



ADDITIONAL (HOT) REMARKS

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EVERYTHING HAS TO BE SMART

Smart Consumer

Smart Watch

Smart Phone

Smart Home

Smart Car

Smart Grid

Smart Water

Smart Utility

Smart Energy

Smart Zone

Smart IoT

Smart City



CITIES

IT IS ALL ABOUT WEALTH

Human wealth and comfort

Energy sustainability

Energy savings

Energy efficiency

Energy conversion

Energy storage

Intelligent usage and behavior

The good life

$$\text{Wealth} = \frac{\text{Energy} + \text{Ideas}}{\text{Number of humans}}$$

URBANIZATION IS FOR REAL

Living in the city is a goal for many (most) people.

High density of humans and activities requires intelligent sustainable solutions.

Energy is not only electricity, gas and district heating.

Transportation fuel based on renewable energy is only in its dawn.



EFFICIENT UTILITIES

Utilities are about water, waste water treatment, district heating, district cooling, waste, gas, ICT and electricity.

Coherent utilities and energy systems makes them efficient.

Energy must be harvested from the city to the city.

Cogeneration of district heating and cooling – makes thermodynamic logic.

Recycling is not only about bottles and paper – it is also surplus heat and regenerated water.



MORE THAN ELECTRICITY

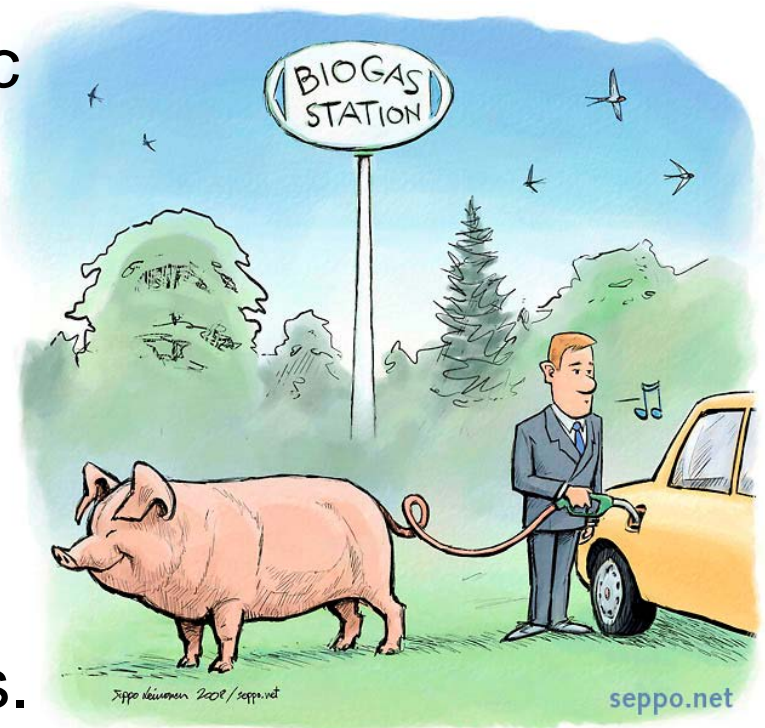
Future energy is not only electric power.

A sustainable future calls for all types of green energy.

Solar energy from PV and thermal systems.

Biogas for cogeneration of heat, electricity, biofuels and fertilizers.

Power to heat, power to gas and power to.....



STORAGE OF ENERGY

Renewable stochastic energy based on power from solar and wind has a high environmental profile.

However electricity and heating is needed 24-7. Also on a dark night with no wind.

Conversion and storage of energy (electricity, heat and gas) need to be integrated in the strategic energy planning.

Density, flexibility and the timeframe of storage from seconds to seasonal!



POLITICS TAKES (A LONG) TIME

Transition from fossil fuels to renewable energy calls for political action.

Legal framework and the taxation need to be modernized.

Even the most optimal technical solution is often ben neglected by Parliament and administration.

A society based on substantial sustainable energy takes time - so let's speed up!



DON'T FORGET TO ENJOY LIFE

Energy supply is important to maintain the modern life.

The most distributed energy is your own combustion of food.

Energy makes life worth living.

Don't forget that even the most advanced Smart Energy is nothing compared with the positive energy of being together with your loved one.



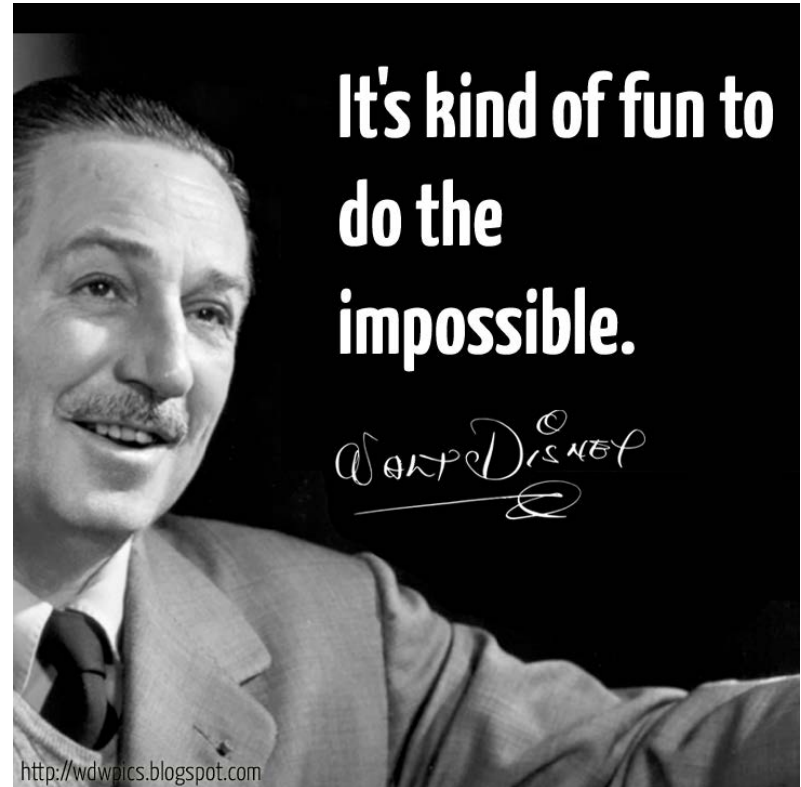
KEEP UP THE GOOD WORK

The CITIES project is important!

There is still a lot to be developed, disseminated, distributed and deployed.

The Danish energy system is ready to innovate and implement.

Danish district heating welcomes your findings.



THANKS FOR YOUR ATTENTION

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