Green tech could mean global climate deal is not needed

by Anthony Patt and Johan Lilliestam
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The solution to climate change need not come top-down from the United Nations negotiating halls, it can bubble up from regions and nations and is already doing so – argue researchers

Despite some recent procedural progress towards a global climate agreement, it still seems clear that the political obstacles towards negotiating such a deal of sufficient depth and scope are huge - and potentially insurmountable. Yet, at the same time that global action has been slow, there has been a wealth of activity undertaken by countries and regions in the area of promoting renewable electricity technology. We recently investigated whether such a regional renewable electricity technology push and system transformation could contribute to combating climate change by strongly reducing, or even eliminating, the power sector greenhouse gas emissions - even if no global deal is forthcoming. Our research suggests that it could be.

We analysed the effects of nine major events that took place in the Europe and the world - ranging from the financial and debt crises to the Arab spring to the development of national renewable energy plans in Europe - and their impact on the development of renewable electricity in Europe. The study considered areas such as political leadership, technology, cost development and issues concerning the investment environment. The results show that most things are going well for European renewable electricity. Of particular importance was the observed trend of rapidly decreasing costs of renewables over the last few years, primarily driven by the fast expansion that took place first in Europe and then in other regions such as the United States and China.

Just as importantly, rapid steps towards European power market reformation and integration have been taken. Why this is important has to do with creating the incentives for power producers to invest in new infrastructure at a time when the risks of doing so appear particularly high - and with the challenges of integrating a large share of intermittent

renewable electricity into a power grid that people expect to be reliable. At the same time, an increasingly strong commitment of both European and member state policy to renewables can be observed, something that is important for the long-term expectations and investment decisions.

Although the results are broadly encouraging, they highlight an area of policy action where more attention is urgently needed: Both policy-makers and grid operators have had great difficulties overcoming public opposition to new power lines and in simplifying and accelerating the permission processes. The result is a painfully slow progress in the European grid sector - something that threatens to stop the expansion of renewable electricity in the medium to long run. Unless a solution is found, this could stop the European renewable electricity technology push dead in its tracks. The solution is not simple. It includes consistent application of practices of transparency and fairness around new project proposals, things that have been demonstrated to generate broad local support.

In fact, the progress in the European renewable power sector indicates that climate protection may be possible even without a binding global treaty to reduce emissions. Based on reasoning grounded in economics and game theory, the conventional wisdom has been that a global climate agreement is needed in order to stimulate countries and regions to engage in economically costly and technically challenging actions - to eliminate their greenhouse gas emissions over the coming decades.

But at least in the power sector, Europe is taking precisely the actions it would need to take to fulfil its commitments under an ambitious global treaty. To a large extent, the motivation for change lie not in climate protection but in a diverse set of collateral benefits - energy security, labour market development, internal integration, reduced local pollution. Benefits of climate protection that conventional wisdom fails to consider. In taking these actions - Europe, along with China and the US, are unilaterally bearing the costs of making renewables competitive; and of solving the system integration challenges, which together will make renewables globally affordable and useful. Whether this bypasses the need for a global emissions reductions treaty, will make such a deal easier to attain or implies the need for a different kind of treaty - it is too soon to tell. For the power sector, however, we are optimistic that the solution to the climate problem need not come top down from the United Nations negotiating halls. Instead, it can bubble up from the regional and national policies that are already unfolding before our eyes.

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