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Fundamental issues for policy evaluations and lessons to be learned

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EXTENDED ABSTRACT

It is important for the government to evaluate their policy in order to define whether it was effective and efficient and make proper improvements to the implemented policy. Especially, since energy policies face a rather new and unknown territory due to the energy transition to an efficient and fossil fuel-free economy, many lessons can and need to be learned by policy makers. Often a distinction is being made between three different evaluation criteria: (1) target range, which is measured by the extent to which the goal of the policy has been achieved, regardless of whether this is due to the instrument or other developments, (2) effectiveness, which is measured by the extent to which the policy instrument contributed to the achievement of the goal, and (3) efficiency, which is measured by how the effectiveness of the policy instrument relates to the costs incurred to achieve the effect.[1]

However, multiple facets impede energy policy evaluations. The following fundamental issues for policy evaluations and lessons to be learned are derived from Dutch energy policy evaluation examples.[2]

Fundamental issue 1: Energy policies often lack explicit policy goals

The overarching objectives for the energy policies of 2016-2020 concerning the built environment in the Netherlands were based on the Energy Agreement of 2013.[3] These included 53 PJ energy savings compared to a reference scenario arising from the Energy Agreement and the realization of two label steps for 300,000 existing homes, an average label B in social rental and a minimum label C for 80% of private rental. These were very clear and useful objectives for setting up policy instruments.

However, looking at the eleven individual policy instruments, only for two instruments a quantitative goal was set (e.g., 140.000-365.000 homes owned by landlords realize two energy label steps up). Qualitative goals were set for 6 instruments (e.g., promoting energy-saving measures for houses of homeowners) and no goals were set for 3 instruments. When a goal of a policy instrument is not clear, the evaluation of the target range, effectiveness and efficiency of the policy instrument becomes impossible. Moreover, the goals that were set for the individual policy instruments were mostly not directly or indirectly related to the overarching objectives of the Energy Agreement. This will be at the expense of policy coherence.

Lessons to be learned 1: Clear goals should be drawn up for the individual policy instruments

Energy policy makers should draw up concrete (preferably quantitative) policy goals for each individual instrument that are sufficiently measurable (using SMART-criteria) in order to evaluate and test its target range

[1] Konidari, P. and Mavrakis, D. (2007). A multi-criteria evaluation method for climate change mitigation policy instruments. *Energy Policy*, *35*(12), 6235-6257.

[2] Van der Wal, A. J. (2022). Oordeel externe deskundige over de beleidsdoorlichting artikel 4.1 van 2015-2020. TNO Netherlands.

[3] SER. (2013). Energieakkoord voor duurzame groei. Den Haag: SER.

and effectiveness.[4] To subsequently enable the determination of the energy policies' efficiency, it is necessary to know the costs associated with the specific policies as well.

To fully apply the SMART criteria and specify the goals more accurately, analyses of available monitoring data should be carried out prior to the policy goal setting.[5] As a result, the outcomes of these analyses could be used to help determine the policy's target range. Furthermore, to enhance the coherence between individual policy instruments it is important to always directly or indirectly link the goals of these instruments to the overarching policy objectives.

Fundamental issue 2: Energy policies are often evaluated after execution

For only five out of the eleven individual instruments of energy policies of 2016-2020 concerning the built environment in the Netherlands, the effectiveness was evaluated and the efficiency for just two policy instruments. Furthermore, when energy policies were evaluated, it was mostly done as an ex-post evaluation once during the four-year time period for which the policy instruments were made. Both of these problems prevent policy makers from making adequate and timely adjustments to their policy instruments when necessary, which quite probably leads to ineffective and inefficient policies.

Lessons to be learned 2: Perform pre-test or interim evaluations of policy instruments

Instead of mainly post-evaluating energy policies once during the four-year time period, it would be advisable to evaluate individual policy instruments in advance (ex-ante) and on an interim basis (process evaluation). For example, individual policy instruments can be pre-tested in a pilot setting to see whether the target range might indeed be reached and whether the instrument is effective. Interim evaluations of policy instruments can be conducted on a small-scale and more controlled basis to test the effectiveness and efficiency.

Pre-testing and interim evaluations allow for timely policy adjustments, as it fosters an iterative process, and aids to set increasingly clear and achievable goals. In doing so, it will increase the target range, effectiveness and efficiency of the policy instruments. Furthermore, these small-scale evaluations might also provide lessons about how to differentiate between target groups and adjust the policy instruments accordingly.

Fundamental issue 3: Energy policies never stand alone

Energy policies operate in a context of other external factors, such as the initiatives taken by companies, corporations and residents themselves due to the increasing awareness of the climate problems. Various energy policy instruments take place simultaneously and not in isolation. Both of these issues make it very difficult to disentangle the effect of the individual policy instrument itself on the policy goals. Additionally, by purely evaluating the individual policy instruments, it often remains unclear how they interact (positively, negatively, or not) with the other societal factors or policy instruments.

Lessons to be learned 3: Perform an integral evaluation of policy instruments

Individual energy policy instruments often address only a part of the overarching policy objectives. It is therefore important to also look integrally at the combination of policy instruments when evaluating them. In doing so, more lessons can be learned over the effectiveness of the policy instruments as a package. Whether they strengthen or undermine each other. For example, one policy instrument aims to enhance homeowners'

[4] Elgazzar, R. F. and El-Gazzar, R. (2017). Smart cities, sustainable cities, or both. A Critical Review and Synthesis of Success and Failure Factors. *SMARTGREENS 2017 Conference*, 250-257.

[5] Bjerke, M. B. and Renger, R. (2017). Being smart about writing SMART objectives. *Evaluation and program planning*, *61*, 125-127.

willingness to invest in sustainable adjustments to their houses. Another policy instrument provides a subsidy for homeowners to make sustainable adjustments to their houses. Performing an integral evaluation of interacting instruments could show how the target range, effectiveness and efficiency of the policy mix influence each other.[6]

Conclusions

Since energy policies, in particular, are subject to a turbulent time due to the energy transition, it is even more important to learn quickly by properly and frequently carried out policy evaluations and adjust the policy instruments accordingly.

This short paper addressed three fundamental issues for policy evaluations. Namely, policies often lack explicit policy goals, are evaluated merely after they have been executed, and do not operate on their own, but rather as part of a policy environment. Three important aspects that help to perform proper policy evaluations are setting-up clear goals for the individual policy instruments, perform pre-tests and interim evaluations of the individual policy instruments and perform integral evaluations of interacting policy instruments.

[6] Rogge, K. S. and Reichardt, K. (2016). Policy mixes for sustainability transitions: An extended concept and framework for analysis. *Research Policy, 45*(8), 1620-1635.