

OPI: Fostering a competitive and sustainable economy to meet our challenges

PA4: Shifting towards a low-carbon economy

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| Investment Priority | 4a: Promoting the production and distribution of energy derived from renewable sources |
| Specific Objective | SO1: Promoting the use of RES through financial incentives in the domestic sector and undertakings not carrying out an economic activity. |
| Indicator Code & Title | CO30: Renewables: Additional capacity of renewable energy production |
| Type | Output |
| Unit of Measure | Megawatts (MW) |
| Definition | <p>This output indicator should measure the increase in energy production capacity (including electricity and heat energy) of facilities using renewable energy resources which are built/equipped by the EU-funded project.</p> <p>Renewable energy resource should be defined in line with Article 2(a) of Regulation 2009/28: <i>‘energy from renewable sources’ means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.</i></p> <p>Source: Guidance Document on Indicators</p> |
| Guidance | The common output indicator focuses on the additional capacity of renewable energy production which can be generated through the RES facilities funded under ERDF. |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> • Checks carried out by Beneficiary, in cases where multiple interventions have been carried out a sample check can be considered. Such checks should also include photographs confirming that the RES measure/s were installed after the intervention took place; and/or • Engineer’s certifications on the installations; • Documentation from the service provider showing the amount of energy production capacity. <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| Investment Priority | 4a: Promoting the production and distribution of energy derived from renewable sources |
| Specific Objective | SO1: Promoting the use of RES through financial incentives in the domestic sector and undertakings not carrying out an economic activity. |
| Indicator Code & Title | CO34: GHG reduction: Estimated annual decrease of GHG |
| Type | Output |
| Unit of Measure | Tonnes of CO ₂ equivalent |
| Definition | <p>This indicator is calculated for interventions directly aiming to increase renewable energy production through energy saving measures.</p> <p>In case of renewable energy production, the estimate is based on the amount of primary energy produced by supported facilities in a given year (i.e. the calendar year after project completion). Renewable energy is supposed to be GHG¹ neutral and replacing non-renewable energy production. GHG impact of non-renewable energy is estimated through the Member State's total GHG emission per unit of non-renewable energy production.</p> <p>In case of energy saving measures, the estimate is based on the amount of primary energy saved through in a given year supported operations (i.e. the calendar year after project completion). Saved energy is supposed to be replacing non-renewable energy production. GHG impact of non-renewable energy is estimated through the Member State's total GHG emission per unit of non-renewable energy production.</p> <p><i>Source: Guidance Document on Indicators</i></p> |
| Guidance | <p>The common output indicator focuses on the estimated annual decrease of greenhouse gas reduction through the tonnes of CO₂ equivalent to the increase in renewable energy production that can be generated through energy saving measures funded under ERDF.</p> <p>The methodology for calculating this indicator is the following:</p> <p>Step 1: Convert Mega Watts Peak (MWp) to Kilo Watts Peak (KWp) The Mega Watts Peak is obtained from the indicator CO30: <i>Renewables: Additional capacity of renewable energy production</i> (e.g. 16.5MW). In order to convert it to KWp multiply the figure by 1,000 (e.g. 16.5MWp x 1000 = 16,500KWp).</p> <p>Step 2: Convert Kilo Watts Peak (KWp) to Kilo Watts Hour (KWh)</p> |

¹ Greenhouse gas

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| | <p>Each KWp of PV installed will generate 1,500KWh of energy per year² (e.g. 16,500KWp x 1,500KWh = 24,750,000KWh).</p> <p>Step 3: Convert Kilo Watts Hour (KWh) to KG CO₂/KWh The rate to be used to convert KWh to KG CO₂/KWh is 0.77 for 2016 and 2017, and 0.47 from 2018 onwards³ (e.g. 24,750,000KWh x 0.47 = 11,515,000 KG CO₂/ KWh).</p> <p>Step 4: Convert KG of CO₂eq to Tonnes of CO₂eq This should be calculated by dividing the KG of CO₂eq by 1,000 (e.g. 11,515,000 KG CO₂ / 1000 = 11,515 Tonnes of CO₂ eq).</p> |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> Signed declaration from Beneficiary, including methodology. <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| Investment Priority | 4b: Promoting energy efficiency and renewable energy use in enterprises |
| Specific Objective | SO2: Promoting the use of RES and EE within the commercial and industrial sectors through financial incentives and financial instruments. |
| Indicator Code & Title | PSO40: Number of enterprises improving their energy classification. |
| Type | Output |
| Unit of Measure | Number |
| Definition | This output indicator measures the number of enterprises who experience an improvement in their energy classification as a result of an EU-funded project, EU-funded scheme, and/or EU-funded Financial Instrument. |
| Guidance | <p>For this indicator, an improvement in energy classification is defined as an improvement in the following areas:</p> <ul style="list-style-type: none"> An improved rating in the Energy Performance Certificate of an enterprise, reflecting the decrease of annual primary energy consumption. This is applicable to investments undertaken in the area of energy efficiency, |

² Industry standard
³ Industry standards

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| | <p>- An increase in an enterprise's energy production capacity (including electricity and heat energy) using renewable energy resources. Renewable energy resources should be defined in line with Article 2(a) of Regulation 2009/28: <i>'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.</i></p> <p>Each enterprise benefitting from EU support contributes '1' to this indicator, irrespective of the number of investments undertaken. The improvement in energy classification needs to be confirmed through the below list of sources.</p> |
| <p>Verification Source</p> | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> • List of enterprises benefitting from EU support • Engineer's certification/s on RES installations; • Documentation from the service provider showing the amount of energy production capacity (in the area of RES). • Pre-project and post project Energy Performance Certificates (for EE) • Other related documentation that can show an improvement in the energy classification of an enterprise (before and after comparison) <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| <p>Investment Priority</p> | <p>4b: Promoting energy efficiency and renewable energy use in enterprises</p> |
| <p>Specific Objective</p> | <p>SO2: Promoting the use of RES and EE within the commercial and industrial sectors through financial incentives and financial instruments.</p> |
| <p>Indicator Code & Title</p> | <p>CO01: Productive investment: Number of enterprises receiving support</p> |
| <p>Type</p> | <p>Output</p> |
| <p>Unit of Measure</p> | <p>Enterprises</p> |
| <p>Definition</p> | <p>Number of enterprises receiving support in any form from ERDF (whether the support represents state aid or not).</p> |

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| Guidance | <p>Enterprise: Organisation producing products or services to satisfy market needs in order to reach profit. The legal form of enterprise may be various (self-employed persons, partnerships, etc.).</p> <p>Multiple counting needs to be eliminated (i.e. an enterprise receiving support more than once is to be counted once).</p> |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> List of unique enterprises benefitting from EU support <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| Investment Priority | 4b: Promoting energy efficiency and renewable energy use in enterprises |
| Specific Objective | SO2: Promoting the use of RES and EE within the commercial and industrial sectors through financial incentives and financial instruments. |
| Indicator Code & Title | CO02: Productive investment: Number of enterprises receiving grants |
| Type | Output |
| Unit of Measure | Enterprises |
| Definition | Number of enterprises receiving support from ERDF, where support is in the form of grants (whether it represents state aid or not). |
| Guidance | <p>Number of enterprises receiving support in forms of non-refundable direct financial support conditional only to completion of project (grants).</p> <p>Multiple counting needs to be eliminated (i.e. an enterprise receiving support more than once is to be counted once).</p> <p>Subset of 'Number of enterprises receiving support' (CO01)</p> |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> List of enterprises benefitting from EU support <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| Investment Priority | 4b: Promoting energy efficiency and renewable energy use in enterprises |
| Specific Objective | SO2: Promoting the use of RES and EE within the commercial and industrial sectors through financial incentives and financial instruments. |
| Indicator Code & Title | CO03: Productive investment: Number of enterprises receiving financial support other than grants |
| Type | Output |
| Unit of Measure | Enterprises |
| Definition | Number of enterprises receiving non-grant type financial support, in forms of loan, interest subsidy, credit guarantee, venture capital or other financial instrument. Multiple counting needs to be eliminated (i.e. an enterprise receiving support more than once is to be counted once). |
| Guidance | Subset of 'Number of enterprises receiving support' (CO01) |
| Verification Source | Verification sources shall include the following (list not exhaustive), as required: <ul style="list-style-type: none"> List of enterprises benefitting from EU support <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| Investment Priority | 4b: Promoting energy efficiency and renewable energy use in enterprises |
| Specific Objective | SO2: Promoting the use of RES and EE within the commercial and industrial sectors through financial incentives and financial instruments. |
| Indicator Code & Title | CO30: Renewables: Additional capacity of renewable energy production |
| Type | Output |
| Unit of Measure | Megawatts (MW) |
| Definition | This output indicator should measure the increase in energy production capacity (including electricity and heat energy) of facilities using renewable energy resources which are built/equipped by the EU-funded project. |

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| | <p>Renewable energy resource should be defined in line with Article 2(a) of Regulation 2009/28: <i>'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.</i></p> <p>Source: Guidance Document on Indicators</p> |
| Guidance | The common output indicator focuses on the additional capacity of renewable energy production which can be generated through the RES facilities funded under ERDF. |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> • Checks carried out by Beneficiary, in cases where multiple interventions have been carried out a sample check can be considered. Such checks should also include photographs confirming that the RES measure/s installed after the intervention took place; and/or • Engineer's certification/s on the installations; • Documentation from the service provider showing the amount of energy production capacity. <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| Investment Priority | 4b: Promoting energy efficiency and renewable energy use in enterprises |
| Specific Objective | SO2: Promoting the use of RES and EE within the commercial and industrial sectors through financial incentives and financial instruments. |
| Indicator Code & Title | CO34: GHG reduction: Estimated annual decrease of GHG |
| Type | Output |
| Unit of Measure | Tonnes of CO ₂ equivalent |
| Definition | <p>This indicator is calculated for interventions directly aiming to increase renewable energy production through energy saving measures.</p> <p>In case of renewable energy production, the estimate is based on the amount of primary energy produced by supported facilities in a given year (i.e. the calendar year after project</p> |

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| | <p>completion). Renewable energy is supposed to be GHG⁴ neutral and replacing non-renewable energy production. GHG impact of non-renewable energy is estimated through the Member State's total GHG emission per unit of non-renewable energy production.</p> <p>In case of energy saving measures, the estimate is based on the amount of primary energy saved through in a given year supported operations (i.e. the calendar year after project completion). Saved energy is supposed to be replacing non-renewable energy production. GHG impact of non-renewable energy is estimated through the Member State's total GHG emission per unit of non-renewable energy production.</p> <p>Source: Guidance Document on Indicators</p> |
| <p>Guidance</p> | <p>The common output indicator focuses on the estimated annual decrease of greenhouse gas reduction through the tonnes of CO₂ equivalent to the increase in renewable energy production that can be generated through energy saving measures funded under ERDF.</p> <p>The methodology for calculating this indicator is the following:</p> <p>Step 1: Convert Mega Watts Peak (MWp) to Kilo Watts Peak (KWp) The Mega Watts Peak is obtained from the indicator CO30: <i>Renewables: Additional capacity of renewable energy production</i> (e.g. 16.5MW). In order to convert it to KWp multiply the figure by 1,000 (e.g. 16.5MWp x 1000 = 16,500KWp).</p> <p>Step 2: Convert Kilo Watts Peak (KWp) to Kilo Watts Hour (KWh) Each KWp of PV installed will generate 1,500KWh of energy per year⁵ (e.g. 16,500KWp x 1,500KWh = 24,750,000KWh).</p> <p>Step 3: Convert Kilo Watts Hour (KWh) to KG CO₂/KWh The rate to be used to convert KWh to KG CO₂/KWh is 0.77 for 2016 and 2017, and 0.47 from 2018 onwards⁶ (e.g. 24,750,000KWh x 0.47 = 11,515,000 KG CO₂/ KWh).</p> <p>Step 4: Convert KG of CO₂eq to Tonnes of CO₂eq This should be calculated by dividing the KG of CO₂eq by 1,000 (e.g. 11,515,000 KG CO₂ / 1000 = 11,515 Tonnes of CO₂ eq).</p> |

⁴ Greenhouse gas
⁵ Industry standard
⁶ Industry standards

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| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> Signed declaration from Beneficiary, including methodology. <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |
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| Investment Priority | 4c: Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector |
| Specific Objective | SO3: The use of RES and EE within public property as well as EE in housing through financial incentives. |
| Indicator Code & Title | CO30: Renewables: Additional capacity of renewable energy production |
| Type | Output |
| Unit of Measure | Megawatts (MW) |
| Definition | <p>This output indicator should measure the increase in energy production capacity (including electricity and heat energy) of facilities using renewable energy resources which are built/equipped by the EU-funded project.</p> <p>Renewable energy resource should be defined in line with Article 2(a) of Regulation 2009/28: <i>'energy from renewable sources' means energy from renewable non-fossil sources, namely wind, solar, aerothermal, geothermal, hydrothermal and ocean energy, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.</i></p> <p>Source: Guidance Document on Indicators</p> |
| Guidance | The common output indicator focuses on the additional capacity of renewable energy production which can be generated through the RES facilities funded under ERDF. |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> Checks carried out by Beneficiary, in cases where multiple interventions have been carried out a sample check can be considered. Such checks should also include photographs confirming that the RES measure/s installed after the intervention took place; and/or Engineer's certification/s on the installations; |

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| | <ul style="list-style-type: none"> Documentation from the service provider showing the amount of energy production capacity. <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |
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| Investment Priority | 4c: Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector |
| Specific Objective | SO3: The use of RES and EE within public property as well as EE in housing through financial incentives. |
| Indicator Code & Title | CO32: Energy efficiency: Decrease of annual primary energy consumption of public buildings |
| Type | Output |
| Unit of Measure | kWh/year |
| Definition | <p>Calculations are based on the energy certificate of buildings⁷. In line with the deadlines set in Directive 2010/31/EU, the indicator must apply to all public buildings above 500m² total useful area and were reconstructed using Structural Funds support. If the construction starts after 9 July 2015, the threshold for public buildings decreases to 250m² total useful area. The Managing Authority may include buildings in the calculation with less than 250m² (or 500m² before 09/07/2015). The indicator will show the total decrease of annual consumption, not the total saved consumption.</p> <p>Source: Guidance Document on Indicators</p> |
| Guidance | The common output indicator focuses on the total decrease of annual consumption in kilowatt hours per year showing the decrease of annual primary energy consumption of public buildings funded under ERDF. The indicator value will be calculated from the energy certificates issued before and after the reconstruction. |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> Energy performance certificates, or in instances when this is not available; documentation of a similar nature, as applicable, to show the total decrease in annual consumption through a before and after comparison; and/or |

⁷ Refer to Article 12(1)(b) of Directive 2010/31/EU

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| | <ul style="list-style-type: none"> • Tests carried out by the Beneficiary before and after the intervention. In cases where multiple interventions have been carried out a sample check can be considered. Such test should also include the measure of power consumed; • Brief description of reconstruction works carried out through EU Structural Funds, including i) site plan of the reconstructed area clearly indicating total area in m2 and ii) timeline of when these works were carried out. <p>Reports from the Beneficiary and/or documentation from the service provider outlining the energy efficiency of the ERDF measure being funded, as applicable.</p> <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |
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| Investment Priority | 4c: Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector |
| Specific Objective | SO3: The use of RES and EE within public property as well as EE in housing through financial incentives. |
| Indicator Code & Title | CO34: GHG reduction: Estimated annual decrease of GHG |
| Type | Output |
| Unit of Measure | Tonnes of CO ₂ equivalent |
| Definition | <p>This indicator is calculated for interventions directly aiming to increase renewable energy production through energy saving measures.</p> <p>In case of renewable energy production, the estimate is based on the amount of primary energy produced by supported facilities in a given year (i.e. the calendar year after project completion). Renewable energy is supposed to be GHG⁸ neutral and replacing non-renewable energy production. GHG impact of non-renewable energy is estimated through the Member State's total GHG emission per unit of non-renewable energy production.</p> <p>In case of energy saving measures, the estimate is based on the amount of primary energy saved through in a given year supported operations (i.e. the calendar year after project completion). Saved energy is supposed to be replacing non-renewable energy production.</p> |

⁸ Greenhouse gas

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| | <p>GHG impact of non-renewable energy is estimated through the Member State's total GHG emission per unit of non-renewable energy production.</p> <p>Source: Guidance Document on Indicators</p> |
| Guidance | <p>The common output indicator focuses on the estimated annual decrease of greenhouse gas reduction through the tonnes of CO₂ equivalent to the increase in renewable energy production that can be generated through energy saving measures funded under ERDF.</p> <p>The methodology for calculating this indicator is the following:</p> <p>Step 1: Convert Mega Watts Peak (MWp) to Kilo Watts Peak (KWp) The Mega Watts Peak is obtained from the indicator CO30: <i>Renewables: Additional capacity of renewable energy production</i> (e.g. 16.5MW). In order to convert it to KWp multiply the figure by 1,000 (e.g. 16.5MWp x 1000 = 16,500KWp).</p> <p>Step 2: Convert Kilo Watts Peak (KWp) to Kilo Watts Hour (KWh) Each KWp of PV installed will generate 1,500KWh of energy per year⁹ (e.g. 16,500KWp x 1,500KWh = 24,750,000KWh).</p> <p>Step 3: Convert Kilo Watts Hour (KWh) to KG CO₂/KWh The rate to be used to convert KWh to KG CO₂/KWh is 0.77 for 2016 and 2017, and 0.47 from 2018 onwards¹⁰ (e.g. 24,750,000KWh x 0.47 = 11,515,000 KG CO₂/ KWh).</p> <p>Step 4: Convert KG of CO₂eq to Tonnes of CO₂eq This should be calculated by dividing the KG of CO₂eq by 1,000 (e.g. 11,515,000 KG CO₂ / 1000 = 11,515 Tonnes of CO₂ eq).</p> |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> Signed declaration from Beneficiary, including methodology. <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |

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| Investment Priority | 4c: Supporting energy efficiency, smart energy management and renewable energy use in public infrastructure, including in public buildings, and in the housing sector |
| Specific Objective | SO3: The use of RES and EE within public property as well as EE in housing through financial incentives. |

⁹ Industry standard

¹⁰ Industry standards

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| Indicator Code & Title | PSO41: Energy efficiency: Decrease of annual primary consumption by the domestic sector |
| Type | Output |
| Unit of Measure | KWh |
| Definition | Calculations for this output indicator are based on the energy certificate of domestic buildings. The indicator value will be based on the resulting savings measured in kWh/year, which is to be calculated by comparing the energy certificate issued at the start of the project with that issued at project completion, once energy efficiency measures financed by the project have been implemented. The indicator will show the total decrease of annual consumption, and not the total saved consumption. |
| Guidance | This output indicator focuses on the change in annual primary consumption brought about by the project. Therefore, an energy certificate will need to be issued prior to start of project to establish the baseline against which the result is to be measured. |
| Verification Source | <p>Verification sources shall include the following (list not exhaustive), as required:</p> <ul style="list-style-type: none"> • Before and after energy certificates. <p>The Beneficiary is to maintain any documentation related to the intervention in line with obligations on document retention. All documents are to be made available to the Managing Authority and other stakeholders upon request.</p> |