

# Effects of COVID 19 on the implementation of Article 7 of the Energy Efficiency Directive

## *Survey and workshop report*

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## About the document

*This document shows the results of a survey conducted by the European Union Horizon 2020 ENSMOV project partners on the effects of COVID 19 on energy efficiency policies, market and energy end – use and the inputs from the stakeholders in the dedicated workshop. Therefore, represents a case study on how the COVID-19 crisis is affecting the Article 7 EED implementation in Europe.*

## Introduction

The situation we are living in with the COVID 19 pandemic has faced us with unanticipated effects in the economy, which are compared only to the periods of world wars and the Great Depression. In January 2021, the World Bank projected that the global economy in a baseline scenario can grow up to 4% in 2021, taking into consideration the forecasted measures for effective limitation of pandemic. However, this would not lead the world to the pre-pandemic GDP, but to the point of 5.3% lower GDP (about \$4.7 trillion). This was still the optimistic scenario.<sup>1</sup>

The Energy demand also followed this scenario and fell by 4% in 2020, making this the largest fall also known for decades, while this trend continues in 2021. However, there is an expected rebound effect projected by the International Energy Agency (IEA), in the case that restrictions will be lifted and economics starting to recover, to 0.5% above the pre-Covid 19 situation. Regarding the economic growth projections, this is completely dependent on the vaccines' rollout, lockdowns and other pandemic- related factors. If the transport demand returns to pre-Covid 19 levels in 2021, the global energy demand will rise even higher, to almost 2% above 2019 levels, an increase broadly in line with the rebound in global economic activity.<sup>2</sup> This signifies that the energy demand overall has not been under any structural change during this period.

The energy-related CO<sub>2</sub> emissions in the EU declined by 8% during the first quarter of 2020 compared to 2019.<sup>3</sup> The IEA estimates that 1.3 million jobs in energy efficiency globally are at risk, including jobs in construction industry - refurbishment, manufacturing of efficient appliances and efficient automobile industry.<sup>4</sup> In the EU, the energy savings from the fall of energy consumption and from the effects of the Energy Efficiency Obligation (EEOs) across the EU might be in equilibrium. In the presence of certificate markets, the flow of deposits of White Certificate dossiers seems unchanged, with the possibility to be changed in following months, due to delays. This could also be an opportunity to strengthen the role of energy efficiency in reinforcing energy independence of the EU. The IEA's recommendations regarding current situation with COVID-19 and energy efficiency include prioritization of energy efficiency cross cutting projects with multiple benefits and raising the global energy efficiency ambition.<sup>5</sup>

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<sup>1</sup> International Bank for Reconstruction and Development / The World Bank: Global Economic Prospects, January 2021, Washington, DC

<sup>2</sup> International Energy Agency: Global Energy Review 2021, Economic impacts of COVID 19

<sup>3</sup> <https://www.iea.org/reports/european-union-2020>

<sup>4</sup> <https://www.iea.org/reports/sustainable-recovery/covid-19-and-energy-setting-the-scene>

<sup>5</sup> <https://www.iea.org/events/energy-efficiency-in-the-time-of-covid-19-recommendations-for-urgent-action-on-energy-efficiency>

National authorities, due to the crisis, are focussed on the short-term recovery, so the insights in remote future from the key actors in energy policy would be relevant. For the period of 2021-2027, the Recovery and Resilience facility has set requirements for energy efficiency as one of the key priorities, including the renovation wave and supporting it facility with 672,5 bill EUR Next Generation recovery fund. Member States submit their National Recovery Plans where they signify for some policy measures under the Article 7 EED the amounts they require in order to proceed with building refurbishments, at least for the 2-3 years where the financing is foreseen. The EU has also started discussions in the ETS review, the Minimum Energy Performance Standards and the phasing out of fossil fuel boilers, affecting the energy efficiency policies from MS, and therefore, the insights into how all these will influence the Article 7 EED and what the possible expectations and changes in obligation schemes is timely.

**For these reasons, the ENSMOV partners conducted a survey to find out the effects on the implementation of energy efficiency measures from the COVID-19 crisis and organised a workshop for the experiences exchange between different actors in the energy policy and market on the influences of the COVID 19 on their work.**

## Survey results

The analysis is the result of a survey conducted through ENSMOV project from December 2020 – February 2021. The Survey consists of selected 70 participants from 14 EU Member States, which are divided in three groups (equally represented in the responses):

- Policy makers/developers and agencies,
- End users (SME or enterprise) or consumers associations
- Energy efficiency market actors (producer, installer, utility, ESCO etc.)

## Effects of COVID 19 on energy efficiency market and investments

*What effect is the Covid-19 pandemic having on your activities in the current year?*

For this group of stakeholders, the effects of the COVID pandemic seem to be devastating.

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*Almost all have reported issues with market, activities, payments, implementation and their companies' stability.*

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Some are going through a kind of a rebound, but from the information provided, it is impossible to conclude if it is significant. The participants are witnessing the slowdown from 10% decrease in work to activities reduced to the market standby. There are, of course, participants that have not felt any effect of the changes in the market due to their dominant position in their activities, but this is the minority.

Some of the inputs:

*“Extension of work deadlines, unpaid.”*

*“Postponed most commercial activities, notably the company did not take any significant order in 2020.”*

*“During the first month of the first lockdown period, our activities were reduced down to 10% of our normal activities, especially for household renovations. Some of our activities directed towards industries were not affected....”*

*“As an advisory center for renewable energy and energy efficiency, our activity has been severely limited by COVID-19.”*

*“A decline in new energy efficiency projects carried out with customers and lower monetization values from projects already in progress.”*

*“Negative. Clients, stakeholders prefer to wait until pandemic slows down.”*

*“Negative effect. Clients avoid CAPEX or long-term commitments.”*

*“Reducing of cashflow, limited budgets for new project.”*

*“Difficulty in working with end customers, including restricting access to visual meters for reading, allocating energy consumption, invoicing and debt collection...”*

*“Shifting customers' **priorities from investing in energy efficiency to increasing savings.**”*

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*“It stopped every start.”*

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Only some of the participants had negligible or almost no effects (except the limited travel and face-to-face meetings), and a participant considered the pandemic as a good push to digitalize the business, interaction and access financing schemes, which does not reflect the investments and market part of the issue.

### *What is expected in 2021 and what are the views on the energy efficiency market to 2030?*

Most participants in the survey are quite optimistic for the period until 2030, but the pace of the predicted recovery is what differs. Some of them are considering 2021 as the year of the market rebound and new investments while the others are sharing their opinions that the year of the market restart would not be earlier than 2023 to 2025.

Some opinions:

*“In 2021 we expect the same activities as in 2020. We expect the energy efficiency market to increase until 2030, in relation to the higher EU ambitions.”*

*“For 2021 expectation is that lot of projects that have been put on hold in 2020 will restart and be completed. My personal view is that energy efficiency is “the” opportunity the globe (I mean all countries and global institutions) has to come out in a positive way from the pandemic.”*

*“2021 turnovers expected to be similar to 2020. Growth expected in the EE market after 2022.”*

*"I believe that by 2023 the factor Covid 19 will have overcome the market for energy efficient services will fully recover long before 2023."*

*"I strongly believe that energy efficiency market will explode starting 2025/2026, when we will have prepared a demand for those solutions, e.g."*

Market actors are putting a lot of emphasis on two things needed from the decision makers: effective policies and co-financing or financial aid for the recovery period. This means that they expect the policies to be effective to encourage future investments in energy efficiency, but they also are familiar and are looking forward to Recovery funding and the recovery plans that would assist them in reviving the market.

*"Effective dissemination of European and state financial aid linked to the recovery plan as close as possible to needs."*

*"A boost given by the financing schemes in the energy efficiency implementation."*

*"With regard to the energy efficiency market up to 2030, a lot will depend on investment support policies in this direction."*

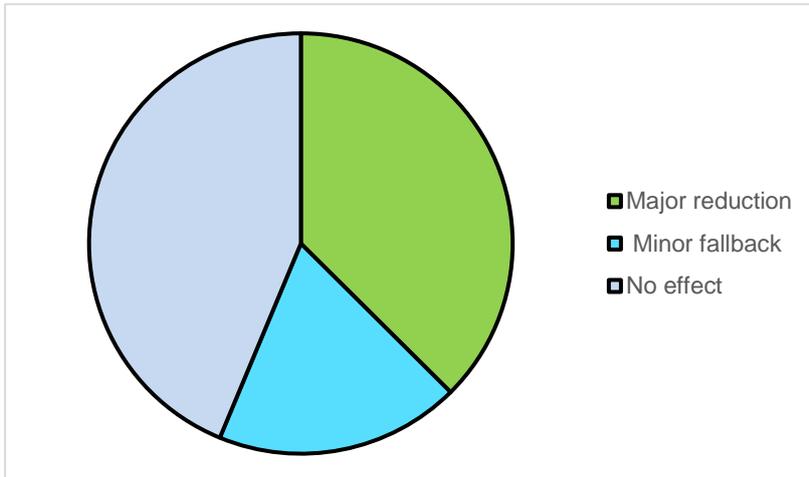
*"I expect a recovery of the national economy thanks also to the national and regional incentives that will be put in place."*

*"In order to motivate industry, SMEs, etc to save energy I would like to suggest additional measure to provide companies, especially exporting ones, certificates which indicates that product was made energy efficiently. If certificate is recognized among few main export / import countries, this could form a tendency to prioritise energy efficient partner / get a financial initiative / advisory services / special events / B2B / organize European awards / etc. This way we would encourage companies to manufacture products that use less energy and be responsible for the implementation of the EU Emission Trading Scheme (ETS)."*

## **Effects of COVID – 19 on end users (SMEs and associations)**

*What effect is the Covid-19 pandemic having on energy efficiency investments in the current year?*

The effects on the end users from the perspective of the investments in energy efficiency are much less dramatic, however, for this group it is not clear what the baseline or their plans were, so no effect might be explained with them not planning to invest at all or having minor investments. However, almost 40% have reported major reduction in investments in energy efficiency (primarily on refurbishments in buildings).



Some observations:

*“Lowering investment, customers are concentrated on core business and they wait to see how the situation will evolve.”*

*“The revenue and year-end profits reduction **eliminated all investments not covered by financing**; as a micro enterprise it's difficult to access credit with favourable terms.”*

*What is your investment plan for 2021 and what are your views on your company's energy efficiency policy and action plan?*

There is not much information on the investment plans for 2021 by the companies. Some of them are waiting for the recovery of their main sector and investments before even considering the planning of energy efficiency investments and some are waiting for public support to recover from the crisis.

Several companies have reported having strategy and plans for next few years for investments in energy efficiency, like for example:

*“...vehicle fleet update, building efficiency, hydrogen vehicle development, smart working employees, driver training...”*

*“We plan circa 2 M€ of Investments related to energy efficiency, in the way to reduce % of energy consumption and improve CO2 reduction with the same production output.”*

## Effects of COVID 19 on energy efficiency policies' implementation, with emphasis on Article 7

*Has COVID affected energy efficiency policy implementation in 2020 (any impacts on delivery of Art 7 EED savings, for example) or/and the EED Art 7 targets achievement?*

Although several Member States still did not go through with the evaluation of the implementation for 2020, their unofficial data suggest that there were changes in the implementation of the energy efficiency obligation schemes or alternative measures. Most of the reductions in achievements they predict were influenced either by the confinement or the prioritisation of other activities by the final consumers.

*"...the EE policy implementation was affected by COVID due to the fact that, during this period, the consumers did not appreciate the need for investments in energy efficiency measures."*

*"Difficulties in carrying out tasks which require physical representation, e.g. inspections, works by contractors, audits."*

*"COVID has affected the energy savings certificates scheme especially in buildings. During the sanitary confinement, there is less energy savings. "*

Some are very much concerned less of the fact that this period was affected but more on the fact COVID-19 situation influenced their planning for the next period and might have longer term effects:

*"...Firstly, the preparation of programmes for the next obligation period was delayed. This delay was caused by discussions over, and establishment of new measures/financial tools, which should tackle both the COVID consequences and help gaining better momentum for green politics, in relations to the post-Covid recovery by the EU..."*

Only few report no influence on their processes:

*"The impact on policy-making as to Energy Efficiency by covid is none or minor. Impacts on Energy-demand (reduction) are only temporary and should not be taken for granted (not long-lasting; not in every sector; e.g. not in housing or few in the industrial sector)."*

*What kind of policies are you planning and how are you modifying current policies to address EED art. 7 in both short term (2020/2021) and regarding 2030 targets to sustain recovery (within or outside the Recovery and Resilience Facility Fund)?*

There are a lot of new plans aiming at recovery and strengthening the energy efficiency programs of the countries, either market schemes or the alternative measures funded through RRF or other European structural funding:

*"The main focus is on the next obligation period, finishing the programme documents and to correctly set any important policies, as to not hinder the influx of energy savings..."*

*"Discussions on channelling the resources (including energy projects) are currently ongoing. "*

*"Several new financial mechanisms are planned, starting from 2021 within the RRF targeting Industry sector, public lighting, residential buildings and households. Also, a new Decarbonisation Fund is planned to be established in support of art. 7 target and LTRS national targets."*

*Since the pandemic has indirectly contributed to a decrease in energy consumption, could this have a negative effect on policy decisions regarding energy efficiency in the future?*

The joint answer is no, just the opposite. Policy makers are very much familiar with the fact that the reductions in energy consumption and in energy efficiency measures are induced by the current situation and do not reflect the efficacy of the actions.

*Observations of the changes in energy consumption in households due to lockdown, work – from home and other restrictions:*

Most participants report or predict higher consumption of energy in the building sector.

From the perspective of the possible investments, the participants of the survey recognize that the citizens might notice the changes in their energy expenditure and look for the possible solutions in the form of energy efficiency investments of behavioural measures, but not all agree.

There is a certain focus on multiple benefits (like, for example, the fact that the increase in comfort would be needed to use households as both living and working spaces), so more investments might go into achieving non-energy benefits of EE projects.

However, many emphasise that for such decisions, citizens would need to consider the situation with more energy spent in households as longer- term or permanent, which they might have not consider yet.

*"The fact that people worked from home for up to 9 months this year will definitely have an impact on energy efficiency, not only in terms of energy consumption but also in terms of digital efficiency."*

*"It may be an opportunity, if this is connected to the indoor comfort increase, including promoted in such way."*

Some national authorities are taking all these aspects into consideration while doing their planning for the future period, while the others are considering it still not relevant in comparison to consumption changes in other sectors.

## Stakeholders' knowledge exchange

Same as the survey groups, the workshop for experience sharing has also been divided in three respective sectors/perspectives on the influence of COVID 19 on the energy policies and markets. In the workshop, a perspective of a financial institution has also been featured, as it was the actor missing in the surveys, giving the final overview of the changes in investments.

## COVID - 19 influence on energy efficiency implementation and policies from the perspective of policy actors

The European Commission, in their Progress report on energy efficiency<sup>6</sup>, assessed there is an impact of COVID-19 crisis to the energy consumption, because of which the energy efficiency targets have been met even without the significant structural measures introduced. Therefore, there is a concern the energy consumption will rise back to pre- COVID 19 crisis levels. In regards the 2030 targets, there is a noticed ambition gap in the NECPs and noticed bottlenecks of the existing EED legislation before its revision. Since the crisis has influenced the levels of energy poverty, the EC sees it is crucial for the countries to focus much of their Article 7 planning on the energy poverty topic and to also use the recovery and resilience funding for the purpose of reaching energy efficiency targets.

The analysis IEA did for their Energy Efficiency 2020 report<sup>7</sup>, Global energy review and their other reports showed that the pandemic has set back already weakened progress on energy efficiency, meaning energy intensity has been improving in the slow-west rate in the last five years (0.5%). There are three main factors that have influenced these results in the pandemic period:

- **Energy efficiency investments:** Global energy efficiency investment remained the same in 2020, despite decline in transport EE investments, due to the fact there was a rise in EE investments in buildings. While programs have started to roll out in different countries, most of the influence was from the changes in Germany. In industry, lower energy prices have lengthened the payback periods by 10-40%, therefore influenced the investments negatively.
- **Structural shift of economy and energy use:** Energy intensive industries have been less influenced by the pandemic, with that influencing total intensity, making the whole sector more intensive.
- **Changes in energy related behaviour:** Time in the household increased as compared to travel/commuting and time in companies. This influenced both appliances purchases and behaviours, the weekday electricity demand pattern looked more as weekend pattern. Some of the public transport has been transferred to private transport, which has a negative effect. However, the rebounds are expected, and the expected rise of investments is around 5% in 2021, but the intensity will not be on the expected level, so more EE measures need to be implemented.

A lot of governmental recovery plans are directed to the energy efficiency programs, enabling investments in the sector.

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[https://ec.europa.eu/energy/sites/ener/files/progress\\_report\\_towards\\_the\\_implementation\\_of\\_the\\_energy\\_efficiency\\_directive\\_com2020954.pdf](https://ec.europa.eu/energy/sites/ener/files/progress_report_towards_the_implementation_of_the_energy_efficiency_directive_com2020954.pdf)

<sup>7</sup> <https://www.iea.org/reports/energy-efficiency-2020/covid-19-and-energy-efficiency>

## Energy efficiency market changes from the perspective of the utilities and ESCOs – changes in obligation schemes

The energy efficiency market changes are presented by two actors, mainly on the example of France (and Italy). In France there were three lockdowns, first one was the worst for the economic activity, and brought only critical installations, urgent projects and everything else was stopped. In 2<sup>nd</sup> phase of the last year (June – August of 2020), projects started to open, and September started very intensive activities – catching up, with the strong impact of recovery plan, which is focused also on EE. Transformation agenda was maintained.

Also, for the EEOS, some flexibilities were introduced in both France and Italy, for the deadlines of submitting certificates and for paperwork needed. The changes that would help further development of the EEOS are the right balance of administrative procedures and recognition of the benefit of EPC, which brings savings guarantees.

*Main issue recognised is the unavailability of the workforce and the cost of materials, both appeared at the end of 2020.*

## Technology market and end users' perspective on the influence of COVID 19 on energy efficiency investments

As mentioned in the previous sections, the industrial segments have already gone through a noticed recovery in the third quartal of 2020. Overall, that fall of industry was not dramatical, but the results are different in different EU countries (some are facing more issues). In the whole sector, the sustainability and EE are becoming more and more important, with costumers looking for more solutions. So, even COVID obviously has negative effect on market, the future seems rather positive

Construction sector also had very large dip and then fast rebound to relatively normal level with stimulus from the governments for the renovation. The commitments to prioritise keeping construction sites open were very much justified by the multiple impacts of renovation on other sectors. COVID is also expected to leave the mark throughout 2021, as there's activities backlog in residential building, but a lot of it is relying on policy.

*So, the conclusion from the markets perspective is that the policies are crucial, they play a big part in bouncing back, create confidence and motivation for long term investments. The issue of the lack of workforce is recognized also from the market perspective.*

Regarding the private end users, property owners, COVID 19 has postponed their plans and added some changes to their budgets, so the most important thing would be *financial support*, of which subsidies and grants and tax reductions/deductions are most interesting options.

## Financial institutions and funding organization perspectives on the influence of COVID 19 on the energy efficiency investments

Data from the financial institution show that there are the four key drivers/segments important for the investments and for the recovery. These are government, technology, market and consumers/companies.

COVID has not changed governmental course for EE policies, just the opposite, with the EU level recovery funding and green deal funding. From the technology perspective, there is not a lot of problems, markets show shock and recovery and from the consumer and companies' point of view: expectations are changing from very negative in April to expecting no change and fast rebound in November. Consumers are willing to spend more or much more to house insulation, so the future seems optimistic.

*Key questions are: Are the companies still willing to invest, do they have financial resources for next years, is there enough skilled labour, will energy as a service remain very hard to scale or finance?*

## Conclusions:

The energy efficiency market has been affected by the COVID-19 crisis, significantly reducing the investments in energy efficiency projects, but this was, based on the opinions of key stakeholders, very much constrained to the period of 1st and 2nd quarter of 2020.

Private consumers, like households, have reduced the investments in refurbishment and the investment plans, but are positive for the future.

Most achieved savings could be attributed to the reduction in consumption due to general financial savings and are not related to energy efficiency investments or long-term behavioural changes.

**Therefore, the rebound effect of energy consumption could be a concern.**

National authorities tried to follow up on the situation, but most of their efforts is linked to the period that is coming after the crisis is expected to abate (so the three-year short-term planning for the Recovery Package funding). All actors are optimistic that **the investments and projects will be as before** crisis in maximum 2-4 years, some of them stating that their data shows investments are already back to the baseline level.

Since the consumption is shifting towards the household sector and the fact that the policies defining emissions and energy consumption in buildings are changing, this also is a challenge for all the included stakeholders.

*The most important take-outs from the survey and the workshop are that the sector is strongly reliant on the policies' implementation and the security it provides to all the actors - trough the governmental support for the measures and the investments.*

*Also, the most relevant concern, besides the rebound of consumption, seems to be that when the sector and investments rebound, the labour market will not follow. The lack of a specific workforce might be a crucial obstacle for investments.*

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