Assessment of Low Carbon Society Policy Instruments

DURATION 15/12/2014 - 15/03/2017 BUDGET 473.552 €

PROJECT DESCRIPTION

Context

Finance is one of the main critical issues for the development of a low-carbon society especially during times of economic recession. Closing this green investment gap will require policy intervention. The ALPI project will concentrate on promoting relevant instruments to accelerate the transition towards a low-carbon society by demonstrating the performance and impact of policy instruments on economic, government budget and environmental aspects.

General objectives and underlying research questions

The overall objective of the ALPI project is twofold:

- to contribute to science by **quantitatively** simulating and comparing the impact of different **user-defined** policy instruments on investment decision and on emission reductions and
- at the same time give Belgian policy makers scientifically sound evidence of the impact of these instruments and how they are best designed, implemented and streamlined with other policies to maximize their economic and environmental impact.

Methodology

To achieve the objectives within a two-year program, the ALPI project will work through relevant case-studies out of different economic sectors.

- 1. Buildings: energy efficiency in residential buildings;
- 2. Geothermal technology as case for "new" technologies;
- 3. Electricity: financing models for biomass based electricity production;
- 4. Transport: how to shift to a more sustainable fuel mix;
- 5. Green Public Procurement: the government as sustainable consumer.

The ALPI project starts with an exploration phase, in which at the one hand interesting policy instruments will be screened to test in the case studies and on the other hand a common methodology will be designed to make sure that protocols for stakeholder consultation and methodological approaches within the case studies are streamlined. Each case-study will go through the same subtasks:

- Stakeholder consultation: to discuss and select the instruments that will be tested;
- Economic evaluation will be case and instrument dependent;
- Environmental assessment: case study specific methodologies based on IPCC guidelines for national greenhouse gas inventories to compare evaluated policy instruments for the amount of GHG reduction per euro invested or per euro public support;
- Legal context: legal feasibility taking into account legislative competences, public finance prerequisites and the accordance of tax instruments with domestic, European and treaty constraints.

Nature of the interdisciplinarity

- The interdisciplinarity is guaranteed through:
 - the multi-sectoral approach of the case-studies;
 - the balanced expertise of the consortium;
 - the selection of the instruments based on stakeholder consultation from a broad group of disciplines (economics, financing, tax, housing, energy, environment, mobility, ...);
 - the assessment of economic, ecological, public finance, tax and institutional aspects
- the focus on innovative versus established and energy efficient versus renewable energy technologies.

Belgian Research Action through Interdisciplinary Networks

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Potential impact of the research on science, society and/or on decision-making

Policy instruments are at the core of the ALPI project, therefore ALPI consortium wants to:

- contribute to greater knowledge on impact of policy instruments on the uptake of investments;
- unravel the possibilities, complexities and interactions of fiscal instruments on the different policy levels.

For the scientific world the impact will consist of:

- development of interesting case studies in various strategically important sectors for emission reduction (housing, renewable energy, transport, industry), with the objective of quantifying the impact of different policy instruments;
- use of innovative methodologies to economically quantify the impact of fiscal instruments on energy efficiency and renewable energy production;
- a better understanding of the institutional context of climate policy making and taxation instruments.
- Description of finished products of research (model, scenario, report, workshop, publication, etc.) at short and medium term.
 - For the Belgian authorities the project will result in a report with scientific support for a better understanding of how different policy instruments impact on the uptake of investments by citizens, the introduction of renewable energy technologies and the role of governments own purchasing behaviour and a proposition for different possible instruments (direct income and corporate tax, value added tax, cooperation incentives, ...).
 - A final conference is foreseen at the end of the project.
 - Some more practical instruments as a decision tree for innovative technologies and possible policy instruments that are optimal for the different stages of the technology development trajectory will be developed.

CONTACT INFORMATION

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<u>LINKS</u>

www.alpi.ugent.be



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