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COMMISSION STAFF WORKING DOCUMENT
EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT

Accompanying the document

Commission Regulation

**laying down ecodesign requirements for welding equipment pursuant to Directive
2009/125/EC of the European Parliament and of the Council**

{C(2019) 6843 final} - {SEC(2019) 327 final} - {SWD(2019) 340 final}

Executive summary sheet

Impact assessment on Commission Regulation (EU) xxx/2019 on ecodesign requirements for welding equipment

A. Need for action

Why? What is the problem being addressed?

Welding equipment consists of business-to-business (B2B) products used widely in many industry sectors, most prominently in construction, energy and transport. It consumes large amounts of energy and welding metal (welding wire or electrode used as 'glue' in the weld). Half of the equipment in operation also uses large volumes of shielding gas.

Welding equipment technology has developed significantly in recent decades, becoming more energy- and material-efficient, and more versatile. However, when users purchase the equipment, they do not currently prioritise energy or material efficiency, but rather aspects such as reliability or affordability. This is due to a lack of information on energy and material consumption, the fact that users do not tend to assess the lifecycle costs of ownership and other habits, including brand preference. As a result, cost-effective energy-saving technologies do not enter the market as rapidly as they could if supported by appropriate measures.

Re-use, repair and recycling are restricted by the lack of information on material efficiency and the difficulty of disassembling and separating products, and identifying embedded critical raw materials and hazardous components.

What is this initiative expected to achieve?

The general objective is to contribute to the EU's 2030 climate and energy targets and to the circular economy package targets, while ensuring the smooth functioning of the internal market.

More specifically, the initiative is intended to:

- raise awareness in the supply chain of the environmental performance of welding equipment;
- help users to compare products; and
- improve products' reparability and recyclability.

It will also strengthen the EU manufacturing industry's competitiveness by bringing EU products more quickly into line with technological progress and energy efficiency requirements in other world economies.

What is the added value of action at EU level?

Welding equipment is manufactured and traded globally and its components are sourced globally. It consists of complex products that do not vary from country to country. The development of EU-wide requirements would involve pooling Member States' resources to develop common regulations and surveillance schemes, instead of operating multiple national schemes, regulations and monitoring arrangements.

Without harmonised requirements at EU level, Member States may put in place national product-specific energy efficiency requirements in the framework of their environmental and energy policies. This would undermine the free movement of goods and increase EU companies' compliance costs.

There is therefore clear added value in setting EU-level minimum energy efficiency requirements.

B. Solutions

What legislative and non-legislative policy options have been considered? Is there a preferred choice or not? Why?

Four policy options (POs) were considered:

- **PO 1 — 'business as usual':** this is the baseline scenario, where the current situation remains unchanged;
- **PO 2 — self-regulation:** the Commission gave industry the opportunity to develop self-regulation, but no proposals were tabled;
- **PO 3 — energy labelling:** this is generally proposed for business-to-consumer (B2C) products in combination with ecodesign, to create visibility and competition for the best products. However, it is difficult when there is no wide database of energy efficiency data using well-established measurement methods;
- **PO 4a — 'least lifecycle cost' (LLCC):** mandatory efficiency limits for power supply, maximising the end-user's investment over the lifecycle of the product and to be reached in 2028, with an intermediate step in 2023;
- **PO 4b — LLCC ambitious:** same degree of strictness of ecodesign requirements as PO 4a, based on the LLCC point, but to be reached earlier (in 2025), without intermediate steps;
- **PO 5 — information:** mandatory provision of ecodesign information on energy and material efficiency, but no quantitative requirements on efficiency.

In addition, PO 4a and PO 4b both involve:

- the development of calculation methods by means of standardisation;
- the provision of information on material and energy consumption; and
- the provision of information on circular economy aspects (to improve reparability and recyclability).

The information provision requirements will apply from 1 January 2021.

PO 4a is the preferred option¹ from an economic and environmental standpoint, balancing overall energy and material savings and stakeholder support. It also meets the requirement under the Ecodesign Directive to propose a product-specific implementing measure.

Who supports which option?

- **PO 1 — BAU:** stakeholders, in particular the manufacturing industry, do not consider this a sensible way forward in the light of the development of energy efficiency requirements in other world economies.
- **PO 2 — self-regulation:** the Commission and Member States prioritised this option, but the industry did not come forward with any proposals;
- **PO 3 — energy labelling:** Member States, NGOs and industry argued that this option should be ruled out, on the basis that it did not provide any added value in the context of B2B products;
- **PO 4a — LLCC:** like PO 4b, this option generates considerable environmental savings, but it is preferred by most Member States and the manufacturing industry due to the longer adaptation time;
- **PO 4a — LLCC ambitious:** this option is supported by a few Member States and NGOs. While it yields marginally higher environmental savings than PO 4a, large sectors of the manufacturing industry are concerned that SMEs (>80 % of EU producers) may not be able to adapt to the requirements in time;
- **PO 5 — information:** this option scores lower than PO 4a and PO 4b on energy and GHG savings, business revenues and total cost of ownership. Member States and industry consider that its added value is less than the costs it would incur.

There was broad support for the common provisions of PO 4a/b and PO 5 (standardisation of measurement methods, provision of information for material efficiency).

C. Impacts of the preferred option

What are the benefits of the preferred option (if any, otherwise main ones)?

PO 4a (LLCC) has the greatest overall economic and environmental benefits. It involves introducing an ecodesign Regulation with quantitative efficiency and information requirements. It yields high environmental savings at a rate that is seen as achievable for industry and end-users, and received the broadest stakeholder support.

PO 4a is expected to have the following impacts by 2030:

- compared with 'business as usual', a Regulation should bring energy savings of 1.1 TWh/yr, i.e. 0.075 % of the Commission's 2030 target for final energy consumption savings;
- direct savings on annual end-user expenditure of EUR 522 million and extra business revenue of EUR 14.5 million per year;
- neutral in terms of employment (creation of ~ 200 jobs a year);
- a contribution to the circular economy through improved reparability and recyclability;
- a boost to the EU industry's competitiveness and leading role (domestically and internationally) as high-efficiency welding equipment manufacturers, by accelerating technological progress and alignment with efficiency requirements in other world economies.

¹ In the Ecodesign Regulation on welding equipment voted by the EU Member States on 28/01/2019 following the 'Regulatory with scrutiny' procedure, it was agreed to delete the 2028 mandatory efficiency limits for power supplies (keeping the 2023 ones). The feasibility of imposing stricter efficiency limits for power supplies will be evaluated in the context of the review of the Ecodesign regulation on welding equipment.

What are the costs of the preferred option (if any, otherwise main ones)?

The costs of the preferred option are estimated as follows:

- welding equipment manufacturers and installers would need to assess the conformity of their products with the new requirements and definitions. This involves calculation and testing, with estimated costs of EUR 1 000 per equipment model;
- traders and retailers would need to familiarise themselves with the new information on energy and material efficiency, the consequences for lifecycle cost calculations and product purchase, and convey the information to end-users;
- end-users of welding equipment would bear the higher cost of components and production change in the form of a higher purchase price (on average ~EUR 150 per unit) and would have to spend EUR 9.9 million more a year by 2030 for more energy-efficient equipment;

How will businesses, SMEs and micro-enterprises be affected?

- PO 4a involves a rate of adaptation that manufacturing SMEs (>80 % of EU manufacturers) claim is feasible;
- the bulk of SMEs in the business are active in manufacturing, importing, reselling, installing and/or servicing welding equipment. These companies will benefit from the Regulation through increased business revenue, due to the sale of more expensive and more versatile energy-efficient equipment. This revenue should compensate them for the costs of increased testing and production adaptation, which are expected to be largely passed on to the end-users;
- SMEs using welding equipment in the course of their activities would benefit from reduced costs over the lifetime of the equipment, as price increases would be offset by savings in energy bills, greater functionality and reduced equipment weight;
- SMEs in the repair and recycling sector would benefit greatly from the material efficiency requirements.

Will there be significant impacts on national budgets and administrations?

The Regulation would be directly applicable in all Member States, so there would be no transposition costs for national administrations. Market surveillance activities would entail testing and personnel costs.

Will there be other significant impacts?

No other significant or negative impacts are expected on functionality, health and safety.

D. Follow-up

When will the policy be reviewed?

A proposed review clause would ensure that the Regulation is reviewed no later than five years after its entry into force, on the basis of achievements, experience gained in implementation, international developments and technological progress.