

# **Impact Assessment Institute**

The Institute for Impact Assessment and Scientific Evaluation of Policy and Legislation

“Impartial Analysis for Policy Making”

## **Final study scrutinising the**

### **Inception Impact Assessments:**

Ecodesign and Energy Labelling Requirements:

Computers - Ares(2018)770780

Lighting Products - Ares(2018)476175

Household Washing Machines and Washer-Driers - Ares(2018)476605

Household Dishwashers - Ares(2018)476416

Household Refrigerators - Ares(2018)476272

## Main Findings

The Impact Assessment Institute has scrutinised European Commission Inception Impact Assessments (IIAs) on Ecodesign and energy labelling for a number of product categories: computers, lighting products, household washing machines and washer-dryers, household dishwashers, and household refrigerators.

A range of common shortcomings is found in the presentation of the assessments:

- No explicit reference to supporting evidence is provided to show how the problem definitions were derived. Review studies are mentioned but not adequately referenced.
- Similarly no reference to background data was provided to justify the presented policy objectives.
- An adequate range of policy options is presented, but a preferred option is selected even before presenting the preliminary assessment of impacts. This runs contrary to Better Regulation guidelines and undermines both the impact assessment process and the ongoing consultation.
- The assessments of expected impacts are not supported by reference to evidence. In particular, those on economic and social impacts do not provide balanced evaluation, focusing only on benefits whilst neglecting drawbacks or costs.
- The IIA on computers does not take account of the practical difficulties in maintaining legislation in an area of fast changing-technology.
- Due to the strong link between electrical energy and heat management, fire safety issues of domestic appliances are a potential additional area for ongoing analysis.

It is essential in the continuing consultation, impact assessment and rulemaking process to ensure that policy provisions are supported by referenced evidence and substantiated analysis, avoiding prejudgement of the results.

## Visualisation

The following table provides a visual overview of the results of this report for each element of the evidence presented in the Impact Assessment, using an assessment from 1 to 7 to indicate the level of confidence (1 = highest, 7 = lowest confidence level).

Element	Assessment level & description (1...7)	Notes
Rhetoric	2 Minor questions identified on analysis and/or evidence	The language used is generally balanced and neutral.
Assumptions	4 Concerns identified with analysis and/or evidence	In many cases there is a lack of reference to evidence to support the assumptions quoted.
Background data	4 Concerns identified with analysis and/or evidence	Substantial background information is available but is not explicitly referenced in the IIA.
Analysis	6 Serious concerns identified with analysis and/or evidence	Insufficient evidence is presented to support the preliminary assessment of impacts, which in many cases is inadequate and lacks balanced analysis.
Results	6 Serious concerns identified with analysis and/or evidence	Due to the concerns with the assumptions and analysis, the results of the IIA lack the necessary robustness.
Results	6 Serious concerns identified with analysis and/or evidence	The preferred policy option is selected before reference even to the preliminary assessment of impacts, prejudging the ongoing consultation and full impact assessment.

### Key to assessment levels

1	2	3	4	5	6	7
Correct analysis, fully evidenced	Minor questions identified on analysis and/or evidence	Several questions identified on analysis and/or evidence	Concerns identified with analysis and/or evidence	Substantial concerns identified with analysis and/or evidence	Serious concerns identified with analysis and/or evidence	Incorrect analysis / evidence absent

## 1. Introduction and General Comments

This study scrutinises five European Commission Inception Impact Assessments (IIAs) on Ecodesign and Energy Labelling Requirements covering product categories:

- Computers
- Lighting Products
- Household Washing Machines
- Household Dishwashers
- Household Refrigerators (including freezers)

Issues common to the scrutiny of all five IIAs are presented in Chapter 2.

In the subsequent chapters, for each of the IIAs further elaboration on the issues is provided as well as commentary on items specific to each.

### 1.1. Ecodesign

The term 'ecodesign' covers the area of environmental impact of products including energy efficiency, design for minimum use of resources, reparability to maximise useful life and recyclability for maximum recovery of materials for further use. Full implementation of these objectives results in a 'Circular Economy' where loss of valuable material is minimised.

Energy labelling of products to indicate their energy consumption is seen as an important element in order to give consumers the information they need to choose energy efficient products.

The first eco-design legislation was introduced by the EU in 2005 and extended to additional products in 2009. The new legislation now in development aims to update it to take account of technology and product developments and changing lifestyles of EU consumers.

### 1.2. Scope and Timescale

The proposed new legislation covers consumer products which are listed in the European Commission's Ecodesign working plan 2016 – 2019<sup>1</sup>. The products for this priority update were identified in the "Omnibus Review Study"<sup>2</sup> of 2014: these are computers, lighting products and large domestic appliances. The targeted timescale is for completion of the full Impact Assessments (IA) is the second quarter of 2018.

A stakeholder questionnaire was open from 13<sup>th</sup> February 2018 until 7<sup>th</sup> May 2018 for all of the current Ecodesign proposals including the products addressed in this study. A review of the consultation found that a single questionnaire is being used to cover all product groups included in the new legislation, with dedicated sections for each of the product groups. The questions are multiple choice with very little scope for inputting free information. For a few of the questions there is an 'other' option which, when selected, opens up an additional text box into which a free comment of up to 200 characters can be made. There is one further free text box at the end of the questionnaire which will accept a maximum of 3000 characters.

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<sup>1</sup> <http://ec.europa.eu/DocsRoom/documents/20375>

<sup>2</sup> "Omnibus Review Study on Cold Appliances, Washing Machines, Dishwashers, Washer-Driers, Lighting, Set-top Boxes and Pumps", VHK et al, 12<sup>th</sup> March 2014.,

Along with the four-week opportunity for stakeholders to provide written feedback on the Inception Impact Assessment, this appears to provide adequate opportunity for responses. However, as noted in many previous Impact Assessment Institute studies, the multiple choice format is liable to misinterpretation when the results are evaluated. Even well-constructed multiple-choice questions cannot capture the necessary nuances in meaning that would be needed for stakeholders to communicate the precise intention of their response. The representativeness of the respondents cannot be guaranteed, since it is by nature a voluntary exercise.

When the responses are statistically evaluated, any such differences in meaning are lost and the broad percentages are likely to be unrepresentative of the true intentions of those responding, let alone of those affected. For example, stating that a majority of respondents prefer a particular objective or policy option is not a legitimate supporting justification for pursuing that option. The consultation can provide useful information on the opinions of those responding, but the subsequent processing and communication of its results must be conducted very carefully to ensure they are not used as inappropriate justification for policy decisions.

## 2. Overview of findings and common issues with the five IIAs

The following comments provide a summary of the issues identified in the IIAs, in particular those common to all, which are further substantiated with greater details in the subsequent Chapters.

### 2.1. Section A: Context, Problem Definition and Subsidiarity Check

Each IIA provides an adequate summary of the context requiring further legislation. In particular they cite the need to achieve the EU's 2020 and 2030 climate and energy targets, stating that the setting of minimum efficiency requirements for products and informing customers about energy performance and durability go together with a further move towards a circular economy.

Problem definitions are not accompanied by explicit references to background information to indicate their source. In three of the IIAs (dishwashers, washing machines and refrigerators), this section proceeds to discuss preliminary findings and suggests approaches, prejudging the subsequent sections and the ongoing consultation and Impact Assessment.

In the subsidiarity check in each IIA, a clear and adequate justification is given for why legislation, if entered into, should be EU-wide.

### 2.2. Section B: Objectives and Policy options

An overview of the policy objectives is provided in each of the IIA's. However, no reference to background information or studies is provided to show how they were derived.

In each of the IIAs, four policy options are presented, with the same structure in each case:

0. business as usual,
1. industry voluntary agreements,
2. revision of the Ecodesign regulation only
3. combined revision of the Ecodesign regulation and a new energy labelling regulation.

In each IIA, option 3 is selected as the preferred option. That this occurs before even the preliminary assessment of options raises a serious concern. The purpose of the evidence gathering process, including the IIA, the full IA and related activity, is to feed a well-informed determination of the most favourable option. Whilst at high level the options provide a sufficiently broad framework for consideration, selecting one at this stage is premature and undermines the impact assessment and ongoing consultation processes.

### 2.3. Section C: Preliminary Assessment Of Expected Impacts

A number of issues were identified with the preliminary assessments. In particular many impacts are stated without reference to any underlying evidence or background information. In certain cases only impacts that support the already proposed preferred option are presented, without recognising the counterarguments and any potential contradictory data and analysis. These are elaborated in the chapters dedicated to the individual IIAs.

## 2.4. Section D: Evidence Base, Data Collection and Better Regulation Instruments

Each IIA states only that an impact assessment is to be prepared (with the exception of the IIA on computers, which additionally states 'supported by external expertise with additional technical information and market data collected and analysed').

Due to the prejudgements already signalled in the text, regarding the prematurely stated policy option preference, the information about the Impact Assessment is not sufficient to provide stakeholders with confidence that an adequate one will be carried out in each case. At the very least, information on the relevant Directorates General and any planned external studies would have been useful information for stakeholders.

The sections on evidence base and data collection in each IIA provide an overview of the sources of data. However in certain cases relevant references are absent (explained in the sections dedicated to each IIA below).

Regarding consultation, each IIA provides an adequate overview of the activities. However, the results of the already competing consultation activities do not appear to be freely available, for example the consultation forum of December 2017.

### 3. Inception IA on Ecodesign and Energy Labelling Requirements for Computers

#### 3.1. Section A: Context, Problem Definition and Subsidiarity Check

The text cites a number of “Main problems that emerged...” to support the rationale for the proposed new legislation:

1. Representativeness of the real world use.
2. Unfair comparison between different models.
3. Poor reparability, premature obsolescence and increased waste. (There is no mention of the effects of obsolescence on the current manufacturers of products that will eventually be phased out, an issue identified in the supporting study.)
4. Difficulty of enforcing current requirements (also referring to the advantages of streamlining them).

This section does not explicitly refer to the review study run by external consulting companies<sup>3</sup>, nor does it indicate any derivation of the four problem areas identified, i.e. it does not clarify from where they “emerged”. The above problems are not explicitly found in the study. It is also premature to start assessing potential policy measures (as in 4. Above).

The study highlights in particular the fact that the computer industry is dominated by companies outside the EU and stresses the importance of aligning with US national standards such as Energy Star and the new standards being developed by the state of California. The report also looks at Ecodesign aspects and recycling of products. There is a rapid rate of change of computing products that is reflected in the frequent revisions seen in US regulations (particularly the ‘Energy Star’ standard where some recent revisions have occurred at two-year intervals) and significantly complicates the possibilities of maintaining EU legislation in this area. This increases the risk of obsolete equipment being directed towards the EU market. The supporting study found that the European version of the Energy Star database (for products sold only in the EU) contained much less data (105 columns in the EU database versus 630 in the US database).

The report concludes that this speed of technology change in the computer industry will force the EU into a repeating cycle of catch-up with legislation which will create a significant burden on the Commission and the industry to maintain effective legislation.

The above prominent points are not included in the problem definition in the IIA but appear to be highly relevant to considerations about revised legislation.

In particular, the option of not maintaining EU legislation also requires assessment, which would imply reliance instead on the US Energy Star database, according to the findings in the above section. If EU legislation is to be maintained the EU would need to make a commitment to update the legislation regularly, reflecting changes in products and legislation in the main producer countries (mainly the USA). This issue is not identified in the IIA, but should be assessed in further analysis. In addition, the potential for regulatory cooperation and alignment could be assessed in-depth.

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<sup>3</sup> “Preparatory study on the Review of Ecodesign Regulation 617/2013 (Lot 3) - Computers and Computer servers”, VITO, February 2017. <https://computerregulationreview.eu/documents>



### 3.2. Section B: Objectives and Policy Options

#### a. Objectives

Four objectives are listed, referring to the results of the review:

- taking into account technological progress
- taking into account market trends
- delivering consumer savings and new jobs from improving reparability
- simplifying requirements

Again there appears to be a relation between these and part of the text of the review study, but no derivation is referenced, preventing the reader from understanding their origin and reasoning.

#### b. Policy Options

Four options are listed:

1. business as usual,
2. industry voluntary agreements,
3. revision of the Ecodesign regulation only
4. combined revision of the Ecodesign regulation and a new energy labelling regulation.

No reference is made to any methodology or derivation of these options. Whilst they appear to cover the range of reasonable options, explanation for their compilation would be necessary for stakeholders to understand the intentions.

#### c. Preferred Solution

At this stage in the legislative process it is inappropriate to include a section entitled "Preferred solution". It is the objective of the later section on preliminary assessment of impacts and in particular the future Impact Assessment to study the options and determine which solution is most effective in meeting EU policy objectives.

The IIA gives a brief justification for introducing modified efficiency measures and energy labels but the problem of maintaining legislation in a very fast moving technology is not addressed. Future-proofing is particularly relevant in this case but is not addressed.

Furthermore, the shift from traditional desktop computers to laptops and tablet computers has of itself greatly reduced computer power consumption (see figure 4 in the Task 5-6 consultants' report). The overall effect of this technology shift requires full analysis with respect to any proposed new legislation. Other shifts of a similar or different nature are possible in the future and their potential nature and effects could be considered.

### 3.3. Section C: Preliminary Assessment Of Expected Impacts

The introduction to this section states that the impacts are those deriving from the preferred option (i.e. option 3). However the section goes on to assess all the policy options.

#### a. Likely Economic Impacts

The IIA concludes that policy option 3 is optimal for end-users, industry and procurers on the basis of lower energy bills, longer life, reduction in waste and encouraging industry research and development, whilst also triggering competition benefitting industry. However, this analysis that does not take into account the potential costs of legislation, nor of the difficulties of maintaining legislation in a fast moving technology and the effects of the shifts in technology identified by the supporting consultants' report. It is therefore incomplete, unbalanced and inadequate, even for a preliminary assessment.

b. Likely Social Impacts

This section states that policy option 3 would benefit end-users including businesses and households by facilitating choice between less efficient and less durable products and more durable repairable and efficient ones. The reasoning behind this assertion is not conclusive given the wealth of data available on computer performance on the public Internet. The benefits of longer life and more durable computer products should also be put into context of the arguments set out in the context section above.

c. Likely Environmental Impacts

Reduced electricity consumption leading to lower CO<sub>2</sub> emissions is cited with a prediction of 10% increase in total electricity consumption by 2030 without legislation versus up to a 30TWh (50%) reduction with full implementation. Further benefits could increase user lifetime with reduction in waste electrical and electronic equipment (various figures for different materials are quoted). The consultants' study is cited and the figures appear to be consistent and feasible. However, for the sake of reader understanding and review, it would have been most appropriate to provide a reference to the specific section in the study where this information is located.

d. Likely Impacts on Fundamental Rights

None are expected

e. Likely Impacts on Simplification and/or Administrative Burden

The text states that overall the administrative burden is expected to be negligible with respect to benefits. Disproportionate burdens on manufacturers are avoided due to transitional periods which duly take into account redesigned cycles. These assertions appear to be doubtful given the issues identified in 2.1.2 above. It is also an insufficient assertion, since burdens and benefits need to be assessed in the overall context, not in isolation.

It is not explained why combining energy labelling and Ecodesign will simplify market surveillance. Removing tablets and servers from the scope of the regulation and avoiding/reducing allowances may indeed simplify conformity assessment and compliance control, but this proposal does not appear in the earlier part of the IIA.

### 3.4. Section D: Evidence Base, Data Collection and Better Regulation Instruments

a. Evidence Base and Data Collection

The text states that poor and incomplete data were found during the review study as a result of 'non-compliance with information requirements'. It is not made clear which sources of information were non-compliant. It goes on to state that the Energy Star program was used as the 'most relevant and complementary' information source and that other studies and reports from the US markets will provide additional data. The consultant's report (Task 7.1 p.11) implies that even the US Energy Star standards are struggling to keep up with the pace of change in the computer industry with frequent revisions required that raise further concerns about data validity.

## 4. Inception IA on Ecodesign and Energy Labelling Requirements for Lighting Products

### 4.1. Section A: Problem Definition and Subsidiarity Check

#### a. Problem the Initiative Aims to Tackle

The lead-in section states that lighting is one of the largest consumers of electricity in the EU at 335TWh per year, but does not put this into context of overall energy use in the EU. It then proceeds to explain the aims of the review, being to:

1. Capture energy-saving potential from technology improvements with projected improvements of 50TWh/yr by 2030, mainly from a switch to LED technology.
2. Simplify and clarify current legislation including improved market surveillance.
3. Update the energy labelling regulations for lighting products in line with new legislation.

There is a further proposal to bring convergence with requirements in other countries to enable freer trade in different parts of the world but it does not indicate considerations on the analysis necessary to determine how this might be achieved. An additional objective is cited to implement Ecodesign practices to cover resource efficiency aspects, greater durability and design for disassembly and reparability to support the Circular Economy initiatives.

These appear to be relevant provisions. However this is not part of a problem definition, but rather belongs to the later identification of objectives and policy options. This lessens the value of these provisions and indicates some prejudgement of the outcome.

There is no mention of the effects of obsolescence on the current manufacturers of products that will eventually be phased out, an issue identified in a supporting study (see below).

### 4.2. Section B: Objectives and Policy Options

#### a. Objectives

This section lists six different objectives without providing background information or justification as to how these particular objectives were selected. This is despite the fact that the Commission funded an extensive study run by external consultants<sup>4</sup>, which includes a summary report identifying many different issues and options. To provide sufficient information to the reader, this section should have been supported with direct references to the relevant parts of that report.

#### b. Policy Options

The preferred option is prematurely selected, as indicated in Chapter 2.

This section also omits to mention any of the potential negative effects highlighted in the summary consultant's report (see section 4.3a below).

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<sup>4</sup> "Preparatory Study on Light Sources for Ecodesign and/or Energy Labelling Requirements ('Lot 8/9/19'). Final report. Project Summary", VITO, VHK, 8<sup>th</sup> December 2015.

### 4.3. Section C: Preliminary Assessment Of Expected Impacts

#### a. Likely Economic Impacts

This section presents a number of claims for economic benefits together with a statement that jobs will not be lower than in the BAU scenario. It further predicts cost savings for end-users of 10-15 billion euros per year by 2030.

There is no data, derivation or reference presented for any of these benefits. Furthermore, potential negative effects are omitted, specifically the impacts on current producers whose products will be made obsolete by the requirements of the new legislation and possible price increases to producers and consumers through potentially higher product costs and the need to replace outdated equipment.

The accompanying consultants' report indicates that under business as usual there would be savings of 110TWh/yr by 2030. With full implementation of projected best available technology in 2030 further savings would be 65TWh/yr (about 2% of overall EU consumption in 2016). Whilst the absolute projected energy savings appear to be material, the evidence needs to make well-founded arguments for the legislation in the context of the relative savings overall.

#### b. Likely Social Impacts

Benefits to consumers through lower energy bills are highlighted but no mention is made of the potential additional costs to consumers highlighted in section a. above (both financial and in terms of actual and perceived effort to change purchasing behaviour).

No consideration was given to possible redundancies of workers who could be laid off as the result of legacy product obsolescence.

#### c. Likely Environmental Impacts

Reduced electricity consumption leading to lower CO<sub>2</sub> emissions is cited. Light sources using mercury are expected to be reduced or eliminated. Better material efficiency and reparability are also cited as benefits.

Qualitatively these appear to be relevant issues, but there is no supporting numerical or other evidence presented to support the statements. The consultants' report indicates that additional measures beyond BAU would be minimal and would likely be achieved in any case through market forces (see figure 11 of summary report).

Further, the relevance of reparability in the case of lighting products is not explained.

#### d. Likely Impacts on Fundamental Rights

None expected.

#### e. Likely Impacts on Simplification and/or Administrative Burden

This section states that overall the administrative burden is expected to be negligible with respect to benefits: combining three existing regulations into one should diminish overall administrative burden. Additional statements are made related to transitional periods, removal of energy label requirements for luminaires while maintaining energy labelling on

lamps included in luminaires. These arguments appear to be consistent, but, as in Section 3.3 above, the assertion on its own with reference to evidence is not a sufficient substantiation.

No assessment is presented for the effects of burdens placed on manufacturers who may find their existing production lines becoming obsolete due to technology changes and new requirements, though it is stated that transitional periods will be set to take into account redesigned cycles.

#### 4.4. Section D: Evidence Base, Data Collection and Better Regulation Instruments

##### a. Evidence Base and Data collection

The use of the external consultants is noted here in the context of 'MELISA', a spreadsheet-based simulation tool developed as part of the project to enable the effects of different scenarios to be analysed in terms of sales volumes, product performance and prices (this tool is freely available for non-commercial use and its functions are transparent with no hidden functions). However there is no mention of the overall extent of the consultants' project or any reference to a summary of its findings.

## 5. Inception IAs on Ecodesign and Energy Labelling Requirements for Washing Machines and Dishwashers

Note: the inception impact assessments for dishwashers and washing machines are almost identical with a common format and only small differences in the text. These two reports are therefore combined into a single section highlighting the differences where relevant.

### 5.1. Section A: Context, Problem Definition and Subsidiarity Check

#### a. Context

The IIAs' explanation of the case for considering new legislation refers to the potential need to revise the 2005 legislation as envisaged when the legislation came into force.

#### b. Problem the Initiative Aims to Tackle

The overall EU consumption of washing machines and dishwashers of electricity and water is quoted (36TWh / 31TWh and 1600m<sup>3</sup> / 317m<sup>3</sup> per year respectively). Information on the proportion this represents of total EU consumption would be necessary in order to provide a relevant context.

This section then proceeds to advocate revision of the regulations by quoting preliminary findings. Whether or not this analysis is correct, it prejudices the assessment section of the Inception IA and the planned full IA, and is inappropriate at this point in the document.

### 5.2. Section B: Objectives and Policy Options

#### a. Objectives

This section (in both IIAs) lists seven different objectives that would be pursued, without providing any justification as to how these objectives were selected. There is no explicit reference to the findings of the relevant studies:

- Extensive study by the Joint Research Centre on dishwashers
- A more limited report by the European Committee of Domestic Equipment Manufacturers (CECED), mainly confined to testing methods.

Given the scope of these studies, more explanation of how the objectives were derived would have been necessary, in order for the reader to gain an understanding of the reasoning.

#### b. Policy options

The preferred option is prematurely selected, as indicated in Chapter 2.

### 5.3. Section C: Preliminary Assessment of Expected Impacts

#### a. Likely Economic Impacts

This section states that the higher investment and production costs will be recuperated by higher sales prices. This will be true only if demand is not significantly impacted by those higher prices. It then states that this thereby generates extra business. This argument appears to imply that higher costs to industry, for products with the same utility as previous versions, are therefore a benefit, which contradicts accepted economic understanding.

It further states that the regulations are expected to lead to better international competitiveness and that the savings on energy bills will outweigh the price increase of the machines leading to reduced costs for end-users in comparison with business as usual. This is qualitatively a more rational argument, but evidence is required to demonstrate the relative magnitude of the costs and benefits and therefore to substantiate the conclusion. This should be an outcome of the full Impact Assessment and is a premature conclusion at this point.

b. Likely Social Impacts

This section states that reducing energy consumption also decreases air pollution, but this correlation is not automatic and depends on the technical details of the machines in question and the source of the energy. The cited lower vulnerability to droughts is qualitatively correct but full assessment is necessary to determine if the extent is sufficient to bring a material impact.

It further states that preliminary findings indicate that the revision of the regulations could bring extra jobs in the relevant industries, without providing any reference for the calculations. Potential for increased employment will depend to a great extent on the economic benefits being positive, which has not yet been demonstrated.

It should be noted that recent UK data indicates that these appliances are responsible for a high number of domestic house fires – see appendix to this section below. Further analysis could address relevant design features related to energy consumption that also affect product safety.

c. Likely Environmental Impacts

Figures are quoted here for the 'preferred' option.

For washing machines electricity savings of up to 1.7 TWh/yr are quoted (a relatively small figure in the context of overall domestic electricity consumption). Up to 100m m<sup>3</sup> per year water savings are quoted: it is assumed is relative to the 2100M m<sup>3</sup>/yr projected for 2030. For dishwashers, figures for energy and water savings are quoted which are similar in magnitude.

It states that further savings are being considered in the planned revision, to address material efficiency concerns, reparability and resource savings to support the Circular Economy but no figures are provided.

## 5.4. Section D: Evidence Base, Data Collection and Better Regulation Instruments

a. Evidence Base and Data Collection



The existence of industry based market data is mentioned which includes data on the performance of EU models plus confidential data on market trends. However there is no mention or summary of the more independent data gathered by the JRC.

### Appendix: Product Safety

A serious fire occurred in a block of apartments in London in June 2017 which resulted in the deaths of 71 people. The preliminary investigation of the fire indicates that it probably originated in a fridge-freezer. As a consequence of this fire the Consumers Association (CA), a UK consumer research and lobbying organisation, obtained data from UK fire services to determine the extent of house and apartment fires related to domestic appliances. CA found that in the three years up to March 2014 (the latest date for which statistics were available) there were approximately 3700 house fires per year originating in domestic appliances. Nearly 40% of the fires were caused by washing machines, tumble dryers and dishwashers, with the remaining fires relating to nine other categories of appliance.

It would be relevant to consider the safety issues in the context of Ecodesign when the legislation relating to domestic electrical appliances is updated, since there is likely to be interaction between energy efficiency effects and fire safety, as energy consumption, heat dissipation and electrical robustness are intrinsically linked.

## 6. Inception IA on Household Refrigerators

### 6.1. Section A: Context, Problem Definition and Subsidiarity Check

#### a. Context

This context section is largely similar to those for dishwashers and washing machines and provides an adequate justification for investigating the potential of new legislation.

In addition to statements about energy-saving, material use reduction and extended lifetimes, there is also a reference to a review study that identified opportunities for reduction of food waste.

#### b. Problem the initiative aims to tackle

Similar problems are listed as for the other products, including improvements in efficiency and enhanced requirements to promote the circular economy as well as closure of legal loopholes in existing legislation that are being used to understate real electricity consumption in certain products. Again these are not substantiated by referenced background data.

The text projects a reduction of total power consumption from 86 TWh/yr to 57 TWh/yr by 2030 under business as usual. The projected further reduction of 10 TWh/yr by 2030 full implementation of the IIA proposals is material but being significantly less than the business as usual reduction does not in itself provide a strong rationale.

The possibility of allowing refrigerators to consume more energy if they can prevent food waste is also mentioned but is not put into context of the amount of food waste currently caused by inadequate domestic refrigeration.

### 6.2. Section B: Objectives and Policy Options

#### a. Objectives

The quoted objective, to contribute to energy efficiency, CO<sub>2</sub> emission abatement and security of energy supply as well as realising a high level of environmental and consumer protection, is consistent with EU policy and the treaties. The text quotes seven issues for which solutions are to be identified by the impact assessment, including generating energy and financial savings and supporting competitiveness. The list appears to be a consistent summary of relevant issues, but no reference is given to show how the issues were generated and there is no explanation or justification of how these objectives were selected despite the fact that the Commission funded an extensive independent study<sup>5</sup>.

#### b. Policy options

The preferred option is prematurely selected, as indicated in Chapter 2.

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<sup>5</sup> "Preparatory/review study: Commission Regulation (EC) No. 643/2009 with regard to Ecodesign requirements for household refrigeration appliances", VHK and ARMINES, 4<sup>th</sup> March 2016.

In this IIA, this section itself references the upcoming impact assessment, despite already prejudging the outcome.

### 6.3. Section C: Preliminary Assessment of Expected Impacts

The text states that the expected impacts derive from the preferred option. The objective of assessing impacts is to be able to compare the impacts of all options, enabling selection of the best option. The method used appears to negate the value of the impact assessment and of the ongoing public consultation, prejudging the answer.

a. Likely economic impacts

The text states that the requirements will require higher investments by manufacturers and result in higher production costs. It then states that this represents extra business for the sector, implying that higher costs are therefore positive, against accepted economic understanding.

It further states that costs will be outweighed by savings on energy bills. The analysis has not yet been done to determine the relative magnitude of costs and benefits. It is therefore premature to state this conclusion.

b. Likely social impacts

No reference is provided for the projections of 36,000 new jobs created by 2030 and €3.5 billion savings per year for consumers by 2030.

Finally this section states that optimised food storage appliances will result in a 2% saving in food waste. The proportion of households using such devices is not quoted and it is not clear if the additional energy use of such appliances (20%) has been taken into account in the calculation of household savings above.

c. Likely environmental impacts

The energy saving of 10TWh per year energy savings by 2030 appears to be a feasible figure.

d. Likely impacts on fundamental rights

No impact expected.

e. Likely impacts on simplification and/or administrative burden

There is an adequate justification for the conclusion presented that there will not be a significant additional administrative burden as a result of the proposed legislation.

### 6.4. Section D: Evidence Base, Data Collection and Better Regulation Instruments

A number of sources of data are listed but no detail is given. It would have been appropriate here to provide a reference to the "Several market research entities or industry associations [that] have set up a comprehensive market data collection for this sector", in order to allow stakeholders to review the data..

Note:

There is a dedicated EU website at <http://www.ecodesign-fridges.eu/Pages/documents.aspx> entitled 'Preparatory Study on Household Refrigerators & Freezers' where many documents can be found (including the consultants' final reports) from where much of the data feeding into this IAA clearly originated. The final reports run to over 500 pages: it would have been helpful in comprehending this IIA if these reports were more clearly referenced.