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Session « fight against greenhouse effect »

**A 100% renewable approach in developed countries:
An essential condition for sustainable development in the world.**

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Content of the Presentation

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3. To stop the development ?
4. For a prosperity based on renewable energies and energetic efficiency.
5. Developed countries must bring the evidence of feasibility
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1) A prosperity threatened by energetic and climatic challenges

- The mobilisation of energies, such as coal or oil, has allowed us to free from physical work and to create prosperity.
- To have energy at one's disposal is one of the fundamental determiners of prosperity.
- The reserves of fossil energies are limited.
- By staying on the current path, the humanity goes towards an energetic and climatic crash.
- The living conditions of populations are in deed threatened to strongly degrade.

2)The impossible extension to the whole world of the current model applied in developed countries

- The Market cannot multiply without any limit all the factors of productions, including energy, space, raw materials, etc.
- From now on, the economy is striking against the limits of the physical reality.
- An extension of the current European economical model to the whole world would suppose dividing in two the consumption of primary energy.
- It would be a non sense, because global warming must be limited at two degrees.
- And because it would only accelerate the exhaustion of fossil reserves.

3) To stop the development ?

Certainly not, for three reasons at least: :

- Unjustifiable in terms of equality.
 - A voluntary reduction, massive and controlled of the standard of living, according to the decreasing doctrine, seems to be little realistic and acceptable,
- An indissociable whole :
 - Without a sufficient and fairly distributed development, we won't progress in the sector of natural resources.
 - Symmetrically, without controlling the stakes in natural resources and in energy, it would be impossible to assure durably the prosperity for all the inhabitants of the planet.
- The underdevelopment would prevent the control of the demography.

4) For a prosperity based on renewable energies and energetic efficiency

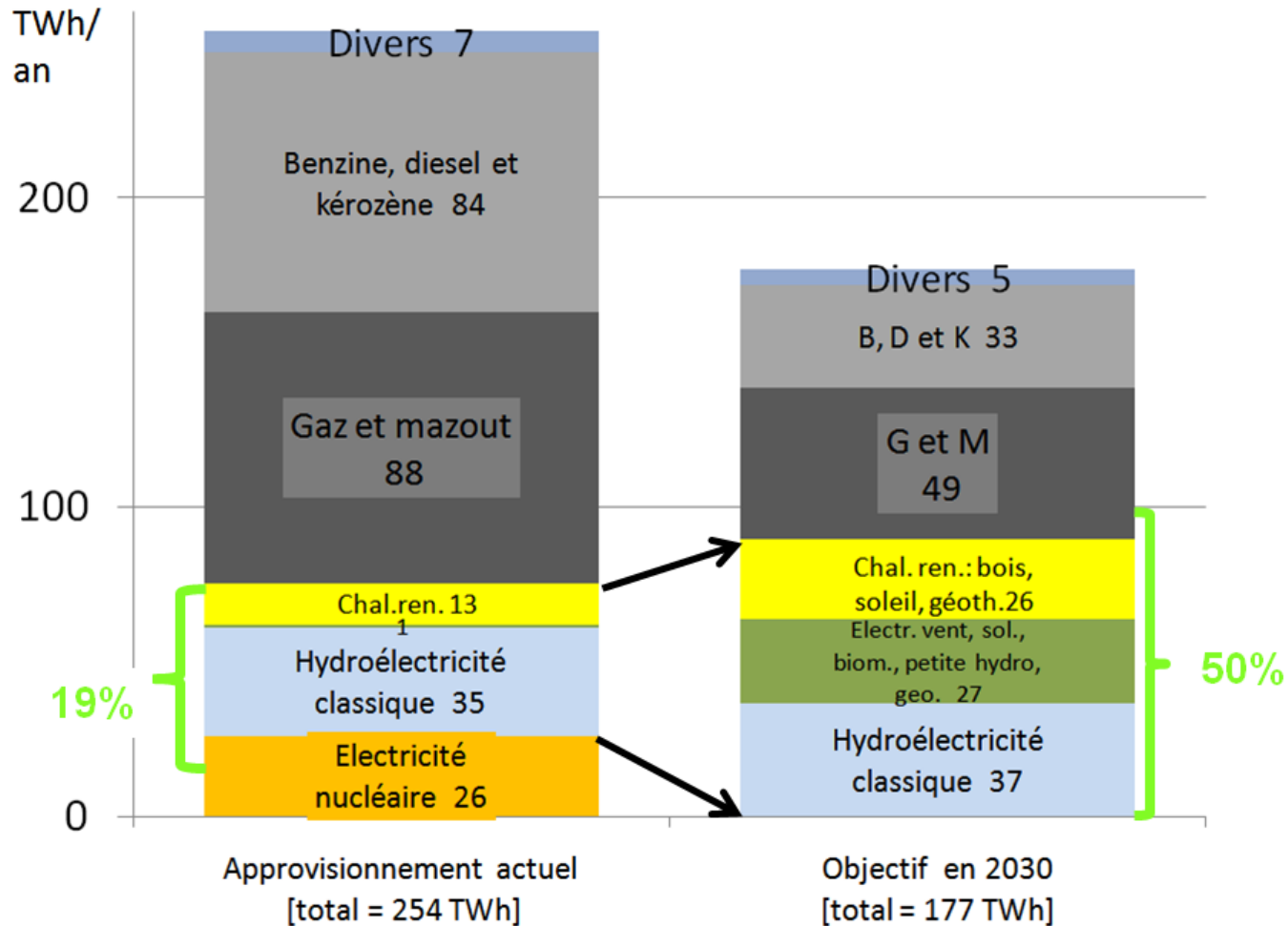
- Imperative need of a new lifestyle, compatible with the physical constraints of the planet
- Two action directions are essential:
 1. Using renewable energies, less harmful and without stock limit.
 2. Strongly increasing the efficiency in the use of energy.
- The return in a rural civilisation and using antique techniques is not feasible on a planet populated with 8 or 10 billion inhabitants.
- The humanity has a certain capacity to influence positively its fate, even on long period, provided this is what is wanted.

5) The developed countries must bring the evidence of feasibility

- The advanced countries have a big responsibility to make the technologies progress as well as the modes of organization:
 - Because it's them who, in terms of comfort, got the more benefit of the energetic orgy of the 20th century.
 - Because they have excellent assets in terms of formation, research and technology.
 - Because most of the countries , if not the totality, try to adopt the lifestyle of developed countries.
- By drawing, with other developed countries, the technological and ecological way of a sustainable development, Switzerland contributes to make the road more attractive for emerging countries.
- It is also in the well considered interest of developed countries to free from not renewable, dangerous, polluted energies such as, oil, gas, coal and nuclear power.

6) The situation of Switzerland: how to reach 50% of renewable in 2030

The current supply of Switzerland and the objective in 2030



- To reach the intermediate objective of 50% renewable energies « popular initiative entitled »new jobs thanks to renewable energies – Cleantech »):
- Take advantage of the earnings efficiency to reduce the huge waste of fossil energy.

- Concrete measures :
 1. Clean up the park of buildings (national program of support)
 2. Reinforce public transports and partially electrify individual mobility
 3. Concretise the earnings of efficiency in the sector of electricity.
 4. Entirely replace the current nuclear production by renewable electricity.

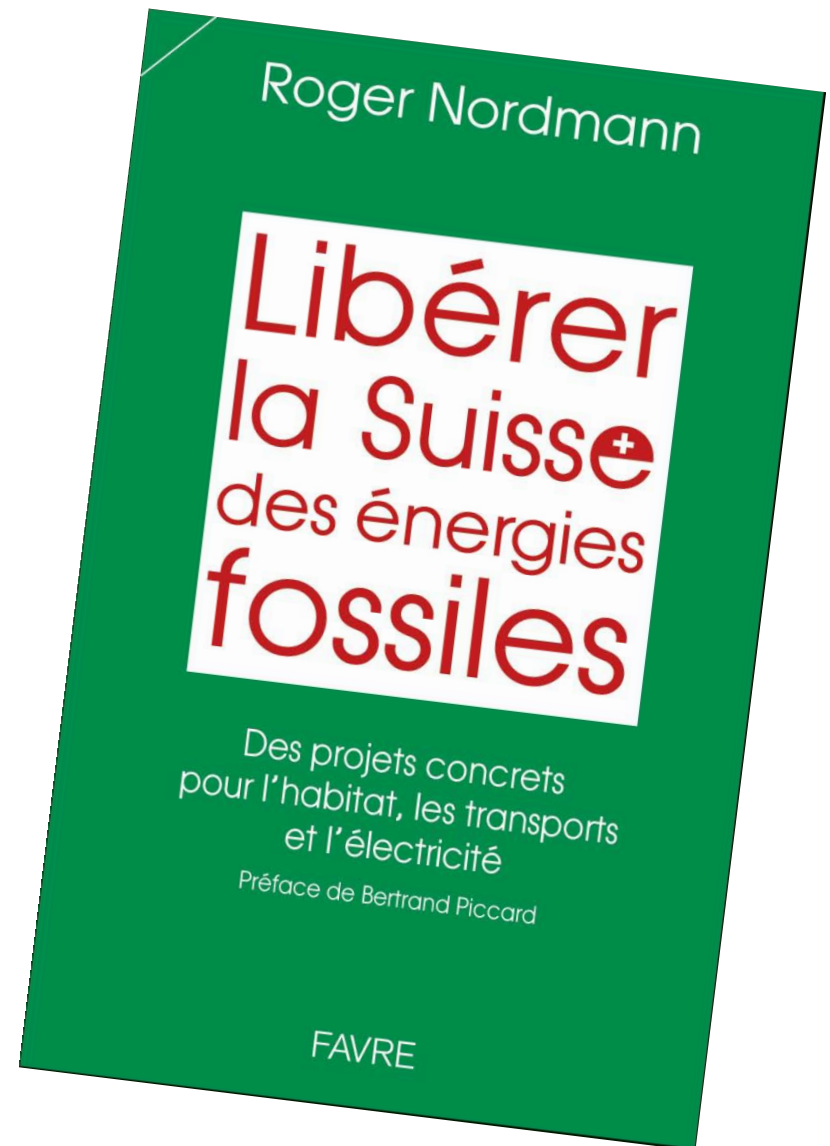
Thank you for your attention

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www.roger-nordmann.ch

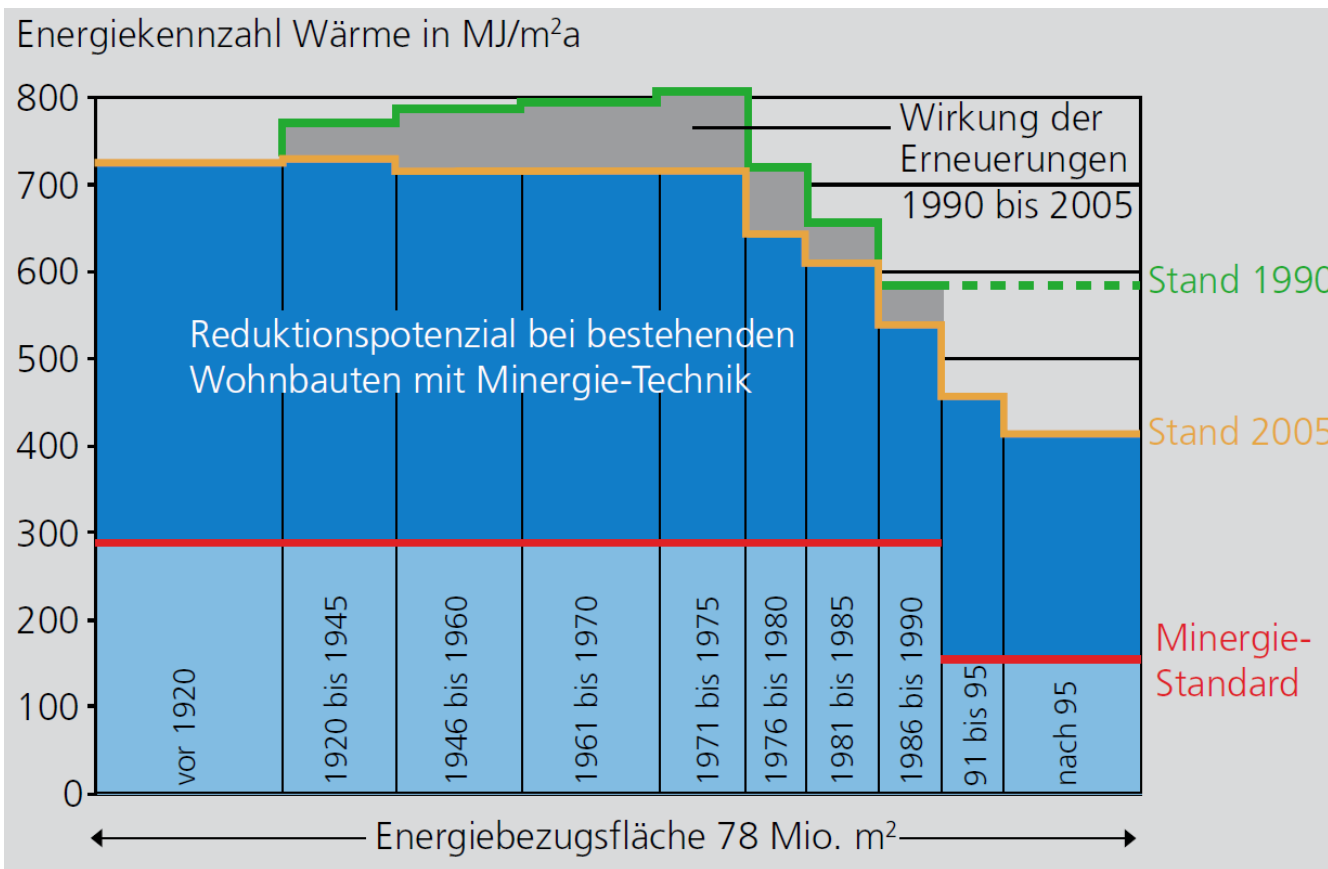
www.initiative-cleantech.ch



Dias de réserve pour les questions

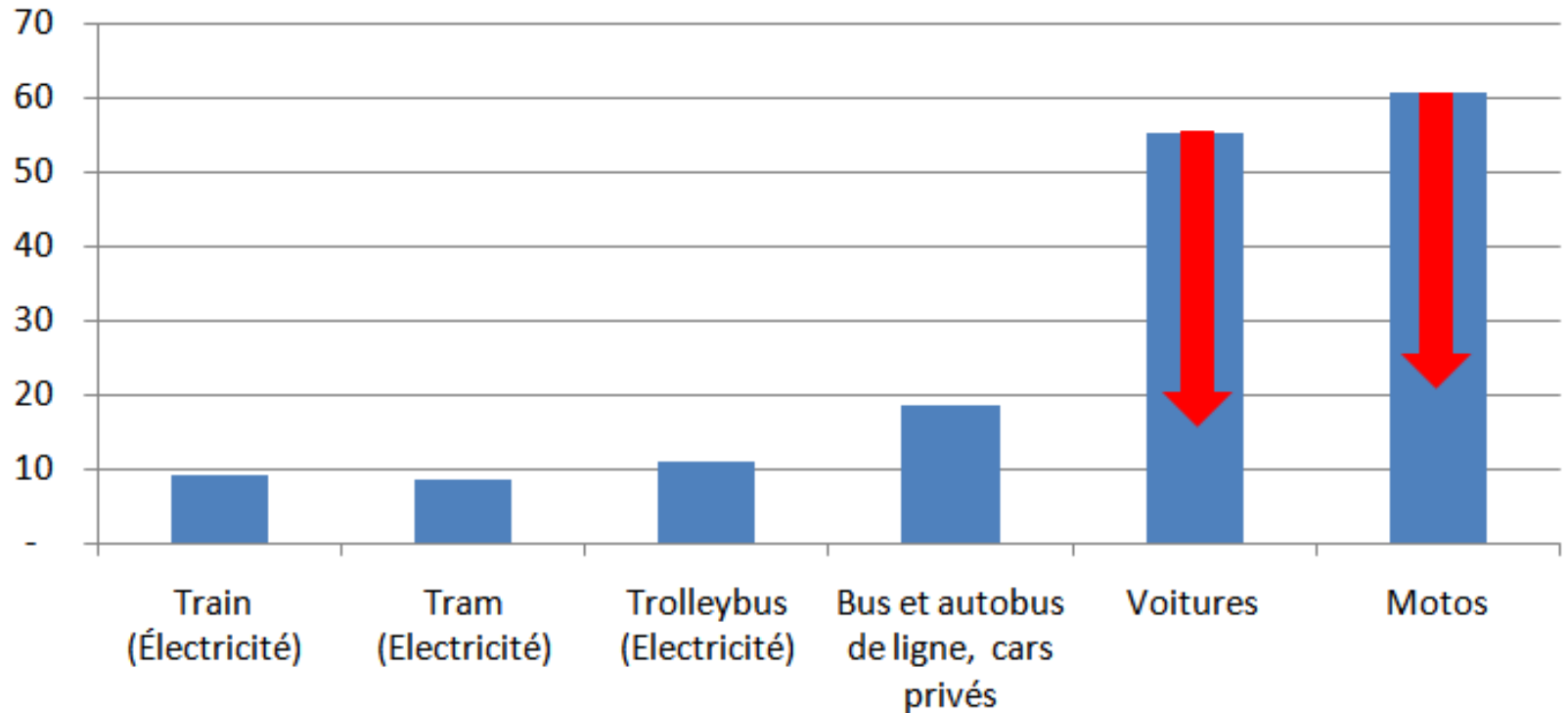
Clean up of Park of buildings

Exemple du parc de logement du canton de ZH



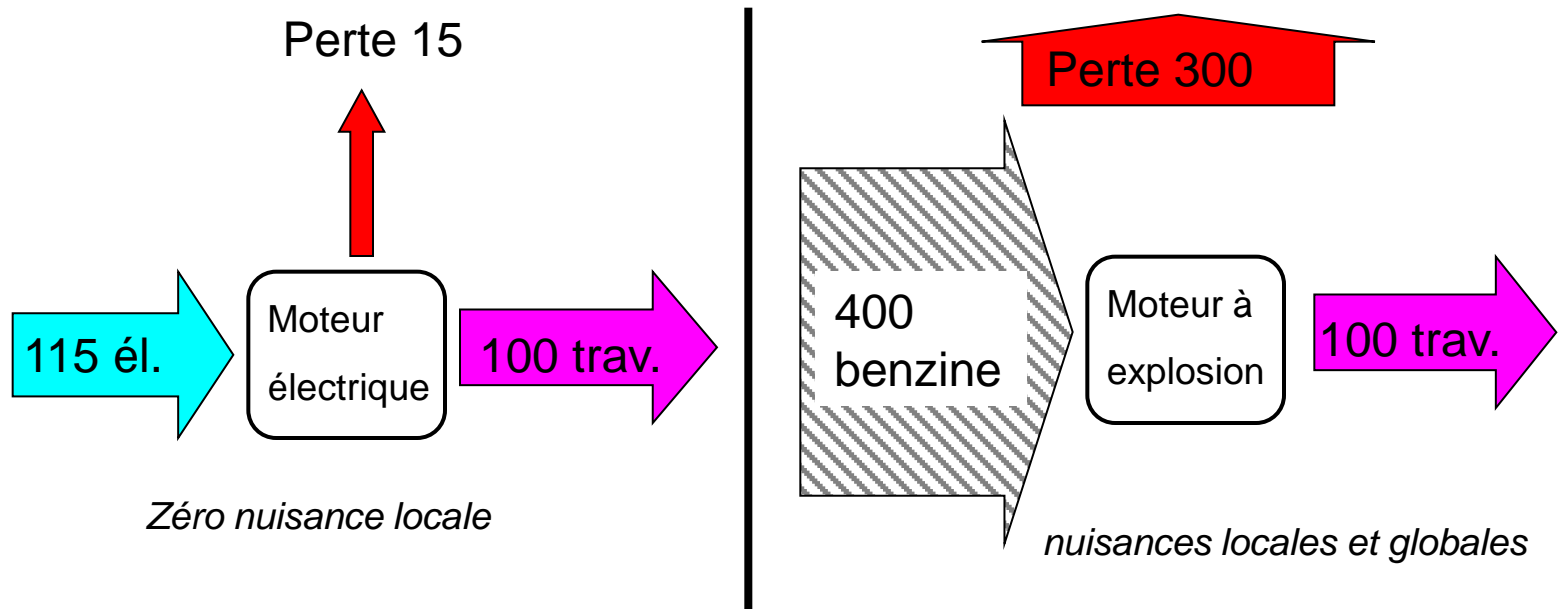
Clean up of mobility

(KWH consumed on average to transport a person on a 100 kilometre, in 2008)



The Advantages of electricity

The role of electricity in the quest of efficiency



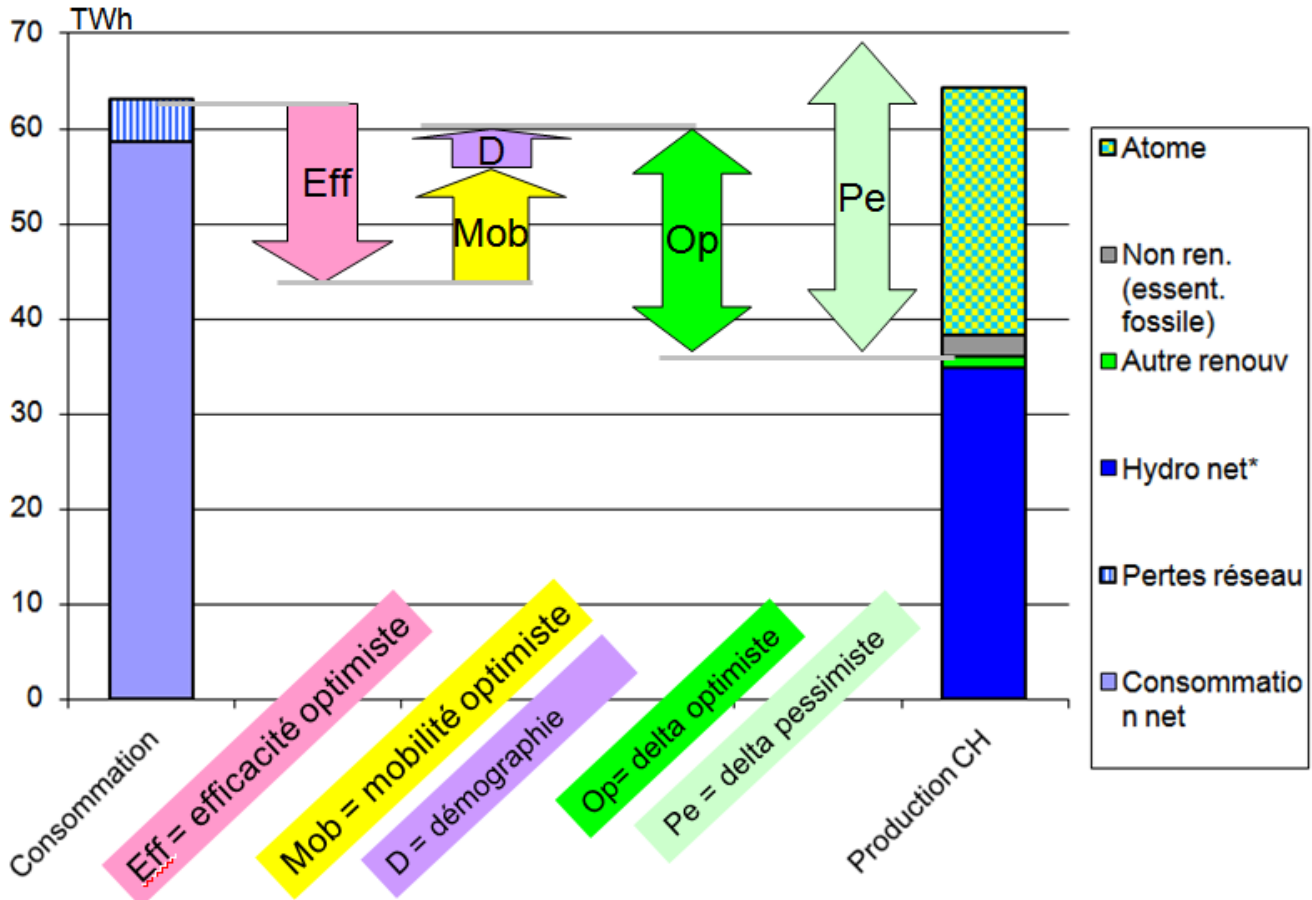
- Electricity is very efficient in its use (Excellent return)
- It can be produce in a clean way, contrary to « agrofuels »

Contre-indications:

- If CO2 emissions in large quantity to produce electricity
- electricity from nuclear

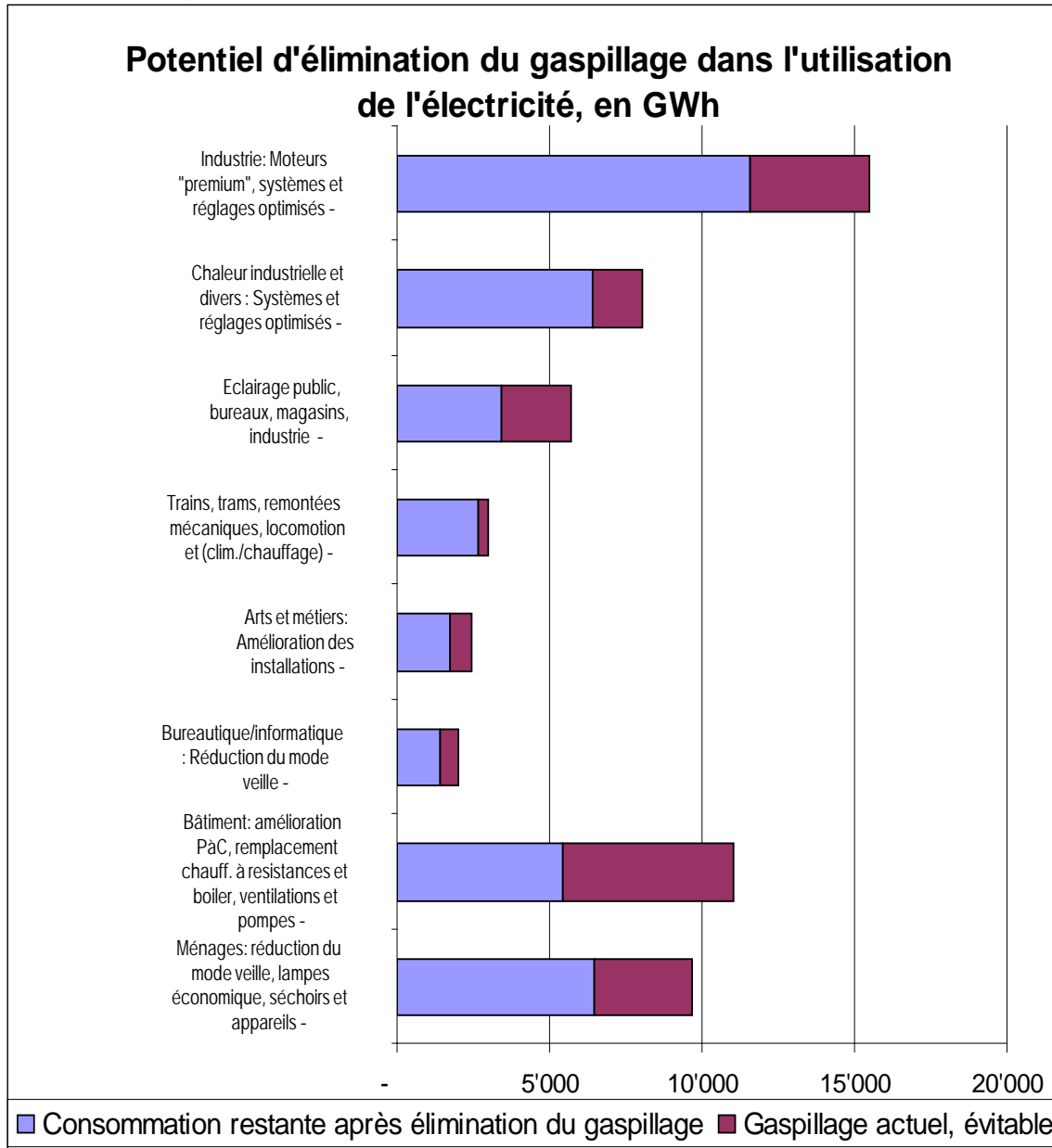
Clean up electricity

The electric situation in Switzerland in 2008 and perspective in 20 years



*Hydro net= production hydroélectrique après déduction du courant utilisé pour le pompage

Earnings of efficiency in electricity



Source
www.energieeffizienz.ch.