



Policy brief

Tax incentive in combination with voluntary agreement



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Why is this important?

How does it function?

What makes it effective?

Are there any good examples?

How can we estimate the impact?

Why is this important?

Tax incentives combined with voluntary agreements are a pivotal strategy for advancing energy efficiency in industries, and especially for stimulating efficiency upgrades in motor systems, which account for over 70% of industrial electricity consumption. These policies tackle key financial and organizational barriers, creating a supportive framework for companies to adopt energy-efficient technologies.

Reducing the upfront cost of replacing old, inefficient motors is essential for industries, as many companies—particularly small and medium-sized enterprises (SMEs)—face limited budgets and competing priorities. Tax incentives alleviate this financial burden, making investments in energy-efficient systems more feasible. Simultaneously, voluntary agreements offer a collaborative alternative to rigid regulations, fostering cooperation between industries and public authorities, and address organizational barriers, such as resistance to change and low awareness of energy-saving opportunities. This flexibility ensures that energy efficiency improvements are tailored to the needs and capacities of individual companies or sectors, encouraging broader participation.

How does it function?

Tax incentives provide financial relief through rebates, deductions, or reduced value-added taxes (VAT) for investments in energy-efficient technologies. These schemes can be integrated into Voluntary Agreements (VAs), which involve negotiated commitments between public authorities and industries. The agreements include:

1. Financial incentives, in this case tax rebates, to encourage adoption.
2. Targets and timelines for energy efficiency measures, specifically electric motor replacement.
3. Monitoring and penalties for non-compliance, such as repayment of financial aid or loss of eligibility.

VAs are particularly effective in sectors with high energy consumption, and the flexibility of these agreements allows for tailored solutions to meet specific industrial requirements.

What makes it effective?

The combination of tax incentives and voluntary agreements can be highly effective due to:

- **Economic Motivation:** Strong financial incentives, such as tax rebates or credits, encourage industries to invest in new and efficient motor systems.
- **Customizable Targets:** The flexibility of VAs accommodates sector-specific or company-specific needs.
- **Monitoring and Compliance:** Robust monitoring ensures that participants meet their commitments, enhancing credibility and impact.
- **Stakeholder Engagement:** Collaboration builds trust and ensures that both public and private objectives align.
- **Complementary Measures:** Integration with energy audits, information campaigns, and technical support maximizes the effectiveness of the program.

Are there any good examples?

- **Energy Investment Allowance (EIA) – The Netherlands:** this program allows companies to claim substantial tax deductions for investments in energy-saving technologies listed in the annually updated "Energy List." Eligible technologies include advanced motor systems such as IE4 and IE5 motors, with 45.5% of the investment costs deductible from taxable profits. The EIA is highly cost-effective, achieving average subsidies of €21–46 per ton of CO₂ emissions avoided. It has become a vital tool for encouraging energy efficiency in industrial sectors.
- **Voluntary Agreements – Flanders, Belgium:** In Flanders, energy-intensive industries enter into voluntary agreements with authorities, committing to regular energy audits and the implementation of profitable energy efficiency measures. These agreements reward participants with significant benefits, including tax exemptions and streamlined reporting processes, reducing the administrative burden. The program covers over 90% of industrial energy consumption in the region, demonstrating its widespread adoption and impact in promoting energy efficiency.
- **PFE Program – Sweden:** Sweden's PFE Program targeted energy-intensive industries, offering reductions in electricity taxes (0.5 EUR/MWh) in exchange for commitments to improve energy efficiency. The program achieved a 10% reduction in electricity consumption among participating companies, with 25% of these savings attributed to motor-driven systems. A key focus of the PFE was the adoption of energy management systems and systematic efficiency improvements, embedding energy-saving practices into daily operations.

How can we estimate the impact?

EU-MORE developed an independent tool for making a quantified assessment of past, existing and proposed policy measures for motor replacement and motor system optimisation. The tool was baptised the “EU-MORE Motor Model” (**EU-M³**), and its primary objective is the projection, monitoring and evaluation of the policies’ impact in terms of energy consumption and greenhouse gas emissions.

With **EU-M³**, the impact of motor replacement policies can be calculated at level of the motor stock of the EU or an individual country, offering valuable insight for both industrial decision makers and policy-makers. It also considers the economic, environmental, and material impact of the measures under scrutiny. Based on a given project budget it can calculate, for instance, the number of motors replaced, the energy savings, the environmental impact, and the additional material demand.

To evaluate the effects of a subsidy scheme in **EU-M³**, users are required to provide specific information. This includes the geographical scope (either at EU or at Member State level), the power class of the motor, the programme's budget, the funding rate per motor, the time frame of the policy, the reduction in lifetime of motors to be replaced, and the efficiency classes affected (relating to both the motors being replaced and their replacements). To define a funding rate for a tax rebate, it needs to be calculated based on the available financial parameters of the program. This may involve making assumptions about variables such as the percentage of investment costs that can be deducted, the corporate tax rate, and the portion of the budget allocated to specific components. When setting up the parameters and running a first calculation, information is provided on the payback time of individual motor replacement. Tax incentives in combination with voluntary agreements typically support projects with payback times of less than 3-4 years.

In the Policy Impact Analysis of the EU-MORE project, a tax-rebate-based scheme is examined using the Dutch Investment Allowance as an example. Despite the need for several assumptions due to data limitations, the results confirm the substantial savings potential. At the same time, they underscore the inherent complexities and uncertainties when projecting and assessing the impact of such measures.

EU-M³, implemented in Microsoft Excel for broader accessibility, can be downloaded from the [EU-MORE website](#). Additional information on the model's functionality is available in the **D4.3 Policy Impact Analysis**. Interactive presentations and tutorial videos on how to use the tool are part of the **D4.5 Policy Support Documents**, also found on the website.

EU-MORE



EU-MORE project

EU-MORE is an acronym for European MOtor RENovation initiative. This LIFE-Project aims to speed up replacement of old, inefficient electric motors in industry and the service sector. Electric motors tend to stay in service for 30 to 40 years, which is much longer than generally assumed. With swift action, this replacement rate could be improved. In the EU, replacing old motors faster would free up additional energy savings, on top of the savings potential of existing regulations, with all the associated benefits.

Project website:
<https://eu-more.eu/>

Project partners



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