

# IMPACT ANALYSIS OF MULTIPLE FUTURE PATHS TOWARDS A CLEAN ENERGY SECTOR: A STAKEHOLDER PARTICIPATORY APPROACH

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**Abstract:** *Nowadays, it is considered undeniable that innovation and climate challenges define the direction of a future European energy system. The European energy, innovation and climate challenges define the direction of a future European energy system, however the specific technology pathways are policy sensitive and need careful comparative evaluation. On the other hand, stakeholder consultation is becoming an important component of all policy- and decision- support processes. Stakeholder dialogue or exchange is a very enriching experience, as it promotes the communication of different and sometimes controversial ideas, approaches, and expectations. It also enables the collecting of feedback and suggestions from a variety of individuals having complementary skills and backgrounds. The specific paper introduces stakeholder consultation process, so as to analyse the impact of multiple future pathways and policies in the European energy sector. This will be done through a concrete methodological approach that is based on an intense dialogue and institutionalised consultation process of the relevant stakeholders at policy, industry and research/ academic level. The methodological framework consists of a series of concurrent and consecutive steps to involve stakeholders throughout the process:*

*Step 1: Identification and categorisation of the most relevant stakeholders*

*Step 2: Listing the key objectives and benefits of the stakeholder dialogue*

*Step 3: Stakeholders selection*

*Step 4: Means of stakeholder consultation*

*Step 5: Preliminary stakeholder engagement*

*Step 6: Topical workshops*

*Step 7: Analysis of stakeholders' feedback*

*Step 8: Impact Assessment of alternative pathways*

*Step 9: Dissemination of results*

*The proposed methodology proved to be successful in establishing an intensive dialogue and institutionalised consultation process with relevant stakeholders at policy, industry and research/ academic level. Key findings as regards the critical uncertainties affecting the future energy sector reveal that the level of cooperation and the level of decentralisation may play a crucial role in the design of alternative pathways towards a clean energy system. Through the steps 5 to 7 a set of relevant criteria were exploited aiming at revealing the pathways with the most auspicious prospects of succeeding and achieving energy sustainability in Europe. The regulatory framework, the compatibility with energy market and the compliance with the European goals are some of the main aspects that are of great importance according to the stakeholders' views. Finally, the impact assessment indicated as most preferable pathway the storyline that describes a path-dependent trajectory for the European energy system.*

**Key words:** *Decision Support; Policy Making; Knowledge Transfer; Participatory Analysis; Stakeholders Consultation*

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