

Readers of the essay have mailed comments about its emphasis on techno-economic energy policy, with less room for ethics and socio-political issues. The comments are genuine and refer to the essay's *distinct strategic choice*.

Addressing climate change is the most urgent duty for keeping Earth a sensible place for living by billions of humans. Effective policy eliminates the source of the problem by applying robust techno-economic measures. When *financially profitable* to common people, they readily will cooperate in the applications. Then, differences in origins, convictions, beliefs, characters, ... are of lesser importance. It is unfortunate loss of time to focus on the many socio-political contrarities. *Separate* the techno-economic actions from the endless socio-political considerations, is now necessary and advantageous to advance effective actions.

Next follows more clarification of the situation and my argument.

1. Since WWII, the wealthy part of humankind significantly worsens the major world problems: deterioration of nature and environment, and deep inequality between poor and rich countries. In 1987, the United Nations propose *Sustainable Development*<sup>1</sup> for necessary changes. Neoliberal interests said to support Sustainable Development, conquering a place at the table. However, from inside they sabotaged progress. The road to climate change calamity with deeper inequality was taken, for protecting Big Money of oligarchs and corporations.
2. In case of extensive, intricate problems, identifying the causal sources and mechanisms is the start of effective strategy. Global warming of Earth and sequential climate change is the worst harm to the human habitat, so to survival of mankind.  
*A species disappears when its livable habitat is destroyed.* Radical intervention to eliminate the causal sources may constrain the extent of destruction and disappearance.
3. Main cause of global warming is the gigantic mass of greenhouse gas emissions from fossil fuel use, being actually *gaseous litter* of the worst kind. Capturing some emissions is in principle possible, but expensive and rarely done. Prohibiting the problematic litter is best policy. Is such ban feasible? YES by advancing sciences, such as electronics, new materials, ICT, and more. Technologies such as photovoltaic cells, modern wind turbines, smart grids, batteries, and more, continue to improve in efficiency while manufacturing expenses decline. They fit for worldwide generation of small-scale *local renewable electricity*. This is the only material hope to bring greenhouse gas emissions down.
4. Main question is thus: how to realize a fast and full deployment of *local renewable electricity* for escaping climate collapse in due time? Generating renewable electricity is *profitable* for a household, community, district, etc. The thrust of self-interest accelerates and multiplies the applications. Protecting and boosting the local initiatives is *real* climate policy. Socio-political conflicts divide communities. Endless talks without result are harmful, because they ruin extremely valuable time and impede what is urgently necessary.
5. Fast deployment of local renewable electricity is no detriment to the many other dimensions in personal and societal life. Contrarily, generation of the own electricity is a solid fundament for local communities and institutions intertwined with the life of common people. Local communities are no paradise, and they differ largely. Some are open-minded, versatile, and democratic. Other are closed, inflexible, and authoritarian. By bottom-up delegation of powers, necessary governance levels function upwards of the local and may there overcome socio-political contradictions. Local communities are a workable substrate for more democracy. The overall kaleidoscope holds opportunities for *just* representative institutions and democracy. Not like the democratic fiction in incorporated neoliberal nations governed by big money and subservient executive power interests<sup>2</sup>.

6. Without detailed blueprints of the new era 3, the headlines are readable, with the additional insight about their mutual strengthening with congruence.
  - *Natural* degrowth is a big advantage of the energy transformation. Eliminating the fire & steam technologies for electricity generation is a financial-economic win, and wanted for natural self-interest by the owners of local PV-panels and wind turbines.
  - Limiting fossil fuel use makes the geopolitical conflicts and wars for oil & gas pointless. Aggression militarism by so many countries is losing solid ground, such that the weapons industry and the war ministers will panic.
  - No longer cashable are the yearly billions \$ super profits from oil & gas, via energy bills paid by billions of common customers. When spendings on fossil fuels fade, common people can buy installations for renewable electricity generation much easier.
  - With their own low-cost electricity, the poorest countries in the world enhance the chances for a better life. Global inequality may decrease, as well illegal emigration.
  
7. Building the societal structures of era 3 for Peace and Wellbeing for All on Earth, requests the contribution of experience, understanding and knowledge by numerous communities and professional disciplines. Welcome to activists, philosophers, sociologists, political economists, psychologist, physicians, jurists, artists, architects, product developers, and so on. In era 3, *ethics* will be on top of political thinking and handling. Significant responsibilities rest on the shoulders of societal elites to respect moral integrity and to share opportunities and wealth with others. The transition of most common people to local renewable electricity generation will keep the human habitat livable. Then, the floor is clean to build bottom-up orderly and happy societies.
  
8. Summarized:
  - First necessity is a fast techno-economic deployment to keep the human habitat livable.
  - Socio-political policies have a supporting role, and best keep a low profile until the crucial problem is addressed and the solutions have reached an irrevocable coverage.
  - When the techno-economic substrate of local renewable electricity is sufficiently developed, progressive social-political institutions can deliver better, real democratic, societies.

#### Endnotes

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<sup>1</sup> Brundtland et al. (1987) *Our Common Future – Onze Gemeenschappelijke Toekomst*, Oxford University Press

<sup>2</sup> Wolin S. (2010) *Democracy Incorporated*. Princeton University Press