



Short national & European consultation reports: KSF for RHC support schemes

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Author: Andrew King

Authors' affiliation: EST

Contents

Objective:	3
Definition of Key Success Factor:	3
Methodology:.....	3
Consultation overview	4
Results.....	4
1) Contribution from different stakeholders	4
Introduction	4
Analysis	5
2) Transparency and measurability.....	6
Introduction	6
Analysis	6
3) Financial adequacy and flow support rate	7
Introduction	7
Analysis	7
4) Predictability, stability and time frame	9
Introduction	9
Analysis	9
5) Quality and performance assurance.....	10
Introduction:	10
Analysis:	10
Additional Key Success Factors	12
Promotion and communication	12
Overly bureaucratic application process	13
Annex I	14
Annex II	14
Annex III	15

Objective:

The purpose of this report is to provide analysis and draw conclusions from a series of consultation events, known as National Consultation Platforms (NCP). Undertaken by each of the Energy Agencies involved in 'FRONT', these consultation events sought to discuss and validate the list of Key Success Factors (KSF) generated from ADENE's review of renewable heat and cooling (RHC) support schemes across nine EU member states.

Definition of Key Success Factor:

Internal discussions by FRONT project partners defined KSFs as "Factors that characterize a scheme, making it accountable, ensuring its cost effectiveness and helping boost confidence on the RES technology supported".

The KSFs were identified as follows:

1. Contribution of different stakeholders
2. Quality and performance assurance
3. Transparency and measurability
4. Financial adequacy and flow support rate
5. Predictability, stability and time frame

Methodology:

As specified in under Annex I, the following institutions were responsible for consulting relevant industry stakeholders on the Key Success Factors:

- IDAE (Spain)
- ADENE (Portugal)
- KAPE (Poland)
- RVO (Holland)
- EST (UK)
- AIT (Austria)

In order to facilitate discussion on the KSFs, ADENE (work package leader) distributed a presentation template to each of the energy agencies. This included a discussion guide to prompt industry feedback on each KSF¹.

The results from the NCP events were cross referenced with feedback provided by in-depth qualitative based interviews and discussion forums conducted by project partners EGEC, AEBIOM and ESTIF.² Furthermore, an online survey was developed to gather wider industry

¹ The key points for discussion are listed in Annex I

² The qualitative interviews conducted by EGEC and AEBIOM sought general feedback on support schemes. Discussions led by ESTIF sought specific feedback on each of the KSFs.

feedback on each of the KSFs, helping to validate the results from the NCP discussion and gain further industry insight into the considerations when developing future RHC support schemes.³

Consultation overview

The figures for the attended NCP events varied from nine to twenty-six participants. In each case, the intention was to invite a broad spectrum of industry representatives and therefore capture a range of viewpoints.

The split between each country is listed as follows:

- UK: 12 Participants
- Spain: 9 Participants
- Portugal: 24 Participants
- Poland: 26 Participants
- Austria: 14 Participants
- Netherlands: 15 Participants⁴

Despite extensive efforts made by project partners, the total number of responses from the online survey was relatively low – in total 34 persons completed the questionnaire. To this effect, there was only been a limited analysis drawn from these results.

Results

The following section seeks to distil the results from each country, broken down by each of the Key Success Factors.

1) Contribution from different stakeholders

Introduction

Analysis of the schemes implemented in different countries highlighted the importance of ensuring that relevant industry stakeholders are consulted during its design phase. A broader consultation process is expected to capture a wider spectrum of experiences and knowledge, which can be embedded into a scheme – ensuring that its design is both relevant to the local environmental conditions and industry supply chain.

³ The FROnT online survey can be found at www.front-rhc.eu/library/public-consultation

⁴ This number excludes internal staff members from host organisation

Analysis

With the exception of Poland, where this KSF was not discussed, there was a clear message to consult relevant industry stakeholders. This was particularly pronounced in Portugal, where NCP feedback and results from the online survey demanded significant improvement. In contrast, Austria ranked industry consultation as the least important of the KSFs. However, this was a reflection of broad satisfaction with the current consultation process. The only suggested revision in Austria was to adopt a more detailed consultation process, which included: installers, trade associations and end-users.

In contrast to previous Government led exercises, the UK NCP felt that the consultation process should be extended and therefore more inclusive. The UK NCP felt that the previous consultation process was more of a 'tick box' exercise, whereby wider industry views were not taken into consideration. These comments were echoed in Holland, where it was suggested that based upon responses from public consultations, there should be a clear audit trail of what final decisions were taken and why.

Both the UK and Dutch NCP criticised the lack of publicity surrounding the incumbent consultation process. In the UK this was found to inhibit the inclusion of less traditional entities, such as: private sector consultancies, specialist financial organisations, academic institutions, consumer protection and community groups. However, in Holland this perceived lack of awareness was considered to be a deliberate move by the Dutch Government to avoid a drop in sales until the proposed support scheme had been introduced.

Interviews conducted by ESTIF highlighted how consultation processes can disrupt industry progression. In reference to the German Marktanzreizprogramm "MAP", delays to budget confirmation, brought about by the consultation process, effectively stalled the market as clients sought to wait until the scheme became available. Whilst this point was made in the broader acknowledgement that consultation processes can help improve the operability of a scheme – care should be taken over the time, timing and level of information provided to the public, minimising the risk of market stagnation.

In specific reference to the Domestic Renewable Heat Incentive, the UK's criticism of a narrow consultation process ensured a 'perverse' outcome, whereby support was provided to certain technologies, which were not necessarily well suited to the end-user. In Portugal, the contribution from range of industry stakeholders was ranked as the second most important KSF⁵. However, there was no further elaboration on this point. In contrast, the Dutch NCP ranked this KSF as the second least important of the five. However, the call for a more

⁵ For the complete list of KSF ranked by Portuguese NCP members, please refer to Annex III

‘regional’ approach to structuring schemes, did suggest a desire to incorporate local knowledge and consult a broader industry audience.

2) Transparency and measurability

Introduction

This category aims to ensure that only useful energy generated by RHC systems is supported by a scheme. This can be achieved through three principle ways:

1. Ensuring that a scheme is more ‘accountable’ by implementing a more rigorous quality control process, for example, through random audits of installations.
2. Through the ability to monitor a scheme by metering the energy produced from a system.
3. By conducting in-situ trials prior to public launch, helping consumers access advice on system performance based upon robust evidence

Analysis

Transparency and measurability were regarded as important KSFs in Portugal, Netherlands, the UK and Poland. However, there was a more muted response in Spain and Austria.

In Portugal and UK, the NCPs expressed a desire to move beyond random site inspections and actually meter system performance, helping policy makers understand the distributional impact of a scheme, both in terms of costs and environmental performance. In Austria there was a call to adopt a standardised approach to monitoring and communicate results to the wider public – helping to improve consumer confidence and understanding of renewable energy (RE) technologies.

Whilst there was no specific reference to metering installations, the Dutch NCP highlighted the need to re-order the building supply chain - helping to understand the distributional impact, cost and benefit of a scheme. In a bid to improve the overall scheme’s accountability and transparency, the Dutch and Austrian NCP highlighted the need to undertake periodic evaluation to track whether targets are being met. This point was echoed in the Spanish NCP, whose members called for periodic evaluation of tariff levels throughout the operational life of a programme.

Whilst only briefly noted in the Dutch NCP, participants mentioned the need to conduct testing with desired cases prior to launching a scheme. Interpreted as a call for in-situ testing, this approach is expected to benefit not only consumers through improved advice provision

but allow policy makers to understand the environmental and economic benefits of a technology. Whilst only the Dutch NCP highlighted this approach it is worth noting that the UK Government, subsequent to launching the RHI, is currently undertaking a field trial of biomass boilers. This retrospective inability to understand the performance and environmental benefits of biomass systems highlights the benefit of prior in-situ testing.

In the UK, targets attributed to evaluate the effectiveness of a scheme were neither found to be adequately communicated nor in line with the expected benefits of the programme. For example, under the RHI there are currently no mechanisms, which aim to understand how the scheme impacts on the fuel poor and other vulnerable groups. In order to develop a transparent and measurable scheme, the objectives and key performance indicators not only need to be clearly communicated but must account for the broader distributional benefits.

Lastly, in reference to the transparency of a scheme, communication during a shift in ownership or retrofit activities was recorded in both the UK and Dutch NCP. Under this scenario, there was a concern that contracts with third party equipment may become void when a property exchanges hands. The issue is exacerbated with certain technologies such as heat pumps, which were considered to be more 'deeply' integrated into the energy infrastructure of a home. The lack of transparency regarding system ownership has important implications in countries where there is noted higher turn-over of property ownership.

3) Financial adequacy and flow support rate

Introduction

This KSF looks at the financial sustainability and adequate flow of financing for schemes. Repeated cases of poor financial structure were regularly noted to prevent RHC technologies gain a foothold within the market. Furthermore, fluctuations and abrupt changes in the level of fiscal support provided were both identified to impede market progression.

Analysis

Interviews held by ESTIF, identified how the financial adequacy of scheme is dependent upon how it compares to other programmes, either renewable energy or fossil fuels. For example, the solar thermal market suffered competition from feed-in-tariffs and subsidies for the acquisition of equipment using fossil fuels.

In Poland excessive levels of financial support had a number of negative impacts upon the RHC sector. Firstly, in accordance with ADENE's policy review, excessive grants led to over inflated installation costs. Secondly, the level of financial support had a negative impact on

installer standards, whereby generous subsidies led to end-users becoming less concerned about the design and efficient operation of their RHC technology.

In specific reference to the non-domestic RHI, research by AEBIOM found that the pricing structure of tariffs resulted in scheme inefficiencies for biomass boilers. As payment levels increased in proportion to rated boiler output, a perverse incentive to oversize biomass boilers was created, leading to operational inefficiencies. The situation in Poland and UK serve to highlight how tariff structuring can indirectly impact upon the efficiency of the scheme, both from an economic and environmental perspective.

Under the Polish solar programme, the intermittent flow of support was found to not only have a negative impact on consumer uptake but additionally for companies who had invested in developing manufacturing plants. The sudden termination of support schemes and concomitant decrease in consumer demand had a reported ‘catastrophic’ impact for investors – in some cases resulting in bankruptcy.

In Portugal and Spain the ‘financial adequacy’ of a scheme was ranked high⁶. In order to achieve financial adequacy, the Spanish and Austrian NCP suggested a multi-faceted approach, combining different financial models and supportive legal measures to ensure end-user uptake. In Portugal, there was concern for installation companies, who had suffered from a long time-lapse between submitting an application and receiving financial support. In some cases, the lag in payments to suppliers created unnecessary stress within the market.

Both in the UK and Holland there was a more muted response to the issue of structuring financial support. Whilst there was no direct criticism against the level of support expressed in either country, the UK NCP felt that more should be done to direct support to low-income households and the fuel poor⁷. Whilst the predictability of a scheme was highlighted by other NCPs, the UK NCP did acknowledge that the need for financial adequacy and flow support rate, should take into account the Government’s need to manage budgets and mitigate against any future overspend.

In reference to Italy’s Conto Termico scheme, interviews conducted by AEBIOM highlighted the importance of ensuring that carbon reduction programmes do not compete with one another. This inability to avoid conflict between schemes was found to impact on the financial sustainability of Conto Termico. This point was supported by ESTIF, who highlighted how solar thermal often found itself in needless competition with other programmes. To this effect, a co-ordinated approach would have secured a mutually beneficial outcome.

⁶ For the complete list of ranked KSF in Spain, please refer to Annex II

⁷ Fuel poverty in the UK is defined as those who spend more than 10% of their disposable income on fuel bills.

4) Predictability, stability and time frame

Introduction

When designing a support scheme, research highlighted the importance to adequately evaluate the time-frame of a scheme, providing clarity to the investor. Predictability and stability are both recognised as important features for any investor. To this effect, schemes should help the investor mitigate future financial risks; providing transparency on return of investment, energy and carbon savings. The expected benefit being improved consumer confidence.

Analysis

In Spain, Netherlands and Austria predictability and stability around schemes were ranked as one of the most important KSFs. According to attendees from the Spanish NCP, the temporal framework of a scheme should be structured in a way that avoids the concentration of applications during a specific period.

In the UK and the Netherlands it was suggested that schemes should, at least in the medium term, be available for a minimum period of five years, creating a period of continuity. This was supported by feedback provided to AEBIOM, who in reference to Austrian schemes, suggested that programmes should be in place for at least three to five years. In Belgium, research by ESTIF concluded that it is more preferable to have lower levels of fiscal support but over a longer time period.

In order to promote programme stability, both the UK NCP and Austrian focus group suggested that any proposed changes within a scheme, should be clearly communicated and agreed on a specific dates. This point ties in with the Dutch NCP, whose members highlighted the need for policy continuity and referenced the German feed-in tariffs as an exemplar model. This model was noted for both its accessibility and predictability.

The UK NCP commented that in order for a scheme to remain stable, there must be consumer confidence in installer and product standards. In the UK, penalties regarding the gas boiler industry were considered more stringent versus the renewable sector. In order to ensure stability, it was felt that consumer protection bodies require stronger enforcement powers, specifically around poor installer standards.

As a corollary to the above, qualitative interviews conducted by EGEC reported inconsistencies in the standard of training and qualification requirements considered

necessary to achieve MCS⁸. Under the MCS scheme, the onus is on companies and not individuals to meet installer standards. The suggestion is therefore to create a nationally recognized system of training and qualifications, ensuring uniform standards across the different training providers

This issue of installer standards was a recurring theme throughout NCP discussions. In the Netherlands, clearer industry standards were discussed around the biomass industry. In Poland, poor installation standards were mentioned, however, as previously highlighted this was attributed to the level of fiscal support affiliated with the support scheme. The Portuguese NCP highlighted the need to improve installer standards, where it was noted that installation companies did not have the technical rigour to complete the application process within the specified time-frame. This resulted in failed applications and led to instability within the market.

Whilst in Portugal the predictability of a scheme was ranked as the least important of all the KSFs - it nevertheless had a considerable impact on industry stakeholders. Under this scenario, the exhaustive planning application process forced installation companies to adjust the structure of their workforce. However, the abrupt termination of schemes often left companies in a precarious position of having a workforce, which was not well suited to the prevailing market conditions. Similar in theme, feedback in Austria highlighted the need to simplify the end-user application process. Criticised for being overly bureaucratic, the issue has become exacerbated due to regional differences in the application process.

5) Quality and performance assurance

Introduction:

In order to maximise the opportunity for end-user financial savings and improved environmental performance, research by ADENE highlighted the need to consider improvements to the wider building fabric and incumbent energy infrastructure – specifically at the point of installation. The second identified route to improve scheme operability was via mandating certified equipment and registration of industry accredited installers.

Analysis:

Neither the Polish nor the Spanish NCP discussed the importance of quality and performance assurance. This stands in stark contrast to the Portuguese consultation, which ranked this as the most important of all the KSFs. Poor installer standards were also recorded in Austria,

⁸ Microgeneration Certification Scheme (MCS) is a nationally recognised quality assurance scheme, supported by the Department of Energy and Climate Change. MCS certifies microgeneration technologies used to produce electricity and heat from renewable sources.

where it was recommended that installers should receive financial assistance to undertake relevant industry training.

Research by ESTIF underlined the importance of having a recognised industry standard for certified equipment. In reference to ‘Solar Keymark’ the scheme was acknowledged for helping to boost end-user confidence and protect manufacturers from producers of inferior quality products, who in turn gain a competitive advantage. Nevertheless, additional standards leveraged on manufacturers in certain countries (France and the UK), were seen to impede innovation within the sector.

As previously discussed the Portuguese NCP highlighted the lack of professional structures and technical competence to pursue market interest in the sector, which had resulted in poor installation and trading standards. This feedback was reflected in the online survey, which recorded the highest possible score in terms of importance attached to this KSF. Furthermore, the online survey indicated that poor quality assurance of equipment and installer standards had significantly impacted upon the effectiveness of reviewed schemes.

In order to understand the appetite for increased quality control, the Portuguese NCP took a vote amongst its members on the need for certified installers and whether the sector would benefit from a system, which registered installations. Results from the table one indicate general support for this approach. However, there was a marked drop in popularity for a proposed registration of installations.

	Total Given	Total Possible	Total (%)
Do you believe that RES-HC support schemes can benefited from a system of registration of installations ?	5	5	100%
Do you believe that RES-HC support schemes can benefited from a system of certification of installations ?	5	5	100%

	Total Given	Total Possible	Total (%)
How would you rank the importance of integrating registration of installation in the control mechanism of support schemes (5 is the highest)	16	25	64%
How would you rank the importance of integrating certification of installation in the control mechanism of support schemes (5 is the highest)	20	25	80%

Table 1: Registration of certified equipment and installers.

Instead of focusing on the standard of installations, the UK and Dutch NCP highlighted the perceived lack of ‘trust’ within the sector. To overcome this issue, the UK NCP suggested improving the current complaints procedure, which not only needs to be clearly articulated, but allows the end-user to provide feedback on their experience of the installation process. This point was echoed in Austria, providing that end-user feedback on pricing, installation and operation of the system is communicated in a structured and standardised way.

The UK NCP suggested that quality control, through metering system performance, would deter perverse incentives to oversize systems in order to claim increased financial support. As previously mentioned, feedback from AIT suggested that results from monitored systems should be made public, with the aim to improve consumer confidence.

In contrast, feedback provided to ESTIF and AIT, concluded that metering small-scale RES systems would impact on the cost effectiveness of a scheme. If considered for larger systems, the cost to monitor systems may prove beneficial when considering the overall investment. However, for small-scale systems mandating monitoring performance would dramatically increase a scheme's cost. Under this scenario, the preferred option would be to estimate system performance as typified under the UK's domestic RHI.

In reference to ADENE's review of support schemes, the Dutch NCP did not make a direct reference to the need for certified equipment and installers. Instead, NCP members discussed the need to consider wider energy efficiency improvements at the point of installation. However, there was no specific reference for this measure to be mandated. In Portugal, NCP members concluded that whilst energy efficiency measures should be considered, they must not impede the wider uptake of RHC technologies. This point highlights the need to ensure that policies do not needlessly compete – as previously noted in Italy's Conto Termico programme.

Lastly, research by AEBIOM found that the UK industry standard for installers (MCS) was considered to be prohibitively expensive to achieve, particularly for heat pumps and solar thermal systems. This point serves to highlight the cost consideration when seeking to improve a scheme's quality and the inadvertent impact on market growth. As a corollary to this, focus groups led by ESTIF, highlighted that whilst auditing installer standards is important, it does not provide insight into how a *system performs* i.e. the end-user's behavioural impact on system efficiency.

Additional Key Success Factors

Whilst the purpose of the NCP was to validate the KSF produced by ADENE, discussions amongst industry stakeholders inevitably highlighted additional 'KSFs' considered relevant during the design phase of a scheme. The following section provides an overview of the points raised in the NCP discussions but were not originally captured in the KSF report prepared by ADENE.

Promotion and communication

It is important to mention that effective promotion and communication of a scheme was an additional KSF highlighted in: Spain, Netherlands, UK, Poland, Austria and Belgium (ESTIF). In Spain the promotion, publishing and marketing were all considered critical to the success of

a scheme. Along with mass media, it was highlighted that installers and ESCOs can play an important role to help disseminate information on schemes. This point was mentioned in the Dutch NCP, where it was suggested that installers, if provided with appropriate information about RHC technologies, would be well placed to explain the benefits of the targeted technology.

In Poland, a lack of public awareness on RHC technologies and support schemes was highlighted as a particular issue. In parallel, NCP comments in Spain and the Netherlands reported that information on support schemes were neither considered to be adequately promoted nor understood - creating uncertainty for end-users around scheme eligibility. Additional comments clarified by KAPE subsequent to the NCP consultation, highlighted that there is a major attitudinal shift required to switch over from fossil fuels, which are currently accepted as the 'go to' fuel for end-users.

Research by ESTIF highlighted that it is not only scheme awareness but the understanding of renewable energy technologies, which was impacting on market progression. To this effect, schemes need to have a clear communication strategy. In Portugal, the Medida Solar Térmico scheme was cited as an exemplar model on how to raise scheme awareness in tandem with educating how technologies work.

Overly bureaucratic application process

A recurring theme in Holland, Spain, UK, Austria and Belgium was the need to ensure that schemes offer a clear and comprehensible consumer application process. In Belgium, it was recommended that the financial adequacy of a scheme should take into account the administrative burden that is placed either on the applicant or the installer when involved in a programme.

In Spain the need to reduce a scheme's bureaucracy was regarded as one of the main industry barriers to market progression. Here, applicants are required to contact several institutions before making a financial claim.

In the UK, there was an expressed need to include more high-level detailed advice to potential consumers who had specialist knowledge. This in turn was expected to deliver a clearer customer journey, from initial enquiry through to installation.

Holland has now introduced a separate subsidy scheme ISDE, for technologies that fall below the minimum threshold for the SDE+ programme. Research by AEBIOM drew attention to the fact that technologies below a certain rated capacity were excluded from the scheme - based upon the fact that the administrative burden was deemed too great.

The above points serve to highlight the importance of ensuring that the administrative burden and associated costs, both in time and personnel, for a scheme are kept to a minimum. Failure in this area will deter not only industry participants i.e. installers but also end-users (customers) who require a clear application process.

Annex I

Discussion guide as provided by ADENE

1. *Do you agree with the definition of KSF provided? If not, please provide comments.*
2. *Do the listed KSF enhance the long-term success of RES-HC support schemes?*
3. *Do the presented features contribute to building consumer confidence on RHC technologies?*
4. *Are there any new features that should be considered namely, the ones related to CO₂ emissions?*
5. *Is it possible to identify any of the listed features that are likely to integrate any support scheme?*
6. *How would this information make its way to policy makers and to entities who design support schemes? What can be done additionally to help deliver the information on KSF effectively?*
7. *Would you validate the list of KSF presented and provide additional arguments for further inclusion of identified features in the design of a scheme? Can you present your own list, if possible, by order of importance?*
8. *Would you provide a list of questions and points of discussion to present to the EAC?⁹*

Annex II

List of Spanish KSF identified from NCP event:

- *Financial adequacy and flow support rate*
- *Predictability, stability and time frame for support*
- *Contribution from different stakeholders*
- *Quality and performance assurance*
- *Promotion of the support scheme (marketing)*
- *Other models to support the investment (tax incentives, incentives to energy generation, etc.)*
- *Transparency and measurability*
- *Simplicity and flexibility in the procedure*

⁹ The 'guidance' presentation authored by ADENE will be provided as a separate attachment to this document.

Annex III

Results from NCP Key Success Factor ranking:

	YES	NO	YES	NO
Do you agree with the key success factor definition provided on the support document?	4		100%	
Does the provided definition covers all aspects of RES-HC (design, management and control mechanism)?	2	2	50%	50%

Table 1

How would you rank the following key success factors, which have been identified from the FRONt policy review paper (With 1 being the least important and 5 the most significant)?	Answer Given	Total Possible	Total (%)
Contribution from different stakeholders	21	25	84%
Quality and performance assurance	25	25	100%
Financial adequacy and flow support rate	21	25	84%
Predictability, stability and time frame	15	25	60%
Transparency and measurability	18	25	72%

Table 2

How would you rank the following factors - Contribution of different stakeholders	Total Given	Total Possible	Total (%)
Collaboration of different stakeholders	18	25	72%
Geographical considerations	14	25	56%
How would you rank the following factors - Quality and performance assurance	Total Given	Total Possible	Total (%)
Certification of equipment	25	25	100%
Certification of professionals	25	25	100%
Application of norms	25	25	100%
Energy efficiency measures	18	25	72%
Adequacy of systems to installations	25	25	100%
How would you rank the following factors - Transparency and	Total Given	Total Possible	Total (%)
Random audit	16	25	64%
Monitoring and measuring	20	25	80%

Table 3

	Total Given	Total Possible	Total (%)
Do you believe that RES-HC support schemes can benefited from a system of registration of installations ?	5	5	100%
Do you believe that RES-HC support schemes can benefited from a system of certification of installations ?	5	5	100%
How would you rank the importance of integrating registration of installation in the control mechanism of support schemes (5 is the highest)	Total Given	Total Possible	Total (%)
	16	25	64%
How would you rank the importance of integrating certification of installation in the control mechanism of support schemes (5 is the highest)	Total Given	Total Possible	Total (%)
	20	25	80%

Table 4



