



Germany



Competitive funding programme 'Energy efficiency and process-heating from renewable energies in business – competition'

Responsible authority: Federal Ministry for Economic Affairs and Energy (BMWi)

Managing authority: VDI/VDE Innovation + Technik GmbH

General information

The federal competition-based funding programme 'Energy efficiency and process-heating from renewable energies in business – competition' is the follow-up of 'STEP up!', a pilot programme of BMWi for competitive energy efficiency tenders in Germany. The new programme started in April 2019 and will run until the end of 2022 with a possible extension. It is also part of the German Climate Package which outlines the measures to reach the CO₂-targets by 2030.

In contrast to STEP up!, the new programme refers to CO₂ emission reductions (instead of only electricity savings) and is open for all types of energy carriers saved (heat, electricity, etc.).

Projects eligible for funding are selected according to the lowest cost-benefit ratio (EUR funding per tCO₂ saved). The higher the savings or the lower the funding applied for, the better the funding efficiency and thus the chance of winning support in a competition round. There is also a requirement of a minimum pure energy cost-based payback period of four years for projects.

Up to 50% of the eligible costs of the project will be funded through a non-refundable grant. However, each applicant de facto decides – from a competition-strategic point of view – about the funding rate asked for their project up to the maximum ceiling of 50%. The maximum funding amount is EUR 5 million per project.

The funding also includes the preparation of the energy savings concept required for the application and the implementation support of the subsidised investment measure by external energy experts.

Organization and MRV

In order to apply for funding, applicants need to prepare an energy saving concept of the project, which must include a brief description of the applicant, a reference of the project to the policy objectives of the energy efficiency competition, a detailed description of the project (status-quo and planned after-retrofit state), a specification of the current and expected absolute and relative energy consumption.

The energy saving concept can either be prepared by an energy advisor (appointed by BAFA for the support programme "Energy advisory services for small and medium-sized enterprises"), or in-house without the involvement of an approved energy consultant, provided that the applicant company has a certified energy or environmental management system in accordance with ISO 50001/EMAS.

All applications submitted at closing tender date will be checked for completeness, compliance with the competition conditions and plausibility. The application review is carried out by VDI/VDE Innovation + Technik GmbH. All positively evaluated applications will be ranked according to their funding efficiency (EUR funding per tCO₂ saved). If an application is not successful in a competition round, it can be submitted again in one of the upcoming competition rounds. Applications received after a certain deadline will be considered for the next round of the competition. All projects will be funded in descending order according to the ranking until the budget available for each round has been exhausted.

Funding recipients must keep the following documents in case of audit/control:

- The technical report and the savings concept;
- Verification of the operational readiness of the technical plant(s) and confirmation of (respective) commissioning;
- Proof of the costs invoiced for the implementation of the measure;
- Confirmation by a qualified energy consultant or expert for the proper implementation of the savings concept;
- In case of contracting, the contractor must submit a confirmation from the contracting party that the measure has been implemented.



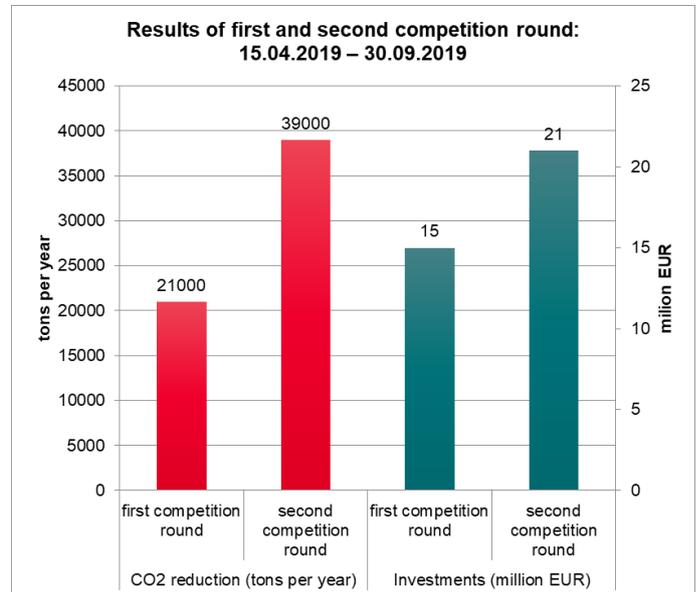
Sectoral coverage

Eligible applicants are private and municipal companies, freelancers and contractors. Eligible measures are all investments by companies in new, highly efficient technologies and measures to increase the share of renewable energies for the provision of process heat such as

- Process and procedure conversions to efficient technologies
- Energy optimization of industrial or commercial plants and processes
- Measures to increase electricity or heat efficiency
- Electricity generation from waste heat or external waste heat use
- Process heat supply from renewable energy sources
- Acquisition and installation of sensors, measurement and control technology.

Costs and benefits

Funding is drawn from the German Energy Efficiency Fund (EEF), with EUR 7 million available for each of the 3-month rounds in 2019 (3 in total in 2019). The figure below shows the results of the two first rounds.



For more details about the previous programme (Step Up!), see for example ([Langreder et al. 2019](#)).

Overview of the policy mix reported by Germany for Article 7 ([NEEAP 2017](#))

Name of measure	Final energy savings in 2015 in PJ
Energy and electricity tax	74.0
Energy Saving Regulation (for existing buildings)	11.8
Funding of corporate investments	6.7
KfW Funding Programme for Energy-Efficient Construction and Renovation (CO2 Building Renovation Programme)*	7.1
Energy Saving Regulation (for new buildings)	4.6
Air traffic tax	4.2
Emissions trading	1.7
Federal Government energy advice programmes	1.0
Renewable Energies Heat Act	1.0
Market incentive programme for the promotion of the use of renewable energies in the heating market (Federal Office for Economic Affairs and Export Control portion)	0.3

Interview with Martin Richter

Project Manager
VDI/VDE Innovation + Technik GmbH



What have been the main changes in the policy in the recent years?

Energy Efficiency has become a major issue in regards to climate change. In the beginning, the focus was mainly on renewable energy in Germany. Today, it is clear that a combination of different measures is necessary to fight against climate change and to reach the final stage of the German Energiewende; energy efficiency can play an important role.

What about MRV?

Energy efficiency still has no real importance for companies. They know what they produce and they maybe know what they have to pay for energy in general; but in most cases they do not know about energy efficiency potentials of their processes in detail. That is not their daily business. Their daily business is to produce something. In addition, the pressure to save energy costs is not really high for most of the enterprises at the moment. Therefore, there is just a very low data-base in regards to energy saving available. However, we can recognise a change: more and more companies start to see energy efficiency as an important economic factor.

What success factors have you identified?

It takes some time until a new funding programme “reaches the mind” of the target

group. Therefore, a sustainable programme marketing is necessary. That also applies for energy efficiency measures: it takes time for the companies to realize the need and the economic advantages of investing in energy efficiency measures and in measures to collect energy data on a concrete process base.

Are there interactions with other policies?

Energy efficiency is an important component of the recently published “Climate package” of the German Government. Hence, there is a very broad range of interaction with other sectors and policies.

Are there any expected modification under discussion?

There will be an amendment of the funding guideline for the WEnEff-programme early in 2020. However, there will be no major changes in the programme just some concretions and “fine-tuning”.

If we could go back in time, what would you suggest to do differently?

The awareness about the importance of energy efficiency in regards to climate change issues has started too late in my opinion.

Interview with Lars-Arvid Brischke

Senior project manager

ifeu (Institut für Energie- und Umweltforschung Heidelberg GmbH)



1) According to you, what were the strong points of the STEP up! programme?

- Openness for all measures, technologies and all actors
- Cost-effective measures were achieved (average 5 ct / kWh)
- Support program for specific and individual solutions

2) And what were the weak points or limitations?

- Limitation to electricity efficiency measures
- Application procedure is quite complex and requires habituation
- Risk to fail due to the competitive approach
- Higher risk and effort than for classic efficiency funding programs but no higher funding rate
- Due to complex application not suitable for micro-measures
- Collection projects not attractive enough for project administrators (30 % funding rate of the overhead costs)

3) Were there also strong and weak points that you could identify about monitoring and verification?

see 1) and 2) – these points are experiences of applicants and stakeholders.

In the beginning, only electricity measures were allowed. In the last three rounds, also heating efficiency was eligible and consequently a number of such measures applied for funding.

4) Do you think the new programme 'Energy efficiency and process-heating from renewable energies in business – competition' brings interesting improvements?

Yes, there are significant improvements:

- Open to all types of technologies, sectors and measures (heat & electricity,...)
- Competitive factor: CO₂ savings of the measure (no limitation)
- Funding rate up to 50 % (instead of 30%)

5) If we could go back in time, before the start of STEP up!, what would you suggest to do differently?

Nothing. The first years of a funding program with a completely new approach are always difficult. Applicants, consultants and other stakeholders need time to know about the program and to gain experience with the applications and the realization of the measures

