
INOGATE Technical Secretariat and Integrated Programme in support of the Baku Initiative and the Eastern Partnership energy objectives

Contract No 2011/278827

A project within the INOGATE Programme

Implemented by:
Ramboll Denmark A/S (lead partner)
EIR Global sprl.
The British Standards Institution
LDK Consultants S.A.
MVV decon GmbH
ICF International
Statistics Denmark
Energy Institute Hrvoje Požar

June 2016
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<td><strong>Document status</strong></td>
<td>Final</td>
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## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
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<tbody>
<tr>
<td>CDR</td>
<td>Commission Delegated Regulation</td>
</tr>
<tr>
<td>CEN</td>
<td>European Committee for Standardisation</td>
</tr>
<tr>
<td>CENELEC</td>
<td>European Committee for Electrotechnical Standardisation</td>
</tr>
<tr>
<td>CMU</td>
<td>Cabinet of Ministers of Ukraine</td>
</tr>
<tr>
<td>DCFTA</td>
<td>Deep and Comprehensive Free Trade Area</td>
</tr>
<tr>
<td>DG NEAR</td>
<td>Directorate-General for Neighbourhood and Enlargement Negotiations</td>
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<tr>
<td>EBA</td>
<td>European Business Association</td>
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<tr>
<td>EC</td>
<td>European Commission</td>
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<tr>
<td>ErP</td>
<td>Energy-related product</td>
</tr>
<tr>
<td>ETSI</td>
<td>European Telecommunication Standards Institute</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>hEN</td>
<td>Harmonised European Standard</td>
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<tr>
<td>ITS</td>
<td>INOGATE Technical Secretariat</td>
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<tr>
<td>Mtoe</td>
<td>Million tonnes of oil equivalent</td>
</tr>
<tr>
<td>OJEU</td>
<td>Official Journal of the European Union</td>
</tr>
<tr>
<td>PJ</td>
<td>Petajoule</td>
</tr>
<tr>
<td>SAEE</td>
<td>State Agency for Energy Efficiency and Energy Saving of Ukraine</td>
</tr>
<tr>
<td>SGUA</td>
<td>Support Group for Ukraine of the EC</td>
</tr>
<tr>
<td>TMM</td>
<td>Transitional Methods of Measurement</td>
</tr>
<tr>
<td>ToR</td>
<td>Terms of Reference</td>
</tr>
<tr>
<td>TR</td>
<td>Technical Regulation</td>
</tr>
<tr>
<td>TWh</td>
<td>Terawatt-hour</td>
</tr>
</tbody>
</table>
1 PART 1 – EUROPEAN COMMISSION

1.1 Background

Assignment Title: Technical Assistance to SAEE in the transposition of EU Legal Acts on Energy Labelling and Ecodesign into Ukrainian Legislation. Support of the VII International Investment Business Forum on Energy Efficiency and Renewable Energy (CWP.08/12/UA)


Beneficiary Organisation(s): The State Agency for Energy Efficiency and Energy Saving of Ukraine (SAEE)

Beneficiary Organisation’s key contact persons – name and e-mail address
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- Yevhen Mahlovannyi, Head of Department of Technical Regulation on Energy Efficiency of the SAEE, totaldominate.eu@gmail.com

Deliverables Produced
- 10 Technical Regulations on Ecodesign translated into Ukrainian
- 4 Existing Technical Regulations on Energy Labelling translated into English
- 5 improved Technical Regulations for Energy Labelling
- Prioritised list for introducing Ecodesign regulations in Ukraine
- List of European harmonised measurement standards
- Leaflets on Ecodesign and Energy Labelling
- Final report and presentations

Expert Team Members
- W.F. Lutz, M. Allington, T. Lock, A. Antonenko, A. Cherniavskyi

1.1. Essence of the Activity

The Technical Assistance (TA) assignment on the transposition of EU Legal Acts on Energy Labelling and Ecodesign into Ukrainian Legislation in Ukraine was implemented during the period July 2015 – January 2016. The TA was requested by the State Agency for Energy Efficiency and Energy Saving of Ukraine (SAEE) that is the main responsible body for the implementation of governmental policies on energy efficiency (EE) and renewable energy (RE).

Energy Labelling and Ecodesign are among the most effective tools in the European Union (EU) to deliver cost-effective energy savings. It is expected that these policies should deliver almost half of the 20% energy efficiency target and decrease dependency on imported natural gas and coal by 23% and 37% respectively by 2020. In addition to environment benefits, the ecodesign and energy labelling measures are estimated to save end-users of products 100 billion euro per year by 2020 through lower utility bills.

The TA covered various tasks which refer both to Energy Labelling and Ecodesign, including the development of recommendations on the transposition of EU acquis, providing list of European harmonised measurement standards, translation and review of technical regulations. In order to

enhance the awareness raising and capacity of decision makers, ITS also organised workshops and the Experts’ Zone as a part of VII International Investment Business Forum on EE and RE. The Forum provided an excellent opportunity to support the transposition of the EU Ecodesign legislation in Ukraine.

The ITS fully achieved the overall and specific objectives of the TA assignment (see section 2.2) that were related to the approximation of Ukraine with EU legislation, fulfilment of the Energy Community obligations and contribution to the improvement of EE in the country.

1.2. Key Findings

1. The Ukrainian legislative framework stipulates that the transposition of the Ecodesign Directive must be as a legal act (technical regulation) of the Cabinet of Ministers. At the same time the requirements to transpose the Directive as a Technical Regulation can be stipulated by a relevant article of a New Energy efficiency Law that is currently under development.

2. In order to facilitate the adoption of 22 Ecodesign TRs, the introduction of requirements per product groups should be prioritised based on the following criteria: commitments stipulated in the Action Plan for the Implementation of the Association Agreement; the complementarity to existing Energy Labelling TRs; the anticipated level of technical complexity and contentiousness and expected energy savings.

3. While transposing the EU legislation on Energy Labelling, the SAEE faced a number of problems related to the inaccuracy of the translation from English into Ukrainian and lack of the technical proofreading of the translated Technical Regulations. Therefore, more efforts should be devoted to the technical accuracy of the TRs translated into accuracy in the future.

4. Ukrainian legislative framework stipulates that all definitions containing normative provisions (such as calculations) should be included as formulas in an appropriate part of a TR instead of the definition section. Thus the transposition of TR on Ecodesign and Energy labelling requires additional technical adjustment.

5. In order to implement the EU Regulations on Energy Labelling and Ecodesign, it is necessary to adopt measurement standards, which allow the declaration and verification of the technical parameters required by the respective regulations.

1.3. Ownership and Benefits of the Activity

The main benefits of the activity for the Beneficiaries are:

1. The Ukrainian experts and decision makers improved their understanding on requirements, verification procedures and market surveillance of Ecodesign;

2. The SAEE received clear guidance on the most appropriate legal option and the prioritisation of the introduction of Ecodesign into Ukrainian legislative framework that should facilitate the transposition in the future;

The Beneficiaries took ownership in the following way:
1. The Beneficiary and local stakeholders provided ITS with all requested information and necessary support during the preparation and implementation stages.
2. Five Technical Regulations for Energy Labelling improved within this TA have been already submitted for approval.
3. The beneficiary accepted ITS recommendations and initiated the transposition of Ecodesign Directive and Technical Regulations into the national legislative framework

1.4. Recommendations

1. Transpose the Ecodesign Directive as an article of the new Energy Efficiency Law which requires the transposition of the Directive as TR by Resolution of the Cabinet of Ministers. This approach will facilitate the timely implementation of the Directive, and at the same time ground it in a Law of Ukraine, thereby giving it legal force and providing stability to inspire investor confidence.

2. To adopt developed prioritisation of the introduction of Ecodesign Technical Regulations for energy-related products in Ukraine. This approach will facilitate the smooth transposition of 22 Ecodesign TRs which are due to be transposed as part of Ukraine’s commitment under the EU – Ukraine Association Agreement.

3. To submit for adoption TRs for the energy labelling of household tumble driers, household ovens & range hoods, vacuum cleaners, air conditioners and water heaters that have been reviewed and improved within this TA.

4. To adopt European harmonised measurement standards for Products covered by existing and future Ecodesign and Energy Labelling TRs in Ukraine

1.5. Challenges Faced

The ITS experts did not face any challenges during the preparation and the implementation of the TA assignment.

<table>
<thead>
<tr>
<th>Impact Area</th>
<th>Developments</th>
<th>2012 (%)*</th>
<th>April 2016 (%)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>Support of the implementation of Ecodesign and Energy Labelling policies</td>
<td>20%</td>
<td>50%</td>
</tr>
<tr>
<td>Regulation</td>
<td>Adoption of Technical regulations on Energy labelling and Ecodesign</td>
<td>15%</td>
<td>25%</td>
</tr>
<tr>
<td>Technology</td>
<td>Support of the development and utilisation of modern EE technologies, primarily in household equipment</td>
<td>15%</td>
<td>40%</td>
</tr>
<tr>
<td>Environment</td>
<td>Utilisation of ones of the most effective tools to deliver cost-effective energy saving and reduce CO₂ emissions</td>
<td>5%</td>
<td>45%</td>
</tr>
<tr>
<td>Economics</td>
<td>Decreased energy dependency</td>
<td>4%</td>
<td>24%</td>
</tr>
<tr>
<td>Social</td>
<td>Reduction of end-user energy bills</td>
<td>15%</td>
<td>25%</td>
</tr>
</tbody>
</table>

* The impact is estimated based on the experts’ opinion under the current circumstances and can be changed over time
2 PART 2 - BENEFICIARIES

2.1 Executive Summary

Ukraine has made considerable progress in the transposition of EU legislation in the field of Energy Labelling and is undertaking the first steps towards Ecodesign. In the field of Energy Labelling, the EU Directive 2010/30/EU and four Commission Delegated Regulations (CDR) for energy-related products have been transposed into Ukrainian legislation, with seven more product-specific regulations in different stages of elaboration and approval. While the transposition of the Energy Labelling Directive and of CDRs for energy-related products is an obligation under the Energy Community Treaty, the transposition of the Ecodesign Directive 2009/125/EC is a requirement under the EU – Ukraine Association Agreement.

This assignment was carried out by the INOGATE Technical Secretariat (ITS) following a request received from the State Agency for Energy Efficiency and Energy Saving of Ukraine (SAEE), in accordance of the INOGATE Country Work Programme Ukraine, the "Work Plan 2015" agreed upon between SAEE and ITS, and the Terms of Reference (ToR) for this activity approved by the European Commission (EC), DG NEAR. The assignment covered various tasks, which refer both to Energy Labelling and Ecodesign, and were finalised within the timeframe agreed upon with SAEE:

- Translations of EU Ecodesign Regulations into Ukrainian and of existing Ukrainian Technical Regulations (TR) for Energy Labelling of energy-related products into English;
- The review of five draft TRs for Energy Labelling;
- Advise with regard to the most appropriate legal option to transpose the EU Ecodesign Directive into Ukrainian legislation;
- Advise with regard to the prioritisation of the introduction of Ecodesign TRs for energy-related products (ErPs) in Ukraine;
- Provide a list of European harmonised measurement standards (hEN) for products covered by existing and future Ecodesign and Energy Labelling Regulations in Ukraine;
- Support to the VII International Investment Business Forum on Energy Efficiency and Renewable Energy (10-13th November 2015), in particular the organisation and implementation of workshops on Ecodesign and Awareness Raising, and the implementation of an Experts' Zone.

While the translations of EU Ecodesign Regulations into Ukrainian and of existing Ukrainian TRs for Energy Labelling into English were straightforward services provided to SAEE, the review of the draft TRs for Energy Labelling of household tumble dryers, household ovens and range hoods, vacuum cleaners, air conditioners and water heaters, were embedded in the process of approving these TRs, which involves several stages of stakeholder consultation, review by different Ministries and other public authorities, and finally by the Cabinet of Ministers of Ukraine (CMU). The understanding of this process, which is described in detail in Section 2.2 of this report, as well as of relevant pieces of Ukrainian legislation, is essential to address the comments which SAEE received in different stages of the approval process appropriately. Both translations and reviews of draft TRs were submitted to SAEE and are included in the appendices to this report.

Regarding Ecodesign, a critical question concerns the most appropriate legal option to transpose the EU Ecodesign Directive. Based on meetings with SAEE and stakeholders, a review of relevant primary
and secondary legislation, and an evaluation according to relevant criteria and arguments brought forward in favour and against, the following three options were analysed by ITS: transposition (1) as a Law of Ukraine, (2) as a TR based on a Resolution of the Cabinet of Ministers of Ukraine, and (3) as an Article of the new Energy Efficiency Law, which requires the transposition of the Directive as TR by Resolution of the Cabinet of Ministers.

Among the arguments in favour and against each option, the following arguments are considered to be most relevant:

1. Transposition as, or foundation of, the Ecodesign Directive in primary legislation is expected to provide a more stable legal framework, more leverage to the Government for enforcement and higher investor confidence, and should therefore be seriously considered;
2. However, the very long periods usually required by the Ukrainian Parliament for passing laws are a major concern, and represent a strong argument for pursuing transposition of the Directive by a TR based on a Resolution of the CMU, taking also into consideration the positive experience in transposing the Energy Labelling Directive in 2013;
3. Relevant legal documents stipulate that the transposition of the Directive must be as a legal act (technical regulation) of the CMU;
4. Based on stipulations of the Law of Technical Regulations and Compliance Assessment, the CMU may require the transposition of the Directive as a TR.

It was found that Option 3 is the only option which satisfies all criteria and is therefore recommended as the preferred option, which will facilitate the timely implementation of the Directive, and at the same time ground it in a Law of Ukraine, thereby giving it legal force and providing stability to inspire investor confidence.

A second important question concerns the order of priority in which to transpose and adopt the 22 Ecodesign TRs. In order to establish an order of priority, ITS applied the following criteria, which had been agreed upon with SAEE:

1. The Ecodesign product group commitments made within the Action Plan for the Implementation of the Association Agreement in 2014;
2. The complementarity of introducing an Ecodesign TRs for a product group that in Ukraine already has an existing Energy Labelling TR;
3. The anticipated level of technical complexity and contentiousness involved within the process to develop, consult, adopt and implement the product specific TRs;
4. The expected energy savings as a result of the implementation of the individual product specific TRs.

The application of these criteria results in four orders of priority and the ranking shown in Table A6.4 (Annex 6). The list starts with the product groups cited in Resolution #847, including simple set top boxes, external power supplies, and tertiary and non-directional lighting. The second order of priority includes those product groups which already have an Energy Labelling regulation, including household appliances such as refrigerators and washing machines. The list concludes with the remainder of the residential and household products and space heaters. ‘Industrial’ products are at the bottom of the list only because they are not included in Resolution #847 and they are not subject to existing Energy
Labelling regulations in Ukraine (or the EU). The energy savings possible from this industrial group, especially from electric motors, fans and circulators, are particularly high and are rightfully the subject of a separate industrial products initiative from SAEE.

In order to implement the CDRs for Energy Labelling and Regulations for Ecodesign, it is necessary to make use of measurement standards, which allow the declaration and verification of the technical parameters required by the respective regulations. The EC has therefore mandated the European standardisation bodies CEN, CENELEC and ETSI to elaborate appropriate hEN for ErPs regulated under the EU Energy Labelling and Ecodesign Directives.

According to Ukrainian legislation, all international (including European) standards to be applied in Ukraine must be adopted as Ukrainian National Standards. In order to facilitate SAEE’s work with the respective Standardisation Committees in Ukraine, ITS established and submitted to SAEE a list of standards and transitional methods of measurement (TMM) which apply to the 22 product groups under consideration. Annex 7 to this report provides lists of product groups with hEN, product groups with TMM, and product groups without either hEN or TMM, indicating the respective standards or transitional methods for measurement and/or EC mandates, and their applicability to Ecodesign and Energy Labelling.

Further to the Technical Assistance on Energy Labelling and Ecodesign, ITS contributed to the VII International Investment Business Forum on Energy Efficiency and Renewable Energy, which was organised by SAEE from 10 to 13 November 2015 in Kyiv, by organising and implementing workshops on "Ecodesign: the experience of the EU and first steps in Ukraine" and "Awareness Raising for Energy Efficiency", as well as by providing an experts' zone and by providing logistical support to the Forum.

The workshop “Ecodesign: the experience of the EU and first steps of Ukraine”, in particular, focussed on past and current developments in Ecodesign in the EU, and on SAEE’s current activities in this field. The workshop provided an opportunity to review the past and current work of SAEE on Energy Labelling, and to discuss first steps towards the transposition of the EU Ecodesign Directive 2009/125/EC and of specific regulations for energy-related products.

In accordance with the ToR, the overall objectives of this assignment were: (i) further approximation of Ukraine with the EU legislation in the field of energy efficiency, and (ii) to contribute to the improvement of energy efficiency through the transposition of further CDRs for Energy Labelling and through preparatory activities which will facilitate the transposition of the EU Ecodesign Directive and of Ecodesign Regulations for ErPs.

The baseline situation is reflected by the current status of implementation of Energy Labelling Regulations in Ukraine and by the status of preparatory steps taken by SAEE so far to transpose the Ecodesign Directive and the product-specific Ecodesign regulations. Key tangible results are considered to be: (i) the submission for adoption by Resolutions of the CMU of the five draft energy labelling TRs reviewed by the ITS experts under this assignment, (ii) the elaboration of Ecodesign TRs, based on the EU Ecodesign Regulations, translated by ITS into Ukrainian, according to the "work plan" agreed upon, (iii) improved capacity and awareness of decision makers, experts and the interested public on Energy Labelling and Ecodesign, due to the delivery, by ITS experts, of the workshop "Ecodesign: the
experience of the EU and first steps of Ukraine” and of the experts’ zone and leaflets distributed at the VII International Investment Business Forum on Energy Efficiency and Renewable Energy (10 to 13th November 2015), (iv) the approval by SAEE of the proposal of ITS with regard to the most appropriate legal option to transpose the Ecodesign Directive, and further steps taken by SAEE to its transposition, (v) the approval by SAEE of the proposal of ITS with regard to the prioritisation of ErPs to be regulated, and further steps taken by SAEE to the adoption of Ecodesign TRs according to this prioritisation, and (vi) the adoption as Ukrainian national standards of the hEN required to implement the required TRs on Ecodesign and Energy Labelling in Ukraine, in accordance with the updated and complete list delivered by ITS. The achievement of these results will be verified according to the standard INOGATE monitoring procedures in March 2016.

2.2 Introduction

The assignment was carried out in compliance with the "Work Plan for 2015" signed between SAEE and ITS on 15th July 2015 and the ToR approved by EC DG NEAR on 8th October 2015 (Annex 1).

The "Work Plan" defines two major areas of cooperation: (a) Technical Assistance for the Implementation of Energy Labelling and Ecodesign in Ukraine, and (b) Support of the VII International Investment Business Forum on Energy Efficiency and Renewable Energy to be held in Kyiv from 10 to 13 November 2015.

With regard to the Technical Assistance, all tasks have been implemented and reflected in this report, except task 6 (assistance in the preparation of a report to the Energy Community Secretariat), which will be undertaken as soon as a specific request will be received from SAEE. Also, by mutual agreement with SAEE, tasks 3 and 4 focused on identifying the most appropriate legal option to transpose the EU Ecodesign Directive, and the prioritisation of product-specific Ecodesign regulations to be adopted in Ukraine, rather than on the structure and content of the respective documents. As regards task 1, the review of the draft TR of space heaters was substituted by the draft TR of vacuum cleaners, by request of SAEE. As an additional task, which was not foreseen in the “Work Plan 2015”, or in the ToR, ITS agreed to provide translations into English of five existing Technical Regulations for Energy Labelling of energy-related products. On the request of SAEE, ITS also drafted a letter to the State Statistical Service of Ukraine, in order to facilitate obtaining market information on the products subject to Ecodesign regulations.

With regard to the Support to the VII International Investment Business Forum on Energy Efficiency and Renewable Energy, all tasks were fully implemented.

Regarding follow-up, task 10 (monitoring) will be implemented according to the standard INOGATE procedures. The monitoring exercise will be conducted with respect to the baseline indicators developed in section 2.3 of the report.

The assignment started in July 2015 with the translation of ten EU Ecodesign Regulations according to the timetable agreed upon in the "Work Plan 2015". From 19th to 23rd October, the first mission to Kyiv took place, which served to confirm the scope of the Technical Assistance, to understand the process of elaboration and implementation of Technical Regulations in Ukraine, to discuss with SAEE and with stakeholders their views, to receive relevant background information, and to respond to queries by
SAEE on topics related to the tasks agreed. The second mission of the team of experts, from 9th to 13th November, served to confirm and critically assess some working hypotheses developed by the team of experts, to discuss preliminary recommendations and to finalise preparations and implement the ITS support to the VII International Investment Business Forum on Energy Efficiency and Renewable Energy, in particular the implementation of the workshops "Ecodesign: the experience of the EU and first steps of Ukraine" and "Awareness Raising for Energy Efficiency", which were both held on 13th November 2015.

2.3 Baseline indicators

Based on the analysis of the legislative and institutional frameworks for the Ecodesign and Energy labelling presented in Annex 2, experts identified the following baseline situation.

Regarding Energy Labelling: The EU Energy Labelling Directive 2010/30/EU and four CDRs have been transposed into Ukrainian legislation. Currently, the transposition of CDRs for seven products is pending, of which five have been reviewed by ITS experts, in the framework of this assignment.

Regarding Ecodesign: So far, SAEE has taken the following preparatory legal and practical steps to transpose the EU Ecodesign Directive 2009/125/EC and product-specific regulations: elaboration and approval of action plans by Resolutions of the CMU (see Section 5 for details), and the translation into Ukrainian of the Ecodesign Directive and of product-specific regulations.

Key tangible results of this assignment should be considered as:

Energy labelling:
- Submission for adoption by Resolutions of the CMU of the five draft TRs reviewed by the ITS experts under this assignment.

Ecodesign:
- Elaboration of Ecodesign TRs, based on the EU Ecodesign Regulations, translated by ITS into Ukrainian, according to the "work plan" agreed upon;
- Improved capacity and awareness of decision makers, experts and the interested public on Energy Labelling and Ecodesign, due to the delivery, by ITS experts, of the workshop "Ecodesign: the experience of the EU and first steps of Ukraine" and of the experts' zone and leaflets distributed at the VII International Investment Business Forum on Energy Efficiency and Renewable Energy;
- The approval by SAEE of the proposal of ITS with regard to the most appropriate legal option to transpose the Ecodesign Directive, and further steps taken by SAEE to its transposition;
- The approval by SAEE of the proposal of ITS with regard to the prioritisation of ErPs to be regulated, and further steps taken by SAEE to the adoption of Ecodesign TRs according to this prioritisation;
- The adoption as Ukrainian national standards of the hEN required to implement the required TRs on Ecodesign and Energy Labelling in Ukraine, in accordance with the updated and complete list delivered by ITS.
2.4 Review of draft Technical Regulations for Energy Labelling of Energy-related Products

As agreed with SAEE, the following draft TRs for Energy Labelling of ErPs were reviewed by ITS experts: household tumble dryers, domestic ovens and range hoods, vacuum cleaners, air conditioners and water heaters.

The draft regulations reviewed are in different stages of the approval process described in Annex 2. Table 2.1 provides an overview of the current status of all draft TRS, including the five regulations reviewed under this assignment:

<table>
<thead>
<tr>
<th>Product</th>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
<th>Stage 5</th>
<th>Stage 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tumble Dryers*</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>@️</td>
<td></td>
</tr>
<tr>
<td>Televisions</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>@️</td>
<td>@️</td>
</tr>
<tr>
<td>Ovens &amp; Range Hoods*</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>☑️</td>
<td>@️</td>
<td></td>
</tr>
<tr>
<td>Air conditioners*</td>
<td>@️</td>
<td></td>
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<tr>
<td>Vacuum Cleaners*</td>
<td>@️</td>
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<tr>
<td>Water Heaters*</td>
<td>@️</td>
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<tr>
<td>Space heaters</td>
<td>@️</td>
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</tbody>
</table>

Key:
- ☑️ means the respective stage has been completed
- @️ means the regulation is currently "at" this stage
- * indicates products which are being supported by the current assignment

The scope and activity of the reviews completed by the ITS experts were as follows:

**Household tumble dryers**: focused on minor comments made by the Ministry of Justice, which referred to the clarification of technical terminology, the inclusion of the EU-Ecolabel, and regulation stamped references in product energy labels. ITS prepared a note on "International Use of Regulation/Date stamped references in Product Energy Labels" (see Annex 3), which will be used by SAEE as a reference.

**Domestic ovens & range hoods**: The draft TR was approved by the Ministry of Economy with comments. Major issues addressed by the review were – in addition to clarifications of technical terminology – the dates for entry into force of different labels as stipulated by the corresponding EC regulation, and the inclusion of the stipulations of EC CDR 518/2014 (internet sales). Also, the draft TR was brought in compliance with the corresponding EC CDR 65/2014, the Law of Ukraine "On technical regulation and conformity assessment, and the "Rules of preparing technical regulations based on EU legislation" approved by Resolution of CMU no. 708 of 12.06.2012. Necessary changes concerned:

2 This is the second time that the draft TV Energy Labelling Technical Regulation has been at stage 5. Earlier this year the Council of Ministers rejected the draft technical regulation and it returned to stage 1 for further development.

3 Similar to TVs, the draft Air-conditioner Energy Labelling Technical Regulation was previously at stage 5, but returned to stage 1 after receiving feedback from the Council of Ministers on developmental points.
some calculation rules, taking into consideration the corrigendum to CDR 65/2014, the table on "verification tolerances" in Annex 8, and adjustment to specific stipulations of the Law "On Technical Regulation and conformity assessment" and the “Rules of preparing technical regulations based on EU legislation” (including stipulations on normative provisions – see below).

**Vacuum cleaners:** This draft TR is still under preparation by SAEE (stage 1). Major issues addressed by the review referred to technical terminology. Also, the draft TR was brought in compliance with the corresponding EC CDR 665/2013 (e.g. including the stipulations of EC CDR 518/2014 regarding internet sales), as well as with regard to specific stipulations of the Law of Ukraine "On technical regulation and conformity assessment, and the "Rules of preparing technical regulations based on EU legislation" (including stipulations on normative provisions).

**Water heaters, hot water storage tanks and packages of water heater and solar device:** Also this draft TR is still under preparation by SAEE (stage 1). ITS was asked to review the draft TR without the annexes, which had not been finalised by SAEE at this moment. The draft TR (without annexes) was brought in compliance with CDR (EU) # 812/2013 and article 10 of CDR (EU) #518/2014 (including redrafting of part of the draft Technical Regulation, taking into account the structure and content of articles 3-6 of CDR (EU) # 812/2013 (with amendments), as well as with specific stipulations of the Law of Ukraine "On technical regulation and conformity assessment, and the "Rules of preparing technical regulations based on EU legislation" (with regard to normative provisions).

**Air conditioners:** the draft TR for air conditioners had already reached stage 5 of the approval process, but were returned by the Cabinet of Ministers to SAEE with several comments:

Apart from technical errors in translation, the CMU's comments referred to the following issues:

- There was not a complete set of references to implementing regulations that would enable compliance of Ukrainian product suppliers – such as the EC regulation 842/2006 on Global Warming Potential values of fluorinated greenhouse gases. This regulation is not replicated in Ukrainian Law and so there are no grounds for direct regulatory references without changes being made to the draft technical regulation;
- There was a lack of conformity of the draft technical regulation with the requirements in the Resolution of the Council of Ministers #708, dated 18 June 2012 on Normative References, which stipulates that normative references be excluded from definitions within technical regulations.

Specifically, Resolution #708 stipulates that normative provisions (such as calculations) contained within definitions in EU acts must be included in the text of appropriate parts of the TR instead of the definitions of the TR.

Within the draft TR for the Energy Labelling of air conditioners a significant number of the technical definitions, contained within an annex to the regulation, included not only the identification of the term, but also an equation, written in text format. This is also the case within the original EU delegated act for the Energy Labelling of air conditioners N° 626/2011, but it is not an issue for the EU. So, by
faithfully delivering a direct translation of the EU regulation, it also conflicted with the rules for development of TRs in Ukraine (i.e. Resolution #708).

In order to respond to this issue, the team of experts undertook an exercise to identify the conflicting definitions within the draft TR for the Energy Labelling of air conditioners, distil the equations from the text based definitions, create the formulas and re-insert them into the draft TR. Please refer to Annex 4 which was used as guidance for the review of the draft TR for air conditioners.

The reviews of the five draft TRs were submitted to SAEE and are included in Appendix I.

2.5 Translation of EU Ecodesign Regulations and of existing Technical Regulations for Energy Labelling of Energy-related Products

2.5.1 Translation of EU Ecodesign Regulations

In accordance with the "Work Plan 2015" signed between SAEE and ITS, the current EC Ecodesign Regulations were translated by ITS into Ukrainian and submitted to SAEE in accordance with the time schedule agreed upon, for the following energy-related products: (i) air conditioners and comfort fans, (ii) water pumps, (iii) household tumble dryers, (iv) directional lamps, LED lamps and related equipment, (v) computers and computer servers, (vi) vacuum cleaners, (vii) space and combination heaters, (viii) water heaters and hot water storage tanks, (ix) domestic ovens, hobs and range hoods, (x) small, medium and large power transformers. The translations of the ten Ecodesign Regulations were submitted to SAEE and are included in Appendix II.

2.5.2 Translation of existing Technical Regulations of Energy-related Products

Upon request of SAEE, ITS provided translations into English of the following existing Technical Regulations for Energy Labelling:

- Res. 340 of 27 May 2015, transposing CDR 874/2012 for electrical lamps and luminaires;

Before submission to SAEE, the translations underwent a rigorous quality assurance check. In the case of the four product-specific TRs, small inconsistencies with the corresponding EU CDRs were detected and communicated to SAEE. The translations of the five TRs were submitted to SAEE and are included in Appendix III.

2.6 Transposition of the EU Ecodesign Directive into Ukrainian Legislation

Based on the analysis presented in Annex 5, ITS experts developed the following conclusions and recommendations on the most appropriate way to transpose the EU Ecodesign Directive into Ukrainian Legislation. Among the arguments in favour and against each option, the following arguments are considered to be most relevant:
1. Transposition as, or foundation of, the Ecodesign Directive in primary legislation is expected to provide a more stable legal framework, more leverage to the Government for enforcement and higher investor confidence, and should therefore be seriously considered.

2. However, the very long periods usually required by the Ukrainian Parliament for passing laws are a major concern, and represent a strong argument for pursuing transposing the Directive by a Technical Regulation based on a Resolution of the Cabinet of Ministers, taking also into consideration the positive experience in transposing the Energy Labelling Directive in 2013.

3. Relevant legal documents stipulate that the transposition of the Directive must be as a legal act (technical regulation) of the Cabinet of Ministers.

4. Based on stipulations of the Law of Technical Regulations and Compliance Assessment, the Cabinet of Ministers may require the transposition of the Directive as a Technical Regulation. Hence, even when considering only these four key arguments, the dichotomy remains between the two main options (transposition as Law or Technical Regulation enacted by Resolution of CMU).

However, as can be seen in Table A5.1 (Annex 5), Option 3 (transposition as Article of the new Energy Efficiency Law which requires the transposition of the Directive as Technical Regulation by Resolution of the Cabinet of Ministers) satisfies all criteria and should therefore be considered as the preferred option. Pursuing Option 3 will facilitate the timely implementation of the Directive (even in the case of delays in the implementation of the Energy Efficiency Law), and at the same time ground it in a Law of Ukraine, thereby giving it legal force and providing stability to inspire investor confidence.

This recommendation should be subject to a rigorous legal examination and should be verified with the relevant EU institutions.

2.7 Prioritisation of the Introduction of Ecodesign Technical Regulations in Ukraine

Based on the analysis presented in Annex 6, ITS experts developed the following conclusions and recommendations on the Prioritisation of the Introduction of Ecodesign TRs in Ukraine. The final prioritised order (Table 2.2) represents a rationally derived basis upon which SAEE can approach the introduction of Ecodesign TRs in Ukraine.

Table 2.2: Final prioritised order for the Ecodesign technical regulations in Ukraine

<table>
<thead>
<tr>
<th>No</th>
<th>Product Group</th>
<th>‘Industrial’ products</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Simple Set Top Boxes</td>
<td>Circulators</td>
</tr>
<tr>
<td>2</td>
<td>External Power Supplies</td>
<td>Transformers</td>
</tr>
<tr>
<td>3</td>
<td>Tertiary Lighting&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Water pumps</td>
</tr>
<tr>
<td>4</td>
<td>Non-directional Household Lamps&lt;sup&gt;8&lt;/sup&gt;</td>
<td>Industrial Fans (125W-500kW)</td>
</tr>
<tr>
<td>5</td>
<td>Standby/Off-mode</td>
<td>Electric motors</td>
</tr>
<tr>
<td>6</td>
<td>Household dishwashers</td>
<td>Computers and computer servers</td>
</tr>
<tr>
<td>7</td>
<td>Household refrigerating appliances</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Household washing machines</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Directional lighting: luminaires, reflector lamps and LEDs&lt;sup&gt;8&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Household tumble driers</td>
<td></td>
</tr>
</tbody>
</table>

<sup>4</sup> Note that the three lighting regulations (which are also listed in the Action Plan for the Association Agreement) are currently being reviewed in the EU with the intention of superseding them with a combined, single ‘light sources’ Ecodesign regulation, accompanied by a single ‘light sources’ Labelling regulation. The first draft working document for this combined regulation is available. The earliest anticipated date that such a regulation could come into force would be December 2016.
It can be seen that the space and water heaters product group ranks highest for energy savings, but also ranks highest for technical complexity and contentiousness.Negotiating the EU regulation for this product group took seven years – much longer than other regulations. So, whilst it might seem attractive to target the introduction of Ecodesign regulations for space and water heaters to receive significant energy savings, it might well take a long time and consume a lot of resources to approve the regulation – it could also create a negative perception within government, industry and civil society for Ecodesign. It is therefore suggested to begin in Ukraine with the introduction of product groups, with more modest energy saving potential, that are considerably less complex and contentious, in order to prove the process and gain a positive stakeholder perception for the regulations.

The list starts with the product groups cited in Resolution #847, these include Simple Set Top Boxes and External Power Supplies, which should be relatively easy to deliver and will serve to prove the process within Ukraine. Then SAEE can progress onto tertiary and non-directional lighting which are more contentious, but with greater energy savings. In doing so the current EU review of the lighting regulations (also including directional lighting) should be considered, which is expected to simplify these three regulations into a single one by the end of 2016. Once the obligations under Resolution #847 are delivered, SAEE can progress to complement those product groups in Ukraine which already have an Energy Labelling regulation. These product groups begin with household appliances such as refrigerators and washing machines. It should be noted that the projected energy savings for household appliances could be larger for Ukraine, in relative terms, compared with the EU projections, given that energy using product policy has been in existence for these product groups in the EU for approximately 20 years and so the resulting energy savings from further regulatory strengthening are diminishing: this is not the case for Ukraine. The list concludes with the remainder of the residential and household products and space heaters – which is expected to be the most difficult.

Please note that the ‘industrial’ products listed from circulators through to computers and computer servers are at the bottom of the list only because they are not included in Resolution 847 and they are not subject to existing labelling regulations in Ukraine (or the EU). The lack of labelling for these products is because industrial consumers do not use packaging labels to the same extent as mass market consumers, i.e. purchasing an industrial motor from a wholesaler is a different experience than purchasing a TV in a retail outlet. This is because industrial consumers have professional procurement staff used to reviewing technical specifications of products, including energy savings levels. The energy savings possible from this industrial group, especially from motors, fans and circulators, are particularly high and are rightfully the subject of a separate industrial products initiative from SAEE. It is right to treat industrial products differently and so that initiative should take precedence over this proposed prioritisation.
2.8 Harmonised Standards for Products Covered by Ecodesign and Energy Labelling Regulations

2.8.1 Scope

The scope of products featured under this assignment together with the Ukrainian Government’s intention for regulation for each product category is detailed in Table 2.3 below. For the first six product groups listed, Energy Labelling TRs are already adopted in Ukraine.

Table 2.3: Product scope and the associated regulatory intention

<table>
<thead>
<tr>
<th>Measure</th>
<th>Ecodesign</th>
<th>Energy Labelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-directional household lamps*</td>
<td>✔</td>
<td>(EC) No 244/2009</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(EU) No 2015/1428</td>
</tr>
<tr>
<td>Directional lamps, LED lamps and related</td>
<td>✔</td>
<td>(EC) No 1194/2012</td>
</tr>
<tr>
<td>equipment*</td>
<td></td>
<td>(EU) No 2015/1428</td>
</tr>
<tr>
<td>Domestic ovens, hobs and range hoods</td>
<td>✔</td>
<td>(EU) No 66/2014</td>
</tr>
<tr>
<td>Air conditioner and comfort fans</td>
<td>✔</td>
<td>(EU) No 206/2012</td>
</tr>
<tr>
<td>Household tumble dryers</td>
<td>✔</td>
<td>(EU) No 932/2012</td>
</tr>
<tr>
<td>Space and combination heaters</td>
<td>✔</td>
<td>(EU) No 813/2013</td>
</tr>
<tr>
<td>Water heaters and hot water storage</td>
<td>✔</td>
<td>(EU) No 814/2013</td>
</tr>
<tr>
<td>Vacuum Cleaners</td>
<td>✔</td>
<td>(EU) No 666/2013</td>
</tr>
<tr>
<td>Televisions</td>
<td>✔</td>
<td>(EC) No 642/2009</td>
</tr>
<tr>
<td>Water pumps</td>
<td>✔</td>
<td>(EU) No 547/2012</td>
</tr>
<tr>
<td>Computers and computer servers</td>
<td>✔</td>
<td>(EU) No 617/2013</td>
</tr>
<tr>
<td>Transformers</td>
<td>✔</td>
<td>(EU) No 548/2014</td>
</tr>
<tr>
<td>Standby and network standby</td>
<td>✔</td>
<td>(EC) No 1275/2008</td>
</tr>
<tr>
<td>Simple set-top boxes</td>
<td>✔</td>
<td>(EC) No 107/2009</td>
</tr>
<tr>
<td>External power supplies</td>
<td>✔</td>
<td>(EC) No 278/2009</td>
</tr>
<tr>
<td>Industrial Fans (125W-500kW)</td>
<td>✔</td>
<td>(EU) No 327/2011</td>
</tr>
<tr>
<td>Glandless standalone circulators and glandless</td>
<td>✔</td>
<td>(EC) No 641/2009</td>
</tr>
</tbody>
</table>
| 18

An asterisk* indicates this product group has a technical regulation for Energy Labelling approved in Ukraine.
2.8.2 European Harmonised Measurement Standards and Transitional Methods of Measurement

2.8.2.1 Scope

Not all of the product groups covered by this assignment have hEN⁶ (see Table 2.4).

Table 2.4: Product Groups with and without associated European Harmonised Standards

<table>
<thead>
<tr>
<th>Measure</th>
<th>European Harmonised Standard</th>
<th>Transitional Methods of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic ovens, hobs and range hoods</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Air conditioner and comfort fans</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Household tumble dryers</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Vacuum Cleaners</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Transformers</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Standby and network standby</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>External power supplies</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Electric motors</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Household refrigerating appliances</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Household washing machines</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Household dishwashers</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Glandless standalone circulators and glandless circulators</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Space and combination heaters</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Water heaters and hot water storage</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Water pumps</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Directional lamps, LED lamps and related equipment</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Computers and computer servers</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Non-directional household lamps</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Tertiary lighting</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Televisions</td>
<td>☑</td>
<td></td>
</tr>
<tr>
<td>Simple set-top boxes</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Industrial Fans (125W-500kW)</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

The majority of the product groups that do not have hEN, have instead a set of TMM: that is a set of measurement methods issued by the EC intended to cover the intervening period from when a regulation is adopted in the EU to when a hEN can be published. Simple set top boxes and industrial fans have neither hEN nor TMM. Annex 7 provides lists of product groups with hEN, product groups with TMM, and product groups without either hEN or TMM, indicating the respective standards or transitional methods for measurement and/or EC mandates, and their applicability to Ecodesign and Energy Labelling.

2.8.3 European Harmonised Measurement Standards and Transitional Methods of Measurement

There are ten product groups under this assignment without hEN. They are currently subject to the development process whereby the European Standards Organisations (ESOs) act upon the mandate issued to them by the EC inviting them to create hEN. The status of each product group is summarised in Table 4.1 of Annex 7. Where otherwise not referenced, the source of information for Table 4.1 of Annex 7 was ECOS: the European Environmental Citizen’s Organisation for Standardisation.

The workload directed to the ESOs in recent years has increased considerably, and as can be seen from table 4.1 in Annex 7 significant delays are now materialising. In order to better facilitate the response for developing hEN, CEN and CENELEC have created the Ecodesign Coordination Group. All mandates go through this group, which has stakeholders from the various standardisation technical committees, industry associations, civil society groups and the EC. This is a forum where EC officers can answer questions from stakeholders and explain their expectations for the harmonised standards. The CEN & CENELEC Ecodesign Support Group has set up a number of Task Forces to deal with horizontal Ecodesign issues related to standardisation. These are: terms and definitions (task force 1), tolerances and measurement uncertainties (task force 2), Ecodesign – Energy Performance of Buildings Coordination (task force 3) and material efficiency (task force 4).

2.9 Support to the VII International Investment Business Forum on Energy Efficiency and Renewable Energy

From 10 to 13 November 2015, SAEE organised the VII International Investment Business Forum on Energy Efficiency and Renewable Energy in Kyiv. ITS contributed to the Forum by organising and implementing workshops on "Ecodesign: the experience of the EU and first steps in Ukraine" and "Awareness Raising for Energy Efficiency", by providing an experts' zone and by providing logistical support to the Forum. Both workshops were attended by almost 100 participants. The workshop agendas, presentations, list of participants, and other pertinent documents are available online. ITS received letters of recognition signed by Mr Sergey Savchuk, Chairman of SAEE, acknowledging the contributions to the Forum and the Workshops on Ecodesign and Awareness Raising (see Annex 8).

2.9.1 Workshop “Ecodesign: the experience of the EU and first steps of Ukraine”

The workshop “Ecodesign: the experience of the EU and first steps of Ukraine” focussed on past and current developments in Ecodesign in the EU, and on SAEE’s current activities in this field. The workshop provided an opportunity to review the past and current work of SAEE on Energy Labelling, and to discuss first steps towards the transposition of the EU Ecodesign Directive and of specific regulations for ErPs.

Following an opening address by Mr Krzysztof Gierulski, Member of the Support Group for Ukraine of the EC, and welcome words on behalf of Mr Sergey Savchuk, Chairman of SAEE, the following topics were addressed by speakers of ITS, SAEE and the Ministry of Economy of Ukraine:

- An introduction to Energy Labelling and Ecodesign, which have been cornerstones of the EU Energy Policy, since 1992 and 2005 respectively;
• An overview on the EU Ecodesign Directive 2009/125/EC, requirements under the Directive and the energy savings achieved;
• The Ecodesign process - from preparatory study to implementation;
• Verification procedures and market surveillance for regulated ErPs;
• An overview on SAEE's achievements in Energy Labelling, in particular the transposition of the EU Energy Labelling Directive 2010/30/EU and of regulations for specific products, as well as the current work programme to introduce labelling for more products;
• The transposition of Energy Labelling and Ecodesign requirements according to the EU – Ukraine Association Agreement;
• The current assistance by ITS towards the transposition of the EU Ecodesign Directive and of regulations for energy related products in Ukraine.

2.9.2 Workshop "Awareness Raising for Energy Efficiency"
A separate half-day workshop on “Awareness Raising for Energy Efficiency” was held later on the same day to present the EU experience in raising public awareness on energy efficiency, recent initiatives of ITS in Eastern Partnership countries as well as the corresponding initiatives of SAEE in Ukraine. Among the speakers were representatives of SAEE and ITS.

2.9.3 Experts zone
In cooperation with SAEE, ITS provided an experts’ zone, where ITS experts provided information and answered questions of visitors of the Forum on EU and Ukrainian product policies, and particularly on Energy Labelling and Ecodesign.

For this purpose, ITS elaborated two leaflets: "What is Ecodesign and why do we need it in Ukraine" (in Ukrainian and English) and "What is Energy Labelling” (in Ukrainian), which were available for visitors of the experts zone, with the objective to raise public awareness. Both are available online.

2.9.4 Logistical support
ITS provided logistical support to the Forum, which included all services required for the workshops mentioned under Sections 2.9.1 and 2.9.2 and the experts zone (Section 2.9.3), as well as general support services to the four-day Forum.

2.10 Further steps
Further to the tasks and deliverables documented in this report, ITS will assist SAEE in the preparation of a report to the Energy Community Secretariat (ECS) on the progress in introducing Energy Labelling and Ecodesign regulations in Ukraine, taking into consideration the progress and results of the tasks carried out in this activity.

Part of the communication with the ECS will be a consultation with regard to the required structural changes to Ukrainian TRs compared to the corresponding EU Regulations, which stem from current Ukrainian legislation, including the Resolution of the CMU #708/2012 on Normative References.
2.11 Conclusions and Recommendations

This assignment included various activities, which can be grouped under the following headlines:

- Translations of EU Ecodesign Regulations into Ukrainian and of existing Ukrainian TRs for Energy Labelling of ErPs in English;
- The review of five draft TRs for Energy Labelling;
- Advise with regard to the most appropriate legal option to transpose the EU Ecodesign Directive into Ukrainian legislation;
- Advise with regard to the prioritisation of the introduction of Ecodesign TRs for ErPs in Ukraine;
- Provide a list of hEN standards for products covered by existing and future Ecodesign and Energy Labelling Regulations in Ukraine;
- Support to the VII International Investment Business Forum on Energy Efficiency and Renewable Energy (10-13th November 2015), in particular the organisation and implementation of workshops on Ecodesign and Awareness Raising, and the implementation of an Experts’ Zone.

While the conclusions and recommendations on each topic have been provided in the respective sections of this report, they are briefly summarised below.

**Translations of EU Ecodesign Regulations into Ukrainian and of existing Ukrainian Technical Regulations for Energy Labelling of ErPs into English**

All translations were submitted in accordance to the time schedule agreed upon. In the process for translation of the existing TRs for Energy Labelling minor inconsistencies with the corresponding EU CDRs were detected and communicated to SAEE.

**Review of five draft Technical Regulations for Energy Labelling**

In the reviews of the draft TRs for household tumble driers, household ovens & range hoods, vacuum cleaners, air conditioners and water heaters (without annexes) comments received in the process of the inter-ministerial approval process were addressed, together with inconsistencies with the corresponding EU CDRs and Ukrainian legal acts, in particular the Law of Ukraine "On technical regulation and conformity assessment" and “Rules of preparing technical regulations based on EU legislation” (Resolution of CMU of 12.06.2012 #708). The reviews were submitted for SAEE's consideration and comments.

**Advise with regard to the most appropriate legal option to transpose the EU Ecodesign Directive into Ukrainian legislation**

ITS evaluated three options for the transposition of the Ecodesign Directive into Ukrainian legislation, with the final option, as an Article of the new Energy Efficiency Law which requires the transposition of the Directive as Technical Resolution by Resolution of the CMU, being the recommended approach. While there are strong arguments in favour of transposition as a Law, the legal documents reviewed stipulate that the transposition of the Directive must be as a legal act (technical regulation) of the CMU. On the other hand, transposition as an Article of the new Energy Efficiency Law which requires
the transposition for the Directive as TR by Resolution of the CMU, satisfies all criteria of the analysis applied, which will facilitate timely implementation of the Directive, and at the same time ground it in a Law of Ukraine, thereby giving it legal force and providing stability to inspire investor confidence.

**Advise with regard to the prioritisation of the introduction of Ecodesign TRs for ErPs in Ukraine**

ITS proposed an order of priority based on the following criteria: (i) the Ecodesign product group commitments made within the Action Plan for the Implementation of the Association Agreement in 2014, (ii) the complementarity of introducing an Ecodesign TR for a product group that in Ukraine already has an existing Energy Labelling TR, (iii) the anticipated level of technical complexity and contentiousness involved within the process to develop, consult, adopt and implement the product specific TRs, and (iv) the expected energy savings as a result of the implementation of the individual product specific TRs.

The application of these criteria results in four orders of priority and the ranking shown in Table A6.4 (Annex 6). The list starts with the product groups cited in Resolution #847, include simple set top boxes, external power supplies, and tertiary and non-directional lighting. Once the obligations under Resolution #847 are delivered, SAEE can progress to complement those product groups in Ukraine which already have an Energy Labelling regulation, including household appliances such as refrigerators and washing machines. The list concludes with the remainder of the residential and household products and space heaters. ‘Industrial’ products are in a separate list only because they are not included in Resolution 847 and they are not subject to existing labelling regulations in Ukraine (or the EU). The energy savings possible from this industrial group, especially from motors, fans and circulators, are particularly high and are rightfully the subject of a separate industrial products initiative from SAEE.

**Provide a list of European harmonised measurement standards for Products covered by existing and future Ecodesign and Energy Labelling Regulations in Ukraine**

20 of the 22 product groups under consideration are either covered by hEN or by TMM issued by the EC, while simple set top boxes and industrial fans have neither hEN nor TMM. Annex 7 provides lists of product groups with hEN, product groups can progress to complement those product groups in Ukraine which already have an Energy Labelling regulation, including household appliances such as refrigerators and washing machines. The list concludes with the remainder of the residential and household products and space heaters. ‘Industrial’ products are in a separate list only because they are not included in Resolution 847 and they are not subject to existing labelling regulations in Ukraine (or the EU). The energy savings possible from this industrial group, especially from motors, fans and circulators, are particularly high and are rightfully the subject of a separate industrial products initiative from SAEE.

**Support to the VII International Investment Business Forum on Energy Efficiency and Renewable Energy (10-13th November 2015), in particular the organisation and implementation of workshops on Ecodesign and Awareness Raising, and the implementation of an Experts’ Zone**

The workshops on Ecodesign and on Awareness Raising, as well as the Experts’ Zone, served to inform stakeholders and the interested public about the experience in the EU in Energy Labelling, Ecodesign and awareness raising for energy efficiency, and on current and planned activities of SAEE in these fields. In particular the workshop on Ecodesign provided an opportunity to review the past and current work of SAEE on Energy Labelling, and to discuss first steps towards the transposition of the EU Ecodesign Directive 2009/125/EC and of specific regulations for ErPs.
2.12 Annexes and Appendices

Annex 1  WORK PLAN FOR 2015 to implement activities within the Protocol of Intent between the State Agency For Energy Efficiency and Energy Saving of Ukraine and the technical assistance project under the INOGATE Programme “INOGATE Technical Secretariat and Integrated Programme in support of the Baku Initiative and Eastern Partnership energy objectives” and the scope of work according to the ToR.

Annex 2  Legislative and institutional frameworks for the Ecodesign and Energy labelling in Ukraine

Annex 3  International Use of Regulation/Date stamped references in Products Energy Labels

Annex 4  Guidance on the Calculations and Production of Equations from within EU Regulation 626/2011 Energy Labelling of Air Conditioners

Annex 5  Transposition of the EU Ecodesign Directive into Ukrainian Legislation

Annex 6  Prioritisation of the Introduction of Ecodesign Technical Regulations in Ukraine

Annex 7  Harmonised Standards for Products covered by Ecodesign and Energy Labelling Regulations

Annex 8  Letters of Recognition

Annex 9  Meeting attendees First and Second Mission of Team of Experts to Ukraine

Appendix I  Reviews of Draft Technical Regulations for Energy Labelling of (i) household tumble driers, (ii) domestic ovens and range hoods, (iii) vacuum cleaners, (iv) air conditioners, (v) water heaters, hot water storage tanks and packages of water heater and solar device (without annexes).

Appendix II  Translations into Ukrainian of EC Ecodesign Regulations for the following energy-related products: (i) air conditioners and comfort fans, (ii) water pumps, (iii) household tumble driers, (iv) directional lamps, LED lamps and related equipment, (v) computers and computer servers, (vi) vacuum cleaners, (vii) space and combination heaters, (viii) water heaters and hot water storage tanks, (ix) domestic ovens, hobs and range hoods, (x) small, medium and large power transformers.