



Energy Efficiency Series



INNOVATIONS IN MULTI-LEVEL GOVERNANCE FOR ENERGY EFFICIENCY

Sharing experience with multi-level governance
to enhance energy efficiency

INFORMATION PAPER

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INTERNATIONAL ENERGY AGENCY

The International Energy Agency (IEA), an autonomous agency, was established in November 1974. Its mandate is two-fold: to promote energy security amongst its member countries through collective response to physical disruptions in oil supply and to advise member countries on sound energy policy.

The IEA carries out a comprehensive programme of energy co-operation among 28 advanced economies, each of which is obliged to hold oil stocks equivalent to 90 days of its net imports. The Agency aims to:

- Secure member countries' access to reliable and ample supplies of all forms of energy; in particular, through maintaining effective emergency response capabilities in case of oil supply disruptions.
- Promote sustainable energy policies that spur economic growth and environmental protection in a global context – particularly in terms of reducing greenhouse-gas emissions that contribute to climate change.
- Improve transparency of international markets through collection and analysis of energy data.
- Support global collaboration on energy technology to secure future energy supplies and mitigate their environmental impact, including through improved energy efficiency and development and deployment of low-carbon technologies.
- Find solutions to global energy challenges through engagement and dialogue with non-member countries, industry, international organisations and other stakeholders.

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Executive summary

Recent IEA analysis highlights member countries' significant progress with developing energy efficiency policy (International Energy Agency 2009). The 28 member countries of the IEA are engaged in promoting innovative financial instruments, energy efficiency strategies and action plans. They are designing policies to promote energy efficiency in buildings, the adoption of standby power, the phase out of inefficient lighting, proper tyre-inflation and related policies, and energy efficiency in utilities.

Despite creating a plethora of national and international regulations and voluntary programmes to improve energy efficiency, countries are far from achieving full energy efficiency potential across all sectors of the economy.

One major challenge, among numerous barriers, is policy implementation. One strategy that many national governments and international organisations have used to address the implementation issue is to engage regional and local authorities. To that end, many programmes have been created that foster energy efficiency action and collaboration across levels of government.

The aim of this report is to identify trends and detail recent developments in multi-level governance in energy efficiency (MLGEE). By sharing lessons learned from daily practitioners in the field, the IEA hopes energy efficiency policy makers at all levels of government will be able to identify useful multi-level governance (MLG) practices across geographical and political contexts and use these to:

- Design robust programmes.
- Modify existing programmes.
- Connect and share experiences with other policy makers in this field.

Unlike previous studies of MLG, the analysis in this paper is based primarily on case studies where multiple levels of government are actively collaborating to implement energy efficiency. It builds on past MLG frameworks and pays special attention to the motivation, objectives, organisational structure and funding dimensions of each case study. It also provides insight into communication tools, evaluation processes, issues of jurisdiction and historical perspectives.

Taken together, the observations offered in this paper identify that cooperation across levels of government is a feature of many countries' strategies to enhance energy efficiency. Countries have shown remarkable creativity in their design of MLGEE – as evidenced by the diversity of the group of case studies covered in this report. However, there are some areas that require more attention. In particular, all MLGEE should have adequate accountability mechanisms and be subjected to regular external evaluations. It is hoped that these and the other observations offered in this information paper will enable countries to take advantage of the opportunities that MLGEE offers to improve energy efficiency around the world.

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1 Introduction

End-use energy efficiency is widely accepted as providing least-cost solutions to climate, energy security and economic goals. Unfortunately, maximising this potential resource is proving difficult. Despite an abundance of energy efficiency policies covering many sectors, most evaluations show that countries remain far from achieving their energy efficiency goals. Recent studies suggest more coordinated action between multiple levels of government – international, national, regional and local – can effectively increase energy efficiency (Smith 2007, Alber and Kern).

The aim of the analysis presented in this paper is to identify trends and detail recent developments in multi-level governance in energy efficiency (MLGEE). By sharing lessons learned from daily practitioners in the field, the IEA hopes energy efficiency policy makers at all levels of government will be able to identify best multi-level governance (MLG) practices across geographical and political contexts and use these to:

- Design robust programmes.
- Modify under-performing programmes.
- Connect and share experiences with other policy makers in this field.

There have been few systemic assessments of MLGEE arrangements. Most studies on this subject take a fairly theoretical perspective and provide a rationale for why levels of government should collaborate on climate change mitigation and adaptation (and by implication, energy efficiency) (Lindseth, 2005; Alber and Kern, 2008; OECD, 2009). A few studies have also presented frameworks for understanding existing MLG arrangements.

Unlike previous studies of MLG, the analysis in this paper is based primarily on 30 case studies where multiple levels of government are actively collaborating to implement energy efficiency. Information was collected through semi-structured interviews of experts directly involved in the case studies explored. The paper builds on past MLG frameworks and pays special attention to the motivation, objectives, governance mode, scope, structure and funding dimensions of each case study. It also provides insight into communication tools, evaluation processes, issues of jurisdiction and historical perspectives.

This paper briefly outlines the rationale for examining MLGEE. It then highlights 30 programmes in which various levels of government are working together to implement energy efficiency. These programmes take many forms and occur in very different political situations and geographical areas.

This study is an introduction to existing MLGEE. As an introduction, the scope of this document is limited in two important respects. First, this document does not attempt to repeat the extensive existing and useful literature on the subject (Lindseth, 2005; OECD, 2009). Instead, it summarises the rationale for MLG arrangements and focuses on concrete examples of MLGEE in operation.

Second, the study is limited in the geographical scope of the case studies covered. While an effort was made to identify case studies from around the globe, the list of featured case studies is not comprehensive, nor representative. Examples are notably lacking from Africa, South America, parts of Asia and the Middle East. Interviews and research did not readily identify MLG programmes in these regions. A future study under the IEA energy efficiency governance programme could focus on MLG arrangements in regions not covered here and bring to the forefront existing MLG arrangements not currently receiving international attention.

1.1 Rationale

Governments are increasingly turning to energy efficiency measures to meet greenhouse gas (GHG) mitigation, energy security and economic development goals (International Energy Agency, 2008). Not surprisingly, there is growing interest in ensuring these energy efficiency policies are effective (Gillingham et al, 2004; Energy Charter Secretariat, 2006; KEMA, 2006; Ecofys, 2007; Lund, 2007).

Unfortunately, experience shows that many energy efficiency policies do not fully meet their goals. One reason for this is that the policies address elements of the energy efficiency puzzle in isolation (Jollands and Ellis, 2009). Energy efficiency is an integral part of a broad and complex social-economic energy system (Peet, 1992). As such, effective energy efficiency policy must be designed and implemented in a way that engages the whole system of actors that influence energy-productivity patterns. Key actors, in this regard, include both government and non-governmental agents.

A significant amount of work has focused on how national governments can influence non-governmental actors (such as industry, or households) to improve their energy efficiency. However, relatively little attention has been given to the challenge of engaging and connecting different levels of government in the energy efficiency policy process. This is an important gap because all levels of government can play critical roles in the energy efficiency enhancement process.

National governments play a central role in developing energy efficiency policies. They set priorities, develop and coordinate strategies within their borders, and enter into agreements outside of them. National governments also have the ability to leverage significant resources through the taxation process. They, however, can be somewhat removed from direct interactions with communities. Consequently, national governments often delegate certain aspects of energy efficiency policy development and implementation to lower levels of government that can have direct connections to communities.

Local and regional governments can also play a critical role in the implementation of energy efficiency policies. In addition to being implementation agents for national energy efficiency policies, local and regional authorities can, and often do the following:

- Show leadership by efficiently managing their own substantial capital works programmes, property management, community services and daily operations.
- Show leadership by pursuing energy efficient procurement practices.
- Encourage their communities to engage in energy efficient activities.

However, local and regional governments cannot act alone in promoting energy efficiency. Just as national governments can depend on local and regional authorities for implementation, so too do local governments depend on national governments for such things as policy direction, legal frameworks and funding.

Inter-governmental agencies and international organisations also play a part in the energy efficiency policy process. For example, the European Union (EU) has a broad view of energy efficiency policy and can initiate programmes across countries and regions. The EU convening power, financial resources and coordination abilities have made it a strong energy efficiency partner at both national and local levels of government.

Clearly, multiple levels of government have important roles to play in the energy efficiency policy development and implementation process. A key hypothesis of this paper is that encouraging different levels of government to work together could be a key ingredient for successful energy

efficiency policy implementation. Such success can be achieved by combining the complementary skills, competence and resources of different levels of government.

In this context, it makes sense to ask the question “What mechanisms currently exist to encourage governments at all levels to connect and coordinate their energy efficiency policy activities”?

1.2 What is multi-level governance?

Before proceeding to look at the mechanisms used for promoting MLGEE, the term “multi-level governance” must be explained. In order to define MLG, it is useful to understand what governance is in general.

There is no single unequivocal definition of the term governance. Instead, the governance concept can be used in a diverse range of contexts to investigate issues from the role of the state, corporate governance, and public management to good governance. In this way, governance is not so much a term that should be defined, but rather an approach, or perspective, to investigating issues relating to the governing process.

In this study, we define a governance perspective by combining three different elements from the governance literature. First, such a perspective implies the need to focus on understanding the system of governing (Bulkeley, 2005) in all its complexity – rather than just as a traditional hierarchical, linear form of control from national to regional and local levels (Biermann, 2007). Second, the governance concept encourages the understanding of the role of different actors in the governing process when national actors are not necessarily the only or most significant participants. That is, it is important to understand the role of different actors in the process of allocating resources and exercising control and coordination. Finally, such a perspective not only involves understanding the role of individual actors, but also how these actors interact. That is, a governance perspective necessarily involves understanding the world of overlapping and competing authorities at different scales (Bulkeley, 2005).

From these three elements, it is clear that using a governance framework requires understanding of the complex role and interactions of all actors in the policy governing process. The concept of MLG takes these essential elements and focuses on the relationship between different levels of government.

Gary Marks (1992) first coined the term MLG to describe developments in EU policy following the Single Act in 1986. MLG initially described a “system of continuous negotiation among nested governments at several territorial tiers – supranational, national, regional and local that was distinctive of EU structural policy” (Marks, 1992) (Hooghe and Marks, 2003). The definition has since been widened to include interactions among governments outside the EU.

The concept of MLG used in this study closely follows that of the Organisation for Economic Cooperation and Development (OECD, 2009). In this report, MLG can be understood as the complex system of interactions between actors at all levels of government, engaged in the exercise of authority.

1.3 A framework for MLG analysis

MLG arrangements are very diverse. As such, it is useful to develop a framework in order to categorise and make sense of this diversity. Such a framework can also help to focus on the key elements of MLGEE and guide the analysis of the case studies.

Vertical and horizontal dimensions

Past frameworks for understanding MLG have focused on two dimensions: the vertical and horizontal levels of governance (Bulkeley and Betsill, 2003; Hooghe and Marks, 2003; OECD, 2006, 2009). Past studies have focused on the following:

1. Relationships between different levels of government (the vertical dimension). A common assumption in these studies is that national and local governments cannot effectively implement strategies in isolation from other levels of the government (OECD 2009). The IEA acknowledges that this report does not explore all ways national governments influence local action (for example, it does not look at programmes to improve the energy efficiency of military bases, post offices or national administrative buildings).
2. Relationships within one level of government. This horizontal dimension looks at the degree of coordination across government agencies within a city, region or national government on cross-cutting policies.

Using this framework, analysis focuses on whether a MLG arrangement is primarily concerned with horizontal or vertical influence.

Modes of governance

Another framework for understanding MLG arrangements is to consider the modes of governance (Bulkeley and Kern, 2006). Authors identify four such modes, governing by authority, governing by provision, governing through enabling and self-governing.

Namely, in climate change literature, governing by authority refers to situations in which national governments intervene directly in local politics through mandates or other mandatory means (Bulkeley and Kern, 2006). In contrast, governing by provision occurs when additional services and positive incentives (including funding) are offered by a national government in return for local action.

Governing through enabling refers to situations where national governments stimulate local action by providing the enabling conditions of such action. For example, such enabling conditions can include guidelines for local authorities or the dissemination of information and best-practices. Laws and regulations allowing for opt-ins (voluntary commitments) can also be classified as governance by enabling.

Self governing is characterised by self-motivated action and may take place between cities and regions where urban climate change policy is crucial. Self governing may occur if mandatory national climate change legislation is limited or non-existent. This reasoning can also be extended to energy efficiency policy.

Pragmatic elements

This study builds on the frameworks presented above and recognises that there are other pragmatic elements that help understand the diversity of MLG arrangements:

Scope considerations

1. The level of inclusion. That is, which levels of government are included in a MLG arrangement – where inclusion means any level of government involved in the development, management or implementation of the MLGEE. Degrees of inclusion range from bilateral (when only two levels are included) to multilateral (when multiple levels are included). This aspect of MLG is important because the number of actors across the levels of government influences the complexity of the MLG arrangement.
2. Type of energy efficiency measures promoted. This dimension acknowledges that MLG arrangements can differ in the way they promote energy efficiency. Some MLG establish direct measures (such as subsidies, building refurbishments, or switching to low-consuming public street lighting) while others rely on more indirect action, such as building capacity, training staff and/or disseminating information to the general public.

Structure considerations

3. The initiation and decision-making process. Another important determinant of the nature of an MLG arrangement is whether the arrangement is dominated by top-down or bottom-up processes. This is particularly relevant for understanding how the MLG arrangement was initiated and how decisions are made. For example, typical top-down arrangements are initiated by national or international levels of government and decisions are made at the top and imposed to lower levels of government. Typical bottom-up arrangements are initiated by lower levels of government and lower levels of government dominate decision-making.
4. Nature of participation. MLG arrangements can also be distinguished by the degree of coercion used to ensure participation. That is, MLG arrangements can require compulsory participation by local governments, be that entirely voluntary, or some mixture of both.
5. Formality of administrative structures. MLG arrangements can be distinguished by the degree of formality of the administrative structures needed to support the MLG objectives. That is, the degree of formality of decision-making processes (votes, regulations), official channels of communication and institutional infrastructure etc.
6. Level of accountability. A distinguishing characteristic of all MLG arrangements is the level of accountability between levels of government. MLG arrangements can have very strong accountability procedures or little or no accountability at all. Accountable MLG arrangements include provisions for reporting, monitoring and evaluation, existence of channels of communication towards the stakeholder and the general public.

Other considerations

7. Budget size. MLG arrangements can differ significantly in the budget allocations – with a consequent impact on the scope and scale of their objectives.
8. Funding symmetry. Funding symmetry refers to how evenly funding is divided between different levels of government. A symmetrical MLG arrangement will have been funded equally by international actors (an international financial facility or the EU for instance), national governments (through national budgets), regional governments and local governments for example. Asymmetry means that funding originated from one level of governance only. The degree of symmetry is an important aspect of MLG because it influences the balance of power in an MLG arrangement.

This report draws on all three frameworks (vertical and horizontal dimensions, modes of governance, and pragmatic considerations) in an effort to characterise and understand the range of multilevel governance arrangements for promoting energy efficiency.

1.4 Methodology

The purpose of this study is to identify trends and detail recent developments in multi-level governance in energy efficiency. In order to achieve this aim, this report uses a case study approach. MLG case studies were initially selected on a random basis. The list was then reduced and finalised based on availability of information and geographical representation as a degree of diversity. The analysis below was based on the final list of 30 case studies covering 20 countries, one regional organisation (EU) and one global arrangement (ICLEI).

The core method used for collecting information on the case studies was in-depth, semi-structured interviews. These interviews were an important part of this analysis as they provided essential insights into the pragmatic aspects of current MLG arrangements for energy efficiency.

During the course of this project, the IEA conducted a total of 28 semi-structured telephone and face-to-face interviews covering 23 MLG arrangements. Interviews lasted on average one hour and covered questions relating to programme history, description and context and the degree of transferability to other contexts (see Annex 3 for a list of interviews, and Annex 4 for a copy of the semi-structured interview questions). The face-to-face interviews were particularly useful in uncovering issues that are not readily available from published material. For example, we were able to enquire and discuss such issues as the political reasons for a programme's establishment, which institutions were key supporters and detractors and perspectives on whether the programme was successful or not. In this way, we were able to capture insights into the more pragmatic and real-world elements of MLG arrangements.

An additional five written questionnaires were completed by the managers of five MLG arrangements¹.

Information gathered through the in-depth interviews complemented information gathered using standard desktop analysis. That is, information gathered from available websites and from analysis of available documentation on each case study.

In addition, the IEA also attempted to understand the interrelationship between different dimensions of a MLGEE. This was achieved in part by using a semi-quantitative graphing technique. That is, for each of the key dimensions, the case studies were allocated a score on a range of 1 to 5 (see Annexes 1 and 2 for more details on the signification of the scores and how they were allocated).

These scores were then used to generate two-dimensional graphs combining each MLG dimension together in turn. An example of the resulting graph is shown below.

¹ Where interviews were not granted and questionnaires not returned, data was collected from other sources including the internet and interviews with neighbour programme managers.

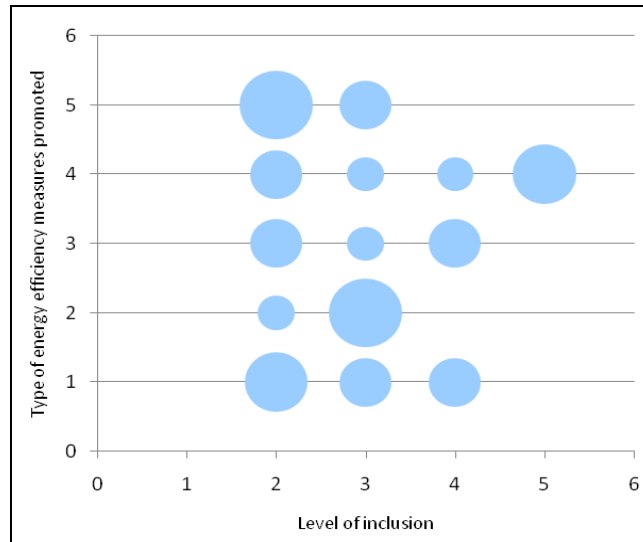


Figure 1: Type of energy efficiency measures promoted versus Level of inclusion

This figure can be interpreted as follows. The size of the dots represents the number of case studies with the scores. The case studies themselves are listed on each dot as a number – the list of case studies can be found in Table 1. This figure shows that most case studies have only a few main levels of government participating (scores less than or equal to 3). It also shows that case studies with few participants are diverse in the types of measures they promote (i.e., the dots are distributed up the vertical axis).

2 Analysis - Lessons learned

2.1 An overview of the thirty case studies

The 30 case studies compiled in this report are drawn from around the world (see Figure 2). Most case studies are drawn from Europe, including three European Union (EU)-initiated arrangements and several other EU-funded initiatives. North America and Oceania account for five and four case studies respectively. Both Asia and South America provide a single case study each. One programme, ICLEI *Cities for Climate Protection*, is global.

A striking element of this study lies in the sparse representation of cases from emerging and developing countries. Only two cases from Brazil and Ukraine were selected, and no case studies were taken from Africa. The primary reason for this was availability of information. Whether this reflects the lack of information in English, or a more systemic lack of formal multi-level governance in these countries, remains to be investigated. However, as the targets under the Kyoto Protocol appear to be a major driver for multilevel governance arrangements², the exclusion of Annex II countries from mandatory targets under the protocol could in part explain the lack of case studies from these countries.

Not surprisingly, there does not seem to be one standard MLG arrangement. Some governments take advantage of public-sector institutions already in place to coordinate MLG programmes (for example, the French *Espaces Info Energie* are mostly hosted by public local and regional energy agencies), while others use existing non-governmental associations (for example, the *WarmZones Company*, in the United Kingdom, is a property of the Charity National Energy Action). Still other MLG arrangements are formed under new structures to coordinate activities (for example, *Energy Efficient Cities of Ukraine*) or establish advisory committees and councils (*CONCERE* in Belgium).

Overall, the case studies tend to rely on voluntary participation and are likely to be initiated by national or international governmental bodies. Some involve grants (for example, the *Klimaatconvenant* in the Netherlands) and have been strengthened by recent economic stimulus funds (for example, the *State Energy Programme* in the United States, and, indirectly, the *Covenant of Mayors* in the EU). Others include a competitive process where project proposals that best meet pre-set objectives are awarded funding (for example, *ECO-Model Cities* in Japan, *Wettbewerb Kommunalen Klimaschutz* in Germany) or public recognition (for example, the *European Energy Awards*).

Other case studies address capacity constraints and provide municipalities and/or households and businesses with energy audits (for example, the *Energy Efficiency Agreements* in Finland) and training and information on best practices (for example, *Energy Info Points* in France). Cooperation with municipalities may target government facilities (for example, *Crown Energy Efficiency Loan* for the municipal sector in New Zealand) or the wider local community (the *Local Promotion Program* in New South Wales, Australia).

² To the exception of Brazil, notably.

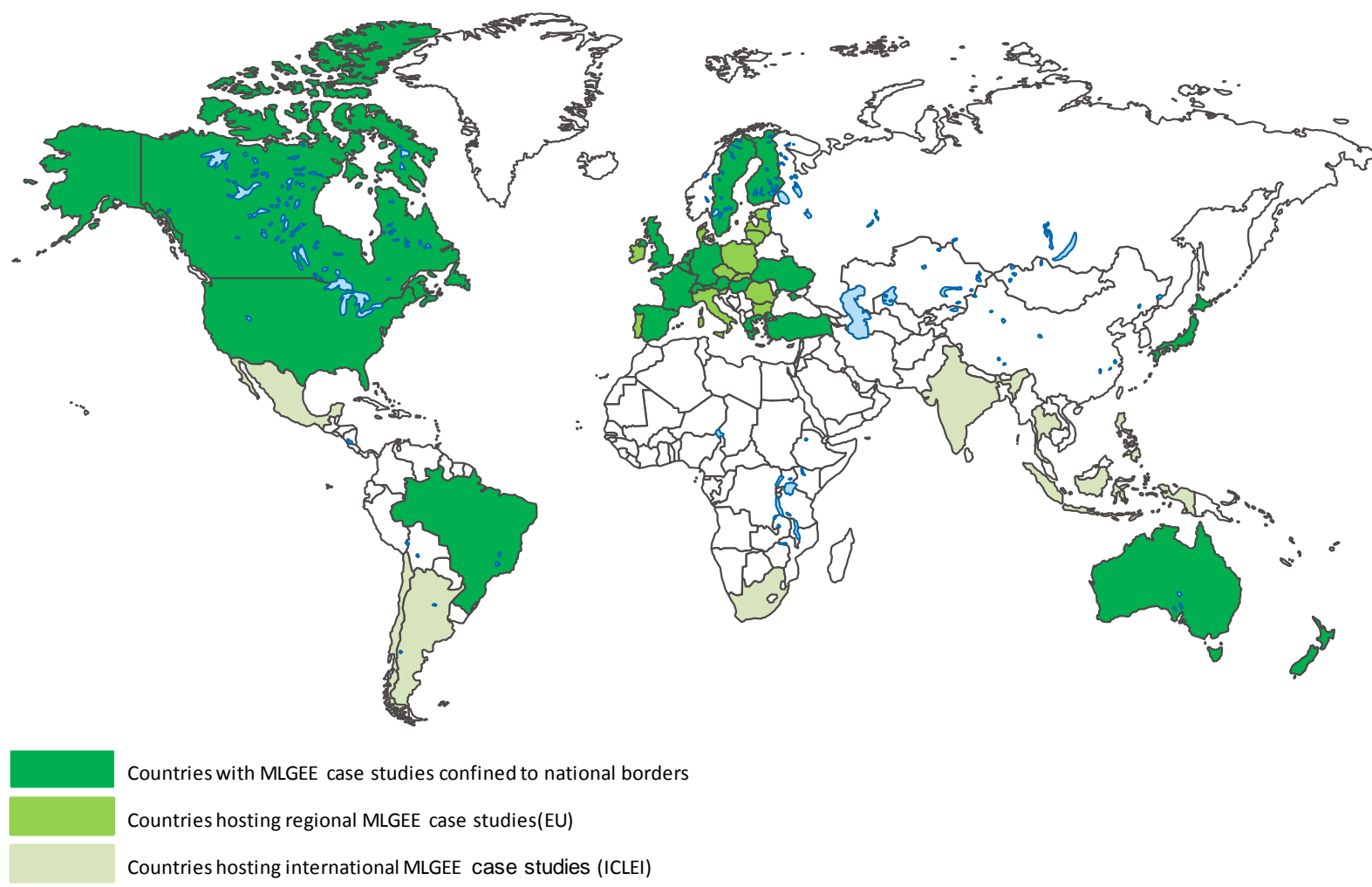


Figure 2: Geographical distribution of the case studies

Table 1: Summary of the case studies

	Modes of governance	Level of inclusion	Initiation and decision-making process		Nature of participation
			Initiation	Decision-making	
	A = governing by Authority P = governing by Provision E = governing through Enabling S = Self-governing	B = Bilateral M = Multilateral	TD = Top-down BU = Bottom-up	TD = Top-down BU = Bottom-up	M = Mandatory V = Voluntary
ASCEE (Canada)	I	I	L	A	S
Cities for Climate Protection (Global)	I	M	L	A	S
CONCERE-ENOVER (Belgium)	I	M	L	A	S
Covenant of Mayors (EU)	D	F	M	A	L
Crown Energy Efficiency Loan (New-Zealand)	D	F	H	A	S
ECO-Buy (Australia)	I	M	M	A	S
Eco-Model Cities (Japan)	I	I	H	A	?
Energy Efficiency Agreements (Finland)	D	F	H	A	S
EE and Conservation Block Grant Program (USA)	D	F	M	A	L
Energy Efficiency Coordination Board (Turkey)	I	I	M	A	S
EECU (Ukraine)	I	F	L	A	S
EEA (Europe)	I	F	H	S	S
Espaces Info Energie (France)	I	F	H	A	M
Green Municipal Fund (Canada)	D	F	H	A	L
Heizspiegel (Germany)	I	F	L	A	S
Klimaatconvenant (Netherlands)	I	F	M	A	M
LIP and KLIMP (Sweden)	D	F	H	A	L
LREA (EU)	I	F	M	S	M
Local Promotion Program (Australia)	I	I	M	A	S
Local Sustainability Accord (Australia)	I	I	M	A	S
Low Income Retrofitting Project (Greece)	D	F	M	A	?
MOVELE (Spain)	D	F	M	A	M
Paranacidade (Brazil)	I	F	H	A	S

	Modes of governance	Level of inclusion	Initiation and decision-making process		Nature of participation
			Initiation	Decision-making	
	A = governing by Authority P = governing by Provision E = governing through Enabling S = Self-governing	B = Bilateral M = Multilateral	TD = Top-down BU = Bottom-up	TD = Top-down BU = Bottom-up	M = Mandatory V = Voluntary
Public Sector Energy Efficiency Program (Hungary)	I	F	H	A	M
Regional Market for Third-Party Financing (Austria)	D	M	M	A	M
State Energy Program (USA)	D	F	M	A	L
SwissEnergy (Switzerland)	I	I	M	S	M
WarmZones (UK)	D	F	H	S	M
Weatherization Assistance Program (USA)	D	F	M	A	L
Wettbewerb Kommunaler Klimaschutz (Germany)	I	F	M	A	S

	Types of measures promoted	Formality of administrative structures	Level of accountability	Funding symmetry	Budget size
	D = Direct I = Indirect	F = Formal M = Mix I = Informal	H = High M = Medium L = Low	S = Symmetrical A = Assymmetrical	L = Large M = Medium S = Small
ASCEE (Canada)	I	I	L	A	S
Cities for Climate Protection (Global)	I	M	L	A	S
CONCERE-ENOVER (Belgium)	I	M	L	A	S
Covenant of Mayors (EU)	D	F	M	A	L
Crown Energy Efficiency Loan (New-Zealand)	D	F	H	A	S
ECO-Buy (Australia)	I	M	M	A	S
Eco-Model Cities (Japan)	I	I	H	A	?
Energy Efficiency Agreements (Finland)	D	F	H	A	S
EE and Conservation Block Grant Program (USA)	D	F	M	A	L
Energy Efficiency Coordination Board (Turkey)	I	I	M	A	S
EECU (Ukraine)	I	F	L	A	S
EEA (Europe)	I	F	H	S	S
Espaces Info Energie (France)	I	F	H	A	M
Green Municipal Fund (Canada)	D	F	H	A	L
Heizspiegel (Germany)	I	F	L	A	S
Klimaatconvenant (Netherlands)	I	F	M	A	M
LIP and KLIMP (Sweden)	D	F	H	A	L
LREA (EU)	I	F	M	S	M
Local Promotion Program (Australia)	I	I	M	A	S
Local Sustainability Accord (Australia)	I	I	M	A	S
Low Income Retrofitting Project (Greece)	D	F	M	A	?
MOVELE (Spain)	D	F	M	A	M
Paranacidade (Brazil)	I	F	H	A	S

	Types of measures promoted	Formality of administrative structures	Level of accountability	Funding symmetry	Budget size
	D = Direct I = Indirect	F = Formal M = Mix I = Informal	H = High M = Medium L = Low	S = Symmetrical A = Assymmetrical	L = Large M = Medium S = Small
Public Sector Energy Efficiency Program (Hungary)	I	F	H	A	M
Regional Market for Third-Party Financing (Austria)	D	M	M	A	M
State Energy Program (USA)	D	F	M	A	L
SwissEnergy (Switzerland)	I	I	M	S	M
WarmZones (UK)	D	F	H	S	M
Weatherization Assistance Program (USA)	D	F	M	A	L
Wettbewerb Kommunaler Klimaschutz (Germany)	I	F	M	A	S

2.2 Motivations and objectives

What actually motivates countries to establish MLGEE? Based on interviews and on understanding of the case studies, the IEA can identify the following five overarching motivation themes (see Figure 3):

- i. Compliance with national/international legal provisions. Most often, MLG arrangements are established specifically to achieve objectives set by national governments. These objectives commonly relate to international agreements on CO₂ emissions reductions (Kyoto Protocol, EU burden sharing-related decisions) or energy efficiency (such as the recently upgraded EU Directive on the Energy Performance of Buildings 2002/91/EC). Examples of case studies that have been established to achieve national objectives include the Dutch *Climate Covenant*, and *SwissEnergy* in Switzerland.
- ii. Economic development. Many programmes such as the EU-funded *Local and Regional Energy Agencies* are established to “promote social and economic cohesion and promote the creation of small-sized and medium enterprises”. *The Covenant of Mayors*, for instance, aims to “create stable local jobs”.
- iii. Cooperation within federal countries. Three case studies were established in federal countries with the aim of achieving greater cooperation between different levels of government. For example, in Belgium, motivations for the *CONCERE-ENOVER* forum stemmed from entangled jurisdictions over energy efficiency. In Canada, the *Assistant-Deputy Minister Steering Committee for Energy Efficiency* aims to remedy potential programme duplication in the various provinces (regions). In Switzerland, *SwissEnergy* contributes funding to cantonal energy policies in exchange for matched levels of funding from the cantons.
- iv. National government outreach to local communities. National governments often use MLG as a means of promoting national policies and targets in local communities. For example, in France, the underlying motivation for opening *Espaces Info Energie (Energy Advice Centres)* lies in the perception that sub-levels of government are much better connected to individuals.
- v. Fuel poverty reduction. Programmes specifically targeting fuel poverty account for three of the case studies featured in this analysis (the *Low-Income Retrofitting Project* in Greece, *WarmZones* in the United Kingdom and the *Weatherization Assistance Program* in the United States).

Motivations and objectives: key points

- *The IEA can identify five motivation themes.*
- *All case studies set clear objectives.*
- *Too many objectives can be challenging.*
- *One way to deal with multiple objectives is to prioritise objectives over time.*
- *MLGEE managers need to understand the full range of (stated and implicit) objectives.*

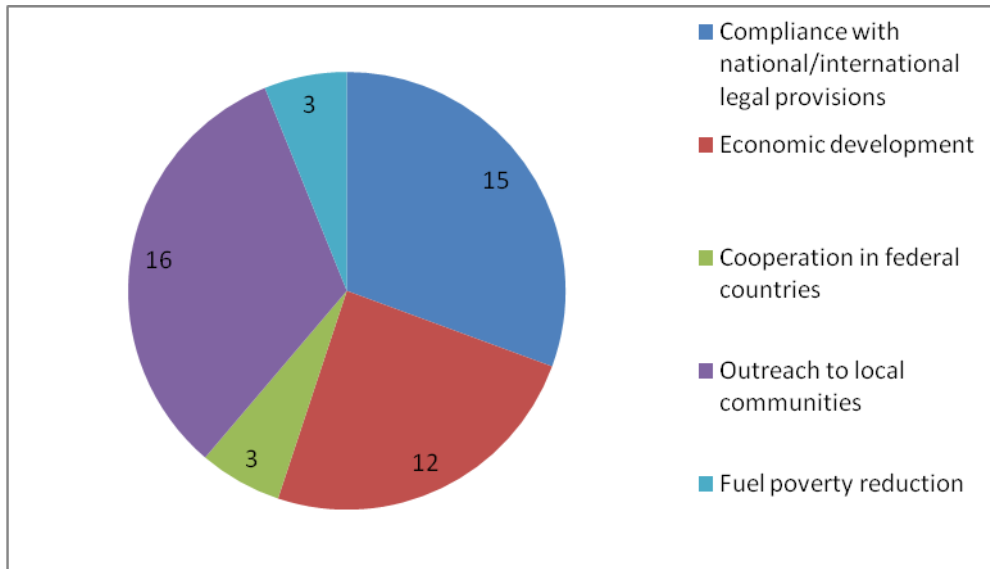


Figure 3: Primary motivation for creating the MLG arrangement

MLGEE articulate their motivations by setting objectives. Clear objectives are essential for MLG arrangements. They help:

- galvanise effort towards a common aim
- allocate responsibilities for action
- define parameters to guide the evaluation process.

A common feature of all case studies was that they specified clear objectives. For example, one of Switzerland's *SwissEnergy* objectives is to "curb the increase in electricity consumption to a maximum of 5% by 2010 compared to 2000 levels". Spain's *MOVELE* programme aims to introduce 2000 electric vehicles in three pilot municipalities by the end of 2010. *ECO-Buy* in Australia stated that its objective was to "increase local governments' and businesses' purchasing of greenhouse-friendly and energy-efficient products and services".

While setting clear objectives is important, interviews highlighted that MLGEE cannot set too many goals at once. In this case, too many objectives can lead to spreading resources too thinly and/or losing focus. For example, an evaluation of the *LIP* grants scheme in Sweden reported that the prequel programme *Ecocycle Billion* had too many, sometimes competing, goals which eventually led to its cancellation and a significant loss in funds³.

One way to deal with the challenge of multiple objectives is to prioritise them. This can be done by either simply outlining which objective is more important, or by focusing on a different objective each year. The *Green Municipal Fund* of Canada, which has a general environmental objective, provides grants to projects according to changing annual objectives (Energy Efficiency in Buildings, 2008).

Another challenge relating to the setting of objectives is how to communicate the objectives. During the course of interviews, it became clear that the stated objectives of an MLGEE can sometimes differ from the underlying real goal. For example, a programme's official objective might be to increase energy consumption awareness among tenants, while the desired goal could

³ Understanding LIP in Context – an evaluation of LIP in central government, business and comparative perspectives, report 5445, Swedish Environment Protection Agency, April 2005.

be for tenants to use this knowledge to put pressure on landlords to increase energy efficiency in their buildings. While this is not necessarily a problem, it does mean that MLGEE managers need to be aware of the full range of objectives and consider carefully how to manage their communication.

2.3 Scope and structure

An important consideration in developing MLGEE is their scope and structure. That is, attention must be paid to designing the range of MLG activities and the elements that define how levels of government interact. The following sections draw on elements from the framework outlined above (section 1.3) to identify trends and detail recent developments in multi-level governance in energy efficiency.

Scope

As outlined in the above section 1.3, two important issues to consider regarding the scope of an MLGEE include level of inclusion and the type of measures promoted.

The level of inclusion

Case studies reviewed in this report covered the full range of bilateral to multilateral arrangements. However, most case studies are bilateral arrangements (see Figure 4). Importantly, the list of 30 case studies involves participation from every level of government (counties/districts/departments, municipal, regional, national governments and international organisations). Nevertheless, MLG arrangements only occasionally target lower levels of government like counties (e.g., the Energy Efficiency and Conservation Block Grant in the United States).

The level of inclusion: key points

- *Most MLGEE involve bilateral cooperation.*
- *Few MLGEE target county-level government.*
- *The question of which, and how many, levels of government to include is a critical issue for policy-makers.*

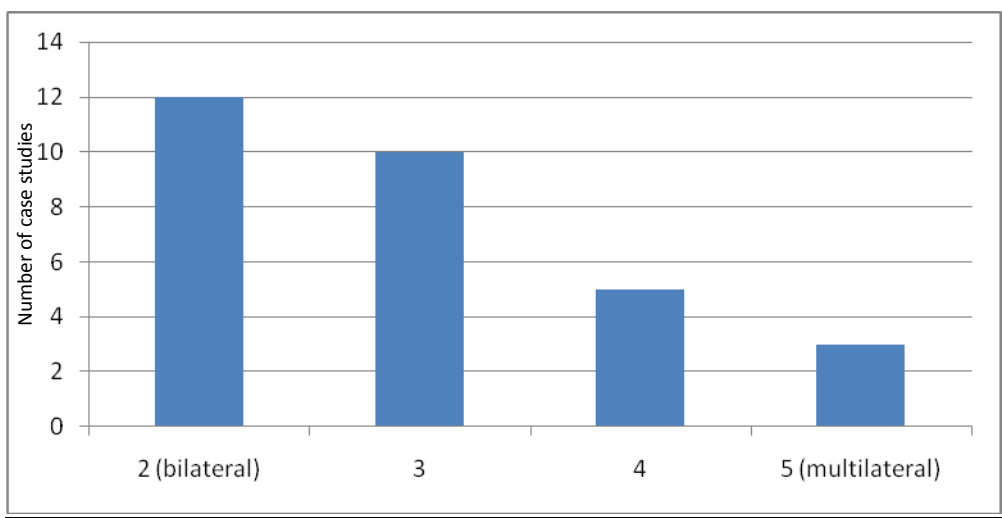


Figure 4: The number of case studies with different levels of inclusion⁴

⁴ See Annex 1 for an interpretation of the scores 2 to 5.

Examples of bilateral arrangements include *CONCERE-ENOVER* in Belgium, a forum where the federal government and the regions discuss the potential for cooperation in energy efficiency, and *Eco-Model Cities* in Japan, where the national government organises a competition for cities.

Multilateral arrangements usually include representatives from international, national, regional and municipal levels of governments, as well as from civil society. The *European Energy Award* scheme and the *Local and Regional Energy Agencies* are examples of multilateral programmes, where the international, national, regional and local levels all contribute to the arrangements in one way or another.

The question of which, and how many, levels of government to include is a critical issue for policy-makers. According to interviews, key considerations when deciding the level of involvement include the following:

- The target audience for the MLGEE.
- Whether to expand involvement beyond the target audience.
Involving a wide range of stakeholders can be beneficial. It can facilitate additional funding resources and can potentially lead to greater overall cohesion of energy efficiency policies in a country. The aforementioned *European Energy Award* (EEA) in Europe started as a cooperation among municipal, regional and national governments of three countries, before the EU started to contribute funding for a project (the *Balance* project) that added additional, quantification-related features to the EEA. On the other hand, limiting inclusion can speed up decision-making processes and reduce bureaucracy. In the case of the *Green Municipal Fund* in Canada, bypassing the provincial (regional) level of government did not fully work, because the Province of Quebec had to be involved in designating selected municipalities given that municipalities are of provincial competence in Quebec.
- The timing of involvement.
Some stakeholders have been involved at an early stage of an MLGEE, while other stakeholders are easier to include once it is possible to demonstrate the benefits of the programme. The *Local Sustainability Accord* in Victoria (Australia), for instance, was designed from the start in cooperation with the Municipal Association of Victoria. Conversely, counties in Sweden were only involved in the *KLIMP* grant programme once the fundamental working relationship between the national government and the municipalities had been well determined. Over the years, the counties went on to gain more and more influence in *KLIMP*.

Types of energy efficiency measures promoted

Evidence shows that MLGEE can be used to promote and implement energy efficiency using a range of measures. Figure 5 shows that the case studies covered a full range of direct and indirect measures.

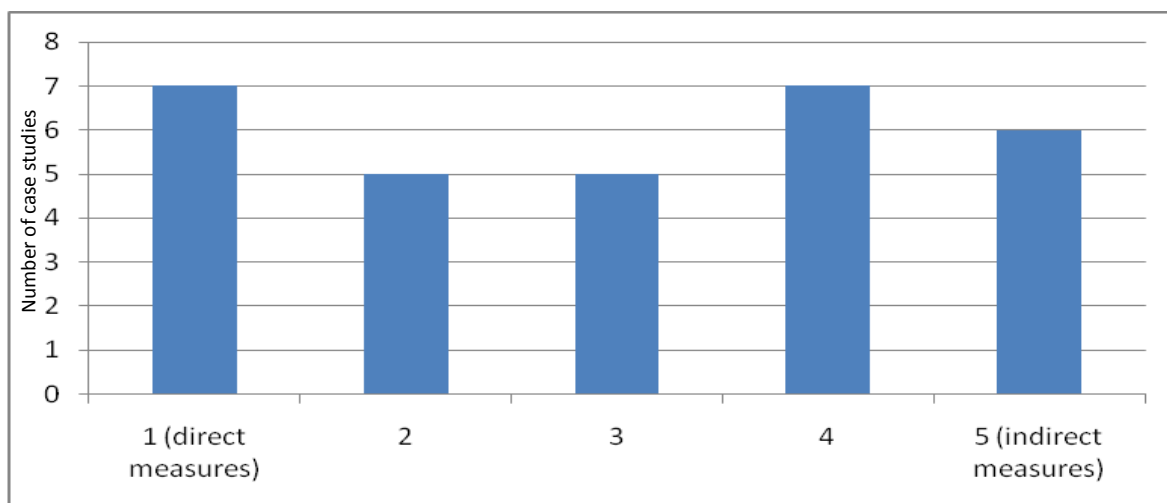


Figure 5: Types of energy efficiency measures⁵

Certain programmes, such as *WarmZones* in the United Kingdom, affect energy efficiency directly by gathering funding and human resources necessary to implement insulation solutions. Conversely, other programmes revolve around indirect measures such as dissemination of energy advice to individuals (the *Espaces Info Energie* network in France) or capacity-building within municipalities (e.g., *ECO-Buy* in Australia educates relevant staff in local councils on how to set up a green procurement policy at the local level).

Some MLGEE promote measures that fall between direct and indirect action. For example, *Paranácidade*, in Brazil, provides for a financial building capacity tool (indirect). However, this tool is also a key element needed to enable direct action.

Selecting the type of measure a MLGEE should promote, and, at what time, is important. The Upper-Austria *Regional Market for Third-party Financing* case study exemplifies how market preparation, through training and conferences, is necessary before implementing direct energy efficiency measures. This programme promotes capacity building, training and conferences as well as providing up to 20% of investment costs for energy performance contracts for municipalities. The investment subsidy for this programme is reported to be underutilised. According to managers this underutilisation stems from municipalities still not understanding the rationale and opportunities offered by the programme. Many municipalities still doubt that the programme can deliver benefits, despite every contract supported thus far having delivered positive results. In other words, more direct actions are possible should indirect promotion of energy efficiency benefits be further intensified (training and conferences).

Types of measures promoted: key points

- Case studies show that MLGEE can be used to promote and implement energy efficiency using a range of measures.
- Selecting the type of measure a MLGEE should promote and, at what time, is important.

Structure

In addition to defining the scope of an MLGEE, policy-makers must pay attention to the structure of the arrangement. As outlined in section 1.3, important considerations in the structure of MLG

⁵ See Annex 1 for an interpretation of the scores 1 to 5.

are the initiation and decision-making process, nature of participation, the formality of administrative structures and levels of accountability.

Initiation and decision-making process

The majority of case studies investigated in this report have strong top-down characteristics – both in their initiation and decision-making processes (see Figure 6). An example of an MLGEE initiated and managed by top levels of government is the *KLIMP* programme, which was conceived by Swedish ministers with the decisions being made at the national level.

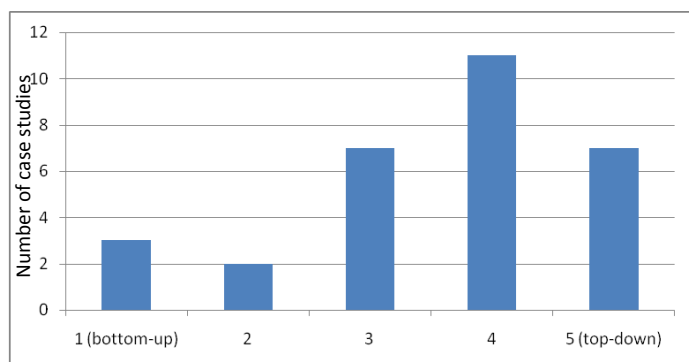


Figure 6: Distribution of bottom-up and top-down case studies⁶

Initiation and decision-making process: key points

- *The majority of case studies have strong top-down characteristics.*
- *Case studies characterised as top-down have heavily asymmetric funding and use governance by provision and enabling.*
- *Decision-making and ownership changes over time towards more bottom-up processes.*

Top-down arrangements initiated by central governments can have several advantages. In some contexts, central government has the political authority to require participants to engage in MLGEE. Central government can also contribute strong political leadership, profile and resources to the MLGEE, which act as strong incentives for rallying lower levels of government participation in the initiative. The development of *ECO-Model Cities* by the Japanese Prime Minister’s cabinet and, to a lesser extent, the development of *LIP* by Swedish ministers, are cases in point.

An interesting finding in this analysis is that top-down MLGEE tend to be associated with two characteristics. They tend to be heavily asymmetric in their funding (Figure 7). That is, top-down MLGEE tend to rely heavily on the majority of funding coming from central government. Second, all top-down case studies used dominant modes of governance: governance by provision and governance by enabling (Figure 8). No case studies were associated with governing by authority where central government forces participation without providing resources or enabling conditions.

⁶ See Annex 1 for an interpretation of the scores 1 to 5.

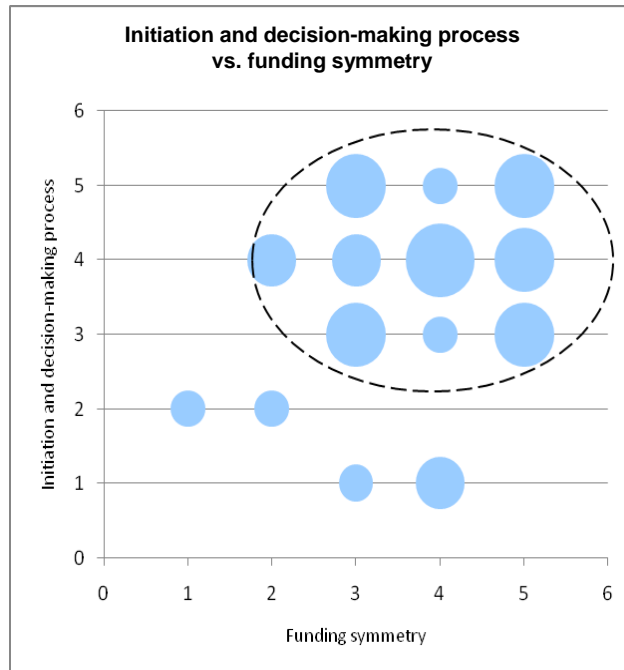


Figure 7: Initiation and decision-making process versus funding symmetry⁷

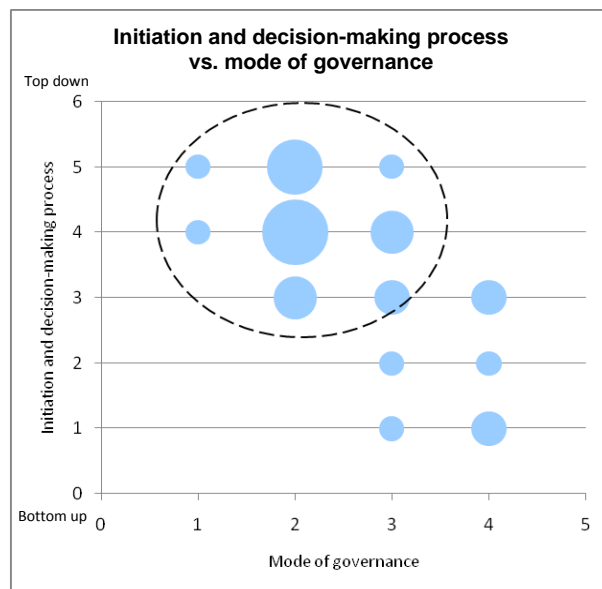


Figure 8: Initiation and decision-making process versus governance mode⁸

However, top-down approaches can run the risk of disempowering lower levels of government, or directing action to areas that are not priorities for local government. For example, in the initiation phase, applicant local authorities for EU-funding for setting up a Local Energy Agency reported they felt compelled to direct their applications towards the EU rather than local priorities to stand a chance of success. Similarly, small municipalities in Sweden reported that they sometimes

⁷ See Annex 1 for an interpretation of the scores 1 to 5.

⁸ See Annex 1 for a concordance that matches mode of governance to the scores 1 to 5.

withdrew from the *LIP* competitive selection process upon realisation that the programme's rules disadvantaged them too much (Swedish Environment Protection Agency, 2005). Perhaps for this reason, several case studies in our sample are characterised with strong bottom-up approaches. These case studies include MLGEE such as the *Energy Efficient Cities of Ukraine* association, which was initiated and is managed at the local level by Ukrainian municipalities.

Another interesting feature of the majority of the case studies is that the decision-making and ownership approach changed over time. The analysis shows that regardless of the initiation process, it is common that decision-making is eventually transferred/delegated to bottom levels of government.

Indeed, transfer of programme ownership from top to bottom levels appears to be key in managing MLG arrangements. The case of *MOVELE* in Spain provides another example of ambitious transfer of ownership of an MLGEE from a central state to the municipal level: cities participating in this green fleet pilot programme must not only implement direct measures, including co-funding, to buy and use electric vehicles, but they must also design their own policy framework to accommodate and give life to the programme. This was also the approach chosen by the European Commission with the Covenant of Mayors: early design was carried out by the Commission, which is now relegating itself to the background and letting the Mayors come to the fore and decide upon the programme's further orientations. Interestingly, this study found no instances of arrangements initiated at low levels of government, which later transferred influence over decision-making to higher levels.

Nature of participation

The great majority of MLGEE case studies were of a voluntary nature (Figure 9). That is, participation in the MLGEE was not mandatory or required by legislation.

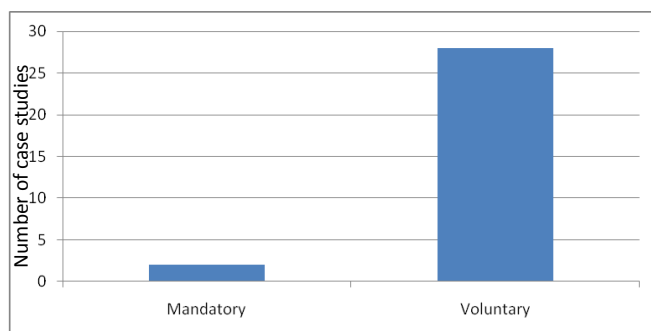


Figure 9: Nature of participation

In some instances, participation in MLGEE has been required by law. In Turkey for instance, membership in the Association of Turkish Municipalities (TBB) is mandatory for all 3000 municipalities of Turkey. The TBB was in turn included in the national Energy Efficiency Coordination Board by a law of 2007. The establishment of *Paranácidade* in the Brazilian State of Paraná also reflected a legal obligation: municipalities borrowing money from upper levels of government are required by law to have their requests for finance supervised by Brazil's Central Bank.

Deciding whether an arrangement will be mandatory or voluntary is important because it influences participants' level of motivation to engage in the project. Mandatory arrangements guarantee that some level of achievement will occur, even if minimal, because the players are

Nature of participation: key points

- *The majority of case studies are voluntary arrangements.*
- *The decision as to whether the MLGEE is mandatory or voluntary will influence the level of participation.*
- *Voluntary arrangements can lead to low participation but can encourage greater efforts by participants.*
- *Even voluntary arrangements have formal supporting structures.*
- *Voluntary arrangements can deliver a range of energy efficiency measures.*

forced to respond. However, requiring participation may stifle innovation and participants' motivation to extend their actions beyond the set objectives.

On the other hand, while voluntary arrangements can entail more risk, they can also provide greater potential for success. The risk is that a voluntary approach will lead to low participation in the MLGEE. However, voluntary participation can provide potential for success by attracting participants whose goals align with the MLGEE.

Prompting local governments to participate in a voluntary arrangement can prove difficult. We have identified two models for encouraging participation within voluntary MLGEE, namely grants and competition. Grant-based voluntary arrangements provide funding tied to levels of achievement: participants will be eligible for funding if they meet certain criteria. Examples of this type of MLGEE include the *Green Municipal Fund* in Canada, the *Local Promotion Program* in New South Wales, Australia, and the *Energy Efficiency and Conservation Block Grant Program* in the US.

Competition-based MLGEE works by calling for tenders for funding and providing funding to the best proposals. Examples of this type of MLGEE include *KLIMP* in Sweden, *Eco-Model Cities* in Japan and the *Wettbewerb Kommunalen Klimaschutz* in Germany. During the course of this study, several interviewees highlighted that competition-based approaches can suffer from several limitations. That is, the competition might attract few proposals (perhaps because local governments are not confident about their capacity to compete). For example, it was realised midway through the *LIP* programme that smaller, rural municipalities were turning their back on the competition (see above).

Another difficulty is setting up a process that rewards frontrunners while not discouraging the losers. To tackle this dilemma, there are several possible solutions. Some competition-based arrangements designate winners in multiple categories of competitors (the *Wettbewerb Kommunalen Klimaschutz* uses thematic categories such as technological innovation and policy innovation. Another German competition, *Wettbewerb Klimaschutz 2009*, rewards winners in different categories of population size). The *European Energy Award* provides for just two categories of winners. However, its local declinations in Switzerland (*EnergieStadt*) and in France have added extra categories of awards for beginner cities.

Analysis of the case studies reveals two interesting common characteristics. First, although many MLGEE are voluntary, they all involve relatively formal structures. That is, even the voluntary MLGEE have formal decision-making processes, channels of communication and institutional infrastructure.

Second, voluntary MLGEE can be used to deliver a range of energy efficiency measures. Figure 10 shows that the voluntary MLGEE case studies in this report promote energy efficiency through a range of both direct to indirect measures.

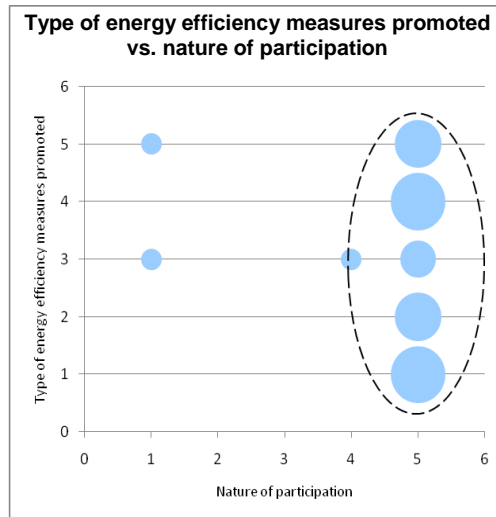


Figure 10: Nature of participation versus type of energy efficiency measures promoted⁹

Governance mode

The point has already been made that the most common primary modes of governance in the city case studies investigated here are governing by provision and governing by enabling (Figure 11).

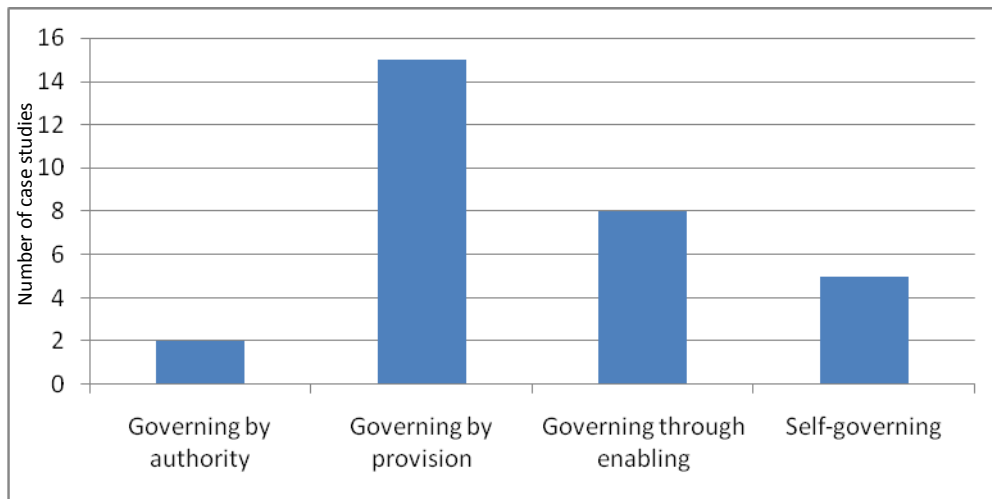


Figure 11: Frequency of primary modes of governance

Governance by provision is most common in grants-oriented programmes such as the Dutch *Klimaatconvenant* or the *State Energy Program* in the United States: the government offers funding in return for energy efficiency action at lower levels of governance. Governing through enabling often focuses on information distribution such as the *Assistant-Deputy Minister Steering Committee on Energy Efficiency* in Canada (seeking to avoid programme duplication by sharing information) or France’s *Espaces Info Energie* (via dissemination of information to the general public and small businesses).

⁹ See Annex 1 for an interpretation of the scores 1 to 5.

The closest arrangement to an authoritative type of governance is the *Energy Efficiency Coordination Board* (EECB), in that adherence to the TBB is mandatory. Yet, the EECB itself only provides advice to the government and does not impose policies to municipalities directly.

Most case studies actually utilise several types of governance. For example, the *Low Income Retrofitting Project* in Greece involves governance by provision (budget to reinforce energy efficiency in houses) and governance through enabling (local information centres inform households on the project). The same pattern is noticeable in another programme targeting fuel poverty: *WarmZones* in the United Kingdom. This pattern might be explained by the need to inform the population suffering from fuel poverty, about the very existence of programmes they are entitled to. Also, for the *Energy Efficient Cities of Ukraine* association, the Ukrainian government enabled the creation of this association with a law of 1997 which allowed for formal cooperation between municipalities on certain subjects. International organisations have provided the association with most of its funding (governing by provision); the network, however, is entirely self-governed.

Carefully selecting a type of governance, or a combination thereof, for a MLGEE is important. The type of governance is heavily dependent on the context and, in particular, on the capacity of institutions to cope with different levels of governance. For example, governing by authority requires capacity within the national government – particularly, in the areas of evaluation, compliance and enforcement. Governing by provision requires significant funding capacity. And governing through enabling assumes that all that lower levels of government need are enabling conditions (legal competence, information etc) to implement energy efficiency measures; the technical and institutional capacities are assumed to already exist.

Formality of administrative structures

The degree of formality of administrative structures of MLGEE is manifested in various ways:

- Sometimes, the MLGEE required the creation of dedicated physical entities (the *Low-Income Retrofitting Project* in Greece, formal). Other times, the MLGEE is run through pre-existing, non-dedicated entities (the *Crown Energy Efficiency Loan* in New Zealand, informal).
- In some case studies, objectives and regulations are defined in documents (ranging from very formal documents, such as the Constitution in Belgium, to less formal such as milestones in the Cities for Climate Protection campaign).
- The types of decision-making process within the arrangements range from formal authoritative decisions (for example, the *European Energy Award* certification scheme, where selection criteria to award municipalities the different levels of award are clearly stated and where rules of governance are detailed and include thresholds for financial participation in the supporting entity) to less formal (for example, with the *Local Promotion Program* in New South Wales, Australia, the contents of actions led by local councils in exchange for regional funds are left to the local councils' appreciation. Only a few requirements on promotion of the regional rebates on energy efficiency must be met, but the form of the promotional

Formality of administrative structures: key points

- *The degree of formality differs among all case studies.*
- *Formal administrative structures can be achieved through dedicated physical entities, formal documentation of objectives and regulations and clear decision-making processes.*

events is completely unregulated by the programme¹⁰) and consensus (in *CONCERE-ENOVER*, in Belgium, no decisions are made by vote. Discussions between the parties last until a compromise is reached, or no decision is made).

- The channels of communication sometimes take an unstructured form (for example, in the *Energy Efficiency Agreements* in Finland or *CONCERE-ENOVER* in Belgium, much communication between the parties takes place informally). Other arrangements are sometimes restricted to official channels only. These latter cases are harder to identify, as informal communication might take place, which was not reported. However, French energy efficiency advisors in *Espaces Info Energie* must complete a debriefing report on each intervention they have completed.

Clearly defined working relationships are essential for MLGEE since they can often involve levels of government not accustomed to cooperating with each other. This perhaps explains part of the reason why negotiating Finland's *Energy Efficiency Agreement* took so long. In this case, municipalities were reluctant to conclude negotiations until each party had a full understanding of its role.

The degree of formality is important because it can impact on the degree of resilience of the MLGEE. A high degree of formality can provide robust structures that can withstand changes in political will. This is particularly the case if the formal establishing documents enshrine the MLGEE in law. However, formal structures can also be disadvantageous. They can be relatively bureaucratic and lack the flexibility needed to change with circumstances. In this instance, a low degree of formality can offer less bureaucracy, more flexibility and therefore increased resilience.

Level of accountability

A high degree of accountability is essential in MLGEE for several reasons. Because these arrangements often use significant amounts of public finance, it is important to ensure that those managing MLGEE are accountable for the use of that money. Good accountability in MLGEE can help to ensure that investments are effective and deliver value. Accountability can also ensure financial sustainability of an arrangement by keeping stakeholders informed of the financial situation. This information in turn enables better financial planning. Finally, accountability in an MLGEE can help to build trusting relationships between the various levels of government involved.

Accountability: key points

- *Accountability is important in MLGEE.*
- *Most MLGEE have some form of accountability arrangement.*
- *In many instances, efforts devoted to accountability wane over time.*

The evaluated the level of accountability in case studies by identifying which case studies had the following elements:

- Political monitoring (by an elected body).
- Ex-post evaluation (both process and outcome evaluations).
- Regular external monitoring.
- Regular internal monitoring and reporting.
- Pre-screening of projects.

¹⁰ This does not mean the promotional events are not regulated in themselves at the local council's level, but the programme does not tackle it, and foresees explicitly that local councils are free to design their own rules.

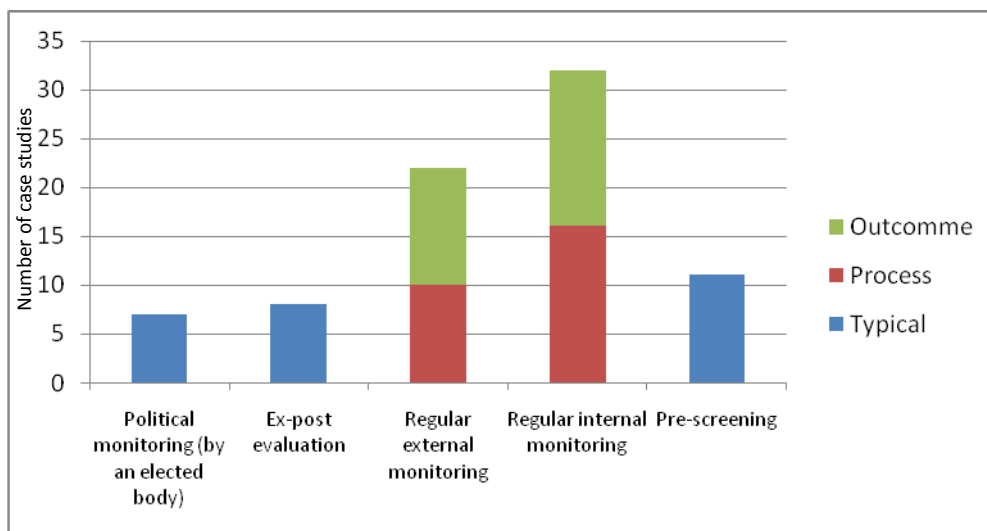


Figure 12: Types of accountability arrangements

Figure 12 shows that many MLGEE case studies have some form of accountability mechanism. However, during the process of this analysis two accountability-related issues became apparent. The first issue relates to the degree of rigour of accountability mechanisms. In some of the case studies, it appeared that the accountability mechanisms were inadequate. For example, several of the case studies rely heavily on trust and self reporting. During interviews, several respondents claimed that the issue of accountability is culturally dependent. For example, the Netherlands has a long history of relying on voluntary approaches to energy efficiency. In this context, Dutch interviewees identified that relying on trust and self reporting was appropriate. This may not be the case in other countries.

Another interesting issue identified during the interviews was the difference between short-term and long-term emphasis on evaluation. In other words, many case studies established and implemented good accounting and reporting systems at their inception. However, as time goes by these reporting systems receive less attention, and in many instances, there have been few ex-post evaluations. It appears that over time, interest in accountability wanes.

There are different ways to build accountability into MLGEE. Some governments require that audits be carried out prior to allocating funding to a project. For example, New Zealand's *Crown Energy Efficiency Loan* is only available to beneficiaries that have had an energy audit carried out by an expert from the EECA, the national Energy Efficiency Agency. In Finland, mandatory audits are carried out by private experts trained by the national Energy Efficiency Agency. The municipalities signing an *Energy Efficiency Agreement* are actually required to audit all their buildings and those of publicly-owned companies throughout implementation of the Agreement.

Other programmes plan on ex-post means of verification - although they are not often carried out. In Canada, the feasibility of the projects funded under the *Green Municipal Fund* is examined by the *Peer Review Committee* prior to the decision to fund, but external evaluation of the projects funded is carried out after a project has been implemented. Although, ex-post evaluations cannot prevent misuse of funding of the project evaluated, they can allow for improved screening of the next projects.

An additional means of building accountability resides in linking an arrangement to legal provisions. In all democratic countries, possibilities exist for local governments to sue the national government to assert their rights in case of a dispute. The EU has taken this possibility to the international level with the European Court of Justice.

Sanction mechanisms are another means of promoting accountability. In voluntary agreements, sanction mechanisms range from an entity's exclusion to the requirement to reimburse the funds allocated. An innovative sanction mechanism to ensure both accountability and sustainability of an arrangement can be found in the case of the EU-funded Local and Regional Energy Agencies: if an EU-funded agency ceases to exist less than five years after EU-funding has ended, the local authorities that created the agency need to reimburse the funds to the EU. Several interviewees expressed concerns about the efficacy of sanction mechanisms. They stated that, in reality sanction mechanisms are rarely enforced, often due to a lack of resources.

2.4 Funding provisions

Along with the motivations, the scope and the structure, funding provisions are critical in determining the shape of an MLG arrangement.

The case studies reviewed in this report cover a huge range of budgets. The smallest budget in the case studies is Canada's *Assistant Deputy Minister Steering Committee for Energy Efficiency* with approximately CAD 15 000 (EUR 10 000) per year, which corresponds to the costs of organising meetings three to four times annually. The largest programmes featured in the case studies disperse billions of US dollars budgeted through the *American Recovery and Reinvestment Act of 2009*. The *EU Covenant of Mayors*, while budgeted with approximately EUR 15 million (for its facilitation structure ELENA), has enabled several cities to apply for hundreds of million Euros of loans from the European Investment Bank.

Not surprisingly, the level of funding determines the scale of an MLGEE. During the course of the interviews several programme managers reported that more municipalities would have taken part in the programmes if more funding was available (for example, this was noted with respect to *Eco-Model Cities* in Japan and *SwissEnergy* in Switzerland).

In an attempt to respond to the current economic crisis and the ensuing economic downturn, many IEA countries are implementing stimulus packages (International Energy Agency, 2009). Many of these stimulus packages (in Canada, France, Germany, etc.) provide funding for energy efficiency.

The impact of the crisis on municipalities and local levels of government was mentioned in several interviews. Stimulus funds increased the budgets of many of the case studies highlighted in this report. For example, the *Energy Efficiency and Conservation Block Grant Program*, the *State Energy Program* and the *Weatherization Assistance Programme* in the United States all tap funding through the recently passed American Recovery and Reinvestment Act (ARRA).

Funding provisions: key points

- *There is a huge range in the sizes of budgets for MLGEE.*
- *The economic crisis means that many MLGEE are redirecting their efforts towards direct energy efficiency measures.*
- *Several MLGEE have investigated innovative mechanisms to reduce dependence on external funding.*
- *MLGEE with large budgets do not necessarily have robust accountability systems.*
- *The higher the number of participants the higher the budget and funding symmetry.*

In addition, large stimulus packages are refocusing MLGEE on direct measures. This trend was acknowledged by the European Commission in the case of the *Covenant of Mayors* when the Covenant was granted an initial EUR 15 million by the European Investment Bank, followed by grants of EUR 160 million to the City of Barcelona and plans for a EUR 500 million loan to the Province of Milan. At the same time, EU officials interviewed stated that the *Covenant of Mayors* was established in an attempt to stimulate further direct action.

A key question for policy-makers is how to design MLG arrangements that are independent of external funding. As an example, certain energy efficiency programmes involving MLG mechanisms were stopped in the past for lack of funding (e.g., *NU-Spaarpas* in the Netherlands¹¹).

The use of innovative mechanisms is needed to reduce dependence on external funding. In this regard, such initiatives as *ECO-Buy* in Australia or the market for third-party financing in Upper Austria provide useful examples. These programmes seek to build sustainable links between suppliers (*ESCOs* in Upper Austria, producers of green goods in Victoria) and consumers (local authorities). National and regional governments act here as barriers lifters, by providing the infrastructures of self-sustaining markets. However, these programmes have required long periods of preparation and training among the recipients.

The timing of funding can become a source of concern. Lags in central/federal funding create delays in programme implementation. On the other hand, large amounts of funding in a short space of time can also stretch a programmes' capacity to implement effectively – because of time delays in recruitment, etc. This issue of timing of funding was recognised as a challenge and is currently being explored by the European Commission regarding the Local and Regional Energy Agencies.

Surprisingly, programmes relying on considerable budgets do not necessarily have the most robust accountability systems (Figure 13). This appears to be the case for some recently launched programmes such as the EU *Covenant of Mayors* or the three US cases established under the ARRA. In this context, the IEA defines lack of accountability systems to mean that the goals of the MLGEE were not binding. For example, a key goal of the *Covenant of Mayors* is to encourage cities to benchmark their energy performance against one another, although there is no formal obligation for cities to do this. The lack of accountability mechanisms raises the concern that the states (regions) might not use the funds in the way originally intended (i.e., fostering self-sustaining investments instead of mere hardware investments).

¹¹ The *NU-Spaarpas* programme was a central state and provincially-sponsored scheme in the city of Rotterdam, aimed at encouraging consumers to buy green by means of a points-based mechanism. Despite being successful, the scheme stopped operating at the end of 2003, when no more funding was available.

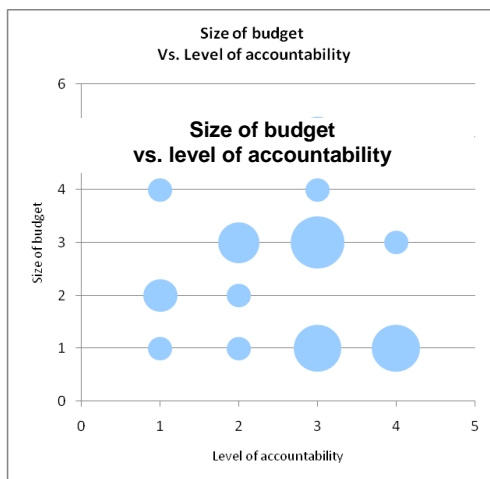


Figure 13: Size of budget versus accountability

Older programmes such as the *Green Municipal Fund* in Canada or *KLIMP* in Sweden have succeeded in combining high levels of accountability with large amounts of funding.

Reviewed case studies also differ greatly in the symmetry of funding. A disparity exists in regard to how evenly funding is divided between levels of government. Symmetrical arrangements include European Local and Regional Energy Agencies. These agencies receive EU funding for up to 50% of the costs necessary to their establishment; local governments or the private sector, depending on the country, contribute their own funds to cover the remainder of the costs.

Based on the case studies, it is possible to make two tentative observations relating to funding. First, it appears that symmetry of funding is loosely related to the number of actors involved (

Figure 14: Level of inclusion versus funding symmetry

Figure 15: The size of the budget versus level of inclusion

). That is, the higher the number of participants (higher score on the y-axis), the greater the funding symmetry (lower score on the x-axis). Second, it appears that the greater the degree of multilateralism (higher score on the x-axis), the higher the MLGEE budgets (higher score on the y-axis) (

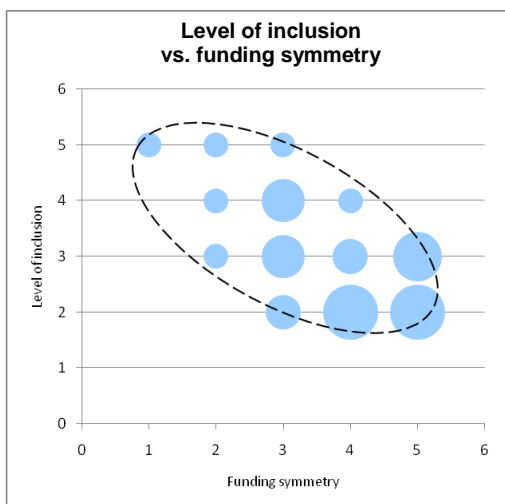


Figure 14: Level of inclusion versus funding symmetry

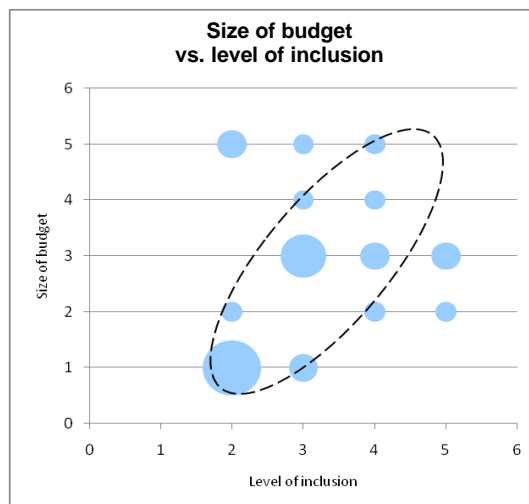


Figure 15: The size of the budget versus level of inclusion

2.5 Results and effectiveness

The purpose of this paper is not to assess the effectiveness of the programmes featured as case studies. It was not possible to verify or estimate the direct and indirect impacts of each individual programme because of a lack of published evaluations. Nevertheless, it was possible to make generalisations relating to the results and effectiveness of the MLGEE case studies.

First, the lack of regular external evaluations of MLGEE is a concern. It is noteworthy that only a minority of the programmes and entities are officially evaluated. Canada's *Green Municipal Fund*, France's *Energy Info Centres*, Finland's *Energy Efficiency Agreements* or Sweden's *LIP* and *KLIMP* are among the most evaluated programmes. Another program that has attempted to evaluate its effectiveness is the *Local Promotion Program*¹² in Australia. To balance the need to evaluate the full impact of that programme with limited resources to do so, the managers decided to focus on a limited but solid set of criteria, including the percentage of rebates uptake in communities where a promotion sponsored by the state and implemented by a local council had taken place.

In all other case studies, evaluation of the effectiveness of MLGEE was either incomplete or relied primarily on self-reporting mechanisms (such as the *Low Income Retrofitting Project* in Greece). Too often, programmes measure their level of accomplishment against the number of parties that have joined the programme. This lack of evaluation not only prevents comparison between the programmes, but also poses a major issue of accountability to the programmes' stakeholders and, where applicable, to the taxpayer.

Second, it appears that combining or bridging complementary programmes and approaches can improve their effectiveness (at least in terms of the self reported achievements). That is, it appears that if separate programmes, with at least some degree of overlap of beneficiaries and/or complementary measures (for example, direct and indirect approaches to energy efficiency) are combined or bridged, then their overall ability to deliver is enhanced.

For example, respondents identified that in the UK, using the *WarmZones* door-to-door assessment approach to recruit households into the *WarmFront* programme significantly increased the uptake of energy efficiency measures from the latter programme. Another example of a successful combination of programmes is to be found in the Netherlands: the *Climate Menu* tool was linked with the *Climate Scan* and the *Climate Subsidy* to form the comprehensive *Climate Covenant* programme.

Results and effectiveness: key points

- *Combining complementary programmes appears to improve the overall effectiveness of delivery.*
- *A key finding from this analysis is that MLGEE need to engage in regular evaluations by external parties.*
- *Case studies show that the effectiveness of MLGEE is affected by the level of capacity of participants.*
- *Key individuals can help to make an MLGEE more effective.*

¹² Under the LPP, the Department of Environment and Climate Change of New South Wales grants local councils up to AUD 5000 to run events of their choice, but which must include promotion of state rebates for energy and water efficiency.

Combination of programmes can take place between programmes developed at different levels of government. In France, for instance, the EU-funded Local and Regional Energy Agencies have benefited from the addition of national *Energy Info Centres*¹³. The latter have seen their uptake rate¹⁴ increase dramatically from 26% in 2003 to 56% in 2007.

Further levels of integration have been witnessed in the Netherlands (the *Climate Covenant*) or in Victoria, Australia (the *Local Sustainability Accord*), where access to pre-existing funds has been granted to participating local authorities, sometimes on a preferential basis compared to non-signatory local authorities.

Another factor that appears to influence the effectiveness of MLGEE is the level of capacity (both financial and human skill level) of participants – particularly local-government. Such capacity deficits have in some instances led to small cities dropping from MLG initiatives (such as in Finland in the 1990's or in Sweden in the early 2000's) as they had neither the financial means nor human resources to carry out the programmes. Initiatives such as *Energie-Cités* or the *Energy Efficient Cities of Ukraine* association aim precisely to address the capacity gap. A competition for municipalities in Germany, the *Wettbewerb Bundeshauptstadt Klimaschutz* (and not the *Wettbewerb Kommunal Klimaschutz*) has focused this year on cities with less than 20 000 inhabitants. Eventually, most of the programmes have integrated differentiated thresholds for small and big cities. These which have not done so either rely on programme partners to support small cities (*Covenant of Mayors, KLIMP*) or are not very demanding in the first place (ICLEI's *Cities for Climate Protection*).

One final point is worth noting relating to the effectiveness of MLGEE. Several interviewees noted the importance of key individuals in the inception of MLGEE (*Covenant of Mayors, Energy Efficiency Agreements* in Finland, *the Energy Efficiency Conservation Board* in Turkey, the association of the *Energy Efficiency Cities of Ukraine*). In Paraná, the accession of former Mayor of Curitiba Jaime Lerner to the post of Governor of the State was instrumental in bringing part of Curitiba's renowned policies to the rest of the state, notably at the time when *Paranacidade* was established. Even, in the EU case, where one would not expect individual champions to play a major role, interviewees identified the officials of the President of the Committee of the Regions as instrumental in identifying the opportunity represented by the Covenant of Mayors and getting the Regions onboard. Personal relationships again played an important role when New Zealand's Christchurch joined the Covenant, as the city's energy manager was Ukrainian and still very much in touch with broader European developments in energy policy.

2.6 Evolution of MLGEE

Analysis of the case studies and interviews reveals two interesting points relating to the evolution of MLGEE. First, it has already been mentioned that, over time, MLGEE have evolved from been characterised as top-down to more bottom-up arrangements.

Second, MLGEE tend to evolve in another way. Even though, most of the case studies featured in this report are recent, some of them have built on previous programmes (*LIP/KLIMP*), others have absorbed or included pre-existing structures (*ManagEnergy*, the training structure supporting the EU-funded Local and Regional Energy Agencies, also targets pre-existing agencies). In the case of

¹³ *Espaces Info Energie*

¹⁴ i.e. the percentage of advice given to individuals who later went on to invest in energy efficiency.

the Energy Efficiency *Coordination Board of Turkey*, the entity already existed but had restricted competences. The *Assistant Deputy Ministers' Steering Committee for Energy Efficiency* of Canada and *CONCERE* in Belgium emanated from similar, yet older and more political institutions. The *Heizspiegel* campaign of Germany relies on a daily basis on the existing social centres of concerned municipalities.

2.7 Summary and conclusions from the analysis

This study has attempted to identify trends and detail recent developments in multi-level governance in energy efficiency. Analysis of the 30 case studies has led to the following insights:

- There are five principle motivations behind engaging in MLG including: compliance with national/international legal provisions; economic development; cooperation in federal countries; centralised government outreach to local communities; and fuel poverty reduction.
- All case studies covered in this report have clearly set objectives. Some arrangements, however, are attempting to accomplish too many objectives. This can be challenging and unproductive, stretching human and financial resources too thinly. One way to effectively manage multiple objectives is to prioritise them over time.
- A diverse array of direct and indirect measures is being used to obtain objectives. During the economic crisis, many MLGEE redirected efforts and implemented direct energy efficiency measures. Reflecting on the type of measure that should be implemented at a specific time is important.
- How many and which levels of government to include in a MLGEE is a critical issue for policy-makers. Most case studies covered in this report are characterised as being top-down, voluntary arrangements that largely involve bilateral cooperation.
- Case studies characterised as top-down often receive asymmetric funding and involve governance by provision and enabling.
- MLGEE tend to evolve over time from top-down decision-making processes to bottom-up processes. Policy makers at the local level have begun to initiate their own MLGEE.
- Most case studies utilise several types of governance, but governance by provision and enabling are the most common primary modes of governance.
- The voluntary or mandatory nature of the MLGEE influences the level of participation, with voluntary arrangements often experiencing lower participation levels than mandatory ones.
- Formal administrative structures can be achieved through dedicated physical entities, formal documentation of objectives regulations and clear procedures for decision making.
- As for financial resourcing, there is a large range in the size of MLGEE budgets. Often MLGEE with higher participant numbers have larger budgets and funding symmetry. In order to reduce dependence on external funding, several MLGEE are looking into innovative funding mechanisms.
- Most MLGEE have some form of arrangement to ensure accountability. In many instances, however, efforts devoted to ensuring accountability wane over time. Furthermore, MLGEE with large budgets do not necessarily have robust accountability systems. Policy makers designing MLGEE should ensure that accountability systems are in place from the beginning.
- All MLGEE should ensure that they are regularly evaluated by external auditors.
- Combining complementary programmes appears to improve the overall effectiveness of delivery and reduce duplication.

Taken together, these observations identify that cooperation across levels of government is a feature of many countries' strategies to enhance energy efficiency. Countries have shown remarkable creativity in their design of MLGEE – as evidenced by the diversity of this small group of case studies. However, there are some areas that require more attention. In particular, attention needs to be given to ensuring that all MLGEE:

- a) are established with appropriate and, where necessary, prioritised objectives;
- b) are designed to include those levels of government that are appropriate to achieve the stated objectives;
- c) have adequate accountability mechanisms and are regularly externally evaluated.

It is hoped that these and the other observations offered in this information paper will enable countries to take advantage of the opportunities that MLGEE offer to improve energy efficiency around the world.

3 Case studies

The following pages contain a description of the thirty case studies used in the analysis above. For practical reasons, it was not possible to include all of the details gathered through the desk research and interviews. Readers willing to learn more about a particular case study may use the information put in the “sources and contacts” box at the end of each individual report.

Each report is also preceded by an info box summarising the basic elements of the case study. Symbols are also used to inform the reader about the political system of the geographical entity(ies) (country, regional organisation, global arrangement) hosting the case study, and whether the case study has been evaluated.



The concentric circles refer to countries with centralised government systems.



The star refers to federal countries.



The tick mark refers to an officially evaluated case study. References to the evaluation, when available, can be found in the bottom box of the case studies. Not all evaluations are available in digital format – some are only available in paper versions.



Nature of participation: **Voluntary**

Levels: **National, Regional**

Legal basis: **none**

Budget: **CAD 25 000 p.a.**

Objective: *To facilitate the cooperation between the federal government and regions to develop and coordinate programmes and avoid duplication*

Context: **Cooperation was not legally mandatory**

3.1 Assistant Deputy Minister Steering Committee for Energy Efficiency (Canada)

Rationale

The *Assistant Deputy Minister Steering Committee on Energy Efficiency* (ASCEE) is a consultative body¹⁵ set up to facilitate coordination and avoid programme duplication on energy efficiency between the federal and the provincial/territorial governments of Canada. It reports directly to the Council of (Federal, Provincial and Territorial) Energy Ministers (CEM) by setting “a coordinated, complementary agenda for energy efficiency in the built environment, industry and transportation sectors”. The ASCEE promotes information sharing, programme design and policy frameworks in the form of the development of tools and initiatives that may be delivered collaboratively by multiple jurisdictions.

Coordination between levels of government is necessary in Canada as energy is an area of provincial jurisdiction, although certain dimensions remain in the federal government remit (e.g., federal fiscal policy and international agreements).

Description

Structure

The ASCEE’s membership comprises one official from each federal, provincial and territorial jurisdiction. It is co-chaired by administrative officials of a hosting Province or Territory (currently Ontario) and Natural Resources Canada (NRCan). Representatives from national agencies, industry and municipalities sit in certain of its working groups.

The ASCEE comprises three working groups. The *Demand Side Management* working group provides analysis and recommendations on issues related to buildings, including work on codes, benchmarking and integrated community energy solutions. The *Transportation* working group assesses the status and enhances the alignment of transportation energy efficiency activities across federal, provincial and territorial jurisdictions through ongoing work on energy efficiency improvements for heavy duty trucks in the areas of aerodynamics, tires and long combination vehicles. The *Industry* working group promotes information exchange among industrial energy end-users and the authorities.

The ASCEE itself and each of its working groups meets several times a year (the number of meetings per year is not regulated) via face-to-face meetings, conference calls and video conferencing.

¹⁵ A second advisory body: the National Advisory Council on Energy Efficiency [NACEE], a multi-stakeholder committee, is designed to advise the Office for Energy Efficiency [OEE, the federal agency for matters of energy efficiency] by commenting on its business plans and programmes. Some selected provinces are represented in NACEE.

Funding provisions

The federal budget covers the ASCEE's and their working groups' functioning costs with approximately CAD 25 000 per year. This cost is variable. Meetings are gradually taking place via video-conferencing, so as to cut down costs and the carbon footprint. The federal budget covers the ASCEE's functioning costs, which vary depending on the number and type of meetings, as well as the nature of the initiatives developed in any particular year as directed by CEM.

History

The ASCEE was established in 2004 on the request of the CEM. The NACEE, created in 1998, had provided for a first inclusion of multi-level governance concerns by enabling select Provincial representatives and other stakeholders to comment on federal programmes in energy efficiency. The ASCEE took this logic to the next step by allowing for coordination and assessment of information, policies and programmes across jurisdictions.

Analysis

Multi-level governance elements

The ASCEE was set up in a federal framework as an extension of the Council of Energy Ministers in recognition of the importance of improving energy efficiency across Canada to respond to environmental, economic and energy security concerns. The ASCEE further innovates in that it induces soft harmonization on an issue on which Provinces/Territories and the Federal Government are not legally required to work together.

Results

The impact of the ASCEE in terms of actual energy savings and CO₂ emissions reductions has not been quantified.

However, the ASCEE has already led to federal/provincial cooperation on, for example, energy codes, equipment standards, low income housing and lighting efficiency. For instance, the ASCEE and its three working groups prepared the Council of Energy Ministers' document "Moving Forward on Energy Efficiency in Canada: A Foundation for Action", the landmark document for further cooperation between all levels of government on energy efficiency in Canada. Building on the priorities identified in "Moving Forward", ASCEE and its working groups have developed five new tools and initiatives that ministers released in 2009 to improve the energy efficiency of heavy duty trucks (aerodynamics guide), industry (Energy Management Information Systems), buildings (recommissioning and benchmarking) and communities (Integrated Community Energy Solutions). Cooperation within the ASCEE has also enabled provincial and territorial governments and utilities to use federal programmes and tools to complement their own energy efficiency programmes. For instance, homeowners can access existing provincial/territorial and the federal home retrofit programmes through a single application and energy evaluation offered under the *EcoEnergy Retrofit-Homes* programme. Criteria have been matched, as well as funding in some cases. All but one Province/Territory now have coordinated programmes.

Strengths

The ASCEE provides a basis for coordinating actions and measures across federal, provincial and territorial jurisdictions in a context where not legally required to. It enables all jurisdictions to collectively determine a program of work to advance energy efficiency in areas of mutual interest and priority.

Challenges

The ASCEE remains a consultative body with no formal decision-making power, which ultimately leaves its recommendations subject to political considerations. Its quantified impacts are impossible to determine. No formal evaluation of its functioning has taken place, mostly due to its voluntary nature. Participating jurisdictions may implement the initiatives as they see fit, according to their own priorities, budgets and timelines. Therefore, all tools and initiatives developed will not necessarily be adopted by all jurisdictions.

Domestic transferability

As evidenced by CEM's approval of the ASCEE recommendations in 2007, 2008 and 2009, CEM largely consider the ASCEE as effective and contributing to the advancement of the energy efficiency agenda across Canada. As several working groups and subcommittees were successively added to the ASCEE (e.g. the "Industry" working group was added in 2005), the scope of its work has been extended to cover a broader range of aspects of energy efficiency policies.

International transferability

The ASCEE could work well in federal countries where energy policies responsibility is split between the federal and the regional level.

Sources and contacts

- Natural Resources Canada - <http://www.nrcan-rncan.gc.ca/com/>
- Nancy Roberts, Natural Resources Canada - nancy.roberts@nrcan.gc.ca



Nature of participation: **Voluntary**

Levels: **International, National, Regional, Municipal**

Legal basis: **Local Action Plans**

Budget: **unknown**

Objective: *To adopt policies and implement quantifiable measures to reduce local greenhouse gas emissions*

Context: **Different versions of the campaign apply in different parts of the world**

3.2 The Cities for Climate Protection Campaign (ICLEI, global)

Rationale

The *Cities for Climate Protection* (CCP) initiative is a campaign led by the *International Council for Local Environmental Initiatives* (ICLEI) throughout the world to assist some 700 local governments to adopt policies and implement quantifiable measures to reduce local greenhouse gas emissions, thanks to national or regional governments' financial support. Typical policies implemented include energy efficiency improvements to municipal buildings and streetlight retrofits.

ICLEI is a non-profit international association of local and regional governments, established in 1990 in the

light of UN-related developments on climate change. In that sense, the CCP campaign reflects a shift from a horizontal governance mode (cities organising themselves together) turned vertical through multi-level governance.

Description

Structure

Local governments join the CCP campaign by passing a resolution pledging to reduce greenhouse gas emissions from their local government operations and throughout their communities. To help cities achieve their goals, ICLEI then assists the cities undertake the CCP five-milestones. The five milestones of the CCP and the supporting methodology provide a standardised means of calculating greenhouse gas emissions, of establishing targets to lower emissions, of reducing greenhouse gas emissions and of monitoring, measuring and reporting performance. The milestones are intended to provide a flexible framework that can accommodate varying levels of analysis, effort, and availability of data. The five milestones are:

- Conduct a baseline emissions inventory and forecast.
- Adopt an emissions reduction target for the forecast year.
- Develop a *Local Action Plan (LAP)* that describes the policies and measures that the local government will take. LAPs are designed together with representatives from the civil society and include a timeline, a description of financing mechanisms, and an assignment of responsibility to departments and staff. Most plans also incorporate public awareness and education efforts.
- Implement policies and measures.
- Monitor and verify results.

At this stage, monitoring processes depend on each national/regional campaign coordinators and available funding. In Australia and New Zealand for instance, there has been up to now a process of monitoring and verification, with regular reporting. In Europe, figures are provided by CCP participants on a voluntary basis; as there is no funding, this feedback can not be actively pursued

and verified unless there is a national campaign such as in CCP Finland where the national coordinator can take on such a role.

Funding provisions

As a non-profit association, ICLEI receives financial support for its operations and its programmes from a membership fee and project funders.

There is no overall budget for the CCP Campaign. The budget for each national or regional campaign depends on available (local/regional) financing sources. For example, in Europe, the CCP campaign has not been funded for more than a decade, meaning the campaign cannot provide a wide range of services (at this stage, the European campaign deals mostly with information sharing and regular conferences); still, the results of related projects on the topic of climate protection – either run by ICLEI or CCP participants - feed information into the campaign. In other countries, the campaign is or was funded by national governmental programmes (e.g. Australia, funding was stopped mid-2009) or international programmes, such as USAID which supported its development in South Africa and South Asia. Moreover, in many cases the CCP participants - local governments – allocate a budget for their own climate work, for example paying for an external or ICLEI expert to conduct a greenhouse gas inventory.

History

The CCP campaign grew out of ICLEI's *Urban CO₂ Reduction Project* (1991-1993), which brought together a group of American, Canadian, and European cities to develop a municipal planning framework for greenhouse gas reduction and strategic energy management. The experience of the *Urban CO₂ Reduction Project* led to the development of the CCP five-milestone framework and a software product designed for municipal use.

Based on recent analysis, CCP participants account for approximately 15% of global anthropogenic greenhouse gas emissions.

Analysis

Multi-level governance innovations

The CCP campaign is innovative because it emerged from an international association of municipalities addressing other municipalities, while at the same time relying on national and regional authorities as far as facilitating the implementation of the campaign is concerned.

Similarly to examples such as the *Energie-Cités* network of municipalities in Europe, the CCP campaign of ICLEI exemplifies how horizontal networks at the local level can interact with higher levels of government.

Results

Currently, the CCP Campaign has more than 1100 participants from 33 countries, notably including thirteen cities in Sub-Saharan Africa, fourteen in Eastern Asia, eighteen in Latin America, 677 in Northern America and 204 in Oceania.

Quantified, verified results are available for Oceania, but rarely in other parts of the world.

The *City Climate Catalogue* is a first attempt to capture climate change mitigation targets and main results from communities around the globe – also of non-CCP participants, although the CCP participants are the majority listed.

One of the major developments based on knowledge gathered through the CCP Campaign was the development of the *International Local Government Greenhouse Gas Protocol*. This

international Protocol consists of the general principles and philosophy that any local government, regardless of location, should adhere to when inventorying GHGs from its internal operations and community as a whole.

Strengths

The CCP provides municipalities with a straightforward framework for energy efficiency action.

Challenges

Obtaining adequate and continuous funding over the medium to long-term is the major challenge. Challenges essentially lie in the degree of commitment of supporting national and regional authorities. When funding ends, as has recently happened to the Australian and New Zealand campaign, where the national governments decided to discontinue funding, the management and implementation of the campaign has to be re-designed.

Domestic transferability

As ambitious, customised similar programmes are being developed within certain countries and groups of countries (e.g., the *Covenant of Mayors* in the EU), the relevance of the CCP in these regions might decrease. Stricter agreements are in place presumably where there is funding to enforce them. Many CCP Europe participants are in a position to sign up to the Covenant. There are discussions underway on whether it would be possible to formally link the *World Mayors and Local Governments Climate Protection Agreement* with the Covenant Agreement, thereby reducing numbers of documents to be signed by councils.

International transferability

The flexibility offered by the five milestones framework increases its transferability amongst local governments in virtually all regions of the world. According to ICLEI, this aspect “enables (the programme) to cross north/south, developed/developing, metropolis/town boundaries”.

Sources and contacts

- Cities for Climate Protection website - <http://www.iclei.org/index.php?id=800>
- Maryke Van Staden, Coordinator of ICLEI's European CCP campaign – maryke.vanstaden@iclei.org



Nature of participation: **Voluntary**

Levels: **National, Regional**

Legal basis: **Constitution, Law**

Costs: **~EUR 30 000 p.a.**

Objective: *To facilitate the energy dialogue between the federal government and the regions*

Context: **Jurisdiction over energy is mixed between the federal government and the regions**

3.3 CONCERE-ENOVER (Belgium)

Rationale

*CONCERE-ENOVER*¹⁶ is a formal entity established under the *Conference of Economy and Energy Ministers* (CIE) to facilitate the energy dialogue between the Federal Government of Belgium and the three Regions of Flanders, Wallonia and Brussels. A founding document¹⁷ tasked *CONCERE* with:

- Defining Belgium's position in international and EU negotiations.
- Deciding to fund studies of common interest to all regions.
- Advising the CIE (not binding) on national matters (internal policy consistency, regulation, harmonisation of statistics).
- Organising the exchange of information between the four actors.

The CIE and *CONCERE* emerged in the wake of two laws of 1980 and 1988 which granted the regions extensive competences on energy and required coordination on matters of national interest in this field. The Belgian Constitution itself requires that cooperation takes place on matters of regional competence. Because of the unclear delimitation of energy efficiency and renewable energies in the 1980 and 1988 laws, coordination and cooperation appear as all the more necessary today.

Description

Structure

CONCERE comprises a plenary committee and four sub-working groups, including an energy efficiency sub-working group. The Federal Director General for Energy assumes presidency of *CONCERE*; secretarial duties lie in the hands of a federal officer. Regional Director Generals for Energy attend plenary sessions of *CONCERE*, while sub-working groups gather administrative energy officers. As other laws have prompted the creation of other Conferences of Ministers similar to the CIE (e.g. for environment), their representatives are invited to join *CONCERE* meetings as observers, together with representatives from unions, the Ministry of Foreign Affairs and the Permanent Representation of Belgium to the European Union.

Each of *CONCERE*'s decisions is subject to Ministries' approval. *CONCERE*'s positions result from a consensus decision-making process. No votes take place, discussions last until a compromise has been reached. Should at least one region not agree with a position, no decision is made. In an international context, consensus has at times translated into Belgium being represented by up to four representatives and caused Belgium to abstain.

¹⁶ *Concertation Etat-Régions pour l'Energie*, ENOVER, in Dutch.

¹⁷ The Cooperation Agreement signed between the federal government and the regions in 1991.

Funding provisions

CONCERE does not have a dedicated budget. Operating costs are borne by the Federal Directorate General for Energy. Presidency and secretariat-related duties account for approximately half a person-time together. Regions pay for their representatives' costs and their operating costs when a meeting takes place outside their offices.

Studies deemed of common interest are co-funded by all four parties according to a fixed apportionment basis.

History

Building on the Belgian Constitution¹⁸, laws of 8 August 1980 and 1988 gave the regions competences in the field of energy, including over energy efficiency and renewable energies. The federal level, however, kept a competence over the major infrastructure, tariffs and nuclear issues as well as on issues relating to the continental shelf (offshore wind energy). The Cooperation Agreement signed by the parties in 1991 followed a recommendation made by the CIE. The Agreement has never been amended thus far. Actual implementation of the Agreement has differed from provisions stated in the original text, as the latter has been considered to be too detailed by all parties.

Analysis

Multi-level governance innovations

CONCERE was an innovative response to a challenging situation, which not only saw the federal government and the regions share competences over energy, but also saw pressure mounting from the European Commission and international organisations (UN, IEA) to produce unified positions and documents. An element of *CONCERE*'s innovative approach is that it relies on consensus: no votes take place on any decision.

Results

Results are difficult to quantify. The parties have hardly focused on matters of strict federal competence and matters of national interest. This limited focus on these matters has actually contributed to Belgium speaking with one voice (the Federal voice) on the international scene. On regionalized matters, it was often possible to determine a national position, as far as designing directives and agreements are concerned. However, reporting on implementation progress has been difficult at times, as the regions often implement a text in different ways. Harmonization of the regional practices (e.g. on subsidies for insulation) has been sparse, but *CONCERE* has entailed much exchange of information between the regions.

Strengths

CONCERE has provided the Ministries with expert advice on top-level priorities and has relieved it from low-level priorities, thus contributing to the efficiency of the political entity. In this respect, *CONCERE* represents the spirit of the Belgian Constitution and the Law. Although the consensus method has caused some deadlocks (see below), it has also contributed to deepen the culture of cooperation on energy between the various actors. No region has ever boycotted *CONCERE*.

¹⁸ Article 39 of the Constitution and Article 6 of the law

Challenges

CONCERE faces issues of jurisdiction, lack of results on national matters and structural lack of link to municipalities.

The CIE can *de facto* bypass *CONCERE*. This has happened regularly despite the Agreement; *CONCERE* is not entrusted with every file. Its presidency and secretariat often have to lobby the CIE to make sure they can examine certain subjects.

The lack of documented results from *CONCERE* on harmonisation of the various regional policies means confusion in the field remains for the private sector. Companies must still abide by sometimes very different regulations when providing services on different sides of the borders.

CONCERE has no working relationship with municipalities. This lack of a link to municipalities is problematic in that municipalities sometimes offer on-the-top subsidies and incentives: the concern has been raised that in certain areas, subsidies from all levels of government could add up to unreasonable extents.

Domestic transferability

To extend *CONCERE*'s mandate, the parties would need to revise the Cooperation Agreement by convening under the CIE. A revision is not on the agenda at the moment.

International transferability

The structure of the CIE and *CONCERE* make sense in a federal context, notably in countries where energy is a matter of regional competence. It has proved useful to disentangle grey areas where federal and regional competences had not been fully distinguished and to build a common position in international issues where Belgium has to speak with one voice. However, if being transferred to other countries, the principle challenges of *CONCERE* need be addressed.

Sources and contacts

- Marie H. Novak, Attaché, Federal Directorate General for Energy - concere-enover@economie.fgov.be



Nature of participation: **Voluntary**

Levels: **International, National, Regional, Municipal**

Legal basis: **EU Action Plan**

Budget: **EUR 15 million + EUR hundreds of millions in loans**

Objective: *To help prompting cities to go beyond the EU's objectives in CO₂ emissions reductions*

Context: **EU has no jurisdiction over municipalities**

3.4 The Covenant of Mayors (European Union)

Rationale

In the *Covenant of Mayors* (CoM) own words, the initiative is “a commitment by signatory towns and cities to go beyond the objectives of EU energy policy in terms of reduction in CO₂ emissions¹⁹ through enhanced energy efficiency and cleaner energy production and use”. The main idea behind the CoM was originally to reach out to cities to improve energy efficiency on a local level. It was quickly extended to overall CO₂ emissions reductions policies. Expected impacts also include “creating stable local jobs” as well as “increasing citizens’ quality of life” and “addressing crucial social issues”.

One complex issue the EC had to face regarded its own positioning in the CoM. While it had to be involved, it could not give ground to the impression of being dominant.

Description

Structure

On the basis of a baseline emission inventory, cities joining the CoM are required to draft *Sustainable Energy Action Plans* (SEAP). SEAPs detail cities’ foreseen ways of going beyond EU goals by 2020. The next stage for cities consists in “(adapting) city structures, including allocation of sufficient human resources, in order to undertake the necessary actions” stemming from their respective SEAP. The measures covered by SEAP should target both public and private actors, as long as their activities fall within cities competences. As far as communication requirements are concerned, cities accept to “report and be monitored on their implementation of SEAPs”, as well as to organise *Local Energy Days* in their constituencies. Sanction mechanisms foresee exclusion for non-complying cities on two grounds: non-compliance with communication rules or failure to implement their SEAP. Exclusion does not entail legal nor economic consequences *per se*, but it is expected to seriously hamper a city’s public image.

The EU institution in charge of the CoM is the European Commission (EC, Directorate General for Transport and Energy). The Covenant of Mayors Office (COMO) is a body set up and funded by the EC to provide cities with technical and promotional support. Management of COMO was granted to a consortium of associations and networks of local authorities led by *Energie-Cités*. Stakeholders outside the EC are included in the CoM in the form of Supporting Structures. Supporting Structures are public administrations (such as provinces or regional councils) contributing to the work of CoM cities by means of funding or technical support. Networks of

¹⁹ The EU “Climate and energy package” has set an overall goal of 20% reduction in CO₂ emissions by 2020 compared against 1990 levels (broken into 20% reduction in GHG emissions, 20% energy savings, 20% use of renewable energy).

local authorities can also be granted the status of Supporting Structures, provided they commit to promoting the CoM among their members. Regions are also entitled to join the CoM (the *Greater London* region did join, for instance). While the EC recognizes them as key allies, Supporting Structures do not receive EU funding. There are no restrictions regarding the size of CoM cities. However, it is expected that small cities will be assisted by supporting structures when it comes to drafting and implementing their respective SEAPs. In France, the national government, through the Agency for Energy Efficiency (ADEME), is conducting negotiations regarding potential funding for CoM cities.

Funding provisions

The European Commission is expected to play the role of an indirect financial facilitator to CoM cities, by actively seeking funding for the latter. Within the framework of the Intelligent Energy – Europe Programme, the Commission earmarked 15 € millions to development and operation of technical assistance facility ELENA (*European Local Energy Assistance*), implemented by the European Investment Bank (EIB). The facility will finance technical assistance for development of investment programmes or projects managed by the cities. For instance, the province of Barcelona is about to sign a CoM-related loan from the EIB. The total investment in this province should amount to EUR 500 million. Another operation should be concluded with the province of Milan for EUR 160 million.

History

EC officials mention different sources of inspiration for the CoM. C40 or the Dutch Climate Covenant were cited. The common point between these examples is the prominent role given to Mayors, as political leaders of cities. Under its current form, the CoM stem explicitly from a provision of the *EU's 2006 Energy Efficiency Action Plan*. The original idea was to include twenty to thirty big cities. It was then decided to open the initiative to cities of all sizes. The CoM relied extensively on the involvement of key individuals and interpersonal relationships. One interviewee stressed the apparent paradox in having such a big programme relying on a few key individuals only. Momentum around the CoM sometimes built up in a surprising way. A sense of competition prompted certain Mayors to join an initiative they would otherwise not have joined, had a political opponent in a neighboring city not joined it.

Analysis

Multi-level governance innovations

Imposing strict rules onto sometimes significantly different cities could have proved difficult, even on a voluntary basis. However, temporary leeway was given to cities in terms of assessing and comparing their own performance. This move ensured the political success of the programme. Strong provisions for replication and communication of best examples add to political incentives to form a multiplier effect on energy efficiency at the local level in Europe.

Results

It is still too early to tell whether the CoM will be a success. However, membership has grown rapidly since its official launch in February 2009. As of September 2009, 729 cities had signed on to the CoM. However, none has completed a SEAP at the moment, as the official template was released in July 2009.

Strengths

High political visibility prompted hundreds of cities to join the CoM, to the extent that the dynamic around the CoM is now self-feeding. Coupled with such EU programmes as *ManagEnergy* (exchange of best practices) or EU-funded Local Energy Agencies, the CoM shows real potential for snowballing. As a matter of fact, the programme managers admitted their difficulties to cope with the CoM's success.

Challenges

Establishing a programme on such a large geographical scale dramatically reduced latitude for city comparison. Although initially intended, official benchmarking of cities and their comparison afterwards was quickly ruled out, for fear of putting the blame on those cities that would not have performed as well as others. Hence, the EC had to be careful not to try and embrace too much at once. One interviewee explained that "things should evolve in an organic way, not be force-fed".

Domestic transferability

Asked whether the EC was considering a standardization of its approach of voluntary agreements and extend a similar pattern over to other sectors, one interviewee suggested that it would be contrary to the spirit of the CoM, in which cities can design what fits best for them by themselves.

International transferability

Whether CoM's management intends to expend the programme outside the EU or not is still unclear. The question is all the more relevant as cities such as Christchurch, Zagreb and Zurich have now joined the CoM. One interviewee mentioned the need to consolidate the programme within the EU first as a reason not to proactively expend outside. Another interviewee mentioned an interest of Buenos Aires to lead a South- American branch of the CoM, with an early form of agreement having already been signed with the EC.

Sources and contacts

- Covenant of Mayors website : <http://www.eumayors.eu>
- Pedro Ballesteros, programme manager, European Commission, pedro.ballesteros@ec.europa.eu



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Programme**

Budget: **NZD 2 million pa**

Objective: *To facilitate financing of energy efficiency projects*

Context: **The local councils reimburse loans thanks to savings on energy costs**

3.5 The Crown Energy Efficiency Loan (New Zealand)

Rationale

The *Crown Energy Efficiency Loan* is a financial instrument to assist central and local government agencies to implement energy efficient projects. Local authorities borrow funds from the government. Ideally, loan repayments are structured such that the energy cost savings exceed the cost of the loan repayments. Regardless, the maximum loan repayment term is 5 years.

Loans are available to government departments and other publicly funded bodies such as district health boards, territorial authorities, regional councils, schools and universities.

In New Zealand, local authorities are mandated to be involved in energy efficiency through the Local Government Act (LGA) of 2002 and have specific responsibility to promote sustainable management of energy under the Resource Management Act (RMA) of 1991. Within this framework, the government has operated several formal partnership arrangements²⁰ to engage local authorities in efforts to reach national energy efficiency targets set out in the 2007 *National Energy Efficiency and Conservation Strategy* (NEECS): -10% improvements in in-house energy efficiency in central and local government over five years.

The Crown Energy Efficiency Loan, a standalone scheme, has been instrumental in complementing these programmes and other sources of funding with an innovative financial tool.

Description

Structure

The Crown Energy Efficiency Loan finances energy efficiency measures previously recommended by audits carried out by independent energy experts²¹. The Energy Efficiency and Conservation Authority (EECA – an independent “crown” agency focusing on all energy forms) allocates funds through funding rounds. EECA runs at least two funding rounds each year. The equipment or services purchased with the funds must be used to fund capital projects consistent with EECA’s aims under the New Zealand Energy Efficiency and Conservation Strategy. When allocating funding, the review panel considers the following:

- Simple payback i.e. the project’s cost effectiveness (can include other cost savings such as maintenance).
- CO₂ emission reductions.

²⁰ These partnerships include the Improve programme that targets council operations, and a range of other engagement strategies with local government.

²¹ Local councils can apply for EECA Energy Audits Grants that subsidise 50% of the energy efficiency audits.

- Contribution to renewable energy i.e. energy saved or displaced with renewable energy over the project life.
- The ability of the project to be an exemplar for replication within the both the state and private sectors.
- Co-benefits (such as improved working environment, health, industry development, etc).

The government of New Zealand (Ministry for the Environment) initiated the *Crown Loan*, which is managed by the EECA. The EECA organises two Crown loan funding rounds each year.

Funding provisions

At least 50% of the savings must be in direct energy costs. Up to 100% of the total cost of a project may be borrowed (total cost includes energy audit fees and all subsequent costs). The total budget for the scheme is of NZD 2 million per year. A procurement fee of 10% applies for the first NZD 100 000, and, another 6% beyond this threshold. Where deemed necessary, the EECA runs credit checks.

History

The *Crown Energy Efficiency Loan* scheme was launched in 1989 to remove the funding barrier to energy efficiency in the public sector.

Analysis

Multi-level governance innovations

The *Crown Energy Efficiency Loan* exemplifies how national governments can unlock barriers to funding for energy efficiency in local government. This case study is all the more interesting as the *Crown Loan* has complemented a number of other policy and funding instruments such as grants for energy audits.

Results

Up to June 2008, advances of over NZD 23 million had been made for 230 projects to achieve:

- Estimated cumulative cost savings of almost NZD 60 million.
- Ongoing annual savings from projects funded are almost NZD 4 million p.a.
- Reductions in CO₂ emissions of almost 23 000 tonnes p.a.
N.B. This is the equivalent of taking 6500 cars off New Zealand roads.

The exact breakdown of the loans in terms of beneficiaries was not available.

Strengths

The combination of different grants and loans has proved effective supporting action in local governments.

Challenges

The *Crown Loan* itself is not enough to initiate the decision of a council to conduct energy efficiency works. For this reason, local governments in New Zealand keep an eye on current developments about the forthcoming *NZES review*.

Domestic transferability

Limited funding restricts the number of potential beneficiaries.

International transferability

This is a straightforward scheme, easy to replicate. Integration with additional tools (such as grants for audits and target-oriented voluntary partnerships) can only multiply such a scheme's relevance.

Sources and contacts

- Crown Loan Scheme website : <http://www.eeca.govt.nz/government/crown-loans/index.html>
- business@eeca.govt.nz
- Ben Dumbar-Smith, Senior Advisor, EECA - Ben.Dunbar-Smith@eeca.govt.nz



Nature of participation: **Voluntary**

Levels: **Regional, Municipal**

Legal basis: **unknown**

Costs: ~AUD 300 000 p.a.

Objective: *To increase local governments' and businesses purchasing of greenhouse-friendly and energy efficient products and services*

Context: **"one-stop-shop" approach**

3.6 ECO-Buy (Victoria, Australia)

Rationale

ECO-Buy is a joint initiative between the Victorian Government and the Municipal Association of Victoria (MAV) aimed to increase local governments and businesses purchasing of greenhouse-friendly and energy efficient products and services.

ECO-Buy influences procurement processes by providing staff in local councils with tools and training. Expected impacts of *ECO-Buy* include reduction of greenhouse gas emissions, raised awareness on – and stimulation of sustainable markets for – the range of available green products and services. The logic behind *ECO-Buy* is not for a local government to immediately turn to the greenest solutions available, but to gradually improve its purchasing behaviour.

Description

Structure

ECO-Buy Limited, the supporting organisation of the *ECO-Buy* programme, is a non-profit company.

Currently, 59 local councils are members of *ECO-Buy's* Local Government Programme (i.e. 75% of Victorian councils, 4.9 million inhabitants). Member local governments are required to follow a seven-step implementation process:

- Senior management commits to the *ECO-Buy* programme by signing a Memorandum of Understanding (MOU: a statement of agreed principles) and nominates a coordinator within its administration.
- The coordinator establishes a working group (*Green Team*) to implement the programme.
- The Council incorporates a buy green policy into its purchasing procedures.
- The Council (through the working group) develops an Action Plan to implement the programme.
- The Council monitors the effectiveness of the programme.
- The Council disseminates the information among staff, suppliers and in contracts.
- The coordinator reports annually to ECO-Buy Limited results of green products purchased by the Council.

ECO-Buy defines green products and services as “those that are less damaging for the environment and/or human health than competing products that serve the same purpose”. Green products and services are categorized into four areas: recycled content, water saving, low-toxicity and energy saving. A green product or service must enter at least one of these four dimensions.

For *ECO-Buy*, “environmental attributes that are more difficult to verify, such as improvements in manufacturing processes, packaging, distribution or operation, are considered secondary criteria and may be considered once the primary criteria are met.” In the energy-saving area, the following criteria apply:

- Energy, gas energy and hot water saving rated products must be four star and above.
- Fuel efficient vehicles must be four cylinders or fewer and purchased to replace larger cylinder vehicles.

ECO-Buy acknowledges that today’s green products might not be tomorrow’s greenest products: it addresses this issue by calling for suppliers to regularly update the list.

The programme comprises an additional incentive arm: *ECO-Bonus*. With *ECO-Bonus*, suppliers who agree to offer negotiated discounts above any deal currently offered by them are given additional promotion by *ECO-Buy*.

Sanction mechanisms (termination of the MOU) are foreseen, but goals agreed in a MOU do not include quantified targets.

Funding provisions

ECO-Buy is funded by the Department of Sustainability and Environment (DSE) and Sustainability Victoria (the Victorian Government Agency for Sustainability). *ECO-Buy* was granted AUD 370 000 by the Victorian Government in 2005-2006, and AUD 300 000 the following year. Another AUD 500 000 over four years has been allocated to further extension of the programme. Products and services suppliers pay a fee of AUD 150 per annum. An additional AUD 100, to be paid upon entry in the database, has been introduced in July 2009 to cover checking and verification of each supplier’s green credentials. Member local governments do not pay membership fees.

History

ECO-Buy started operations with local governments in Victoria in 2004. It later expanded into the business sector. Since 2009, nine pilot State Government agencies and departments have joined *ECO-Buy* as well.

The programme was a follow-up to the *Local Government Buy Recycled Alliance* (LGBRA) established in 2000. The change of name reflected the expanded focus of the programme brought about by the additional funds provided through Victoria’s *Greenhouse Strategy*. The LGBRA focused solely on purchasing products with recycled content.

Analysis

Multi-level governance innovations

ECO-Buy’s innovative character lies in the one-stop-shop approach to green purchasing, i.e. all necessary information (from advice on policy development to a list of green products and services) can be found in the same place. The programme runs through six main channels (general advice to membership, workshops and training, individual consultancy work, a database of independently-assessed products and services with over five-hundred suppliers, research and linkage between suppliers and consumers). No single regional agency or department could have managed these six dimensions on its own. The resulting fragmentation and bureaucracy costs might have deterred local governments from joining the initiative.

Besides this formal innovation, *ECO-Buy* relies on some of the traditional elements found in voluntary agreements (local governments are required to sign a MOU, for instance).

Results

Since the inception of *LGBRA*, overall green purchasing is estimated to have grown in local government from AUD 5.9 million in 2001 to AUD 71.5 million in 2008. 98% *ECO-Buy's* local government members have reported an increase in purchasing green products since becoming members of *ECO-Buy*. Recent increases have mostly regarded the subcategories of low emissions building and construction materials, energy rated and hot water saving products, and efficient lighting and vehicles.

Strengths

Flexibility in targets and centralization of green purchasing into one single entity has greatly contributed to the programme's uptake. Inclusion of incentives from suppliers is starting to create a virtuous economic cycle by ensuring these suppliers that a sustainable market is opening to them.

Challenges

The voluntary basis of *ECO-Buy*, coupled with very flexible, unquantified targets may have helped the programme to appeal to many councils at first. However, it is not certain that these councils would be willing to engage in more stringent measures.

Domestic transferability

ECO-Buy can grant associate membership to interstate councils and is reported to be working with local government associations in other states, but this does not seem to have given rise to concrete actions so far.

Green Procurement schemes aimed at government agencies do exist in other Australian States (*Greengoods* in New South Wales or the *State Procurement Policy* in Queensland). Schemes targeting local governments are less common (NSW's *Sustainable Choices* has very similar contents to *ECO-Buy*, but is less formal in several regards. It does not hinge on a specific, dedicated structure such as *ECO-Buy Limited*).

International transferability

In 2004, the New Zealand Government and the Local Government Association of Queensland had been reported to have started implementation of *ECO-Buy*. It was not possible to confirm the current status of both initiatives.

Sources and contacts

- *ECO-Buy's* website : <http://www.ecobuy.org.au>
- *ECO-Buy Limited*, Suite 301, 60 Leicester St, Carlton, Vic, 3053 – (0061)(0)3 9349 0444



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Programme**

Budget: **unknown**

Objective: *To meet international targets in CO₂ emissions reductions*

Context: **Strong cultural background favouring respect of voluntary agreements**

3.7 Eco-Model Cities (Japan)

Rationale

The *Eco-Model Cities* (EMCs) programme was an initiative of the Japanese national government to seek cities' support in achieving the country's international greenhouse gas emissions reductions commitments.

One of the central goals of the programme is to create model sustainable cities that can be replicated across the country. EMC began with a competition open to every Japanese city, with selected cities receiving financial and advisory support from the national government in acknowledgement of their efforts. All cities participating are involved in a ceremony and receive a licence card, further adding to their public acknowledgment by the government.

Description

Structure

The following five criteria were used to select the *Eco-Model Cities*:

- Amount of CO₂ reduced (potential for more than 30% reduction by 2020).
- Potential to become a model for other cities.
- Characteristics that respect local conditions.
- Realistic goals/plans (including participation of a wide range of stakeholders and achievability of initiatives).
- Plan sustainability .

Once selected, EMCs detailed their concrete measures in Action Plans.

The progress of the action plans will be monitored by the government and the *Committee for Creating Eco-Model Cities and a Low-Carbon Society* (CEMC) once a year.

General governance of the EMC programme is carried out by the Regional Revitalisation Bureau of Cabinet Secretariat (RRBC) which oversees the entire programme. The CEMC selected cities and manages the programme on a daily basis. The CEMC comprises academics, business leaders and government officials. It was established by the Prime Minister's Cabinet Secretariat to develop guidelines and select cities. Furthermore, a *Promotion Council of Low Carbon Cities* (PCLCC, chaired by Kitakyushu City) was created by the central government to facilitate information sharing and policy discussion among cities. The PCLCC is made up of one hundred municipalities, thirteen of which are *Eco-Model Cities*. The PCLCC met for the first time on 14 December 2008 and will likely continue to meet once or twice a year. The PCLCC is the key body for exchanging experiences and communication between levels of government. This council is made up of members from EMCs, unselected cities, cities which did not apply to become an EMC but which are interested in achieving a low-carbon society, national ministries and agencies, and prefectural (regional) governments. PCLCC delegates will share best practices, discuss ways to expand EMC

initiatives into other cities, and monitor the EMC's progress. As one of the tools to expand the superior actions, PCLCC is going to give award to outstanding actions by PCLCC members. Subcommittee working groups were also formed under the PCLCC to address specific sectors and issues. It is expected that the PCLCC has the potential to become a very powerful tool, a united city voice for climate change.

Funding provisions

Details about funding origins, amounts and allocation were not available. It is known, however, that selected EMCs benefit from funding from several central government sources. In future years, support will come from the Cabinet Secretariat (in cases where cross-organisation initiatives cannot otherwise find funding) and relevant ministries such as the Ministry of Land, Infrastructure, Transport and Tourism, and the Ministry of Environment.

History

The EMC programme was initiated by the Prime Minister in January 2008. The CEMC was subsequently established. Between 11 April and 21 May 1989 very diverse (in terms of size, industry, region, etc.) cities applied. Decisions were made by the CEMC in the two following months. Six cities were selected in July 2008: Yokohama, Kitakyushu, Obihiro, Toyama, Shimokawa Town (Hokkaido) and Minamata City. Seven additional cities were recognised as candidate cities at that time and additionally selected as EMCs in January 2009.

Analysis

Multi-level governance innovations

The EMC programme supports cooperation on three levels. First, it establishes a partnership between the Prime Minister's cabinet and the ministries. Second, it fosters partnerships between the central government and cities. Last, it facilitates partnerships among industry, government and academia.

The PCLCC is a unique parallel institution where cities use the programme as a basis for discussion.

Results

The progress that EMCs are making in achieving their goals is monitored every year. Although, there is no contract or legal obligation between the *Eco-Model Cities* and the central government, participating cities are highly motivated to succeed because their constituencies have high expectations and they want to avoid embarrassment by central government and other cities. This typically Japanese, indirect monitoring and compliance model is all the more innovative as it was coupled with a competition element.

Strengths

This programme has several strengths. First, strength was provided by the fact that the former Prime Minister championed the project, while the current Prime Minister strongly supports it (i.e. high-level government support continued despite change in government).

Set against the background of a culture conducive to competitive processes, the EMC competition was also all the more relevant to prompt interest among the cities.

Challenges

Mayors exerted a lot of political pressure to have more cities deemed “EMCs”. Whether this pressure will lead to more cities being awarded the EMCs status remains to be seen. More crucially, whether additional EMCs will trigger additional funding from the national government or not will determine the programme’s consistency: more EMCs sharing the same amount of funding might jeopardize the programme altogether by diluting its effectiveness. However, for instance, the *KLIMP Programme* in Sweden has chosen to select more cities, to share an unchanged amount of funding.

Domestic transferability

The programme will likely continue for two or three years, depending on political support. At the present time, there are no plans to bring more cities onboard because the central government wants to maintain the high-quality of the programme. Despite the government’s position, that the programme will not be expanded, mayors are said to be exerting strong political influence on the central government to include more cities.

Although, this was not explicitly stated, there may be funding concerns with expansion.

International transferability

The Chairman of the CEMC, Shuzo Murakami, expressed his confidence that the programme would work elsewhere provided it receives strong support from the central government (in Japan, establishment of a programme by the Prime Minister displays very high-level commitment). As a matter of fact, the Chairman has spoken with groups abroad about the Eco-Model Cities programme, including the *Centre Scientifique et Technique du Bâtiment* in France, which invited him to speak about the programme.

Sources and contacts

- Shuzo Murakami, Chairman of the CEMC - murakami@kenken.go.jp



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Programme**

Budget: **EUR 250 000 pa**

Objective: *To meet Finland's energy efficiency targets*

Context: **All participant cities must aim for similar targets**

3.8 Energy Efficiency Agreements (Finland)

Rationale

The *Energy Efficiency Agreements* (EEAs) are voluntary agreements signed between fifteen sectors of the economy (including municipalities) and the Finnish Ministry of Employment and the Economy (MEE), to cooperate to “implement measures required by the targets of the Finnish Energy and Climate Strategy”²².

With the *EU Energy Services Directive*²³ (ESD)

entering into force, Finland chose to use the EEAs as the instrument for aiming at the 9% efficiency improvement target during the 2008-2016 period compared to the 2001-2005 average of final consumption. Economic considerations also drove the launch of the EEAs in 1992 as the real estate and construction sectors of the economy were facing difficulties at the time.

Description

Structure

The EEAs set the general terms of the cooperation, but the substance of the cooperation is to be found in ensuing Municipal Action Plans which include efficiency improvement targets for 2016 and breakdowns showing how the municipalities intend to reach these targets. Following signing of an EEA, municipalities must undergo energy audits and renovations based on the recommendations of the audits. The audits are carried out by private contractors trained by *Motiva*, a government-owned company also administering the quality control of the audit reports (see below). In an EEA municipality, all municipal fully-owned equipment and companies must undergo renovations.

A monitoring system was set up by *Motiva* to follow up on the implementation of the action plans and to compile an annual progress report. EEA-municipalities are also required to report their results to *Motiva* and the MEE annually.

Due to the voluntary nature of the EEAs, sanction mechanisms only include the possibility for the MEE to expel municipalities not following their commitments. In addition, municipalities may have to pay back the government subsidies received on the basis of implementing the EEA²⁴.

The EEAs of the municipal sector involve several players. The MEE holds main responsibility of the programme, providing signing municipalities with subsidies for the energy audits and actual investments. *Motiva Oy*, created in 1993, acts as programme administrator and promoter. Funding from the MEE to *Motiva* facilitates the availability of technical expertise and information as well as implementation of development projects. However, *Motiva* is not a negotiating or

²² Extract from the pattern of Energy Efficiency Agreement for large cities.

²³ Directive on the Promotion of End-use Efficiency and Energy Services, 2006/32/EC (May 2006).

²⁴ Before 2007, four municipalities voluntarily exited the programme upon realisation that they would not meet their targets.

contracting partner. Municipalities are on the center stage of EEAs. Within each of them, an implementing agent is designated to serve as the contact point for the government and Motiva. EEAs are open to any city of more than 20 000 inhabitants. Municipalities under 5000 inhabitants are allowed to join the *Energy Programme*, a lighter version of EEA run directly by Motiva. Municipalities between 5000 and 20 000 inhabitants can decide which alternative is more appropriate for them to join. The parties involved in the EEAs are regularly in contact through annual conferences and informal communication.

Funding provisions

Notwithstanding the subsidies for investments and the costs related to other sectors, promoting the programme to the municipalities accounts for approximately EUR 250 000 annually. Setting up the monitoring system for the EEAs of all sectors cost approximately EUR 400 000. All services offered by Motiva were paid for by the MEE.

Government subsidies cover two categories of costs: audits costs and actual investments in energy efficiency. Half of the eligible audit costs of the municipalities are covered, while there are three categories of subsidies for actual investments: 15 to 20% for conventional technologies, 20 to 25% for investments where services of ESCOs are used, and 25 to 40% for new technologies. The main advantage of entering an EEA stems from the fact that signatory municipalities can have access to more funding from the government.

History

The Ministry of Trade and Industry (MTI, now MEE) initiated the EEAs in the early 1990s, based on an original idea taken from the Netherlands. EEAs underwent two development phases (1992-1997 and 1997-2007). The second phase received greater attention and wider sectoral involvement. A formal evaluation of the EEAs was conducted in 2004, the positive conclusions of which laid the ground for the third generation of EEAs, started in 2008 and scheduled to run until the end of 2016. The negotiations that led to the third phase brought together the MTI, the Association of Finnish Local and Regional Authorities, Motiva and the six biggest cities of Finland from 2005 to 2007.

Analysis

Multi-level governance innovations

Well thought-out negotiations have provided the EEAs with strong elements of mutual trust and ownership at the local level. Each official meeting has been multilateral, so as to foster a sense of community around EEAs.

Results

By June 2009, 52% of the population and 58% of the municipal sector public property stock were covered by EEAs.

By 2007, EEA-induced annual energy savings (9 TWh/a, approx. 3 million CO₂ tonnes) accounted for 2% of Finland's total energy consumption and about 3.5% of its greenhouse gas emissions.

Strengths

EEAs are even stronger as they complement legislation. Indeed, as the Finnish public sector, including the municipalities, will soon have to comply with demanding regulation, there will be no marginal cost of reaching the EEA standards.

Another strength is embodied in the implementing agent designated in each municipality to serve as a contact point.

The first significant challenge met during the negotiations was for the participants to come up with a draft agreement to build on. In this regard, targets set in the ESD helped a great deal. Early involvement of technical experts also proved key to conducting successful, on-focus negotiations.

Challenges

EEAs negotiations usually require a significant amount of time to be completed, principally on the municipalities' side, as agreements can no longer be modified once they have been signed.

Moreover, initial municipal EEAs did not take into account varying sizes of municipalities. Even though this issue has been addressed, EEAs remain time and resource-consuming.

Domestic transferability

EEAs have become stricter with time, a trend that is likely to continue, according to EEAs managers. The current targets of the EEAs are now being carried into the forthcoming national legislation on energy efficiency and thus will become the norm throughout the country. EEAs managers consider that this move will not be detrimental to – even stricter - voluntary agreements, as these come with most-wanted subsidies.

International transferability

Helsinki has been active in promoting the CoM, the first meeting of which was held in the city. EEAs managers consider that only a few Finnish cities will join the CoM. As both EEAs and the CoM include a reporting system, Helsinki intends to use a unique document for both EEA annual reports and CoM bi-annual documents.

EEAs managers are very willing and available to provide useful insight into their experience and earlier mistakes. Three recommendations they formulated regarded having third parties involved in preparatory work at the beginning, not being too ambitious at first, as well as building a robust monitoring system. Interviewees also mentioned that the voluntary agreement approach was deemed more culturally amenable in Finland.

Sources and contacts

- Heikki Vaisanen – Senior Advisor – MEE / Energy Department - heikki.vaisanen@tem.fi
- Seppo Silvonen – Head of Unit – Motiva Oy – seppo.silvonen@motiva.fi
- Ulla Soitinaho – Head of Energy Management Work – City of Helsinki – ulla.soitinaho@hel.fi
- EVALUATION: Energy Efficiency Agreements in Finland 1997-2005, Results of an Expert Evaluation, MTI, 2006



Basis: **Voluntary**

Levels: **State, Local, Indian tribes, Territories**

Legal basis: **EISA**

Budget: **USD 3.2 billion**

Objective: *To provide federal funding for local projects to reduce energy use and emission, improve energy efficiency and create jobs*

Context : **The economic crisis motivated the programme's creation**

3.9 Energy Efficiency and Conservation Block Grant Program (USA)

Rationale

The federal *Energy Efficiency and Conservation Block Grant Program* (EECBG) disperses grants to states, local governments, U.S. territories, and Indian tribes to fund programmes and projects that decrease energy consumption and related emissions. The EECBG is under the Department of Energy (DOE) *Weatherization and Intergovernmental Program* (WIP).

Coordination between levels of government is important in the United States given the division of power between the state and federal governments and agencies on energy-related issues.

Description

Structure

Applications are made online and reviewed by the WIP. Selection criteria are as follows:

- Competitive grants go to the “most ambitious, but realistic, eligible projects”.
- All entities eligible to receive grants receive funds once their proposals are approved. Proposals that do not meet the criteria or are not ambitious enough, as determined by DOE, will be returned with comments and asked to be resubmitted.

Grantees will be required to report regularly to the DOE on five metrics:

- Jobs created and/or retained.
- Energy savings on a per dollar invested basis.
- Renewable energy capacity installed.
- Greenhouse gas emissions reduced.
- Funds leveraged.

If an application is not initially approved or if any submitted projects are not deemed acceptable, the local authorities are informed of the specific issues that need to be addressed in order to satisfy the requirements of the programme. Per statute, eligible entities may revise and submit their proposed strategy “as many times as necessary” to get approval.

Funding provisions

The total amount available is USD 3.2 billion, of which USD 2.7 billion is disbursed in formula grants. USD 456 million is available through a competitive process. The funds were determined by congress and will be disbursed over five years.

The population data used in determining EECBG programme funding allocation formulas is from the 2007 U.S. Census Population.

Each state must sub-grant at least 60% of its funding share to cities and counties ineligible for direct formula grants from DOE.

History

This is a new programme created by the *American Recovery and Reinvestment Act of 2009*. EECBG was modelled after the *Community Development Block Grant* programme administered by the Department of Housing and Urban Development (HUD).

Analysis

Multi-level governance elements

A first innovation comes from the multiple chances local authorities have to produce an eligible project. The federal government, through DOE, reviews proposals and sends them back to states if they are not ambitious or well thought out enough.

Another innovation consists of the combination of a competition element and the self-funding element. Unlike other instances of competition for national grants, selected municipalities are still expected to make a significant contribution (an average of 75%) to total programmes costs.

Results

This programme is underway but is expected to provide funds to 1700 direct grantees.

Strengths

This programme is well funded and has enormous reach. It allows government levels that have never had contact with one another to work together (for example, counties with the federal government).

Challenges

Challenges of the EECBG are related to the overall timeline of implementation, capacity in local authorities and potential windfall effect.

States and cities have differing capabilities in the area of energy efficiency. Due to time pressures, DOE may not have enough time to assist state and local government with their proposals and implementation.

Also, some local governments may have already planned projects that they would have funded with local money. They may now be waiting for federal funds to go ahead with the projects.

Domestic transferability

This programme involves every city with a population of 35 000 or more, counties with a population of 200 000 or more and, the top ten highest populated cities and counties in each state, regardless of population. It also reaches all federally recognized Indian tribes and any Alaska

Native village or regional or village corporate as defined in or established pursuant to the Alaska Native Claims Settlement Act. It will touch all states, the District of Columbia, the U.S. Territories of American Samoa, Guam, Northern Marianna Islands, Puerto Rico, and the U.S. Virgin Islands.

International transferability

The unprecedented size in funding for and scope of this programme make replication difficult. It is a straightforward approach, however, for federal governments trying to reach out to a large number of constituents.

Sources and contacts

- EECBG website - www.eecbg.gov/wip/
- Mark Bailey – DOE – (001)-877-EERE-INF



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Law**

Budget: **unknown**

Objective: *To improve energy efficiency policy coordination across ministries and municipalities*

Context: **membership in the Association of Turkish Municipalities is mandatory for municipalities**

3.10 The Energy Efficiency Coordination Board (Turkey)

Rationale

The *Energy Efficiency Coordination Board* (EECB) of Turkey is a consultative institution set to improve energy efficiency policy coordination across ministries and municipalities. The EECB comprises representatives from the municipalities and the national ministries. It was entrusted by the national government with an advisory role on all laws and regulations dealing with energy efficiency. Among other duties, the EECB carries out energy efficiency studies within all relevant organisations all over the country, monitor its results and coordinate efforts.

The EECB was initially only composed of representatives from each ministry. Since the national Law on Energy Efficiency was reinforced by the Law of 2 May 2007, representatives from the private sector as well as, crucially, the *Association of Municipalities*, have been included on the EECB. As membership in the TBB is mandatory for all 3000 municipalities in Turkey, the Board stood for the “missing element” in Turkish energy efficiency policy coordination, linking all relevant ministries with a strong network of local governments.

Description

Structure

The EECB convenes four times a year to draft laws and regulations to be adopted by the government.

The EECB is placed under direct supervision of the *Electrical Power Resources Survey and Development Administration* (EIE), an administration itself established under the Ministry of Energy and Natural Resources in 1935.

The secretary general of the *Association of Municipalities* is a member of the EIE (i.e. a government official). In practical terms however, the *Association of Municipalities* has been reported as enjoying a certain degree of autonomy, in a move deepened by its current president, the Mayor of Istanbul. As such, it is estimated that cities will provide honest, complete reporting on the issues they are facing as well as honest comments on the governments draft laws and regulations.

Funding provisions

Funds necessary to run the EECB are disbursed by the EIE. Quantified information was not available.

History

The EIE started to focus on matters of energy efficiency in 1981, in the wake of the oil shock. However, prior to 2007, the EECB was a low-profile entity mostly focusing on organising the “Energy Efficiency Week”, an event bringing together about one hundred experts from the country to discuss energy efficiency matters. The EECB has acquired a much higher profile in Turkey since 2007. The impetus for Law of 2 May 2007 (the Law that granted the EECB with new powers) came from a partnership agreement signed between the EIE and the French Environment and Energy Conservation Agency (ADEME) together with the Dutch national agency for energy, climate, environment and innovation SenterNovem (SN). The twinning agreement was part of the prequel programme to the European Union’s Instrument for Pre-Accession Assistance (IPA).

Analysis

Multi-level governance innovations

The main innovation lies in the mandatory inclusion of municipalities in the process of drafting laws and regulations.

Results

Evidence of how the *Association of Municipalities* interacts with and influences the EECB include current work on transposing the EU directive on the Energy Performance of Buildings (as a candidate country for adhesion to the EU, Turkey is strongly encouraged to transpose EU directives, on a voluntary basis). Municipalities funnel data and practical experience through the *Association of Municipalities* who presents the findings to the EECB.

Strengths

Mandatory inclusion of municipalities in the *Association of Municipalities*, coupled with participation of the latter in the EECB, theoretically guarantee that municipalities will have a voice in designing laws which will impact them the most.

Challenges

The main challenge lies in the extent to which municipalities are ready to use the new possibility of participation offered to them. While evidence shows they are, this is mostly due to political impetus provided by the new presidency of the Association of Municipalities. The challenge will be to ensure participation is sustained over the long-term.

Domestic transferability

Concerns remain over the inclusion of the smaller municipalities, which have very limited means to actually be involved in the Association of Municipalities’ work, let alone the EECB.

International transferability

The EECB is a straightforward initiative, particularly adapted to countries where coordination between government departments and sub-levels of governments is limited.

Sources and contacts

- EIE website - <http://www.eie.gov.tr>
- Bernard Cornut, ADEME – bernard.cornut@ademe.fr



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Association**

Budget: **EUR 23 400 in 2008, EUR 110 000 expected in 2009**

Objective: *To improve cooperation between cities and with the government on energy efficiency; to disseminate knowledge*

Context: **bottom-up initiative in a transition economy**

3.11 Energy Efficient Cities of Ukraine (Ukraine)

Rationale

The *Energy Efficient Cities of Ukraine* (EECU) association was founded in 1997 by cities using a legal possibility offered by the national government under Article 15 of the Law of 21 May 1997, to 1) improve access to “modern information technologies and investment in the area of energy efficiency” and 2) “heighten cooperation and experience exchange among domestic government officials and foreign partners in the areas of efficient and economic use of energy resources”.

As a non-governmental, non-profit association, EECU disseminates information to its 14 members on energy efficiency and renewable energy to cities, assists cities

with developing and implementing sustainable energy policies, facilitates institutional capacity building in the field of energy management at the municipal level including training skilled staff, develops public-private partnerships for local sustainable development and lobbies for energy efficiency measures to be translated into national law.

Description

Structure

Cities joining EECU are recommended to approve a concept of energy management, to establish an energy management unit and to create an energy monitoring, targeting and reporting system for all public buildings. Monthly energy performance and energy savings targets are assigned annually for every public building in a city.

EECU carries with it conventional membership-based mechanisms regarding sanctions and exclusions. Cities that pay their fees, attend the meetings and participate in EECU programmes and projects can remain members. Poor performance of a city does not constitute a valid enough reason to expel it from the network, but EECU management expects that a city willing to pay a fee will automatically behave responsibly and address its energy efficiency issues.

EECU signed a *Memorandum of Understanding with the Ministry of Housing and Communal Services of Ukraine* (MHCS) depicting common actions to be led in the future. The MOU does not include any mandatory requirements for either signatory, nor does it include provisions for funding. Besides the MOU, informal, interpersonal links are at the crux of the relationship between EECU members and representatives from the Ministries.

Funding provisions

In 2008, most of EECU funding stemmed from membership fees (78%) and a one-time grant by the East Europe Foundation²⁵ (22%). Fees depend on the size of the city: the current rate is UAH 2000 (EUR 194) per 25 000 inhabitants.

For 2009, the EECU executive director aims at making grants the major component of the funding.

History

The main reason for founding EECU was that Ukrainian law lacks provisions for energy efficiency at the local level. Even though cities in Ukraine are major energy consumers and are responsible for the provision of key energy services (water and heat), they have no capacity to improve their energy efficiency. Low energy prices exacerbated the problem by not providing a strong financial incentive to implement energy efficiency. The rise in energy prices in 1997 spurred the central government to move towards demand-side management and facilitate initiatives such as EECU through the Law of 21 May 1997, which allowed cities to “work together on matters of common interest”.

However, the direct idea for EECU came from the EU-funded *Energy Monitoring in Ukrainian Local Administrations and Their Equipment* (EMULATE) project that ran from December 2003 to December 2005, which the city of Lviv was willing to perpetuate in a different way.

The Constituent Assembly of EECU was prepared and held with minor technical assistance of the European association of local authorities *Energie-Cités*, the Association of Ukrainian Cities and Communities, the State Committee of Ukraine for Energy Conservation and the MHCS.

The first concrete cooperation between EECU and the government occurred in 2007, when EECU advised the government on the implementation of the *EU Energy Performance of Buildings Directive* (EPBD) (voluntary for Ukraine as it is not a member of the EU). Cooperation on EPBD gained higher profile with the establishment of the *Interagency Task Force on Development of National Strategy of Heat Provision* in May 2008. EECU took part in the initial preparatory meeting of the *Interagency Task Force* and is now active in the panel that is actively assisting the government with drafting the forthcoming law on Energy Efficiency in Buildings. While the conclusions of the group will not be binding, they are widely expected to form the core of the upcoming legislation.

Analysis

Multi-level governance innovations

EECU is a typical example of “governing by enabling”: in the absence of sufficient budget and extensive networking capabilities, the central State accepted to let sublevels organise themselves and design policy responses in their constituencies. By means of a law, the Ukrainian government decided to delegate responsibility for developing, disseminating and networking of energy efficiency policy at the local level to cities feeling capable enough. The national government has later given the association opportunities to influence national policy.

Besides, the MOU reflects traditional European ways of interacting between levels of government: while not mandatory per se, it carries with it significant symbolic power.

²⁵ EEF is a Ukrainian NGO set up in late 2007 as a local spin-off of the Eurasia Foundation. It gathers funding from private and para-public (USAID, OSCE, UNDP, Norwegian Government, etc) donors. EECU was one of the first projects partially funded by the EEF.

Results

Although it is too early to assess EECU's concrete results, several of the association's member cities are achieving high-level attention for their energy efficiency initiatives. For example, Lviv, Ivano-Frankivsk and Lutsk are among the top-20 participating cities (out of 347) in the EU-funded and Energie-Cités-led *Display campaign Energie-Cités*. The participating cities are asked to display energy performance posters on municipal buildings.

Strengths

Multiple ties with representatives of the government proved instrumental in getting the association quickly off the ground and operating. In turn, Ukraine's government is now benefiting from EECU's expertise in energy.

Challenges

National government support was limited to helping the association to get started and periodically conduct joint actions. EECU has stopped seeking central state funding as previous attempts failed, seemingly due to extensive bureaucracy.

Although there is no membership limitation, it has proved difficult for very small cities to join EECU. For small municipalities, difficulty does not stem from membership fees, but rather from their limited internal capacity to set up energy management units or hire outside professionals.

Domestic transferability

EECU membership has grown moderately since the creation of the association in 2007. However, it is expected that membership numbers will surge once national legislation on energy performance of buildings is enforced, as many cities still lack the capacity and expertise to deal with the issue of energy efficiency and believe they can get assistance and skills through participation in EECU.

International transferability

Fostering initiatives such as EECU may be appropriate in cases when a central state has neither the funds nor the organisational acuteness to prompt cities to adopt an active approach to energy efficiency; it may also be appropriate when the central state does not already have regulations in place to promote energy efficiency.

Sources and contacts

- Energy Efficient Cities of Ukraine website : <http://www.enefcities.org.ua> (mostly in Ukrainian)
- Anatoliy Kopets, Executive Director, EECU – akopets@enefcities.org.ua



Basis: **Voluntary**

Levels : **National, Regional, Departmental, Municipal**

Legal basis : **Programme**

Budget : **EUR 8.5 million pa**

Objective : *To disseminate information on energy efficiency*

Context: **Regions and departments have influence over the contents of the programme despite France being a centralised country**

3.12 Espaces Info Energie (France)

Rationale

The *Espaces Info Energie* [EIEs]²⁶ offer independent and free energy efficiency advice to individuals and small companies, according to priorities set in annual Action Programmes by the national, regional and departmental²⁷ governments.

The EIEs were launched in 2001 by the French national Environment and Energy Management Agency [ADEME] and have been funded by the ADEME together with regional and departmental authorities since then. There are currently 230 EIEs in France, located in municipal entities and EU-funded non-profit organisations, and more than 400 advisors.

Description

Structure

At the local level, the regional coordinator of the ADEME²⁸ leads the regional network of EIEs and negotiates the action programme with the EIEs management and the financial partners (i.e. elected politicians and engineers in charge of the energy/environment portfolio in their regions and departments).

At the national level, the network's organisation is governed by a Strategic Committee comprising representatives from the Environment and Energy Ministry and national associations of municipalities, departments and regions (AMF, ARF, ADF). A Coordination Committee made of various national associations (of Local Energy Agencies, Environmental NGOs, etc) advises the Strategic Committee on the EIE programme's orientations.

Each EIE abide by a national Code of Practice on energy advice. The code sets the following rules:

- EIEs must give free, objective and neutral information and advice on energy efficiency.
- Supporting entities (where EIEs are located) must be non-profit and independent from energy suppliers.
- EIEs must not push the client towards a specific energy solution, must inform on the local, regional and national policies and plans, and give comparative numbers to help in a clear energy choice including environmental issues.
- All materials, subsidies, grants and tax reductions on the market must be presented.
- EIE advisors must write a briefing for each action they have led, including advising individuals.

²⁶ Energy Advice Centres.

²⁷ The Departments are a French intermediary level of governance between regions and municipalities.

²⁸ The French national *Environment and Energy Management Agency*.

To carry out their mission, the EIEs are manned by approximately 400 advisors (objective of 500 by the end of 2010). The advisors provide advice either in person in the EIE's office, during environmental fairs or by phone, mail and email.

Funding provisions

In 2008, the ADEME funded the EIEs with EUR 8.5 million in 2008. This sum is used to support each EIE advisor position directly with approximately EUR 15 000 per year, and indirectly with free training, documents to hand out to the general public and energy-efficiency modelling software.

On their territory 20 out of 22 Regional Councils, about half of the departments, and some municipalities funding the EIEs are operating. In a few regions, the EU-European Regional Development Fund has also been used.

Analysis

Multi-level governance elements

The programme combines elements of a top-down approach (it was designed by a national agency) with elements of ownership at the intermediate (regions and departments co-finance EIEs and design their action programmes) and local (municipalities directly or indirectly host EIEs) levels. Besides, EIEs are used more and more by municipalities to provide technical insight into their forthcoming policies. The Council of Paris for instance is consulting with its EIEs to define measures targeting collective housing.

Results

In 2008, EIEs are estimated to have allowed for energy savings of 80 000 toe and CO₂ reductions of 140 000 tonnes, a 40% increase compared to 2007 levels. More than 6 million individuals have been reached since 2003. For 56% of the 2008 interventions, advice has prompted actual action to be carried out, especially refurbishment (up from 26% in 2003). This uptake of advice has generated an economic turnover of EUR 400 million in 2008.

Strengths

The EIE programme has had a high impact in terms of energy savings. It allows for dissemination of centrally-defined best practices, and is tailored to regional needs and preferences at the same time.

Challenges

The turnover rate of advisors is high (advisors stay on the job for an average of a year and a half). This is a direct consequence of the modest salaries paid to still high-level energy advisors.

The satisfaction rate is above 80%. Despite this good result, recognition and visibility of the programme were reported to have remained modest (public awareness rate: 18%).

Domestic transferability

Domestic transferability is limited by funding, essentially on the regions and departments' side.

International transferability

This programme is straightforward and has the potential to be implemented in any country. Interestingly however, given that France is a centralised country, the EIE programme could prove particularly effective in federal systems. Federal regions would indeed be granted a large control on EIEs' activities and programmes.

Sources and contacts

- Patrick Alfano, EIEs coordinator, ADEME - patrick.alfano@ademe.fr
- ADEME website – <http://www.ademe.fr>
- EVALUATION: Programme Espace Info Energie (EIE) : Bilan et perspectives 2009 , ADEME 2009



Nature of participation: **Voluntary**

Levels: **International, National, Regional, Municipal**

Legal basis:

Budget: **unknown**

Objective: *To ensure high-quality energy efficiency savings estimates across municipalities in different countries*

Context : **Initiated together by three different levels of government in three different countries**

3.13 The European Energy Award (Europe)

Rationale

The *European Energy Award*[®] (EEA) is a certification and quality management scheme run by different regional and national energy agencies to help ensure high-quality energy efficiency savings estimates across municipalities in different countries. National governments use the EEA as an endorsement/competition between municipalities to encourage action and reach national Kyoto/European Union related goals. The EEA enables municipalities to identify strengths, weaknesses and potential for improvement and implement effectively energy efficient measures by quantifying results in a consistent manner across jurisdictions. A standardised assessment based on a catalogue of about ninety measures enables

benchmarking to take place between EEA member municipalities. Awarded municipalities also benefit from the EEA in terms of public acknowledgement of their efforts. However, EEA awards do not give ground for additional financial support from the EEA or national authorities.

Description

Structure

Municipalities implement EEA-related activities in the following steps:

- Energy-related activities are reviewed.
- Strengths, weaknesses and potentials for improvement are visualised.
- Goals for the local energy policy and decision-making criteria are defined.
- An energy policy work programme is developed comprising concrete long-term and short-term projects.
- The work programme is implemented step-by-step.
- Continuous assessment of the results is carried out.

Depending on the degree of implementation of possible measures, a municipality can be certified and awarded with two different awards. If 50% of the possible measures are implemented and finalised, the community receives the *European Energy Award*[®]. If 75% of the possible measures are implemented and finalised, the community receives the *European Energy Award*[®] Gold. Both awards are granted for a four years duration. Participating countries can decide to grant an additional (lower-end) award for municipalities having only initiated basic actions²⁹.

²⁹ This option is being used in France for instance.

National authorities or agencies are responsible for managing the scheme in their respective countries³⁰. There, the whole process is carried out on a daily basis by the Energy Team, formed by representatives from the local authorities' administration and politicians, assisted by an external EEA advisor expert in the field of energy.

Overall supervision of the EEA lies in the hand of the Forum European Energy Award e.V. (FEEA), an association under German Law. The FEEA comprises deciding members (national and regional representatives from participating counties) and ordinary members (regional and national organisations or individual communities from regions and nations without regional or national EEA-organisations).

The FEEA notably:

- Coordinates the activities of all regional and national organisations.
- Guarantees the quality of the EEA instrument and of jointly agreed standards.
- Evaluates applications and bestows the *European Energy Award® Gold*.
- Provides information both internally and externally.
- Selects suitable implementing organisations/institutions in other countries.
- Cultivates contacts with municipal networks in Europe and with the relevant EU committees.

Funding provisions

The membership fee to the FEEA is EUR 1000. Actual implementation of measures is funded through typical national and European funds (E.g. grants from the German Federal Ministry for Environment (BMU) or anticipated loans from the European Investment Bank for municipalities also taking part in the *Covenant of Mayors* programme).

History

The EEA is based on the experience of Switzerland, Vorarlberg (a municipality in Austria) and the German Land of Nordrhein-Westfalia with their respective successful programmes *Energiestadt*, *Energieeffiziente Gemeindene* and *Aktionsprogramm 2000 plus*. In 2003, the long-lasting informal cooperation of these three authorities was institutionalised with the founding of the FEEA association. The European Commission has confirmed the importance of the approach by funding the initial project *Communal Labels* and follow-up projects like *Balance* or *EuReNa* (Italian cooperation project), as well as bilateral Interreg-projects focussing on the EEA (e.g. Swiss-Italian or Swiss-French).

Analysis

Multi-level governance innovations

The EEA is innovative in several regards. First, it was initiated by representatives from three different levels of government in three different countries. The associative format (the FEEA) has enabled easy, little bureaucratic integration of new members. The management of the scheme is innovative as it relies on both national and regional authorities and agencies. These authorities have all tailored their own standards so as to enable cross-European comparison. The success of the EEA is now opening on another innovative programme, the EU *Covenant of Mayors* (CoM), in which the EEA could play the role of an implementation instrument for the aims of the CoM to reduce CO₂ emissions by 20% up to 2020.

³⁰ The SwissEnergie programme in Switzerland, the ADEME in France, etc.

Results

By December 2008, the EEA had been implemented in 581 municipalities in nine countries (with Switzerland alone accounting for 329 participating cities including 175 certified cities). From the 581 participating communities, 269 have already run through the auditing process. In Switzerland alone, EEA municipalities reduce their CO₂ output by 78 000 tons, fuel consumption by 30 million litres and electricity by 72 GWh annually as a result of EEA activities.

Strengths

The EEA offers a non-regulatory way of bridging the various national municipal certification schemes.

Challenges

Several challenges remain that include language differences, different levels of expectations and funding issues in some countries. As now 9 countries all over Europe work with the EEA process, the standardisation and quality assurance in the EEA demands for an intensive exchange of experience and well-organised quality management. In addition, the continuing evolution of energy-related measures and techniques results in the necessary regular adaptation of new tools and instruments in the EEA.

Domestic transferability

Within Europe, the scheme has been implemented in new countries on a gradual basis.

International transferability

The idea behind the scheme (cross-borders cooperation on harmonising certification standards) is transferable.

Sources and contacts

- EEA website : <http://www.european-energy-award.org>



Basis: **Voluntary cooperation**

Levels : **National, Regional, Municipal**

Legal basis : **Contract**

Budget : **CAD 550 000 million**

Objective : ***To influence municipal action in priority areas***

Context : **Provinces have jurisdiction over energy efficiency matters**

3.14 The Federation of Canadian Municipalities' Green Municipal Fund (Canada)

Rationale

The *Federation of Canadian Municipalities' (FCM) Green Municipal Fund (GMF)* is a long-term, sustainable source of grants and below-market loans for municipal governments and their partners. The Government of Canada endowed FCM with CAD 550 million to establish GMF to support municipal initiatives across Canada that benefit the environment, local economies and quality of life.

The programme has two main offerings. First, GMF offers grants and below-market loans³¹ that meet the priorities set-out in a *Memorandum of Understanding [MOU]*, a contract signed between FCM and the Government of Canada. These priorities are based on the highest standards required³². Second, GMF education and training services help municipal governments share expertise and strengthen their ability to set and surpass their sustainability goals.

Funding for capital projects used to be allocated following a competitive process between municipalities, with fixed deadlines for application. The competition element has recently been removed (see challenges section) and examination of the applications is made against a set of criteria.

By means of the MOU, the federal government entrusted FCM with management of the GMF upon realisation that the FCM had more experience with engaging municipalities, especially in areas such as energy where the municipalities have jurisdiction.

Description

Structure

FCM's *Green Municipal Fund Awards Funding* in part based on the potential for creating new knowledge and replicating leading approaches, and in part on relevance with annual priority sectors defined by the FCM National Board of Directors (e.g. in 2008, the priority sector of the GMF was reduction of energy consumption in buildings, with a reduction target of 40%). Key pre-requisites for an application for a grant to develop a *Sustainable Community Plan (SCP)* imply that, before they apply, municipal governments must pass a "council resolution" committing to establish a vision and targets in their SCP.

Applicants can submit an "Intent to Apply" at any time of the year. Once an Intent to Apply has been accepted, the FCM invites eligible applicants to submit a Detailed Application. Applications are rated by a Peer Review Committee [PCR] first, and then reviewed by the GMF Council which

³¹ GMF offers interest rates 1.5% lower than the Government of Canada bond rate for the equivalent term.

³² If the national government's standards are higher than the provinces' (regions) standards in one priority sector, the national government's standards are used, and vice-versa.

makes a recommendation to the FCM National Board of Directors. The Council also includes experts and representatives from the federal and municipal orders of government. The Council advises the FCM National Board of Directors. The latter makes the final decision on which municipalities receive funding.

All grant recipients are required to report on their plans and the lessons they learned through the initiative. They are also subjected to external evaluation carried out by FCM. GMF itself is audited by external auditors every five years. Feedback is provided to the federal government, evaluated and incorporated into the next programme cycle's criteria and priorities.

Funding provisions

The Government of Canada endowed FCM with CAD 550 million to establish GMF. For sustainable community plans, feasibility studies and field tests, GMF offers grants for up to 50% of costs to a maximum of CAD 350 000. For capital projects, GMF offers below-market loans, usually in combination with grants, for up to 80% of costs to a maximum of CAD 4 million in loans combined with CAD 400 000 in grants. Capital projects in the brownfields sector are eligible for below-market loans only, but there is no upper funding limit.

History

The MOU was signed between the federal government and FCM in 2000. The MOU has been renewed three times since 2000. Each time, the amount of funding amount has increased (CAD 125 million in the first MOU, CAD 250 million in the second, CAD 550 million in the last one).

Analysis

Multi-level governance innovations

FCM's *Green Municipal Fund* is a unique arrangement in that the federal government entrusted the national organisation that represents local governments with extensive decision-making power over large amounts of funding. The accompanying, renewable MOU is an additional innovation.

Results

By June 2009, 200 municipalities had used the GMF to develop SCPs and to launch energy efficiency projects. Out of 142 projects of direct measures, 40 were energy-related projects in the last two years. Additionally, 160 energy audits were funded.

Strengths

Through the *Green Municipal Fund* agreement, the Government of Canada is able to gain experience by partnering with municipalities. An evaluation period allows FCM to provide feedback to the federal government about what works well and what can be improved.

Challenges

FCM's *Green Municipal Fund* has faced motivational, structural and jurisdictional issues. Although funding recipients must meet the priorities set by the federal government, there are no incentives for surpassing national and provincial standards. Crucially, some Canadian communities have begun to turn to less-bureaucratic provincial (i.e. regional) programmes. The move away from a competitive selection process was in reaction to a decrease of applications. The competitive grant process was problematic for municipalities with less capacity, institutional support or leadership.

In Quebec, municipalities are a provincial responsibility. Quebec did not want the federal government to interact with municipalities directly. An agreement was signed in 2003 between FCM and the Government of Quebec authorising Quebec municipalities to receive GMF funding. Considerable outreach efforts have been made to ensure regional balance is respected in terms of grant and below-market loans approved across Canada.

Domestic transferability

The scope of the project has not widened because the national government does not want to cross into the Provinces' (regions) jurisdiction. As Provinces currently run several energy efficiency projects, the federal government wants to avoid duplication (see case study n°1 – the ASCEE).

International transferability

The use of an association such as the FCM to run a programme and manage the funds is an aspect of this project that could be easily replicated in other federal systems, provided the network of municipalities has strong capacities.

Sources and contacts

- Green Municipal Fund website www.fcm.ca/gmf
- Onno Kremers – Director, National Programs, FCM-GMF - 613-907-6375 – okremers@fcm.ca

EVALUATION: Every five years (evaluations not publicly available)



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Programme**

Budget: **EUR 800 000 per campaign**

Objective: *To engage apartment owners in refurbishment works*

Context: **Use of a category of the population (tenants) as leverage**

3.15 Heizspiegel (Germany)

Rationale

The *Heizspiegel*³³ campaign was initiated by the non-profit, government-subsidised company Co2online to design heating surveys specific to each participating forty-five municipalities, so as to address energy efficiency in housing. The stated aim of the campaign is to inform private tenants and owners on their levels of energy consumption. This information is in turn expected to prompt said tenants and owners to reduce their consumption and, crucially, to engage them in refurbishment works in their apartments. The

campaign was conceived as a soft way to bypass the fact that refurbishment of private housing is not mandatory under either federal, Land (region) or municipal regulation. Engaging with private households is seen as all the more important as the federal government notably estimates that “heating consumption in private Households in Germany in 2007, with 2202 PJ, is much higher than in the sector commerce/trade/services/ with 1339.9 PJ”³⁴, for instance.

Description

Structure

Heizspiegeln are tables in the form of paper documents detailing the energy consumption of an average house of the municipality (the values are based on regionally-collected data from centrally-heated residential buildings only). Inhabitants wishing to do so can then compare their own energy consumption level with these of an average residential building, by means of filling empty boxes in the table.

A free, full analysis of the results (a 12-page written *Heizgutachten*³⁵) can then be provided by a technician of Co2online should a tenant or owner be interested or affected by a high heating consumption and though high heating costs. *Heizspiegel* can be updated each year, and based on the previous year’s average consumption levels.

Advertisement campaigns in local newspapers aim to inform the inhabitants of where they can find the *Heizspiegel* and offer a coupon for a free Heating Assessment. *Heizspiegeln* are available in German only, but an interactive online tool offers advices on heating consumption in Turkish, Italian, English and French.

The inputs provided by the various actors are clearly specified. Participating municipalities and Co2online are linked via a typical contract, mentioning the obligations of the municipality (payment of a fee and provision of essential data) and of Co2online (designing the *Heizspiegel*). Moreover, *Heizspiegel* includes a short presentation of the stakes by the German Minister for Environment and the Mayor of the municipality. *Heizspiegeln* are available for distribution in

³³ Heat survey.

³⁴ AG Energiebilanzen, 2008.

³⁵ Heating assessment.

specific places such as municipal energy companies, social centres as well as other consultancy centres or on the internet.

Funding provisions

The actual cost of a *Heizspiegel* project in each municipality amounts to EUR 16 000. The German Federal Ministry for Environment (Bundesministerium für Umwelt – BMU) subsidises 90% of the *Heizspiegel campaign* (approximately EUR 650 000) so that each participating municipality only has to pay the remaining 10% (equals to EUR 1600 per council).

History

Since 1995, Co2online has generated around 80 *Heizspiegeln* in over 60 German municipalities. Co2online's CEO, Dr. Johannes D. Hengstenberg, had an important role in establishing connections with the BMU and forerunner municipalities in 1995. The federal government subsidised a first *Heizspiegel campaign* from 2004 to 2006 and a second, current campaign started in 2008 and scheduled to run until December 2010.

Analysis

Multi-level governance innovations

An innovation lies in the federal government's decision to resort to an independent company to implement part of its Kyoto-related policies. The campaigns-experimented company acts as an expert focus point for municipalities. For more massive investment programmes, the BMU has resorted to government institutions such as the KfW Bankengruppe.

Results

Since their launch, it is estimated that the instruments *Heizspiegel* and *Heizgutachten* (Heating Assessment) have avoided an average of 80t CO₂ per year, as a result of refurbishment works in residential buildings (mostly insulation). 70% of the households who asked for a detailed analysis of their results are said to have either started a refurbishment project themselves (owners) or prompted their owner (in the case of tenants) to do so. These achievements have convinced the federal government to subsidise the *Heizspiegel campaign*, to conduct 40 000 Heating Assessments. Economically speaking, the Heating Assessments provided additional revenue of EUR 860 million and 12 000 person-year of employment.

Strengths

The campaign is fairly straightforward and inhabitants to realise immediately how important energy efficiency is for them. It holds a slight psychological dimension as it plays on a comparative feeling with one's neighbour.

Challenges

Only cities above 50 000 inhabitants can request a customised *Heizspiegel*. As designing the latter is extremely time-consuming for Co2online, smaller cities have access to a common, standardised version (*Bundesweiter Heizspiegel*, the so-called *Federal Heizspiegel*) of the heat tables (based on nationally-collected data of 63 000 centrally-heated residential buildings).

Campaign management mentioned that the difficult financial situation is hindering the participation of municipalities. Even the small financial fee of EUR 1600 is hard to contribute. As some Municipalities suffer from a lack of human resources to accomplish the *Heizspiegel*, local sponsorships have been sought to add manpower or financial support. Partners can be local power companies, ESCOs, tenant associations, etc.

Domestic transferability

Extension of the coverage beyond the current 45 participating cities seems difficult given the extensive amount of work needed to design customised heat tables for each of them and limited manpower to do so (the campaign mobilises six employees).

International transferability

City-specific *Heizspiegel* with the fuel consumption of buildings and heating costs, can be offered in countries with central heating systems. Decentralised heating systems cannot be monitored, as it is the case in many southern countries with warm climate conditions.

On a federal level, there has to be access to housing data e.g. types of housing, age of housing stock.

Another pre-condition is a legal obligation for a heating cost bill depending on the consumption in the relevant household. Only via this type of heating cost bill can a heating consumption reduction lead to favorable financial savings. As an European example, a *Heizspiegel* was published in Luxembourg in 2005 in cooperation with the Ministère du Logement (Ministry of Housing).

Sources and contacts

- Annekatriin Duch, Co2online, Project Manager for Heizspiegel - annekatrin.duch@co2online.de



Nature of participation: **Voluntary**

Levels: **National, Regional, Municipal**

Legal basis: **Law, contract**

Budget: **EUR 37 million overall**

Objective: *To reach the country's CO₂ emissions reductions targets*

Context: **The largest municipality has 735 000 inhabitants. The smallest only has 1000**

3.16 Klimaatconvenant (Netherlands)

Rationale

The *Klimaatconvenant*³⁶ is a framework for cooperation between the national government of the Netherlands and Provinces (regions) and municipalities to reach the country's CO₂ emissions reductions targets³⁷. The national government focuses on identifying the climate objectives including basic standards and acts as a facilitator, while the municipalities do the actual work. Besides appointing the targets, the covenant includes a Climate Subsidy of EUR 37 million and policy

support through SenterNovem (SN), the national agency for energy and the environment.

The government of the Netherlands considered that trying to direct matters too stringently would be more liable to curb initiatives than assist them. The underlying principle for the *Klimaatconvenant* is therefore that municipalities decide for themselves the topics on which they will focus their policy, as they know better than other levels of government where the best chances of success lie.

Description

Structure

An independent team within SN assesses applications for funding and produces an advice for the Ministry of Housing, Environment and Spatial Planning (MinVrom) on which local authorities should receive a subsidy. The decision to allocate a subsidy is decided in order of receipt of the applications, meaning that early applicants have a higher chance of being selected.

The *Klimaatconvenant* is implemented in local authorities in different steps. First, a Climate scan is conducted to draw a baseline, indicate which priorities are of interest and which specific opportunities are in store. Elements, such as organisational structure, budget, internal commitment and knowledge, are assessed. A Climate Menu describing seven themes (including municipal buildings and transports), related targets and activities is then presented to the municipality. The municipality establishes a four-year plan of action by picking ambitions, i.e. themes and targets in the Climate Menu. Ambitions are then translated into projects: each municipal department must design a project, based on an official template containing an approach, a budget, man-hours and participants. The combination of the projects forms the final, phased plan.

³⁶ « Climate Covenant »

³⁷ The Netherlands has committed itself to lowering CO₂ emissions by 2010 to 6% lower than the 1990 level under the Kyoto protocol. The action plan drawn up by the government to achieve that goal contains an intermediary role for local authorities.

The governance of the *Klimaatconvenant* involves the MinVrom, which introduced the covenant and contracted SN to manage and monitor the programme.

Grant recipients are required to report to the MinVrom on the course of implementation of their selected measures within six months after implementation of the plan. A special team within SN assesses the accounts (based on the targets described in the climate menu) and advises the MinVrom. Municipalities also have to account their activities to MinVrom every year. Self-reporting is the rule; but municipalities that have applied for a subsidy of EUR 50 000 and over have to provide an external audit certificate along with their report.

The covenant contract between the national government and SN is monitored by a steering and evaluation committee consisting of four ministries. Every year, SN has to send in an annual report on the progress and a plan to show how it will approach the municipalities in the next timeframe. MinVrom has to approve this plan. This methodology was meant for the national government to exert control over the activities of SN and to adjust these to national circumstances. The contract between the government and SN is renegotiated every two years.

Funding provisions

The degree of ambition of a municipality, such as reflected in its Climate menu, determines the level of the climate covenant subsidy a municipality will receive. To receive a basic package, municipalities must select three themes in the Climate Menu; an additional two themes are necessary to obtain a Plus package. The amount of the maximum subsidy to be paid also depends on the number of inhabitants and the surface of the council/Province.

The Covenant relies on co-funding: grants can not cover more than 50% of a municipal plan. Besides, the subsidy can only be used for costs of labour, communication, and research and not the investments on hardware.

Funds are distributed by the Provinces (decentralised management).

History

Four ministries (including MinVrom), the Dutch Association of Municipalities and the Dutch Association of Provinces signed the covenant in February 2002. SN was contracted by MinVrom to develop an approach to local climate policies and to execute this approach. The Climate Menu was designed by SN, with the assistance of an informal group of cities.

After the covenant was signed the ministry developed legislation for the implementation of the Climate Subsidy.

Analysis

Multi-level governance innovations

There are several innovations in the *Klimaatconvenant*. The link between the Scan, the Menu and the Subsidy is innovative as it enables municipalities to design customised schemes with the support of national experts and funds. Innovation also lies in the fact that it is up to the local authorities themselves to determine, thanks to the Menu, their own size in terms of climate change. This might be more flexible than government schemes breaking cities into categories according to their sole number of inhabitants, for instance.

The Climate Scan is executed through a series of interviews with stakeholders within the municipal organisation, so as to give a feeling of involvement in the overall process to the various municipal departments.

Results

Overall, energy efficiency measures account for approximately 80% of all measures implemented; renewable energy measures account for the remaining 20%.

SN started two intermediate evaluations in the spring of 2006. The first evaluation shows that the subsidy has contributed to an intensified local climate policy and a more professional execution there of. It was calculated that the EUR 37 million subsidies generated about EUR 95 million in climate projects. The main target of the second evaluation was to estimate the potential CO₂ effects of the *Klimaatconvenant* (about 900 Kton CO₂ reductions).

Strengths

Having a good function network was essential in achieving results. In every Dutch municipality SN has at least one contact person (usually, the energy co-ordinator).

Challenges

The need for municipalities to fund at least half of the costs can still deter some of them from joining. Evaluation and monitoring is potentially problematic, as it relies mostly on a trusting relationship between the local authorities and the central government (and SN).

Domestic transferability

Approximately 250 out of 441 municipalities have joined the *Klimaatconvenant*. Another 90 municipalities are expecting a decision on whether they will be granted funds. The main reason given to why approximately one hundred councils had not chosen a Climate Menu included the current wave of merges and reorganisations of councils and limited funding capacities from the councils themselves.

International transferability

The coordination necessary to integrate a Scan, Menu and Subsidy may not be possible in larger countries than the Netherlands.

Sources and contacts

- SenterNovem website: <http://www.senternovem.nl/english/>
- Gert Nijsink, SenterNovem – g.nijsink@senternovem.nl
- Rene Schellekens, SenterNovem - R.Schellekens@senternovem.nl



Nature of participation: **Voluntary**

Levels: **National, Regional, Municipal**

Legal basis: **Programme**

Budget: **EUR million pa**

Objective: *To protect the general environment and to reach Kyoto targets*

Context: **Inclusion of the regions despite no legal requirement to do so**

3.17 LIP and KLIMP (Sweden)

Rationale

LIP (1997-2008) and *KLIMP* (2003-2008) were grant schemes of the national government of Sweden involving long-term investments at the local level. Both *LIP* and *KLIMP* took the form of a competition for funding between municipal programmes. The programmes were screened by regional authorities (the County Boards).

KLIMP was established in order for Sweden to reach its 4% greenhouse gas emissions reduction goal by 2012 under the Kyoto Protocol. *KLIMP* had also been conceived to trigger additional impacts in the process, including strengthening local climate cooperation:

NGOs and private business could apply for *LIP* and *KLIMP* funding if their programme was part of a municipal plan and received support from the municipality.

Besides its goal of improving ecological efficiency, *LIP* originally aimed at creating jobs in the sustainable development sector. 10% of *LIP* grants and 42% of *KLIMP* grants targeted energy efficiency specifically³⁸.

Description

Structure

KLIMP selection criteria for funding of a municipal programme comprised the following elements, among others:

Overall perspectives (action plan and targets).

Cost-efficiency, in terms of the relation between the grant and the environmental effects (on average, *KLIMP* grants only funded 25% of the total costs).

Collaboration with other local actors (NGOs, businesses, etc, had to be involved in the programme).

Information provision (the programme had to be replicable in other municipalities in the country).

Long payback (at least 4-5 years).

Once a programme was selected, a decision was written down by the Swedish Environment Protection Agency (SEPA). The decision included regulations on funding and was signed by both SEPA and the municipality. Municipalities then filled annual reports each year of the funding period and SEPA evaluated the project after the four years of funding. SEPA also conducted a financial

³⁸ In the following sectors: production/distribution 26%; industry 5%; other use 1%; domestic and commercial use 10%.

audit of the project (with municipalities in total control of projects). If a municipality did not reach its targets, the government could claim back part or all of the money.

Governance of *LIP* and *KLIMP* at the national level largely evolved with time (see history section). At the regional and local level of government, counties, municipalities and local players were involved. County Boards (regions) acted as facilitators, controllers and advisors to both municipalities and *LIP* and *KLIMP* managers. They also wrote assessments of application reports. Selected municipalities acted as programme coordinators.

Funding provisions

LIP grants of SEK 6 billion (EUR 555 million) were distributed to 211 programmes between 1997 and 2008. *KLIMP* grants of SEK 1.8 billion (EUR 167 million) were distributed to 126 programmes on five instances between 2003 and 2008. Overall, grants generated a total of SEK 24 billion (EUR 2.2 billion) investments, out of which SEK 8 billion were granted by the government. Funding for a programme was provided in three steps: 25% the first year, another 25% the second year, and the remainder at the end.

History

An interministerial panel grouping five ministries met in 1997 to discuss a replacement programme for the *Ecocycle Billion* programme, which had failed to meet its objectives. In order to foster initial political response from municipalities, the government kept a prominent role in *LIP* for several years through the Ministry of Environment (MOE), before delegating management to SEPA once the programme started to require more micro-managing.

Since their inception, *LIP* and *KLIMP* have largely been retooled. For instance, grants were initially allocated to programmes selected by the government. This changed in 2002 when the task of selecting beneficiaries was handed over to a committee composed of members of national expert agencies - the *Council for Investment Support* (RIS). The launch of RIS was thought out as a practical and easy way of ensuring wide representation of experts and alleviating SEPA's administrative workload. A *LIP* unit at the MOE was originally in charge of daily management of *LIP*, for lack of a Sustainable Development Agency in the country. This task and the unit's personnel were eventually transferred to SEPA in 2002. Expert national agencies initially acted as formal and informal advisors to the government, by providing comments on measures and selection criteria, but a new national expert agency, the *Swedish Institute for Ecological Sustainability* (IEH), was set up in 1999 with a mandate to assist and support small and rural municipalities in their application process, once it was realised that these applications kept failing.

Analysis

Multi-level governance innovations

The main "tour de force" of *LIP* and *KLIMP* resides in the important role attributed to an otherwise non-targeted party: the Council Boards. Integrating the latter in the process could have proven uneasy, as *LIP* and *KLIMP* could have been perceived as attempts by the Swedish government to bypass intermediate (county) level to engage directly with municipalities. Yet, inclusion of County Boards proved both imaginative and successful: they were close enough to the municipalities to understand their needs and distant-enough to maintain overview capacity. External evaluation of *LIP* reported that counties' role grew with time outside their original remit, to such an extent that they eventually replaced other formal advisory bodies in the eyes of municipalities.

Results

KLIMP beneficiaries included 67 municipalities, 7 municipal associations, 5 county boards and 4 companies. SEPA 2009 estimates show that *KLIMP* induced CO₂ emissions reductions amount to 1 million tons per year, with total energy savings of more than 1 TWh per year, 3.1 TWh together with *LIP* (total energy use in Sweden was 403 TWh, in 2006). Overall, *LIP* and *KLIMP* grants were distributed to 2700 projects in 337 programmes in municipalities and counties.

Strengths

The initial political impetus enabled *LIP* to quickly gain political visibility in Sweden. It facilitated transversal approaches as well as flexibility. The competition format appears to have favored those cities which had already been doing efforts prior to *LIP*'s inception. This resulted in a growing divide between laggards and forerunners. Yet, it seems that the format contributed to a gradual improvement of the quality of submitted programmes. It also raised the interest of many municipalities, even when they did not receive funding.

Challenges

The issue of balance between rich cities and poorer/rural municipalities has never been fully addressed.

Besides, SEPA managers suggested that the end of *KLIMP* had the advantage of ending capture of the programme by certain municipalities who had mastered the art of filling successful applications.

Domestic transferability

The current Swedish government has no plans to make any further grants in Sweden.

International transferability

KLIMP managers at SEPA expressed their strong belief that *KLIMP* is an easily transferrable scheme. With the EU's environmental pillar that had become reality in 2001 under the Swedish presidency of the Council (Gothenburg EU Council summit), *KLIMP*'s evaluation mentions possible connection between *LIP* criteria and the Gothenburg criteria.

Sources and contacts

- SEPA website : <http://www.naturvardsverket.se/investments>
- Asa Söderberg – Climate Department – Investment Programmes Unit – asa.soderberg@naturvardsverket.se
- EVALUATION: Understanding Lip in Context – an evaluation of LIP in central government, business and comparative perspectives, report 5445, Swedish Environment Protection Agency, April 2005



Nature of participation: **Voluntary**

Levels : **International, National, Regional, Municipal**

Legal basis: **EU**

Budget: **(IEE) EUR 60 million**

Objective : *To provide general and technical guidance on energy efficiency and renewable energy to local authorities, private business and individual consumers*

Specificity: **The EU has no jurisdiction over municipalities**

3.18 Local and Regional Energy Agencies (European Union)

Rationale

EU-funded Local and Regional Energy Agencies (LREAs) are set up by local or regional authorities to provide general and technical guidance on energy efficiency and renewable energy to local authorities, private business and individual consumers. LREAs are also expected to promote social and economic cohesion, create small and medium enterprises, develop local competitiveness and act as contact points for relations with European networks and institutions.

Supporting action at the local level was not part of the very first EU SAVE programme but was eventually included in SAVE II after it was realised that energy efficiency policies targeting buildings lacked consistency in most regions and local communities. Since then, the

2002 Johannesburg World Summit on Sustainable Development and EU Green Papers on Energy Efficiency have prompted the Commission to continue supporting the creation of LEAs throughout its subsequent Intelligent Energy Europe (IEE) programme.

Description

Structure

Local authorities willing to establish a LREA with the support of the European Commission (EC) must first respond to a call for projects. A negotiation takes place between the EC and pre-selected applicants. Once the EC is satisfied with the proposal, a contract is signed and part of the funding is granted to the newly born LREA.

Local authorities must apply together with at least one other, foreign local authority. In recent years, it was highly recommended that applicants in Western Europe apply together with a local authority of a new Member State.

Within the first year of signing the contract, the LREA must submit an inception report detailing to what extent the agency has respected its initial goals and presenting its vision for the following year. A final report assessment determines whether the remainder of the subsidies will be allocated.

Local authorities can give LREAs the form of a city's department, an independent association or even of a private business. Whichever legal form is selected³⁹, LREAs operate impartially on both energy demand and supply issues.

³⁹ Said legal form depending extensively on the legal culture of the Member State where the LREA is created.

There are currently 240 EU-funded LREAs in addition to the 93 pre-existing local and regional energy agencies set up without EU support⁴⁰. Each LREA is theoretically assigned to a well delimited geographical area.

The structures of governance of LREAs and of their overarching programmes are clearly delimited. The EC manages IEE and *ManagEnergy*, the EU platform for cooperation between LREAs. EU Member States sit in the IEE Committee, an advisory body formulating general recommendations on the way applications are managed. Member States cannot, however, hand-pick or refuse applicants. The real weight of EU Member States shows in their involvement in LREAs activities. In France, for instance, the national agency for energy efficiency (ADEME) is the main financial partner of LREAs through its *Espaces Info Energie programme*. Regions, just like local authorities, can apply for funding when they set up a LREA. They can also establish partnerships with LREAs for specific activities. National networks of LREAs exist in six countries, where they provide their members with information on new funding opportunities as well as examples of management best practices. At the European level, the *Energie-Cités* network offers similar services to local authorities willing to establish a LREA.

Funding provisions

Total available EU funding is limited and varies from year to year. As a result, local authorities compete for subsidies.

EU subsidies amount to up to 50% of a LREA's setting-up costs. EU funding of LREAs runs for the first three years of an operation. Should a LREA close before a subsequent period of five years, the grandfathering local authority has to reimburse part or all of the EU funds.

History

The first EU-funded LEAs were established under the EC's SAVE II programme, the EU's main non-technological programme on energy efficiency. SAVE II was adopted by the Council of the EU in 1996 to improve the energy intensity of final consumption by a further percentage point per annum over and above what would have otherwise been achieved. IEE followed in 2003, and is scheduled to run until at least 2013.

Analysis

Multi-level governance innovations

The most interesting innovation here regards the LREAs' sustainability clause. By financing the initial LREA set up, while requesting that agencies still be in existence eight years later, the EC forces local authorities to conduct long-term planning. It also prompts LREAs to grow solid roots in their local environment so as to multiply their customer basis and potential for later financial partnerships.

The second most significant innovation was that the EC prompted LREAs to build links with other EU programmes and with pre-existing local energy agencies. The latter, despite not receiving EU funding, are encouraged to take part in *ManagEnergy* activities. As the EC is gradually focusing its support on direct measures (through the Covenant of Mayors for instance), LREAs are asked to act as Supporting Structures to the Covenant on a voluntary basis.

⁴⁰ Latest figures were kindly provided by Katy Hall at CPL Press and Sean Burke at *ManagEnergy*.

Results

In September 2004, a formal evaluation of SAVE agencies stated that "the quantity and range of activities globally developed by the LREAs at local level is impressive, going far beyond what might be expected by an unaware observer." However, aggregated estimations of energy savings are not available at the moment.

Strengths

The all-encompassing LREA approach is an asset for local authorities lacking sufficient in-house expertise to provide similar services. Decisional autonomy of LREAs ensures a certain level of local legitimacy, enabling them to reach out to a wide customer basis.

Challenges

Evaluations found that several LREAs did not survive the initial three-year EU funding period. Moreover, cooperation between LREAs in different countries has been difficult. Organisers acknowledge that LREAs looking for advice will turn to national networks (such as FLAME in France) rather than to their contract counterparts in other countries. The language barriers, as well as the difference between national contexts, were cited as the main reasons for stopping cooperation with European partners.

Domestic transferability

Although geographical coverage of the EU LREAs has greatly increased since the inception of SAVE II, several regions of Europe seem to lack agencies. The Netherlands, for instance, only has one LREA, while Italy has forty-one. Overall, Eastern countries have fewer LREAs. Poland, for instance, hosts only eleven LREAs.

Despite receiving increasing recognition in their communities, the future of support to LREAs is still uncertain. While it is expected that most LREAs will continue to operate, the EC has decided to hold off provisions for the creation of new LREAs in its 2009 IEE call for projects. According to an interviewee at the Commission, the Commission lacks satisfying visibility on what LREAs are doing and how effective they are. A comprehensive evaluation is expected to be launched by the end of 2009 in order to better assess the impact of LREAs. However, many suggest the time has come to shift the focus away from distributing leaflets to implementing direct measures.

International transferability

LREAs are being opened in countries in the process of joining the EU (e.g. Croatia).

Sources and contacts

- Sean Burke, Consultant for ManagEnergy, New Frontier Services
- EVALUATION: Evaluation of the SAVE Programme Final Report, Atos Consulting, CE Delft, IEEP, March 2005 - ec.europa.eu/energy/evaluations/doc/2005_save.pdf (another evaluation is forecasted in 2009-2010)



Nature of participation: **Voluntary**

Levels: **Regional, Municipal**

Legal basis: **Contract**

Budget: **AUD 150 000 p.a.**

Objective: *To prompt energy saving rebates uptake in the population*

3.19 The Local Promotion Program (New South Wales, Australia)

Rationale

The *Local Promotion Program* (LPP) is a New South Wales (NSW) Government's initiative to "tap into councils' strong communication links with residents and support existing sustainable living programs" by granting local councils AUD 5000 for any promotional activity nominated by them, which encourages householders to save water and energy.

The LPP is a component of the Residential Rebate Program (RRP), established in July 2007 under the Climate Change Fund to "help householders save energy, water and greenhouse gas emissions by improving the efficiency of hot water systems, heating and cooling and water use".

The motivation for the LPP came after a discrepancy between the limited available funding and high levels of motivation had been identified by NSW officials in local councils.

Description

Structure

Local councils enjoy flexibility in the way they want to use the grant. Some have used it as giveaway prizes to reward local forerunner initiatives, while others have used it to fund rebates brochures or advertising. However, the activity must always involve the promotion of the Climate Change Fund rebates. Councils wishing to work together for a regional activity can do so, with each participating council being eligible for up to AUD 5000 as well. Local councils are required to provide public acknowledgement of the NSW Government's contribution to their event/activity, notably by using DECC's logo.

Activities supported by the LPP include:

- The production of co-branded water and energy saving booklets.
- Advertising support to value add to scheduled events.
- Water and energy saving workshops.
- Home audit or water retrofit programs.
- Resources for sustainability events, such as shower timers, brochures or fact sheets.

Councils nominate the promotional activity and submit a proposal to the DECC on a LPP form, outlining the activity, scope, estimated audience reach and timeframe. Support for the initiative has then to be confirmed in a Letter of Agreement signed by the Council and returned to DECC before the activity can begin. Councils later invoice DECC for the agreed amount on completion of the event/activity.

Councils submit a written report on the activity within three months of its completion including data on energy, water and greenhouse gas emission savings, uptake of resources, audience reach and copies of any materials produced. Council initiatives focusing only on energy are allowed. In terms of governance, the LPP is managed by the Department of Environment and Climate Change (DECC) of NSW.

Funding provisions

In its first year 2008-2009, the LPP's budget was AUD 150 000 to provide 30 councils with up to AUD 5000. The DECC allowed scope in the communications budget to transfer planned advertising funding to the programme if it was over-subscribed and projects were deemed suitable. However, this was not necessary, as not all councils needed the full AUD 5000.

The programme is currently under evaluation. Pending the full evaluation, the budget for the coming year will be determined. It is anticipated at this stage that a further AUD 150 000 will be allocated next year.

RPP, the overarching programme, has a budget of AUD 100 million.

History

The LPP was initiated as part of the communication plan for the NSW Climate Change Fund as a way of maximising the promotional funding for the residential rebates by tapping into the close links that local councils have with residents. It officially started on 1 July 2008.

Analysis

Multi-level governance innovations

The Local Promotion Program was designed to be as flexible as possible to allow the councils to use the money in whatever way suited them as long as it promoted State rebates and explained the eligibility criteria in more detail. The State basically pays local councils as service providers. Recruiting local councils instead of a private advertising company or the State's own communication department was thought out as a way to build on the councils' legitimacy among the citizens. Following informal consultation with the federal government, the DECC encouraged local councils to promote federal rebates in the process (although no formal arrangements were made between the federal level and the DECC).

Results

By June 2009, a total of 27 projects in 31 councils had been supported. Initial findings show that the promotion reach has been very high for each dollar spent and rebate uptake is higher through targeted promotion than what would have been achieved through cost equivalent print advertising.

Strengths

The LPP provides for a very cheap and bureaucracy-limited way of reaching citizens and councils. The broad scope of action was also one of its greatest strengths: not all councils are in a position to do one specific thing – newspaper advertising, run workshop etc. By allowing the councils to use the funding to value-add to an existing initiative, the DECC got rebate promotion on community activities that may not otherwise have had them.

Challenges

The broad scope of the programme, in allowing councils to choose what they would spend the money on, was also a challenge in that it undermines the possibility for proper evaluation of the impacts. Besides, the State must rely on second-hand data (reports sent by councils) to properly assess said impacts. It was hence decided at the outset that the key performance indicators would be rebate uptake and audience reach.

Domestic transferability

The LPP was the only such initiative in Australia encountered in the course of this research. In NSW, the DECC is considering changing the selection criteria slightly, pending full evaluation; specifically, to encourage councils in regional areas, which traditionally have lower budgets for promotion and fewer staff for sustainability education, to apply.

International transferability

The light-weight, straightforward dimension of the LPP makes it an easily reproducible programme in other countries. LPP management mentioned that a key element for reproducibility was to appreciate the connection that local government has with its community, so as to make the programme fit in with their initiatives, as the more one can fit in with what they are already doing the more leverage one can gain from what they are already doing.

Sources and contacts

- Amanda Kane, Senior Community Relations Officer, Department of Environment and Climate Change - amanda.kane@environment.nsw.gov.au
- DECC website – <https://www.environment.nsw.gov.au>
- EVALUATION: currently taking place



Nature of participation: **Voluntary cooperation**

Levels: **Regional, Municipal**

Legal basis: **Contract**

Budget: **AUD X 000 p.a.**

Objective: *The progress of local, regional and state-wide environmental sustainability*

Context: **Surging energy demand in Victoria**

3.20 The Local Sustainability Accord (Victoria, Australia)

Rationale

The *Victorian Local Sustainability Accord* (the Accord) is a partnership program between the Victorian State (regional) Government and local governments aiming at “progressing local, regional and state-wide environmental sustainability”. Intermediate objectives include enhancing support for strategic projects, strengthening inter-governmental dialogue, capacity-building in local governments, both individually and through regional arrangements. Projects funded cover a range of issues, including natural resource and catchment management, planning for biodiversity and climate change and energy projects.

Energy efficiency projects cover, among other actions, reduction in energy used for public lighting and retro-fitting of public buildings with energy efficient devices.

The *Sustainability Fund* (the Fund) supports projects in partnership with local councils through the Sustainability Accord. A key challenge for Victoria is the significant growth in the demand for energy. Victoria's current demand for energy is growing by an average of 1.6% per year.

Description

Structure

The *Accord* comprises principles⁴¹ and actions. The primary Accord action consists in establishing a *Local Environmental Sustainability Priority Statement* (Priority Statement), a framework document identifying problems and areas where action at the state (regional) level could provide useful leverage⁴². Priority Statements include precise goals in that they refer to goals set within other programmes such as ICLEI' *Cities for Climate Protection*. Priority Statements are expected to create a sound business case for seeking other regional or federal funding assistance. Priority Statements all have the same structure and are expected to be regularly updated, but each Priority Statement has different priorities, depending on the history and circumstances of the area.

⁴¹ Dialogue on the formulation and implementation of policies and actions affecting the other party (including matters related to the federal government); establishing shared local goals and priorities; developing long-term strategic resource allocation and funding; pursuing alignment and cooperation in service delivery (through best practice guidelines, web-based information exchange, showcase forums and training programs); improving procedures for evaluation and review.

⁴² eg. Electricity distributors, as the maintainers and replacers of street lighting assets, are said to not have been interested in collaborating with councils to improve the efficiency of street lighting.

The *Accord* establishes strategic criteria for the allocation of funds to local governments, and emphasises:

- Supporting local governments with resource constraints to establish baseline capacity.
- Assisting local governments without high-level sustainability objectives to develop them.
- Encouraging local governments to strengthen their communities' involvement in environmental sustainability.
- Rewarding local governments who are already "leading the way in sustainability".

One can see that the criteria explicitly target dialogue and capacity gaps rather than programme-based funding.

As far as accountability is concerned, *Accord* achievements are measured through both local progress reporting and state-level reporting. The accountable body for all evaluation is the Victorian Local Sustainability Advisory Committee (VLSAC). Reporting on implementation progress takes place at every meeting of the VLSAC: it requires a brief update on developments for each action listed in the *Accord*, so as to uncover any barriers hindering achievement of the agreed priorities. VLSAC can commission others to carry out evaluations. A report on the overall outcomes of the *Accord* is now delivered to the Minister for the Environment every two years since August 2007. A review of the whole *Accord* occurs every four years.

The Victorian Government (represented through the Department of Sustainability and Environment (DSE)) manages the programme. Local government peak bodies and environment groups are recognised as *Accord* partners, jointly establishing the *Accord* actions.

Funding provisions

Part of the Fund is restricted to *Accord* signatories. However, councils are entitled to apply for the greater pool of the Sustainability Fund irrespective of their involvement with the *Accord*.

The Fund has to date provided over AUD 64.4 million in funding to support 166 projects. Round 3 (2008) comprised AUD 1 354 964 out of 7 240 000 for Energy Efficiency projects, with AUD 654 226 going directly to local councils.

History

The Fund was established from the landfill levy by the State government in 2002. In the meanwhile, local governments' representatives had argued for a clear legislative role to promote the environmental sustainability of their municipal districts, enacted through the Local Government Act 2003. Moreover, a 2002 survey by the Municipal Association of Victoria showed that sustainability action was needed in rural councils especially.

In 2004, the member organisations on the VLSAC (including the Municipal Association of Victoria and the Victorian Local Governance Association) worked together on designing the *Accord*, which was eventually launched in November 2005. A number of meetings took place between pilot councils and DSE. This Pilot Program was already completed by May 2006. In April 2006, 34 projects were announced. Due to the high number of eligible applications, an additional three projects were supported.

Analysis

Multi-level governance innovations

The sort of agreement witnessed here usually takes place between regions and federal

governments. Implementation at the regional level implied smaller financial means, but also better understanding of local realities. Comparison with the *KLIMP* programme in Sweden is all the more interesting as Victoria enters in the same category of population (6 M against 9 M inhabitants in Sweden). While Victoria has to deal with an additional level of governance above itself (the federal government), Victoria did not have to face significant intermediate levels between itself and local councils (whereas Sweden had to incorporate Counties –regions– in its plans).

Results

By the end of the third selection round held in 2008, 58 councils had signed on to the *Accord* (out of 79 local governments in Victoria). The third application round for the Fund received 239 applications (including from businesses). One example of a realisation of the Fund is the Public Lighting Taskforce (the *Victorian Public Lighting Approval Body*) formed in 2006 to drive trials for new energy efficient technologies in public lighting, develop an approval process for new public lighting technologies and a state-wide business case for implementing SPL.

Strengths

The *Accord* has displayed great flexibility right from the start. This has enabled rural councils to enter the programme with limited fears of having to drop at some point. It is still too early to evaluate the impact of the *Accord* and the *Fund*. Yet, strong evaluation processes within the *Accord* should enable to receive feedback.

Challenges

The *Accord* ultimately relies on a voluntary approach.

Domestic transferability

Most States have implemented such programmes as *Cities for Climate Protection*, which is a very frequent component of Victorian local governments' *Priority Statements*.

International transferability

Generally, the *Accord* is a great example of action in a territory where rural and urban municipalities/councils are much differentiated. As Melbourne and its urban suburbs account for most of Victoria's population, it could have been a challenge to address issues of rural councils at the same time as addressing urban dimensions of energy efficiency.

Sources and contacts

- DSE website - <http://www.dse.vic.gov.au/DSE/>
- EVALUATION: takes place every 4 years



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Agreement**

Budget: **unknown**

Objective: *To improve energy efficiency in old housing*

Specificity: **an “auto-certification” scheme**

3.21 Low Income Retrofitting Project (Greece)

Rationale

The *Low Income Retrofitting Project* (LIRP) is an initiative of the national government of Greece in cooperation with municipalities to improve energy efficiency in homes built before the 1980s of families with incomes of less than EUR 60 000 a year, so as to address fuel poverty.

The national government works with national associations of private businesses and the local community (municipalities and private business) to identify and inform low income households about this project.

Description

Structure

The project identified the following five areas where energy and cost savings can be made in low income greek households:

- Insulation.
- Windows.
- Heating.
- Solar collectors.
- Cool roofs.

The Ministry of Development (YPAN) reached an agreement with national associations representing businesses offering the above five services to freeze the costs of these services for two years.

Local information centers help citizens apply for the programme. They then send the application to the national government that must provide a response within a week. The following selection criteria apply:

- Funding is only available for households that make less than USD 60 000 a year.
- Funding is only available for houses built before the 1980s.
- Only technology with at least an A rating or equivalent is eligible.
- A certified contractor must be used.

The programme is evaluated through an auto-verification scheme. The associations must evaluate whether their industry members are implementing technologies that meet the national standards. They must also verify that the prices are not inflated. The national government has agreements with universities and research institutes to also provide controls on the system. Businesses or communities that break the terms of the programme are no longer eligible to receive funding.

Funding provisions

Only 50% of the funding for any project can come from the central government. The rest must be provided by local governments and individual households.

Each community is allocated a fixed amount of money by the national government.

History

Details about historical developments of the project were not available.

Analysis

Multi-level governance innovations

The LIRP is a unique arrangement in that the local information centers and governments identify eligible candidates, assist the candidates fill out applications and then submit the applications to the federal government for review.

Results

Information about the results of the project was not available.

Strengths

The LIRP involves several players including the national and local governments, national trade associations, local businesses, universities and research institutes. Involvement of these players provides for cross-examination of what works well and what does not in the programme. It also contributes to better understanding the developments of fuel poverty in Greece.

Challenges

Although there is a rigorous evaluation process with strong consequences for abuse, the self-evaluation process inherently suffers from a conflict of interest with national trade associations regulating dues-paying members.

Domestic transferability

The programme suffers from a lack of funding. As a result, applicants are turned away because of lack of funds, not lack of need.

International transferability

This programme would likely work in other central governments. A good understanding of fuel poverty (localisation, thresholds) is necessary before action is taken.

Sources and contacts

- Ministry of Development of Greece website - <http://www.ypan.gr>
- Matheos Santamouris - msantam@phys.uoa.gr



Nature of participation: **Voluntary**

Levels: **National**

Legal basis: **Public Programme**

Budget: **EUR 10 million overall. EUR 8 million for vehicles subsidies , EUR 1.5 million for recharge spots and EUR 0.5 million for management**

Objective: *To introduce 2000 electric vehicles in cities and demonstrate their technical and political feasibility*

Context: **Pilot cities are asked to design their own supporting policy framework**

3.22 MOVELE (Spain)

Rationale

The *Movilidad Eléctrica* (MOVELE) project is a national government initiative to introduce 2000 electric vehicles across institutions, companies and individuals for use in urban and peri-urban settings by the end of 2010. The national government of Spain provides the funding and works with vehicles producers, while the three pilot municipalities of Madrid, Barcelona, and Sevilla are required to co-fund implementation and design their own relevant local policy frameworks. *MOVELE* is expected to demonstrate the technical and managerial feasibility of electrical mobility in Spain as well as to prompt behavioural change in local governments.

Motivation for the programme essentially stem from the importance of the transport sector in Spain's total energy consumption. IDAE reports that "25% of greenhouse gases are due to transport, with oil-derivatives accounting for over 98% of the sources

used in transport". Reducing energy dependency and pollution in their urban environments were in turn considered as major motivations for the three pilot cities.

Description

Structure

For the municipalities' network of recharging spots, *MOVELE* hinges on voluntary Collaboration Agreements signed between the three pilot cities (by the Mayor or a Deputy-Mayor) and IDAE, the managing agency. These agreements foresee the implementation of networks of public electric vehicle recharging stations, the opening of reserved parking spaces and provisions allowing electric vehicles to use bus/taxi lanes. Collaboration agreements include provisions for monitoring and dissemination of the results. By the end of the pilot phase, cities are required to have enforced regulatory changes aimed to facilitate implementation of *MOVELE* measures.

The purchasing phase of the programme is dealt with via an official database of suppliers and vehicles models (the catalogue). Suppliers need to meet certain technical criteria to be added to the database. Electric vehicles targeted are of all categories and technologies. Targeted vehicles include not only cars, but also motorcycles and commercial vehicles.

Several players are involved in *MOVELE*. The managing entity of *MOVELE* is the Institute for the Diversification and Saving of Energy (IDAE), a state-owned company reporting to the Ministry of Industry, Commerce and Tourism of Spain through the State Secretary for Energy. Electric vehicles will be obtained from Car manufacturers and importers and be used throughout networks developed by the local governments (either the three pilot cities of *MOVELE* or the remainder cities in association with *Autonomous Communities* – regions - through a parallel programme). The energy sector (ESCOs) will provide regulatory and financial support. Advice will also be sought from insurance companies.

Funding provisions

The programme's costs fall in three categories. Investment in the infrastructure should amount to EUR 2 559 164 of which EUR 1 017 000 will be subsidised by the IDAE within the framework of the Cooperation Agreements, and 1 542 164 will be taken from the municipalities budgets. Investment for each recharging street station is estimated to be EUR 6500, for which a subsidy of EUR 2400 will be provided. Investment for each parking slot is estimated at EUR 4000, with a subsidy of EUR 1400 of subsidy. Assistance and energy analysis will amount to EUR 500 000 while EUR 8 million will be directed to actual procurement in electric vehicles (representing from 15 to 20% of a vehicle's cost, depending on the model).

History

MOVELE draws on the 2008-2011 Spanish Energy Saving and Efficiency Activation Plan (*Plan de Activación del Ahorro y la Eficiencia Energética 2008-2011* - Measure #4 mentions explicitly provision for *MOVELE*). Preparation of the pilot phase was officially launched in September 2008. The execution period runs from July 2009 to December 2010.

An invitation to take part in *MOVELE*'s pilot phase was extended to thirteen Spanish cities of more than 300 000 inhabitants (see challenges section below).

Analysis

Multi-level governance innovations

MOVELE is based upon voluntary agreements with shared responsibility for funding. Conditionality is all the stronger as national government subsidies will only be delivered once cities have reached their individual objectives. This incentive for action amounts to sanction mechanisms. *MOVELE* also comprises elements of a bottom-up approach, as implementation at the local level is expected to provide clearer understanding of the sort of regulatory measures which better enable fostering of electric vehicles technology. Cities will need to come up with their own mix of tax incentives, supply tariffs and legal regulations.

Results

As *MOVELE* officially started operations on 3 July 2009, it is too early to present concrete results. However, programme aims at introducing 2000 electric cars on the market, preferably in fleets, and 500 recharging stations. Provided these targets are respected, 4282 toe (4.7 million litres) of oil consumption and 1510 toe (7000 MWh) could be avoided each year. Energy savings would amount to 2772 toe per year and avoided CO₂ emissions to 4471 tons.

Strengths

Starting small-scale with a limited number of cities should give *MOVELE* the flexibility it needs to obtain quick results. Both conditionality and co-financing provisions almost guarantee actual construction of the stations.

Challenges

Co-financing and the amounts at stake seem to have deterred some cities from participating in the scheme, as only Spain's three biggest cities responded positively to IDAE's invitation to participate. In the case of the other ten cities, it was thought that the invitation by IDAE was not noticed by the right persons in the right positions at the right time.

IDAE now expects that the second, alternative phase of the programme (under the PMUS funds see below) will enable to target smaller cities, as well as these cities which missed on *MOVELE*. Crucially, strong uncertainties remain regarding actual development and distribution of all foreseen vehicles which are already present in *MOVELE*'s database.

Domestic transferability

As preliminary ex-ante surveys have shown that targets were reasonably achievable, some of the ten cities who initially did not join the pilot programme later expressed interest in it. While it is now too late to join *MOVELE*, IDAE has arranged for these cities to implement similar projects under another programme. The possibility of co-financing implementation of electric vehicle recharging networks was extended by IDAE under the Sustainable mobility plans priority measure (*Medida Prioritaria de Planes de Movilidad Urbana Sostenible*, PMUS) in the 2008-2012 Action Plan for cooperation agreements with the Autonomous Communities (regions). Financing of these networks by autonomous communities will be realised under the same conditions as cities in the *MOVELE* Project. The sole constraint will regard a minimum installation threshold of at least ten public access recharging points. IDAE subsidies will be limited to 40% of the budget, up to EUR 200 000 per project. Cities participating in *MOVELE* will not be authorised to apply for funding from this programme.

International transferability

IDAE managers expressed their confidence in the reproducibility of the programme in other countries. They mentioned political will and coordination with car manufacturers as key elements for implementing such a scheme.

Sources and contacts

- *MOVELE*'s website : <http://www.idae.es/index.php/mod.pags/mem.detalle/id.407/lang.uk>
- Juan Luis Plá de la Rosa, Head of the Transport Department - jlpla@idae.es



Nature of participation: **Voluntary**

Levels: **International, National, Regional, Municipal**

Legal basis: **International programme, Law**

Budget: **part of a USD 11 million component of Paraná Urbano Loan programme**

Objective: *To facilitate management of large public loans to municipalities*

Specificity: **Municipal borrowing was difficult in South America**

3.23 Paranácidade (Brazil)

Rationale

The State Paran Municipal Development Agency (*Paranácidade*) is a private, non-profit agency established by the Paraná Urbano Loan (PU)⁴³ to facilitate and monitor loans to local governments. *Paranácidade* acts as a certified fund manager, established specifically to manage PU and the parallel Urban Development Fund (UDF), a public resources revolving fund for municipal development activities. *Paranácidade* also provides technical assistance to municipalities and seeks additional private funding for the latter. It thus aims at “creating an enabling institutional arrangement, decentralising State assistance to municipalities, building capacity, linking the debt capacity of municipalities to their ability to borrow for projects as well as ensuring transparency”.

According to former Secretary of State in charge of the Parana State Department of Urban Development (SEDU), Lubomir Ficinski Dunin, “*Paranácidade* resembles a U.S. quasi public corporation”.

While PU has enabled funding of a comprehensive number of projects since its inception, it had not included measures targeting energy efficiency, until recently. However, on 3 June 2009, SEDU initiated talks with the French Development Agency to work together on the first major energy efficiency project supported by UDF. The project should target some 120 new municipal schools and their ventilation and lighting systems⁴⁴.

Description

Structure

All municipalities in Paraná belong to sub-State (i.e. sub-regional) associations. These associations are grouped under the Federation of Municipalities. Since the second instance of a PU loan, *Paranácidade* has been in charge of project appraisals. However, it may delegate this function to its regional offices (for projects costing between USD 200 000 and USD 1 million) and to associations of municipalities (for projects costing up to USD 200 000). Thus, the process of decentralisation began with functions formerly performed by the regional government being transferred to the associations, thanks to capacity building brought partly by *Paranácidade*.

⁴³ Paraná Urbano sought to “enhance the quality of life of residents of the state of Paraná”, notably by “improving the municipal finance model , strengthening the institutional capacity of municipalities and improving the quality and coverage of municipal basic and social services”. It was created by the State of Parana together with the Inter-American Development Bank [IADB].

⁴⁴ *Paranácidade* Press Release, 3 June 2009, <http://www.paranacidade.org.br/modules/news/article.php?storyid=775&keywords=efici%EAncia+energ%E9tica>.

Eligibility criteria for UDF funds remain general: the project must come from a municipality and must concern infrastructure works. Selection criteria for the forthcoming *energy efficiency in new municipal schools* project should be based on the human development index of municipalities. *Paranácidade* holds institutional and financial autonomy. Its board is chaired by the State Secretary for SEDU. Most of its members are State officials. *Paranácidade* reports to SEDU.

Agreement between *Paranácidade* and the municipalities specifies planned actions for municipalities and set their fiscal, institution-strengthening, and investment targets. Before bids can be called for a project, a municipality must notably have secured an environmental setup permit from the Paraná Environmental Agency. The projects are supervised by *Paranácidade*, which may hire an association of municipalities for the task.

Paranácidade developed an online project monitoring system and a fiscal database on the State's 399 municipalities. In addition, to assist the municipalities, it developed a series of nonfinancial products such as the Results-based Management Program (PGR) implemented in 100 municipalities, methodologies, technical papers on municipal issues, and financial and project management software.

Funding provisions

The two instances of PU accounted for a total budget of USD 426 million (249 from the IADB, 177 from the State of Paraná and participating cities). In PU-II, USD 11 million was geared towards measures to continue developing the municipal sector, focusing on the municipal finance system, and to improve the efficiency of municipal governments (including strengthening of *Paranácidade* as a manager of third-party funds).

History

The UDF was created in 1988. *Paranácidade* was launched in 1996. Its creation was suggested by the State of Paraná itself to the IADB in order to reassure the latter regarding smooth handling of PU funds. These concerns were rooted in the general situation of municipal debt levels in Brazil. In Paraná, approximately 40% of the municipal funds come from federal transfers and 30% from state transfers. Municipalities know that federal and state transfers are automatic. However, the amount of local resources each municipality is able to generate varies greatly from one municipality to another and must increase. One measure of fiscal adjustments ongoing in Brazil was thus to limit the growth of public debt, including borrowing by local governments. Therefore, borrowing was to be cleared by the central bank. Lending to municipalities via such funds as the UDF was actually prohibited to States by a law voted in 2000. Municipalities became only authorised to borrow from public or private institutions supervised by Brazil's Central Bank. As Paraná had privatised all its banks, it was allowed to capitalise the Paraná Development Agency (AFP) USD 350 million from the UDF and to let *Paranácidade* monitor the allocation of loans to municipalities.

Analysis

Multi-level governance innovations

Paranácidade is an innovative response to a widespread issue in South America: control of borrowing by sub national governments. *Paranácidade* has been instrumental in both identifying local borrowing needs and providing advice in addition to providing actual funding.

By providing associations of municipalities with technical and financial support, as well as by channeling UDF money through them, the State of Paraná was able to both intercept and respect the very concept of voluntary associations of cities. The use of independent consultants to control quality and expansion of projects is new for these sorts of urban projects in Brazil.

Results

PU now covers 390 out of 399 Paraná municipalities. 3799 actions including 2076 construction works were carried out since its beginning. As far as energy efficiency is concerned, it was difficult to obtain precise figures, but these have been very limited and should remain so until the new projects are started.

Strengths

Paranácidade has effectively contributed to the sustainable funding of significant works in municipalities which would otherwise not have benefitted from IADB funds.

Challenges

The main challenge in using *Paranácidade* for energy efficiency projects was that energy efficiency was not a policy priority (compared to electrification for instance), a trend observed in several emerging countries.

Besides, evaluation by the IADB has shown that environmental compliance is strongest for projects appraised by *Paranácidade* headquarters, where the larger, heavier-impact projects are evaluated.

Domestic transferability

This study has not shed light on other, similar initiatives in other Brazilian States.

International transferability

Paranácidade is an excellent tool for linking institutional reform with massive funding for sustainable development.

Sources and contacts

- Paranácidade's website : <http://www.paranacidade.org.br>
- SEDU contact email : sedu@sedu.pr.gov.br



Nature of participation: **Voluntary**

Levels: **International, National, Regional, Municipal**

Legal basis: **Programme**

Budget: **EUR pa**

Objective: ***To tackle Hungary's GHG emissions in the public sector***

Specificity: **International programme in a centralised, transition economy**

3.24 The Public Sector Energy Efficiency Programme (Hungary)

Rationale

The *Public Sector Energy Efficiency Programme* was initiated by the United Nations Development Programme to 1) help mitigate Hungary's greenhouse gas emissions by improving the energy efficiency in public sector buildings and to 2) build capacity in municipalities to improve energy efficiency through project implementation and energy management.

There were several other energy efficiency programmes operating simultaneously, including the IFC districting heating and German Coal fund project. The *Public Sector Energy Efficiency programme* in Hungary was

meant to fill in the gaps left by these programmes, notably capacity building at a local level to help national government achieve climate and energy efficiency goal.

Description

Structure

On 15 December 2000 the Project Document HUN/00/004 (for UNDP TRAC funding) was signed. The Project Document HUN/00/G31 (for GEF funding) was signed on 30 March 2001. To accomplish the goals outlined above, the Project document mentioned the following means of action:

- Strengthened outreach to municipalities, including setting up municipal networks and regional energy advice canthers.
- Improved the knowledge base of municipal decision maker and energy managers through tools, training (both domestically and abroad) and website help center.
- Supported energy audits and feasibility studies to identify viable energy efficiency investment opportunities in municipal buildings and infrastructure.

To implement the programme, municipalities needed to create and vote on energy efficiency master plans. Municipalities and the national Energy Centre then joined forces to form additional Regional Energy Centres (REC). The first being started independently from the municipalities before the project began. SMEs (including but not limited to ESCOs) and experts involved in the preparation of audits and feasibility studies for the municipal plans were offered free training and consultation services.

The governance of the programme involved international and national players mainly. The catalyst was funding available through the Global Environment Facility (GEF) Focal Area Climate Change and GEF Operational Programme OP5. UNDP assisted the Hungarian national government to apply for funding. The Project was executed by the Hungarian Ministry of Economy and Transport (MET -formerly the Ministry of Economic Affairs and now part of the Ministry of Transport, Telecommunication and Energy). It was implemented by the Energy Centre Hungary, a non-profit company created in 1992 by the MET, the Ministry of Environment and Water and the

Hungarian Energy Office. The Ministry of Transport, Telecommunication and Energy is now in charge of the Energy Centre Hungary.

Funding provisions

The project was funded by UNDP TRAC (USD 400 000) and the GEF (USD 4.2 million), with co-financing provided by the Hungarian government and private sources.

The first project disbursement occurred in April 2001.

History

The programme started in March 2001 and closed in June 2008. Significant delays, resulting in part from ambiguities in the chain-of-command and priorities with regard to the Energy Centre Hungary mandate, led to the programme restarting in 2003. The project duration was originally planned for 60 months (to close in 2006.) Extensions granted in 2005 and 2007 led to an official close date of June 2008. The extension did not require additional funding compared to the original budget.

Analysis

Multi-level governance innovations

The main innovation consisted in building up capacity in municipalities, not by addressing them in a typical top-down approach but by setting up a municipal network and linking the municipalities to regional centres of expertise.

Results

Over 500 Hungarian municipalities actively participated in aspects of the programme. This is roughly equivalent to 20% of Hungary's municipalities.

According to interviewees, evaluation of the programme has suggested that municipalities that received subsidised audits and feasibility studies through the programme were more likely to invest in measures to improve energy efficiency than those that did not.

Strengths

Hungarian municipalities' capacities were enhanced in the field of energy management and energy efficiency through trainings, consultations, information materials and documentations.

During the course of the project, the Energy Centre Hungary received 12 trained recruits, several of whom are still at the Centre. One team within the Centre continues to manage KIOP and KEOP funds at the national level and to track and evaluate the results.

The role of regional energy advice centers was enlarged by these programmes activities. For example, REC organised workshops and info days and provided consultation services.

Challenges

Now that funding has ended, it is not clear whether support will be available for the new Regional Energy Centers. One main obstacle to municipalities making investments after the energy audit was the lack of local resources to match EU funds dispersed by the Energy Center Hungary.

The one-stop shop website that contains all information generated in the framework of the project (www.undp.hu) was last updated in 2008 when UNDP left the project. Unfortunately this information source is no longer used nor linked to the Energy Centre web site.

Domestic transferability

Although the programme was available to all municipalities, some were more prepared than others to take advantage of the services. The programme has ended, but many municipalities remain interested in participating. The Energy and Environment Operational Programme (EEOP – in Hungarian KEOP) in the framework of The New Hungary Development Plan for 2007-2013 will provide funding for local municipalities to upgrade their energy use, even if some other aspects of the programme are no longer available.

International transferability

Some aspects of the programme are transferable including:

- Providing a baseline survey to municipalities.
- Having the federal government reach to small municipalities.
- Creating non-profit energy centres run by national government.
- Strengthening regional energy centres to provide services to local authorities.

It was suggested, however, that external sources of funding (EU or UN) were critical in the Programme's success in Hungary.

Sources and contacts

- Susan Legro, Eco Harmony, susan@ecoharmony.com
- Antonia Beres, Ministry of Environment and Water, Department of International Relations and Climate Policy, beresa@mail.kvvm.hu
- EVALUATION:



Nature of participation: **Voluntary**

Levels: **Regional, Municipal**

Legal basis: **Programme**

Budget: **unknown**

Objective: *To remove the barriers of upfront investment costs for energy efficiency in buildings*

Context: **Potential beneficiaries had to be convinced of the benefits first**

3.25 The Regional Market for Third-Party Financing (Upper Austria, Austria)

Rationale

Upper Austria's *Regional Market for Third-Party Financing* (TPF) links municipal and private energy efficiency projects with financing in order to remove the barrier of high upfront investment costs. This programme originally linked municipalities with investors interested in financing energy efficiency renovations in public buildings. The project then widened to link building, lighting and renewable energy projects in the public and private sectors with

energy financing.

TPF projects look to Energy Service Companies (ESCOs) to provide pre-financing energy-conservation schemes. ESCO guarantee that energy costs will be reduced by a certain percentage after energy improvements are made. Subsequent energy savings are then used to cover investment costs over an agreed pay-back period (typically 10 to 15 years).

In addition to financing, the TPF offers information and advice, including training sessions for local managers' publications and web-based resources.

Länder (regions) in Austria enjoy a large degree of autonomy to set up their own energy policies. They are, for instance, responsible for implementing the EU Directive on the Energy Performance of Buildings.

Description

Structure

Information is provided either directly by the regional energy agency O.Ö. Energiesparverband or by ESCOs who have agreed to follow the programme's guidelines. Out of eleven participating ESCOs, two are publicly owned, the rest are private.

The structure of governance of the programme is well-defined. The Government of Upper Austria initiated the programme. Its design and management lies in its regional energy agency O.Ö. Energiesparverband. ESCOs are responsible for financing energy saving measures as well as implementation, operation and maintenance. Municipalities enter TPF projects on a voluntary basis. Municipalities are responsible for collecting all data relevant to calculations prior to setting up the project.

Feedback is provided formally via analysis of the results by the O.Ö. Energiesparverband, but also informally through an ongoing dialogue between the regional agency and municipal staff.

Funding provisions

Depending on the status of the owner, the regional government funds the upfront investment costs for energy performance contracts up to 12% in the case of private owners, and up to 20% for municipalities. The upper limit in both cases was set at EUR 100 000 per project.

Funding comes on top of other State (Upper-Austria) subsidies. The budget comes from the broader climate change programme of Upper Austria.

This specific section (TPF) is currently overfunded, as not all the money has been used.

History

The Land of Upper Austria initiated the TPF market in 1998. The new programme (the first of its kind in Austria) was then named ECIP (*Energie-Contracting-Impuls Programm*). A pilot phase of the scheme targeted energy efficiency in municipal buildings, such as schools, sports facilities and public lighting. The programme was then extended to commercial clients and renewable energy sources in 2002.

Analysis

Multi-level governance innovations

Innovation lay in the regional government coming up with a standardised procedure for energy performance contracts that could then be applied to all participating municipalities and ESCOs. The relative uniformity of the contracts allowed participants to avoid mistakes. Once in place, procedures could thus quickly be duplicated and expanded.

Results

The programme has so far enabled funding of approximately 150 projects, of which almost 50% targeted municipalities. The Land has funded a total EUR 35 million in these projects.

So far, no single project has delivered less-than-expected savings. Savings are actually often higher than forecast, as ESCOs tend to be cautious in their initial assessments.

Examples of successes include the pilot municipality of Friedstadt, where retrofitting of seven municipal buildings has reduced energy costs by 24%, accounting for annual savings of EUR 66 205. Savings stemming from investments in public lighting in the municipality of Bad Goisern account for EUR 15,000 (with annual energy consumption reduced by 68 000 kWh).

Strengths

The TPF enables action that would otherwise not have taken place, for lack of funding and information in municipalities. For instance, as rural municipalities do not have the capability to manage the projects, ESCOs were allowed to run them.

While no systematic evaluation has been conducted, O.Ö. Energiesparverband maintains regular contact with municipalities to follow-up on programme implementation on the ground.

Challenges

Even though the programme displays early success, it is still too early in the cycle to properly assess its concrete benefits for municipalities.

Still, the greatest challenge to the programme consisted of coming up with proper market preparation. In this regard, disseminating information played an important role. Insiders' experience suggests that a significant amount of time had to be devoted to going through the details and logics of the programme with municipal energy managers.

Another challenge stems from sometimes underperforming market mechanisms. For example, as far as ESCO choosing a partner was concerned, a call for tenders rarely took place. This is the consequence of long-established links between municipalities and a particular partner.

Domestic transferability

TPF in Upper Austria is an example of the public sector leading by example. It was only after the pilot phase (which specifically targeted municipalities) had started to be successful that commercial clients accepted to enter the programme too. Another specificity of Upper Austria lies in the fact that the voluntary TPF programme takes place within a broader framework of mandatory programmes (for instance, the *Regional Housing Programme* provides 90% of all new housing with financial support).

International transferability

Programme managers insist on the need for potentially interested managers from other countries to start with simple projects. Simple projects do not necessarily entail small budgets, but do require projects with a very limited number of objectives and dimensions.

The TPF is reported to necessitate significant market preparation and dissemination of information to local councils who would normally think such a scheme cannot work.

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Nature of participation: **Voluntary**
Levels: **Federal, state, territories**

Legal basis: **Various**

Budget: **USD 3.1 billion**

Objective: *To provide federal funding for states to achieve local energy efficiency and renewable priorities.*

Context: **The Recovery Act modified the usual funding rules and priorities.**

3.26 The State Energy Program (USA)

Rationale

The *State Energy Program* (SEP) provides states and U.S. territories with grants to address local energy priorities and to adopt energy efficiency technologies. SEP is under the Department of Energy (DOE) *Office of Energy Efficiency and Renewable Energy* (EERE) and administered by the DOE Energy Weatherization and Intergovernmental Program. It is managed by EERE Project Management Centres.

The SEP seeks to maximise energy efficiency and renewable energy benefits by providing leadership, outreach, technology deployment and resources to states. It is hoped that the state energy offices will then

support the national long-term goals of increasing the energy efficiency of the U.S. economy, reducing energy costs, improving the reliability of energy services, developing renewable energy resources, promoting economic growth with improved environmental quality and reducing reliance on important oil.

Description

Structure

The structure of the organisation is as follows:

- The EERE sets guidelines and funding levels.
- The Project Management Center (based in Colorado and West Virginia) is the state energy offices' contact with the federal government.
- The State Energy Offices receive the grants and manage the SEP projects.
- The National Laboratories provide technical assistance to the state energy offices.

Funding provisions

SEP can provide state energy offices with two kinds of funding. The first is a formula grant based on a yearly appropriation by Congress and a formula divided:

- 1/3 equally among all states and territories.
- 1/3 according to population.
- 1/3 according to energy consumption.

The second is funding that can be achieved through competitive solicitation for Special Projects. States can join with private sector partners and contribute state funding towards these projects. Under the new rules established by the ARRA (Recovery Act), no state match is required (traditionally states had to contribute 20%), and the 50% limitation on use of SEP funds for capital construction has been waived.

History

Congress created SEP in 1996 by consolidating two DOE programmes: the *State Energy Conservation Program* and the *Institutional Conservation Program*. SEP is the only EERE sponsored programme that encompasses renewable energy and energy efficiency technologies and addresses all sectors of the economy. Programme rules have been redesigned under the ARRA.

Analysis

Multi-level governance elements

The main innovation (in the US context) lies in the fact the federal level has established funding and technical assistance for state energy priorities. Related to SEP, DOE's WIP organises a conference every two years for state energy officials to share best practices. This conference is called Energy Smart America. In this way, the federal government serves as a facilitator between leaders at state and territorial level.

Results

Historically, SEP and its state partnerships have saved USD 7.22 in energy costs and leveraged non-federal investments of more than USD 10 for every USD 1 of federal investment.

Strengths

DOE hopes strategic use of the resources will enable states to develop programs that are self-sustaining, such as revolving loans and energy saving performance contracting with private financing, which will create a permanent stream of savings to fund future projects. Moreover, it is likely that other funding streams—either through system benefits charges or carbon auctions—can be established at the state or federal level.

Challenges

The limitation on use of SEP funds for capital construction has been waived. There is a strong risk that states will use funds for capital instead of implementing sustainable long-term projects. Unintended consequence: local and state governments refrain from projects they would have done anyway in order to use national funds instead.

Domestic transferability

The large increase in funding through the Recovery Act should allow many more people access to this programme across the country. However, once this funding has been used, it is unlikely the programme will benefit from the same level of funding support in the future. DOE officials said that it is very important for the private sector to get involved with financing these kinds of projects to ensure greater more «free-market implementation in the future.

International transferability

The unprecedented size in funding for and scope of this programme makes replication difficult. It is a straightforward approach, however, for federal governments trying to reach out to a large number of constituents.

Sources and contacts

- EERE website - http://apps1.eere.energy.gov/state_energy_program/
- Mark Bailey – DOE – (001)-877-EERE-INF



Nature of participation: **Voluntary**
Levels: **National, Regional**

Legal basis: **Constitution, Law, Programme**

Budget: **CHF 74.5 million**

Objective: ***To achieve national and additional energy goals***

Context: **Jurisdiction over energy is mixed between the federal government and the cantons**

3.27 SwissEnergy (Switzerland)

Rationale

SwissEnergy is a comprehensive programme of the federal government in partnership with the Swiss Cantons to promote energy efficiency and renewable energies throughout Switzerland. *SwissEnergy* supports voluntary and mandatory economic action by running collaboration agreements, promotional actions, training, research activities and certification schemes. The federal government of Switzerland uses *SwissEnergy* to implement part of its energy and climate policies. In this respect, *SwissEnergy's* general goals are mandatory and set by law⁴⁵. However, the programme also includes voluntary components and goals, such as curbing the increase in electricity

consumption to a maximum of 5% by 2010 compared to 2000 levels.

The partnership approach of *SwissEnergy* entails cooperation and negotiation with local governments (cantons and municipalities), other federal offices and several partners drawn from industry and the civil society. Cooperation on energy with the cantons is not only required under the Swiss Constitution (Articles 73, 74 and 89), but it is also crucial, as cantons have jurisdiction over buildings, while the federal level has jurisdiction over energy efficiency in vehicles and appliances.

Description

Structure

Every decision regarding *SwissEnergy's* strategic orientations is made by a Strategy Group (*Strategiegruppe*), in which the federal government has the final word. Members of the Strategy Group include representatives from the cantons (the Conference of Cantonal Energy Directors), the federal government (Department of the Environment, Transport, Energy and Communications – DETEC) and from the industry and the civil society (trade and industry associations, environmental NGOs). *SwissEnergy* is managed by the Federal Office of Energy (a division in DETEC).

Implementation of *SwissEnergy* is carried out by sixteen official partners, several unofficial co-operators and the cantons themselves. Official partners are private entities meeting selection criteria, designated to implement the programme in a specific sector. For instance, the official partner *SwissEnergy for Communities* is a private association managing a certification scheme for cities to improve their energy performance (the Energiestadt label). Furthermore, to implement *SwissEnergy*, the federal government resorts to a system of labels and voluntary agreements. Labels apply to entities, products and services alike. They are meant to reward frontrunner initiatives within each of *SwissEnergy's* fields of action. Besides, servicing contracts (contrats de prestations) are used in order to consolidate voluntary schemes by imposing minimal thresholds of constraints on voluntary agreements, in an effort to ensure that the latter deliver results.

⁴⁵ The Energy Act, the Kyoto Protocol and the CO₂ Act.

An external consultancy provides the federal government with a yearly impact assessment of *SwissEnergy* and of the cantons' policies. The latter evaluation is then used to determine each canton's part in the programme's funding.

Funding provisions

In 2007, the federal government funded *SwissEnergy* with CHF 39 million (7% less than in 2006). Out of this amount, CHF 13.6 million were dedicated to promote rational use of energy in public administrations, appliances, mobility and the economy; another CHF 13 million were distributed to the cantons as global contributions under the Energy Act. Distribution of the global contributions depends on each canton's planned actions and performance (see above). As it is mandatory for the cantons to match the levels of federal funding, cantons contributed another CHF 35.5 million funding to direct measures as well as indirect promotional pilot and development measures, bringing total public funding to CHF 74.5 million. It is estimated that private investment generated by all measures amounted to CHF 1.06 billion. In terms of financing channels, *SwissEnergy* distributes all funding to the cantons, which in turn distribute the funds to the beneficiaries.

History

SwissEnergy was preceded from 1991 to 2000 by *Energy2000*. *Energy2000* had been strongly opposed by the cantons, as the programme enabled the federal government to bypass the cantons and grant funds directly to the beneficiaries. *SwissEnergy* has largely built on *Energy2000*'s successes, existing networks and partnerships. In 2005, the programme was refocused on five priority areas, of four themes.

Analysis

Multi-level governance innovations

SwissEnergy's main innovation lies in its partnership approach. The approach enables strong cooperation between the cantons and the federal government. Besides, *SwissEnergy* relies extensively on public acknowledgement of partners (through the official partners' certification) and products and services (through labels). Public acknowledgement is expected to engage target groups more actively through stimulating competition and rewarding the best-performing players.

Results

SwissEnergy's annual report for 2007 mentions good results despite less funding. However, the impacts fell for the first time since 2001, for two main reasons: decreased federal funding to a historic-low and the simultaneous *Climate Cent Foundation* initiative that implemented substantial promotion measures overlapping with *SwissEnergy*.

The continuing impact on energy consumption of all voluntary measures introduced by *Energy2000* and *SwissEnergy* combined amounts to 31.6 petajoules.

The energy-related impact per CHF invested has approximately tripled between 2002 and 2007. In the rational energy use sector, *SwissEnergy* has met only half of its targets (e.g. the increase in electricity consumption was curbed to +9.7%, still far from the 5% aimed for by 2010 compared against 2000 levels).

In terms of impacts on the economy, *SwissEnergy*'s net effect on employment is equivalent to approximately 5100 person-year.

Strengths

Key energy efficiency stakeholders are engaged through the partnerships and rewarded with responsibility and funding. As a result, more and more players from industry and from environmental circles use the programme.

Challenges

The Annual Report of *SwissEnergy* for 2007 emphasises the need for implementation of additional, more stringent economic measures. With regard to the difficulties in implementing the latter, *SwissEnergy* can be considered as a politically-sensible tool which might prove difficult to structurally reform, despite legal provisions to do so. However, attempts have been made at further specialising the programme (in 2005 for instance) and making it more effective.

Domestic transferability

While the programme covers a large number of local authorities and other stakeholders, it meets with difficulties when it comes to deepening the general level of commitment to the objectives.

International transferability

SwissEnergy can be regarded as a good example for federal governments whose regional levels of government have strong powers in the field of energy. Several aspects of *SwissEnergy*, such as labelling and privileged partnerships, should prompt interest from all countries, notwithstanding their institutional system.

Sources and contacts

- Hans-Peter Nützi - Head of Swiss Energy Section and deputy programme head - hanspeter.nuetzi@bfe.admin.ch
- *EVALUATION: Recipes that work and new horizons*, 7th Annual Report of SwissEnergy 2007/2008



Nature of participation: **Voluntary**
Levels : **National, Municipal**

Legal basis: **Programme**

Budget: **EUR million p.a.**

Objective: *To tackle fuel poverty in the UK*

Context: **The national government has changed roles with time, going from funding to monitoring the implementing company. The company is owned by a “national charity”**

3.28 WarmZones (United Kingdom)

Rationale

WarmZones is a programme indirectly supported by the UK national government and local councils to address fuel poverty⁴⁶ and improve the take up of energy efficiency measures in so-called *Warm Zones*. Each zone has its own business plan containing specific objectives and targets co-defined by local councils.

The approach involves the direct, door step assessment of the energy efficiency standards, the household income and the welfare benefit status of every household in the area covered. This is followed by the coordinated delivery of a range of energy efficiency improvements and related services to meet the needs identified. This approach was conceived to recruit households that would normally have missed

out on poorly publicised schemes⁴⁷.

The UK government has no direct involvement, either financial or managerial, in the operation of *Warm Zones*. However, it funded the pilot programme and is now present through an independent, government appointed, regulator who provides external endorsement of the not-for-profit and community benefit status of the coordinating *WarmZones Community Interest Company* (WZcic). *Warm Zones* are operated on a non profit basis to ensure that implemented solutions would always be the best solutions available.

Description

Structure

WZcic establishes Local Partnerships (LPs) with local councils and various local actors. LPs consist in:

- Setting-up management structures, acquiring resources, establishing the assessment process, developing a marketing strategy and setting up monitoring and reporting systems.
- Defining each partner’s role.
- A door-to-door assessment whereby assessment teams systematically contact households on a ward-by-ward basis throughout a local district to assess income and required fuel costs.
- Progress with achieving the government’s target for fuel poverty reduction, as set out in the UK Fuel Poverty Strategy, is monitored using a core set of data from the English House Condition Survey (EHCS).

⁴⁶ According to the UK Fuel Poverty Strategy, " a fuel poor household is one that needs to spend more than 10% of its income on all fuel uses and to heat its home to an adequate standard of warmth".

⁴⁷ By contrast, the WarmFront benefits check service is telephone-based and confined to eligible people who contact WarmFront.

- Referral, i.e. giving households access to the various forms of help such as Warm Front, priority Energy Efficiency Commitment (EEC), energy and benefits advice, etc.
- Implementation of hard measures (typically, insulation works).
- Implementation of soft measures (typically, giving advice on the various applicable schemes).

Funding provisions

In 2008-2009, the WZcic turnover was GBP 18.3 million of which GBP 13.7 million was the cost of physical energy efficiency measures and GBP 4.3 million operating expenses. The latter includes the provision of a range of services including income maximisation and energy advice. In addition, WZcic was responsible for coordinating the delivery of a further GBP 7.6 million of energy efficiency improvements held by partner organisations, mainly municipalities.

Funding for the energy efficiency measures and other services delivered by the zones is provided by a number of sources including the fuel supply companies Carbon Emissions Reduction Target programmes (i.e. a licence requirement on the energy supply companies to invest in measures that reduce carbon emissions), national government energy efficiency grant schemes, EU funds and city council capital programmes.

History

In 2001, Warm Zones Limited was formed as a membership company, by National Energy Action (the UK energy efficiency NGO), EAGA (the agency that administers the UK Government energy efficiency grant programme), Transco (the UK gas transporter), Powergen (now Eon) and two independent consultants. The UK national government provided GBP 7 million to help run a pilot phase from 2001 to 2004.

Analysis

Multi-level governance innovations

The innovation is many-fold. First, the UK government introduced in 2006 Community Interest Company (cic) status (WZcic achieved cic status in June 2008). This status is open to companies that wish to have independent verification that they are run primarily for community benefit. Cics are regulated by the government-appointed *Regulator of Community Interest Companies*. Cics must define their community of interest (here, addressing fuel poverty).

Innovation also lies in the combination of strong knowledge of the field by local councils and promotion of the whole range of national initiatives available for households, enabling relevant targetting of households.

Results

There are currently 15 operational zones. In 2008, *WarmZones* prompted implementation of *Warm Front* measures to the value of more than GBP 4 million in over 8000 households. To this date, it is estimated that insulation measures alone have delivered annual CO₂ savings of 30 000 tonnes. Five of the six major energy supply companies have been reported as finding *Warm Zones* a cost effective delivery route for their CERT programmes.

Strengths

Independent evaluation in 2005 has showed that “Zones were a catalyst for drawing down a considerably higher level of energy efficiency funding than might have occurred without the Zones’ presence”. The priority placed by Zones on soft measures such as recruiting households into other programmes proved very effective.

Challenges

The zones earn management fees from the delivery of programmes and the management fees contribute to the operational costs of the zones. However, there is usually a shortfall in the revenue funding and the city council is usually required to make funding and other assistance available before a zone can operate. Besides, it is likely that the CERT funding will reduce in the next few years, which should restrict the availability of funding for new zones.

Domestic transferability

Discussions are taking place with a number of local authorities and other potential partners with a view to establishing new zones. As each zone must be financially self sufficient, a key element of these discussions is identifying sufficient funding to meet the running costs.

The position on local government capital programme is unclear. The general economic climate is likely to restrict government expenditure and, as a result, the housing capital programme is likely to reduce in the near future. Similarly, it is unclear the extent to which energy efficiency will be prioritised in this reduced level of funding.

International transferability

There are a number of key issues associated with the successful delivery of *Warm Zones*. Funding is one of these. For a coordinated national programme, it will be vital to ensure both sufficient capital funding is available to deliver the energy efficiency measures required and to meet the revenue costs. The experience of *Warm Zones* suggests that in most cases, because of the emphasis on social benefit and the provision of additional services, there is a revenue funding gap between the zone costs and the income from management fees for delivering the various programmes. Central funding, to meet this gap, would greatly accelerate the development of zones. Another key issue is the commitment of the local councils. Evaluation of the pilot phase identified a lack of local authority commitment.

Sources and contacts

- William Gillis, Managing Director, Warm Zones CiC – williamg@warmzones.co.uk
- EVALUATIONS : Warm Zones external evaluation final report, March 2005 (www.warmzones.co.uk/050301%20-%20Warm%20Zones%20Evaluation%20Final%20Report.pdf) and NEA impact report, 2007-2008 (<http://www.nea.org.uk/nea-2007-2008>)



Nature of participation: **Voluntary**

Levels: **State, Indian tribes, Territories**

Legal basis: **Various regulations**

Budget: **USD 5 billion**

Objective: *To provide federal funding for local energy efficiency projects that decrease fuel poverty*

Context: **The ARRA greatly increased the programme's budget and changed the rules**

3.29 Weatherization Assistance Program (USA)

Rationale

The *Weatherization Assistance Program* (WAP) provides federal funding to states, U.S. territories, and Indian tribes for projects aimed at decreasing fuel poverty by improving the energy efficiency of eligible families' homes.

WAP is administered by the Department of Energy (DOE) *Energy Weatherization and Intergovernmental Program*. Coordination between levels of government is important in the United States as federal and state agencies are responsible for different energy-related issues. By teaming up with state and local agencies to improve energy efficiency, the federal government can better address federal challenges such as energy security, fuel poverty and climate change.

Description

Structure

The DOE disperses WAP funding to the states. Individuals then apply for funding from designated state agencies. The roles of each actor are as follows:

- The DOE sets national guidelines for eligibility and determines the technical merit of proposed energy efficiency measures.
- The DOE also documents energy savings and provides technical training and assistance to weatherization service providers.
- The states determine standards and eligibility in each state. They form contracts with local weatherization agencies and monitor their work to ensure quality.

DOE field offices monitor states' use of funds. If they feel that funds are being misused, they conduct a site visit. Usually, if there is a claim of misused funds (or poor service) at a local level, the state government has jurisdiction. In only a few cases has the DOE got involved in a state issue. The DOE can suspend money to a state if the state is found to be misusing the funds. The state can put local agencies on probation if money is not being correctly used. The overall programme, including DOE, state and local authority action, is monitored by Congress.

Any household at, or below, 200% of poverty level is eligible to receive funding. There are approximately 38 million eligible households in the United States. Priority is given to the elderly, people with disabilities and families with children. Energy improvements must have at least a BC ratio of one.

Funding provisions

Each year, the U.S. Congress (specifically the Senate and House Interior Appropriations committees) decides how much funding to allocate WAP. Under the American Recovery and Reinvestment Act (ARRA) of 2009, USD 5 billion will be distributed to states, Indian tribes, the District of Columbia, and for the first time, U.S. territories in this funding period.

According to DOE, from the total congressional appropriation, DOE reserves funds on a national, state and local level for national training and technical assistance (T&TA) activities. Total T&TA funds cannot exceed 10% of the total congressional appropriation for the year.

States receive the remaining funds as programme allocations. These consist of two parts, with the first based on a fixed state to state allocation, totaling USD 171 258 000. The second part is a formula allocation, based on three factors for each state:

- The size of the low-income population.
- Climatic conditions (heating and cooling degree-days).
- Residential energy expenditures by low-income households.

History

The current programme was first designed during the 1970s in response to rising energy prices and concerns about energy security. It was redesigned under the ARRA, but some form of this programme has been in existence for thirty-two years (1976). Funding has changed depending on Congress' priorities for energy efficiency. With the ARRA, several of the statutes of the *Weatherization Assistance Program* have been amended. For example, before, only 10% of funding could go to training and technical assistance, now 20% can. The statute now applies to households at or below 200% of the poverty level, as opposed to 150% before.

Analysis

Multi-level governance elements

The WAP involves collaboration and checks and balances at several levels of government. For example, Congress monitors DOE, DOE monitors states, and states monitor implementing agencies. Each level has autonomy to make its own decisions based on the priorities for that level of government under the umbrella of the overall federal government strategy.

Results

This programme has provided weatherization services to more than 6.2 million low-income households to date.

The DOE finds co-benefits include creating an average energy savings of USD 344 per year and USD 5505 over the life of the measure (Energy Information Administration, 2009), reducing participating household's annual gas heating consumption by 32% and improving health & safety by eliminating energy-related hazards.

Strengths

National government gains experience working with states in an area normally outside of its jurisdiction. Technicians and weatherization service providers can receive training in training centers publicised by DOE.

Challenges

This system has helped 6.2 million low-income families. It does not mean that 6.2 million homes are now equipped with the most efficient equipment. Technology has evolved over the 32 year period, and the 6.2 million includes all homes with improvements over this period, even if measures taken twenty years ago are no longer best practice.

The very short timeline means that the national government and states do not have much time to craft sustainable projects. Although, the national government encourages states to use the money to create value over time, states are tempted to use it on infrastructure. States and cities have differing capabilities in the area of energy efficiency. Due to time pressures, DOE may not have enough time to assist the states and local governments with their proposals and implementation.

Domestic transferability

The large increase in funding through the Recovery Act should allow many more people access to this programme across the country. However, once this funding has been exhausted, it is unlikely the programme will benefit from the same level of funding support in the future. DOE officials said that it is very important for the private sector to get involved with financing these kinds of projects to ensure more free-market implementation in the future.

The DOE is currently exploring options to get utilities more involved with low income weatherization.

International transferability

Many countries have similar programmes in place to assist low income families with weatherization. Some countries have increased funding for these programmes through stimulus acts.

Sources and contacts

- EERE website - www.eere.energy.gov/wip/
- Mark Bailey – DOE – (001)-877-EERE-INF



Nature of participation: **Voluntary**

Levels: **National, Municipal**

Legal basis: **Contract**

Budget: **EUR 240 000 in prize money**

Objective: ***To prompt climate and energy efficiency action at the local level***

Context: **One of Germany's several competitions for municipalities in the field of climate change and energy efficiency**

3.30 Wettbewerb Kommunalen Klimaschutz (Germany)

Rationale

The *Wettbewerb Kommunalen Klimaschutz*⁴⁸ (WKK) is a competition initiated by the German Federal Ministry for Environment (BMU) and arranged by the German Institute of Urban Affairs (DIFU) to reward the most innovative cities and districts in actions which create a notable reduction of CO₂ emissions. Nine awards are handed out, standing for three winners in three categories:

- Technical and/or structural measures in municipal buildings and facilities.
- Local climate policies and strategies.
- Awareness-raising among the population.

Depending on the category, between EUR 10 000 and EUR 50 000 are allocated to the awardees, who must then invest the prize in climate protection projects.

The BMU uses the WKK to develop the potential for local action against climate change, as an element of its 2008 *Nation Climate Protection Initiative* (NCPI). The goal of the Climate Initiative is to tap existing potential for reducing emissions in a cost-effective way and to advance innovative model projects for climate protection. In the context of the NCPI, municipalities are an important target group.

Description

Structure

To submit an application, local authorities had to provide a description of the project including -if procurable- sections on CO₂ emissions reductions achieved and cooperation with stakeholders.

Only realised projects could qualify for the competition. The criteria for selection in 2009 notably included actual CO₂ emissions reductions achieved and potential for reproducibility in other local authorities. The jury comprised representatives from the BMU, the Federal Environment Agency (Umweltbundesamt), the Association of Municipalities, the Association of Counties and the Association of Towns and Municipalities.

Awarded municipalities had to reinvest the prize money in other climate protection projects, thus further effecting climate protection projects.

The competition is operated by the Service for Municipal Climate Protection (SKK), a project funded by the BMU, and established at the DIFU in the summer 2008, to promote federal initiatives against climate change at the local level. The SKK serves as a service and consulting organisation for municipalities by guiding them through the various support modules of the BMU support programme. Management of the SKK was entrusted to the German Institute of Urban Affairs (DIFU), a joint-venture company funded by more than 100 contributors, of which most are cities, municipal authorities and planning bodies to “facilitate problem solving in municipal government through sound academic research”.

⁴⁸ Cities against Climate Change Competition

Funding provisions

The competition is entirely funded by the BMU. The overall prize money equals EUR 240 000 (three categories, three winners in each category: EUR 50 000 prize money in category one, EUR 10 000 in category two and EUR 20 000 in the third category). The running costs were not specified; they are part of the project budget for the SKK.

History

The competition was right from the start part of the concept of the "Servicestelle", and, is fixed in the project description. Funded by the BMU, the "Servicestelle" will arrange the competition *Kommunaler Klimaschutz* again in 2010, most likely in the same way as in 2009. The preparation will start in the last quarter of 2009.

Analysis

Multi-level governance innovations

There are several innovations in this case study. The main innovation lies in the use of a competition to prompt cities to take action. With limited funding, significant results were achieved (see results section below). Besides, the national government ensured that the winners of the competition would keep on investing in climate protection projects by mandating that prize money be reinvested in such projects. Another innovation was to entrust an entity based on municipalities (the DIFU) with running the competition.

Results

For the 2009 session of the WKK, 221 local authorities applied. The total number of submissions was higher than originally expected by the WKK managers. Submissions were fairly equally distributed between the three categories. DIFU estimates that the submitted projects created a reduction of approximately 580 000 Tonnes of CO₂ per year. It is thought that actual results were probably much higher, as some participating cities entered projects whose effects can not be measured in figures (essentially in the competition categories "strategies" and "awareness-raising activities"). According to this, the CO₂ emission reductions are probably much higher.

Strengths

The competition was immediately successful. Due to intense public relations, the competition attracted attention to the field of communal climate protection. The participants of the competition act as multipliers and motivated other municipalities or private individuals to take action.

Challenges

Two months elapsed between the closing of applications and the awards handed out. This timeline was considered as slightly too short to properly process the high amount of submissions.

Moreover, in some cases, the discrimination between category two and three (see descriptions in rationale section) caused problems. In particular, some municipalities submitted the same contribution for both categories or did not choose the adequate category.

Domestic transferability

Other competitions exist in Germany, such as the *Wettbewerb Bundeshauptstadt Klimaschutz* (WBK) run by the NGO *Deutsche Umwelthilfe* and indirectly funded by the federal government. The main differences consist in different criteria being used in both competitions, and the fact that the WBK ranks the participants, while the WKK does not.

International transferability

Competitions are a cheap and effective way of stimulating municipalities. Other examples, featured in this report, include the *Japanese Eco-Model Cities* competition. However, to be successful, competitions must be well promoted. In this regard, networks of local authorities have proved very effective in the case of the WKK.

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Annex 1: Description of how scores were allocated to case studies for key elements of the MLG framework

The following indicates the grades used to evaluate each case study based on the key elements of a multi-level governance frameworks.

Modes of governance

A grade of

- 1 Indicates that the primary mode of governance of the arrangement is *by authority*.
- 2 Indicates the primary mode of governance is *by provision*.
- 3 Indicates the primary mode of governance is *through enabling*.
- 4 Indicates the primary mode of governance relative to the arrangement is *self-governing*.

Level of inclusion

A continuum of grades from 2 (indicating that only two levels of government are involved in the arrangement) to 5 (arrangements involving 5 of the following players: the international, national, regional, departmental/county and municipal levels of government and the civil society). The higher the number the more participants involved in the MLGEE.

Type of energy efficiency measures promoted

A continuum of grades from 1 (designating arrangements promoting direct measures only (construction works, insulation, street lighting retrofits, etc)) to 5 (designating arrangements only promoting indirect measures such as dissemination of information, training of professional staff, etc.). The higher the number, the greater the degree of indirect measures promoted by the MLGEE.

Initiation and decision-making process

A continuum of grades from 1 (to indicate totally bottom-up arrangements, where both initiation and decision-making process are situated at lower levels of government) to 5 (refers to totally top-down arrangements). The higher the score, the greater the degree of top-down elements in the MLGEE.

Nature of participation

A continuum of grades from 1 (designating arrangements with a primarily mandatory participation) to 5 (designating totally voluntary participation). The higher the score, the more voluntary the nature of the MLGEE.

Formality of administrative structures

A continuum of grades from 1 (indicating an arrangement relies on a body a rule enshrined in a legally-binding text (contract, constitution, law), on dedicated physical structures with comprehensive organisational structures (agencies, offices, etc) and on official channels of communication) to 5 (for arrangements relying on no such texts and structures and where communication between the players is mostly informal). The higher the score, the less formal the structures.

Level of accountability

A continuum of grades from 1 (designating arrangements involving pre-screening procedures, regular, external ongoing monitoring, ex-post evaluations and communication of the results to the general public) to 5 (designating arrangements comprising no monitoring and reporting mechanisms). The higher the score, the less the level of accountability.

Budget size

A continuum of grades from 1 (designating arrangements necessitating budgets below EUR 1 million per annum) to 5 (designating arrangements involving more than EUR 200 million). The higher the score, the greater the budget size.

Funding symmetry

A continuum of grades from 1 (indicating that the costs afferent to an arrangement were born equally by all levels of government involved) to 5 indicates that one level of government only covered all costs and expenses related to the development and operations of an arrangement.

Annex 2: Scores allocated to case studies

		Modes of governance	Level of inclusion	Types of measures promoted	Initiation and decision-making process	Nature of participation	Formality of administrative structures	Level of accountability	Budget size	Funding symmetry
1	ASCEE (Canada)	4	2	5	3	5	4	4	1	4
2	Cities for Climate Protection (Global)	4	4	4	1	5	3	4	2	3
3	CONCERE-ENOVER (Belgium)	4	2	5	3	5	3	4	1	3
4	Covenant of Mayors (EU)	2	3	1	3	5	2	3	5	5
5	Crown Energy Efficiency Loan (New-Zealand)	3	2	1	5	5	2	1	2	3
6	ECO-Buy (Australia)	3	3	4	3	5	3	3	1	5
7	Eco-Model Cities (Japan)	2	2	3	4	5	4	2	?	5
8	Energy Efficiency Agreements (Finland)	2	2	1	5	5	2	2	1	4
9	EE and Conservation Block Grant Program (USA)	2	4	1	5	5	2	3	5	3
10	Energy Efficiency Coordination Board (Turkey)	1	2	5	5	1	4	3	1	5
11	EECU (Ukraine)	4	2	5	1	5	1	4	1	4
12	EEA (Europe)	4	5	4	2	5	1	2	2	1
13	Espaces Info Energie (France)	2	5	4	4	5	2	2	3	3
14	Green Municipal Fund (Canada)	2	2	2	4	5	2	1	5	4
15	Heizspiegel (Germany)	3	2	4	1	5	2	4	1	4
16	Klimaatconvenant (Netherlands)	2	3	3	3	5	2	3	3	3
17	LIP and KLIMP (Sweden)	2	4	1	4	5	2	1	4	3
18	LREA (EU)	3	5	4	2	5	1	3	3	2
19	Local Promotion Program (Australia)	2	2	4	3	5	4	3	1	5
20	Local Sustainability Accord (Australia)	3	3	5	4	5	4	3	2	5
21	Low Income Retrofitting Project (Greece)	2	3	2	5	5	1	3	?	3
22	MOVELE (Spain)	2	3	2	4	5	2	3	3	4

		Modes of governance	Level of inclusion	Types of measures promoted	Initiation and decision-making process	Nature of participation	Formality of administrative structures	Level of accountability	Budget size	Funding symmetry
23	Paranacidade (Brazil)	1	4	3	4	1	1	1	2	4
	Public Sector Energy Efficiency Program	2	3	5	4	5	2	2	3	4
24	(Hungary)									
	Regional Market for Third-Party Financing	3	3	2	3	5	3	3	3	3
25	(Austria)									
26	State Energy Program (USA)	2	2	1	5	5	2	3	5	5
27	SwissEnergy (Switzerland)	2	4	3	4	4	4	3	3	2
28	WarmZones (UK)	3	3	2	4	5	1	2	3	2
29	Weatherization Assistance Program (USA)	2	3	1	5	5	1	3	4	5
	Wettbewerb Kommunaler Klimaschutz	3	2	3	4	5	2	3	1	5
30	(Germany)									

Annex 3: List of interviews taken

ALFANO Patrick	EIEs Programme Coordinator	ADEME	Phone, semi-directive	1 July 2009	Espaces Info Energie (FR)
BAILEY Mark	State and Local Team Leader	US Department of Energy	In person, free	1st June 2009	EECBG, SEP, WAP (US)
BALLESTEROS Pedro	Programme Manager	European Commission, Unit D.3	Phone, semi-directive	4 May 2009	Covenant of Mayors (EU)
BERES Antonia	(formerly) Project Manager	UNDP	Phone, semi-directive	27 May 2009	Public Sector Energy Efficiency Programme (HU)
BURKE Sean	Managing Director	New Frontier services	In person, semi-directive	4 June 2009	LREAs (EU)
CORNUT Bernard	Senior Advisor	ADEME/Turkish Ministry of Environment and Forests	Phone, semi-directive	1 July 2009	Energy Efficiency Coordination Board (TK)
DUCH Annekatrin	Heizspiegel Project Manager	co2online	Phone, semi-directive	1 July 2009	Heizspiegel (DE)
DELY Kristina	Head of European Affairs	Energie-Cités	In person, semi-directive	7 May 2009	COM (EU)
EGGER Christianne	Deputy Manager	O.Ö. Energiesparverband	Phone, semi-directive	1 July 2009	Regional Market for Third-Party Financing (AT)
FICKL Stephan	Klimataktiv Management	Austrian Energy Agency	Phone, semi-directive	8 June 2009	EEA (Europe)
HERMANSSON Karin	Project Manager for Klimp Programmes	Naturvårdsverket (Swedish Environmental Protection Agency)	In person, semi-directive	13 May 2009	LIP and KLIMP (SE)
KOPETS Anatoliy	Executive Director	Energy Efficient Cities of Ukraine	Phone, semi-directive	17 March 2009	EECU (UE)
LEGER Jean-Guy	Member of the Cabinet	Province of Quebec, Ministry of Natural Ressources	Phone, semi-directive	2 July 2009	ASCEE (CAN)

LEGRO Susan	(previously) UNDP-GEF Regional Coordinator for Energy and Climate for the Regional Bureau for Europe and the CIS	(now) Eco Ltd	Phone, semi-directive	7 May 2009	Public Sector Energy Efficiency Programme (HU)
MURAKAMI Shuzo	Chairman	Committee for Creating Eco-Model Cities and a Low Carbon Society	Phone, semi-directive	7 May 2009	Eco-Model Cities (JP)
NADEAU Jacques	Senior Manager	Federation of Canadian Municipalities	Phone, semi-directive	2 July 2009	Green Municipal Fund (CAN)
NOVAK Marie	Attaché	Federal Government of Belgium, Directorate General Energy SenterNovem	In person, free	21 April 2009	CONCERE-ENOVER (BE)
NIJSINK Gert	Climate Menu Manager	IDEA	Phone, semi-directive	2 July 2009	Climate Covenant (NL)
PLA DE LA ROSA Juan Luis	Head of Transport Department	IDEA	Phone, semi-directive	2 July 2009	MOVELE (SP)
ROBERTS Nancy	Advisor	NRCan	Phone, semi-directive	3 July 2009	ASCEE (CAN)
RUFF Beat	Project coordinator	SwissEnergy	Phone, semi-directive	8 June 2009	SwissEnergy (SW), EEA (Europe) (for Switzerland)
SANTAMOURIS Mattheos	Professor	University of Athens	In person, free	11 June 2009	Low Income Retrofitting Project (GR)
SILVONEN Seppo	Head of Unit	Motiva Oy	In person, semi-directive	12 May 2009	EEA (FI)
SÖDERBERG Åsa	Deputy-Head Investment Support Council	Naturvårdsverket(Swedish Environmental Protection Agency)	In person, semi-directive	13 May 2009	LIP and KLIMP (SE)
SOEWARTA Stina	Member of the Cabinet	European Commission, Cabinet of the Commissioner for Energy	In person, semi-directive	7 May 2009	COM (EU), LREAs (EU)

SOITINAHO Ulla	Head of Energy Management Work	City of Helsinki	Phone, semi-directive	25 March 2009	EEA (FI)
VAISANEN Heikki	Senior Advisor	Ministry of Employment and the Economy / Energy Department	In person, semi-directive	12 May 2009	EEA (FI)
VORWERK Ulrike	Research Assistant	Deutsches Institut für Urbanistik	Phone, semi-directive	3 July 2009	Wettbewerb Kommunalen Klimaschutz (DE)

Annex 4: Copy of interview questions

Part 1: Programme Description

1. Name of programme
2. Information of person interviewed.
 - Name:
 - Position:
 - Responsibility:
 - Telephone:
 - Email:
3. Date of survey completion (dd/mm/yyyy)
4. What agency/organisation is responsible for the programme?
 - Organisation Name:
 - Website:

Part 2: Programme History

- a. Who/what was the catalyst for this programme? (an event/emergency, a law/mandate, a person, a process)
- b. What was the principle reason the programme was established?
- c. Was it modelled after another programme?
- d. How long did it take to establish?
- e. What were the principle obstacles to its creation?
- f. Which institutions/agencies/groups were the most/least supportive? Why?
- g. What compromises, if any, were made in its creation?

Part 3: Programme Description

- a. What were/are the expectations/aims of the programme?
- b. Is it meeting/did it meet the expectations of the founders and why?
- c. What is the scope of the programme?
- d. Who is responsible for the operation of the programme?
- e. What limits/broadens the reach of this programme? (mandate, financial/human resources, public support)

- f. What works well, what can be improved?
- g. How do you evaluate the success/failure of the programme?
- h. How has the program evolved and why?
- i. What are some of the foreseeable future developments of this programme?

Part 4: Programme Context (description of broader energy efficiency governance arrangements)

- a. What is the nature of the relationship between programme participants at different levels of government? (financial, collaborative, advisory, hierarchical, etc.)
- b. Does this programme require regular interaction between national and local government? If so, how often? Why? In what form?
- c. How does this programme link/relate to national/local objectives?

Part 5: Programme Transferability

- a. Is this programme, in your opinion, a model of cooperation between local and national governments?
- b. Would you recommend this programme to other countries?
- c. In your opinion, on scale of 1-5 (1 as easy and 5 as hard), how transferable would this programme be? Explain.
- d. What challenges would another country face in establishing this programme?
- e. Any other advice for a country interested in establishing a similar programme?



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