Energy Investment Allowance (EIA)

Energy List 2019

Commissioned by the Ministry of Economic Affairs and Climate Policy

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This brochure contains an abridged and unofficial interpretation of the statutory provisions. No rights may be derived from the contents. In the event of any doubts, you should always refer to the text of the 2001 Income Tax Act (Wet op de inkomstenbelasting 2001), 1969 Corporation Tax Act (Wet op de vennootschapsbelasting 1969) and the 2001 Regulation implementing the Energy Investment Allowance (Uitvoeringsregeling Energie-investeringsaftrek 2001).
Introduction

Financial benefits for investments in energy saving and sustainable energy

The Energy Investment Allowance (Energie-investeringsaftrek, EIA) is a government tax scheme which provides support for your investments in energy saving equipment and sustainable energy. Entrepreneurs making use of the EIA gain a double benefit: their energy costs are lower and they pay less tax. This brochure indicates which assets are eligible for the EIA and how the EIA scheme works.

Why invest in energy saving and sustainable energy?

Currently, fossil fuels are often used to generate energy. The combustion of these fossil fuels emits CO₂ and other emissions that contribute to the climate problem. Moreover, resources of fossil fuels are finite. The government provides incentives for sustainable energy housekeeping with clean energy that will be available and affordable in the long term. The tax advantages obtained via the EIA make it easier for you to invest in energy saving equipment and sustainable energy.

Benefit offered by the EIA

In addition to the deduction of the customary depreciation, you may also deduct 45% of the investment cost of energy saving equipment from your taxable profit. Consequently, you pay less income tax or corporation tax.

Which assets are eligible for the EIA?

Equipment that promotes the efficient use of energy and complies with specific energy performance requirements is eligible for the EIA. The energy performance requirements are listed in Part 3 of this brochure.

Availability of the Energy List 2019 on the Internet

The Energy List 2019 indicates which assets are eligible for the EIA. The Energy List 2019 is based on the statutory provisions of the 2001 Regulation implementing the Energy Investment Allowance (Uitvoeringsregeling Energie-investeringsaftrek 2001), which is published in the Netherlands Government Gazette (Staatscourant) and on www.wetten.nl. In addition to providing a list of energy-efficient technologies, the brochure explains how the scheme functions. The Energy List 2019 can be consulted on www.rvo.nl/eia. This website also contains the official publication, a link to the digital application form, a search function for the Energy List, examples of projects, news and the annual report.
1. How does the EIA function

1.1 Energy Investment Allowance (EIA)

The EIA is a fiscal scheme which falls under the responsibility of the Minister of Finance and the Minister of Economic Affairs and Climate Policy. The EIA is administered by the Netherlands Tax and Customs Administration (Belastingdienst) and Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland, RVO.nl), part of the Ministry of Economic Affairs and Climate Policy.

Who is eligible for the EIA?
You can benefit from the EIA when you meet the following conditions:
- You are liable for income tax or corporation tax and you conduct a business for your own account in the Netherlands.
- You invest in equipment that complies with the Energy List requirements and costs at least € 2,500.

How does the EIA function?
For each type of equipment, you must submit a digital application form for your investment via RVO.nl’s eLoket. More information about this procedure is enclosed in Part 2. Make sure that your application is submitted on time. RVO assesses your application and issues a declaration to you when your investment is eligible for the EIA. The exact amount that is eligible for the EIA is specified in the declaration. Each business can qualify for the EIA for energy investments of a minimum of € 2,500 and a maximum of € 121 million in a calendar year. 45% of the amount of the investment cost for which you received an EIA declaration may be deducted from the taxable profit.

Example of a calculation
The taxable profit for 2019 is € 500,000. Corporation tax is 19% for the first tax bracket up to € 200,000 and 25% above € 200,000.

You make new energy investments amounting to € 300,000. The EIA is 45% of € 300,000, i.e. € 135,000.

Your taxable profit is now € 365,000 (€ 500,000 - € 135,000).
Without the EIA you would be liable for corporation tax of € 113,000. By making use of the EIA you pay corporation tax of only € 79,250. Your tax benefit is € 33,750.

The net EIA benefit is about 11% of the investment cost.

1.2 Which costs are eligible?
The EIA is applicable to the cost of equipment or equipment parts that comply with the energy performance requirements, including the ancillary equipment (such as pipes, appendages, and measurement and control instruments) which are required for the operation of the equipment and which are used solely for that purpose.

When your equipment complies with the requirements then the following costs are eligible for the EIA:

- **Purchase costs**
  - The purchase price plus the costs charged by third parties for commissioning the equipment (such as the installation costs).
  - The turnover tax paid to the supplier when you are exempt from charging turnover tax.
• **Production costs**
  - The labour costs of your staff, temporary employees and contractors who produce or install the equipment.
  - The cost of materials from your stock or parts of the equipment that have been purchased and installed under your management.
  - The turnover tax paid to the supplier when you are exempt from charging turnover tax.

• **Modification of existing equipment**
  - The purchase and installation cost of new materials. However, these costs must be recognised in the balance sheet.

• **Costs relating to energy recommendations or customised EPA recommendations**
  - These conditions are stated in Part 3, Section G.

• **Which costs are not eligible**
  - The cost of equipment already in use or used at the time of purchase or production.
  - The cost of land, homes, private cars and vessels that are not intended for professional transport, animals, shares, claims, goodwill, licences, exemptions, concessions and other public dispensations.
  - Maintenance costs.

### 1.3 Combinations of schemes

**EIA and subsidies**
Are you receiving investment subsidies for the equipment pursuant to another scheme? If so, you must deduct this subsidy from the purchase costs and production costs. You do not need to deduct an operating subsidy.

**EIA and the 'standard' investment allowance**
Do your total investments in equipment amount to between €2,300 and €312,176 in one year? If so, you may also be entitled to the small-scale investment allowance. More information is available via the Tax Information Line for Entrepreneurs, your auditor or accountant.

**EIA and MIA (Environmental Investment Allowance)**
Are you investing in equipment or equipment parts that are eligible for the EIA and in other equipment that is eligible for the Environmental Investment Allowance (Milieu-investeringsafdek, MIA)? If so, you can make use of both schemes by dividing the investment costs into an EIA component and an MIA component. This could be interesting, as the benefit offered by the EIA is greater than the benefit offered by the MIA. Apply for the correct scheme in time. You cannot convert an application from one scheme to the other retrospectively.

**EIA and Sustainable Energy Investment Subsidy (ISDE)**
The Sustainable Energy Investment Subsidy scheme includes equipment that is also found on the Energy List 2019. An asset cannot be eligible for both schemes. If you receive a sustainable energy investment subsidy for an asset, you cannot submit an EIA application for this asset as well.

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1 Investments in solar boilers, collectors or panels that are installed on residential buildings may be eligible for the EIA. To be eligible, however, it is necessary that these devices can be considered separate equipment which is not part of these buildings.
EIA and Favourable Treatment for Locally Generated Sustainable Energy (postcode cluster scheme)
The Environmental Tax Act stipulates that the reduced energy tax rate of the Energy Tax, only applies to the electricity supplied via the connection to the grid, if neither to the point of the generation of the electricity by the cooperative, nor in respect of the production installation used for this purpose, a financial compensation or subsidy has been or will be provided by the government. So, you will no longer qualify for the lower energy tax rate if you use the EIA for an installation that serves to generate sustainable energy.

EIA and the 2010 Regulation implementing the Investment Allowance for Aruba, Curaçao, Sint Maarten and the BES islands
Article 3 of the “Regulation implementing the Investment Allowance for Aruba, Curaçao, Sint Maarten and the BES islands 2010” (Uitvoeringsregeling investeringsaftrek Aruba, Curaçao, Sint Maarten en de BES eilanden 2010) offers the option to obtain an EIA declaration for equipment associated with a permanent establishment on these islands, provided that your worldwide income is taxed in the Netherlands and provided that you fulfill the requirements stipulated in this scheme.

1.4 Permits and decisions
Some investments require permits and decisions. RVO.nl may ask you to furnish proof of the issue of the required permits and decisions when you apply for EIA for an investment. These permits do not need to be irrevocable, so you do not need to wait for the ruling from any objection or appeal procedure, where relevant. The following permits and decisions must have been issued when you submit your application for your investment:

- **Building section of the physical environment permit (omgevingsvergunning)**
  You must have a physical environment permit for the building section of an investment in a wind turbine built on land at the time you apply for the EIA.

- **Environmental section of the physical environment permit (omgevingsvergunning)**
  You must have a physical environment permit for the environmental section for investments in the following equipment:
  - cogeneration plant powered other than by a piston engine (231002);
  - biofuel production plant (251305).

- **SDE permit**
  For an investment in the following equipment, an SDE decision greater than € 0 based on the 2016 SDE scheme or later must have been issued at the time of reporting:
  - grid connection for solar panels with SDE 2016 or later (251305).

1.5 Under which code do you submit the application?
The EIA is of a generic design. This means that the equipment specified in this brochure complies with a specific energy saving or efficiency requirement, except for some equipment that does not comply with the stipulated requirements but which is, nevertheless, the best alternative available in the market. This equipment is specified explicitly in the Act and indicated with a [W] in this brochure. The equipment or parts of equipment that are eligible are specified in the Energy List in Part 3.

- **Equipment specified in specific terms**
  Some equipment is specified in specific terms in categories A to F inclusive. This equipment is subdivided into equipment with a [W] and equipment without a [W]. The specification is followed by the code you need for the application.
**Equipment specified in generic terms**

This equipment is specified in general terms in the Regulation implementing the Energy Investment Allowance (Uitvoeringsregeling Energie-investeringsaftrek). This equipment is listed at the start of categories A, B, C, D and E, under the codes 310000, 410000, 320000, 420000, 340000, 440000, 450000 and 460000.

You are not permitted to submit an application for an investment using a code for equipment specified in generic terms when the nature, use and application are equivalent to those of equipment specified in specific terms in the Act. Equipment specified in specific terms without the suffix [W], however, does offer this option as this equipment is an example of equipment specified in generic terms.

**Package of measures to improve the energy performance of existing commercial buildings**

You can submit an application for a package of measures intended to improve the energy index of existing commercial buildings based on a customised recommendation under code 210000. The resulting benefit will be that all necessary investment costs for the improvement in the energy performance qualify for the EIA. Another benefit is that you can submit a single application for the entire package of energy-saving measures.

**Energy recommendations**

Costs incurred in obtaining energy recommendations or customised recommendations as laid down in ISSO 75.2 may be submitted in an application for the EIA. These costs can be included in the first application for the EIA for purchase and production costs. However, a number of conditions are applicable: more information about these conditions is included in the Energy List under category G.

The website of the EIA offers practical examples of how to submit applications under specific and generic codes.
2. How do you apply for the EIA?

2.1 Application procedure

2.1.1 Applying for EIA online
Applications for the EIA must be submitted by completing a digital form, available at RVO’s eLoket (digital counter) website. Hard copy application forms will not be accepted. More information about applying digitally for the EIA is available at www.rvo.nl/eia.

eHerkenning
You will need an e-identification (eHerkenning) account to access RVO.nl’s eLoket and complete the digital EIA form. The procedure is explained in RVO.nl’s eLoket. You can apply for eHerkenning via www.rvo.nl/eLoket or directly via www.eHerkenning.nl. Security Level 1 is sufficient for the completion of EIA forms. You will receive your login information several days after you have submitted your eHerkenning application. Consequently, make sure that you submit your eHerkenning application in time so that your EIA applications can be submitted before the deadline.

Authorisation
You may authorise a third party, e.g. someone from an accountancy firm or consultancy firm, to complete the digital form on your behalf. You no longer need to complete an authorisation form for this purpose. The third party you have authorised will need to use the third party’s eHerkenning account, not the account of the company for whom the application is submitted.

Private partnerships and general partnerships
The partners in a partnership such as a private partnership or a general partnership can submit a single joint application form.

2.1.2 Submit the application on time
Submissions of digital application forms are governed by the following deadlines:

- Purchase costs
RVO.nl must receive your application within three months of the time at which you entered into the investment obligation. The “entry into an obligation” is the time at which you can determine what you bought at what price. It is often the moment the purchase agreement is signed, but it can also be the moment a verbal order is given. The date an obligation is entered into is therefore not the date of e.g. the offer, invoice or payment.

If the investment in the equipment (e.g. LED lighting) is part of a main building contract (e.g. for the construction of a commercial building), you should bear in mind that the investment obligation for the equipment is basically entered into at the time when this main building contract is concluded. As long as the performance requirements are laid down in the contract, the exact specifications (quantities and prices) of the equipment do not yet have to be known when the application is submitted. RVO.nl can request this information from you at a later time.
• **Production costs**
RVO.nl must have received your application within three months from the end of the calendar quarter in which you incurred the production costs.
Did you incur the production costs in the same calendar quarter in which you commissioned the equipment? If so, you must submit the application for the costs within three months from the date of commissioning.

• **Inoperability of the EIA**
The Minister of Finance may restrict the scheme or render the scheme inoperative when the EIA budget is exceeded. An announcement of any such decision is published in the Netherlands Government Gazette (Staatscourant) and on the EIA website.
Did you make your investment before the time at which the scheme was rendered inoperative? Then you may still be entitled to the EIA. In addition to the aforementioned deadlines for applications, an extra condition is then attached to applications for production costs: RVO.nl must have received your application for the production costs within three months after the date on which the scheme is rendered inoperative.

### 2.1.3 Acknowledgement of receipt by email
You receive an acknowledgement of receipt with a registration number from RVO.nl via email. This acknowledgement of receipt indicates solely that your application has been entered in the records. It does not automatically entitle you to the EIA.

### 2.1.4 Processing and declaration
RVO.nl may request you to submit supplementary information, such as a confirmation of the order and a cost specification, to enable RVO.nl to assess whether your investment complies with the requirements. When your application complies with all requirements, RVO.nl will issue a declaration stating that your investment qualifies as an energy investment either in whole or in part. This declaration is usually issued within eight weeks of the submission of your application. The amount stated on RVO.nl declarations is never in excess of the amount you specified in the application form. You may submit a separate application form for any additional costs you incur after submitting your original application, if these additional costs exceed €2,500. This declaration serves as proof for your tax return. RVO.nl notifies the Netherlands Tax and Customs Administration of the results from RVO.nl verification. The Netherlands Tax and Customs Administration decides whether you receive the EIA.

### Lodging an objection
It may be that you do not agree with the decision on your application for an EIA declaration. In that case, you can lodge an objection to RVO.nl no later than six weeks after the date of dispatch of the written decision.

### 2.2 Tax return and the EIA

#### 2.2.1 In which year do you state the investment?
When you complete your income tax or corporation tax return, you opt for the receipt of the EIA relating to the applications submitted in that year. If the RVO.nl declaration deviates from your application, you must take this into account in your return. If you have already filed your return, you can submit a corrected return.
You must state the investments in the return for the year in which you make the investment even when you have yet to pay the cost of the investments and have yet to commission the equipment.

#### 2.2.2 Assessment of your tax return
The tax inspector will assess whether you can make use of the EIA on the basis of your tax return and your company’s annual accounts. The tax inspector may inspect your accounts to assess the following:

- Has RVO.nl issued a declaration on behalf of the Ministry of Economic Affairs and Climate Policy?
- Is the time of purchase or production correct and was the application on time?
- When was the equipment commissioned and when was the cost of the equipment paid?
• Is the amount of the investment correct?
• Has a subsidy been granted?
• Is the equipment new?
• Are disinvestments an issue?

The Netherlands Tax and Customs Administration then determines the tax assessment. The Netherlands Tax and Customs Administration may accept or reject the EIA (in part). If you do not agree with the decision then you may make use of the tax objection and appeal procedure. More information is available in the Objection and Appeal (Bezwaar en Beroep) brochure that is available from the Netherlands Tax and Customs Administration. In this procedure, you cannot lodge an objection or appeal against the decision you received from RVO.nl.

2.2.3 How much may you deduct?
The amount that you may deduct from the taxable profit depends on the costs you have incurred in a calendar year.

• When you pay the total cost of an energy investment in one calendar year, you can benefit from the full EIA in your return for that year.
• You may have made the payments over several years but commissioned the equipment in the year in which you made the investment. You then fully include the EIA in the return for the calendar year in which you made the investment.
If you have not commissioned the equipment by the end of the calendar year then you may deduct the amount paid for the investment in that year as EIA from your profit. The remainder of the investment is carried to the returns for the following years in which you make investments, but not to a return for a later calendar year than the year in which the equipment is commissioned. Once the return has become irrevocable, you can no longer opt for the EIA at a later time.
• Are you liable for corporation tax or income tax and did you close the year with a loss? If so, if you are liable for income tax, you can set off the EIA in the three preceding years and the nine following years. And if you are liable for corporation tax, you can set off the EIA in the preceding year and the nine following years. You will need to consult with your tax inspector about any such set off.
• Has the Netherlands Tax and Customs Administration issued a provisional assessment for the year of the investment without the EIA? If so, you can use the acknowledgement of the receipt of the application to request the tax inspector to review your assessment.

2.3 Supplementary provisions

Turnkey contracts and major investments
Are you planning to conclude a turnkey contract or make another major investment? If so, please contact RVO.nl well in advance. In consultation with you and the Netherlands Tax and Customs Administration, we will review the options for the application deadlines and EIA requirements. (See also the explanatory notes under 2.1.2.)

Non-profit organisations or private individuals
Non-profit organisations and private individuals are not entitled to the EIA. It is however possible to make use of the EIA indirectly via a lease structure, in which the owner (lessor, who must be an entrepreneur) of the equipment can apply for the EIA.

Disinvestment allowance
Are you divesting equipment for which you were granted the EIA? When you divest more than €2,500 worth of equipment per year, you may need to include a disinvestment allowance in your income tax or corporation tax return.
This disinvestment allowance is calculated on the basis of the transfer price. The percentage of the disinvestment allowance is the same percentage you received for the divested equipment.
Two conditions are attached to the disinvestment allowance:
• the divestment must take place within five years of the beginning of the calendar year in which you made the investment;
• the allowance is calculated on the highest amount of the investment for which you received an investment allowance.

Re-investment reserve
A special regulation governs re-investment reserves. More information is available from your tax inspector.

Safety requirements
In the Netherlands, safety requirements apply in many areas. It can happen that the equipment purchased by you also has to meet certain safety or other requirements, which are not specified in the EIA. This situation applies, for example, when purchasing LED lighting, which is subject to a European standard (IEC 62471).
3. Summary of energy investments 2019

The summary of energy investments is divided into seven categories:
A. Commercial buildings
B. Processes
C. Means of transport
D. Sustainable energy
E. Energy balancing
F. Energy transition
G. Energy recommendations

The following is a summary of the costs of equipment or recommendations that qualify as energy investments under categories A to G inclusive.

Investments in equipment used for horticultural glasshouses, data centres and server rooms fall under category B "processes".
# A. Commercial buildings

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## Equipment specified in specific terms by function

### Improvement in energy performance

- Improvement in the energy performance of existing commercial buildings | 210000 | 17   |

### Heating

- High-efficiency air heater | 210102 | 18   |
- Booster fan               | 210103 | 18   |
- Direct gas-fired radiation panel | 210106 | 18   |
- Direct gas-fired condensing boiler | 210107 | 18   |
- Direct gas-fired condensing hot water flow device | 210108 | 18   |
- Heat recovery system from air scrubber | 210109 | 19   |
- Heating system for existing poultry house | 210110 | 19   |
- Heat pump boiler           | 21102  | 19   |
- Heat pump                  | 21103  | 20   |
- Air-related heat pump      | 21104  | 21   |
- Heat pump with a halogen-free coolant | 21105 | 22   |

### Refrigerating/freezing

- Heat exchanger for free cooling | 210206 | 22   |
- Adiabatic air cooling | 210207 | 23   |

### Ventilation

- Flow-controlled fan | 210301 | 23   |
- Airtight air distribution system | 210302 | 23   |
- Low-flow extraction hood in industrial kitchens | 210304 | 24   |
- System for cold or heat recovery from ventilation air | 210801 | 24   |
- System for cold or heat recovery from ventilation air in industrial kitchens | 210805 | 24   |
- System for cold or heat recovery from ventilation air in livestock sheds | 210806 | 25   |

### Insulation

- High-efficiency glass for existing commercial buildings | 210401 | 25   |
- High-efficiency glass for new commercial buildings | 210402 | 25   |
- Insulation for existing structures | 210403 | 25   |
- Phase change material | 210404 | 25   |
- High-speed door for cold stores or freezer rooms | 210406 | 26   |
- Air curtain with sensor-driven automatic control | 210407 | 26   |
- Heat-resistant coating | 210408 | 26   |

### Lighting

- Energy saving system for lighting | 210502 | 26   |
- LED lighting system | 210506 | 27   |
- LED illumination system | 210508 | 27   |
- LED tube system | 210509 | 27   |

### Drives

- High-efficiency electric motor | 210601 | 28   |
- Improvement in the energy performance of existing lifts | 210602 | 28   |
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<td>- Drying and heating system for ventilation air in storage warehouses</td>
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<td>- System for the utilisation of waste heat</td>
<td>210803</td>
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<td><strong>Energy reuse</strong></td>
<td>- Energy-efficient extraction system</td>
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<td>- Energy saving system for climate control systems</td>
<td>210906</td>
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<td><strong>Management/control</strong></td>
<td>- Cogeneration plant powered other than by a piston engine</td>
<td>231002</td>
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<td><strong>Conversion</strong></td>
<td>- Fuel cell system</td>
<td>231101</td>
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<td><strong>Energy saving in the chain</strong></td>
<td>- System for the utilisation of waste heat</td>
<td>210803</td>
<td>30</td>
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<tr>
<td><strong>Other</strong></td>
<td>- High-efficiency pump</td>
<td>211001</td>
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310000 [W]
Technical facilities for energy saving in or near to existing commercial buildings
The energy saving must be at least 0.15 Nm$^3$ and no more than 1.2 Nm$^3$ natural gas equivalent (NGE) per invested euro per year. The benchmark for existing commercial buildings is the historical energy consumption$^4$.

The energy saving must be the demonstrable direct result of the use of the equipment to which the investment relates.

The facilities must achieve the energy saving by

a. improving the energy efficiency by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures;

b. reducing the heating or cooling load by:
   • the reduction of losses due to ventilation or draughts;

c. reusing heat by:
   • heat recovery;

d. using efficient lighting by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures.

Note: see Part 5 for the conversion factors for calculations of energy saving

Explanation:
Commercial buildings that are replaced (in part) while at least the structural frame of the building remains are regarded as existing commercial buildings (code 310000).
Commercial buildings that are demolished to the foundations (in part) and replaced by the construction of a new building (replacement of a commercial building) are regarded as new commercial buildings (code 410000).
Technical facilities for energy saving in or near to new commercial buildings

The energy saving must be at least 0.15 Nm\(^3\) and no more than 1.2 Nm\(^3\) natural gas equivalent (NGE) per invested euro per year. The benchmark for new commercial buildings is the average customary energy consumption of similar technical equipment for comparable new commercial buildings.

The energy saving must be the demonstrable direct result of the use of the equipment to which the investment relates.

The facilities must achieve the energy saving by

a. improving the energy efficiency by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures;

b. reducing the heating or cooling load by:
   • the reduction of losses due to ventilation or draughts;

c. reusing heat by:
   • heat recovery;

d. using efficient lighting by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures.

Note: see Part 5 for the conversion factors for calculations of energy saving

Explanation:
Commercial buildings that are demolished to the foundations (in part) and replaced by the construction of a new building (replacement of a commercial building) are regarded as new commercial buildings (code 410000). Commercial buildings that are replaced (in part) while at least the structural frame of the building remains are regarded as existing commercial buildings (code 310000).
Improvement in energy performance

210000 [W] [CHANGED]
Improvement in the energy performance of existing commercial buildings


and consisting of: a package of energy investments based on customised recommendations as laid down in ISSO 75.2 (Energy Performance Advice for Utility Buildings, customised recommendations (Energieprestatie Advies Utiliteitsgebouwen, maatwerkadvies). The recommendation should be drawn up before investing in the measures stated in the customised recommendation and before submitting an EIA application. Due to the package of energy investments, the energy performance of the commercial building must at least comply with label B and must have improved by at least three labels.

Investments that are part of the package of energy investments described in Part D. Sustainable energy are also subject to all the requirements imposed on this equipment.

The contribution of a measure to the label improvement is not included in the improvement of the commercial building’s energy performance if this measure is not included in the EIA application as part of the package of energy investments.

If a building’s function changes, the customised recommendation must be drawn up based on the new function of the building in both the old and the new situation.

An investment in a measure that is submitted under code 210000 cannot also be submitted under a different specific code on the Energy List.

The maximum investment amount that is eligible for EIA is €75 per m² of gross floor area when moving up one label. The label improvement must be determined in accordance with the basic method laid down in ISSO 75.2.

Explanation:
The investments submitted for the EIA must be included in the EPA-U report. The EPA-U report must be drawn up before entering into the first investment obligation. As a result, investments for which the investment date precedes the date on which the EPA-U report was drawn up are not eligible for the EIA under code 210000. You may submit an application for the investment costs that you have incurred within the application period of three months. You must place the orders for the investments within the application period (three months) if you wish all the investments costs to qualify.

You must submit the package of energy-saving measures as a whole under this code in order to be eligible for the Energy Investment Allowance. An investment in a measure cannot be reported under code 210000 as well as under a specific code. In other words, you will have to choose. Please bear in mind that a measure does not count towards a label change if a measure is submitted under a specific code other than code 210000.
Heating

210102 [W]  
**High-efficiency air heater**  
*Intended for:* the heating of rooms in commercial buildings,  
*and consisting of:* a direct gas-fired air heater, with or without an intermediate equipment, assembled into a single unit, with a partial load efficiency that is greater than or equal to 101% as measured in accordance with NEN-EN 1020:2009/1196:2011, combustion gas exhaust systems (when installed), air supply system (when installed), for rooms with an average height of more than 4 metres, an inducing air outlet system with nozzles or adjustable inducing vanes fitted on the air heater, or an individual thermostatically controlled booster fan with nozzles or adjustable inducing vanes in a housing mounted to the ceiling that blasts air vertically downwards (when installed).

*Explanation:* A device with the Gaskeur HR label LV-HR:1:1996 seal of approval complies with the efficiency requirement.

210103  
**Booster fan**  
*Intended for:* the even distribution of the air temperature in the heated rooms of commercial buildings (other than animal sheds) with an average height of more than 4 metres,  
*and consisting of:*  
- a. thermostatically controlled booster fan that blasts air vertically downwards, is mounted on the ceiling in a housing, and is equipped with nozzles or adjustable induction vanes;  
- b. fan with a minimum rotor diameter of 350 cm.

210106 [W]  
**Direct gas-fired radiation panel**  
*Intended for:* the heating of closed inner rooms with an average height of more than 4 metres in commercial buildings other than horticultural glasshouses,  
*and consisting of:*  
- a. a direct gas-fired infrared radiator with a combustion efficiency equal to or greater than 86% measured in accordance with NEN-EN 416-2:2006 or NEN-EN 777:2009, a combustion gas exhaust system, a heat exchanger in the flue gas exhaust (when installed), an air supply system (when installed);  
- b. a direct gas-fired high temperature radiator, a combustion gas exhaust system, a heat exchanger in the flue gas exhaust (when installed), an air supply system (when installed).

210107 [W]  
**Direct gas-fired condensing boiler**  
*Intended for:* the production of hot tap water,  
*and consisting of:* a condensing hot water boiler, measured in accordance with NEN-EN 89:2015 with an efficiency of at least 100% on the basis of the lowest calorific value.

210108 [W]  
**Direct gas-fired condensing hot water flow device**  
*Intended for:* the production of hot tap water,  
*and consisting of:* a condensing hot water flow device, measured in accordance with NEN-EN 89:2015 with an efficiency of at least 100% on the basis of the lowest calorific value.
210109
Heat recovery system from air scrubber

*Intended for:* the heating of livestock sheds by using the heat from the air scrubber,
*and consisting of:* an horizontal heat exchanger underneath the air scrubber, heat exchanger in the suction duct, circulation pump, heat pump in accordance with 211103 (when installed).

*Explanation:*
The actual air scrubber is not eligible.

210110 [W]
Heating system for existing poultry house

*Intended for:* heating existing poultry houses, with hot air being recirculated from the top of the barn,
*and consisting of:*

- a. a low hanging heat exchanger with integral (speed-controlled) fan and air distributing box, vertical air suction duct (when installed), integral heater (when installed), connection to external heater (when installed). The actual heater is not eligible;
- b. a direct gas-powered air heater with a closed flue gas extraction system, a circulation fan.

The combined air capacity of the circulation fan(s) must be at least 20 m$^3$/h per m$^2$ of barn surface area.

211102 [W]
Heat pump boiler

*Intended for:* the useful utilisation of heat to heat tap water in commercial buildings,
*and consisting of:* an electrically driven heat pump boiler with a COP > 2.5 as measured in accordance with NEN-EN 16147:2017, a geothermal heat exchanger or groundwater well (when installed), a residual heat storage tank (when installed).

*Explanation:*
Heat pump systems that combine space heating and tap water must comply with the specifications for code 211103 or 211104. Heat pump boilers installed in homes are not eligible. However, heat pumps installed at a central location that are used to heat tap water for homes or other buildings are eligible.
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211103 [W] [CHANGED]
Heat pump

Intended for: the heating of commercial buildings or the collective heating of homes,
and consisting of:

a. an electrically driven brine/water heat pump with a COP ≥4.5 as measured in accordance with NEN-EN 14511-1:2013 at B0/W35 or with an SCOP ≥4.5 (for heating season “A” = average) as measured in accordance with NEN-EN 14825:2016, a geothermal heat exchanger or groundwater well (when installed), a buffer or an ice buffer (when installed), a residual heat storage tank (when installed), a connection to the heating network (when installed)*, a heating network (when installed), a modification to the existing power connection (if necessary);

b. an electrically driven heat pump with a direct expansion (DX) geothermal heat exchanger with a COP ≥5.0 at E4/W35, a geothermal heat exchanger or groundwater well (when installed), a buffer or an ice buffer (when installed), a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), a modification to the existing power connection (if necessary);

c. an electrically driven water/water heat pump with a COP ≥5.0 as measured in accordance with NEN-EN 14511-1:2013 at W10/W35 or with an SCOP ≥5.0 (for heating season “A” = average) as measured in accordance with NEN-EN 14825:2016, a groundwater well (when installed), a buffer or an ice buffer (when installed), a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), a modification to the existing power connection (if necessary);

d. an electrically driven brine/air heat pump with a COP ≥3.0 as measured in accordance with NEN-EN 14511-1:2013 at B0/A20 or with an SCOP ≥3.0 (for heating season “A” = average) as measured in accordance with NEN-EN 14825:2016, a geothermal heat exchanger or groundwater well (when installed), a buffer or an ice buffer (when installed), a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), a modification to the existing power connection (if necessary);

e. an electrically driven water/air heat pump with a COP ≥4.5 as measured in accordance with NEN-EN 14511-1:2013 at W10/A20 or an electrically driven heat pump with a COP ≥5.0 as measured in accordance with NEN-EN 14511-1:2013 at W20/A20 (flow of water), a geothermal heat exchanger or groundwater well (when installed), a buffer or an ice buffer (when installed), a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), a modification to the existing power connection (if necessary);

f. an absorption or adsorption water/water or water/air heat pump in which the regenerator is heated by waste heat or sustainable heat, a geothermal heat exchanger or groundwater well (when installed), a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), a modification to the existing power connection (if necessary).

The investment amount for the heat pump itself may be submitted in full. The maximum amount of the investment for the connection to the heating network and the actual heating network as referred to under a, b, c, d, e and f that is eligible for the Energy Investment Allowance is € 400 per installed kWth of the heat pump’s thermal power output.

Explanation:
- An installation that is always controlled on the basis of the cooling demand or serves as a dehumidifier is not assessed as heat pump. However, the installation can be a cooling installation with heat recovery (when installed). See codes 220212, 220813 and 220715.
- Heat pump systems that combine space heating and tap water must comply with the specifications for code 211103 or 211104.
- Air ducts are not eligible.
- Heat pump boilers installed in homes are not eligible.
- However, heat pumps installed at a central location (not in the home) that are used to heat more than one home or other buildings are eligible, but the heating network in homes is not eligible.
- Systems should preferably be installed by certified installers. Certified installers can be found in the quality register for the construction industry and for the installation and fitting industry, QBISnl (refer to http://www.qbisnl.nl).
211104 [W] [CHANGED]

Air-related heat pump

**Intended for:** the heating of commercial buildings or the collective heating of homes, and consisting of:

a. an electrically driven air/water heat pump with a COP ≥4.3 for the outdoor unit as measured in accordance with NEN-EN 14511-1:2013 at A7/W35 or with an SCOP ≥4.3 for the outdoor unit (for heating season “A” = average) as measured in accordance with NEN-EN 14825:2016, a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), and a modification to the existing power connection (if necessary);

b. an electrically driven air/water and air (combined) heat pump with a COP ≥4.3 for the outdoor unit as measured in accordance with NEN-EN 14511-1:2013 at A7/W35, a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), and a modification to the existing power connection (if necessary);

c. an electrically driven air/air heat pump (air-conditioning systems) with a COP ≥4.4 for the outdoor unit as measured in accordance with NEN-EN 14511-1:2013 at A7/A20 or with an SCOP ≥4.4 for the outdoor unit (for heating season “A” = average) as measured in accordance with NEN-EN 14825:2016, a modification to the existing power connection (if necessary);

d. an absorption or adsorption air/air or air/water heat pump in which the regenerator is heated by waste heat or sustainable heat, a geothermal heat exchanger or groundwater well (when installed), a residual heat storage tank (when installed), a connection to the heating network (when installed), a heating network (when installed), and a modification to the existing power connection (if necessary).

When determining the COP, the cooling capacity of the outdoor unit serves as the maximum lower limit.

The maximum amount that is eligible for the heat pump, including the heating network as referred to under a, b and c, is **€ 1,200 per installed kW** of the outdoor unit’s rated thermal power output. The rated power output is defined as the thermal power output on which the COP is based.

**Explanation:**

- An installation that is always controlled on the basis of the cooling demand or serves as a dehumidifier is not assessed as heat pump. However, the installation can be a cooling installation with heat recovery (when installed). See codes 220212, 220813 and 220715.

- Heat pump systems that combine space heating and tap water must comply with the specifications for code 211103 or 211104.

- Air ducts are not eligible.

- Heat pump boilers installed in homes are not eligible.

- However, heat pumps installed at a central location (not in the home) that are used to heat more than one home or other buildings are eligible, but the heating network in homes is not eligible.

- Systems should preferably be installed by certified installers. Certified installers can be found in the quality register for the construction industry and for the installation and fitting industry, QBISnl (refer to [http://www.qbisnl.nl](http://www.qbisnl.nl)).
21105 [W] [NEW]
Heat pump with a halogen-free coolant

*Intended for:* the heating of commercial buildings or the collective heating of homes,

*and consisting of:*

a. an electrically driven heat pump based on a halogen-free coolant, to which the following COP requirement are applicable at a temperature lift (dT) between the source temperature (evaporator inlet temperature) and the outlet temperature (condenser outlet temperature):
   - COP ≥4.0 for a dT up to +40°C;
   - COP ≥3.5 for a dT from +40°C to +50°C;
   - COP ≥3.0 for a dT ≥+50°C;
   a system for extracting heat (when installed), a connection to the heating network (when installed)\(^1\), a modification to the existing power connection (if necessary), a residual heat storage tank (when installed);

b. an absorption or adsorption heat pump based on a halogen-free coolant, in which the regenerator is heated by waste heat\(^1\) or sustainable heat\(^2\), a connection to the heating network (when installed)\(^1\), a modification to the existing power connection (if necessary), a residual heat storage tank (when installed).

*Explanation:*
- *An installation that is always controlled on the basis of the cooling demand is not assessed as a heat pump. However, the installation can be a cooling installation with heat recovery (when installed). See codes 220212, 220813 and 220715.*
- *Air ducts are not eligible.*
- *Heat pump boilers installed in homes are not eligible.*
- *However, heat pumps installed at a central location (not in the home) that are used to heat more than one home or other buildings are eligible, but the heating network in homes is not eligible.*

Refrigerating/freezing

210206
Heat exchanger for free cooling

*Intended for:* the reduction of the energy consumption of a cooling installation by:

a. cooling buildings with cold outdoor air at low ambient temperatures;

b. cooling buildings with surface water,

*and consisting of:* a heat exchanger that takes over the task of the cooling machine.

*Explanation:*
This is an additional heat exchanger installed in parallel with the cooling machine mounted between the cooled water network and the cooling tower or dry cooler on the roof. The actual cooling installation and the cooling tower or dry cooler are not eligible.
Adiabatic air cooling

**a. adiabatic indirect dew point air cooler**

*Intended for:* the cooling of commercial buildings in which some of the aspirated outdoor air is passed across the wet heat exchanger in the cooler and discharged, 
*and consisting of:* a fan, a heat exchanger, humidifier appliances, a water treatment installation (when installed), a filter (when installed), a closed adsorption cooling circuit in which the required heat comes from waste heat or sustainable heat (when installed). Air ducts and air hoses are not eligible;

**b. adiabatic direct air cooler**

*Intended for:* the cooling of commercial buildings in which the incoming air is cooled by humidification and directly forced into the room, 
*and consisting of:* a fan, humidifier appliances for adiabatic cooling, control, water treatment installation (when installed) and filter (when installed). Air ducts and air hoses are not eligible;

**c. humidifier appliances**

*Intended for:* indirect adiabatic cooling, 
*and consisting of:* humidifier appliances, water treatment installation (when installed).

The maximum amount of the investment for measuring and control technology eligible for the Energy Investment Allowance is €5,000 per air cooler.

Explanatory notes for b:
This concerns an autonomous air cooler in which heat is extracted for the air through evaporation and that is used in structures with high ceilings such as industrial buildings, exhibition centres and workshops.

Explanatory notes for c:
An application for the entire system can be submitted under code 210801 if humidifier appliances are used in combination with a heat recovery system.

Ventilation

**210301 [W] [CHANGED]**

Flow-controlled fan

**a. Speed-controlled fan**

*Intended for:* the automatic control of the speed of fans in existing mechanical ventilation or air circulation systems,  
*and consisting of:* sensors, control unit, speed controller;

**b. fan with high-efficiency electric motor**

*Intended for:* mechanical ventilation or air circulation systems, in which the air flow rate is automatically controlled,  
*and consisting of:* a high-efficiency electric motor according to code 210601, a fan, sensors, a control unit, a current/voltage converter (when installed).

**210302 [W]**

Airtight air distribution system

*Intended for:* the transport and supply of intake or exhaust air in commercial buildings,  
*and consisting of:* air ducts in combination with an air valve or sound absorber or air duct re heater or after-cooler or air volume controller or junction box of a ventilation grille mounted in the air duct of a ventilation system that complies with air leakage class (Luka) C as measured in accordance with NEN-EN 1751:2014. The maximum amount of the investment eligible for the Energy Investment Allowance is €10/m² of usable area.

A fan convector or fan coil unit is not regarded as one of the above airtight components.
Low-flow extraction hood in industrial kitchens

Intended for: the minimisation of the energy consumption of extraction systems in large kitchens, and consisting of: an extraction hood in which air intake compartments have been installed to force air in at the bottom of the hood’s edges. The supply of air at the bottom of the hood’s edges may not exceed 12% of the extraction hood’s flow rate.

System for cold or heat recovery from ventilation air

Intended for: the cooling or heating of commercial buildings by the utilisation of the cold or heat contained in extracted air, and consisting of: an air treatment unit with a heat exchanger with an efficiency of at least 78% and a maximum pressure drop over the heat exchanger of 230 Pa and a maximum air speed of 1.6 m/s in the unit, an additional heat exchanger for air dehumidification (when installed) in which the air to be dried is first cooled in a heat exchanger and then after-cooled in an evaporator, a closed adsorption cooling circuit (when installed) in which the required heat comes from waste heat or sustainable heat. The cooling machine, boiler, air ducts including air grilles, air control valves or air fire dampers and heat pumps are not eligible. The technical requirements referred to must be determined in accordance with NEN- EN 13053:2006+A1:2011.

The maximum amount of the investment for measuring and control technology eligible for the Energy Investment Allowance is € 5,000 per cold or heat recovery system.

Explanation:

• Air treatment units with a cold or heat recovery system with the current Eurovent label A or above are eligible for the Energy Investment Allowance.
• Heat pumps can be submitted under codes 211103 or 211104.

System for cold or heat recovery from ventilation air in industrial kitchens

Intended for: the cooling or heating of industrial kitchens by the utilisation of the cold or heat contained in extracted air, and consisting of: an air treatment unit with a heat exchanger with an efficiency of at least 78% and a maximum pressure drop over the heat exchanger of 230 Pa and a maximum air speed of 1.6 m/s in the unit, a heat exchanger for reheating or after-cooling (when installed), humidifier appliances for adiabatic cooling (when installed), a water treatment installation (when installed), a closed adsorption cooling circuit (when installed) in which the required heat comes from waste heat or sustainable heat, a system to degrease/clean the extracted air (when installed). The cooling machine or boiler and the air ducts, including air grilles, air control valves or air fire dampers and heat pumps, are not eligible. The technical requirements referred to must be determined in accordance with NEN- EN 13053:2006+A1:2011.

The maximum amount of the investment for measuring and control technology eligible for the Energy Investment Allowance is € 5,000 per cold or heat recovery system.

Explanation:

• Air treatment units with a cold or heat recovery system with the current Eurovent label A or above are eligible for EIA.
• Heat pumps can be submitted under codes 211103 or 211104.
System for cold or heat recovery from ventilation air in livestock sheds

*Intended for:* the cooling or heating of livestock sheds by the utilisation of the cold or heat contained in extracted air,

*and consisting of:* an air treatment unit with a heat exchanger with an efficiency of at least 78% as measured in accordance with NEN-EN 13053:2006+A1:2011.

### Insulation

**210401 [W]**

*High-efficiency glass for existing commercial buildings*

*Intended for:* the glazing in the exterior facade or roof structures of existing commercial buildings,

*and consisting of:* multiple glazing with a heat-resistant coating and/or gas-filled cavity with a heat transfer coefficient of a maximum of 1.1 W/m²K as measured in accordance with NEN-EN 673:2011, a frame (when installed). The maximum amount that is eligible for the Energy Investment Allowance is € 150/m² glass.

**210402 [W]**

*High-efficiency glass for new commercial buildings*

*Intended for:* the glazing in the exterior facade or roof structures of commercial buildings,

*and consisting of:* multiple glazing with a heat-resistant coating and/or gas-filled cavity with a heat transfer coefficient of a maximum of 0.7 W/m²K as measured in accordance with NEN-EN 673:2011, a frame (when installed). The maximum amount that is eligible for the Energy Investment Allowance is € 150/m² glass.

**210403 [W]**

*Insulation for existing structures*

**a. Intended for:** the improvement of the insulation of existing floors, roofs, ceilings or walls of rooms of commercial buildings, other than chilling rooms or freezer rooms,

*and consisting of:* insulation material in which the total heat resistance of the layers, \( R = \sum (R_m) = \sum (d/\lambda) \), is increased by at least 2.00 m²K/W as compared to the original situation.

The maximum amount of the investment eligible for the Energy Investment Allowance is € 20/m² of the area to be insulated.

**b. Intended for:** the improvement of the insulation of existing flat roofs of commercial buildings, other than chilling rooms or freezer rooms,

*and consisting of:* roof insulation material combined with white roof coating, in which the total heat resistance of the layers, \( R = \sum (R_m) = \sum (d/\lambda) \), is increased by at least 2.00 m²K/W compared to the original situation. The maximum amount of the investment eligible for the Energy Investment Allowance is € 30/m² of the area to be insulated.

**Explanation:**

The specification relates solely to the improvement of the insulation of existing commercial buildings. The existing floor, wall, roof or ceiling structures must be retained. The insulation in new commercial buildings is not eligible.

The specification relates to the improvement of \( R \) for all layers of materials and cavities. Cold bridges and transitional resistances do not influence the aforementioned values of \( R \). An insulated or poorly ventilated cavity of >10 mm has a heat resistance of 0.17 m²K/W (which must be taken into account). The heat resistance must be calculated to an accuracy of two decimal places.
Phase change material

**Intended for:** the reduction of the energy consumed in cooling or heating commercial buildings, and consisting of: phase change material with a defined change range and a capacity in the phase change range of a minimum of 100 kJ/kg. The maximum amount of the investment eligible for the Energy Investment Allowance is **€10 per kg of phase change material.**

**Explanation:**
The material absorbs latent heat on changing from solid to liquid and releases the heat again on solidifying.

High-speed door for cold stores or freezer rooms

**Intended for:** the rapid opening and closing of a passage in a cold store or freezer room, and consisting of: a high-speed door with standard thermally separated insulating strips with a heat transfer coefficient of a maximum of 0.3 W/m²K. The opening speed of the door is at least 1.50 m/s.

Air curtain with sensor-driven automatic control

**Intended for:** the reduction of heat loss through open doors by replacing an existing air curtain, and consisting of: an air curtain with an integrated infrared sensor that provides the automatic control system with measurement data on the outside and inside temperatures as well as the position of the door.

Heat-resistant coating

**Intended for:** the improvement of the energy performance of cold stores and freezer rooms by applying a heat-resistant coating on the outer layer of cold stores and freezer rooms, and consisting of: a coating with a minimum heat reflection of 85% and a proven retention value >90% after 10 years, a primer (when present).

**Lighting**

Energy saving system for lighting

**Intended for:** the reduction of the energy consumption of lighting in or near to existing commercial buildings by installing a control unit that switches depending on the intensity of daylight or an automatic presence or absence detection system, and consisting of: light sensors or motion sensors, switching unit or control unit, dimmer control (when installed). The maximum amount of the investment eligible for the EIA is **€150 per sensor.**
210506 [W]
LED lighting system
*Intended for:* lighting in or near to existing commercial buildings,
*and consisting of:* LED fixtures for lights other than LED tubes with a luminous efficiency of at least 100 lm/W.

The luminous efficiency must be measured in accordance with LM-79-08, NEN-EN-IEC 62722-2-1:2016 or equivalent protocols. Within this context, luminous efficiency is understood as the ratio of the light output of the lighting system (in lumen) to the power consumed by the system (in Watt). Measurements pursuant to LM-79-08 and NEN-EN-IEC 62722-2-1:2016 or equivalent protocols must be carried out by accredited organisations with accreditation that specifically includes electrical and photometric measurements. The power factor of the lighting system must be at least 0.90. The maximum amount of the investment eligible for the EIA is €25 per 1,000 lumen of light output generated by the fixture.

Explanation:
An external sensor may be eligible under code 210502.

210508 [W]
LED illumination system
*Intended for:* the illumination of stages or theatres,
*and consisting of:* spotlight and/or floodlight fixtures, (DMX) driver.

The power factor of the lighting system must be at least 0.90.

Explanation:
Solely the spotlight and/or floodlight fittings fixture and driver are eligible. LED screens or LED displays are not eligible.

210509 [W] [CHANGED]
LED tube system
*Intended for:* lighting in or near to existing commercial buildings,
*and consisting of:* a system with a LED tube in combination with an external LED driver. The luminous efficiency of the LED tube must be at least 130 lm/W.

The luminous efficiency must be measured in accordance with LM-79-08, NEN-EN-IEC 62722-2-1:2016 or equivalent protocols. Within this context, luminous efficiency is understood as the ratio of the light output of the lighting system (in lumen) to the power consumed by the system (in Watt). Measurements pursuant to LM-79-08 and NEN-EN-IEC 62722-2-1:2016 or equivalent protocols must be carried out by accredited organisations with accreditation that specifically includes electrical and photometric measurements. The power factor of the lighting system must be at least 0.90. The maximum amount of the investment eligible for the EIA is €20 per LED tube.

Explanation:
An external sensor may be eligible under code 210502.
Drives

210601 [W] [CHANGED] High-efficiency electric motor

a. an electric motor designed for a direct connection to the electricity grid, and consisting of: an electric motor that complies with the IE4 efficiency class as measured in accordance with NEN-EN-IEC 60034-20-1:2014.

b. an electric motor designed for a variable rpm that is not directly connected to the power grid, and consisting of: an electric motor that complies with the IE4 efficiency class in accordance with NEN-EN-IEC 60034-20-2:2016, an electronic speed controller, an integrated reducer that is not a worm gearbox (when installed).

Explanation:
Synchronous motors (e.g. direct current motors) can be submitted under category b.

210602 [W] Improvement in the energy performance of existing lifts

Intended for: the improvement of the energy performance of existing lifts, and consisting of: a package of energy saving measures to ensure that an existing lift will comply with the energy performance requirements specified for energy label A as laid down in the VDI 4707 Part 1:2009 standard.

Drying/humidifying

210707 Drying and heating system for ventilation air in storage warehouses

Intended for: the drying of arable products other than flower bulbs in the storage warehouse, and consisting of: a heat pump, a heat exchanger in the air supplied to and exhausted from the building (when installed), a fan (when installed), a control system (when installed).

Explanation:
The air flow supplied to the building is dehumidified by the heat pump's evaporator, after which the extracted heat is released back into the air by the heat pump's condenser. An installation that is always controlled on the basis of the cooling demand is not a heat pump. However, the installation can be a cooling installation with heat recovery. See code 220813.

Energy reuse

210803 [W] System for the utilisation of waste heat

Intended for: the recovery of waste heat at the source and transport of the waste heat to heat buildings, and consisting of: a waste heat transport duct, a heat exchanger at the waste heat source (when installed), a heat distribution network (when installed), a heat exchanger between the heat distribution network and the heating network (when installed). Heating networks are not eligible. The system for the utilisation of waste heat shall supply at least 70% of the energy content in the form of waste heat or at least 70% of the energy content in the form of waste heat in combination with sustainable heat.

Explanation:
See also code 220814 for processes.
**Management/control**

210905

Energy-efficient extraction system

a. Welding fumes detector

*Intended for:* the minimisation of the ventilation capacity in welding areas by the measurement of the air contamination,

*and consisting of:* dust concentration measurement instrument, measurement and control instruments for the welding fumes extractor unit and measurement and control instruments for the area’s air supply unit (when installed);

b. Fumes or vapour detector in extraction hoods

*Intended for:* the minimisation of the energy consumption of extraction systems in large kitchens,

*and consisting of:* fumes or vapour detection instruments, measurement and control instruments for the extractor unit and measurement and control instruments for the area’s air supply unit (when installed).

**Explanation:**

*For item b, the actual extraction hood may be eligible under code 210304.*

210906 [W] [CHANGED]

Energy saving system for climate control systems

*Intended for:* the reduction of the energy consumption of climate control systems in or near to existing commercial buildings by installing an individually adjustable room controller for switching that depends on the automatic presence or absence detection system,

*and consisting of:* an individual room controller with motion sensors or other sensors, a control unit (when installed), an individual room control valve (when installed).

The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 1,000 per room controller.**

**Utilities**

231002[W]

Cogeneration plant powered other than by a piston engine

*Intended for:* the simultaneous generation of heat and power with a nominal electrical power output of up to 300 MWe subject to the condition that the average total annual energetic efficiency is at least 67%.

The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 600 per kW electrical output.** The electrical power output is determined by the nominal motor power,

*and consisting of:* cogeneration plant, connection to the electric grid (when installed).

A cogeneration plant with a newly installed nominal electrical power output of greater than or equal to 300 MWe is not eligible for the Energy Investment Allowance.

The newly installed nominal electrical power output of a cogeneration plant is determined on the basis of the combination of the new facilities, where ‘the combination of the new facilities’ means all the available new equipment connected together for the production of electricity generated by a cogeneration plant.
**Conversion**

231101 [W]  
**Fuel cell system**  
*Intended for:* the simultaneous generation of heat and electrical energy in which a fuel is converted directly into electrical energy,  
*and consisting of:* fuel cell and fuel reformer (when installed).

**Energy saving in the chain**

210803 [W]  
**System for the utilisation of waste heat**  
*Intended for:* the recovery of waste heat at the source and transport of the waste heat to heat buildings,  
*and consisting of:* a waste heat transport duct, a heat exchanger at the waste heat source (when installed), a heat distribution network (when installed), a heat exchanger between the heat distribution network and the heating network (when installed). Heating networks are not eligible.  
The system for the utilisation of waste heat shall supply at least 70% of the energy content in the form of waste heat or at least 70% of the energy content in the form of waste heat in combination with sustainable heat.

*Explanation:*  
See also code 220814 for processes.

**Other**

211001 [W] [CHANGED]  
**High-efficiency pump**  
*Intended for:* climate installations in commercial buildings,  
*and consisting of:*  
a. a stand-alone wet running centrifugal pump of up to 2,500 Watt with an EEI of < 0.23 as referred to in Schedule II of European Regulation (EC) No 641/2009 of the Commission, integrated speed control;  
b. a stand-alone in-line dry-running circulation pump fitted with a high-efficiency electric motor in accordance with code 210601.
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320000 [W]  
**Technical facilities for energy saving in existing processes**

The energy saving must be at least 0.4 Nm³ and no more than 2.0 Nm³ natural gas equivalent (NGE) per invested euro per year. The benchmark for existing processes is the historical energy consumption.

The energy saving must be the demonstrable direct result of the use of the equipment to which the investment relates.

The calculation of the energy saving does not take account of the savings from the reduction of primary energy consumption per product unit by the use of growth-promotion substances and growth-promotion facilities for living organisms as well as the savings achieved by a modification of the product or raw material specifications.

When the energy saving achieved by modifying an existing process is the direct consequence of a significant modification of the product or raw materials specifications then the applicable benchmark is not the historical energy consumption: the reference is the average customary energy consumed by similar new investments for comparable applications in the relevant sector. The process is then a new process and code 420000 is applicable.

The facilities must achieve the energy saving by:

a. improving the energy efficiency by:
   - the use of automated measurement and control instruments;
   - the use of more efficient equipment;
   - additional efficiency improvement measures;

b. reducing the heating or cooling load by:
   - thermal insulation;

c. reusing heat by:
   - heat recovery;

d. using efficient lighting by:
   - the use of automated measurement and control instruments;
   - the use of more efficient equipment;
   - additional efficiency improvement measures.

Note: see Part 5 for the conversion factors for calculations of energy saving

**Explanation:**

*When an existing process is being replaced, code 320000 is applicable to the part being replaced. When a process is being expanded (expansion of capacity), code 420000 is applicable to the part being replaced.*
420000 [W]

Technical facilities for energy saving in new processes
The energy saving must be at least 0.4 Nm³ and no more than 2.0 Nm³ natural gas equivalent (NGE) per invested euro per year. The benchmark for new processes is the average customary energy consumption of similar technical equipment for comparable new processes in the relevant sector.

The energy saving must be the demonstrable direct result of the use of the equipment to which the investment relates.

The calculation of the energy saving does not take account of the savings from the reduction of primary energy consumption per product unit by the use of growth-promotion substances and growth-promotion facilities for living organisms as well as the savings achieved by a modification of the product or raw material specifications.

The facilities must achieve the energy saving by
a. improving the energy efficiency by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures;

b. reducing the heating or cooling load by:
   • thermal insulation;

c. reusing heat by:
   • heat recovery;

d. using efficient lighting by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures.

Note: see Part 5 for the conversion factors for calculations of energy saving

Explanation:
When a process is being expanded (expansion of capacity), code 420000 is applicable to the part being replaced.
When an existing process is being replaced, code 320000 is applicable to the part being replaced.
Heating

220102 [W]
Gas-fired (steam) convection oven

*Intended for:* the preparation of meals in which the indirect efficiency is at least 80% at the lowest caloric value of the fuel used, the annual emissions of NO$_x$ are not more than 83.6 ppm and the annual emissions of CO are not more than 100 ppm.

The annual emissions of NO$_x$ and CO are based on dry combustion gases and stoichiometric combustion, and *consisting of:* gas-fired steam convection oven, gas supply and combustion gas exhaust system.

The accessories are not eligible.


*Explanation:*
A steam convection oven with a Gastec High-Efficiency label in accordance with the approval requirements governing gas-fired appliances for large kitchens and annual emissions of NO$_x$ and CO not in excess of the above limits complies with the specification.

Accessories include, for example, substructures, transport carts, cleaning guns and shower heads etc.

220105
Low-temperature air heater in horticultural glasshouses

*Intended for:* the heating of horticultural glasshouses with a temperature of the feed water to the air heater of a maximum of 35°C,

*and consisting of:* air heater with integral speed-controlled ventilator, low temperature residual heat buffer (when installed).

220114 [W]
Direct gas-fired condensing boiler

*Intended for:* the production of hot tap water,

*and consisting of:* a condensing hot tap water boiler, measured in accordance with NEN-EN 89:2015 with an efficiency of at least 100% at the lowest caloric value of the fuel used.

220115
Direct gas-fired high-pressure tap water boiler

*Intended for:* the production of hot tap water,

*and consisting of:* a hot tap water boiler fitted with a heater that has a minimum efficiency of 75% for tap water at the lowest caloric value of the fuel used, with part of the hot tap water being heated up further to at least 80°C.

*Explanation:*
An appliance with the Gaskeur HR label HRww: 2010 complies with the efficiency requirement.

220116
Induction baking tray or hot plate

*Intended for:* the preparation of meals in catering or industrial kitchens,

*and consisting of:* an induction baking tray or hot plate.

220117
Infrared salamander with pan detection

*Intended for:* the preparation of meals in catering or industrial kitchens,

*and consisting of:* an infrared salamander grill with an adjustable top, integrated pan detection.
220118
Flue gas rotation in tunnel ovens for building ceramics
*Intended for:* the improvement of the heat transfer from a flue gas stream to products being heated through the use of flue gas recirculation in the heating zone of a tunnel oven for building ceramics, *and consisting of:* fans, flue gas ducts, compensators (flexible connection between fans and flue gas ducts), a control system (when installed).

220119 [NEW]
Induction deep fryer
*Intended for:* the preparation of meals in catering and industrial kitchens, *and consisting of:* deep fryer with integrated induction coils installed in a frying range.

Explanation:
Stand-alone deep fryers or fryers supplied as a tabletop model are not eligible. The entire frying range unit and accessories as well as other frying, cooking and warming equipment are not eligible.

221103 [W] [CHANGED]
Heat pump
*Intended for:* the utilisation of heat for processes, *and consisting of:* 
- **a.** an electrically driven heat pump, to which the following COP requirements are applicable at a temperature lift (dT) between the source temperature (evaporator inlet temperature) and the outlet temperature (condenser outlet temperature): 
  - COP ≥ 4.0 for a dT up to +40°C;
  - COP ≥ 3.5 for a dT from +40°C to +50°C;
  - COP ≥ 3.0 for a dT ≥ +50°C;
  - a system for extracting heat (when installed), a system for supplying heat to a process (when installed), a residual heat storage tank (when installed), a modification to the existing power connection (if necessary);
- **b.** a gas engine-driven heat pump or a gas-fired absorption or adsorption heat pump, to which the following GUE requirement applies at a temperature lift (dT) between the source temperature (evaporator inlet temperature) and the outlet temperature (condenser outlet temperature): 
  - GUE ≥ 1.6 for a dT up to +40°C;
  - GUE ≥ 1.4 for a dT from +40°C to +50°C;
  - GUE ≥ 1.2 for a dT ≥ +50°C;
  - a system for extracting heat (when installed), a system for supplying heat to a process (when installed), a residual heat storage tank (when installed);
- **c.** an absorption or adsorption heat pump, in which the regenerator is heated by waste heat or sustainable heat, a system for extracting heat (when installed), a system for supplying heat to a process (when installed), a residual heat storage tank (when installed), a modification to the existing power connection (if necessary).

Explanation:
An installation that is always controlled on the basis of the cooling demand or serves as a dehumidifier is not assessed as heat pump. However, the installation can be a cooling installation with heat recovery (when installed). See codes 220212, 220813 and 220715. A low-temperature heating network in a horticultural glasshouse that is mainly fed by the heat pump may also be eligible.
Refrigerating/freezing

220212 [W] [CHANGED]
Energy-efficient refrigerator and/or freezer installation

Intended for: the refrigeration and/or freezing of spaces or processes to a maximum of +16°C,
and consisting of: a subcritical refrigerator and/or freezer installation based on a halogen-free coolant, with:

- at least one frequency-controlled or electronic variable-speed compressor;
- an air-cooled, water-cooled or evaporation condenser, designed for a maximum 10 K temperature
difference between the condensation and ambient temperature, with a specific power consumption of
the condenser of a maximum 21 W per kW condenser power output;
- weather-dependent control of the condenser pressure to an outdoor temperature of +13°C;
- electronic expansion control (for a direct expansion system);
- an evaporator, excluding a cooling tunnel;
- the cold network with CO$_2$ as a refrigerating medium (when installed).

The specific power consumption of the condenser is the sum of the total power consumption of the fans
and/or pumps, divided by the condenser power output at a 10 K temperature difference between the
condensation and ambient temperature.

When determining the specific power consumption, the installed power values (the rated values) are taken
as the basis.

The ambient temperature is a dry-bulb temperature of +30°C with a relative humidity of 50% for the
air-cooled condenser and a wet-bulb temperature of +22°C for the evaporation condenser.

The maximum 10 K temperature difference between the condensation and ambient temperature applies to
an outdoor temperature of 13°C or higher. When not cooling with outside air, the ambient temperature is
the temperature of the water supply.

A refrigerator and/or freezer installation in which a coolant containing a halogen is used in the
combination of the facilities is not eligible for the Energy Investment Allowance, where ‘the combination of
the facilities’ means all the available equipment connected together for the refrigeration and/or freezing of
spaces or processes.

Explanation:
In case of a subcritical refrigerator and/or freezer installation, the coolant leaves the cooling compressor at a pressure that
lies below the critical point. Transcritical CO$_2$, refrigerator and/or freezer installations are frequently used in supermarkets
and must comply with the description of code 220223.

The “installed power (rated value)” is defined as follows:

- for DC motors, the power stated by the manufacturer for the maximum rpm applicable to that condenser. This power is
  stated on the condenser’s rating plate by the manufacturer;
- for AC motors, the power consumption of the fan motor associated with the maximum rpm, a frequency of 50 Hz and a
  load of 100%. This power is stated on the condenser’s rating plate by the manufacturer.

220213
Hot gas defrosting system

Intended for: the direct or indirect defrosting of evaporators of refrigerator or freezer installations using heat
from the compressed gas of the refrigerator or freezer installation,
and consisting of: inlet and outlet pipes for the defrosting system, excluding the evaporator(s), hot gas coil in
the drip tray (when installed) and heat exchanger that transfers heat from the compressed gas to the
indirect defrosting system (when installed).
Energy-efficient professional refrigerator or freezer

a. **Intended for:** the cooling of products in temperature class M1 (+5°C/-1°C) with an Energy Efficiency Index (EEI) of less than 35 as measured in accordance with Regulation (EU) 2015/1095 in climate class 4 (30°C, 55% RH),

and consisting of: refrigerator or cooled workbench with a maximum net content of 1,500 litres that uses a halogen-free coolant and equipped with forced ventilation in the cabinet and an evaporator installed at a separate location and not built into the walls;

b. **Intended for:** the freezing of products in temperature class L1 (-15°C/-18°C) with an Energy Efficiency Index (EEI) of less than 50 as measured in accordance with Regulation (EU) 2015/1095 in climate class 4 (30°C, 55% RH),

and consisting of: a freezer cabinet with a maximum net content of 1,500 litres that uses a halogen-free coolant and is equipped with an evaporator installed at a separate location and not built into the walls.

**Explanation:**
Solely the costs of the basic model may be calculated for the workbench; accessories are not eligible.
Refrigerators or cooled workbenches with EcoDesign Label A or B and freezers with EcoDesign Label A, B or C, as laid down in Regulation (EU) 2015/1094, comply with the aforementioned Energy Efficiency Indices.

Energy-efficient milk cooling

**Intended for:** the cooling of milk and the recovery of heat from milk and utilising the recovered heat,

and consisting of: a heat exchanger installed in the pipe between the milking machine and the milk cooling tank (milk pre-cooler), a heat exchanger between the compressor and condenser of the cooling machine, frequency control on the milk pump, frequency controller on the milk pump (when installed), a buffer tank (when installed), a heat pump (when installed), an electric boiler fed by the pre-heated water (when installed).

**Explanation:**
The actual cooling machine and milk pump are not eligible.
Any parts of the installation present in the home are not eligible.

High-pressure nebuliser in horticultural glasshouses

**Intended for:** the nebulisation of water under high pressure and with a maximum droplet size of 15 micrometres for the purposes of the adiabatic cooling of the glasshouse,

and consisting of: high-pressure pump, downstream high-pressure pipes including nozzles.

Free cooling of server rooms or existing data centres

**Intended for:** the cooling of new or existing server rooms or existing data centres by using 100% ambient temperature cooling as well as separate hot and cold air flows up to a minimum outside temperature of 22°C,

and consisting of: a variable-speed fan, separate ducts for hot and cold air flows, a heat exchanger (when installed), air ducts (when installed), an air filter (when installed), an aquifer (when present), cold extraction from natural cold sources (when present), adiabatic cooling (when installed).

Energy-efficient rack cooling

**Intended for:** the cooling of IT equipment installed in racks,

and consisting of: rack cooling by means of an integrated direct expansion system (DX system).

The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 15,000 per architectural space.** Applications in data centres are not eligible for the Energy Investment Allowance.
220222 [W]
Energy-efficient cooling of server rooms* of up to 100 m²

* Intended for: rack or aisle cooling with separate hot and cold air flows,

* and consisting of:

  a. a water-cooled air-conditioning system with ambient temperature cooling, adiabatic cooling (when installed);

  b. a central cold water machine (chiller) with an external dry cooler for ambient temperature cooling, a heat exchanger for the server room, adiabatic cooling (when installed).

The maximum amount for the cooling of a server room as referred to under a or b which is eligible for the Energy Investment Allowance is € 750 per m² of floor surface area of the server room.

Explanation:
The water-cooled air-conditioning system stated under a is often called computer room air-conditioning (CRAC) and includes a cooling machine. The CRAC transfers the heat to a water system. The heated water is cooled down using a dry, wet or hybrid air cooler on the roof. The hot air can also be cooled directly at the water (ambient temperature cooling).

The heat exchanger for the server room stated under b is often called a computer room air handler (CRAH) and does not include a cooling machine. The CRAH is connected to a cold water circuit. Apart from the central chiller, the cold water system also has ambient temperature cooling.

220223 [W] [CHANGED]
Transcritical CO₂ refrigerator and/or freezer installation

* Intended for: the refrigeration and/or freezing of spaces or processes to a maximum of +16°C,

* and consisting of: a refrigerator and/or freezer installation that only uses CO₂ as a coolant, with:

  - at least one frequency-controlled compressor;
  - an air-cooled or water-cooled gas cooler, designed for a maximum 2 K temperature difference between the gas cooler outlet temperature and the ambient temperature at a pressure of 90 bar(a), with the gas cooler having a maximum specific absorbed power of 14 W per kW of gas cooler power;
  - weather-dependent control of the condenser pressure to an outdoor temperature of +13°C;
  - electronic expansion control;
  - an evaporator, excluding a cooling and/or freezing tunnel and cold stores and/or freezer rooms;
  - the EC fans (when installed) in cooling and/or freezing cabinets and/or in the gas cooler.

The ambient temperature is a dry-bulb temperature of +34°C for the air-cooled gas cooler and the water supply temperature for the water-cooled gas cooler.

The specific absorbed power of the gas cooler is the sum of the total power absorption of the fans and/or pumps, divided by the gas cooler capacity at a 2 K temperature difference between the gas cooler outlet temperature and the ambient temperature.

When determining the specific absorbed power, the installed power values (the rated values) are taken as the basis.

The maximum amount of the investment for the connected cooling and/or freezing cabinets eligible for the Energy Investment Allowance is €1,000 per installed kW of the cooling compressors’ cooling capacity under design conditions. Installation components that do not contain the CO₂ coolant are not eligible for the Energy Investment Allowance.

Explanation:
A subcritical refrigerator and/or freezer installation must comply with the description of code 220212.
The "installed power (rated value)" is defined as follows:

- for DC motors, the power stated by the manufacturer for the maximum rpm applicable to that gas cooler. This power is stated on the gas cooler’s rating plate by the manufacturer;
- for AC motors, the absorbed power of the fan motor associated with the maximum rpm, a frequency of 50 Hz and a load of 100%. This power is stated on the gas cooler’s rating plate by the manufacturer.
220224 [W] [CHANGED]

Immersion cooling for data servers

*Intended for:* the cooling of servers through immersion in a dielectric liquid.

*And consisting of:* a liquid tank filled with a dielectric liquid, a variable speed pump unit for the dielectric liquid (when installed), cases and/or chassis for servers, power distribution units for the servers, a heat exchanger for the cooling of the dielectric liquid, a connection to the cooling water network in the room.

*Explanation:* The servers in the cases or in the chassis and the facilities for lifting parts of the system are not eligible for the EIA. For possible heat recovery from the cooling installation, see code 220813.

220225 [W] [CHANGED]

Energy-efficient refrigerator and/or freezer condenser unit

*Intended for:* the refrigeration and/or freezing of spaces or processes to a maximum of +16°C,

*And consisting of:*

a. a condenser unit for refrigeration applications with:
   - a cooling capacity that is more than 5 kW and less than or equal to 50 kW;
   - an SEPR of at least 2.90;
   - a natural coolant;
   - an evaporator, excluding cold stores and/or freezer rooms;
   - the connected cooling cabinets (when installed); or

b. a condenser unit for freezing applications with:
   - a cooling capacity that is more than 2 kW and less than or equal to 20 kW;
   - an SEPR of at least 1.80;
   - a natural coolant;
   - an evaporator, excluding cold stores and/or freezer rooms;
   - the connected freezing cabinets (when installed).

The maximum amount of the investment for the connected cooling and/or freezing cabinets eligible for the Energy Investment Allowance is €1,000 per installed kW of the condenser unit’s cooling capacity. Condenser units intended for refrigeration and freezing applications must comply with the requirements stated for refrigeration applications.


220226

Energy-efficient blowing air cooler with EC fans

*Intended for:* the cooling and long-term storage of fruit and agricultural produce in cold stores, with the fan energy and moisture extraction being reduced,

*And consisting of:* a blowing version of an air cooler with optimised air distribution through the use of:
   - EC fans with an oversized diameter,
   - an additionally installed air suction duct fitted with air guide baffles,
   - an air distribution unit between the finned block and fan plate.

For an EC fan with an oversized diameter, the ratio between the diameter of the fan and the finned height of the cooling block is at least 0.75.

*Explanation:* The actual cooling installation is not eligible.
### Ventilation

**220304 [CHANGED]**

**System for the dehumidification of horticultural glasshouses**

*Intended for:* the dehumidification of the horticultural glasshouse with a controlled mixture of outdoor air and air from the upper part of the glasshouse,

*and consisting of:* an air mixing unit with flap sections, a (speed-controlled) fan with an air distribution hose, control software, an outdoor air suction flow meter (when installed), an air/air heat exchanger (when installed), an integrated heat exchanger for extra heating (when installed);

*b. Intended for:* the dehumidification of the glasshouse by means of the suction of dry (outdoor) air,

*and consisting of:* a (speed-controlled) fan, control software, an air distribution hose (when installed), an integrated heat exchanger for extra heating (when installed);

*c. Intended for:* the dehumidification of the glasshouse by cooling, drying and reheating the air in the glasshouse by means of a heat pump,

*and consisting of:* a heat pump, a heat exchanger in the air supplied to and exhausted from the building (when installed), a fan, an air distribution hose (when installed), a heating network heated exclusively by recovered heat (when installed).

**Explanation:**
The air flow supplied to the building is dehumidified by the heat pump's evaporator, after which the heat is released back into the air by the heat pump's condenser. An installation that is always controlled on the basis of the cooling demand is not a heat pump. However, the installation can be a cooling installation with heat recovery. See code 220813. See code 220705 for absorption dryers.

**220305**

**Air circulation system in horticultural glasshouses**

*Intended for:* the optimum distribution of temperature and relative humidity in the glasshouse in which an air flow is passed through the crop,

*and consisting of:*

*a.* a (speed-controlled) fan with a hose for air distribution, control software;

*b.* a (speed-controlled) fan for vertical air distribution above and in the crop, control software.

**220604 [W] [CHANGED]**

**Fan with high-efficiency electric motor**

*Intended for:* mechanical ventilation or air circulation systems, in which the air flow rate is automatically controlled,

*and consisting of:* a high-efficiency electric motor according to code 220602, a fan, sensors, a control unit, a current/voltage converter (when installed).

**Explanation:**
For the use of fans in buildings, refer to code 210301. Fans that are used in cooling or freezing cabinets must comply with code 220223.

### Insulation

**220402**

**Glasshouse cover or facade**

*Intended for:* the protection of crops with a horticultural glasshouse, which has a cover or facade fitted with translucent material with a better insulation value than single panes of glass,

*and consisting of:* plastic channel plates or multiple glazing or a double layer consisting of glass with ETFE or PVDF film underneath. The frame containing or supporting the plates or glazing are not eligible.
**220403 [W]**

**Horizontal energy screens**

*Intended for:* the reduction of heat loss in horticultural glasshouses by fitting horizontal movable energy screens on the inside of the structure’s translucent shell,

*and consisting of:* screen cloth that is at least 90% dense and in which the mesh size of the woven, knitted or plaited fabric is less than 2 mm² and where the translucence for diffuse incident light is greater than 10%, mechanical operating mechanism, gap-sealing facilities (when installed), screen gap control (when installed), measurement box above the energy screen (when installed), roof ridge compartmentalisation (intermediate apex seals) (when installed). The second energy screen of the horizontal movable screens positioned above one another and separated by an air cavity is eligible for the Energy Investment Allowance.

*Explanation:*

The relevant glasshouse or glasshouse section must at least be fitted with two horizontal energy screen cloths, both of which meet the aforementioned code description. The screens are located below each other and can be drawn in one operation.

**220404 [W]**

**Facade screens**

*Intended for:* the reduction of the heat loss in horticultural glasshouses by the installation of moveable facade screens on the inside of the structure’s translucent shell,

*and consisting of:* screen cloth that is at least 90% dense and in which the mesh size of the woven, knitted or plaited fabric is less than 2 mm² and where the translucence for diffuse incident light is greater than 10%, mechanical operating mechanism, gap-sealing facilities (when installed).

*Explanation:*

These are transparent (not blackout) screens in glasshouses mounted on the inside of the facades.

**220405 [W]**

**Outside screens**

*Intended for:* the exclusion of excess sunlight and the reduction of heat loss from horticultural glasshouses by installing moveable outside screens above the structure’s translucent shell,

*and consisting of:* screen cloth that is at least 50% dense and in which the mesh size of the woven, knitted or plaited fabric is less than 10 mm² and where the translucence for diffuse incident light is greater than 15%, mechanical operating mechanism, sealing facilities (when installed).

**220407 [W]**

**Insulation of facades of existing horticultural glasshouses**

*Intended for:* the improvement of the insulation of facades of existing horticultural glasshouses

*and consisting of:* insulation material in which the total heat resistance of the layers, $R = \Sigma(R_m) = \Sigma(d/\lambda)$, is increased by at least 1.50 m²K/W as compared to the original situation.

The maximum amount of the investment eligible for the Energy Investment Allowance is € 20/m² of the area to be insulated.

*Explanation:*

The specification relates solely to the improvement of the insulation of existing horticultural glasshouses. The existing facade structure must be retained. The insulation in new horticultural glasshouses is not eligible.

The specification relates to the improvement of $R$ for all layers of materials and cavities. Cold bridges and transitional resistances do not influence the aforementioned values of $R$. An insulated or poorly ventilated cavity of >10 mm has a heat resistance of 0.17 m²K/W (which must be taken into account). The heat resistance must be calculated to an accuracy of two decimal places.
Phase change material for processes

*Intended for:* the reduction of the energy consumed in cooling or heating spaces or processes, and *consisting of:* phase change material with a defined change range and a capacity in the phase change range of at least 100 kJ/kg. The maximum amount of the investment eligible for the EIA is **€ 10 per kg phase change material.**

*Explanation:* The material absorbs latent heat on changing from solid to liquid and releases the heat again on solidifying.

Insulation for existing process installations

*Intended for:* the installation or replacement of insulation on existing process installations for thermal insulation, excluding refrigerator or freezer rooms, and *consisting of:* insulation material.

The insulation material must comply with a minimum "simplified R value" for the relevant (design) process temperature. This minimum R value is calculated in a simplified manner.

The following formula applies to pipes that are smaller than or equal to DN500:

$$ R_i = \frac{\ln\left(\frac{d_a}{d_i}\right)}{2 \cdot \pi \cdot \lambda} \left[ \frac{m \cdot K}{W} \right] $$

The following applies to pipes larger than DN500 and flat plates:

$$ R = \frac{s}{\lambda} \left[ \frac{m \cdot K}{W} \right] $$

- $d_a =$ exterior diameter of the insulated pipe [m]
- $d_i =$ exterior diameter of the pipe [m]
- $s =$ insulation thickness [m] → $d_a = d_i + 2 \cdot s$
- $\lambda =$ thermal conduction coefficient of insulation material [W/m·K] determined in accordance with EN 12667:2001 or NEN-EN-ISO 8497:1997.

The following table states the minimum "simplified R values" that must be met.

<table>
<thead>
<tr>
<th>Process temperature between:</th>
<th>50°C ≤ 150°C</th>
<th>150°C ≤ 250°C</th>
<th>250°C ≤ 350°C</th>
<th>350°C ≤ 450°C</th>
<th>450°C ≤ 550°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>λ-value for $T_{m}$ (°C):*</td>
<td>50°C</td>
<td>100°C</td>
<td>200°C</td>
<td>200°C</td>
<td>300°C</td>
</tr>
<tr>
<td>DN40 + DN80</td>
<td>3.4</td>
<td>3.7</td>
<td>3.4</td>
<td>3.6</td>
<td>2.7</td>
</tr>
<tr>
<td>DN100 + DN150</td>
<td>2.5</td>
<td>2.8</td>
<td>2.6</td>
<td>2.6</td>
<td>2.0</td>
</tr>
<tr>
<td>DN200 + DN350</td>
<td>1.8</td>
<td>1.9</td>
<td>1.8</td>
<td>1.9</td>
<td>1.4</td>
</tr>
<tr>
<td>DN400 + DN500</td>
<td>1.3</td>
<td>1.5</td>
<td>1.3</td>
<td>1.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Pipes &gt;DN500 and flat plates</td>
<td>2.4</td>
<td>2.6</td>
<td>2.7</td>
<td>2.8</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* The thermal conduction coefficient (λ) is measured in accordance with EN 12667:2001 or NEN-EN-ISO 8497:1997 at various $T_{m}$ (mean temperatures) in the insulation material. The table states which $T_{m}$ of the insulation material should be used for each process temperature range. The λ value associated with the relevant $T_{m}$ should be used in the calculation of the simplified R value.

*Explanation:* The insulation of new process installations is not eligible under this code.
**Lighting**

220503 [W] [CHANGED]
LED assimilation lighting for horticultural crops

*Intended for:* the provision of assimilation lighting for horticultural crops in glasshouses or areas without daylight,
*and consisting of:*

- a. LED light sources with a luminous efficiency of at least 2.2 micromol photons per second per watt;
- b. LED light sources with an E27 fitting as an alternative to light bulbs, with a luminous efficiency of at least 1.8 micromol photons per second per watt.

The luminous efficiency must be measured in accordance with LM-79-08 or equivalent protocols. Within this context, luminous efficiency is understood as the ratio of the light output of the lighting system (in micromol photons per second) and the power absorbed by the system (in Watt). Measurements pursuant to LM-79-08 or equivalent protocols must be carried out by accredited organisations with accreditation that specifically includes electrical and photometric measurements.

**Drives**

220602 [W] [CHANGED]
High-efficiency electric motor

a. an electric motor designed for a direct connection to the power grid,

*Consisting of:* an electric motor that complies with the IE4 efficiency class measured in accordance with NEN-EN-IEC 60034-30-1:2014.

b. an electric motor designed for a variable rpm that is not directly connected to the power grid

*Consisting of:* an electric motor that complies with the IE4 efficiency class in accordance with NEN-EN-IEC 60034-30-2:2016, an electronic speed controller, an integrated step-down gear that is not a worm gearbox (when installed).

*Explanation:*
Synchronous motors (e.g. DC motors) can be submitted under category b.

**Drying/humidifying**

220701
Energy-efficient clothes dryer

*Intended for:* drying clothes,
*and consisting of:*

- a. a tumble dryer in which the drying air is heated directly by gas, a gas pipe (when installed), a combustion gas exhaust system (when installed);
- b. tumbler dryer heat pump.

220703
Gas-fired infrared panels for drying surfaces

*Intended for:* the drying of the surface of objects,
*and consisting of:* gas-fired infrared panels.

*Explanation:*
Solely the panels are eligible: the entire drying tunnel is not eligible.
Absorption dryer

*Intended for:* the regenerative drying of drying air by means of absorbent fluid for processes
*And consisting of:* a conditioner, regenerator, hot and cold pump cisterns, level control and temperature control, liquid/liquid heat exchanger (when installed) for the separation of the hot and cold hygroscopic fluid circuits.

Steam dryer

*Intended for:* the drying of products containing moisture in direct contact with overheated steam in an enclosed system sealed completely from the outside air, as a result of which steam is generated that is utilised by the dryer,
*And consisting of:* an enclosed steam-drying installation, steam circulation pipe, compressor or recirculation fan, superheater, steam exhaust pipe, condenser, condensate discharge (when installed).

Heat exchanger for air dehumidification

*Intended for:* the cooling, drying and reheating of the air flow in the dehumidification process, as a result of which the power requirement is significantly decreased by the inclusion of the heat exchanger,
*And consisting of:* a heat exchanger.

Explaination:
The air to be dried is first cooled in a heat exchanger and then after-cooled in an evaporator. The cooled and dried air is then reheated in the cooling installation’s heat exchanger and condenser.

UV-A LED drying unit

*Intended for:* the drying of UV-drying paints, coatings and fillers,
*And consisting of:* a frame with a UV-A LED light source, LED driver.

Energy-efficient crate dryer

*Intended for:* the drying of washed plastic crates for food,
*And consisting of:* a crate drying machine with a capacity of at least 1,600 crates per hour that removes moisture using centrifugal force and compressed air. The residual moisture content after drying must be less than 5 grams per crate.

System for cooling and heating of closed or semi-closed horticultural glasshouses

*Intended for:* the alternate extraction and supply of heat, in which the surplus heat is stored temporarily for supply when there is a demand for heat,
*And consisting of:* heat exchanger(s) with an integrated fan, pump, day buffer tank (when installed), distributor (when installed), heat pump in accordance with code 221103 (when installed), aquifer in accordance with code 251201 (when installed).
Condensing heat exchanger for steam boilers or production or drying processes

a. **Intended for:** the recovery of heat from the flue gases of steam boilers with a condensing heat exchanger used for production processes (that do not generate electricity).

and consisting of: a condensing heat exchanger, condensate treatment unit (when installed), residual heat storage tank (when installed);

b. **Intended for:** the recovery of heat with a condensing heat exchanger from the exhaust gases from production processes or drying processes (that do not generate electricity), other than use in horticultural greenhouses,

and consisting of: a condensing heat exchanger, condensate treatment unit (when installed), residual heat storage tank (when installed).

Explanation:
This does not relate to a condensing heat exchanger used to recover heat from the flue gases of Heating boilers intended for heating commercial buildings or horticultural greenhouses.

Energy-efficient dish rinsing or dish washing machine

Intended for: rinsing or washing,

and consisting of: a dish rinsing machine, dishwasher or washing machine with integrated heat recovery.

The maximum amount of the investment eligible for the Energy Investment Allowance is €5,000 per wash tank.

Heat recovery system from cooling or compressed air installations

a. **Intended for:** the recovery of heat released from cooling installations used to cool products or processes,

and consisting of: a heat exchanger, heat transport pipe, heat pump (when installed), and residual heat storage tank (when installed). The heating network is not eligible;

b. **Intended for:** the recovery of heat released from compressed-air installations,

and consisting of: heat exchanger, heat transport pipe and residual heat storage tank (when installed).

The heating network is not eligible.

Explanation:
The cooling or compressed-air installation is not eligible in its entirety.

System for the utilisation of waste heat

**Intended for:** the recovery of waste heat at the source and transport of the waste heat to heat processes

and consisting of: a waste heat transport duct, heat exchanger at the waste heat source (when installed), heat distribution network (when installed), heat exchanger between the heat distribution network and the heating network (when installed).

Heating networks are not eligible.

The system for the utilisation of waste heat shall supply at least 70% of the energy content in the form of waste heat or at least 70% of the energy content in the form of waste heat in combination with sustainable heat.

Explanation:
See code 210803 for buildings.
220816 [CHANGED]
Flue gas heat exchanger
*Intended for:* heat recovery from flue gases,
*and consisting of:* a corrosion-resistant flue gas/air heat exchanger, air ducts (when installed), a control system (when installed).
The heat distribution network is not eligible.

221102
Organic Rankine Cycle or Kalina cycle
*Intended for:* the conversion of heat into mechanical or electrical energy, in which use is made of waste heat,
*and consisting of:* condenser, evaporator, pump, turbine, separator (when installed), heat exchanger (when installed), generator (when installed), connection to the electric grid (when installed).

220603
Braking energy recovery from production facilities
*Intended for:* the recovery of electrical energy generated on braking rotating machine parts,
*and consisting of:* brake energy recovery system, power electronics (when installed).

Management/control

220909 [CHANGED]
Energy-efficient climate control in horticultural glasshouses
a. plant temperature camera
*Intended for:* the configuration of screens and ventilation in horticultural glasshouses on the basis of measurements of the temperature of the crop,
*and consisting of:* infrared plant temperature camera, control software;
b. fruit temperature sensors
*Intended for:* the control of moisture levels on the basis of measured fruit temperature,
*and consisting of:* fruit sensors, control software;
c. pyrgeometer
*Intended for:* the control of screens on the basis of measured heat emissions from the horticultural glasshouse,
*and consisting of:* pyrgeometer, control software;
d. gas analysis apparatus
*Intended for:* the automatic configuration of screens and ventilation in horticultural glasshouses on the basis of measured air quality,
*and consisting of:* a combined ethylene/NOx/COx gas analysis apparatus, control software, a connection to the climate-control computer.
For the category a, b, c and d, the climate-control computer and any network components are not eligible.

220911 [W] [CHANGED]
Capacitors
*Intended for:* the reduction of power losses by the improvement of the power factor ($\cos \phi$) by at least 0.10 in existing processes,
*and consisting of:* capacitors.
220912 [W]
Energy-efficient UPS

*Intended for:* the supply of electricity for a limited period in the event of a power failure, *and consisting of:*

a. rotary UPS. The emergency power engine is not eligible;
b. three-phase static UPS. The emergency power engine and batteries are not eligible.

The efficiency of the UPS must be at least:
- at power outputs lower than or equal to 40 kVA: 95.0%,
- at power outputs greater than 40 kVA and lower than or equal to 200 kVA: 95.5%,
- at power outputs greater than 200 kVA: 96.0%.

The efficiency must be determined in accordance with NEN-EN-IEC 62040-3:2011, in operating mode and with a UPS load of 50%. If a UPS has more than one mode, all modes must fulfil the above efficiency requirement.

220913 [W] [NEW]
Intelligent local heat network

*Intended for:* facilitating an intelligent local heat distribution system that is used to balance the supply and demand of the various users and producers, *and consisting of:* a measurement and control system in combination with software to provide a real-time link between producers and users within the energy network.

*Explanation:* Several users and several producers must be connected to the energy network. The actual energy network is not eligible.

Utilities

231002 [W]
Cogeneration plant: powered other than by a piston engine

*Intended for:* the simultaneous generation of heat and power with a nominal electrical power output of up to 300 MWe subject to the condition that the average total annual energetic efficiency is at least 67%. The maximum amount of the investment eligible for the Energy Investment Allowance is € 600 per kW electrical output. The electrical power output is determined by the nominal motor power, *and consisting of:* cogeneration plant, connection to the electric grid (when installed).

A cogeneration plant with a newly installed nominal electrical power output of greater than or equal to 300 MWe is not eligible for the Energy Investment Allowance.

The newly installed nominal electrical power output of a cogeneration plant is determined on the basis of the combination of the new facilities, where “the combination of the new facilities” means all the available new equipment connected together for the production of electricity generated by a cogeneration plant.

Conversion

231101 [W]
Fuel cell system

*Intended for:* the simultaneous generation of heat and electrical energy in which a fuel is converted directly into electrical energy, *and consisting of:* fuel cell and fuel reformer (when installed).
Energy saving in the chain

220814 [W] System for the utilisation of waste heat
*Intended for:* the recovery of waste heat at the source and the transport of the waste heat for heating in processes, 
*and consisting of:* a waste heat transport duct\(^1\), a heat exchanger at the waste heat source (when installed), a heat distribution network\(^2\) (when installed), a heat exchanger between the heat distribution network and the heating network\(^3\) (when installed).
Heating networks\(^4\) are not eligible.
The system for the utilisation of waste heat shall supply at least 70% of the energy content in the form of waste heat or at least 70% of the energy content in the form of waste heat in combination with sustainable heat\(^5\).

*Explanation:*
See code 210803 for buildings.

221005 [W] Transport duct for the supply of CO\(_2\) gas to horticultural businesses
*Intended for:* the fertilisation of crops in horticultural glasshouses, 
*and consisting of:* a pipe between the external source and the horticultural glasshouse, CO\(_2\) cleaning equipment (when installed), CO\(_2\) compressor/fan for CO\(_2\) transport to the horticultural glasshouse (when installed).
The distribution system for CO\(_2\) in the glasshouse, CO\(_2\) capture, CO\(_2\) storage in the ground and a CO\(_2\) compressor for storage in the ground are not eligible.

Other

221213 Flue gas cleaning for CO\(_2\) fertilisation
*Intended for:* the cleaning of flue gases from the power plant of a cogeneration plant subject to the condition that the cleaned gases are used for the purposes of CO\(_2\) fertilisation in horticultural glasshouses, 
*and consisting of:* flue gas cleaner (reactor), flue gas condenser.

*Explanation:*
This relates to flue gas cleaning installations for cogeneration plants, not to CO\(_2\) dosing installations.

221215 [W] Gas-fired high-pressure cleaner
*Intended for:* the cleaning of surfaces with high-pressure hot water, where relevant with the simultaneous dosing of cleaning agents. The appliance is measured in accordance with NEN-EN 1196, in which the indirect efficiency is at least 100% at low power, the annual emissions of NO\(_x\) are not more than 60 ppm and the annual emissions of CO are not more than 160 ppm. The annual emissions of NO\(_x\) and CO are based on dry combustion gases and stoichiometric combustion, 
*and consisting of:* gas-fired high-pressure cleaner, standard cleaning lance (when installed), standard high-pressure hose (when installed).

*Explanation:*
A high-pressure cleaner with a Gastec QA Low-NO\(_x\) and a High-Efficiency label in accordance with the approval requirements governing gas-fired high-pressure cleaners complies with the aforementioned specification.
221220 [W]
Speed-regulated vacuum pump for milk extraction installations
[Intended for: the vacuum facility of milk extraction installations,]
[and consisting of: vacuum pump with speed control.]

221221
High-frequency high-efficiency charger for traction batteries
[Intended for: the charging of lead-acid traction batteries,]
[and consisting of: high-frequency high-efficiency charging unit that charges the traction batteries with an overall efficiency score higher than 24 as measured in accordance with the measurement protocol KEMA 74100151-CES/NET 12-3187.]
The traction batteries are not eligible.

Explanation:
A high-frequency high-efficiency charger with a BMWT efficiency label I complies with the aforementioned specification.

221222 [W]
Hydro-wing system for shrimp fisheries
[Intended for: the shrimp fishery industry,]
[and consisting of: hydrodynamically shaped wing, wheels, operating equipment, bobbin wire (when installed). The fishing nets are not eligible.]

221223
Membrane electrolysis with zero-gap technology
[Intended for: the limitation of excess potential in membrane electrolysis processes, with the cathodes being positioned against the membranes using mattresses, filling up the space between the anodes and cathodes (zero-gap technology),]
[and consisting of: cathodes, mattresses, membranes.]

221224 [W] [CHANGED]
Pulsed electric field installation
[Intended for:]
a. the preservation (pasteurisation) of liquid foodstuffs through the use of pulsed electric field (PEF) technology;
b. making tuber and root crops suitable for further processing by perforating the cell wall by means of PEF technology.
[and consisting of: a PEF generator, a PEF treatment room, a modification to the existing power connection (if necessary).]
C. Means of transport

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340000 [W]
Technical facilities for energy saving in or on existing means of transport
The energy saving must be at least 0.15 Nm³ and no more than 1.0 Nm³ natural gas equivalent (NGE) per invested euro per year. The benchmark for existing processes is the historical energy consumption.

The energy saving must be the demonstrably direct result of the use of the equipment to which the investment relates.

Technical facilities that do not make the means of transport itself more energy-efficient but rather conserve energy indirectly are not eligible for the Energy Investment Allowance. This applies e.g. to the use of intermodal transport or route optimisation.

The energy saving must be based on the same driving or shipping route, using the same goods and a maximum load.

Technical facilities in or on means of transport must achieve energy saving by:

a. improving the energy efficiency by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures;

b. reducing the heating or cooling load by:
   • thermal insulation;
   • the reduction of losses due to ventilation or draughts;

c. reusing heat by:
   • heat recovery;

d. using efficient lighting by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures.

Note: see Part 5 for the conversion factors for calculations of energy saving

Explanation:
When parts of an existing means of transport are being replaced, code 340000 is applicable.
When a fleet of transport vehicles is being expanded (expansion of capacity), code 440000 is applicable to the expansion.
440000 [W]

Technical facilities for energy saving in or on new means of transport

The energy saving must be at least 0.15 Nm³ and no more than 1.0 Nm³ natural gas equivalent (NGE) per invested euro per year. The benchmark for new means of transport is the average customary energy consumption of similar technical equipment for comparable new means of transport in the relevant sector.

The energy saving must be the demonstrable direct result of the use of the equipment to which the investment relates.

Technical facilities that do not make the means of transport itself more energy-efficient but rather conserve energy indirectly are not eligible for the Energy Investment Allowance. This applies e.g. to the use of intermodal transport or route optimisation.

The energy saving must be based on the same driving or shipping route, using the same goods and a maximum load.

Technical facilities in or on means of transport must achieve energy saving by:

a. improving the energy efficiency by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures;

b. reducing the heating or cooling load by:
   • thermal insulation;
   • the reduction of losses due to ventilation or draughts;

c. reusing heat by:
   • heat recovery;

d. using efficient lighting by:
   • the use of automated measurement and control instruments;
   • the use of more efficient equipment;
   • additional efficiency improvement measures.

Note: see Part 5 for the conversion factors for calculations of energy saving

Explanation:
When a fleet of transport vehicles is being expanded (expansion of capacity), code 440000 is applicable to the expansion. When parts of an existing means of transport are being replaced, code 340000 is applicable.
Heating

241101 [CHANGED]
Heat pump for ships or existing trains
*Intended for:* the heating of ships or existing trains,
*and consisting of:* heat pump or conversion kit for the modification of existing air-conditioning systems for heating purposes.

Refrigerating/freezing

240201 [W]
Indirect drive refrigeration units
*Intended for:* the use of an indirect drive refrigeration unit that is powered by a lorry's engine, with a refrigerating output of at least 5 kW and used for the transport of goods on road vehicles,
*and consisting of:* hydraulic or mechanical transmission connected to the lorry engine, generator (when installed).

Explanation:
Solely the transmission is eligible: the entire refrigerating unit is not eligible.

240202 [W]
Cryogenic transport refrigeration
*Intended for:* the refrigeration of goods during transport,
*and consisting of:*
  a. cryogenic cooling installation with CO₂ as a coolant, storage tank for liquid CO₂;
  b. a cooling system that uses chill generated by the expansion of LNG.

Explanation:
Other cryogenic transport cooling is not eligible for the Energy Investment Allowance.

240204
Air curtain in conditioned transport
*Intended for:* the limiting of energy loss with an air flow during loading and unloading of means of transport for conditioned transport,
*and consisting of:* an air curtain.

240205
Movable bulkheads in conditioned transport
*Intended for:* the limitation of cooling losses at refrigerated transport by reducing the size of the refrigerated space,
*and consisting of:* movable bulkheads that can reduce the size of the refrigerated space.

240206
Eutectic transport cooling
*Intended for:* the refrigeration of goods during transport,
*and consisting of:* eutectic pack, extraction circuit (when installed).

Explanation:
The cooling machine on the vehicle, when installed, is not eligible. A land-side cooling machine must comply with code 220212.
240207
Stationary air conditioner
*Intended for:* the cooling of a lorry’s cab when the engine is not running,
*and consisting of:* stand-alone air-conditioning, battery protection (when installed).

**Explanation:**
Stationary air conditioners are only intended for lorries. Climate control systems for buildings must comply with code 211104.

**Drives**

240601 [W] [CHANGED]
High-efficiency electric motor

*a.* an electric motor designed for a direct connection to the power grid,
*Consisting of:* an electric motor that complies with the IE4 efficiency class measured in accordance with NEN-EN-IEC 60034-30-1:2014.

*b.* an electric motor designed for a variable rpm that is not directly connected to the power grid
*Consisting of:* an electric motor that complies with the IE4 efficiency class in accordance with NEN-EN-IEC 60034-30-2:2016, an electronic speed controller, an integrated step-down gear that is not a worm gearbox (when installed).

**Explanation:**
Synchronous motors (e.g. direct current motors) can be submitted under category b.

240609
Propeller shaft-driven generator for ships

*a.* *Intended for:* the generation of electricity in ships by installing a coupling with a hydraulic pump on the propeller shaft, in which a hydraulic motor drives the generator,
*and consisting of:* coupling, hydraulic pump, hydraulic motor, generator;

*b.* *Intended for:* the generation of electricity in ships by the installation of a coupling on the propeller shaft, where the generator is driven directly,
*and consisting of:* coupling, generator, frequency converter.

240612 [W]
Energy-efficient marine engine

*a.* *Intended for:* the main propulsion of an existing inland navigation vessel, with a nominal engine power of at least 250 kW,
*and consisting of:* a marine diesel engine with a fuel consumption of less than 198 g/kWh as measured in accordance with NEN-ISO 3046-1:2002 using the maximum permitted tolerance of 5% described in this standard.

The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 125/kW rated power output;**

*b.* *Intended for:* the propulsion of an existing inland navigation vessel, with a nominal engine power of at least 250 kW, where multiple marine diesel engines are coupled to a single propeller shaft and where one or more marine diesel engines can be switched off,
*and consisting of:* marine diesel engines with a fuel consumption of each marine diesel engine of less than 198 g/kWh as measured in accordance with NEN-ISO 3046-1:2002 using the maximum permitted tolerance of 5% described in this standard, a coupling in which the power of multiple marine diesel engines is transmitted to one propeller shaft.

The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 175/kW rated power output.**
c. **Intended for:** the propulsion of an inland navigation vessel, with the engines in a diesel-electric set-up being used as the drive system,  
**and consisting of:** marine diesel engines with a fuel consumption of each marine diesel engine of less than 198 g/kWh as measured in accordance with NEN-ISO 3046-1:2002 using the maximum permitted tolerance of 5% described in this standard, an electric motor on the main shaft.

**Explanation:**
The energy-efficient marine engine under a and b is eligible solely when it replaces a marine engine in an existing vessel for inland navigation. Marine engines in new vessels for inland navigation are not eligible under a and b.

Solely the main engine for the propulsion of the vessel for inland navigation is eligible. The engines powering the bow thrusters and other applications are not eligible.

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**240614**  
**Hybrid power take-off (PTO) drive**  
**Intended for:** powering equipment on vehicles for transport by road,  
**and consisting of:** batteries, an electric motor, a control system, a facility for brake energy regeneration (when installed), power electronics (when installed).

---

**240617 [W]**  
**Co-steering and retractable rear axle for towing vehicles**  
**Intended for:** a co-steering and retractable rear axle for towing vehicles in a tractor-trailer combination,  
**and consisting of:** an assembly of rear axles, at least one of which actively steers and one of which can be retracted.

Co-steering rear axles and retractable rear axles or separately installed axles underneath lorries, trailers and semi-trailers are not eligible.

**Explanation:**
A tractor-trailer combination is a combination in which the semi-trailer is connected by means of a kingpin on the fifth wheel coupling of the towing vehicle (the tractor). A tractor has no transport capacity of its own. Not the entire tractor is eligible. In this case, a lorry is defined as a carrier vehicle or sided lorry in which the load is attached directly to the chassis of the towing vehicle in a loading body, cover, container or tank.

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**Energy reuse**

**240606**  
**Braking energy recovery from electric motors**  
**Intended for:** the recovery of electrical energy generated on braking electric motors and potentially limiting start-up currents by means of power electronics,  
**and consisting of:** brake energy recovery system, fly wheel (when installed), super-capacitor (when installed), chopper installation (when installed), frequency control (when installed), power electronics/power control motor (when installed).

Systems in electric forklift lorries are not eligible.

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**240801**  
**Heat recovery on an inland navigation vessel**  
**Intended for:** the recovery of heat from the engine of an inland navigation vessel,  
**and consisting of:** a heat exchanger, a heat transport pipe9 (when installed), a buffer tank (when installed). The heating network11 is not eligible.
Management/control

240906
Tyre pressure control system
a. Intended for: adjustment from the cab of the most ideal tyre pressure for agricultural vehicles depending where the vehicle is located at that moment: in the field or on the paved road,
and consisting of: an air compressor or a connection to compressed air, a control unit, a compressed air storage tank (when installed), rotating compressed air connections and valves (when installed), a display (when installed);
b. Intended for: the automatic monitoring and correction of the preset tyre pressure of vehicles for road transport, and consisting of: an automatic control unit, rotating compressed air connections, integrated valves, a compressed air storage tank (when installed).

240908
Start-stop system for lorry engine
Intended for: remote starting and stopping of lorry engines, and consisting of: start-stop system, remote control.

Other

241201 [W]
Lightweight composite dumper
Intended for: the transport of bulk goods by road, and consisting of: composite dumper, tipping cylinder (when installed), tipping frame (when installed).

241202
Side skirts
Intended for: the reduction of the aerodynamic resistance of vehicles for the transport of goods by road, and consisting of: closed panels that seal off the open spaces between the wheels of motor cars, trailers, tractors and semi-trailers.

241211 [W]
Hydrodynamic anchor hawse holes and anchors
Intended for: the reduction of Aerodynamic resistance of an inland navigation vessel. and consisting of: anchor, anchor hawse hole
The maximum amount of the investment eligible for the Energy Investment Allowance is €20,000 per combination of anchor and hawse pipe.

Explanation:
This concerns an anchor that fully covers the hawse hole when retracted and that constitutes a single whole with the ship’s skin.

241212
Extension of an existing inland navigation vessel
Intended for: the more efficient transport of cargo by an existing vessel for inland navigation, and consisting of: a structure inserted between hull sections, to increase the inland navigation vessel’s cargo capacity.
**Road train (LHV)**

*Intended for:* the transport of goods by road,

*and consisting of:*

a. a dolly;
b. an intermediate semi-trailer with a fifth wheel coupling

*Explanation:*

Solely the dolly or the intermediate semi-trailer is eligible. Semi-trailers, centre-axle trailers and tractors are not eligible.

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**Double loading floor system**

*Intended for:* the flexible creation of an additional loading floor in closed lorries or trailers,

*and consisting of:* vertical rails, crossbeams, a fastening system

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**Energy storage on means of transport**

*Intended for:* the storage of energy produced by a generator

*and consisting of:* a lithium battery, a current/voltage converter, a control system, a connection to a generator.

---

**Lightweight loading body for commercial vehicles**

a. *Intended for:* road transport using commercial vehicles with a permitted maximum mass of 3,500 kg,

*and consisting of:* a closed loading body with a maximum weight (excluding tailboard) of 500 kg;
b. *Intended for:* refrigerated road transport using commercial vehicles with a permitted maximum mass of 3,500 kg,

*and consisting of:* an insulated loading body with a maximum weight (excluding tailboard) of 600 kg.

*Explanation:*

Solely the loading body is eligible, not the entire vehicle.

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**High-frequency high-efficiency charger for traction batteries**

*Intended for:* the charging of lead-acid traction batteries,

*and consisting of:* high-frequency high-efficiency charging unit that charges the traction batteries with an overall efficiency score higher than 24 as measured in accordance with the measurement protocol KEMA 74100151-CES/NET 12-3187.

The traction batteries are not eligible.

*Explanation:*

A high-frequency high-efficiency charger with a BMWT efficiency label I complies with the aforementioned specification.

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**Collapsible shipping container**

*Consisting of:* a collapsible shipping container, the volume of which can be reduced to no more than one fourth of its volume.

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**Solar panels or film for electricity generation on means of transport**

*Intended for:* the generation of electrical energy from sunlight on means of transport,

*and consisting of:* panels or film with photovoltaic solar cells, current/voltage converter (when installed), battery (when installed).
D. Sustainable energy

Generic

- Technical facilities for the use of sustainable energy ....................................................... 450000 60

Equipment specified in specific terms by function

• Sustainable heat
  - Solar thermal collector system ..................................................................................... 250101 60
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  - Wind-water mill ............................................................................................................. 251206 63
  - Swill digester ................................................................................................................ 251207 63

The equipment subject to investments in this Part must have the effect of reducing the use of fossil fuels by using sustainable energy for at least 70% of the energy content. Sustainable energy includes solar energy, wind energy, hydroelectric energy, the use or storage of ambient heat and biomass.
450000 [W]

Technical facilities for the use of sustainable energy

The facility must reduce the use of primary energy (petroleum, coal, natural gas) by using solar energy or hydroelectric power for at least 70% of the energy content.

The facilities must achieve the energy saving by:

a. converting solar energy into electricity or heat (except for the use of passive solar energy);

b. converting hydro-power into electrical energy or mechanical energy.

Sustainable heat

250101 [W]

Solar thermal collector system

*Intended for:* the heating of water or air,

*and consisting of:*

a. a solar collector with a total aperture area of less than 200 m², residual heat storage tank (when installed), heat exchanger (when installed), reheater integrated into the tank (when installed), photovoltaic solar cells integrated into the air heater (when installed), adsorption or absorption cooling machine actuated mainly by solar energy (when installed);

b. an uncovered solar collector with a total aperture area of at least 100 m², residual heat storage tank (when installed), heat exchanger (when installed), reheater integrated into the tank (when installed), adsorption or absorption cooling machine actuated mainly by solar energy (when installed).

The total aperture area of a solar collector is determined on the basis of the combination of the new facilities, where ‘the combination of the new facilities’ means all the available new equipment connected together for the production of heat generated by a solar collector.

Explanation:

Systems should preferably be installed by certified installers. Certified installers can be found in the quality register for the construction industry and for the installation and fitting industry, QBISnl (refer to [http://www.qbisnl.nl](http://www.qbisnl.nl)).

250103 [W]

Roof or facade panels with integrated solar collector

*Intended for:*

a. cooling or heating of water;

b. the use as a heat source for a heat pump;

c. the charging, regenerating or balancing of cold or heat storage in the ground,

*and consisting of:* insulated prefabricated roof or facade panels with integrated solar collector, heat storage tank (when installed). For the roof or facade panels with integrated solar collector, the heat resistance of the insulating layers, $R = \Sigma(R_m) = \Sigma(d/\lambda)$ must be at least 4.50 m²K/W.

Roof or facade panels with an integrated uncovered solar collector installed on homes are not eligible.

Explanation:

An application for covered solar collectors and uncovered swimming-pool solar collectors can be submitted under code 250101 [w]. Systems should preferably be installed by certified installers. Certified installers can be found in the quality register for the construction industry and for the installation and fitting industry, QBISnl (refer to [http://www.qbisnl.nl](http://www.qbisnl.nl)).
251105 [W]
Boiler or stove fired with biomass

*Intended for:* the heating of buildings or processes by combustion of biomass or of gaseous or liquid energy carriers obtained from biomass, under the precondition that the heat efficiency is at least 80%,

*and consisting of:*

a. boiler with a power output of less than 500 kW, biogas dehumidification system (when installed), separate system for the desulphurisation of biogas (when installed), biogas compressor (when installed), flue gas condenser (when installed), residual heat storage tank (when installed), flue gas cleaner (when installed), heat transport pipe (when installed). Heat distribution networks and heating networks are not eligible;

b. stove, flue gas cleaner (when installed).

The power output of a boiler fired with biomass or with gaseous or liquid energy carriers obtained from biomass is determined on the basis of the combination of the new facilities, where ‘the combination of the new facilities’ means all the available new equipment connected together for the production of heat generated by a boiler fired with biomass or liquid energy carriers obtained from biomass.

*Explanation:*

*Boilers and stoves fired with biomass and installed in homes are not eligible.*

Systems should preferably be installed by certified installers. Certified installers can be found in the quality register for the construction industry and for the installation and fitting industry, QBISnl (refer to [http://www.qbisnl.nl](http://www.qbisnl.nl)).

251201 [W]
Geothermal heat or cold storage in the ground (aquifer)

*Intended for:* the storage of heat or cold in the ground, using groundwater as the storage medium, for the cooling or heating of commercial buildings or processes or the collective cooling or heating of homes,

*and consisting of:* closed system with groundwater sources/wells used for extraction and injection, groundwater pumps, heat exchanger directly connected to the groundwater source (when installed), heat exchanger that regenerates the groundwater source with cold or heat from outside air or surface water (when installed), heat transport pipe (when installed).

*Explanation:*

If an aquifer is used to cool or heat a single home, it is not a collective system, nor is it eligible.

If an aquifer is purchased in combination with a heat pump system to heat buildings, an application can be submitted for the whole combination under code 211103 [W] Heat pump.
Ground heat exchanger

a. **Intended for**: the cooling or heating of water for use in commercial buildings, processes or collective systems for homes by means of an heat exchanger situated in the groundwater,
   **and consisting of**: underground heat exchanger, pump, water-air heat exchanger in stables that directly emits the heat or cold from the soil (when installed), residual heat storage tank (when installed);

b. **Intended for**: the heating of water for use in commercial buildings, processes or collective systems for homes by means of an heat exchanger situated in the road paving,
   **and consisting of**: pump(s), underground heat exchanger or heat conducting tubes in the road paving, excluding the road paving itself, residual heat storage tank (when installed);

c. **Intended for**: the pre-cooling or preheating outside air for the use in commercial buildings using underground tubes as the heat exchanger,
   **and consisting of**: air-ground tubes with a diameter of up to 40 cm, plenum for air (when installed), automatically controlled central bypass (when installed);

d. **Intended for**: the cooling of electronic facilities,
   **and consisting of**: underground heat exchanger, pump (when installed), water-air heat exchanger that directly emits the cold from the soil, fan (when installed).

If a ground heat exchanger is used to cool or heat a single home, it is not a collective system and therefore it is not eligible.

Explanation:
If a ground heat exchanger is purchased in combination with a heat pump system to heat buildings, an application can be submitted for the whole combination under code 211103 [W] Heat pump.

Sustainable electricity generation

**251102 [W] [CHANGED]**

**Solar panels for electricity generation**

**Intended for**: the generation of electrical energy from sunlight by solar cells,
**and consisting of**: panels with photovoltaic solar cells with a combined peak power of more than 25 kW and connected to the electricity grid by means of a connection with a total maximum capacity of 3*80 A or less, connection to the electricity grid, active solar tracker (when installed), current/voltage converter (when installed), battery (when installed).

The combined peak power of the panels with photovoltaic solar cells is determined on the basis of the combination of the facilities, where ‘the combination of the facilities’ means all the available equipment connected together for the production of electricity generated by photovoltaic solar cells.

**251115 [W] [CHANGED]**

**Solar panels or film for electricity generation on means of transport**

**Intended for**: the generation of electrical energy from sunlight on means of transport,
**and consisting of**: panels or film with photovoltaic solar cells, current/voltage converter (when installed), battery (when installed).

**251116 [W] [CHANGED]**

**Solar panels for electricity generation, not connected to the power grid**

**Intended for**: the generation of electrical energy from sunlight by solar cells,
**and consisting of**: panels with photovoltaic solar cells which are not connected to the electricity grid, battery, active solar tracker (when installed), current/voltage converter (when installed).

Explanation:
Solar panels that are connected to the power grid must comply with the description of code 251102.
Grid connection for solar panels with SDE2016 or later

**Intended for:** the supply of electricity by panels with photovoltaic solar cells, which are not building-related panels, and consisting of: a connection to the medium- or high-voltage grid.
The one-off connection fee charged by the network operator is not eligible for the EIA.

**Explanation:**
This only relates to the investment costs for the grid connection for solar panels with SDE2016 or later, with the holder of the SDE decision also becoming the owner of the connection to the medium- or high-voltage grid. This connection includes the AC cables from the converters to the transformer station, the low-voltage rack, the transformer and the transformer building. The grid connection for solar panels mounted on or to buildings is not eligible.
At the time of the submission of the application, this equipment must have received an SDE grant >€ a pursuant to the SDE scheme of 2016 or later.

Battery for the storage of sustainably generated electricity

**Intended for:** the storage of electrical energy, and consisting of: battery, current/voltage converter (when installed).

Organic Rankine Cycle or Kalina cycle

**Intended for:** the conversion of heat into mechanical or electrical energy, in which use is made of sustainable heat, and consisting of: condenser, evaporator, pump, turbine, separator (when installed), heat exchanger (when installed), generator (when installed), and connection to the electric grid (when installed).

Conversion

Biofuel production installation

**Intended for:** the production of solid or liquid or gaseous fuels from woody or cellulose-like compounds in biomass, in which the energy carrier is used to generate heat and/or power and/or serve as transport fuel by: pyrolysis or gasification or torrefaction or thermal decomposition or chemical decomposition or enzymatic decomposition, and consisting of: reactor in which one of the aforementioned processes takes place, digestion reactor for the digestion of C$_5$ and C$_6$ sugars (when installed). Post-treatment equipment for the further processing of the reactor products and equipment for storage and transhipment storage are not eligible.

Wind-water mill

**Intended for:** the direct pumping of water using wind power, and consisting of: rotor blades, tower, water pump.

Swill digester

**Intended for:** the processing of kitchen and food waste ("swill") by means of fermentation, and consisting of: fermentation facility, post-treatment of biogas (when installed).
E. **Energy balancing**

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460000 [W]

Technical facilities for balancing energy in the energy infrastructure
The energy saving must be at least 0.15 Nm$^3$ and no more than 0.8 Nm$^3$ natural gas equivalent (NGE) per invested euro per year.

The energy saving must be achieved by storing surplus sustainable energy and utilising it at a later time, or by utilising surplus energy by means of conversion. The energy saving must be the demonstrable direct result of the use of the equipment to which the investment relates (no energy monitoring).

The facilities must achieve the energy saving by:
• making use of electrical energy storage;
• making use of power to gas;
• making use of power to heat.

Note: see Part 5 for the conversion factors for calculations of energy saving

Explanation:
The indirect energy saving are achieved by utilising surplus energy, which reduces the required use of fossil fuels (primary energy). You must provide a demonstration for these savings

260101 [W] [CHANGED]
Storage of electrical energy
Intended for: the stationary storage of surplus electrical energy through automatic activation or deactivation, depending on an electrical sub-market,
and consisting of:
a. lithium battery, inverter, control electronics, optimisation software;*
b. NaS battery, inverter, control electronics, optimisation software;
c. redox flow battery, inverter, control electronics, optimisation software.

Explanation:
A battery that is not connected to an electrical sub-market through software is not eligible. See code 220912 for back-up systems (UPS); see code 241215 for storage in transport systems.

260201 [W] [CHANGED]
Conversion of electrical energy to hydrogen (power to gas)
Intended for: the conversion of surplus electricity into hydrogen, not intended for production facilities for raw materials,
and consisting of: electrolyser, optimisation software, compressor (when installed), buffer for hydrogen storage (when installed), connection to the natural gas network (when installed).

260301 [W]
Conversion of electrical energy to heat (power to heat)
Intended for: the conversion of surplus electricity into heat with an electrical capacity greater than or equal to 100 kWe, and consisting of: electric boiler, optimisation software, heat storage tank (when installed).

Explanation:
An electric boiler that is not connected to the market, e.g. an electric tap water boiler, is not eligible.
Storage of sustainably produced heat

Intended for: the long-term storage of heat with a temperature of at least 40°C, which is produced from renewable or sustainable sources,
and consisting of: insulated buffer tank with a minimum storage capacity of 1,000 m$^3$, optimisation software, heat exchanger (when installed), control system (when installed).

Intelligent local energy network (smart grid)

Intended for: the facilitation of an intelligent local energy network that can be used to balance the supply and demand of various users and energy sources,
and consisting of: measuring and control system in combination with software to provide a real-time link between producers and users of the energy network.

Explanation:
The actual energy network is not eligible. This only involves applications to facilitate the production and use of sustainable energy.

Grid balancing through active control of production

Intended for: the automatic control of production installations based on the electricity market,
and consisting of: optimisation software, control unit (when installed).

Explanation:
The actual production installation is not eligible.
## F. Energy transition

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270101 [W] [NEW]
Electric ovens

*Intended for:* the replacement of indirect gas-fired ovens,
*and consisting of:* electric oven, modification to the existing power connection (if necessary).

270102 [W] [NEW]
Steam recompression

*Intended for:* the upgrading of steam to high temperature and pressure,
*and consisting of:* mechanical vapour compressor or thermal vapour compressor, connection to the steam network, modification to the existing power connection (if necessary), control system (when installed).

270103 [W] [NEW]
Infrared panels

*Intended for:* the heating of work areas in spaces with an average height of more than 4 metres,
*and consisting of:* infrared panels, presence detector (when installed).

270201 [W] [NEW]
Hydrogen blending

*Intended for:* the modification of existing installations for blending hydrogen with natural gas,
*and consisting of:* the necessary modifications to allow blending of hydrogen, local hydrogen production by means of electrolysis (when installed), measuring and control equipment (when installed).

270301 [W] [NEW]
CO₂ capture for permanent storage (CCS)

*Intended for:* the separation, recovery, transport and storage of CO₂ from flue gases or other gas streams for permanent storage in aquifers,
*and consisting of:* CO₂ cleaning equipment, CO₂ compressor, transport pipe to the aquifer, scrubber (when installed), dryer (when installed), cooler (when installed), CO₂ buffer for temporary storage (when installed).
G.  Energy recommendations and customised recommendations

If you want to know what options you have to improve the energy efficiency, you need an energy recommendation or a customised recommendation. Under certain conditions, the related costs are eligible for the EIA. When you invest in equipment that is eligible for the EIA, you can include those costs in your application for the EIA. The other conditions are listed below.

a. Energy recommendations
The energy recommendation consists of an exploration of your options for improving the energy efficiency of your existing commercial building or business process. Therefore, this expressly does not concern new commercial buildings or business processes. The energy recommendations are recorded in a report. The report must include at least the following:
1. a description of the object;
2. a summary of the overall energy management of the existing complete object;
3. an energy balance of the relevant parts of the existing complete object;
4. a summary of the options for and quantification of the energy saving;
5. a summary of the necessary organisational and administrative modifications;
6. an estimate of the forecast investment costs and forecast benefits.

The following additional requirements govern consumers with an energy consumption of more than 25,000 m³ natural gas (or natural gas equivalent) or more than 50,000 kWh electricity per year:
7. an insight into all measures with a payback time of up to five years;
8. a specification of 90% of the total energy consumption included in the energy balance unless a divergence from this requirement can be substantiated;
9. an explicit, simple plan for the implementation of the energy saving measures.

Additional conditions for energy recommendations
Furthermore, the energy recommendation (hereinafter: the recommendation) must fulfil the following conditions:
• The contract for the energy investment is awarded within 24 months of the time at which the contract for the recommendations was awarded.
• The energy investment for which the application is submitted is proposed in the recommendations and is specified in the prevailing Energy List at the time of the investment.
• The recommendation has been prepared by an independent third party.
• An application for the costs incurred for the recommendations may be submitted only once and, consequently, cannot be allocated to other energy investments.
• The recommendations must relate to existing complete commercial buildings or an existing complete process which are metered separately with respect to energy carriers.
• 50% of the total cost of combined energy and environment recommendations are attributed to the energy recommendations.

b. Customised recommendation
The costs of having customised recommendations prepared can be included in your application for the EIA. The customised recommendations must comply with ISO 75.2 or NEN 7120 and with BRL 9500, Part 4. The EPA customised recommendations for existing utility buildings. The EPA customised recommendations are recorded in a report, which must include at least the following information:
1. the project details;
2. the current situation;
3. the underlying principles and considerations;
4. a list of individual measures with their standard payback time;
5. a list of the packages of measures with their payback times, together with an indication of the consequences for the quality of the indoor climate, thermal comfort and the probability of condensation in and on the structure;
6. the energy consumption at present;
7. the forecast energy consumption;
8. the payback time of the proposed packages of measures.

Furthermore, the following conditions must be fulfilled:
- If you submit an application for the cost of EPA recommendations, you must also invest in the package of measures in those recommendations.
- The contract for the energy investment is awarded within 24 months of the time at which the contract for the recommendations was awarded.
- The energy investment for which the application is submitted is proposed in the recommendations and is specified in the prevailing Energy List at the time of the investment.
- The recommendations must be prepared by a certified provider of customised recommendations (for certified advisers, refer to www.kbi.nl).
- An application for the costs incurred for the recommendations may be submitted only once and, consequently, cannot be allocated to other energy investments.
- The recommendations must relate to existing complete commercial buildings.
4. Changes compared to 2018

Built environment
Gas-fired heat pumps have been removed from the description of heat pumps; this type was not being submitted. A separate description has been included for heat pumps with a halogen-free coolant.

The description for cogeneration plants with a piston engine used in the built environment has been removed, because energetically better versions such as heat pumps have by now become available.

The description for high-efficiency electric motors has been modified to ensure that energy-efficient direct current motors are also eligible. This applies to applications both in the built environment and in processes or means of transport.

A closed adsorption cooling circuit – with the required heat coming from waste heat or sustainable heat – has been added to the description for adiabatic air cooling and the system for recovering heat or cold from ventilation air. Additional energy saving are achieved by using this cooling circuit.

A description has been added for a heat-reflecting coating on the outer layer of cold stores and freezer rooms. This coating reduces the amount of energy required to cool such cold stores and freezer rooms.

From 2019 onwards, LED tubes will only be eligible for applications in or near to existing commercial buildings. This technology is already standard in new commercial buildings.

Processes
The description for gas-fired deep fryers has been removed, as more energy-efficient models such as induction deep fryers have become available, for which a new description has been included.

The description for energy-efficient milk cooling has been modified. Only systems that incorporate both milk pre-cooling and heat recovery in the cooling installation are eligible for the EIA. This ensures that all the available heat from the milk is utilised. An electric boiler fed with hot water from the heat recovery system has also been added to the description. The solution currently described is the most energy-efficient solution at the moment and eliminates the use of natural gas: it allows the entire barn to be electrically heated.

The description of the system for the dehumidification of horticultural glasshouses has been expanded to include an air/air heat exchanger. This heat exchanger is used to heat the cold outside air using some of the air aspirated from the glasshouse. As a result, the air being aspirated will not have to be reheated as often, so it yields additional energy saving.

The performance of LED illumination systems is constantly improving. For this reason, the so-called luminous efficiency requirement has been adjusted to a minimum of 2.2 µmol per second per watt.

A lot of energy saving can still be achieved with regard to insulation in the industry. To this end, a description of insulation for existing process installations has been added to the Energy List.

To promote the exchange of heat further, a description has been included for an intelligent local heat network.

A pulsed electric field (PEF) installation is not only suitable for the preservation of liquid foodstuffs, but it can also serve as an energy-efficient method to perforate the cell walls of root and tuber crops. As a result, these crops become available for further processing. To this end, the description of this PEF installation has been expanded.
The description of immersion cooling for data servers has been expanded to include an energy-efficient system in which the dielectric liquid is circulated by means of a pump unit.

The description of the system for the reuse of compressed air has been removed, because it was hardly being used.

For the transcritical CO$_2$ refrigerator and/or freezer installation and the refrigerator and/or freezer condenser unit, a maximum investment amount for the connected cooling and/or freezing cabinets has been included in the description for 2019 onwards. As a result, the statement/breakdown of the costs for CO$_2$ components in the cabinets has been deleted.

The SEPR value for a condenser unit with a cooling application has been lowered from 3.25 to 2.9. This value is more in line with the market’s current state of the art.

The description for flue gas heat exchangers has been modified. As the requirement for application in the ceramics industry no longer applies, the application of these heat exchangers in the entire industry will also be eligible for the Energy Investment Allowance.

**Means of transport**

The descriptions of wing propulsion, the retractable tunnel system for inland navigation vessels and the hydraulic brake energy recovery system have been removed, because they were not being used.

The description of the automated route planning system for inland navigation vessels has been removed, because it was hardly being used.

**Sustainable energy**

The investment cap for solar panels has been removed, as this maximum amount restricts the use of innovative systems such as solar trackers.

A separate description has been included for batteries that are used for the temporary storage of sustainably generated electricity. The temporary storage of electricity prevents the generation of sustainable electricity from having to be limited during times of high supply and low demand.

The aerobic biomass reactor has been removed, as it was hardly being used.

The swill digester has been added to the EIA. This digester converts cooked kitchen waste into biogas, which in turn can be put to good use. The digester also reduces the volume of the kitchen waste. This leads to a further CO$_2$ reduction when transporting waste.
Energy balancing
The option in the EIA regarding the conversion of electrical energy to hydrogen (power to gas) has been expanded. Hydrogen production for petrol stations may also be eligible now.

To support the storage of electrical energy with a storage capacity of less than 10 kWh as well, the lower limit for the storage capacity no longer applies. Due to developments relating to lithium batteries, it will also be required to support several types of lithium batteries. The description has been modified accordingly.

Regarding the use of surplus sustainably produced energy, the long-term storage of heat is a good solution. Long-term heat storage requires a special structure of the storage tank. A separate description has been included for this structure.

Companies can control their production processes on the basis of the situation on the energy market. Cutting back on production during times when limited amounts of sustainable electricity are available contributes to the balancing of the electricity grid. In order to allow this process, a separate description has been included for the required software and control systems.

Energy transition
Within the context of the energy transition, the scheme includes a number of descriptions for reducing natural gas consumption and CO\textsubscript{2} emissions, as well as for promoting electrification. These new options broaden the EIA further towards the reduction of greenhouse gases.

The Energy List includes three new options that reduce the consumption of natural gas. First, it involves the promotion of infrared panels, which are a good method to replace the use of natural gas in certain situations. Second, the replacement of indirect gas-fired ovens with electric ovens is being promoted. Third, the production and blending of hydrogen in existing installations has been included on the Energy List.

The reduction of CO\textsubscript{2} emissions can also be achieved through the permanent storage of CO\textsubscript{2}. This technique is to play a key role in achieving the climate and energy targets in the medium term. A description of CO\textsubscript{2} capture for permanent storage has now been included.

Steam recompression is a technique that allows the upgrade of residual steam at low pressure to a usable pressure and temperature by means of electrically powered compression. This technique makes it possible to reuse waste steam, which may yield energy saving and reduced CO\textsubscript{2} emissions. To this end, a description has been included for this new technique.
5. Definitions and conversion factors

Definitions

1. Waste heat
   Waste heat is heat that is not utilised in the existing situation.

2. Means of transport
   Vehicles for transport by road, vessels or railbound vehicles.

3. Biomass
   Material that contains combustible constituents comprised solely or almost solely of carbonaceous compounds originating from a short CO₂ cycle, although the potential presence of carbonaceous compounds originating from a long CO₂ cycle in the material is inevitable. The co-firing or addition of plastics is not permitted.
   The following materials are examples of biomass:
   • timber waste, demolition wood, pruning wood, thinning wood and other ligneous material;
   • straw, verge cuttings, thatch, manure and other agricultural residues;
   • residues from the paper industry, provided that they are free of plastics;
   • used paper and cardboard;
   • dewatered paper slurry or dewatered sewage treatment sludge;
   • crops cultivated specifically for use in the generation of sustainable energy, or parts of those crops;
   • organic residues from the food and beverages industry.

4. Total energetic efficiency
   The sum of the energetic efficiency of the generation of power and of two-thirds of the energetic efficiency of the generation of heat that can be used calculated on the basis of the lowest calorific value of the fuel that is used.
   Explanation:
   When calculating the total energetic efficiency, it is not necessary to deduct the power consumed by the cogeneration plant or the generator’s conversion loss.

5. Cogeneration plant
   A cogeneration plant is understood as an installation that generates heat and electricity or mechanical energy by the combustion of fuel and whereby the resultant heat is utilised for purposes other than the generation of electricity.

6. Piston engine
   A piston engine is understood as an internal combustion engine with electric ignition or compression ignition.

7. Waste
   Waste is understood as material to be disposed of definitively, non-selectively collected fractions of waste (residual waste, refuse and municipal refuse including street litter, swept litter, market refuse, the material from the clearance of illicit dumps and other litter) and selectively collected fractions of waste (from homes and from container parks).
8 **Historical energy consumption**
The historical energy consumption is understood as the total energy consumption measured over a representative period, prior to the time of the investment, in which the equipment is used under design circumstances, and based on the original specifications of the equipment.

9 **Heat transport pipe**
A heat transport pipe is understood as the pipe between the heat source and the point where the heat is distributed to the local end users.

10 **Heat distribution network**
A heat distribution network is understood as a system of pipes diverging from the heat transport pipe for the purpose of the distribution of the heat to the local end users.

12 **Heating network**
A heating network is understood as the system of pipes and appliances for the release of the heat in the end user’s building.

12 **Sustainable heat**
Sustainable heat is understood as the heat from investments specified in Part 3, Category D. Sustainable energy.

13 **Server room**
A server room is defined as a room with the primary function of accommodating IT equipment and allowing it to function in a building or on a floor with a different primary function.

14 **Optimisation software**
Optimisation software is defined as the software required to create a connection to one or more electrical sub-markets. This software controls the use of surplus sustainable energy, which reduces the required use of fossil fuels (primary energy) by automatically turning the equipment on or off.

**Conversion factors**
For the purposes of the EIA, the energy saving achieved by equipment are expressed in terms of Nm³ natural gas equivalent (NGE). Nm³ refers to the number of cubic metres of natural gas that the energy company uses to charge you for your gas consumption. The following conversion factors are applicable to the calculation of the various forms of energy saving in Nm³ NGE:

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<tr>
<td>1 kWh of electricity</td>
<td>0.22 Nm³ NGE</td>
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<tr>
<td>1 litre of household fuel</td>
<td>1.2 Nm³ NGE</td>
</tr>
<tr>
<td>1 tonne of fuel oil</td>
<td>1,300 Nm³ NGE</td>
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<tr>
<td>1 tonne of coal</td>
<td>925 Nm³ NGE</td>
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<tr>
<td>1 litre of liquid propane</td>
<td>0.73 Nm³ NGE</td>
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<tr>
<td>1 litre of LPG</td>
<td>0.95 Nm³ NGE</td>
</tr>
<tr>
<td>1 litre of diesel</td>
<td>1.13 Nm³ NGE</td>
</tr>
<tr>
<td>1 litre of petrol for road transport</td>
<td>1.04 Nm³ NGE</td>
</tr>
<tr>
<td>1 m³ of natural gas not from Groningen</td>
<td>X Nm³ NGE; *</td>
</tr>
<tr>
<td>1 kg of gaseous H2</td>
<td>4.0 Nm³ NGE</td>
</tr>
<tr>
<td>1 tonne of gaseous O₂</td>
<td>104 Nm³ NGE</td>
</tr>
<tr>
<td>1 tonne of liquid O₂</td>
<td>260 Nm³ NGE</td>
</tr>
<tr>
<td>1 tonne of gaseous N₂</td>
<td>65 Nm³ NGE</td>
</tr>
<tr>
<td>1 tonne of liquid N₂</td>
<td>208 Nm³ NGE</td>
</tr>
<tr>
<td>1 tonne of liquid CO₂</td>
<td>49 Nm³ NGE</td>
</tr>
</tbody>
</table>

*) The factor X is determined by dividing the lowest calorific value in MJ/Nm³ of the natural gas that is consumed by 31.65 MJ/Nm³. If a fuel is used that is not included in the above list, the conversion factor is calculated by dividing the lowest calorific value in MJ per unit of the relevant fuel by 31.65 MJ/Nm³.

You may submit proposals for additions to or amendments of the Energy List. You can download a submission form for your proposal from the website www.rvo.nl/eia. If you wish to submit such a proposal, you will need to state at least the information listed below: We cannot process proposals that do not include this information:

1. name, address and telephone number(s), and email address(es) or website(s) where applicable;
2. name of the equipment;
3. a comprehensive description of the equipment. This description must contain a technical substantiation for the functioning of the equipment. Furthermore, a clear explanation must be provided of the manner in which the energy saving are achieved.
   If available, also provide technical or test reports that substantiate the functioning of the equipment;
4. a calculation of the energy saving per year. This is to be calculated on the basis of the difference between the energy consumption of the equipment and the energy consumption of the most comparable alternative (the benchmark). You must provide a substantiation for the calculation. Part 5 provides conversion factors for the calculation of energy saving in Nm$^3$ natural gas equivalents;
5. the total investment costs required to purchase and commission the equipment (excluding VAT);
6. the forecast annual sales;
7. the business sector(s) in which the equipment can be used.
8. The equipment included in the Energy List is accompanied by a brief specification. Your proposal needs to be accompanied by a proposal for the specification of the equipment. The specification should be prepared using the following format.
   
   Title:
   
   Intended for:
   
   and consisting of:

Review of your proposal

Your proposal will be reviewed against a number of criteria to assess whether the equipment can be included in the summary of energy investments in the Energy List 2019. These criteria include:

- the standards for energy saving; see codes 310000, 410000, 320000, 420000, 340000, 440000 and 460000. This means that the energy saving achieved by the equipment are evaluated in relation to the required investment in this equipment;
- the potential applicability of the equipment;
- the acceptance and availability of the equipment in the Netherlands.
- The specification of the equipment must not be limited to a single brand or manufacturer. In principle, all market parties must be able to supply the relevant energy economic equipment.

Proposals must be submitted by no later than 1 September 2019 to:
energielijst@rvo.nl
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