Why Americans Misunderstand European Energy Policies (and vice versa)

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ABSTRACT

Europe and North America would appear to offer excellent opportunities for cross-fertilization of energy efficiency policies and programs. But it is important to understand the context and background; otherwise, innovations will be misinterpreted and good ideas dismissed prematurely. Through a survey of the literature, we compiled a list of major points of miscommunication between efficiency experts in the United States and Europe. Examples of the contextual differences that lead Americans to misunderstand the European situation include realizing that Europe has different institutional setting and regulatory power and there is little evaluation of energy efficiency programs. On the other hand, Europeans are mystified why American utilities don't use "green" and "white" certificates. Europeans still think of air conditioning as a luxury and don't understand that Texas would not be inhabited without it. Both groups fail to take into account the differing division of responsibilities for energy efficiency between Brussels and the Member States or between Washington and the states. Finally, the same word can have either subtle or enormous differences in meanings. For example "standards" in Europe refer to test procedures, not regulatory efficiency requirements. Although institutional differences dominate interpretations of energy efficiency policies on both sides of the Atlantic, setting up a Rosetta Stone or primer on energy policy will improve understanding and can be a first step of more effective learning from each other.

Introduction

Europe and the United States would appear to offer excellent opportunities for cross-fertilization of energy efficiency policies and programs. But in fact each side has huge misconceptions about how the other side's institutions operate. Worse, experts from each side often aren't aware of their own misconceptions and operating assumptions. The result are conversations where words are exchanged but actual concepts are never grasped. Only part of the problem can be blamed on the English language - though Europeans speak more "grammatically correct" English than Americans - but confusion is always possible. In Parliamentary procedure for example, both continents speak of a motion being "tabled", perhaps not realizing that it has the opposite meaning in British English and American English. In the energy efficiency business, Americans have a very different definition of "appliance standard" than Europeans. Imagine then how the sentence "She tabled a motion for new appliance standards" would be interpreted on the two sides of the Atlantic: in the EU to table means to propose, in the U.S. it means to discard or scrap. A larger part of the problem rests with the differences in institutional contexts for energy efficiency and the blizzard of acronyms that further obscure their meanings.

This paper's goals are to call attention to the unending opportunities for confusion in the energy efficiency sector, identify some of the frequent areas of miscommunication, and

(modestly) propose ways to minimize them. One of those solutions is the construction of a primer - perhaps Rosetta Stone is a more apt description?- to assist efficiency experts from one continent trying to navigate the literature, meetings, legislations, and institutions of the other continent.

This paper is structured as follows. We start with an overview of differences and a general analysis of what they mean for energy policies. Then we elaborate on two case studies: Ecodesign requirements versus MEPS (minimum efficiency performance standards) to illustrate the institutional setting, and energy efficiency obligations versus utility programs to illustrate the role of utilities. Finally we draw conclusions and provide recommendations on how to improve mutual understanding regarding energy policies.

Overview of differences regarding energy policies between U.S. and EU

Introduction

Policies are the result of a policy process that is embedded in a context. This context can be characterized in several ways: geographically, culturally, socially and economically, to name a few (see figure 1).

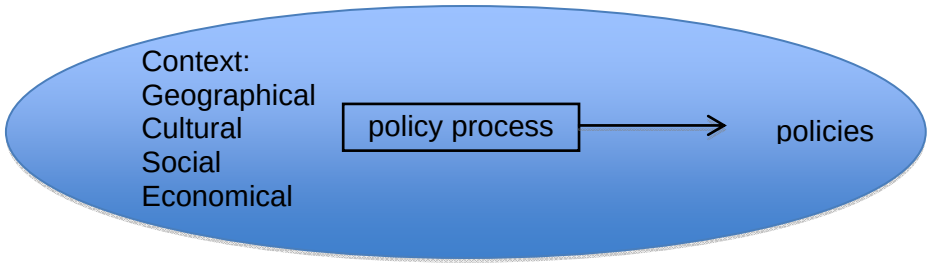


Figure 1 Policy process

In this paper we use this simple model to structure the analysis of differences regarding energy policies between the U.S. and EU in three main categories:

- The regulatory setting: policy process and policies
- The geographical situation, including resources
- Language as part of culture

In this section we provide a general overview of differences in these categories, in the next section we focus on specific topics (policies). We concentrate on public policy: a policy issued by a public authority.

Regulatory setting

Energy policy in the **U.S.** in the broader sense is initiated by the Executive Branch which covers the President, agencies and departments. The federal government proposes programs but Congress needs to authorize and approve funding before they may move forward. Congress can also propose and fund specific initiatives beyond those proposed the Administration. The Department of Energy (DOE) - whose head is appointed by the President - has most of the responsibilities for implementing national energy efficiency policies, but other agencies, such as the Environmental Protection Agency (EPA) and Department of Transportation (all from the Executive Branch), also have roles in their special areas. The Federal Trade Commission (FTC), supervises the energy labels on appliances.

Energy efficiency legislation in the U.S. began with the "Energy Policy and Conservation Act of 1975" (EPCA) (Pub.L. 94–163, 89 Stat. 871) in response to the 1973 oil crisis. It created a comprehensive approach to federal energy policy. The primary goals of EPCA are to increase energy production and supply, reduce energy demand, provide energy efficiency, and give the Executive Branch additional powers to respond to disruptions in energy supply. Most notably, EPCA established the Strategic Petroleum Reserve, the Energy Conservation Program for Consumer Products, and Corporate Average Fuel Economy regulations. The next significant piece of broad energy legislation was the Energy Policy Act of 2005 (EPAct 2005). It included several energy-efficiency provisions, most notably several appliance standards, new tax incentives, and federal energy management enhancements. Two years later the Energy Independence and Security Act (EISA) of 2007 was passed as a response to high energy prices and growing concerns about global climate change. EISA's most important provisions raised corporate average fuel-economy standards, established new, and strengthened existing, appliance and equipment efficiency standards, mandated new light bulb efficiency standards, and authorized industrial efficiency programs. The 2009 American Recovery and Reinvestment Act (ARRA) was the most recent major federal law featuring energy efficiency. This law's purpose was to stimulate the economy in the face of the Recession but also provided the single largest investment in energy efficiency in U.S. history. It allocated more than $25 billion for core energy efficiency programs, including appliance rebates, energy efficiency and conservation block grants, state energy programs, weatherization assistance, green buildings, tax incentives, and Smart Grid grants.

The most important recent non-legislative piece of federal energy policy in the EPA's "Clean Power Plan," which includes language on regulatory actions for power plants, and voluntary programs for efficiency (EPA 2016). On February 9, 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan, pending judicial review. It remains to be seen whether the court will allow the Plan to go forward. It is interesting to note that an earlier draft of the Clean Power Plan (EPA 2014) included assumptions on how much energy-efficiency programs would reduce power-plant emissions. These assumptions were subsequently removed in the approved draft, but there is still language that allows states to set emission targets that were reduced due to the assumed reductions resulting from demand-side energy-efficiency programs.

The DOE is in charge of what Americans call appliance energy efficiency standards (e.g., MEPS), and test procedures. Motor vehicle efficiency regulations are shared between several agencies. DOE also is a major player in supporting R&D in energy research, for which Congress authorizes funds. The EPA is primarily a pollution control agency and administers the Clean Air Act. Nevertheless, the Energy Star program originated inside the EPA (chiefly as a pollution control program) but is now shared with DOE. The Supreme Court evaluates and interprets whether the federal agencies have properly interpreted their statutory authority.

There is a complex mix of federal and state authority in energy issues. In the U.S., the federal government is prohibited from certain areas of energy policy. Specifically, the states have the sole authority to set retail rates for energy prices. The federal government can set wholesale rates, but the states are traditionally the locus of energy planning; for example, there are no federal Renewable Portfolio Standards, these are set by the states. EPA regulates energy sources, but cannot set requirements for the mix of energy sources.

In the European Union (**EU)** energy is part of the Treaty of the Functioning of the European Union (TFEU; 2010): Title XXI, Article 194. This article explicitly mentions as one of

the aims of Union policy on energy: to promote energy efficiency and energy saving and the development of new and renewable forms of energy. Energy is a shared responsibility between the Union and the Member States (Article 4 TFEU). The shared responsibility means that the European Union's principle of subsidiarity is employed: overall frameworks and goals are defined in Directives, whereas many detailed decisions on implementation and definitions are left to individual Member States. This generally applies for areas that don't cover free movement of goods such as renewable energy, buildings or general energy efficiency policies. Although energy policy has a long history in the EU (and its predecessors) only in 2015 a comprehensive framework on energy was published by the European Commission and adopted by the Council of Member States: the Energy Union package (COM(2015)80)[1]. The framework presented in this package is based on five "pillars". Here, "supply security" is on equal footing with "energy efficiency" along with "climate action - emission reduction", "a fully-integrated internal energy market" and "research and innovation (climate)". The launch of the Energy Union to our knowledge marks the first occasion when energy efficiency is described as the "First Fuel" in European Commission official policy documents. The Energy Union package bundles several already existing Directives, provides priorities for further policy action and provisions for monitoring progress (Road Map). Important Directives for energy (efficiency)[2] are the Energy Efficiency Directive (EED; 2012/27/EU), the Energy Performance of Buildings Directive (EPBD; 2010/31/EU), the Renewable Energy Directive (RES; 2009/28/EC), the Ecodesign and Energy Labelling Directives (2009/125/EC, 2010/30/EU) and the Internal Market Directives (2009/72/EC (electricity) and 2009/73/EC (gas)).

Two related aspects are important to note regarding energy efficiency product policy. EU product policy, whether regarding safety, health, environmental or energy aspects, is governed by the free movement of goods title in the TFEU (Article 28). This means that Member State regulations on products need to be notified and are only allowed insofar the Union has not acted or is not planning to act. Second, product policies are implemented by regulations meaning that the regulation is law in all Member States when it is published in the Official Journal of the European Union. On the contrary, Directives have to be transposed in national laws of the Member States before they can take effect. Especially regarding product policy a shift has occurred from Directives to regulations to ensure a level playing field.

Geographical situation

The **U.S.** is now exporting oil and natural gas, and coal as well, which is a change from historical practice of importing energy sources. In 2013, for the first time in nearly two decades, the U.S. produced more domestic oil than it imported. U.S. crude oil production is at a 24-year high, roughly 8 million barrels a day, exceeding total imports (White House 2013).

Regarding energy sources, the **EU** is the largest energy importer in the world with energy imports in 2014 valued at more than €400 billion (roughly US$440 billion at March 2016 exchange rates). In the 80s, the EU imported less than 40% of its gross energy consumption. In

[1] In this paper EU legislation and official communications are referenced with their official number and year. Using this reference in a search engine will provide a link to the number of the Official Journal of the European Union where the legislation can be downloaded.

[2] Mentioned are the latest versions of these Directives; most of them have predecessors, e.g. the EPBD from 2002 (2002/91/EC), the Energy Service Directive (ESD; 2009/125/EC) for the EED, whereas the first Labelling Directive dates back to 1979 (Council Directive 79/530/EEC).

2013 this had increased to 53 %, albeit with a peak in 2008 at almost 55%. Currently, almost 90% of crude oil, 66% of natural gas, 42% of solid fuels and 40% of nuclear fuel is imported (COM(2014)330)). Therefore decreasing import dependency by using less (fossil) fuels is one of the main aims of EU energy policy. Although the EU spans different climate zones, geographically it lies more north than the U.S.. Heating is a more prevalent function than cooling.

Language

In general language plays an important role in policy processes and actually most "output" of the policy process are words, e.g. laws, rules and guidelines. This also means that words are not "neutral", they reflect an attitude. An example is energy efficiency, or even better intelligent efficiency (which was used for one European Union energy efficiency and renewables funding program for a number of years), that has a more positive connotation than energy conservation, that is associated with restrictions and less wealth. Also, efficiency may refer to energy intensity, but not always. However, the descriptions of how various terms are seen in different cultural and/or language contexts are to a great deal based on speculation in the absence of surveys on the associations of language users that are connected to these terms.

Apart from how terms are perceived by people in their everyday life, terms often need interpretation or operationalization before they can be used in implementation of a policy. Sometimes, texts or words are on purpose not clear or not defined in order to achieve a compromise: constructive ambiguity (credited to Henry Kissinger). In energy policy an example is the term Nearly Zero Energy Buildings (NZEB) used in the EU in the Article 2.2 of the EPBD: the definition does not quantify 'nearly'. Instead, the EPBD requires Member States to define what NZEB is, which opens up for differences in definitions from "real" zero to energy uses as high as 270 kWh/m^2/year for non-residential buildings (BPIE 2015). It is interesting to note that the same acronym (NZEB) in the U.S. refers to a net zero energy building. Historically, net zero in the U.S. means that the amount of energy used by the building is (at least) equal to the amount of energy provided by on-site renewable energy sources (Torcellini 2006). However, the new (2016) definition by U.S. DOE refers to "source" and not "site" energy. "Source" energy is usually referred to as "primary" energy in the EU, whereas "site" energy is usually referred to as "final" energy in the EU. It should be noted that even with the term "nearly zero" the issue of on-site generation is important in the EU. The EPBD Article 2.2 definition of nearly zero energy building ends with "The nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby;".

In the EU, language is an extra dimension because the EU has 24 official languages. In practice preparations of energy policies and most negotiations are conducted in "English". Apart from the fact that interpretations of a text, e.g. a regulation, can differ between parties, the translation of an agreed text in English into the other official languages of the EU can lead to further discrepancies and is a source of errors.

Case studies

In this section we explore differences between EU and U.S. in more detail in two "case studies". First we focus on institutional settings in looking at how efficiency requirements for

products are set. Second we look at the role of utilities or energy companies in energy efficiency programs (or programmes). General conclusions and recommendations from the case studies are presented in the final section.

Ecodesign requirements versus MEPS[3]

The **U.S.** has a long history of minimum efficiency performance standards (MEPS) for products (Nadel 2003). In the U.S., the state of California was a pioneer in the introduction of MEPS. In order to reduce the growth in electricity use, the California Energy Commission (CEC) was given unique and strong authority to regulate the efficiency of appliances sold in the state. It started to adopt appliance efficiency regulations in 1978, and has updated the standards regularly over time, and expanded the list of covered appliances. The National Appliance Energy Conservation Act (NAECA) was passed by Congress and signed into law in 1987, and the efficiency levels in NAECA were based on what had been adopted in California and other leading states, especially Massachusetts. The federal standards pre-empted state standards (unless the state justified a waiver from federal pre-emption based on conditions in the state), and since then, DOE has had the responsibility to update the federal standards. California has continued to expand the list of appliances it regulates for appliances that are not federally regulated, and therefore not pre-empted; with in recent years a focus on consumer electronics.

The DOE rulemaking process is determined by the Process Rule of 1996 and can be summarized as follows (US DOE 2006, p. 18-31; especially figure 1 on p. 20); see figure 2 for a simplified representation.

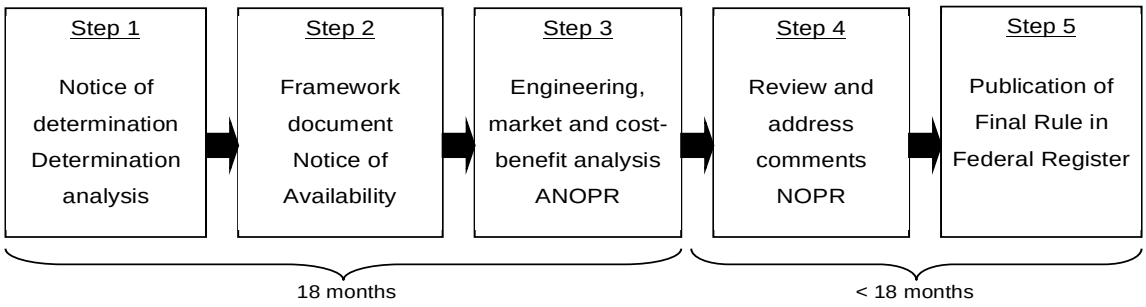


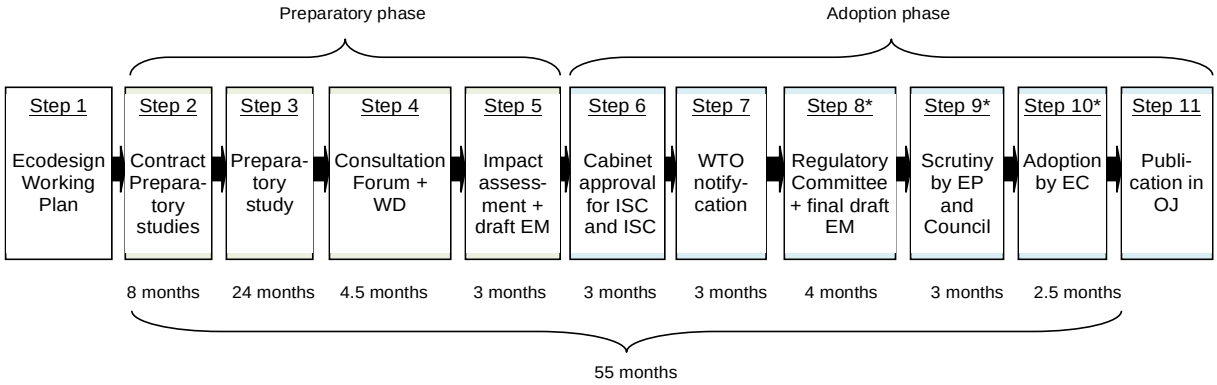
Figure 2 DOE rulemaking process

If there is not already a statutory or legislative mandate for DOE to set a standard for a certain product, the first step is a Determination Analysis to determine if a mandatory standard is technologically feasible and economically justified. To that extent a Notice of Determination for the product is published in the Federal Register and the public (i.e. stakeholders) are invited to provide input to DOE. Once DOE determines that a rulemaking will be undertaken, DOE prepares a Framework Document describing DOE's plans and posts a Notice of Availability, including the Framework and other relevant documents, on its website. Furthermore DOE asks again for comments and organizes a public meeting. In the third step an engineering, market and cost-benefit analysis is conducted. The results of this analysis are published in an Advance Notice of Proposed Rulemaking (ANOPR), including a Technical Support Document, in the Federal Register. The publication of the ANOPR is followed by a comment period and another

[3] Descriptions of the processes in EU and U.S. are based on Siderius (2014, p. 143-170).

public meeting. In the fourth step DOE revises the comments and addresses them in a Notice of Proposed Rulemaking (NOPR) which is published in the Federal Register. In the fifth and final step DOE considers again comments and takes them into account when publishing the Final Rule (i.e. the standard) in the Federal Register. The total process should not take longer than 3 years and the period from the publication of the ANOPR until the publication of the Final Rule should be less than 18 months.

Although the first minimum efficiency requirements in the **EU** were established in 1992 (Directive 92/42/EEC on efficiency requirements for new hot-water boilers), the number of minimum efficiency requirements in the EU boomed after the adoption of the (first) so called Ecodesign Directive (for energy using products) (2005/32/EC). This Directive did not set requirements itself but provided a procedure to adopt requirements for specific products. The process of preparing and adopting measures follows from directions in primary EU law, the Directives and internal Commission procedures; see figure 3 for an overview.



WD: working document; EM: executive measure; ISC: InterService Consultation; WTO: World Trade Organization; EP: European Parliament; EC: European Commission; OJ: Official Journal

*Regarding energy labeling executive measures, step 8 is not applicable and step 9 and 10 are exchanged, i.e. first the measure is adopted by the Commission and then it is sent to the European Parliament and Council for scrutiny.

Figure 3 Ecodesign process

The preparatory phase consists mainly of a study carried out by consultants (step 3). The preparatory study has to follow the MEErP methodology (Kemna 2011). The aim of this study is to provide the Commission with all the information that is needed to decide whether an Ecodesign measure for a product is justified and - if so - to prepare a draft working document. This draft measure is then presented to the Consultation Forum, i.e. a stakeholder meeting where industry, NGOs and Member State experts provide their opinion on the draft and discuss.

After internal procedures, impact assessment and InterService Consultation (consultation within the Commission), a final draft is presented to the Regulatory Committee. The Regulatory Committee consists of Member States' experts. It meets to discuss and amend the proposal of the Commission, and finally vote. To pass, the final text needs a qualified majority (see TFEU Article 238; this is a complex calculation). The voted text is sent to the European Parliament and the Council for scrutiny which means that each of them can not amend but only veto the measure by a qualified (Council) or a simple (Parliament) majority. If Parliament nor Council object, the Commission adopts the text and publishes it in the Official Journal.

From these descriptions the following differences appear. A first is in language: the EU publishes requirements whereas the U.S. publishes standards. However, also in EU legislation the term ‘standard(s)’ is used but this refers to measurement standards as published by standardization bodies.

More important differences exist regarding the content of the process. Figure 2 specifically mentions engineering, market and cost-benefit analysis as part of the DOE procedure. Although these elements are part of the MEErP methodology, they are far less prominent. As an example, the preparatory study for televisions only made a general remark on costs and assumed that all options to improve energy efficiency would be cost neutral. Furthermore, the EU Ecodesign Directive allows for so called ‘horizontal measures’, i.e. requirements that apply to a large number of product groups. In this way the EU has regulated standby and networked standby for almost all household appliances, consumer electronics and office equipment. Finally the political side differs. In the EU, Member States have direct influence on the content of the measures through the Regulatory Committee. In the U.S. there is no such influence of states. However, in the U.S., states have more freedom to set their own requirements and “progressive” states use this to press DOE to take action.

A consequence of these differences is that harmonization of product standards between the two sides of the Atlantic (within one cycle) is almost impossible. This would require an overarching authority with no or little possibilities for amendments on each side.

Energy Efficiency Obligations (EEOs) versus utility programs

Efforts in the **U.S.** for improving energy efficiency of electricity and natural gas energy efficiency are pursued through a diverse mix of policies and programmatic activities. These efforts include federal and state minimum efficiency standards for electric and gas end-use products; state building energy codes; a national efficiency labeling program (ENERGY STAR®, EnergyGuide); tax credits; and a broad array of largely incentive-based programs for consumers, funded primarily by electric and natural gas utility customers (Barbose 2013). There are over 10,000 electricity supply companies in the U.S., with at least a dozen significant different financial structures. The dominant structure, however, is an investor-owned utility, with tariffs or return on equity approved by a state regulator (Public Utility Commission - PUC). The PUCs often seek to influence utility operating practices by rewarding the utility for undertaking various energy efficiency programs and practices.

Since the 1970s, policy support and utility customer funding of energy-efficiency programs, in particular, have fluctuated. Utilities first launched substantial programs in the wake of the 1973 energy crisis, and the programs grew with the expansion of integrated resource planning and demand-side management during the 1980s and 1990s (ACEEE 2016). Since the 1990s, many state regulatory agencies and legislatures have sought to prioritize energy efficiency, in some cases strengthening and supplementing pre-existing policies by requiring comprehensive electric and gas system resource planning, developing funding mechanisms and energy savings targets, and creating business incentives for program administrators to deliver energy efficiency to customers. For example, some utilities offer consumers rebates when they buy high-efficiency products, exceed building codes, or implement lighting retrofits. The California PUC sought to make investments to save energy more financially attractive to generating it by “de-coupling” the utility revenues from profits. These kinds of incentives required utilities and regulators to agree on the amount of savings that utilities achieved beyond business as usual. Since the customers’ (“ratepayers”) funds are at stake, the regulators insist on

relatively strict evaluations (compared to Europe) of program effectiveness. Regulators and evaluators devote considerable effort distinguishing between gross and net savings, along with adjustments for rebound effects. The requirement for evaluation also influences the kinds of programs that the utility selects, that is, programs whose savings can be easily measured. For example, utilities have focused on lighting upgrades because they are easy to count and measure (and get reimbursed). Critics also blame the reimbursement frame for utilities trying to "cream-skim", that is, undertake only the most lucrative measures, bypassing other measures that would, in the long run, yield greater savings.

One lasting aspect of the developments in the 1990s is that non-utility organizations began to administer and provide ratepayer-funded customer energy-efficiency programs in several states. Depending on the state and the utilities, these programs target different sectors, but many offer programs for both commercial and residential buildings, and for both new construction and existing buildings. In some states, regulators have also extended demand-side planning, savings targets, or business incentive mechanisms from the electricity sector to large regulated natural gas utilities (Barbose 2013). The level of activity varies widely across the country. The American Council for an Energy Efficient Economy (ACEEE) lists the various efficiency programs, and rates states by their policy and program efforts (Gilleo 2015). Leading states are typically Massachusetts, California, and Vermont, while South Dakota and Wyoming are usually ranked at the bottom (Gilleo 2015). In addition to the state-funded efficiency programs, there are also policies and programs directed by individual cities. These activities are typically much more robust than activities at the federal level in the U.S..

In the **EU** utilities have been more associated with "energy market liberalization" than with energy efficiency programs. An important concept of the internal market Directives for gas and electricity has been and still is "unbundling": vertically integrated companies (public and private) should be unbundled in separate entities of production, distribution and retail. A consequence of unbundling is that retail companies - that have contacts with customers (residential, commercial, industrial) - have less or no interest in carrying out energy saving programs to delay or even avoid investments in production or distribution capacity. The European Commission realized this and started promoting the concept of White Certificates. In analogy with Green Certificates that allowed producers of energy from renewable sources to certify their production, White Certificates allow certification of energy savings. The idea of the Commission was that Member States would oblige utilities to achieve a certain number of White Certificates, representing a certain amount of energy savings. Utilities could operate energy saving programs themselves or buy White Certificates from other parties allowed to produce these. The Energy Service Directive (ESD; 2006/32/EC) contained this concept as a voluntary option for Member States. Some Member States introduced a White Certificate system, e.g. Italy and France, whereas the UK had a system with elements of White Certificates although the term was not used. However, there were important differences between these systems (RAP 2012). Also when preparing for the recast of the ESD, the Energy Efficiency Directive (EED), the Commission eventually proposed that Member States should introduce Energy Efficiency Obligation Schemes (EEOS) to achieve a target of 1.5 % energy savings per year. In the framework of the EED, White Certificates are seen as one type of EEOS. To be eligible for the target, the measures that deliver the savings must satisfy various criteria, amongst others 'additionality' (go beyond mandatory EU legislation) and 'materiality' (savings can be attributed to the measure). Also this time the published version of the EED did not contain EEOS as

obligation: Member States can use alternative measures to achieve the target. However, in the meanwhile more Member States have voluntarily introduced EEOS, although 12 combine EEOS and alternative measures. Furthermore, the EED aims to harmonize the monitoring and verification procedures regarding EEOS (and alternative measures).

As with White Certificates, EEOS fit into the "energy market liberalization" concept. The costs to carry out the energy savings programs can be absorbed in the energy tariffs. Because there is competition, the assumption is that energy companies will try to keep the costs as low as possible in order not to increase their tariff too much. Thus they will be stimulated to execute those measures that deliver most energy savings per € or buy energy efficiency obligations realized by others. A main point of criticism on EEOS is that they tend to direct the focus on quick-wins, short-term, easy to execute measures, thereby making long-term measures, e.g. deep renovation, more difficult.

In both the U.S. and EU energy efficiency program(me)s are managed on a (Member) State level. However, in the EU there has been a clear steer from "Brussels" (European Commission) towards EEOS, whereas in the U.S. the development is more bottom-up. Furthermore, EEOS seem to be broader than utility programs: EEOS can have other obliged parties than utilities. In the U.S., energy efficiency programs are generally developed by or with utilities, whereas in the EU the obligation is set upon utilities. The reason is that in the EU (with a strong emphasis on liberalization – the EU term for deregulation - of energy markets) utilities are not seen as natural allies for energy savings. A positive effect from EEOS may be that more attention will be paid to the evaluation of the effectiveness and efficiency of measures, which has been a weak point in EU energy policy.

As the Californian example on decoupling the utility revenues from profit shows, also the U.S. struggles with "additionality" and "materiality". For both the EU and U.S. the greatest change for efficiency program(me)s will probably come from the need to integrate ever more renewables.

Conclusions and recommendations

Conclusions

The first conclusion that we draw from the above comparisons is that Europeans and Americans define key words and terms differently, and that this can easily lead to substantial misinterpretations of the intent of legislation, reports, or even speakers.

Second, the EU and U.S. institutions responsible for setting energy efficiency policies draw upon vastly different empowering legislation. This affects the type of policies they adopt and processes through which adoption occurs. The types of policies that the EU can impose top-down differ markedly from the U.S. The U.S. can dictate appliance regulations through a straightforward administrative process, but states have the freedom to set requirements on products not regulated on the federal level. In the EU the room for product requirements on Member State level is more restricted, but EU Member States have more direct influence on setting efficiency requirements. The U.S. federal government has weak influence over each state's utility policies (especially with respect to energy efficiency); there is little way to transform local efficiency policies except by seeking changes state by state. The EU, on the other hand, can impose regulations on all European utilities, especially regarding the internal market.

The above means that where experts in the EU will probably first look at legislation at the EU level and then zoom in on Member States to analyze the specific implementation, experts in

the U.S. often start at state level – preferably leading states – and try to assemble a total picture from that information. To put this into perspective, it might be more a difference in approach than in final result, because in the EU the solution preferred by the Commission and the European Parliament may not be mandatory (as with EEOS) or the implementation has a large variety (as with NZEB). In such cases, studying the implementation in leading Member States may be more fruitful.

More in detail regarding product efficiency policy, we have shown that harmonization of product standards is almost impossible from a procedural point of view. Harmonization of measurement methods and metrics would pose less problems, certainly if those from international standardization (IEC, ISO) are used. Regarding EEOS or utility programs, the opportunities to learn from each other seems to be larger, but lie maybe more on the state and Member State level than on the U.S. and EU level.

As indicated language is the form of most output of the policy process and differences in (interpretations of) definitions and requirements can contribute to misunderstandings. However, apart from the institutional aspects, e.g. abbreviations, difficult to interpret or shifting terms are often the result of "constructive ambiguity". In order to reach a compromise between stakeholders, constructive ambiguity is used in both the U.S. and EU. The problem is that for those that were not involved in the process of establishing a certain piece of legislation, e.g. people from the U.S. regarding EU legislation and vice versa, constructive ambiguity increases the difficulty to really understand the legislation.

In summary, "making something happen" with respect to energy efficiency policies in the two countries requires vastly different approaches, even if the desired outcome is the same. It is therefore not surprising that experts on both sides of the Atlantic are baffled about achieving what appears to be (on their respective side) a straightforward policy.

Recommendations

The recommendations following from this paper are basically twofold: a) improve understanding between experts and policy makers on both sides of the Atlantic, and b) stimulate and support cooperation.

Regarding a), a Rosetta Stone type of document can be useful. This can be further developed in a primer organized around different policy areas: products, buildings, transport etc. Part of such a living document should in any case be the numerous abbreviations, especially those abbreviations that are the same, but mean something different. For improving understanding between experts, both eceee and ACEEE Summer Studies (Industry and Buildings) could organize sessions or a separate panel where policy instruments from both sides of the Atlantic are presented and compared. Furthermore, we suggest that international presentations need to include definitions or other means of insuring both cultures are "on the same page" before addressing the actual topic.

Improving understanding also contributes to better cooperation. Better cooperation seems to be most fruitful on areas that involve trade between the EU and U.S., i.e. on products.

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