

From: [alfred mason](#)
To: [Lee Eng Tan](#)
Subject: Dear Mr. Tan
Date: Tuesday, June 16, 2015 4:45:53 PM

Dear Mr. Tan June 16,2015

Re; Alternate electrical energy.

I am not a big fan of electric energy being generated by people or business on their side of the electric meter. This is good while the sun is shining or the wind is blowing but care must be taken so that the energy generated does not feed back into the power companies distribution system. The energy generated, so to speak "in house", may not be of the correct voltage, have the proper frequency or be properly timed, 60 cycles per second, with the distribution companies electricity.

If the consumer wanted to have their own electric when the sun does not shine or the wind is not moving they would have to have a large battery system to store direct current (DC) electric voltage and they would also have to have a converter to make alternating electricity (AC) from the DC. The capacity of the batteries would determine how long or how much electricity they could get from their self contained system. These two items could be very expensive and would more than likely not be bought by individual's for their own use unless there was an incentive.

So, we have In House electricity and if the source drivers, sun or wind, fail then the consumer would have to switch back to the commercial system for their electric power. If I understand the present systems correctly they all need steam driven generators with the exception of hydro electric power.

Let's talk about the steam generated power and say that there are different methods of generating the steam with fossil fuel such as gas, oil, coal and nuclear energy. I am not familiar with how solar and wind power is prepared for the distribution network but I do not think it is a direct transfer. The Public Service or utility Commission (PSC) is responsible to see that the commercial electric generating companies generate enough electric power to supply all their customers at any time and that there is enough for an emergency if one or more generators fail. This is why we have monopolies and a regulatory commission, it protects both the

consumer and the companies.

If any company or consumer wants to be a good steward of the environment and reduce their carbon emissions by installing solar panels or wind generators and can do so in a cost efficient manner with the permission of the necessary regulatory agencies this would be wonderful. If for some reason the regulatory agencies could offer incentives to have these carbon saving devices installed this may be good as long as everyone understands and abides by the program.

The commercial generating companies have fixed expenses and need to make a profit for their share holders. With this in mind the more electricity that is generated In House the less revenue the electric company will receive. The result of the In House program may well mean that the cost of commercial electricity will go up on a per unit basis. One way or another the consumer must have their electricity ALL THE TIME.

Some things have not been mentioned so far by any government or regulatory agency that I have heard yet but know about. There is the possibility of developing hydro electric power with our rivers. The dams that have the generators in them sometimes create lakes in the river, look at what was just finished in China. This takes a lot of land and converts it's use to recreational while providing the water flow necessary for the generators. With this type of electric generation we would be dependent upon mother nature to provide the water. In some instances where there are mountains or hilly terrain and a reservoir can be created to hold the water, an example is at Niagara Falls where river water is diverted to the reservoir at night and runs the generators during the day. Unfortunately the land in Florida does not lend itself to this very well but that doesn't mean that one or more of our electric companies can't be encouraged to enter into a group effort with a company in another state that could build one of these facilities and receive some or all of the output. The Tocks Island project in New Jersey, Pennsylvania and New York is a good example of a regeneration, reservoir type of facility that was negated, scrapped, by Do Gooders and the land was given to the National Park Service who have neglected and ruined the land.

There are projects at different locations in the USA that are trying to design turbines that will function on river and/or ocean currents. They would more than likely be installed where there is a lock and the water flow can be controlled.

Also there is an international project for Fusion electric generation. The project was moved from Princeton, New Jersey to France. This is an ongoing project and the problem at last try was there was too much heat. Over a million degrees in less than 3 seconds. The scientists and engineers can make the fusion which generates the steam but they have not found a way to control the heat yet. Hopefully they will.

In summary, the fossil fuel and hydro existing plants that we have must be maintained and continue to grow with the demand. Any proposed solar or wind power can only be a duplicate of what is existing, it can never be considered as a replacement for fossil or hydro power. The alternative energy can be used to reduce the amount of fossil fuel that is consumed and as such requires that two complete generating systems be built but that ideally only one will be used at a time. By doing this the amount of money that is required for energy generation is greatly increased and proportionately it would fit that the cost per kilowatt hour would increase. The salient point here is, is the consumer going to agree to pay the extra cost required to save their environment? I think we can forget about nuclear power as our federal government has made this type of power generation just about impossible to work with.

Respectfully

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