

Sustainability tomorrow: Identifying challenges, analysing approaches and assessing future strategies

Video Transcript

Assessing possible energy futures

[Prof. Dr. Paul Burger] This is the scheme of the energy system you explored in the previous step. We will now set goals for all the elements represented by the boxes. This will help us work out a set of goals representing sustainable energy systems.

How could we develop these goals? We could, for example, derive specific goals from the different sustainability concepts that we discussed earlier in this course. Another approach could be that we are guided by the Sustainable Development Goals. However, it might also be possible to find the commonalities between these two approaches and develop the goals from them. This is what we are going to do in the following.

In a very general sense, not exceeding nature's resilience threshold is certainly a minimum requirement for any energy system. Justice considerations are also part of a future sustainable energy system.

Building on these poles of justice and resilience, this is a version of a possible set of goals. You can also find it attached to this step. We should note two things. First, variations of goals are possible. Second, these are abstract goals. Concrete goals will be the result of deliberative processes within societies. These processes also balance possible trade-offs between many factors.

Let me highlight a few of the many goals which represent a sustainable energy future.

Net-zero greenhouse gas emissions are important. However, they are part of a set of goals that also includes biodiversity and ecosystem services. I already pointed out that it is crucial that we don't exceed resilience thresholds.

The basic idea is that energy sources and services should be provided in such a way that the dynamic cycle of nature retains its equilibrium. In turn, the provision of energy sources and services should be primarily based on renewables.

As to the complementarity of efficiency and sufficiency, this also involves a shift towards dematerialised social identities. In addition, a future sustainable energy system should ensure access to clean and affordable energy for all.



Finally, safeguarding society's potential for action and reaction also belongs to our set of goals. This helps us cope with challenges such as climate change, for example. This goal is just as important as a secure energy supply. It is part of the same set of goals as building actor coalitions that promote the transition to a sustainable energy system.

This is all quite complex and certainly not easy to achieve. However, this is what sustainability-oriented thinking offers: a systematic approach to that which constitutes a desirable future. And a desirable energy future is much more than secure, cheap, and CO₂-neutral.