EEPLIANT 2014 – Energy Efficiency Compliant Products 2014 project

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Abstract

The EEPLIANT 2014 project runs from March 2015 to June 2017 and aims to facilitate and support the cooperation of national and regional market surveillance authorities in the area of energy efficiency and ecodesign labelling.

This is being achieved through coordinating the monitoring, verification and enforcement activities of 13 Authorities across the EU from 12 Member States[1]: Austria, Belgium, Bulgaria, Denmark, Germany, Lithuania, Malta, the Netherlands, Poland, Slovenia, Sweden, and the United Kingdom. They are the responsible and competent bodies to take legal action on noncompliant products.

In addition to laboratory testing, the project also includes technical documentation inspections, defines surveillance best practices and shares these among the participating authorities; also other authorities within the EU and professional stakeholders are being kept informed.

The project is coordinated by PROSAFE and is funded by the European Union' mechanism Horizon 2020. It is estimated that the joint action will achieve energy savings of 86 GWh. The programme is in the process of investigating some 200 products.

EEPLIANT 2014 focuses on three product groups:

- LED lamps;
- Imaging equipment;
- Space heaters and combination heaters.

These products are taken from the market – shops and other distribution channels, just as regular consumers would do, and their compliance with the energy efficiency related requirements is inspected by the responsible market surveillance officers and measured in laboratories. In case noncompliance is found, the market surveillance authorities take appropriate enforcement action.

The project has been designed not only to assist authorities in verifying energy consumption of specific products, but also to facilitate the cooperation with other stakeholders, such as industry associations, in achieving higher rates of overall product compliance with the EU legislation requirements.

Introduction to EEPLIANT

The aim of the EEPLIANT project is to help deliver the intended economic and environment benefits of the Energy Labelling and Ecodesign Directives by increasing the rates of compliance with them and achieving a saving of 86 GWh electrical energy.

EEPLIANT project focuses on market surveillance of energy efficiency related legislation for LEDs, heaters and printers. It is the first time that a voluntary agreement (printers) and that heating products are being formally verified for compliance requirements by the governmental authorities.

The EEPLIANT consortium consists of 13 Market Surveillance Authorities (MSAs) from Austria, Belgium, Bulgaria (2 authorities), Denmark, Germany, Lithuania, Malta, The

1. EEPLIANT consortium consists of the coordinator ProSafe, Austrian Energy Agency, and 12 formal market surveillance authorities, of which two are based in Bulgaria: http://www.eepliant.eu/index.php/about-eepliant/consortium-members.

Netherlands, Poland, Slovenia, Sweden and the United Kingdom. The coordinator is PROSAFE, a non-profit organisation that brings together market surveillance officers from across Europe.

Main project activities

Within the April 2015 – June 2017 period, the EEPLIANT project focuses on verifying energy efficiency compliance of the following product groups:

- **LED lamps –** Commission Delegated Regulation (EU) No 874/2012, Commission Regulation (EU) No 1194/2012.

LEDs are a developing technology area of lighting. Policy makers expect LED lighting will replace energy inefficient (but popular) halogen lighting and energy efficient (but less popular) CFLs as it offers remarkable potential to deliver reduced energy consumption with no loss of performance. Both energy labelling and ecodesign requirements apply. The ecodesign requirements have become much more demanding through Stage 3 (of 1194/2012) coming into force in September 2015 – Compliance with these revised requirements is the focus of this part of the EEPLIANT programme.

- **Printers**, a product sector subject to the industry **Voluntary Agreement (VA) for Imaging Equipment** – an Ecodesign Directive instrument about which little is known to the MSAs and one that they wish to examine in respect of their responsibilities in their national marketplace.

The VA's Independent Inspectors report (EuroVAPrinnt) says "… Assessment of the data being reported versus the actual performance of products placed on the market is the key validation element of inspection" yet, to date, this has not occurred despite the Voluntary Agreement being finalised in 2011. It is a product to which Energy Star Regulation (EC) No 106/2008 may also apply.

Figure 1. Main project activities.

EEPLIANT is a first market surveillance project focusing on a Voluntary Agreement covered product category.

- **Space and combination heaters –** Commission Delegated Regulation (EU) No 811/2013, Commission Regulation (EU) No 813/2013.

This is a wide-ranging product sector that extends into industrial applications with regulations covering capacities up to 400 kW. Both energy labelling and ecodesign requirements apply within EEPLIANT project activities.

This product category includes boilers, heat pumps, electrical space and combination heaters, more specifically heaters 0–70 kW under the energy labelling requirements, heaters 0–400 kW under the ecodesign requirements. The products which are the being examined as part of the project include models of the typical size for a household heater of 10–30 kW and larger heaters used for schools, office buildings, blocks of flats, industry, etc.

It is worth noting that the efficiency gained by the full implementation for energy efficiency requirements for this product category alone, according to the EC estimates, equals to more than 500 TWh in 2020.

Each of the product related work packages has the following set of activities planned and implemented throughout the project:

- **Document inspection** – verification of the technical documentation which the suppliers have to make available to authorities upon their request;
- **Screen testing** – undertaking of preliminary tests to identify and assess the likelihood that a certain model would fail full compliance testing;
- **Coordinated compliance testing** – full scale testing of a selected number of models, in part preselected from the range of models failing the screen testing stage.

Importance of market surveillance in energy efficiency

Several initiatives have already demonstrated the usefulness of market surveillance activities. However, the specific challenge identified and covered by the EEPLIANT 2014 is to ensure full implementation of product efficiency legislation.

In common with the predecessor project *ECOPLIANT (2015),* EEPLIANT 2014 brings the responsible MSAs together to cooperate, exchange experience and best practices and take coordinated enforcement action. 12 of the 14 participants listed in the project team have the legal power to enforce the requirements of the implementing regulations of either or both of the Energy Labelling and Ecodesign Directives (All partners are surveillance authorities except the coordinator and one national energy agency).

EEPLIANT 2014 is therefore directly building up market surveillance capacity and supports enforcement of the EU's energy-related product policy through a higher level of surveillance activities. This project adds significant value by going beyond physical laboratory testing. It executes a number of joint activities based on the further development and use of common document inspection methods, common test methodology protocols and common approaches to taking enforce-

ment action. It is emphasised that all of these activities are additional to those that are otherwise under the responsibility of the individual MSs.

Training is also available to all MSA participants to assist them in their adoption of all these common approaches. Further additional value comes from the project ensuring a level playing field for business and helping users realise the financial savings they should receive from buying compliant products.

KEY ACTORS TARGETED BY THE PROJECT

The actors that have showed great interest in the project and whose direct involvement adds value in its delivery are outlined below:

- *Policymakers, such as national governments, and the European Commission DG ENERGY* (as the policy makers with the lead for both the Ecodesign and Energy Label Directives). They are regularly offered the opportunity to attend any meetings involving the participants and so be able to maintain an active participation throughout this project, discuss project results and activities and contribute with feedback and suggestions.
- *Suppliers of LED lamps, Printers, and Heaters:* these product sectors are examined as part of this project. It is the suppliers' responsibility to place compliant products on the market and they will want to be assured that the relevant authorities are eliminating unfair competition from non-compliant goods. The EU trade associations for suppliers of these products (Lighting Europe, EPEE, EHI, EHPA) are represented on the Advisory Board.
- *EU Environmental Non-governmental organisations (NGOs)* have campaigned for improvements to market surveillance so can be assured that the relevant authorities are taking action to ensure a compliant market. The NGOs, Anec, ECOS and EEB, are represented on the Advisory Board.

Examples of specific actions taken

MSA GUIDELINES AND TRAINING

One of the project goals was to ensure higher capacity and expertise of MSAs, both project partners and other EU authorities, to increase the EU capacity in conducting energy label and ecodesign related market surveillance.

In order to achieve this goal, best practice guidelines on energy label and ecodesign market surveillance have been developed and shared with the 13 participating authorities. They have also been made available to all other relevant authorities throughout the EU. Training of the market surveillance staff on the newly developed best practices has been carried out.

Based on the guidelines and training documents developed and updated by the project team, some 90 internal staff from MSAs across the team have received formal training on energy label and ecodesign related market surveillance activities and thereby obtain increased skills, capability and competencies on energy issues.

A further number of staff and professionals have had access to the training materials through the e-learning portal, created by PROSAFE and available online for the authorities, but also for other interested professional stakeholders.

The training and guidelines focus on issues such as:

- The legal base: Directives 2009/125/EC and 2010/30/EU
- How to set up national energy efficiency-related market surveillance and inspection programmes
- How to select products for inspection, including risk assessment
- How to identify EEA-wide product model numbers
- How to conduct document inspection
- How to conduct compliance verification laboratory tests
- Sharing of inspection results
- How to enforce the provisions of the regulations.

In addition, during the organisation of individual technical activities, including the product testing and revision of the technical documentation, partners have exchanged experience on how exactly to evaluate the documents against the formal legal requirements. Common templates and checklists for evaluating individual product categories have been elaborated and applied.[2]

LED COMPLIANCE TESTING

The LED-related part of project includes the verification of the information on the product packaging, as well as the declaration of conformity, and ensuring that models considered at a high risk of noncompliance were laboratory tested.

In total, document inspection for 134 models has been conducted, followed by a screening exercise for 117 models. Full testing of 86 LED models was under way in Spring 2017, including the lifetime and other performance parameters, such as colour rendering, power factor, power, beam angle, etc.

Some of the project partners – national surveillance authorities, have taken formal actions with suppliers, based on inconsistencies found in formal documentation.

Criteria for LED model selection and undertaken LED surveillance activities

The selection of lamp models from the market followed a "risk based" approach with the goal of efficiently detecting and removing as many non-compliant products as possible within the project. The aim was not to do a market assessment based on a statistical sampling approach (random testing). Thereby, the results of the action cannot be used to draw statistical conclusions about compliance or non-compliance of products available on the market.

Nevertheless, the project was focused on popular LED lamp models with significant market relevance (i.e. high sales), typically available from supermarkets, electronics stores, furniture stores or online shops.

In total 145 different lamp models were checked, including a combination of document inspection and product testing.

2. More information is available at http://www.eepliant.eu/index.php/work-packages/wp2-best-practices and http://www.eepliant.eu/index.php/work-packages/wp3-training.

Table 1. Total number of LED models verified per socket type.

E14	26
E27	70
G5.3	14
G9	9
GU10	26

All lamp models considered for physical testing first of all were checked by simplified screening tests to detect particularly suspicious lamps to be further tested in full laboratory tests according to EU regulations and standards. Lamp selection covered the popular lamp and socket types typically encountered for household lighting, as shown in Table 1. Document inspection included 145 different lamp models (see Table 2).

Screening tests

As full lab testing of LED-lamps according to the EU regulations and standards is both very costly and time-consuming, screening techniques with simplified testing methods were applied as a first step to detect products which were considered likely to be non-compliant. The screening tests were performed in the laboratories of the MSAs in Germany, Denmark and Sweden. The screening was carried out partly with specialised test equipment for screening purposes (simplified near field goniophotometer) and with standard test equipment (Ulbricht-Sphere) and was limited to samples of 3 to 5 lamps of the selected models.

Screening was done for 117 lamp models in total. For 60 models an indication of non-compliance was detected. 43 models showed satisfactory results. Another 14 models were borderline cases. Lamps with non-compliance indication and borderline cases were selected for subsequent full testing.

Full testing according to EU regulations

Full testing according to EU regulations and standards was arranged by contracting accredited and fully competent labs in Belgium and UK based on a standard tender procedure. In total, 86 lamp models have been tested, including 62 non-directional and 24 directional lamps. Full testing started in March 2016 and was scheduled to be finished between February and April 2017 for lifetime and lumen maintenance parameters (total testing time 6,000 hours).

The initial measurements taken after 1,000 hours already showed non-compliance for more than 25 % of lamp models. The main deficiencies measured were on: luminous flux, colour temperature, power input and power factor. This number of non-compliant products might still increase by the end of the testing period.

There are some interesting results from the life tests, even though these are not completed: so far 15 out of the 86 tested models (17 %) have failed during the life test, meaning that more than 2 out of 20 tested samples of the same model were no longer working by 6,000 hours. In three cases, all the 20 samples of the same model under test failed, in one case 19 samples failed and in one case 18 samples failed; in another three cases more than the half of the tested samples failed.

EEPLIANT LED related enforcement actions

To harmonise the approach to enforcement, a guidance sheet has been developed showing the most common defects or non-compliances and giving recommendations for enforcement action.

Although enforcement actions on models that showed significant non-compliances on documentation verification or from measurements after 1,000 hours testing are still running in Spring 2017, some information can be presented on the actions already put in place by some of the members.

LED related conclusions/lessons learnt

- A significant number of LED lamps and packages do not fulfil the requirements of the EU regulations. Several cases have been followed up by the market surveillance authorities in order to prevent them being sold in future. In some cases, fines have been issued, in accordance with national laws.

Table 2. Number of products verified for the packaging information, CE declaration of conformity and technical documentation.

Inspection of the packaging	Compliant	90
	Non-compliant	53
	Not inspected	2
CE Declaration of Conformity	Compliant	8
	Non-compliant	27
	Information requested	13
	To be clarified	14
	Not Available	2
Technical documentation	Compliant	70
	Non-compliant	52
	Information requested	16
	To be clarified	4
	Not Available	3

Table 3. Action taken on the 65 models for which enforcement took place.

Sales ban	3
Voluntary withdrawal	19
Voluntary corrective action from Economic Operator on packaging, documentation, website	31
Delegated to another Authority	3
Products no longer on sale	8
Company ceased activity	1

- The screening tests were a good tool for a quick basic test approach to discriminate which products are more likely to fail the full tests.
- A significant number of LEDs, 15 out of the 85 tested, were not able to complete the life tests. In some cases, with very high failure rates of all 20 of the samples tested for each model.
- The "speed of the market" and the renewal of models introduced is quite high and that fact, in combination with the long time for required for testing (more than six months), means that in some cases the tested models were no longer available on the market when testing was completed.[3]

COMPLIANCE TESTING OF PRINTERS

An important part of the EEPLIANT project is the testing of imaging equipment. The testing activity covers imaging equipment that is within the scope of the Voluntary Agreement (VA) (version 5.2) on imaging equipment. The VA was published by EuroVAprint ASBL and endorsed by the European Commission. 40 models within the scope of the voluntary agreement, in place instead of an ecodesign regulation, have been selected for laboratory testing. Project action includes a laboratory tender and full scale testing, and negotiating directly with the manufacturers on the results observed.

This specific market surveillance activity has been unique, both in terms of the MSAs actions, and for the EU-level project engagement, as it concerns a product category not regulated by a mandatory legislation, but by an industry based voluntary agreement.

Product selection strategy

The EEPLIANT members engaged in printer testing were first tasked with identifying what products manufacturers were using to meet their targets under the Voluntary Agreement (VA) on imaging equipment. The main VA targets only apply to products first placed on the EU market in 2015. As such it was first necessary to identify these. Approximately 100 imaging equipment products that were first placed on the market in 2015 were identified and listed. The EEPLIANT members followed the published VA process by the independent inspector to verify the qualification of the products within the list. Within the allowed two-week timeframe, the Independent Inspector identified the qualification status of each model on a "yes"/"no" basis.

The EEPLIANT members then selected 40 of the products known to be covered under the VA for testing. The product distributions were based on the distribution of products found in the market with alterations to account for products that are known to be used by the VA signatories to meet their coverage obligations.

Wherever possible, products were selected randomly from pre-defined retail distribution channels.

Experience with testing

A tender was published inviting organisations to submit evidence concerning their ability to test the energy efficiency of imaging equipment and to provide quotations around the costs of providing this testing. The responses to the EEPLIANT tender were evaluated in detail, several rounds of follow up information requests were sent to most of the tendering laboratories to request information missing in responses.

All laboratories who responded were evaluated against the exclusion criteria laid down in the call for tender (based on accreditation, experience, test start date, lab capacity, availability of technical equipment for testing and staff in charge of the testing). Then the responses from all laboratories were scored and weighted against additional criteria (i.e. levels of experience and cost) laid down in the call for tender.

As of spring 2017, tests are being carried out and clarification of some of the results are being dealt with the laboratories and the manufacturers, as there appears to have been some confusion over the ENERGY STAR v2.0 test procedure due to complexities in product set up under test.

Results and actions taken

Despite early indications that there may have been several non-compliances in the first 20 products to have been tested, closer inspection of the results suggested that the products were probably compliant with the ENERGY STAR v2.0 specification, and hence VA, requirements.

Any products found to be potentially non-compliant will be subject to "Step 2" triple testing (i.e. three more samples will be tested). If the results of the triple testing suggest that the imaging equipment model is non-compliant with the ENERGY STAR v2.0 specification requirements, then the "Third Party Non-Compliance Allegation" process detailed in the VA will be initiated by the EEPLIANT members.

More information is available here: http://www.eepliant.eu/index.php/work-packages/wp5-printers.

COMPLIANCE TESTING OF HEATERS

Combination heaters with 0–70 kW capacity using oil and gas and heat pumps fall within the project scope with some models above 70 kW being also tested to verify the testing procedures for larger models. Some 17 models were expected to undergo full scale testing.

3. More information is available at http://www.eepliant.eu/index.php/work-packages/wp4-led.

Table 4. Number of heaters inspected and tested per product type.

Heater type	Number of document inspections	Number of laboratory tests
Electrical space and combination heaters	10	0
Gas boilers (0–70 kW)	18	10
Gas boilers (70–400 kW)	1 or 2	1 or 2 (in-situ tests)
Heat pumps (0–70 kW)	14	7

The project includes not only document inspections and laboratory testing, but also a "round robin" document inspection exercise among the authorities, ensuring all evidence and results would be evaluated in a consistent way by various MSAs. Muster checklists for MSA-based document inspections and information requirements have been created and shared among authorities.

Criteria for heaters model selection

Given that heaters were not previously targeted by a large-scale market surveillance set of activities, the intention was to act in a way that was high profile, that would give high energy savings, raise a lot of awareness and provide the authorities with a lot of knowledge.

The product selection was based on a number of different (somewhat intra-contradictory) criteria:

- The team decided to select models of "big players" on the market. This would give the biggest impact: any identification of a non-compliant heater that was sold in big numbers and, which would be made compliant as a result for the project, would affect a large share of the market (both directly, because the manufacturer corrected the non-compliant product, and indirectly as well, because the manufacturer presumably would check their product line to bring other products in conformity as well). In addition, the presumption was that in the case of no identification of non-compliance, this would give solid indication to low non-compliance levels of the whole market. Also, targeting the big players would create more awareness within the industry than by targeting small players.
- Selection of as many different brands and manufacturers as possible (to increase visibility and market share).
- Selection of a reasonable balance between the participating authorities. This was possible for gas boilers that are common in all the project participating countries. However, heat pumps are common in Denmark and Sweden and much more rare in the other participating countries so most of the heat pumps had to be sampled by Danish and Swedish MSAs. On the other hand, electrical combination heaters were most common in Bulgaria and virtually non-existent for example in Belgium, the Netherlands and Denmark, so Bulgaria examined the majority of the technical files for these heaters.
- Restricted only to the types of heaters covered by both of the regulations (811 and 813):
  - Gas boilers (that also heat water)
  - Air-to-water heat pumps (that also heat water)
  - Brine-to-water heat pumps (that also heat water)
  - Electrical space and combination heaters (including those that also heat water and those which do not)
  - All heaters with an output 0–70 kW
- Models sold in several countries at the same time.
- Market intelligence such as complaints, previous track record, (authorities') experiences from previous tests and observations from marketing material or websites.

Individual models were selected in two stages: first the team selected a number of products using the above criteria. The authorities acquired the technical documentation and checked it. The result informed the selection procedure for the next step – if the technical file was full of errors, it would increase the chances that this particular product was taken for laboratory testing.

Experience with testing

The EEPLIANT team has of the following observations on: laboratory selection; cooperation of MSAs with laboratories, quality of information received from the laboratories and from the manufacturers:

- Competent laboratories could be selected for the testing activity, at reasonable cost, as a result of a formal tender and selection process organised by the project coordinator, assisted by the project team.
- The testing of gas boilers of 0–70 kW input went very smoothly. The consortium concluded that this is the sign of a mature technology and a mature market, that the industry knows how to make compliant products and laboratories know how to test them.
- On the other hand, the testing of heat pumps presented some challenges. Apparently, it was one of the first times that market surveillance authorities had tested these types of heat pumps; the laboratories were much more accustomed to doing compliance tests for manufacturers.
- An "interesting" feature in the test method and standard was noted: it requires a test of the heat pump at 5 different set points to calculate one SCOP-value and the heat pump must be adjusted specifically for each of these set points. The test standard has foreseen this and allows the manufacturer to participate in the setting up of the heat pump for the tests (but they have to leave before the test starts). This is not a common procedure within the formal compliance testing and the authorities would prefer that products can be tested without the intervention of the manufacturer. This is one of the observations that will be discussed with the wider ADCO group of all EU MSAs.

Table 5. Test results for gas boilers.

4 boilers	the products were found to be fully compliant
1 boiler	the water heating efficiency was more than 8% lower than declared
4 boilers	the NOx emission measured exceeded what was declared
3 boilers	the sound pressure level exceeded what was declared
3 boilers	more than one non-compliance

- Moreover, it was also noted that the technical development in the heat pump sector is very quick, so the laboratory had difficulties testing some of the heat pumps as the test standard didn't "fit" the design of the heat pump taken from the market.

The EEPLIANT project also organised a feasibility test of a test method for on-site testing of **large gas boilers** (70–400 kW). These boilers are difficult to test directly in a laboratory because only a few laboratories are able to handle the large heat output. Moreover, such boilers are normally "made to order" and not held in stock, meaning that following usual sampling practice is complicated or even impossible: either the authority will have to pick a boiler that is on its way to a customer (which is unacceptable for business) or the manufacturer will know that a particular boiler has been selected for market surveillance so they can prepare a "golden sample". The team has therefore prepared a test on-site on a 200 kW boiler installed in a school in Denmark. The test was undertaken by a test laboratory that checks the NOx emission on such boilers. They found that the test was feasible: it was possible to determine the efficiency with an uncertainty of +/- 3 %, i.e. better than the tolerances of ±8 % prescribed in the regulation. The test was carried out on an autumn day (+10 °C) and the school users did not notice that the test was undertaken. The team will also examine if it is possible to have the same test done by another laboratory on another boiler in another country, to verify that the test method is transferable.

The "**round robin**" exercise included a selection of technical documents for three technical files (for a gas boiler, for a heat pump and for an electrical combination heater). These technical documents were circulated to authorities, who each assessed them. This was followed by a detailed discussion among the authorities on the findings, conclusions and recommendations made by individual MSAs. This was done in order to ensure a common level of evaluation, supported by the evaluation guides and the developing and sharing of templates of checklists for MSAs on how to evaluate documentation and what precise information require and in what format.

Finally, EEPLIANT team is also engaged in an activity on **installers and packages**. If an installer puts together different components (e.g. a boiler and a temperature controller) then the installer is selling a "package", that must have its own energy label. The project is examining if the installers know their obligations and how well they follow the rules. The team has therefore prepared a questionnaire that the participants are circulating to the market players. This is done in different ways in the different countries – some are conducting telephone interviews, others using on-line surveys and some are in discussion with installer associations, in order to get the picture. (Results from the surveys will be available after the submission date of this paper.)

Results and actions taken

Evaluation of market surveillance evidence gathered by the document inspection and product testing is time consuming, as it involves evaluation of the formal legal requirements. These are the preliminary results/statistics from the investigations:

Documentary checks

Number of checks: 10 electrical space and combination heaters, 18 gas boilers, 14 heat pumps. The team has found a substantial number of errors in the documents, as many as 75 % of the technical files have some sort of inconsistencies with the formal requirements.

The authorities are therefore discussing their findings with the respective economic operators to have the documentation corrected, or they await the results of the lab tests.

Testing

Number of tests: 10 gas boilers (0–70 kW), 7 heat pumps, 1 gas boiler (70–400 kW). The general conclusion is that these non-compliances do not seem to be concerning and can be dealt with by the manufacturer correcting the information on the energy labels.

Results for heat pumps: The test hasn't been completed for one heat pump. All the 6 heat pumps tested comply with the requirements for the declared energy class for seasonal space heating efficiency and water heating efficiency. Two heat pumps exceeded the declared sound pressure level – one failed on the indoor unit and one on the outdoor unit.

The general conclusion is that these non-compliances do not seem to be concerning and can be dealt with by the manufacturer correcting the information on the energy labels. Note that when relevant, the authorities combined the results of the laboratory test and the document inspections when they approached the economic operators.[4]

Expected project impacts

The following three expected impacts were identified by the project organisers.

"GENERATION OF MONETARY SAVINGS OF ENERGY LOSSES AVOIDED FROM NON-COMPLIANCE"

The targets for primary energy savings and reductions in greenhouse gas emissions will be achieved by increasing the percentage of products that comply with the Ecodesign and Energy Labelling Directives. Our conservative estimation is that this

4. More information is available at http://www.eepliant.eu/index.php/work-packages/wp6-heaters.

programme will achieve a saving of 86 GWh for a budget of €2,5 m.

This estimate was based on the energy demand of the respective product categories, number of tests planned, estimate of noncompliance based on previous surveillance projects and MSA experience, and the fact that the project partners, MSAs, would negotiate either a change of project documentation (e.g. energy class on the energy label – leading to different consumer purchases), or to an improvement in the technical characteristics of the respective products.

"AN INCREASE IN CONFIDENCE AMONG PURCHASERS, MANUFACTURERS AND RETAILERS"

It has been recognised that an important role of compliance projects, such as EEPLAINT is to increase confidence in all parts of the market. Stakeholders have repeatedly voiced concerns that the enforcement authorities are not undertaking sufficient market surveillance. This project forms part of what we hope could become a continuing programme in which increasing numbers of EEA MSAs will be seen to be taking coordinated action on a product-by-product sector. Visibility of these actions to stakeholders is essential, which is why there is a specific task within the project intended to increase the visibility of the project to purchasers (both household and professional), manufacturers and retailers. Additionally, EU associations representing purchasers and users, are members of the Advisory Board of the project. The extra visibility and influence due to this task is intended to lead to an increase in confidence across their constituencies.

"CONTRIBUTING TO THE ENFORCEMENT OF EU PRODUCT LEGISLATION"

Contributing to enforcement is the main purpose of this project. The participating national enforcement authorities are empowered – and have committed – to exploit the results by taking appropriate enforcement action in respect of non-compliant products identified during the delivery of this project.

The project will have a substantial impact on enabling policy across a wide product area where stakeholders have previously expressed concerns about failures to support policy through active market surveillance programmes. The focus of this project is very much on supporting the relevant authorities to deliver the market controls required by the implementing EU regulations for energy labelling and ecodesign. This is being implemented at both the EU level through coordinating the activities undertaken by authorities from 13 EU MS and at the national levels where individual enforcement actions necessarily take place.

This project aims to have a substantial impact on building capacities and skills. MSAs responsible for all or parts of the Energy Labelling and Ecodesign Directives need to have a remarkable breadth of expertise ranging from in-depth technical knowledge of more than 30 different product sectors with a corresponding expertise in document examination and legal procedures. Right now, this factor alone is known to be a substantial barrier for those MSs who do not have dedicated energy label and ecodesign compliance staff. The Energy Label Evaluation report (Ecofys 2014) states that "…common best practice, guidelines and manuals, as well as common projects could make the involvement [of national authorities] easier". And that is exactly what this project sets out to achieve through its provision of the common best practice guidelines and the training programmes.

The project will conclude in June 2017, when overall compliance verification results and market surveillance achievements will be made available to the public.

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