

# Summary of CECED Unilateral Industrial Commitments



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# Voluntary Commitment on Reducing energy consumption of domestic washing machines

**Date of issue:** September 24, 1997

Validity Period: from 31 December / 1997 until 31 December / 2001

Signatories Antonio Merloni Arçelik Brandt BSH Candy Electrolux Fagor Merloni	Date of signature Nov 1999	Signatories Miele Smeg V-Zug Whirlpool	Nov 1999 Nov 1999 Nov 1999 Nov 1999 Nov 1999
Merloni	Nov 1999		

#### **Commitment:**

#### **Hard Targets:**

Step one: participants will stop producing for and importing in the Community Market domestic washing machines which belong to the energy efficiency classes E, F and G after 31.12.1997. Domestic washing machines with load capacity equal or smaller than 3 Kg which belong to class E, and vertical axes machines will still be allowed on the market.

Step two: participants will stop producing for and importing in the Community Market domestic washing machines which belong to the energy efficiency classes D, E, after 31.12.1999. Domestic washing machines with load capacity equal or smaller than 3 Kg which belong to class D will still be allowed on the market. Domestic washing machines with spin speed lower than 600 rpm which belong to class D will still be allowed on the market.

#### **Fleet Targets:**

Each participant will engage himself to contribute to the Commitment overall objective of achieving a European production weighted average of 0.24 KWh/Kg for the year 2000. Starting from 1998 each participant will provide the CECED notary consultant, as specified in part B of this clause, and according to the procedure specified in Annex 3, with production weighted energy consumption data for the previous calendar year.

Additionally soft targets are fixed. Please refer to the full protocol text for additional details.

Tranable reports.	Date of Issue.
CECED Report to the E.C. about the Voluntary Commitment on Washing Machines + Annexes	August 2000
CECED Report to the E.C. about the Voluntary Commitment on Washing Machines + Annexes	September 2001
CECED Report to the E.C. about the Voluntary Commitment on Washing Machines	September 2002
CECED Report to the E.C. about the Voluntary Commitment on Washing Machines + Annexes	November 2003

Date of issue:

**Entrusted Notary**: PriceWaterhouseCooper

#### **Notes:**

Available reports:

The agreement was notified to DG Competition in October 1997 and the European Commission approved a decision on 24<sup>th</sup> January 2000 with a derogation to European competition law (articles 21 and 82 of EC Treaty) until 31/12/2001.

Since then the companies are not formally bound any longer to the commitment however the transformation of the market is permanent.

The European production weighted average in year 2001 was 0.208 kWh/kg with an improvement of 30,6 %.



# Voluntary commitment on Reducing standing losses of domestic electric storage water heaters

**Date of issue:** November 19, 1999

Validity Period: from 1 December / 1999 until 31 December / 2003

Signatories	Date of signature	Signatories	Date of signature
Atlantic Group	Dec 1999	Stiebel Eltron	Dec 1999
Baxi	Dec 1999	Technotherm	Dec 1999
BSH	Dec 1999	Joh. Vaillant	Dec 1999
Electrolux	Dec 1999	Société thermique de Valence	Dec 1999
Fagor	Dec 1999	Siemens Heiztechnik	Dec 1999
Lorenzi Vasco	Dec 1999	Olsberger Hütte	Dec 1999
Merloni Termosanitari	Dec 1999	-	

#### **Commitment:**

**Step one:** CECED manufacturers of DESWH voluntarily make a standing losses declaration in the form of additional and clearly visible data as soon as the content of the directive is approved, thus anticipating the process of transposition into the Member states legislation. The manufacturers' initiative might then be two or three years ahead of the implementation of the directive.

CECED manufacturers voluntarily provide CECED, every year, with the list of all the models manufactured for, or imported into, the EU, with all the data specified in the energy declaration directive.

#### **Hard Targets:**

**Step two:** after December 31, 2000 participants stop producing for and importing into the Community market:

- Small appliances the standing losses of which exceed the maximum allowable standing loss values (Emax expressed in kWh per 24 hours) as calculated according to the following formulas:
- Unvented products:  $Emax = 0.1474 + 0.0719 \times V2/3$
- Vented products:  $Emax = 0.1561 + 0.0802 \times V2/3$
- Vertical appliances the standing losses of which exceed the maximum allowable standing loss values (Emax expressed in kWh per 24 hours) as calculated according to the following formulas:
- Unvented products:  $Emax = 0.224 + 0.0663 \times V2/3$
- Vented products:  $Emax = 0.236 + 0.074 \times V2/3$
- Horizontal appliances the standing losses of which exceed the maximum allowable standing loss values (Emax expressed in kWh per 24 hours) as calculated according to the following formulas:
- Unvented products:  $Emax = 0.939 + 0.0104 \times V$
- Vented products: Emax = 1.034 + 0.0116 x V

#### **Fleet Targets:**

**Step three:** each participant is committed to contributing to the overall objective for the European production to achieve a reduction in the weighted average standing losses by the

beginning of 2002.

By this engagement each manufacturer undertakes to reduce the weighted average standing losses for each volume of his production to the following thresholds (E<sub>max</sub> expressed in kWh per 24 hours):

- Small appliances:  $E_{max} = 0.13 + 0.0553 \times V_{2/3}$
- Vertical appliances:  $E_{max} = 0.2 + 0.051 \text{ x V}_{2/3}$
- Horizontal appliances: E<sub>max</sub> = 0.75 + 0.008 x V

An exception to this would be UK vented products, which would reach Step three at the end of 2002.

This target is set for the following most relevant groups of unvented and direct vented DESWH:

- Small type DESWH with a rated capacity of 25 to 45 litres
- Vertical type DESWH with a rated capacity above 45 and up to 220 litres
- Horizontal type DESWH with a rated capacity above 45 and up to 220 litres. Starting from 2000 each participant is to provide the CECED notary consultant, as specified below with the weighted standing losses data for his production of the previous calendar year.

Available reports:

Report to EC on 2001 production

Report to EC on 2002 production

Date of issue: April 2003 April 2004

Entrusted Notary: PriceWaterhouseCooper

#### Note:

The commitment was notified to DG Competition on 20<sup>th</sup> April 2000. The investigation was concluded with a letter of comfort in November 2001.



### Voluntary Commitment on Reducing energy consumption of household dishwashers

Date of issue: November 19th, 1999

Validity Period: from 31 December / 1999 until 31 December / 2004

Signatories	Date of signature	Signatories	Date of signature
Antonio Merloni	Nov 1999	Miele	Nov 1999
Arçelik	Nov 1999	Smeg	Nov 1999
Brandt	Nov 1999	V-Zug	Nov 1999
BSH	Nov 1999	Whirlpool	Nov 1999
Candy	Nov 1999	_	
Electrolux	Nov 1999		
Fagor	Nov 1999		
Merloni	Nov 1999		

#### **Commitment:**

#### Elimination of less efficient dishwashers ("hard target")

**Step one**: Participants will stop producing for and importing in the Community Market dishwashers which belong to the energy efficiency classes E, F and G (for >=10 place settings) or F and G respectively (for <10 place settings) by 31 December 2000.

**Step two**: Participants will stop producing for and importing in the Community Market dishwashers which belong to the energy efficiency class D (for >=10 place settings) or E respectively (for <10 place settings) by 31 December 2003.

#### Reducing the fleet consumption ("fleet target")

Each participant will engage himself to contribute to the Commitment's objective of achieving a reduction of the overall European production weighted average energy consumption of dishwashers by 20% for the year 2002 compared to the standard base case. This base case is described in the studies:

- -"Technical/economic analysis of dishwashers"; van Holsteijn en Kemna; Delft July 96
- -"Energy consumption of dishwashers (4–16 settings)"; van Holsteijn en Kemna; Delft October 1997

Additionally soft targets are fixed. Please refer to the full protocol text for additional details.

#### Available reports: Date of issue:

CECED Report to the E.C. about the Voluntary Committment on
Dishwashers: 2002 production

Reports on 2001 and 2000 productions

Report on 2001 production

September 2002

**Entrusted Notary**: PriceWaterhouseCooper



# Agreement about the internal verification procedure

Date of entry into force: October 2000

Validity Period: from October / 2000 until no termination date

#### **Direct Members Non Direct Members Signatories** $\mathbf{DW}$ $\mathbf{W}\mathbf{M}$ Cold **Signatories** $\mathbf{DW}$ $\mathbf{W}\mathbf{M}$ Cold Brandt X X X X X X Arçelik **BSH** X X X Antonio Merloni X X X X X Candy X X Domar Electrolux X X X X X **SMEG** Fagor X X X X Gorenje X Liebherr X Merloni X X X Miele X X X Whirlpool X

#### **Commitment:**

The agreement is intended to establish the procedure with clear deadlines that allows the handling of challenges that may be done by one participant to the Energy Declaration issued by another participant.

The procedure is based on the first phase of bilateral talks aiming at activating a consensus without the intervention of a third party.

If this fails, participants mutually agree to accept the response of a third party laboratory chosen within CECED accredited ones.

#### **Updated version mid-2003**

Changes in testing rules as adopted by WG Energy and TC beginning of July 2003



# Agreement concerning a common basis for noise declaration of large and small household appliances

Ref.: LA-D 01-36

### **Large Appliances**

**Date of entry into force:** September 15<sup>th</sup> 2001

**Transition Period: from** 15 September / 2001 until 31 December / 2001

**Small Appliances** 

Date of entry into force: April 15th, 2002

Transition Period: from 15 April / 2002 until 31 December /2002

Small Appliances		Large Appliances		
Signatories	Date of signature	Signatories	Date of signature	
BSH	May 2002	BSH	Aug 2001	
Candy	May 2002	Candy	Sept 2001	
Electrolux	April 2002	Electrolux	Oct 2001	
Miele	March 2002	Merloni	Nov 2001	
Philips	April 2002	Miele	Sept 2001	
SEB	March 2002	Liebherr	Sept 2001	

#### **Commitment:**

The signatories agree on 93.5% as defined in IEC 60704-3 and in CECED  $\pi$ - certification as common basis for declaration of noise emission values of large household appliances.

#### Note:

After the agreement was signed the European Commission issued a communication (2004/C12/03, published in OJEU C12 on 16<sup>th</sup> January 2004) that clarifies the previous ambiguous situation.



# Agreement concerning maximum load declaration of washing machines, washer driers and tumble driers

**Ref.:** LA-D 01-35

**Date of issue:** 5<sup>th</sup> November 2001

Date of entry into force: 1st October 2001

**Transition period:** from 1 October / 2001 until 1 October / 2002

Signatories	Date of signature
Antonio Merloni	Nor 2001
Arçelik	Feb 2002
BSH	Oct 2001
Candy	Oct 2001
Dyson	Sept 2001
Elco-Brandt	March 2003
Electrolux	Oct 2001
Fagor	Oct 2001
Fors	Sept 2001
Fox Bompani	Aug 2001
General Domestic Appliances	Oct 2001
Gorenje	July 2001
Merloni	Aug 2001
Miele	Oct 2001
Whirlpool	Aug 2001

#### **Commitment:**

The manufacturer declares as maximum capacity of a washing machine, washer-dryer or tumble dryer no other capacity as the one declared to be used for measurements according to the relevant energy label standards.

#### Three deadlines are set:

- The references to New models on any New deliverable are in line with the stated principle from the 1st October 2001.
- The references to Old Models on any New deliverable, not in line with the stated principle are tolerated until the **31st of March 2002**. The stock of those New Deliverables existing on the 31st of March 2002 can be used until the 1st of October 2002. All New deliverables produced after the 31st of March 2002 must be in line with the principle for all the Old and New Models.
- The use of Old Deliverables is tolerated until the **1st of October 2002**. After this date the Old Deliverables, if still available, must be withdrawn and only Deliverables fully in line with the principle can be used.

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## Second Voluntary commitment on Reducing energy consumption of domestic washing machines

Date of issue: October 31, 2002

Validity Period: from 31 December / 2002 until 31 December / 2008

Signatories	Date of signature	Signatories	Date of signature
Antonio Merloni	Oct 2002	Gorenje	Oct 2002
Arçelik	Oct 2002	Merloni	Oct 2002
BSH	Oct 2002	Miele	Oct 2002
Candy	Oct 2002	Smeg	Oct 2002
Elco-Brandt	Oct 2002	Whirlpool	Oct 2002
Electrolux	Oct 2002	_	
Fagor	Oct 2002		

#### **Commitment:**

#### "Hard targets":

By 31.12.2003<sup>1</sup> participants will have stopped producing for, and importing<sup>2</sup> in, the Community Market domestic washing machines which belong to energy efficiency class D.

A marginal model on the market: washing machines without heater and with vertical axes, are excluded from this target.

#### "Fleet target":

• Each participant will commit himself to contribute to the Commitment overall objectives of achieving a European production weighted average of 0.20 KWh/Kg for the year 2008

Additionally soft targets are fixed. Please refer to the full protocol text for additional details.

Available reports: Date of issue:

CECED Report to the E.C. about the Second Voluntary Commitment on Washing Machines (2002 production) + Annexes

November 2003

Entrusted Notary: PriceWaterhouseCooper

<sup>&</sup>lt;sup>1</sup> Models of classes E,F and G were already eliminated by the first negotiated agreement

<sup>&</sup>lt;sup>2</sup> Including under own brand and private labels



### Voluntary Commitment on Reducing energy consumption of household refrigerators, freezers and their combinations

**Date of issue:** October 31<sup>st</sup>, 2002

Validity Period: from 31 December / 2002 until 1 December / 2010

Signatories	Date of signature	Signatories	Date of signature
Antonio Merloni	Oct 2002	Iar Siltal	Oct 2002
Arçelik	Oct 2002	Liebherr	Oct 2002
BSH	Oct 2002	Merloni Electrodomestici	Oct 2002
Candy	Oct 2002	Miele	Oct 2002
Elco-Brandt	Oct 2002	Vestfrost	Oct 2002
Electrolux	Oct 2002	Whirlpool	Oct 2002
Fagor	Oct 2002		
Gorenje	Oct 2002		

#### Commitment: (updated by GS 03-139)

#### Withdrawal of less efficient household refrigerating appliances ("hard target")

Participants will stop producing for, and importing<sup>3</sup> in, the Community Market electric compressor based household refrigerating appliances having an energy efficiency index 75 and above (except for chest freezers), by 31st December 2004.

Furthermore participants will stop producing for, and importing<sup>4</sup> in, the Community Market electric compressor based chest freezers having an energy efficiency index 90 (corresponding to class D instead of C) and above by 31st December 2004.

#### Reducing the fleet consumption ("fleet target")

Each participant will reduce its own production - weighted average energy efficiency index – at least to a value of 55 (LLCC) for production and importation into the EU market by the year 2006. In the case EU and national authorities fail to develop in this time frame effective market transformation tools, participants however commit to achieve a fleet target by 57 (weighted average energy efficiency index).

#### Note:

The original commitment was referring to 31<sup>st</sup> March 2004 with a value of 52/54 according to the draft labeling Directive available at the moment it was notified. Due to the modification introduced afterwards to the formulas in the energy label directive, the values of the agreement have been realigned. The agreement is extended with new values to the ten new member states, except Malta and Cyprus.

**Update:** GS 03-139 dated 17.09.03

<sup>&</sup>lt;sup>3</sup> Including under own brands and private labels

<sup>&</sup>lt;sup>4</sup> Including under own brands and private labels



# Code of Conduct for A+/A++ declaration Washing machines, refrigerators, freezers

Date of entry into force: 1st December 2002

Validity Period: from 1 December / 2002 until no termination date

Signatories	Date of signature	Signatories	Date of signature
Arçelik	June 2003	Liebherr	Nov 2002
Antonio Merloni	March 2003	Electrolux	Nov 2002
BSH	Dec 2002	Fagor	Nov 2002
Elco-Brandt	Dec 2002	Merloni	Nov 2002
Candy	Dec 2002	Whirlpool	Nov 2002
FEA	Decr 2002	Miele	Nov 2002
Gorenie	Nov 2002		

#### **Commitment:**

Manufacturers will not use in their communication the marks/definitions A+ and A++in any other context than the ones defined in the draft directives on the agreement available at that moment<sup>5</sup>: i.e..only if the message relates to energy-efficiency levels higher than the A-class of the official energy label concerned of domestic refrigerators, freezers and washing machines.

#### Note:

As the A+ / A++ for refrigerators was approved as a directive on 3<sup>rd</sup> July 2003 (Directive 2003/66/EC), the agreement lost of relevance.

As the draft directive on washing machines was rejected this had opened a debate about the prosecution of this agreement, which has led to the agreement on energy declaration [see next page].

<sup>&</sup>lt;sup>5</sup> See annex 1 of the full protocol



# Agreement on energy declaration of washing machines

**Ref.:** LA-D 03-13

**Date of issue:** January 2004 **Transition period:** None

Signatories (so far)	Date of signature
Arçelik	Dec 2003
BSH	Nov 2003
Candy	Oct 2003
Elco-Brandt	Oct 2003
Electrolux	Oct 2003
Gorenje	Oct 2003
Merloni	Nov 2003
Miele	Sept 2003

#### **Commitment:**

The signatories are committed to abstaining from making claims of energy-efficiency better than A (energy label class A for washing machines) unless the energy consumption is below or equal to 0,17 kWh/kg and A class level for washing performance (following EN\_60456\_A13).



# Agreement concerning maximum load declaration of dishwashers

**Date of issue:** March 2004

**Transition period:** from 1 March / 2004 until 1 October / 2005

Signatories (so far) Date of signature

Arçelik Feb 2004 **BSH** Feb 2004 Candy March 2004 Elco-Brandt Jan 2004 Electrolux Jan 2004 Feb 2004 Fagor Gorenje Feb 2004 Merloni Feb 2004 Miele Jan 2004 V-Zug May 2004 Whirlpool Feb 2004

#### **Commitment:**

The manufacturer declares as maximum capacity of a dishwasher no other capacity - number of place settings - as the one declared to be used for measurements according to the relevant energy label standards.



# **Convention Lave-vaisselle** (Dishwasher agreement)

**Country: France** 

Date of issue: 10 July, 1996

Validity Period: from 10 July / 1996 until no termination date

Signatories	Date of signature	Signatories	Date of signature
Brandt	Nov 1995	Gorenje	Nov 1995
BSH	Nov 1995	Merloni	Nov 1995
CANDY	Nov 1995	Miele	Nov 1995
EBERHARDT	Nov 1995	SMEG	Nov 1995
ELECTROLUX	Nov 1995	Whirlpool	Nov 1995
FAGOR	Nov 1995	•	
GORENJE	Nov 1995		

#### **Commitment:**

The airborne acoustical noise A[dB (A)re 1pW] emitted by dishwashers should be expressed in compliance with the procedures defined by the norm EN 60 704-3 of December 1994.



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# VOLUNTARY COMMITMENT ON REDUCING ENERGY CONSUMPTION OF DOMESTIC WASHING MACHINES

**Final** 

September 24, 1997

# COMMITMENT ON REDUCING ENERGY CONSUMPTION OF DOMESTIC WASHING MACHINES

#### 1. BACKGROUND

The European Committee of Manufacturers of Domestic Equipment (CECED) represents the interests of domestic washing machines manufactures in Europe. Its members are domestic appliances manufacturers and a number of national trade associations.

One area of environmental concern is energy consumption of its products, particularly washing machines. The energy consumption of the estimated 120 million washing machines installed in the European Union amounts to about 38 TWh per year. This is approximately 2% of the total electricity consumption in European Union. More than 11 million washing machines are annually sold in the Community Market, mainly for replacement. The EU-wide saturation point is about 90%. For this reason CECED has started an initiative aimed to reduce energy consumption, whilst not affecting European washing machines manufactures' competitiveness.

To evaluate the potential savings and the best way to achieve them, a study<sup>6</sup> has been carried out for the European Commission. The results were discussed with manufactures, the European Commission and Member States representatives. In addition to evaluate the impact of energy savings measures on individual Member States a sensitivity analysis<sup>7</sup> has been carried out for the European Commission.

The European market of washing machines is characterised by a strong competition. Consumers can select among a great variety of machines produced by a considerable number of manufacturers. The number of appliances imported into the Community Market is low. Although the environmental aspect is rising in the priority list of buying criteria, the present day purchase decision is still dominated by the price and the brand name.

Washing machines are produced for the Community market irrespective of their final destination. Different national standards would require multiple redesign of the power circuitry. In addition, individual national schemes could hinder the creation of a single market. Therefore CECED proposes a Europe-wide commitment to minimise the implementation and compliance costs.

Besides the intentional positive impact on the environment, the present commitment affects the market too. This commitment aims to minimise the consequences for the consumer and to maximise the contribution to energy saving at the same time. Introduction of this commitment will not eliminate competition in the sector. Prices and performances remain strong competitive factors. As a consequence, neither a significant increase in price nor a deterioration of performance nor a reduction in choice may occur. From the consumer's standpoint, lower expenses for energy will compensate for a possible slightly higher purchase price.

The less energy efficient appliances withdrawn from the market will be replaced by new models with improved efficiency.

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<sup>&</sup>lt;sup>6</sup> Study for the Commission of the European Communities on Washing Machines, Driers and Dishwashers carried out by Group for Efficient Appliances (GEA), (Final Report, June 1995).

<sup>&</sup>lt;sup>7</sup> Sensitivity Analysis of Energy Efficiency Improvements for Washing Machines carried out by Van Holsteijn en Kemna (NL), (Final Report, April 1996).

Each manufacturer, when entering the commitment, will have the possibility to best adapt its technology to reach the optimum balance between energy consumption (within the target limit) and overall working performances taking into consideration the different markets' configurations and consumer's expectation in terms of models segmentation and return on investment.

At present, the Community market share of CECED washing machine manufacturers amounts to more than 90%. This is a very strong basis for the implementation of this commitment. However, to increase the energy savings further, and not to harm the competitive situation of the European industry, it is important that as many actors as possible are committed to this proposal. This scheme is open to any producer, importer, distributor, etc., which has its own brand names on the Community Market. CECED will contact the most relevant non European manufacturers to encourage them to join the present commitment.

The Directive 95/12/EC on "Energy labelling of household washing machines" was implemented in the Union during 1996. The directive is an essential part in the market transformation process. The present commitment is based on the classes of the energy label. By basing the proposal on the energy label classes, simplicity, transparency, as well as public scrutiny will ensured.

The washing performance is an essential parameter, considerably defining the market spread of washing machines. In the context of this commitment for reducing energy consumption, the washing performance should not be set to a certain minimum level but left to the competition between manufacturers. The mandatory washing performance indication on the energy label guarantees that manufacturers respond to the consumer demands.

#### 2. PARTIES

The present commitment is made by manufactures of washing machines (hereinafter referred to as the participants), as enumerated in Annex 1, and by CECED. Any manufacturer, importer or retailer using its own brand is welcome to participate on a voluntary base.

#### 3. DEFINITIONS

For the purpose of this commitment, specific definitions are as defined in the Directive 95/12/EC, "energy labelling of household washing machines".

#### 4. OBJECTIVE

By signing this document participants commit themselves to reduce the total energy consumption of domestic washing machines and thereby CO2 emissions caused by power generation. To reach this objective participants will stop producing for and importing in the Community Market those washing machines which rank in the less efficient classes of the 7: energy label scheme. The commitment consists of two steps, the first coming into effect on 31 December 1997. A second and more demanding step will follow by 31 December 1999. The resulting energy consumption reduction will amount to at least 20% related to the figures of 1994, as they are calculated in the mentioned GEA and Kemna studies<sup>8</sup>.

<sup>&</sup>lt;sup>8</sup> Calculated by taking as basecase the 'business as usual' scenario of the GEA study

Furthermore, the participants will actively promote consumer awareness to save energy when using a washing machine. It is difficult to estimate the percentage of energy savings achieved by this. But it is essential to motivate the consumer to take his share in this process.

The overall objective of the Commitment is the achievement of an average Energy Consumption of 0,24 KWh/Kg, weighted on the volumes of production for our input in the Community market (herein after European production weighted average to be assessed during year 2000.

#### 5. COMMITMENT

The participants therefore make the following commitment:

- Step one: participants will stop producing for and importing in the Community Market domestic washing machines which belong to the energy efficiency classes E, F and G after 31.12.1997. Domestic washing machines with load capacity equal or smaller than 3 Kg which belong to class E, and vertical axes machines will still be allowed on the market.
- Step two: participants will stop producing for and importing in the Community Market domestic washing machines which belong to the energy efficiency classes D, E, after 31.12.1999. Domestic washing machines with load capacity equal or smaller than 3 Kg which belong to class D will still be allowed on the market. Domestic washing machines with spin speed lower than 600 rpm which belong to class D will still be allowed on the market.
- Each participant will engage himself to contribute to the Commitment overall objective of achieving a European production weighted average of 0.24 KWh/Kg for the year 2000. Starting from 1998 each participant will provide the CECED notary consultant, as specified in part B of this clause, and according to the procedure specified in Annex 3, with production weighted energy consumption data for the previous calendar year.

In addition to the above commitments, all participants engage themselves to strengthen their overall activities to achieve further energy savings and to educate consumer on the way to save energy, in particular:

- by giving clear instruction to consumers on the environmental conscious use of washing machines.
- A separate chapter in the operating manual shall contain standardised information about the ways
- to save energy and water (e.g. load fully, choose the proper washing programme and temperature,
- use high spin speed when a tumble dryer is used); this measure will be fully implemented within a year after the signature of the agreement<sup>9</sup>
- by giving information in the sales brochures how the energy consumption per kg laundry is
- influenced by the load. In order to make this transparent, figures on the energy consumption will be given for a cycle with full load and half load; this measure will be fully implemented within a year after the signature of the agreement.

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 $<sup>^9</sup>$  For the achievement of this task , CECED will work to establish an as close as possible co-operation of Detergent manufacturers to establish the proper sinergy between the Industry specific actions

- by promoting the use of low washing temperatures and actively collaborating with the European Standardisation Bodies (CENELEC) in the development of new measurement standards, in particular for low temperature wash cycles; the point will be addressed directly by CECED, it being a CENELEC co-operating partner.
- \_ by promoting the use of high spin speed washing machines if tumble driers are used; the share of washing machines with less than 600 rpm and only class "D" will not exceed 10 % of the total
- number of models included in the 1999 data base release:
- \_ by defining together with the detergent industry the feasibility of a common programme on the real use of washing machines in private households; the feasibility analysis phase will be completed by the end of 1997;
- \_ by co-operating with National energy Authorities in view of common programmes to promote the efficient use of washing machines.

Furthermore all participants will engage themselves on promoting technological development and infrastructures to reduce energy consumption of washing machines:

- by improving the load dependence to reduce energy consumption when the machine is not fully
- loaded; the progress on this point will be tracked by the database;
- by improving the washing performance at low temperature, to give sufficient performance when enzymatic detergents are used;
- by participating in developing new standards and definitions for optimised criteria of
- infrastructural options like hot fill installations (this will foster market penetration of hot fill
- appliances outside the United Kingdom); CECED will take the initiative towards CEN to develop
- standards for the installation of water supply for hot fill washing machines;
- by transferring energy saving washing technology also to washer dryers. By end of 1997 a database will be set up to monitor the progress.

#### B - CECED make the following commitments:

- entrusts, from 1998 an independent consultant (hereinafter referred to as the Notary) to monitor
- on a notary base <sup>10</sup> production weighted average energy consumption;
- \_ be responsible for the contacts and the cost related to the Notary
- \_ CECED will establish a list of participants and keep it updated. It will provide the updated list to the European Commission. The list of participants will be available to the public free of charge.
- \_ CECED will set up and maintain a database for washing machines. CECED will update each calendar year the database. This database will contain an analysis of all models of washing machines placed on the Community market by all the participants. For each single model all those data will be given which are mandatory on the energy label. The database will be available to the European Commission, national authorities and, for study purpose, to experts appointed by them. The copyright is owned by CECED.

#### 6. MONITORING

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<sup>&</sup>lt;sup>10</sup> The Notary service consists in consolidating the elementary data provided by participants and in releasing the results. The notary will never disclose the elementary data provided by the participants.

The monitoring system of the present commitment will supervise both the fulfilment of the conditions described in Point 5 and the progress in energy saving caused by this commitment.

The compliance with the targets defined in Point 5 of the present Commitment is based on data which have to be declared on the energy label for washing machines according to the Directive 95/12/EC. This constitutes the basic condition for a homogeneous and transparent market surveillance. It is in the responsibility of Member States to check the correctness of the energy label declaration according to the requirements of the directive.

The Notary will monitor on an annual basis the results achieved by the commitment, in terms of production weighted average energy consumption.

Participants will be responsible for the accuracy of the data declared on the label and communicated to CECED, which will ensure that the information is passed consistently in the DataBase, and for the data communicated to the Notary.

The participants acknowledge that the European Commission may charge an independent consultant, different from the Notary, to monitor the progress in energy saving caused by the Commitment on an annual basis, on the base of sales data produced by external statistical sources and the technical database produced by CECED. Taking into consideration the different nature of the statistical and technical data, CECED is ready to co-operate with the external consultant to ensure that the proper co-relations are made.

The selection of the independent consultant as well as the relations and costs associated with it are outside the responsibility of CECED.

#### 7. REPORTING

Based on the data provided, CECED will submit each calendar year starting from 30. 5.1998 to the European Commission a report including the following information.

- on the base of the Notary report;
  - an overall production weighted energy consumption of domestic washing machines
  - a histogram of production weighted energy consumption of each energy efficiency classes;
- on the base of the CECED technical data Base
  - the share of domestic washing machines with load capacity equal or smaller than 3 Kg;
  - the share of domestic washing machines with spin speed below 600 rpm and energy efficiency ranked in class D;
  - a histogram of share of each water extraction efficiency classes;

The annual report will be made available to the public free of charge.

#### 8. VERIFICATION

Each participant checks regularly its products to make sure that the declaration on the energy label of its product is correct as required by the EC-Directive 95/12/EC. Measurement methods and verification procedures are as described in the European Standard of the European Committee for Standardisation EN 60456.

A committee (hereinafter referred to as the steering committee) will be established to verify the results of the Commitment as shown in chapter 5. The steering committee will be composed of representatives of CECED, the European Commission and experts appointed by them. The steering committee will be entrusted to settle possible disputes over the compliance with the Commitment.

Any complaint by third parties or Participants about the production and import of banned products shall be addressed to CECED. CECED will notify immediately the European Commission and the steering committee.

The participants will commit themselves to collaborate with the steering committee in resolving any problem connected with the implementation and fulfilment of this commitment.

#### 9. REACTION TO NON-COMPLIANCE

The following procedures will be followed in the case of non-compliance:

- 1. If a participant produces or imports a washing machine belonging to a banned energy efficiency class, CECED will immediately issue to the participant a written warning of non-compliance and will request the participant to take appropriate corrective actions, which might consist in either modifying the product or withdrawing it from the market within one month after receiving the warning.
- 2. If the participant fails to reach compliance within the set deadline, the participant would be deemed not to take part any more in the commitment and accordingly CEDED will delete it from the list of signees. CECED will immediately issue a press release indicating that the participant no longer takes part in the present commitment and at the same time CECED will reissue the list of signees.

#### 10. REVISION

This commitment is based on the actual state of technology and products. Participants agree to review the target in consultation with the European Commission and Member States if:

- washing machines with low spin speed have a significant increase in market share in those countries where tumble dryers are used to a considerable extent;
- the balance between energy efficiency and washing performance alters significantly the profile of consumer choice criteria (energy efficiency, washing performance, spinning speed, costs, etc.);
- the present standard washing cycle does not reflect any longer the consumer's behaviour and a new standard cycle therefore has to be evaluated.

#### 11. DURATION

CECED manufacturers have expressed their willingness to implement an energy efficiency voluntary programme in 1994. The proposal, this commitment refers to, was defined by CECED in the beginning of 1996. Since then, manufacturers have been feeling obliged to act in its spirit.

The present commitment will start on 31.12.1997 and will last until 31.12.2001.

#### 12. PUBLICATION

The Commission has indicated its intention to publish the present commitment and to report to the Council and the European Parliament on the results achieved.



# VOLUNTARY COMMITMENT ON REDUCING STANDING LOSSES OF DOMESTIC ELECTRIC STORAGE WATER HEATERS

Final November 19, 1999

#### 1. BACKGROUND

The European Committee of Manufacturers of Domestic Equipment (CECED) represents the interests of domestic electric storage water heater manufacturers in Europe. Its members are National Trade Associations, from 13 European Countries, and some manufacturers, as Direct Members.

CECED has been actively working in the pursuit of energy efficiency and the promotion of a rational use of energy at all levels. CECED believes that Voluntary Agreements are a very effective instrument to achieve substantial results within a short period of time and without distorting the market and thus the competition between manufacturers.

Already in 1996 the manufacturers of washing machines within CECED proposed a Voluntary Agreement for energy saving to the European Commission. The overall target of this commitment was to reduce the energy consumption of washing machines by 20%. This proposal was notified to the European Commission and the public enquiry on it was published in 1998 in the Official Journal. The participants in the commitment have been very successful in reaching the proposed targets.

CECED manufacturers have developed in the same period a communication concept, which aims at enhancing the visibility of their efforts in the domain of industrial production sustainability. This communication programme is characterised by a visual mnemonic, presented in annex, which is used by all the signators of the washing machine voluntary agreement, and will characterise CECED communication on any other specific programme in this area.

#### 2 – THE MARKET

More than 3 millions DESWH are annually sold in the Community Market, mainly for replacement. The European market of DESWH is characterised by a strong competition, within the sector, and among different water heating systems. In many markets electrical water heaters register a declining share of the market

The European market is characterised by considerable national variation.

Installed product typology is locally influenced by different energy price policies, distribution network infrastructures, and building installation or safety rules. This has generated over time an evolution of the specific national markets towards different product profiles.

<u>In Germany</u>, only 4 millions households use electric storage water heaters as their main hot water source, while about 11 millions small DESWH's are used as secondary water heating sources. For this type of appliance, the five-litre capacity is the mainly used, (which require up to 2 kW of installed power).

Austria has historically been a DESWH's country using mainly small capacities.

<u>Italy</u> traditionally was, and still is, an electric water heater market. The most common capacity used is the 80 litres.

<u>In France</u>, there has traditionally been a high share of electric water heating due to the nuclear policy of this country. Electricity price structure has favoured the penetration of larger capacity models,

which are active mainly during the night and store the warm water all day long. The main capacities used are the 150 litres and the 200 litres.

In <u>Spain and Portugal</u>, despite a hard competition with other energy sources, there is also a significant use of DESWH's (mainly 30-50 litres).

<u>UK</u> was traditionally a market for open vented copper cylinders and these still predominate in terms of installed population. The domestic electric storage water heater market is growing, particularly in the small capacity segment and the trend is towards unvented units in both the small and larger domestic segments.

Until 1989, UK Water By laws forbade the storage of more than 15 litres of hot water under direct main pressure.

# 3 – THE COVERAGE OF THE MARKET: FEW PLAYERS BUT A FRAGMENTED PICTURE

The European market is also very fragmented as far as the penetration of the various manufacturers is concerned. Data from an external consultant market report<sup>11</sup> underline that only very few manufacturers have significant shares in countries other than their manufacturing country. The percentage market coverage per country shows that hardly the European market can be considered a single market for DESWH.

- In France, ATLANTIC, CHAFFOTEAUX and STATE France account for roughly 70%.
- STIEBEL ELTRON, VAILLANT, AEG (ELECTROLUX) and BOSCH SIEMENS represent more than 70% of the German market
- In Italy, MERLONI TERMO SANITARI, LORENZI VASCO, BAXI (former OCEAN IDROCLIMA), IDROPI, FISMAR account for more than 80%
- FAGOR's EDESA and FLECK/MTS represent about 60% of the Spanish market
- Similar patterns can be found in the other European countries

Manufacturers members of CECED altogether represent a large majority share of the market, all over Europe and in the individual Member states. Few actors may influence each national marketplace and provide the required coverage for a voluntary agreement, even if the consultation process is longer than in other CECED product sectors, due to the lower presence of globalise manufacturers.

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 $<sup>^{\</sup>rm 11}$  (The West European domestic central and water heating product market – 1996 – From "Consult" GB Ltd) – source Tasks and ENEA document

#### 4 – CECED TECHNICAL DATABASE / MARKET SITUATION

The CECED database comprises more than 2700 models of DESWH. It was been set up in 1994 in order to supply a first picture of the European production of CECED members for the European market. In spite it was at that times the largest source of information, it must be underlined that it is not a complete picture (e.g. UK was missing in that release).

As in other CECED databases, the commercial models are registered. Due to this approach, some appliances can appear several times under different brand names.

The structure of the CECED database is as follows:

- ⇒ manufacturing country of the DESWH
- ⇒ countries in which the DESWH's are distributed
- ⇒ brand
- ⇒ commercial reference
- ⇒ capacity
- rated capacity (the water capacity assigned by the manufacturer)
- ⇒ mixed water quantity (quantity of hot water at 40 °C that can be obtained).
- ⇒ standing losses per 24 h (measured according to the European standard).

Furthermore, DESWH's are assigned to seven groups (horizontal, mural, vertical etc...)

Differently from other domestic appliances, the structure of the EU DESWH market cannot be fully interpreted by means of an analysis of the European model picture. This is somehow highlighted even in the SAVE Study Report when "energy-saving" potentials are analysed.

The statistical distribution of the models offered in the catalogues (in terms of capacity and energy losses) does not correspond with the actual distribution of the units sold. In almost each manufacturer catalogue it is possible to find a full range offering but the bulk of sales is very concentrated: even much more than established in the Save study<sup>12</sup>.

CECED database was assembled with data taken by general catalogues, which usually also include models, which are not expected to be really sold in all EU countries. In this case the database, by itself, does not allow statistical correlation with selling quantities per models, per typology or per countries.

External factors (limits to installed power, energy price structure, availability of competitive alternative energy sources, local policies and/or building regulations) heavily influence, in certain cases determine, the structure of the different markets. They, however, are not reflected in the structure of CECED database.

Analysis done at manufacturers level (supported by the available market analysis external sources) show that actual base cases in the national specific markets may be far from the theoretical ones established on the product data base.

Capacities from 25 to 220 litres represent 53% of total models in the database, but they account for a higher share of sales (65%), and an even greater share of the standing losses (when the capacity of the

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<sup>&</sup>lt;sup>12</sup> cfr.. GFK report on German market and Consult report.

models is taken in consideration). Horizontal appliances, which represent 21% of the model database, account for about 5% of the units sold.

#### 5. CECED POSITION

CECED representatives have contributed with their technical background within the SAVE team to assess the technological energy efficiency potential. However they felt that considerations on actual market behaviour should be taken into account to get to balance political recommendations.

The scheme recommended in the Study has never been adopted before for appliances like refrigerators, dryers, washing machines and washer dryers. On this base, in some Member States any energy declaration would result useless, as all the products would be labelled G. Even if the impact of the proposed minimum energy standard on the manufacturing of various different models brought to a 100% phase out of the actual market offer, that was not considered as a vetoing adverse parameter.

Consequences for such an approach, especially in a part of the European Union, would be very heavy for the industrial sector. This could be worsened by the strong competition with other sectors (i.e. gas, solar, district heating). CECED confirm their interest and willingness to be partner of any EC Study, involving all the interested parties, on the Water Heater System in Europe, which may provide a balanced view from this stand point.

We would like to remind that, when evaluating energy efficiency based on standing losses, it should be taken into consideration that this parameter only represents about 20% of the total operational energy consumption of DESWH.

Moreover the impact of standing losses is less relevant on small appliances than on the larger ones because of typical use conditions with smaller and more frequent drawings from small DESWH.

#### 6. BASIC CONDITIONS

CECED manufacturers think that two "principles" should be considered as pre-condition to any voluntary agreement:

- To establish policies which work towards an increase of consumer and specifies awareness and virtuous behaviour;
- To maintain the conditions for a fair competition among the producers, independently from their participation to the Voluntary Agreement.

A European Directive could fulfil them and would bind all manufacturers and importers to declare standing losses and capacity of their DESWH.

Waiting for an updated and more complete standard (from CENELEC according to Mandate M204) for measuring the performances of DESWH, it is already possible today to introduce the mandatory declaration of the standing losses by a European Directive, by relying for the measurements on CENELEC Harmonised Document HD500.S1 or equivalent (BS699 for direct electric vented cylinders).

Furthermore, CECED asks European authorities to deal also with indirectly heated water tanks in the context of the global reduction of CO2.

#### 7. COMMITMENT

CECED manufacturers are considering the following platform for a voluntary commitment:

**Step one:** CECED manufacturers of DESWH voluntarily make a standing losses declaration in the form of additional and clearly visible data as soon as the content of the directive is approved, thus anticipating the process of transposition into the Member states legislation. The manufacturers' initiative might then be two or three years ahead of the implementation of the directive

CECED manufacturers voluntarily provide CECED, every year, with the list of all the models manufactured for, or imported into, the EU, with all the data specified in the energy declaration directive.

**Step two:** after December 31, 2000 participants stop producing for and importing into the Community market:

- ♦ Small appliances the standing losses of which exceed the maximum allowable standing loss values (E<sub>max</sub> expressed in kWh per 24 hours) as calculated according to the following formulas:
  - ► Unvented products:  $E_{max} = 0.1474 + 0.0719 \text{ x V}^{2/3}$ ► Vented products:  $E_{max} = 0.1561 + 0.0802 \text{ x V}^{2/3}$
- ♦ Vertical appliances the standing losses of which exceed the maximum allowable standing loss values (E<sub>max</sub> expressed in kWh per 24 hours) as calculated according to the following formulas:
  - ► Unvented products:  $E_{max} = 0.224 + 0.0663 \text{ x V}^{2/3}$ ► Vented products:  $E_{max} = 0.236 + 0.074 \text{ x V}^{2/3}$
- ♦ Horizontal appliances the standing losses of which exceed the maximum allowable standing loss values (E<sub>max</sub> expressed in kWh per 24 hours) as calculated according to the following formulas:
  - Unvented products:  $E_{max} = 0.939 + 0.0104 \text{ x V}$ Vented products:  $E_{max} = 1.034 + 0.0116 \text{ x V}$

**Step three:** each participant is committed to contributing to the overall objective for the European production to achieve a reduction in the weighted average standing losses by the beginning of 2002.

By this engagement each manufacturer undertakes to reduce the weighted average standing losses for each volume of his production to the following thresholds (E<sub>max</sub> expressed in kWh per 24 hours):

- Small appliances:  $E_{max} = 0.13 + 0.0553 \text{ x V}^{2/3}$ Vertical appliances:  $E_{max} = 0.2 + 0.051 \text{ x V}^{2/3}$
- ► Horizontal appliances: E<sub>max</sub> = 0.75 + 0.008 x V

An exception to this would be UK vented products, which would reach Step three at the end of 2002.

This target is set for the following most relevant groups of unvented and direct vented DESWH:

- ► Small type DESWH with a rated capacity of 25 to 45 litres
- ► Vertical type DESWH with a rated capacity above 45 and up to 220 litres
- ← Horizontal type DESWH with a rated capacity above 45 and up to 220 litres.

Starting from 2000 each participant is to provide the CECED notary consultant, as specified below with the weighted standing losses data for his production of the previous calendar year.

In parallel to manufacturers' commitment, CECED:

- entrust an independent consultant (hereinafter referred to as the Notary) to monitor on a notary base<sup>13</sup> the production weighted average standing losses;
- is responsible for the contacts and the cost related to the Notary
- will establish a list of participants and keep it updated. It will provide the updated list to the European Commission. The list of participants will be available to the public free of charge.
- will set up and maintain a database for DESWH. CECED will update each calendar year the database. This database will contain an analysis of all models of DESWH placed on the Community market by all the participants. An annual report, containing the database will be available to the European Commission, national authorities and, for study purpose, to experts appointed by them. The copyright is owned by CECED.
- In addition to the above commitments, participants engage themselves to strengthen their overall activities to educate consumer and /or installer on the way to achieve further energy saving, in particular:
- by giving instructions for the proper use (low temperature setting, switching off when hot water not needed for a certain time, firmly closing of tap and prompt repairs for any leakage in the hot water distribution system; adoption of water saving devices on showers and so on)
- by promoting the use of complementary single point DESWH
- by giving recommendation for efficient installations (optimal piping length and insulation, proper capacity related to the real consumer needs).

Furthermore all participants will engage themselves on:

- promoting insulation technological development and infrastructures to reduce standing losses of DESWH
- working for the establishment of differentiated electricity prices to develop the use of DESWH during the night

<sup>&</sup>lt;sup>13</sup> The Notary service consists in consolidating the elementary data provided by participants and in releasing the results. The Notary will never disclose the elementary data provided by the participants.

• participating in developing new standards for optimised measurement methods, independent of the type of energy used (gas, electricity, etc.) and better correlated to some characteristics like energy consumption at full and partial load.

#### 8. MONITORING

The monitoring system of the present commitment supervises (benchmarking since 1996) the progress in energy saving in the coming years. It allows as well to assess the discrepancy between the model based scenario (used in the SAVE study) and a unit-based approach, which represents market real evolution trend.

The compliance with the targets defined in Point 7 of the present Commitment is based on standing losses data, which are going to be declared for DESWH according to the Directive. This constitutes the basic condition for homogeneous and transparent market surveillance.

Participants will be responsible for the accuracy of the data declared according to the Directive and communicated to CECED, which will ensure that the information is passed consistently in the database. This will apply also during the transitional period when the Directive is not mandatory yet.

It is in the responsibility of Member States to check the correctness of the energy label declaration according to the requirements of the Directive, when it is in place.

The participants acknowledge that the European Commission may charge an independent consultant, different from the Notary, to monitor the reduction of standing losses, resulting from the Commitment, on the base of sales data produced by external statistical sources and the technical database produced by CECED.

Taking into consideration the different nature of the statistical and technical data, CECED is ready to co-operate with the external consultant to ensure that the proper co-relations are made. "e

The selection of the independent consultant, as well as the relations and costs associated with it, is out side the responsibility of CECED.

#### 9. REPORTING

Based on the data provided, CECED will submit each calendar year starting from 30. 5. 2000 to the European Commission a report including the following information for the previous year:

⇒ on the base of the Notary report

- an assessment of the overall production weighted standing losses of DESWH
- a histogram of production weighted standing losses per each category, type and capacity.
- $\Rightarrow$  on the base of the CECED database
  - a picture of the model based DESWH standing losses

The annual report will be made available to the public free of charge.

#### 10. VERIFICATION

Participants check regularly their products to make sure that the declared rated capacity and standing losses of its product are correct as required (by the Voluntary agreement or by the proposed Directive when it will be implemented). Measurement methods and verification procedures are as described in the European Harmonised Document of the European Committee for Standardisation HD 500.S1

A committee (hereinafter referred to as the steering committee) is established to verify the results of the Commitment. The steering committee will be composed of representatives of CECED, the European Commission and experts appointed by them. The steering committee will be entrusted to settle possible disputes over the compliance with the Commitment.

Any complaint by third parties or Participants about the production and import of banned products shall be addressed to CECED. CECED will notify immediately the European Commission and the steering committee.

The participants will commit themselves to collaborate with the steering committee in resolving any problem connected with the implementation and fulfilment of this commitment.

#### 11. REACTION TO NON-COMPLIANCE

The following procedures will be followed in the case of non-compliance:

- 1. If a participant produces or imports a DESWH belonging to a banned energy efficiency class, CECED will immediately issue to the participant a written warning of non-compliance. They will request the participant to take appropriate corrective actions, which might consist in either modifying the product or withdrawing it from the market within one month after receiving the warning.
- 2. If the participant fails to reach compliance within the set deadline, the participant would be deemed not to take part any more in the commitment and accordingly CEDED will delete it from the list of signatories. CECED will immediately issue a press release indicating that the participant no longer takes part in the present commitment and at the same time CECED will reissue the list of signatories.

#### 12. REVISION

This commitment is based on the actual state of technology and products. Participants agree to review the target in consultation with the European Commission and Member States if there is evidence of market distortion or availability of better insulation technology.

#### 13. DURATION

CECED manufacturers have expressed their willingness to implement an energy efficiency voluntary programme in 1998. The proposal, this platform refers to, was defined by CECED at the beginning of 1998.

The present commitment will start on 31.12.1999 and will last until 31.12.2003.

#### 14. NOTIFICATION

The final establishment of the voluntary agreement will be notified to the European Authorities in view of verification with competition regulations.

# Appendix 1

# The visual mnemonic of CECED programmes in the area of

## Energy & Environment



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#### Appendix 2

#### **PARTICIPANTS**

Manufacturers adhering to the proposed voluntary agreement on DESWH represent a significant majority of DESWH sold in the European market, with coverage over 80% in specific countries.

The participants already committed to this agreement are:

ATLANTIC Group	France
BAXI Spa	Italy
BOSCH SIEMENS HAUSGERÄTE Gmbh	Germany
ELECTROLUX Productline Home Comfort c/o AEG HAUSGERÄTE	Germany
FAGOR Electrodomesticos S. Coop.	Spain
LORENZI VASCO Spa	Italy
MERLONI TERMOSANITARI Spa	Italy
OLSBERGER HÜTTE	Germany
SIEMENS HEIZTECHNIK	Germany
SOCIETE THERMIQUE DE VALENCE - STATE -	France
STIEBEL ELTRON Gmbh &Co. KG	Germany
TECHNOTHERM Gmbh	Germany
JOH. VAILLANTGmbh & Co.	Germany

# Appendix 3 Calculation of the overall production standing losses of domestic electric storage water heaters

Starting from 2000 each participant will provide the notary, not later than the 31th of March, with data to enable him to calculate the overall production weighted standing losses of domestic electric storage water heaters produced for or imported in the Community Market for the previous calendar year (measured according to CENELEC Harmonised Document HD500.S1 or equivalent (BS699 for direct electric vented cylinders).

To this purpose, each Participant will deliver:

• the total number of domestic electric storage water heaters produced or imported in the previous year, split by type (VENTED / UNVENTED) and category (Small, Vertical, Horizontal), as here defined:

Small DESWH: from 25 litres up to 45 litres of rated capacity (VENTED or UNVENTED) Vertical DESWH: from 45 litres up to 220 litres of rated capacity (VENTED or UNVENTED) Horizontal DESWH: from 45 litres up to 220 litres of rated capacity (VENTED or UNVENTED)

- details of the number of VENTED products belonging from the UK market out of the total figure for each category (Small, Vertical, Horizontal).
- the production weighted mean standing losses value per each of the categories of products defined above, expressed in kWh per 24 hours and measured according to HD 500.S1 (BS 699).

#### Example:

Calculation of the **production weighted mean standing losses of manufacturer X** which produces/imports DESWH Small, Vertical and Horizontal, both VENTED and UNVENTED:

MANUELCEUDED	N	C4 1: 1 (-)		:-1.4-1
MANUFACTURER "X"	Number of pieces Produced/imported	Standing losses (a) of the	n x a	weighted average standing losses by
.3	(n)	type/model/categor		type/category/model
.5	(11)	y		in kWh per 24 hours
DESWH		(kWh per 24 hours)	(in brackets the	m k w n per 24 nours
Category / type	(in brackets the	(	number/quote of UK	(excluding UK
,, r	number/quote of UK		vented products)	vented
	vented products)		• /	products)
SMALL 25 lt unvented	30,000	0.66	19,800	•
MODEL A	100,000	0.80	80,000	
SMALL 25 lt unvented				
MODEL B	50,000	1.00	50,000	
SMALL 35 lt unvented	40,000 (4,000 UK)	1.70	68,000 (6,800 UK)	
Sivil IEE 33 it univented	(1,000 CIL)	1.70	(0,000 (11)	
VERTICAL 50 lt vented	55,000 (5,000 UK)	1.80	99,000 (9,000 UK)	
VERTICAL 55 lt vented	60,000 (30,000	1.85	111,000 (55,500	
	UK)	1.90	UK)	
VERTICAL 70 lt vented	70,000		133,000	
MODEL A		2.00		
VERTICAL 70 lt vented	80,000		160,000	
MODEL B				
HORIZONTAL 60 lt unvented				
SITUATION SUM- MARY for MANU- FACTURER "X"	130,000		99,800	0.767
Sum Small 25 lt un-	•		,	
vented	50,000		50,000	1.000
Sum Small 35 lt unvented	40,000 (4,000 UK)		68,000 (6,800 UK)	1.700
	55,000 (5,000		99,000 (9,000 UK)	1.800
Sum Vertical 50 lt	UK)		244,000 (55,500	1 005
vented	130,000 (30,000		244,000 (55,500 UK)	1.885
Sum Vertical 55 lt	UK)		OK)	2.000
vented	~,		160,000	_,,,,,,
· - <del></del>	80,000		,	
Sum Vertical 70 lt vented	<b>7</b>			
Sum Horizontal 60 lt unvented				

In this example, the weighted standing losses of the VENTED Vertical DESWHs rated capacity 70 lt. of manufacturers "X" amounts to an average value for this type of products of: 188,500 / 100,000 = 1,885 kWh per 24 hours

(note that in this example taking into account UK vented products would have resulted instead in 244,000/130,000=1.876 kWh per 24 hours, due to the lower average standing losses of "UK" models).

All those figures will be delivered to the notary together with the corresponding number of units produced/imported per each type/category/model, and precising which share of the VENTED products belongs to the UK market.

The same way, the notary calculates the overall production **weighted energy consumption of all participating manufacturers.** In this second example we consider two manufacturers "X" and "Y" (please note that different figures are used here than in the previous example):

DESWH Type/Category	Number of pieces	Weighted standing	n x a	Weighted
	Produced/imported	losses (a)		average
	(n)	per		KWh per
	(in brackets the	type/manufacturer		24 hours
	number/quote of	(kWh per 24 hours)		(excluding
	UK			UK vented
	vented products)			products)
Small 25 lt unvented Manuf. X	150,000	0.70	105,000	_
Small 25 lt unvented Manuf. Y	100,000	0.80	80,000	
Sum (Small unvented 25 lt)	250,000		185,000	0.740
Vertical 50 lt vented Manuf. X	850,000	1.70	1,445,000	
Vertical 50 lt vented Manuf. Y	300,000 (150,000 UK)	1.90	570,000 (285,000 UK)	
Sum (Vert. Vented 50 lt)	1,150,000		2,015,000 (285,000 UK)	1.730
V ( 1501) ( 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	700 000	1.75	1 225 000	
Vertical 50 lt unvented Manuf. X	700,000	1.75	1,225,000	
Verticla 50 lt unvented Manuf. Y	300,000	1.90	570,000	
Sum (Vert unvented 50 lt)	1,000,000		1,795,000	1.795

Again, taking into account the UK products (deducting their share in the weighted consumption) affects the result for Vertical vented 50 lt DESWH in the example (considering UK products the result should have been 1.752 kWh per 24 hours as an average value, instead than 1.730 kWh per 24 hours as shown in the table).

Calculation of the **overall savings** requires a weighted sum of the data over all categories (S,V,H), rated capacity class (25-220 lt) and types (Vent/Unvent.), e.g. starting from the average values in the table above (for all manufacturers):

DESWH Type/Category	Total number of	Weighted standing n	x a Weighted
	pieces pro-	losses (a) per	average
	duced/imported (n)	category/capacity class	
		(kWh per 24 hours)	(excluding
	(excluding UK		UK vented
	vented products)		products)

Sum (Small unvented 25 lt)	250,000	0.740	185,000	
Sum (Vert. Vented 50 lt)	1,000,000	1.730	1,730,000	
Sum (Vert unvented 50 lt)	1,000,000	1.795	1,795,000	_
TOTAL of the year	2,250,000		3,710,000	1.648

When comparing this figures for year 2000 e.g. with the basecase of CECED Database in 1996, the Notary will be able both to deliver the cumulative savings achieved year by year and to monitor the fulfilment of the target in terms of phase-out of models by rated capacity, type and category which stay below the agreed threshold (see equations in the platform).

These data will be included in the Report of the Notary to the European Commission.



# VOLUNTARY COMMITMENT ON REDUCING ENERGY CONSUMPTION OF HOUSEHOLD DISHWASHERS

**Final** November 19, 1999

# COMMITMENT ON REDUCING ENERGY CONSUMPTION OF HOUSE-HOLD DISHWASHERS

#### 1. BACKGROUND

The European Committee of Manufacturers of Domestic Equipment (CECED) represents the European interests of household dishwashers' manufactures in Europe. Its members are major household appliances manufacturers and a number of national trade associations.

CECED has been actively working in the pursuit of energy efficiency and the promotion of a rational use of energy at all levels. CECED believes that Voluntary Agreements are a very effective instrument to achieve substantial results within a short period of time and without distorting the market and thus the competition between manufacturers.

Already in 1996 the manufacturers of washing machines within CECED proposed a Voluntary Agreement for energy saving to the European Commission. The overall target of this commitment was to reduce the energy consumption of washing machines by 20%. This proposal was notified to the European Commission and the public enquiry on it was published in 1998 in the Official Journal. The participants in the commitment have been very successful in reaching the proposed targets. By 1999 an energy saving of 20% will most probably be reached and thus the commitment will be fulfilled

CECED manufacturers have developed in the same period a communication concept, which aims at enhancing the visibility of their efforts in the domain of industrial production sustainability. This communication programme is characterised by a visual mnemonic, presented in annex, which is used by all the signators of the washing machine voluntary agreement, and will characterise CECED communication on any other specific programme in this area.

This very positive experience caused the manufacturers of dishwashers to elaborate a proposal for a Voluntary Agreement for dishwashers as well. The first ideas were developed in summer 1998, even before the European directive for the energy labelling for dishwashers came into force.

Going on from a GEA<sup>14</sup>-report, CECED carried out a study in 1996 to estimate the potential in energy saving and possible options to increase efficiency for an average ("base case") twelve place setting machine<sup>15</sup>. This study was extended in October 1997 to cover also dishwashers with place settings other than twelve<sup>16</sup>. The results of those studies are the basis for the proposal, which is described in the following.

In many respects the European market for dishwashers is very similar to the one of washing machines. The competition is very strong. There is quite a large number of suppliers and brands, but the market is dominated by less than 8 major players, which cover more than 80% of the market. The number of appliances imported into the community market is low. Different to washing machines the dishwasher market is not mainly a replacement market. The average penetration in the

<sup>16</sup> Energy Consumption of Dishwashers (4 – 16 settings); Delft October 1997

<sup>&</sup>lt;sup>14</sup> GEA: Group for Efficient Appliances

<sup>&</sup>lt;sup>15</sup> Technical/economic analysis of dishwashers by Van Holsteijn en Kemna, final report August 1996

European Union is ca. 32% (in 1997) and still growing. The number of dishwashers in the European Union accounts to approx. 50 million units in 1997.

The choice of the consumer is dominated by the price and the brand name, although the environmental aspect and the priority list of buying criteria are rising.

Dishwashers are produced for the Community market irrespective of their final destination. Different national standards would require multiple redesign of the power circuitry. In addition, individual national schemes could hinder the creation of a single market. Therefore CECED proposes a Europe-wide commitment to minimise the implementation and compliance costs.

Besides the intentional positive impact on the environment, the present Commitment affects the market too. This Commitment aims to minimise the consequences for the consumer and to maximise the contribution to energy saving at the same time. Therefore it will not eliminate the competition in the sector. Prices and performances remain strong competitive factors. As a consequence, neither a significant increase in price nor a deterioration of performance or a reduction in choice may occur. The less energy efficient appliances withdrawn from the market will be replaced by new models with improved efficiency. From the consumer's standpoint, lower expenses for energy will compensate for a possible slightly higher purchase price, if any. Each manufacturer will have the possibility to adapt its own technology to reach the optimum balance between energy consumption (within the target limit) and overall working performances taking into consideration the different markets' configurations and consumer's expectation in terms of models segmentation and return on investment.

This principle worked very well in the case of the Voluntary Agreement on washing machines. This Commitment has neither resulted in a restricted choice of models nor in a significant increase in prices.

The Directive 97/17/EC on "Energy labelling of household dishwashers" is an essential part in the market transformation process. The present commitment is based on the classes of the energy label. By basing the proposal on the energy label classes, simplicity, transparency, as well as public scrutiny will be ensured.

The cleaning performance is an essential parameter, considerably defining the market spread of dishwashers. In the context of this commitment for reducing energy consumption, the cleaning performance is not set to a certain minimum level but left to the competition between manufacturers. The mandatory cleaning performance indication on the energy label guarantees that manufacturers respond to the consumer demands.

At present, the Community market share of CECED dishwasher manufacturers amounts to more than 90%. This is a very strong basis for the implementation of this commitment. However, to increase the energy savings further, and not to harm the competitive situation of the European industry, it is important that as many actors as possible are committed to this proposal. This scheme is open to any producer, importer, distributor, etc., which has its own brand names on the Community Market. CECED will contact the most relevant non-European manufacturers to encourage them to join the present commitment.

#### 2. PARTIES

The present commitment is made by manufactures of dishwashers (hereinafter referred to as the participants), as enumerated in Annex 1, and by CECED. Any manufacturer, importer or retailer using its own brand is welcome to participate on a voluntary base.

#### 3. DEFINITIONS

For the purpose of this commitment, specific definitions are as defined in the Directive 97/17/EC, "energy labelling of household dishwashers".

#### 4. OBJECTIVE

By signing this document participants commit themselves to reduce the total energy consumption of dishwashers and thereby CO2 emissions caused by power generation. To reach this objective participants will reduce significantly the fleet energy consumption of their production and import range and will stop producing for and importing in the Community Market dishwashers that rank in the less efficient classes of the energy label scheme. The commitment consists of a graded scenario of different steps, coming into effect on or to be reached by 31 December 2000, 31 December 2002 and 31 December 2003.

A general improvement of the product range and a ban of certain dishwashers from production and import (step 1) will result in a overall 20% saving by 31 December 2002 related to the base case figures of 1996, as they were calculated in the studies by van Holsteijn en Kemna as specified in chapter 5A. An additional elimination of less efficient dishwashers by 31.12. 2003 (step 2) will contribute further to the energy saving.

Furthermore, the participants will actively promote consumer awareness to save energy when using a dishwasher. It is difficult to estimate the percentage of energy savings achieved by this. But it is essential to motivate the consumer to take his share in this process.

#### 5. COMMITMENT

#### A) The participants therefore make the following commitments:

#### Reducing the fleet consumption ("fleet target")

Each participant will engage himself to contribute to the Commitment's objective of achieving a reduction of the overall European production weighted average energy consumption of dishwashers by 20% for the year 2002 compared to the standard base case. This base case is described in the studies:

- "Technical/economic analysis of dishwashers"; van Holsteijn en Kemna; Delft July 96
- "Energy consumption of dishwashers (4-16 settings)"; van Holsteijn en Kemna; Delft October 97

Starting from the year 2000 each participant will provide the CECED notary consultant, as specified in part B of this clause, and according to the procedure specified in Annex 3, with production weighted energy consumption data in each place setting class for the previous calendar year.

#### Elimination of less efficient dishwashers ("hard target")

#### • Step one:

Participants will stop producing for and importing in the Community Market dishwashers which belong to the energy efficiency classes E, F and G (for >=10 place settings) or F and G respectively (for <10 place settings) by 31 December 2000.

#### • Step two:

Participants will stop producing for and importing in the Community Market dishwashers which belong to the energy efficiency class D (for >=10 place settings) or E respectively (for <10 place settings) by 31 December 2003.

#### Additional measures ("soft targets")

In addition to the above commitments, all participants engage themselves to strengthen their overall activities to achieve further energy savings and to educate consumer on the way to save energy, in particular:

- by giving clear instruction to consumers on the environmental conscious use of dishwashers. The operating manual shall contain information about the ways to save energy and water, e.g. load fully,
  - choose the proper programme,
  - no extra pre-washing by hand,
  - extra pre-wash only when needed,
  - correct use of salt and rinsing-aid.

This measure will be fully implemented within a year after the signature of the agreement.<sup>17</sup>

- by giving information on the appropriate size of a dishwasher with regard to the household size.
- by giving information on the use of hot water supply
- by co-operating with National Energy Authorities in view of common programmes to promote the efficient use of dishwashers.
- by committing to improve reproducibility of test methods and measurement standards.

Furthermore all participants will engage themselves to promote technological progress to reduce energy consumption of dishwashers:

- by introducing enzymatic detergent programs in all countries when those detergents are available
- by switching from 65°C to 50/55°C in case of one-temperature dishwashers
- by participating in the research for low temperature rinsing

#### B) CEDED makes the following commitments:

• entrusts, from the year 2000 on, an independent consultant (hereinafter referred to as the Notary) to monitor on a notary base 18 the overall production weighted average energy consumption;

- be responsible for the contacts and the cost related to the Notary
- CECED will establish a list of participants and keep it updated. It will provide the updated list to the European Commission. The list of participants will be available to the public free of charge.

<sup>&</sup>lt;sup>17</sup> For the achievement of this task, CECED will work to establish an as close as possible co-operation of Detergent manufacturers to establish the proper sinergy between the Industry specific actions

<sup>&</sup>lt;sup>18</sup> The Notary service consists in consolidating the elementary data provided by participants and in releasing the results. The notary will not disclose the elementary data provided by the participants.

• CECED will set up and maintain a database for dishwashers. CECED will update each calendar year the database. This database will contain an analysis of all models of dishwashers placed on the Community market by all the participants. For each single model all those data will be given which are mandatory on the energy label. The database will be available to the European Commission, national authorities and, for study purposes, to experts appointed by them. The copyright is owned by CECED.

#### 6. MONITORING

The monitoring system of the present commitment will supervise both the fulfilment of the conditions described in Point 5 and the progress in energy saving caused by this commitment.

The compliance with the targets defined in Point 5 of the presented Commitment is based on data which have to be declared on the energy label for dishwashers according to the Directive 97/17/EC. This constitutes the basic condition for a homogeneous and transparent market surveillance. It is in the responsibility of Member States to check the correctness of the energy label declaration according to the requirements of the Directive.

The Notary will monitor on an annual basis the results achieved by the commitment, in terms of an overall production weighted energy consumption figure, calculated on the basis of the complete production/import range of all Participants.

Participants will be responsible for the accuracy of the data declared on the label and communicated to CECED, which will ensure that the information is passed consistently in the Database, and for the data communicated to the Notary.

The participants acknowledge that the European Commission may charge an independent consultant, different from the Notary, to monitor the progress in energy saving caused by the Commitment on an annual basis, on the base of sales data produced by external statistical sources and the technical database produced by CECED. Taking into consideration the different nature of the statistical and technical data, CECED is ready to co-operate with the external consultant to ensure that the proper co-relations are made.

The selection of the independent consultant as well as the relations and costs associated with it are outside the responsibility of CECED.

#### 7. REPORTING

Based on the data provided, CECED will submit each calendar year starting from 30.5.2001 to the European Commission a report including the following information for the previous year:

- $\Rightarrow$  on the base of the Notary report:
  - the overall production weighted energy consumption of dishwashers

⇒ on the base of the CECED technical database:

- the share of dishwashers related to their number of place settings
- a chart showing the distribution of energy efficiency classes in the major place setting classes (8 and 12 place settings)

- a histogram of share of each cleaning performance efficiency classes in the major place setting classes
- a histogram of share of each drying performance efficiency classes in the major place setting classes

The annual report will be made available to the public free of charge.

#### 8. VERIFICATION

Each participant checks regularly its products to make sure that the declaration on the energy label of its product is correct as required by the EC-Directive 97/17/EC. Measurement methods and verification procedures are as described in the European Standard of the European Committee for Standardisation EN 50242.

A committee (hereinafter referred to as the steering committee) will be established on request of the European Commission to verify the results of the Commitment as shown in chapter 5. The steering committee will be composed of representatives of CECED, the European Commission and experts appointed by them. The steering committee will be entrusted to settle possible disputes over the compliance with the Commitment.

Any complaint by third parties or Participants about the production and import of banned products shall be addressed to CECED. CECED will notify immediately the European Commission and the steering committee. The participants will commit themselves to collaborate with the steering committee in resolving any problem connected with the implementation and fulfilment of this commitment.

#### 9. REACTION TO NON-COMPLIANCE

The following procedures will be followed in the case of non-compliance:

- 1. If a participant produces or imports a dishwasher belonging to a banned energy efficiency class, CECED will immediately issue to the participant a written warning of non-compliance and will request the participant to take appropriate corrective actions, which might consist in either modifying the product or withdrawing it from the market within one month after receiving the warning.
- 2. If the participant fails to reach compliance within the set deadline, the participant would be deemed not to take part any more in the present commitment and accordingly CEDED will delete it from the list of signators. CECED will immediately issue a press release indicating that the participant no longer takes part in the present commitment and at the same time CECED will reissue the list of signators.

#### 10. REVISION

This commitment is based on the actual state of technology and products. Participants agree to review the target in consultation with the European Commission and Member States if the balance between the main criteria alters significantly the profile of consumer choice criteria (energy efficiency, cleaning performance, drying performance, capacity, costs, etc.).

#### 11. DURATION

CECED manufacturers have expressed their willingness to implement an energy efficiency voluntary programme in 1998. The proposal, this commitment refers to, was defined by CECED in the course of 1998. Since then, manufacturers have been feeling obliged to act in its spirit.

The present commitment will start on 31.12.1999 and will last until 31.12.2004.

#### 12. PUBLICATION

The Commission has indicated its intention to publish the present commitment and to report to the Council and the European Parliament on the results achieved.

CECED would welcome the approval of a European Commission Recommendation, as already happened in the case of other industry voluntary agreements.

# Appendix 1

# The visual mnemonic of CECED programmes in the area of

## Energy & Environment



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#### Appendix 2

**WHIRLPOOL** 

List of Manufacturers committed to this Voluntary Agreement:

ANTONIO MERLONI
ARÇELIK
BRANDT GROUP
BSH
CANDY
ELECTROLUX
FAGOR
GORENJE
MERLONI ELETTRODOMESTICI
MIELE
SMEG
V-ZUG

# Appendix 3 Calculation of the overall production weighted energy consumption of domestic dishwashers

Starting from 2000 each participant will provide the notary, not later than the 31th of March, with data to enable him to calculate the overall production weighted energy consumption of domestic dishwashers produced for or imported in the Community Market for the previous calendar year (as the energy labelling is being introduced in the course of 1999, the data can be reported only in countries a legal requirement is in place).

To this purpose, each Participant will deliver:

- the total number of dishwashers produced or imported in the previous year per place setting class
- the production weighted mean energy consumption value per place setting class (hereinafter called fleet consumption), expressed in kWh.

**Example**: Calculation of the fleet consumption of manufacturer X which produces/imports dishwashers with 8 and 12 place settings:

	is with a una 12 place setti			
Dishwasher	number of pieces	energy consumption (a)	n x a	weighted
	produced/imported (n)	of this type (kWh)		average
Type 1 (8 p.s.)	100,000	1.200	120,000	
Type 2 (8 p.s.)	50,000	1.100	55,000	
Sum (8 p.s.)	150,000		175,000	1,167
Type 3 (12 p.s.)	250,000	1.30	325,000	
Type 4 (12 p.s.)	600,000	1.40	840,000	
Sum (12 p.s.)	850,000		1,165,000	1.371

In this example, the weighted energy consumption (fleet consumption) of 8 p.s. dishwashers amounts to: 175,000 / 150,000 = 1,167 and for 12 p.s. to: 1,165,000 / 850,000 = 1.371. Those figures will be delivered to the notary together with the corresponding number of units produced/imported per place setting class.

The same way, the notary calculates the overall production weighted energy consumption of all participating manufacturers (in this example above manufacturer "X" and another one "Y"):

Dishwasher	number of pieces	energy consumption	n x a	weighted
	produced/imported	(a)		average
	(n)	of this type (kWh)		
8 p.s. DW Manuf. X	150,000	1.167	175,050	
8 p.s. DW Manuf. Y	130,000	1.058	137,540	
Sum (8 p.s.)	280,000		312,590	1.116
12 p.s. DW Manuf. X	850,000	1.371	1,165,35	
12 p.s. DW Manuf. Y	300,000	1.390	0	
			417,000	
Sum (12 p.s.)	1,150,000		1,582,00	1.376
			0	

Calculation of the overall saving (manufacturers X and Y, two place setting classes):

place setting class	basecase (kWh) <sup>1</sup>	outcome notary kWh (weighted av- erage)	# of units produced (n)	percentage saving (b)	(n x b)	overall saving
8	1.416	1.116	280,000	21.2%	59,360	
12	1.692	1.376	1,150,000	18.7%	215,05 0	
			1,430,000		274,41 0	19.2%

This figure -19.2% for this example - would be part of the report to the European Commission. On request, the notary may examine manufacturers' calculation of the fleet consumption.

For the calculation of the overall weighted saving, the notary will use the following base case figures according to the vHeKemna-studies<sup>6</sup>:

base	case
(kWh)	
0,862	
0,892	
0,922	
1,347	
1,416	
1,485	
1,554	
1,623	
1,692	
1,761	
1,830	
1,899	
1,968	•
	(kWh) 0,862 0,892 0,922 1,347 1,416 1,485 1,554 1,623 1,692 1,761 1,830 1,899

<sup>&</sup>lt;sup>6</sup> basecase as defined by vHeKemna in study "Technical/Economical Analysis of Dishwashers"; Delft July 1996 extended to machines ≠ 12 place settings with formula as derived by vHeKemna in study

<sup>&</sup>quot;Energy Consumption of Dishwashers (4 - 16 settings)"; Delft October 1997 (adjusted to fit basecase for 12 p.s.)



# Agreement about the verification of data declared on energy labels

#### **Background:**

The Participants realise the significance of data declared on the energy labels and in the fiches. They deem it very important that consumers have confidence in the information given by the energy labels. Therefore the Participants will carry out the necessary tests and declare the data according to the relevant European Standards and will endeavour to ensure the correctness of the data. In order to settle any dispute about the correctness of data effectively, the Participants commit themselves to the verification procedures as described in this Agreement.

#### **Definitions:**

For the purpose of this Agreement, specific definitions are as follows:

Participant: manufacturer or supplier having signed this Agreement

Data: any value declared on an energy label or in a fiche of a product which is

marketed by a Participant

Third Party: any party which does not manufacture or market major household appliances

Appliance: any product which is marketed under a brand name of a Participant and

which is subject to a published European Directive on Energy Labelling.

#### **Commitment:**

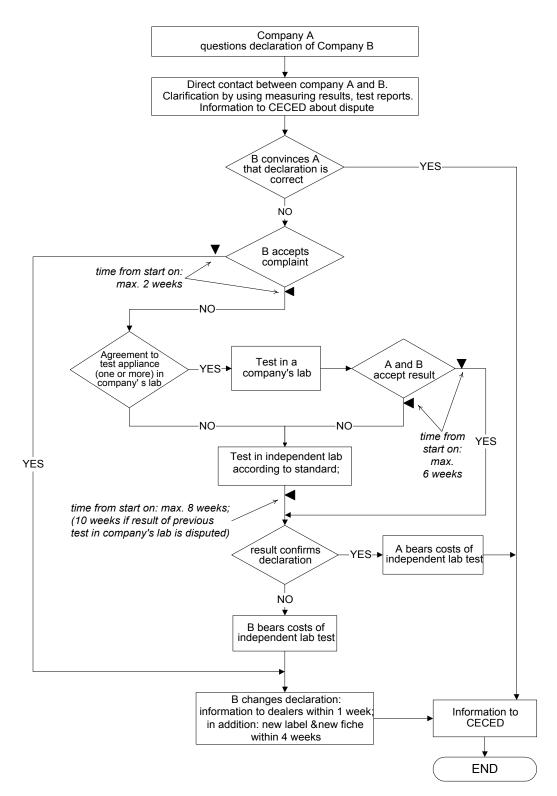
In case any appliance data declared by a Participant is questioned by another Participant, both parties will act according to the procedure as shown in annex 1.

- 1. In case any appliance data declared by a Participant is questioned by a Third Party, the Participant will deal with the complaint according to the procedure as shown in annex 2. If the Third Party is not willing to accept the terms of the procedure as shown in annex 2 the Participant is at liberty to deal with the complaint in the way he deems to be appropriate.
- 2. If a Participant does not follow the procedure properly as shown in annex 1 in the course of a verification case, the other Participant is at liberty to take additional measures.
- 3. In case one or more requirements of this agreement are subject to different interpretation or are not practicable in the course of a specific verification case, the Participants will act according to the spirit and the goal of this agreement.

#### Annex 1

#### Verification process in case of a dispute among Participants

- 1. In case data on a label or in a fiche are questioned, the nominated persons responsible for the energy labelling shall get in direct contact and clarify the matter by explaining their views and exchanging relevant documents. This step should take not longer than two weeks after the complaint has been stated. The CECED General Secretary is to be informed about the dispute in writing
- 2. In case the data in question is unanimously considered or proved incorrect, the challenged party will inform its customers (dealers) in an appropriate way within one week and will distribute changed labels and fiches within four weeks' time. The General Secretary of CECED is to be informed about the outcome of the verification case in writing.
- 3. If a clarification by communication cannot be achieved, the appliance in question will be tested, preferably in a company's lab to save time and costs. The result of the testing in a company's lab should be available after 6 weeks (time counted from the beginning of the dispute). If both parties acknowledge the test result, further steps are to be taken according to No. 2 as shown above.
- 4. However, if an agreement to test in a company's lab cannot be achieved, or if the result of this test is not acknowledged by both parties, a test will be carried out in an independent experienced laboratory strictly according to the relevant European Standards. The result of this testing should be available after 8 weeks or 10 weeks respectively if a test in a company's lab was already carried out (time counted from the beginning of the dispute). The result is to be accepted by both parties. Costs will be covered by the party whose claim has been proved wrong. Further steps are according to No. 2 as shown above.

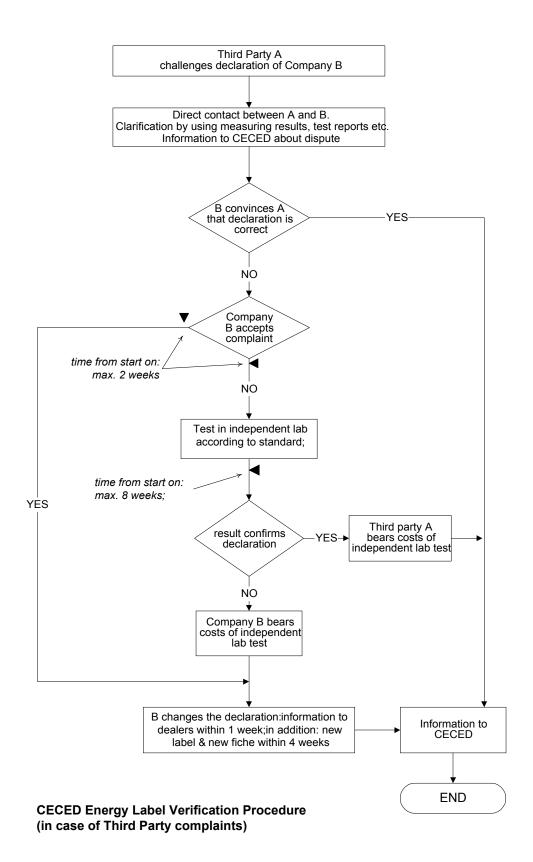


**CECED Energy Label Verification Procedure (for internal purposes)** 

#### Annex 2

#### Verification process in case of a complaint by a Third Party

- 1. In case data on a label or in a fiche are questioned, the challenged Participant and the complaining Third Party shall get in direct contact and try to clarify the matter by explaining their views and exchanging relevant documents. The Participant shall inform the CECED Secretary General about the dispute in writing. This step should take not longer than two weeks after the complaint has been stated.
- 2. In case the data in question is unanimously considered or proved incorrect, the Participant will inform its customers (dealers) in an appropriate way within one week and will distribute changed labels and fiches within four weeks' time. The Participant shall inform the CECED Secretary General about the outcome of the verification case in writing.
- 3. If a clarification by communication cannot be achieved, a test will be carried out in an independent experienced laboratory strictly according to the relevant European Standards. The result of this testing should be available after 8 weeks (time counted from the beginning of the dispute). The result is to be accepted by both parties. Costs will be covered by the party whose claim has been proved wrong. Further steps are to be taken according to No. 2 as shown above.



#### Annex 3

#### **Verification of energy label declarations - Contacts**

Product category:	refrigerators & freezers		(please tick)
	washing machines		
	tumble driers		
	washer driers		
Brand names:			
and brand names we	name:		ing the above mentioned product categories
Address:			
Fax:			
E-mail:		•••••	
_	to appoint different cor is page and fill it out according	-	ersons, per product category or brands,



# Agreement on a common basis for noise declaration

It is agreed that:

The correct way of declaring noise is 93.5% as defined in IEC 60704-3 and in CECED  $\pi$ - certification

#### Basic principles

In order for the agreement to enter into force, it must be signed by responsible managers of all direct members before 15 April 2002. Non-direct members are invited to join as well.

#### Agreement

- 1. Whenever noise emission values for appliances under the scope of CECED are announced by a manufacturer, the values have to be measured in accordance with the latest version of the relevant standard (i.e. IEC 60704-1, IEC 60704-2-1, IEC 60704-2-8 and IEC 60704-2-11) and have to be declared in compliance with the latest version of EN 60704-3.
- 2. All newly produced brochures and advertisements shall be compliant after 15 April 2002;
- 3. Old brochures and advertisements material may be used up to 31 December 2002;
- 4. Online information (call centers, Internet,  $\pi$ -information) shall be modified to comply before 31 December 2002 at the latest.
- 5. Old values may be given additionally in brackets after the correct value or referred to in a footnote (with clear reference to the standard used), e.g. "(xx dB in accordance with EN 60704-2)".

Brussels, March 12th 2002

Agreement signed by:

Small Appliances: Large Appliances:

BSH Candy Candy
Electrolux Electrolux
Miele Merloni
Philips Miele
SEB Liebherr



#### Proposal on maximum load declaration

It is fixed the principle that

"The manufacturer declares as maximum capacity of a washing machine, washer-dryer or tumble dryer no other capacity as the one declared to be used for measurements according to the relevant energy label standards".

The following definitions should be taken into consideration, when considering deadlines:

**New model** - it is a model, as identified by its commercial number, which is put on the

market for the first time after the 1st of October 2001.

Old model - it is a model, as identified by its commercial number, which is put on the

market for the first time before the 1st of October 2001

New deliverable - it is any printed or electronic material, which is distributed / made available

for the first time after the 1st of October 2001.

**Old deliverable** - it is any printed or electronic material, which is distributed / made available

for the first time before the 1st of October 2001.

#### Three deadlines are set:

- The references to New models on any New deliverable are in line with the stated principle from the **1st October 2001**.
- The references to Old Models on any New deliverable, not in line with the stated principle are tolerated until the **31st of March 2002**. The stock of those New Deliverables existing on the 31st of March 2002 can be used until the 1st of October 2002. All New deliverables produced after the 31st of March 2002 must be in line with the principle for all the Old and New Models.
- The use of Old Deliverables is tolerated until the **1st of October 2002**. After this date the Old Deliverables, if still available, must be withdrawn and only Deliverables fully in line with the principle can be used.

Brussels, 31 July 2001

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# SECOND VOLUNTARY COMMITMENT ON REDUCING ENERGY CONSUMPTION OF DOMESTIC WASHING MACHINES (2002 - 2008)

31 October 2002

#### SECOND COMMITMENT ON REDUCING ENERGY CONSUMPTION OF DO-MESTIC WASHING MACHINES (2002 - 2008)

#### 1. BACKGROUND

The European Committee of Manufacturers of Domestic Equipment (CECED) represents the interests of domestic washing machines manufacturers in Europe. Its members are domestic appliances manufacturers and a number of national trade associations.

In April 1996 the European Committee of Manufacturers of Domestic Equipment (CECED) presented a first Commitment about energy saving to the European Commission. This Commitment was made on behalf of the European manufacturers of domestic washing machines and was aimed at a considerable reduction of energy consumption of washing machines. The proposal was negotiated with the EU Authorities and notified, in October 1997, to EC DG IV. The final approval followed on 9. December 1998, when the Commitment was published in the Official Journal.

Exemption according to Art. 81 of the EU Treaty was granted by decision of the Commission for the period up to end of year 2001.

The overall saving target of this Commitment was to reduce the specific energy consumption of domestic washing machines by 20% in the period 1994 - 2000. Practically, this targeted at bringing the average energy consumption value of 0.30 kWh/kg down to 0.24 kWh/kg within 6 years. To achieve this goal, a catalogue of different technical and marketing related measures was set up, specifying so-called "hard targets" and also "soft targets".

In addition, CECED committed itself to monitor the progress and to report regularly - every year - to the European Commission on the basis of a notary report and the technical database of washing machines of CECED.

The targets of the Commitment were achieved at the end of 1999. The specific energy consumption was then calculated and reported with 0,228 kWh/kg. That way a saving of 24% had been achieved - without regulative measures and without adverse market distortion.

A recently completed study<sup>19</sup> came to the conclusion that in terms of energy efficiency of washing machines there is no real reason for a change in the present energy label. Other conclusions of this study have been taken on board in this proposal if considered as a support to contribute to energy savings in the future.

The successful fulfilment of this first Commitment prompted manufacturers to elaborate the possibility of a new - second - Voluntary Commitment, covering the period from 2002 to 2008.

This new Commitment is described hereafter.

It is developed at Community level as it aims to ensure that free circulation of goods is not hampered by diverging practices at national level. Its logical reference could be EC Treaty Article 95.

<sup>&</sup>lt;sup>19</sup> SAVE II study on 'Revision of energy labelling & targets washing machines (clothes)', NOVEM, NL, March 2001

#### 2. BASIC CRITERIA

The present Commitment is based on the following criteria.

#### Representativeness

At present, the Community market share of CECED washing machine manufacturers amounts to more than 90%. This is a very strong basis for the implementation of this Commitment. However, to increase the energy savings further, and not to harm the competitive situation of the European industry, it is important that as many actors as possible are committed to this proposal. This scheme is open to any producer, importer, distributor, etc., which has its own brand names on the Community Market. Implementation of this Commitment will not eliminate competition in the sector. Prices and performances remain strong competitive factors. As a consequence, neither a significant increase in price nor a deterioration of performance nor a reduction in choice are likely to occur. From the consumer's standpoint, lower expenses for energy will compensate for a possible slightly higher purchase price.

CECED will contact the most relevant non European manufacturers to encourage them to join the present Commitment.

#### Quantified and staged objectives

In the definition of the present Commitment, manufacturers have taken into account the conclusions drawn by the SAVE II Study on "Revision of energy labelling & targets washing machines (clothes)', NOVEM, NL, March 2001".

As the present Commitment is the follow-up of a first Commitment on washing machines from 1996, the present status in terms of energy efficiency of washing machines is already transparent and clearly defined. Since 1996 the development of energy saving and the respective picture of the market have been reported regularly to the Commission by CECED.

The targets in this Commitment are well defined, quantified and unambiguous. One part is the so-called "hard target" with a ban of the least efficient appliances. The affected appliances can be clearly identified on the basis of the energy labelling scheme. The other part is the well-quantified improvement of the European production energy consumption weighted average, calculated by a notary, the so-called "fleet target". Other objectives are non-quantifiable and called "soft targets".

The development during the time-span of the Commitment can be measured in a transparent and credible way on a yearly basis. Therefore it will be easy to follow the progress and to assess the degree of fulfilment of the Commitment.

Each manufacturer, when entering into the Commitment, will have the possibility to best adapt its technology to reach the optimum balance between energy consumption (within the target limit) and overall working performances taking into consideration the different markets' configurations and consumer's expectations in terms of models segmentation and return on investment.

#### **Incentive compatibility**

CECED has supported the energy labelling scheme according to the Directive 92/75/EEC from the very beginning. This Commitment is linked to the energy labelling scheme. Both measures complement one another.

To give further support, it is suggested to co-ordinate incentive measures as already recommend by the ECCP (European Climate Change Program) working group such as:

- □ financial incentives to foster market transformation:
- consumer rebates for early replacements of old appliances;
- development of research initiative, training and education on changing the consumer behaviour towards the correct use of the appliance.

In the co-ordination of these initiatives, due consideration should be given to the specificity of each market in order to push a homogeneous energy efficiency improvement. This also to avoid opposite signal to consumers as a result of national initiatives for rebate schemes, de-taxation and similar non co-ordinated incentive actions.

#### Consultation with interested parties

The Commitment was notified to DG Competition with a view, inter alia, of submitting the Commitment to a public enquiry.

#### **Publication**

CECED will give full evidence of the results achieved by the present Commitment as well as of the monitoring of the results. For this purpose a detailed report of the results of the Commitment is made available to the EU Commission and made available to all the interested parties.

#### Monitoring and reporting

This Commitment contains effective compliance controls. This responds to expressed members expectation and should fulfil the requests from Authorities.

A well-designed monitoring system including independent verifiers is part of the present Commitment (see chapter 7 "Monitoring", 8 "Reporting" and 9 "Verification"). On request of the EU Commission a steering Committee will be established to check the Commitment.

#### **Enforceability**

Actions to be taken in case the Commitment fails to deliver the targeted results are detailed and clearly indicated in chapter 10 "Reaction to non-compliance".

#### Arbitration

CECED is appointed to monitor and resolving different views between Manufacturers to avoid conflict of interest.

#### 3. PARTIES

The present Commitment is made by manufactures of washing machines (hereinafter referred to as the participants), as enumerated in Annex 1, and by CECED. Any manufacturer, importer or retailer using its own brand is welcome to participate on a voluntary base.

#### 4. DEFINITIONS

For the purpose of this Commitment, specific definitions are as defined in the Directive 95/12/EC, "energy labelling of household washing machines".

#### 5. CONTEXT OF ENLARGEMENT

The energy labelling has influenced the market considerably, i.e. in fostering the competition between manufacturers for more efficient appliances. In order to be able to assess properly the possible energy saving potentials and the necessary investments and to be able to achieve the targets, manufacturer must have a predictable and stable basis.

Presently the geographical scope of the Commitment covers only the current extent of the European Union with its 15 Member States.

Participants commit themselves, as a first step, to enlarge CECED technical model database to accession countries, taking into consideration their respective effective alignment to the energy labeling directive. This shall allow to get a clear picture of markets levels and convergence conditions.

Not later than end 2003, a detailed proposal will be tabled with terms and conditions for the enlargement of this Voluntary Commitment to these countries.

#### 6. COMMITMENT

By signing this document participants commit themselves to reduce the total energy consumption of domestic washing machines and thereby CO2 emissions caused by power generation. To reach this objective participants will stop producing for, and importing in, the Community Market less efficient washing machines, as described hereafter, and will improve the average energy consumption of washing machines produced for and imported in the Community Market

The resulting energy consumption reduction will amount to at least 33% related to the figures of 1994, respectively 12,3% related to the average energy consumption in 1999 as recorded in the notary reporting to the European Commission.

Furthermore, the participants will actively promote consumer awareness to save energy when using a washing machine. It is difficult to estimate the percentage of energy savings achieved by this. But it is essential to motivate the consumer to take his share in this process.

#### A - The Participants therefore commit themselves to:

#### "Hard targets":

By 31.12.2003<sup>20</sup> participants will have stopped producing for, and importing<sup>21</sup> in, the Community Market domestic washing machines which belong to energy efficiency class D.

A marginal model on the market: washing machines without heater and with vertical axes, are excluded from this target.

#### "Fleet target":

• Each participant will commit himself to contribute to the Commitment overall objectives of achieving a European production weighted average of 0.20 KWh/Kg for the year 2008. Each participant will provide the CECED notary consultant, as specified in part B of this clause, and according to the procedure specified in annex 2; with production weighted energy consumption data for the previous calendar year.

#### "Soft targets":

In addition to the above commitments, all participants commit themselves to strengthen their overall activities to achieve further energy savings and to educate consumers on the way to save energy; in particular, they commit themselves to:

- Support the introduction of the A+ class on the revised energy label, identifying and promoting super efficient machines at a level of 0,17 kWh/kg by giving additional public awareness;
- Support at EU or national level, rebates schemes aiming at fostering the introduction of efficient washing machines, e.g. by replacing old and inefficient machines as long as the balance between energy and washing performance is maintained (minimum class B for washing performance);
- Co-operate preferably at national level in setting up targets and measures for achieving a high level of spinning efficiency for markets where tumble drying is relevant;
- Inform in their brochures about the advantages of a high spin speed washing machine when tumble drying is preferred;
- Promote the energy efficient use of washing machines by giving information in the user manual;
- Co-operate with detergent industry on new energy saving detergents and promotion of an energy saving consumer behaviour
- Push the development of a new standard for testing washing machines taking into account the change of consumer behaviour towards lower wash temperatures and not using always full load. This development will be done in close co-operation with the European Committee for Electrotechnical Standardization ("CENELEC") and consumer organisations and testing institutes if actively supported by Member States and/or the European Commission and is targeted to be used as a basis for a revised label in 2008.

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<sup>&</sup>lt;sup>20</sup> Models of classes E,F and G were already eliminated by the first negotiated agreement

<sup>&</sup>lt;sup>21</sup> Including under own brand and private labels

#### B - CEDED commits itself to:

- entrust an independent consultant (hereinafter referred to as the Notary) to monitor on a notary basis<sup>22</sup> the production weighted average energy consumption;
- being responsible for the contacts and the costs related to the Notary
- establish a list of participants and keep it updated. It will provide the updated list to the European Commission. The list of participants will be available to the public free of charge.
- Continue to operate a database for washing machines. This database contains an analysis of all models of washing machines placed on the Community market by all the participants and is updated yearly. For each single model all those data will be given which are mandatory on the energy label. The database is available to the European Commission, national authorities and, for study purpose, to experts appointed by them. The copyright is owned by CECED.

#### 7. MONITORING

The monitoring system of the present Commitment will supervise both the fulfilment of the conditions described in Point 6 and the progress in energy saving achieved by this Commitment.

The compliance with the targets defined in Point 6 of the present Commitment is based on data which have to be declared on the energy label for washing machines according to Directive 95/12/EC. This constitutes the basic condition for a homogeneous and transparent market surveillance. It is the responsibility of Member States to check the correctness of the energy label declaration according to the requirements of the Directive.

The Notary will monitor on an annual basis the results achieved by the Commitment, in terms of production weighted average energy consumption.

Participants will be responsible for the accuracy of the data declared on the label and communicated to CECED, which will ensure that the information is passed consistently in the Database, and for the data communicated to the Notary.

The Participants acknowledge that the European Commission may charge an independent consultant, different from the Notary, to monitor the progress in energy saving resulting from the Commitment on an annual basis, on the basis of sales data produced by external statistical sources and the technical database produced by CECED. Taking into consideration the different nature of the statistical and technical data, CECED is ready to co-operate with the external consultant to ensure that the proper co-relations are made.

The selection of the independent consultant as well as the relations and costs associated with it are outside the responsibility of CECED.

<sup>&</sup>lt;sup>22</sup> The Notary service consists in consolidating the elementary data provided by participants and in releasing the results. The notary will never disclose the elementary data provided by the participants

#### 8. REPORTING

Based on the data provided, CECED will submit each calendar year starting from 01.01.2003 to the European Commission a report including the following information.

- on the base of the Notary report;
  - an overall production weighted energy consumption figure of domestic washing machines
  - a histogram of production weighted energy consumption of each energy efficiency class;
- on the base of the CECED technical data Base
  - the distribution of energy efficiency and performance classes
  - the evolution of the washing performance
  - a histogram of share of each water extraction efficiency classes;

The annual report will be made available to the public free of charge.

#### 9. VERIFICATION

Each participant checks regularly its products to make sure that the declaration on the energy label of its product is correct as required by the EC-Directive 95/12/EC. Measurement methods and verification procedures are as described in the European Standard of the European Committee for Standardisation EN 60456 and the Code of Appliance Testing for washing machines.

Any complaint by third parties or Participants about the production and import of banned products shall be addressed to CECED. CECED will notify immediately the European Commission.

The Participants commit themselves to collaborate with the European Commission in resolving any problem connected with the implementation and fulfilment of this Commitment.

#### 10. REACTION TO NON-COMPLIANCE

The following procedures will be followed in the case of non-compliance:

1. If a Participant produces or imports a washing machine belonging to a banned energy efficiency class, CECED will immediately issue to the Participant a written warning of non-compliance and will request the Participant to take prompt appropriate corrective actions within one month, which might consist in either modifying the product or withdrawing it from the market after receiving the warning.

If the Participant fails to reach compliance within the deadline set by CECED, the Participant would be deemed not to take part any longer in the Commitment and accordingly CEDED will delete it from the list of signers. CECED will immediately issue a press release indicating that the Participant no longer takes part in the present Commitment and at the same time CECED will reissue the list of signatories.

2. If the annual overall production weighted energy consumption of domestic washing machines as reported by the Notary should cause doubts of whether the target of 0.20 kWh/kg could be achieved in time, CECED will elaborate the reasons by analysing the Notary figures of the production weighted energy consumption figures of each participant. If a participant obviously fails to contribute adequately to the as-

pired European production weighted average of 0.20 KWh/Kg CECED will issue to the Participant a written warning and will request the Participant to take appropriate corrective actions.

If - in this way- a Participant is identified as having clearly failed sequentially for two years to contribute adequately to the aspired average target value this participant would be deemed not to take part any more in the Commitment and accordingly CEDED will delete it from the list of signers. CECED will issue a press release indicating that the Participant no longer takes part in the present Commitment and at the same time CECED will reissue the list of signatories.

#### 11. REVISION

This Commitment is based on the actual state of technology and products. Participants agree to review the target in consultation with the European Commission and Member States if:

- the balance between energy efficiency and washing performance alters significantly the profile of consumer choice criteria (energy efficiency, washing performance, spinning speed, costs, etc.);
- the present standard washing cycle does not reflect any longer the consumer's behaviour and a new standard cycle therefore has to be evaluated.

#### 12. DURATION

The present Commitment starts on 1.11.2002 and will last until 31.12.2008.

#### 13. PUBLICATION

The Commission has indicated its intention to publish the present Commitment and to report to the Council and the European Parliament on the results achieved.

#### CECED members within Voluntary Commitment

ARÇELIK - Turkey
ANTONIO MERLONI - Italy
BOSCH SIEMENS - Germany
CANDY - Italy
ELCO-BRANDT - France
ELECTROLUX - Sweden
FAGOR - Spain
GORENJE - Slovenia
MERLONI - Italy
MIELE - Germany
SMEG - Italy
WHIRLPOOL - Italy

Calculation of the overall production weighted energy consumption of domestic washing machines.

Starting from 2002 each Participant will provide the Notary, not later than the 31st of March, with data to enable him to calculate the per class and overall production weighted energy consumption of domestic washing machines produced for, or imported in, the Community Market for the previous calendar year.

To this purpose, each Participant will deliver:

- the total number of washing machines produced or imported in the previous year, per energy class
- the production weighted mean energy consumption value per energy class (hereinafter called fleet consumption), expressed in kWh/kg load.

**Example**: Calculation of the fleet consumption of manufacturer X, for the appliances with a B energy consumption index:

Washing	number of pieces		energy consumption (a)	n x a
machine	produced (n)		of this type (kWh/kg load)	
Type 1		100 000	0,20	20 000
Type 2		5 000	0,21	1 050
Type 3		25 000	0,22	5 500
		130 000		26 550

In this example, the class B production weighted energy consumption (fleet consumption) of manufacturer X amounts to: 26.550 / 130.000 = 0,205 kWh/kg load. This figure will be delivered to the Notary together with the weighted energy consumption and the total number of pieces produced/imported per each class.

In the same way, the Notary calculates the per class and overall production weighted energy consumption of all participating manufacturers.

**Example**: Calculation of the overall production weighted energy consumption of three manufacturers, in energy class B

Manufacturer	total number of pieces produced (n)	fleet consumption (b) of manufacturer	n x b
X	130 000	0,205	26 650
Y	50 000	0,221	11 050
Z	222.512	0,216	48 063
	402.512		85 763

In this example, the class B production/imported weighted energy consumption of all washing machines produced by the Participants amounts to: 85,763 / 402,512 = 0,213 kWh/kg load. This figure will be part of the report to the European Commission. On request, the Notary may examine manufacturers' calculation of the fleet consumption.



# VOLUNTARY COMMITMENT ON REDUCING ENERGY CONSUMPTION OF HOUSEHOLD REFRIGERATORS, FREEZERS AND THEIR COMBINATIONS

(2002-2010)

31 October, 2002

# COMMITMENT ON REDUCING ENERGY CONSUMPTION OF HOUSEHOLD REFRIGERATORS

#### **BACKGROUND**

The European Committee of Manufacturers of Domestic Equipment (CECED) represents the European manufacturers of household refrigerators, freezers and their combinations' (in this Commitment subsequently called **household refrigerating appliances**) in Europe. Its members include major household appliances manufacturers and a number of national trade associations.

CECED has been actively working in the pursuit of energy efficiency and the promotion of a rational use of energy at all levels. A long lasting co-operation has been set with authorities in order to properly address both the technological and the societal and economic facets. EC analysis have clearly shown that future developments for final electrical uses depend on the combination of improvements in the energy intensity and the ability to face the increasing demand from consumers. CECED believes that a mix of instruments has to be used to effectively cope with the objective. Voluntary Commitments are a very effective instrument to achieve substantial results in the area of energy efficiency and its diffusion on the market. They can play a relevant role in the mix of instruments as they deliver results in a short period of time and without distorting the market and thus the competition between manufacturers, this concept being particularly valid in case of complex situation such as different market specificity among EU Member States due to environmental conditions and consumer habits or price sensitivity.

This Commitment is developed at Community level as it aims to ensure that free circulation of goods is not hampered by diverging practices at national level. Its logical reference could be EC Treaty article 95.

Already in 1996 the manufacturers of washing machines within CECED proposed a Voluntary Commitment for energy saving to the European Commission. The overall target of this Commitment was to reduce the energy consumption of washing machines by 20%. This proposal was notified to the European Commission and the public enquiry on it was published in 1998 in the Official Journal: an exemption to the application of Article 81 of the EC Treaty and article 53 of the EEA agreement was granted by the European Commission by decision 2000/457/EC. The participants in the Commitment have been very successful in reaching the proposed targets. By 1999 an energy saving of 24% has been reached and thus the Commitment was fulfilled.

Since then 2 further Voluntary Commitments have been presented to the European Commission: in 1999 on dishwashers and on domestic electric storage water heaters.

In the last years CECED manufacturers have also issued further Voluntary Commitments on specific operational codes for appliance testing (refrigerators and freezers, washing machines and dishwashers) with the aim to improve the reproducibility of the standard test methods and on an internal Verification Procedure to check the correctness of energy label data declaration

CECED manufacturers have developed a communication concept, which aims at enhancing the visibility of their efforts in the domain of industrial production sustainability. This communication programme is characterised by a visual mnemonic, presented in appendix 3, which is used by all the signatories of the Voluntary Commitments, and will characterise CECED communication on any other specific programme in this area.

This very positive experience brought the manufacturers of **household refrigerating appliances** to elaborate a proposal for a Commitment for those appliances as well.

In many respects the European market for household refrigerating appliances is very similar to the one of washing machines. The competition is very strong. There are quite a large number of suppliers and brands, but the first 10 major players cover with their own brands more than 80% of the market (see DG TREN SAVE II COLD study, Paragraph 8.3.2). The number of appliances imported into the Community market, under non-European brands, is low. In addition, considering all the commercial brands, which models are produced by the Participants to the present Commitment, the coverage of the production and importation for the European market rises. Anyhow CECED, considering its direct members together with the non-direct members, represented through the National Associations, represents more than 95% of the production for and import into the EU market. The average penetration in the European Union is ca. 106% for refrigerators and refrigerators/freezers and 51% for up right and chest freezers (in 2000) and still growing. The number of household refrigerating appliances installed in the European Union amounts to approx. 230 million units in 2000.

The price and the brand name dominate the choice of the consumer, although the environmental aspects in the priority list of buying criteria are rising thanks to the great effect, even if homogeneous, of the energy label.

Besides the intentional positive impact on the energy consumption, the present Commitment affects the market too. This Commitment aims to minimise the consequences for the consumer and to maximise the contribution to energy saving at the same time. Therefore it will not reduce competition in the sector. Prices and performances remain strong competitive factors. Neither a deterioration of performance, nor a reduction in choice will occur. While, the less energy efficient appliances withdrawn from the market will be replaced by new models with improved energy efficiency, the choice for consumers will remain wide enough in any Member State to prevent any uneven impact on consumers. Higher energy efficiency appliances are in general more expensive than the less efficient ones. However, lower expenses for energy will compensate for a possible higher purchase price, if the Least Life Cycle Cost (LLCC) is not reached. Each manufacturer will have the possibility to adapt its own technology to reach the optimum balance between energy consumption (within the target limit) and overall performances taking into consideration the different markets' configurations and consumer's expectation in terms of models segmentation and return on investment.

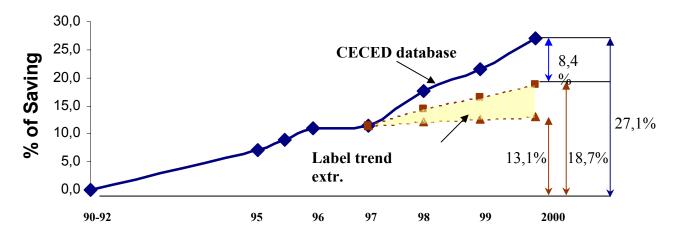
This principle worked very well in the case of the Voluntary Commitment on washing machines. This Commitment has neither resulted in a restricted choice of models or in a significant increase in prices. CECED is of the opinion that in the case of **household refrigerating appliances** this is even more important and the same positive experience can be confirmed also for **household refrigerating appliances** where the ambitious target is quickly moving the market towards or even exceeding the LLCC.

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#### GOING BEYOND ENERGY EFFICIENCY VISION

The market of **household refrigerating appliances is currently governed by two directives on the energy side:** the Directive 94/2/EC (of 21 January 1994) on "Energy labelling of household refrigerators" and the Directive 96/57 (3<sup>rd</sup> September 1996) on energy efficiency requirements. The EC is bound to assess the state of progress "with a view to proceed towards a second significant step in energy efficiency" (ref. art.8 Directive 96/57/EC). CECED proposal is tabled in the spirit of this requirement.

The effect of the two directives is bundled together and it is not self-evident to distinguish the respective results. Anyhow it is possible to state that the pull effect of the label Directive 94/2 can be set at a value between 13 - 18% saving, while the additional effect of the 96/57



Directive ranges within 8 - 14% saving hence resulting in a total combined effect of 27% saving in the period from year 1990-92 to 1999. The following graph (see figure 1) tries to estimate the effect of the energy labelling Directive extrapolating the trend in the percentage of saving from year 95 to 97 on.

Figure 1 – Saving on the overall average energy efficiency index.

As a result of the evolution of the market, the energy label currently delivers a limited set of information to consumers, as products are clustered in three classes only. CECED considers that a new label, which makes evident new efficiency possibilities, can play a relevant role in the development of significant energy policies in the area of household refrigerating appliances. Such a revised label will play also an essential part in the achievement of the present Commitment.

The Industry deems necessary to implement a Voluntary Commitment in the field of household refrigerating appliances because

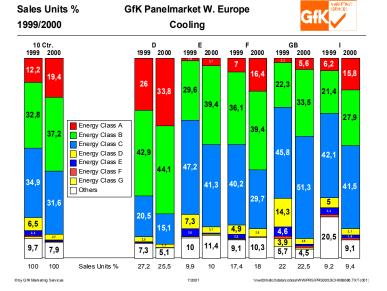
• After the first wave of energy efficiency measures, there is still a potential for further improvement of appliances energy efficiency;

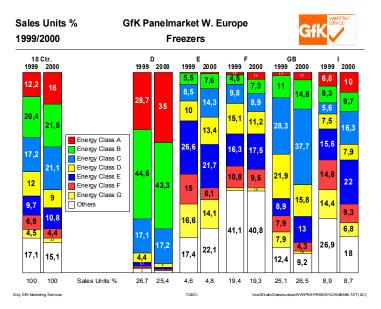
- The situation in the Member States is very differentiated: differences were not reduced over the last years and consumers face different life cycle costs of cold appliances in the different countries (see figure 2);
- In a few years new Member States will join the Union and the differentiation of national situations is bound to increase in the short-medium period;
- There is an important potential of energy saving linked to the modification of consumer behaviour, both in purchase and use.

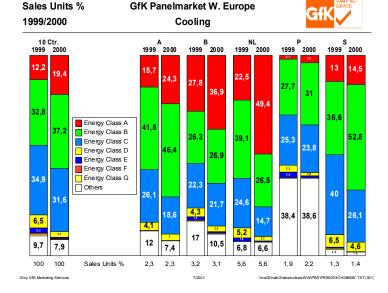
The relevance of the European commitment to Climate Change Programmes requires going beyond the traditional energy efficiency approach of the early Nineties. A combination of legislative measures, the energy label directive, co-ordinated programmes to accelerate the diffusion of better technology into the market, and a Voluntary Commitment combining hard, fleet and soft targets represents the best option to fulfil the strategic objectives identified in the Energy Action Plan and the ECCP.

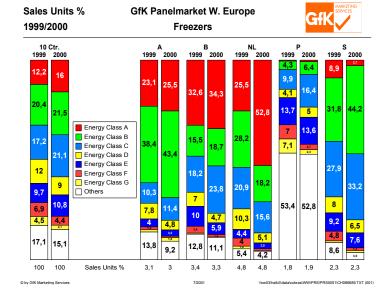
At present, the Community market share of CECED household refrigerating appliances manufacturers amounts to more than 80%. This is a very strong basis for the implementation of this Commitment. However, to increase the effectiveness of the Commitment, it is important that as many actors as possible are committed to this proposal. This scheme is open to any producer, importer, distributor, etc., which has its own brand names on the Community Market. CECED will contact the most relevant non-European manufacturers to encourage them to join the present Commitment.

Figure 2. GFK data 1999/2000









#### **BASIC CRITERIA**

The present Commitment is based on following criteria.

#### Representativeness

The Commitment covers almost the totality of the European household refrigerating appliances industry. CECED represents more than 95% of the market. Therefore, when implemented this commitment shall ensure a very high level of representativeness.

Main manufacturers have already confirmed their support to the present document. They are listed in appendix 4 and represent around 80% of the total European market in the year 2000. If one includes third brands which products are manufactured by the signatories, and therefore part of the present Commitment, the EU market coverage raises to approximately 90%. The Commitment is open to all manufacturers, producers and importers, acting on the European market: CECED will act in order to try getting on board manufacturers which are not yet part in the agreement (see paragraph 4 - Parties

#### Quantified and staged targets

This Commitment sets quantified and staged targets in terms of energy efficiency thresholds and fleet consumption targets. In addition it provides a method for monitoring the evolution of energy efficient appliances diffusion into the market that allows to track progress and results well beyond the time horizon of the Commitment. Actually it allows to co-relate the results of the agreement with the long-term strategic potential set out in the ECCP.

Soft targets are also set. They are defined with a starting year. Due to their nature it is not possible to evaluate them in terms of quantified efficiency or energy conservation targets, even if they contribute to the achievement of the overall objective.

Current energy efficiency programs tend to push the market towards the -LLCC point. During the works in the SAVE COLD II study, CECED has already provided data and evidence that the LLCC for the average **household refrigerating appliances** is set at an Energy Efficiency Index of 52. This is already an ambitious target as, due to national markets sensitivity, in some Member States it will be more demanding than the specific LLCC and therefore more difficult to reach.

The Commitment should result in a saving of about 4.5 TWh in year 2006 and 11.6 TWh in year 2010. This is in line with the TWh saving for **household refrigerating appliances** as indicated in the SAVE II Study and in the final report of the ECCP joint sub working group on Energy Efficiency in end-use – Equipment and Industrial Processes. More important results may be achieved by the introduction of complementary measures aimed at market transformation driving consumers choice towards more efficient products or early replacement: such public incentives co-ordinated in national supportive measures could contribute to raise energy savings to 15 TWh in 2010.

In chapter 6. – Objectives – the targets are listed in clear and unambiguous terms. A strong compliance system garantees that Commitment fulfilment can be measured and checked in an affordable and credible way by means of notary fleet monitoring and voluntary warning system based on data checking, ensuring the needed transparency.

#### **Incentive compatibility**

CECED recognises the need for a favourable political framework being set for the Commitment to be feasible and effective. Two measures are fundamental from that standpoint:

- The revision of the energy label Directive to be operational at the moment the Voluntary Commitment gets to its first deadline;
- The development of co-ordinated measures to improve the diffusion of energy efficient solutions in the market.

The latter ensures the link to the long-term objective within the European Climate Change Programme (ECCP).

The former, the link with the future revised energy label is obvious in order to ensure an effective impact of the measure mix on the market. Besides, it is important to minimise drawbacks in the transitional period between the old and new regime. The new label should maintain, as far as possible, consistency in ranking with the old one. This allows a smooth overlapping of the different label generations limiting the period of consumers' confusion, which may delay the positive effect of the revised label.

CECED proposals on the revision of the Energy Labelling Directive are listed in appendix 1.

The energy efficiency index of 52 being a very ambitious target and in some Countries beyond the LLCC, a co-ordination of complementary and supportive action needs to be established by a task group at Commission and Member States level as indicated in appendix 2.

#### Consultation with interested parties

In the definition of the present Commitment, manufacturers have taken into account the conclusions raised by the SAVE COLD II study on "The revision of energy labelling and minimum energy efficiency standards for domestic refrigeration appliance". Several energy agencies and experts have participated in the Study and CECED expects that the Commitment responds to most of their expectations.

CECED intends to notify the Commitment to DG Competition with a view, inter alia, of submitting the Commitment to a public enquiry.

#### **Publication**

CECED will give full evidence of the results achieved by the present Commitment as well as of the monitoring of the results. For this purpose a detailed report of the Commitment is made available to the EU Commission and made public to all the interested parties (see chapter 9. Reporting).

#### Monitoring and reporting

This Commitment contains compliance control elements. This responds to expressed members expectation and CECED trusts that it also fulfils the requests from the Authorities.

A well-designed monitoring system including independent verifiers is part of the present Commitment (see chapters 8. Monitoring and 10. Verification).

#### **Enforceability**

Actions to be taken in case a participant to the Commitment fails to deliver the targeted results are detailed and clearly indicated in chapter "Reaction to non-compliance". Monitoring tools give the Authorities the possibility to track the trends of development and act accordingly would they lead to an unsatisfactory perspective.

#### **Arbitration**

To check the results of the Commitment and on request of the EU Commission a steering Committee will be established with the participation of the Commission and manufacturers representatives and nominated experts.

#### 4. PARTIES

The Commitment is made by manufacturers of household refrigerating appliances (hereinafter referred to as the "participants"), as enumerated in Appendix 4, and by CECED. Any manufacturer, importer or retailer using its own brand is welcome to participate on a voluntary base. CECED will get in contact with manufacturers acting on the European market which are not part in the Commitment yet, explaining the content and the scope of the present Commitment in order to convince them to join it.

#### 5. DEFINITIONS

This Commitment applies to refrigerators, freezers and their combination, as defined in the Directive 96/57/EC. Absorption appliances are excluded. The energy efficiency index is derived from Directive 94/2/EC and 96/57 (<sup>23</sup>) and maintains a good correlation with both even if some technical correction factors have been added.

#### 6. OBJECTIVE

By signing this document participants commit themselves to reduce the total energy consumption of **household refrigerating appliances**, thus reducing CO2 emissions caused by power generation, and to increase the penetration of appliances with high energy efficiency in the EU market.

The Commitment is designed to drive the market towards the target of LLCC. Additional complementary measures will act in that direction in order to accelerate this transformation or even to go beyond the LLCC point.

The Commitment 'package' (new label + voluntary threshold at 75% for all appliances + fleet average reduction at 52% in 2006) is comparable in its effects to the "new label 2002 + 55% MEPS 2005" SAVE II cold scenario. The latter's effect is evaluated in the study at 4.5 TWh

<sup>&</sup>lt;sup>23</sup> Taking into account the technical correction factors as explained in appendix 1, in order to get a balanced typology relevant of present market.

saving in the year 2005 and 11.6 TWh in year the 2010 compared with the business as usual scenario (table 6.5 of the SAVE II Cold study). We can expect the same result also for the present Commitment respectively in the year 2006 and 2010.

Furthermore, the participants will actively promote consumer awareness to save energy when using a household refrigerating appliances. It is difficult to estimate the percentage of energy savings achieved hereby. But it is essential to motivate the consumer to take his share in this process.

The Commitment sets the basis to extend the monitoring of progress achieved in the market, beyond the year 2006: this fits into the EU policy commitment on climate change.

#### 7. COMMITMENT

This Commitment on energy efficiency is tightly connected to the introduction of a new label including some necessary complementary points as indicated in appendix 1, and to the development of supporting measures aiming at accelerating market transformation, as outlined in appendix 2.

Participants commit themselves to expand the Commitment to accession countries.

Participants commit themselves, as a first step, to enlarge CECED technical model database to these countries, taking into consideration their respective effective alignment to the energy labeling Directive. This shall allow to get a clear picture of markets levels and convergence conditions.

Not later than end 2003, a detailed proposal will be lodged with terms and conditions for the enlargement of this Commitment.

#### A) The participants make the following commitments:

Withdrawal of less efficient household refrigerating appliances ("hard target")

Participants will **stop producing for and importing**<sup>24</sup> **in** the Community Market electric compressor based **household refrigerating appliances having** an energy efficiency index 75 by the date of implementation of the revised energy labeling Directive in EU member States, tentatively **by 31**<sup>st</sup> **March 2004**. This date is assumed to be the timing necessary for the EU to adopt a revised Labelling Directive, providing for a transition period for the revision of national regulations by Member States and adaptation to it by economic operators.

Reducing the fleet consumption ("fleet target")

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<sup>&</sup>lt;sup>24</sup> Including under own brands and private labels

Each participant will reduce its own production - weighted average energy efficiency index - to a value of 52 (LLCC) for production and importation into the EU market by the year 2006.

In the case EU and national authorities fail to develop in this time frame effective market transformation tools, participants however commit to achieve a fleet target by 54 (weighted average energy efficiency index).

#### Notary based production weighted data collection and validation

Starting from the production year 2001 each participant will provide the independent consultant appointed by CECED (hereinafter referred to as Notary), as specified in part B of this clause, and according to the procedure specified in appendix 5, with production weighted energy efficiency data in each refrigeration energy class and for each product category during the previous calendar year.

This monitoring of progress achieved in the market, is extended beyond the year 2006 till production data of the year 2010.

Signatories shall continue to provide the notary with reporting and technical database updates up to year 2010. This will enable Authorities to monitor the evolution of market trends. Would the trends show a deviation from expected results, CECED's signatories are ready to discuss with the Authorities the definition of further <u>fleet targets</u> beyond 2006 on the basis of national/EU market transformation initiatives and the dynamics of candidate countries access.

Each participant is committed to have its data validated by an independent responsible auditor, unless the company has an ISO quality certification system, in which case the quality manager issues the validation certificate.

#### Additional measures ("soft targets")

In addition to the above commitments, starting **from year 2004** all participants commit themselves to strengthen their overall activities to achieve further energy savings and to educate consumer on the way to save energy, in particular:

- By giving information on the appropriate size of a refrigerators with regard to the household size.
- By co-operating with National Energy Authorities in view of common programmes to promote the efficient use of refrigerators.
- By giving information about the rational use of the appliance in order to reduce energy consumption like:
  - proper thermostat setting
  - loading of food according to storage temperature
  - preparation of food to be refrigerated/frozen
  - correct location and installation (clearing ventilation openings)
  - proper cleaning and maintenance (frost removal)
  - reduce number and duration of door opening
  - prevent excessive frost by putting food in containers or envelops
  - do not store food at high temperature

#### B) CECED makes the following commitments:

- 1. CECED will establish a list of participants and keep it updated. It will provide the updated list to the European Commission. The list of participants will be available to the public free of charge.
- 2. CECED will set up and maintain a database for refrigerators. CECED will update each calendar year the database
- 3. CECED entrusts, from the year 2001 on, a Notary to monitor the overall production weighted average energy consumption;
- 4. CECED will publish every year a report based on the Notary calculation as indicated in chapter 9.

#### 8. MONITORING

The monitoring system of the Commitment will supervise both the fulfilment of the conditions described in Chapter 7 and the progress in energy saving resulting from by this Commitment.

The compliance with the targets defined in Chapter 7 of the Commitment is based on data which have to be declared on the energy label for **household refrigerating appliances** – according to the coming revised energy labelling Directive.

This constitutes the basic condition for a homogeneous and transparent market surveillance. It is the responsibility of Member States to check the correctness of the energy label declaration according to the requirements of the Directive. In order to ensure consistency in monitoring, CECED requests that the classes of the energy label are kept as coherent as possible between present and future revised label.

The Notary will monitor on an annual basis the results achieved by the Commitment, in terms of an overall production weighted energy consumption figure, calculated on the basis of the complete production/import range in the EU of all participants.

Participants will be responsible for the accuracy of the data communicated to the Notary and for this purpose, they commit themselves to have such data validated by an independent (responsible) auditor.

The participants acknowledge that the European Commission and Member States may charge an independent consultant, different from the Notary, to monitor the progress in energy saving resulting from the Commitment on an annual basis, on the basis of sales data produced by external statistical sources and the technical database produced by CECED. Taking into consideration the different nature of the statistical and technical data, CECED is ready to co-operate with the external consultant to ensure that the proper co-relations are made.

Each participant remains responsible for the data declared on the label and communicated to CECED, which will ensure that the information is passed consistently in the Database.

#### 9. REPORTING

The Notary will collect on a confidential basis from each manufacturer the production weighted energy efficiency index and the total production quantity for each product category and for each energy efficiency class. The notary will provide CECED with an aggregated summary and anonymous ranking of the participants.

CECED will collect a database, which contains technical data of all models of **household re-frigerating appliances** placed on the Community market by all the participants. For each single model all those data will be given, which are mandatory on the energy label. The database will be available to the European Commission, national authorities and, for study purposes, to experts appointed by them. The copyright is owned by CECED.

Based on the data provided, CECED will submit each calendar year starting from 01.01.2003 to the European Commission a report including the following information:

- $\Rightarrow$  on the base of the Notary summary:
  - The overall production weighted energy efficiency index;
  - A histogram of production weighted energy efficiency index for each efficiency classes and product category;
  - The ranking of the production weighted energy efficiency indexes of the participants in an anonymous way.
- ⇒ on the base of the CECED technical database:
  - The respective share of each product category
  - some charts showing the trend in the technology

The annual report will be made available to the public free of charge.

#### 10. VERIFICATION

Each participant checks regularly its products to make sure that the declaration on the energy label of its product is correct as required by the EC-Directive. Measurement methods and verification procedures are as described in the prescribed European Standard of the European Committee for Standardisation complemented by the "CECED operational code of conduct". A committee (hereinafter referred to as the "steering committee") will be established on request of the European Commission to verify the results of the Commitment as shown in chapter 7. The steering committee will be composed of representatives of CECED, the European Commission and experts appointed by them. The steering committee will be entrusted to settle possible disputes over the compliance with the Commitment.

Any complaint by third parties or Participants about the production and import of banned products shall be addressed to CECED. CECED will notify immediately the European Commission and the steering committee. The participants will commit themselves to collaborate with the steering committee in resolving any problem connected with the implementation and fulfilment of this Commitment.

#### 11. REACTION TO NON-COMPLIANCE

The following procedures will be followed in case of non-compliance:

- 1. If a participant produces or imports **household refrigerating appliances** belonging to a banned energy efficiency class, CECED will immediately issue to the participant a written warning of non-compliance and will request the participant to take appropriate corrective actions, which might consist in either modifying the product or withdrawing it from the market within a deadline of one month after receiving the warning.
- If there is evidence that the participant fails to comply within the set deadline, the participant would be deemed not to take part any more in the Commitment and accordingly CEDED will delete it from the list of signatories. CECED will immediately issue a press release indicating that the participant no longer takes part in the Commitment and at the same time, CECED will re-issue the list of signatories
- 2. If the notary report for the year 2005 causes doubts whether the target of 52 could be achieved in time by a participant as it has an energy efficiency index higher by 10% compared to the average index of all participants, CECED will issue to the participant a written warning and will request the participant to take appropriate corrective actions. If a participant is identified to fail to reach the average energy efficiency of 52 in 2006, this participant would be deemed not to take part any more in the Commitment and accordingly CEDED will delete it from the list of signers. CECED will issue a press release indicating that the participant no longer takes part in the Commitment and at the same time CECED will reissue the list of signatories.

#### 12. REVISION

This Commitment is based on the actual state of technology and products. Participants agree to review the target in consultation with the European Commission and Member States if the balance between the main criteria alters significantly the profile of consumer choice criteria (energy efficiency, volumes, storage temperatures, costs, etc.).

#### 13. DURATION

CECED manufacturers have expressed their willingness to implement an energy efficiency voluntary programme in 2001. The proposal, this Commitment refers to, was defined by CECED in the course of 2001. Since then, manufacturers have been feeling obliged to act in its spirit.

The present Commitment will start on 1.11.2002 and will last until 31.12.2010

#### 14. PUBLICATION

The Commission has indicated its intention to publish the Commitment and to report to the Council and the European Parliament on the results achieved.

CECED would welcome the approval of this Commitment by a European Commission letter, as happened in the case of other industry Voluntary Commitments.

#### Revised energy label and correction factors

CECED recognizes the need for an update of the labeling directive as a key factor to pull the EU market towards the more efficient appliances, hence improving the average energy efficiency of the installed stock. The new label should maintain, as far as possible, consistency in ranking with the old one. This allows to have a smooth overlapping of the different label generations limiting the possibility of biased behavior and consumers' confusion, which may hamper the positive effect of the revised label.

CECED thinks that top class shall be set at an efficiency of 30.

Moreover, the technical approach must be kept as homogeneous as possible, and there is no scientific evidence why the different policies should use different technical reference models. This means that technical correction factors shall be taken into consideration for energy efficiency calculation for the purpose of this Voluntary Commitment and for the revised energy labeling directive for refrigerators and freezers and the combinations thereof.

Manufacturers are ready to commit themselves to put in place a programme which objective is to reduce the European mean value of the fleet consumption to the LLCC point. This point has been assessed by manufacturers at the index 52, provided that correction factors are taken into consideration, also for the energy label, for the following typologies:

## Correction factor of 1.1 on the adjusted volume for ST appliances and 1.2 for T appliances:

CECED asks for inclusion of correction factors for climate classes in the revision of the labelling directive on refrigeration household appliances in order to allow a correction factor of 1.10 (sub-tropical) and 1.20 (tropical) on the adjusted volume of such appliances (to be applied at 'new' thresholds EEI 42 and 30 reachable with the new correction factors).

#### • Correction factor of 1.2 on the adjusted volume for built-in appliances:

Since for built-in products there are fewer options to attain the same energy efficiency index as for free-standing appliances due to the external volume and dimension constraints, a correction factor  $B_c$  of 1.2 is appropriate and it is also proposed by the SAVE II study. The definition of  $B_c$  shall be as follows:

 $B_c = 1.2$  for built-in appliances with a width and depth of less then 58 cm and  $B_c = 1$  for all other appliances. Built-in is a category of products designed exclusively for an installation inside a kitchen cavity with a need of furniture finishing (such product can be of the "built-under" type only if designed exclusively for installation inside a kitchen cavity).

#### • Correction factor of 1.2 on the adjusted volume for no-frost

CECED considers the factor 1.2 an absolute minimum correction factor needed for the No-Frost technology: a no-frost correction factor (1.2 on adjusted volume) to freezer compartments (3\* and 4\*).

• In Category 10 for appliances having a Chill compartment of at least 15 litres (net volume), add to the reference line an allowance of 50 kWh/y:

CECED requires the addition of a new sub-clause in Category 10: "For appliances with a Chill compartment of at least 15 litres (net volume) add to the reference line (index = 100) an allowance of 50 kWh/y" (to be applied at all thresholds).

• update the reference line for up-right and chest freezers (Category 8 and 9):

Increase the baseline values for Upright freezers by 10%(to be applied at all thresholds). Chest freezer baseline 10% less than the (revised) Upright freezer line (to be applied at all thresholds).

#### **Supportive measures**

The energy efficiency index of 52 being a very ambitious target and in some countries beyond the LLCC, a co-ordination of complementary and supportive actions needs to be established by a task group at Commission and member States level. This also to avoid opposite signal to operators as result of national initiatives for rebate schemes, de-taxation and similar non co-ordinated incentive actions.

In line with the recommendation of the ECCP WG, the co-ordinated measures should cover, to foster market transformation:

- consumer rebates for early replacements of old appliances;
- development of research initiative, training and education on changing the consumer behaviour towards the correct use of the appliance.

In the co-ordination of these initiatives, due consideration should be given to the specificity of each market in order to push a homogeneous energy efficiency improvement. The commitment based on fleet energy consumption works better than common fixed limits.

The visual mnemonic of CECED programmes in the area of

Energy & Environment



List of Manufacturers participating in the Commitment:

Antonio Merloni - Italy
Arçelik - Turkey
Bosch Siemens - Germany
Candy - Italy
Elco-Brandt - France
Electrolux - Sweden
Fagor - Spain
Gorenje - Slovenia
Iar Siltal - Italy
Liebherr - Germany
Merloni Elettrodomestici - Italy
Miele - Germany
Vestfrost - Denmark
Whirlpool - Italy

# Appendix 5 Calculation of the overall production weighted energy efficiency index of domestic refrigerators

Starting from 2002 each participant will provide the notary, not later than the 30 of September, with data to enable him to calculate the overall production weighted energy efficiency index of domestic refrigerators produced for or imported in the Community Market for the previous calendar year .

To this purpose, each Participant will deliver:

- the total number of refrigerators produced or imported in the previous year per efficiency class and product category
- the production weighted average energy efficiency index per efficiency class and product categories

Each manufacturer shall have its data validated by an independent responsible auditor of its choice.

Each man	ufacturer	will pr	ovide to th	e notai	ry the dat	a as in	this exa	mple	T	1		
	Class A		Class B		Class C		Class D		Class E		Class F	
	Total products	Index	Total products	Index	Total products	Index	Total products	Index	Total products	Index	Total products	Index
Category 1	20.000	0,51	50.000	0,72	90.000	0,8	20000	0,91				
Category 2	•••••											
•••••												
Category 9	10.000	0,5	25.000	0,7	5000	0,81	7000	0,92	15.000	108	1.000	120
Category 10	••••											

The Notary calculates the overall production quantity weighted energy efficiency index of all participating manufacturers per efficiency class and product categories

In the following example the Notary calculates at first the production weighted energy efficiency index for each manufacturer and for each energy efficiency class:

Manufacturer	1			
Class A				
	Number of pieces produced/imported for EU (T1j)	•	nXa	weighted average
Category 1	20.000	0,52	15600	
Category 2	50.000	0,48	36000	
			0	
Category 10	20.000	0,54	16000	
	90.000			0,50

Then the Notary calculates the production weighted energy efficiency index for each manufacturers:

#### Manufacturer 1:

	Number of pieces produced/imported for EU (n)		nXa	weighted average
Class A	230.000	0,52	118600	
Class B	1.300.000	0,74	962000	
Class C	1.300.000	0,87	1131000	
Class F	50.000	1.25	2951,388	
			889	
	2.880.000			0,77

Finally the Notary calculates the overall production weighted average energy efficiency index:

	Number of pieces produced/imported for EU (T)	Efficiency index (a) (%)		weighted average
Manufacturer 1	90.000	0,62	45000	
Manufacturer 2	100.000	0,54	52000	
Manufacturer 3	40.000	0,68	21600	
	230.000			0,59

This figure will be part of the report to the European Commission. On request, the notary may require the manufacturers to examine their calculation of the fleet energy efficiency. In addition the Notary will provide the Commission with a ranking of the production weighted energy efficiency index of each manufacturer in an anonymous way, as follows.

MANUFACTURERS	weighted energy efficiency index
1	0,51
2	0,50
3	0,48
4	0,50
5	0,51
6	0,49

### Code of Conduct for A+/A++ declaration



Release date: 24/10/2003

- Whereas EU Framework Directive 92/75 on energy labeling specifies in its Article
   7:
  - "Member States shall take all necessary measures to ensure that:
  - (a) all suppliers and dealers established in their territory fulfil their obligations under this Directive;
  - (b) if this is likely to mislead or confuse, the display of other labels, marks, symbols or inscriptions relating to energy consumption which do not comply with the requirements of this Directive and of the relevant implementing directives is prohibited. This prohibition shall not apply to Community or national environmental labelling schemes. "
- Whereas the ISO Guidelines for making and assessing environmental claims (ISO TC 207/SC3 N284), specifies the following as principle 3:

"Information concerning the procedure, methodology and any criteria used to support environmental claims shall be available and provided upon request by all interested parties."

- Whereas this ISO Guidelines also refers to the EU legal framework set by Directive 84/450/EEC on misleading advertising.
- Whereas in the new draft revised Energy Labeling Directives for household refrigerating appliances and washing machines, new classes are introduced, defined as A+ and A++ are defined, as specified in the annex 1..

#### The undersigned company agrees to commit to the following voluntary commitments:

Our company will not use in our communication the marks/definitions A+ and A++in any other context than the ones defined in the annex 1: i.e..only if the message relates to energy-efficiency levels higher than the A-class of the official energy label concerned of domestic refrigerators, freezers and washing machines, as defined in the annex 1.

In particular, we will not use the A+/A++ for performance qualification or for other products for which such classes have not been defined

The present commitment applies to product names, catalogues, advertising campaigns, printed material, e-type communications (web-sites, e-mails, etc.), press releases, promotional and POS materials.

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The geographical scope of implementation is all the countries of the EU, EEA, EFTA<sup>25</sup> plus the other European new accession countries that have adopted coherent energy label legislation.

This agreement is valid from December 1, 2002. All new deliverable issued after this date shall be conform to the present agreement

Any use of the terms A+ and A++ not in line with the present commitment shall be notified to CECED, before the 1<sup>st</sup> of December with a reasonnable phase-out schedule, depending on the nature of the deviation (product naming, printed material, electronic communication).

#### Products covered:

Refrigerators and freezers Washing machines Washer-driers Dish washers Ovens and hobs Air-conditioners Tumble driers.

<sup>&</sup>lt;sup>25</sup> These include Norway, Iceland, Liechtenstein, Switzerland.



# **Energy declaration** regarding washing machines

The undersigned, acting on behalf of the company, agrees that no claim of energy-efficiency better than A (energy label class A for washing machines) is made unless the energy consumption is below or equal to 0,17 kWh/kg and A class level for washing performance (following EN 60456 A13).

This commitment applies to all member states of the EU-15.



# Agreement on maximum load declaration

#### It is agreed that:

The manufacturer declares as maximum capacity of a dishwasher no other capacity - number of place settings - as the one declared to be used for measurements according to the relevant energy label standards.

The following definitions should be taken into consideration, when considering deadlines:

**New model** is a model, as identified by its commercial number, which is put on the

market for the first time after the 1<sup>st</sup> of March 2004.

**Old model** is a model, as identified by its commercial number, which is put on the

market for the first time before the 1st of March 2004

**New deliverable** is any printed or electronic material, which is distributed / made avail-

able for the first time after the 1<sup>st</sup> of March 2004.

Old deliverable is any printed or electronic material, which is distributed / made avail-

able for the first time before the 1<sup>st</sup> of March 2004.

#### Three deadlines are set:

- The references to new models on any new deliverable are in line with the stated principle from the 1<sup>st</sup> March 2004.
- The references to old models on any new deliverable, not in line with the stated principle are tolerated until the 1<sup>st</sup> of September 2004. The stock of those new deliverables existing on the 31<sup>st</sup> of September 2004 can be used until the 1<sup>st</sup> of January 2005. All new deliverables produced after the 31<sup>st</sup> of September 2004 must be in line with the principle for all the old and new models.
- The use of old deliverables is tolerated until the 1<sup>st</sup> of October 2005. After this date the old deliverables, if still available, must be withdrawn and only deliverables fully in line with the principle can be used.



#### CONVENTION

#### LAVE VAISSELLE

GIFAM - le 10 Juillet 1996

39. avenue d'Iéna - 75783 PARIS Cedex 16 - Téléphone : 53 23 06 53 - Télécopie : 47 20 20 73 - SIRET 784 669 111 000 14 "Edition - Publication SEP!"

Soucieuses de garantir au consommateur une information objective sur les niveaux sonores des lave vaisselle, et de maintenir entre elles les conditions d'une concurrence loyale, les marques signataires de la présente convention jugent nécessaire de recourir à des références de mesure comparables et s'accordent pour respecter le dispositif décrit ci-après.

#### ARTICLE.1.

L'annonce du niveau sonore des lave vaisselle est exprimée en puissance acoustique pondérée A[dB (A)re 1 pW] par référence aux procédures définies par la norme EN 60 704-3 datée de Décembre 1994.

#### ARTICLE.2.

Toutes dispositions sont prises au sein des entreprises, pour que les annonces corrigées du niveau sonore des appareils en direction de la distribution soient effectuées au plus tard le ler Septembre 1996. A cette date, et à titre transitoire, tout étiquetage ainsi que tout nouveau catalogue fera mention à la fois des anciens et des nouveaux niveaux sonores.

#### ARTICLE.3.

A compter du ler Janvier 1997 ne devront subsister dans tous documents concernés (catalogues des producteurs et des distributeurs, publicités, etc...), que la seule mention du niveau sonore résultant des procédures mentionnées à l'article 1 de la présente convention.

#### ARTICLE.4.

En cas de contestation sur les caractéristiques annoncées par une marque signataire de la convention, les acteurs en présence s'engagent à tout mettre en oeuvre, le cas échéant avec l'aide du Gifam, pour rechercher une solution par la voie amiable. Ils s'accordent sur le processus ci-après:

Les laboratoires des fabricants parties prenantes à la discussion, entrent en relation et échangent leurs arguments respectifs. A l'issue de cet échange, un accord peut intervenir dans l'une des deux conditions suivantes:

- soit les remarques sur lesquelles se fondent la contestation sont admises, auquel cas, les annonces sont obligatoirement rectifiées sur tous les documents concernés dans un délai qui ne saurait excéder 2 mois. Les niveaux sonores corrigés seront toutefois portés à la connaissance de la distribution en vue de modification sur les points de vente dans un délai d'1 mois.
- soit les caractéristiques initialement annoncées sont jugées valables sur présentation des rapports d'essais. Les mesures annoncées sont donc validées.

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#### ARTICLE.5.

En cas de désaccord, le LCIE est invité à procéder à la mesure du niveau sonore de l'appareil incriminé, prélevé dans la distribution. Les essais sont réalisés dans les conditions fixées par la norme EN 60 704-3.

Si les résultats se révèlent conformes aux caractéristiques annoncées, la société plaignante prends à sa charge les frais des essais effectués.

Dans le cas où, au contraire, les résultats d'essais s'écartent des valeurs annoncées, il appartient à la marque mise en cause de faire effectuer, si elle le souhaite, un deuxième essai, dans les mêmes conditions que le précédent.

Tout écart par rapport aux valeurs énoncées, observé à l'issue du contrôle du laboratoire entraîne, pour la marque incriminée, la charge du coût des essais. Elle oblige également cette dernière à agir sans délais pour faire disparaitre les annonces non conformes, ou les rectifier dans tous documents concernés, (documentations commerciales, étiquettes, etc...) en mentionnant les valeurs nouvelles résultants du rapport du LCIE.

Toutes les rectifications dans les catalogues devront obligatoirement intervenir au plus tard dans les 2 mois. Les niveaus sonores corrigés seront toutefois portés à la connaissance de la distribution en vue de modification sur les points de vente dans un délai d'1 mois.

#### ARTICLE.6.

Après que les différentes étapes du processus de conciliation aient été menées à leur terme, le refus, par la marque incriminée, d'appliquer les dispositions de la convention dans leur intégralité autorise la société plaignante à prendre toutes les mesures qu'elle jugera utile pour porter le différend devant les instances administratives compétentes, en application de la réglementation visant la loyauté des annonces.

#### ARTICLE.7.

En cas de manquement aux règles relatives à la loyauté des annonces de la part d'une marque qui ne serait pas signataire de la présente convention, le recours devant les autorités administratives, à l'initiative de toute autre marque qui estimerait subir un préjudice du fait de ce manquement, pourra intervenir sans préavis.

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