

EcoMotors.org - Stage Definition Document

1. Product definition, Standards and Legislation

- 1.1 Product definition (classification, definition of primary and secondary functional parameters).
- 1.2 Inputs on relevant harmonized standards for performance testing/energy use/health and safety.
- 1.3 Existing relevant environmental legislation inside and outside EU, existing self regulation.

2. Economics and Market

- 2.1 Macro data on EU trade, production and apparent consumption.
- 2.2 Micro market data on prices, sales, installed products, established for reference years in the past (1990), present (most recent) and future (2010 – 2020, stock model calculations).
- 2.3 Market trends in product features and key parameters (eg energy use, product weight) of best products.
- 2.4 Consumer expenditure: Rates, tariffs, prices, multiplier product costs/consumer prices.

3. Consumer Analysis and Local Infrastructure

- 3.1 Real load efficiency (vs. nominal)
- 3.2 Temperature/timer settings
- 3.3 Dosage of aux. inputs during use.
- 3.4 Economical Product Life (=in practice)
- 3.5 End-of-Life actual behaviour (present fractions to recycling, re-use , disposal, etc)
- 3.6 Best Practice in Sustainable product use
- 3.7 Local infrastructure (energy, water, telecom, physical distribution, etc)

4. Technical Analysis of Existing Products

- 4.1 Bills of Materials and key manufacturing parameters
- 4.2 Analysis of energy and resources use during product life; basic design rules and practice
- 4.3 Technical Product Life (technical durability)
Maintenance and repair
- 4.4 End-of-life; technical potential for recycling, re-use, etc.
- 4.5 System analysis; Trade-offs and interactions with environmental and functional parameters outside the direct product scope.

5. Definition of Basecase

- 5.1 Selection of average EU representative model or construction of average EU model characteristics from several important product-subcategories in the product group.
- 5.2 Definition of STANDARD BASECASE, ie the environmental impact, functionality and Life Cycle Costs for a reference year measured according to harmonised test standards (that would also be used for compliance testing.)
- 5.3 Definition of REAL-LIFE BASECASE, ie the (estimated) environmental impact, functionality and Life Cycle Costs in real life for a reference year with actual consumer behaviour and ambient conditions.

6. Technical Analysis Best Available Technology (BAT)

- 6.1 State of the Art in applied research of the product (prototype level)

- 6.2 State of the art at component level (prototype, test and field trial level)
- 6.3 State of the art of best existing production technology globally (extra-EU)

7. *Improvement Potential*

- 7.1 Identification of design options
- 7.2 Their monetary costs (extra production cost*multiplier = end-use price increase) and – if any – benefits (lower operating expense)
- 7.3 Their environmental benefits and – if any – adverse environmental trade-offs.
- 7.4 Ranking of options according to Life Cycle Costs/Payback Period and identification of point of LLCC, with its environmental improvement potential.
- 7.5 Assessment of (cluster of) options with the highest absolute environmental saving potential: the so-called Best Available Technology BAT, with its environmental improvement potential.

8. *Policy, Impact and Sensitivity Analysis*

- 8.1 Policy and scenario analyses: Assessment of what is “significant”, “appropriate”, etc. and what policy measures are appropriate, what would be the gain over “business as usual” etc.
- 8.2 Impact analysis industry and consumers: investment level, appropriate timing (in line with platform change)
- 8.3 Sensitivity analysis; test of the robustness of the “significant environmental aspects”, varying base assumptions.

Lot 11 EuP Timeline Updated 05/04/06

