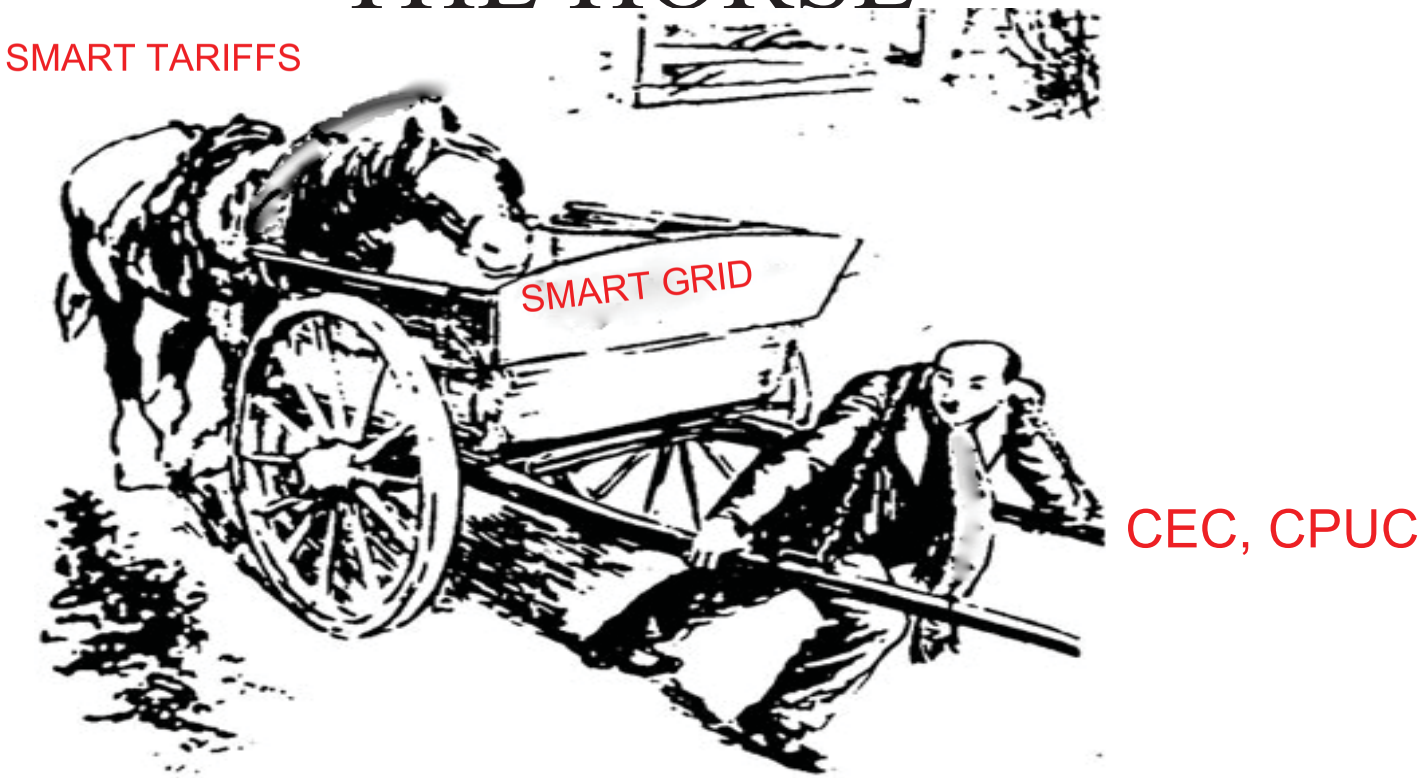
MAY BE WE JUST DON'T SEE THE FOREST FOR THE TREES

EVERY COMMODITY HAS ITS PRICE

- GOLD
- COAL
- OIL
- ETC., ETC.

- ELECTRICITY

THE CART IS BEFORE THE HORSE



WHAT IS THE ANSWER?

- Put the horse before the cart.
- The tariffs must pull and influence the usage of electricity.
- If we were charged according to what an actual KWH costs in real time consumers would respond immediately. The load shape of the grid would flatten out considerably.
- For storage to be an investment, the rates must be reliable, and reasonably predictable which they would be if based on actual costs.
- At the moment the utilities rule the rate game.

THE FIRST LAW OF ENERGY STORAGE DYNAMICS

SMART METERS + SMART TARIFFS

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SMART GRID

SMART METERS

- Did we buy them to eliminate the meter readers?
- Did we buy them so that consumers understand their consumption and analyze when their refrigerator cycles on and off?
- Or that we learn why to load the washing machine fully? (PG&E TV Advertisement)
- California spend $5 billion on smart meters.

LET'S USE SMART METERS FOR WHAT THEY WERE DESIGNED FOR

- Introduce Real Time Pricing (RTP).
- Depending on what the grid needs, the interval period can be one hour or 30 minutes or even 15 minutes.
- The day ahead price can easily be predicted and made public.

SMART TARIFFS

- What is the smartest tariff?
- The truth.
- Real Time Pricing

THE BOTTOM LINE IS

- The grid should not be influenced by socio-political issues or special interest groups. We must separate the tariff charged of this commodity from any other influence except for what the commodity really costs.

- If in the future the renewables influence the load shape of the grid, RTP will automatically adjust and so will the consumer.

- Nobody gets cheaper gas at the pump because he/she is an AARP member or farmer and all these different "special" cases propagated by special interests.

LET'S BE REALISTIC

- LET'S LOOK AT THE FOREST BEFORE WE GET SIDE TRACKED BY LOOKING AT EVERY TREE
- WE MUST SERVE THE STATE OR NATION BEFORE WE TRY TO SATISFY ALL THE SPECIAL INTEREST GROUPS

CALIFORNIA

EUREKA