

Evaluation Helpdesk

Support to energy efficiency and renewables (T04)
General issues and review of evaluations
undertaken in Member States

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Extent of measures to support T04

- Support for T04 covers a range of different measures, targeted at a number of different groups - public authorities, enterprises, social organisations and individuals
- Measures concerned include support for:
 - renewable energy production
 - increased energy efficiency and use of renewables in firms
 - renovation of housing and other buildings
 - district or collective heating systems
 - increased energy efficiency of transport
 - increased efficiency of electricity transmission lines + smart grids
 - raising awareness of energy saving opportunities
 - cross-border cooperation over energy supply
- Evaluations may therefore need to cover a number of different measures, with different characteristics and target groups
- which has implications for approach adopted, unit of analysis and coverage of sectors

Forms of support

- ERDF financing is not only source of support for achieving energy policy objectives – also national and regional support programmes which ERDF needs to be consistent with
- Same project or measure may be financed by both national/regional funding and ERDF – raises problems of distinguishing between two in evaluation - question of whether worthwhile, or even possible, to do so
- And support can come in other forms apart from financing - through:
 - pricing of fossil fuels and renewables
 - tax system
 - building regulations
 - emission standards
 - energy labelling requirements
 - public awareness and information campaigns

Resulting issues

- All of these can complicate attempts to identify impact of particular ERDF measures – i.e. their effect on outcomes needs to be taken into account
- And financing can take different forms – broadly grants and subsidies or financial instruments – which can be subject of evaluation to determine most effective means of support
- Equally, not only financial form of support which is an issue but also rates and terms which should be applied - aim is to attract take-up but to avoid excessive amounts of subsidy
- The latter especially so since energy saving produces cost savings which in themselves might justify investment in increased energy efficiency
- Similar consideration applies to support for renewables, for which there are also potential returns
- Subsidies in whatever form have aim of providing additional incentive to undertake investment – increasing awareness of potential returns through information campaigns possible alternative

Evaluations of TO4 in 2014-2020 in Member States

- 61 evaluations on support for energy policies in 2014-2020 period published from 2015 to end-March 2020 reviewed by Helpdesk
- Only 8 attempt to assess impact of support on end-objectives, other 53 examine procedural aspects and/or report on progress of programmes
- Of the 8 impact evaluations, only 2 use methods designed to assess impact by attempting to distinguish effects of support from those of other factors
- One of these uses counterfactual approach to assess impact of a shift to natural gas on socio-economic situation and air pollution
- Compares, through PSM, municipalities using and not using natural gas for electricity generation in earlier period - results then used to estimate likely effects in present period
- Represents way of overcoming insufficient results for present period – through basic assumption that experience in earlier period is accurate guide to effects in 2014-2020
- Whether valid or not left as open question, but could be tested

Evaluations carried out on TO4 in 2014-2020

- Second evaluation attempts to assess impact by reconstructing intervention logic of (Interreg) measures to increase energy efficiency in firms and support research into renewables
- Results based mainly on survey of policy managers + project leaders – little attempt to validate information obtained which might be biased
- Also numbers surveyed small as few projects completed, so might not be representative
- Other 6 impact evaluations use relatively basic methods to assess effects of measures, relying on analysis of data collected from monitoring system, interviews and/or case studies
- In some cases, use technical estimates of energy savings or increase in renewables from measures implemented – e.g. installation of new heating system
- This approach useful, but implicitly assumes that nothing else apart from measure concerned affects outcome
- In most of these cases, measures still at an early stage so that results not yet visible – often reliance on estimates of these

Evaluations carried out on TO4 in 2007-2013

- 20 evaluations of support for TO4 in 2007-2013 also reviewed by Helpdesk
- Most of these also based on relatively basic analysis of monitoring data and information from surveys, interviews, case studies and/or technical estimates of energy saving or increased renewable production
- Only 5 out of the 20 use counterfactual analysis, in two cases combined with a theory-based approach to spell out causal chain leading from measures supported to outcomes and impact
- Two others use cost-benefit analysis to estimate net social return from investment – taking account of factors other than financial cost savings from energy efficiency measures - but difficult to put monetary values on reduced carbon emissions or increased security of energy supply.
- In most cases, way method applied and/or data issues raise a question-mark over robustness of results
- Overall, few evaluations of support for TO4 in previous period produce findings on effect of this which seem reasonably robust.

General lessons

- Three general lessons from impact evaluations reviewed:
 - i. Carry out evaluations when evidence of impact available – or adapt approach to take account of early stage of project/measure implementation
 - ii. Ensure data required are available when evaluation commissioned – needs forward planning, ideally starting when project/measure is planned
 - iii. Where outcomes can be linked directly to measures implemented – e.g. reduction in energy consumption from installation of an energy saving device – make use of technical data on effect or energy use before and after installation

But this in itself unlikely to be sufficient to identify effect of measures concerned - needs to be combined with efforts to take account of other factors which might affecting outcome

Rarely the case that all other factors remain constant.