

About The Consequences of the Existence of A Tesla Device For Utility Companies And Some Practice Problems

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Examples of Manufacturers

<http://www.ebay.com/itm/221816843850>

<https://www.amazon.com/stores/page/BE74A3B0-4673-4AD0-9044-DD30AD4D8111?>

I. HOW IT WORKS

No isolation from the environment, usual electricity laws do not apply. Utilization of TV and radio-waves utilization of static electricity utilization of radiant energy charged particles collector

Its devices do not consume a lot of reactive energy.

There are people hostile to any innovations who write that the devices are scams.

II. THE CONSEQUENCES OF THE DEVICES BEING USED

The problems of electricity distribution companies are the same from one country to another.

It is the acuteness of each problem that varies from one company to another and the acuteness can be zero.

If the devices are used on the network the peak load will decrease of how many megawatts a year?

To find out, it would be necessary to have an estimate of the megawatts for the residential sector in the peak load.

We can make an estimate of the future peak load by assuming that the forecast of the peak load for the residential sector will drop by 5% a year, which seems reasonable.

From the saved megawatts of the peak load (from the share of the residential sector), one can estimate the total power of the devices appeared on the network for one year (knowing the average power saved by device).

The energy made available being more or less dictated by the peak load, one can try to calculate in dollars the possible over-availability.

The number of individuals who adopt the innovation on a time interval is the result of a phenomenon of contagion which is a function of the individuals having already adopted the innovation, and a phenomenon of saturation.

One can consider that the potential will be supplemented at the end of 20 years, there will not be any more but replacements at this time.

One must consider a slow starting because of some mistrust.

Buzz marketing appearing in a particularly significant way, the share of the imitators is important.

One starts with less than 5% of the peak load of the residential sector and this proportion is exceeded to reach a value raised maximum approximately at the end of 10 years, the increase being roughly progressive.

We by this made a crosscheck and so a quick market study for the devices.

It is to be noticed that the value of 5% per one year is more a forecast than an objective, as there are micro-decisions.

There is no need for much advertising if a small investment will produce savings.

III. THE PART OF THE UTILITY COMPANY

How does the question of the license arise while planning to manufacture?

There is a problem of cards of attributions (for work which does not exist still)

There also a problem of privatization of an activity.

Problem-solving about privatization

Normally follows this simple process: • Define the problem. • Identify the possible causes. • Establish the most likely causes. • Plan action to address those causes. • Review the results.

Problem: The utility company is less efficient than a private company

Possible causes ::

-Lead times too much long

- Too few prerogatives to the basic units heads
- Too much prerogatives for committees and commissions

IV. PRIORIZATION

We want to use the tool prioritization of quality for considering different things:
To sell the product with or without manufacturing the components
To provide a partial recycling of employees
To provide work for the employees of the utility company
The use of matrices of priorisation will increase in the years to come with the increasing complexity of decision making.

When we face complexity, there is the existence of short cuts .

The existence of short cuts is the consequence of the existence of God.

To know the histories helps to find the short cuts

To know where a doubt persists helps also to find the short cuts

I have an idea that what occurs in the utility companies is revealing the state of the other companies.

V. ABOUT SOME PROBLEMS

A revision of the flow chart would be useful if referring to the flow charts since a long time ago.

With regard to the flow chart, units should be as autonomous as possible.

There should be a bonus of contact with the customers for the people who do have the daily contact.

The TQM (total quality management) is directed against those who are careerist.

An erosion of the authority comes from incompetence.

The remedy is : make it mandatory for the employees to be competent.

The directors must solve the problems and let people concentrate on their work.

There should be a possibility to make audit unit act on request by the head of one unit.

It is the recovery rate which is important for whatever may be effectively and non effectively done like working hours.

Audits from the retired employees should be considered.

From total quality management in a utility company : to respect others.

It is misleading to think that specialization has only advantages.

Indeed, the goal of the company is the satisfaction of the customers and it is not with one specialty that it can be reached.

For instance, to let the customer pay a big bill by installments is rather a banking activity if we consider that that is like giving a loan.

Total quality management reminds of the goal of satisfaction of the customers.

With such a concern, reasonable lead times are important; for instance, procedures which were complicated by the concern to avoid fraud should be revised with a time constraint in mind.

Instructions cannot be followed to the letter because the situation is changing and instructions cannot be updated very often.

VI. ABOUT STATISTICAL CONTROL OF PROCESSES

It is useful to use the statistical control of processes, for instance, for the lead time for providing electricity.

Studying the capability of the process is a way to know if an aim is reached.

However, in the books covering the topic, we find zero as one of the limits to be used in the calculation and that is not correct as we want not to go near the limit and we want to go near zero. So, zero is most of the time not to be considered a limit.

VII. ABOUT WORK METHODS

About work methods in a utility company: beside works which require procedures, there are works which require methods.

An example is the forecast of the activity for a day or for a year.

If some data is not to be published, the methods should be public, especially in the case of a public company.

There should be booklets about the methods which are not obvious.

Methods are to be known for the results to be applied in the same way to everyone requesting a product.

There are two things not good for good work methods: empirism and lack of initiative of the junior people.

Empirism is to watch reality without stepping back for a broader view.

Good methods are part of the professional ethics.

VIII. ABOUT OTHER PROBLEMS

Responsibility should belong to individuals rather than groups.

Delegating minor decisions prevents the lead times from being very long.

People tend to be too much specialized therefore with an intellectual level not high enough.

The state of a company is not a necessary state, it comes from choices and chance.

In the long run, the states of a company tend to be a necessary state.

IX. TECHNICO-ECONOMICAL PROBLEMS

Let us be reminded of the reactive energy problem, from Wikipedia in French (translated here):

If the reactive power levied by the consumers is too high in relation to the active power, the increase of the current in the electrical network leads to heat loss, overloads of distribution transformers, the heating of the power supply cables and voltage drops, it is therefore essential to remedy.

Over commit these facilities, with the economic consequences that this represents is not realistic, it is preferable to compensate for this reactive power by improving the power factor, by the installation of systems "producing" of the Reactive Energy.

These systems can be capacitors, sets of inductors and capacitors (sets that can be automated), rotating machines (synchronous compensators) or compensators static.

The transport of the reactive power by the electrical lines may cause losses, a decrease in the stability of the network and a voltage drop at the end of it.

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