

# KlimaCampus Kolloquium

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At the invitation of the HafenCity University Hamburg

## Conflicts of Governance and Scale in the Acceptance of Distributed Generation in Smart Grids

KlimaCampus Hamburg

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### Abstract

As with all new technologies, renewable energy innovation requires acceptance within society. Historically, this was considered a relatively simple issue that could be addressed by applying good communication strategies. Social acceptance of renewables was considered a matter of merely public acceptance and any problems with public acceptance were viewed as issues of "education", for example about the significance of renewables for climate change mitigation. Furthermore, acceptance was primarily negatively defined — 'non-technical factors' —. Both have proven to be big mistakes.

Innovation must be considered a much broader concept, the acceptance of all crucial dimensions of new socio-technical systems (STS). In the transfer of the STS of energy supply and demand into one based on renewables, with a large part of supply produced with geographically widely dispersed generating capacity ("*Distributed Generation*"), nothing can be taken for granted. The willingness to accept phenomena related to innovation of different parts of society, including all realms beyond 'the public', comes to the fore in several basic conflicts. These are all about the willingness to invest in, and to accept *institutional changes*:

– Acceptance of the creation of new socio-economic conditions needed for implementation;

- Acceptance of the consequences of the implementation: implementation will affect current practices in society and forcing some behavioural patterns to change fundamentally.

The conflicts about these institutional changes will be analysed for some crucial elements of emerging *smart grids*.

Conflicts arise within realms of socio-political acceptance (e.g. about the priority for markets or for civil society initiatives), within realms of market acceptance (for example between a consumer approach and a co-producers' perspective) and within community acceptance (e.g. owners/entrepreneurs views versus place attachment). However, the strongest and most crucial conflicts come to the fore between different scales, which means between lack of socio-political acceptance on the one hand, and market and community acceptance on the other hand. For example between existing incumbents in the power sector and adjacent sectors (like oil/gas, transport, agriculture, high energy industry etc., *including governmental actors*) on the one hand, versus market and community actors on the other hand. The latter may be any social actor, (sometimes only emerging new actors) involved in co-production initiatives, new energy services companies, civil society initiatives, emerging co-operations within micro-grids, local governance initiatives, and more.