

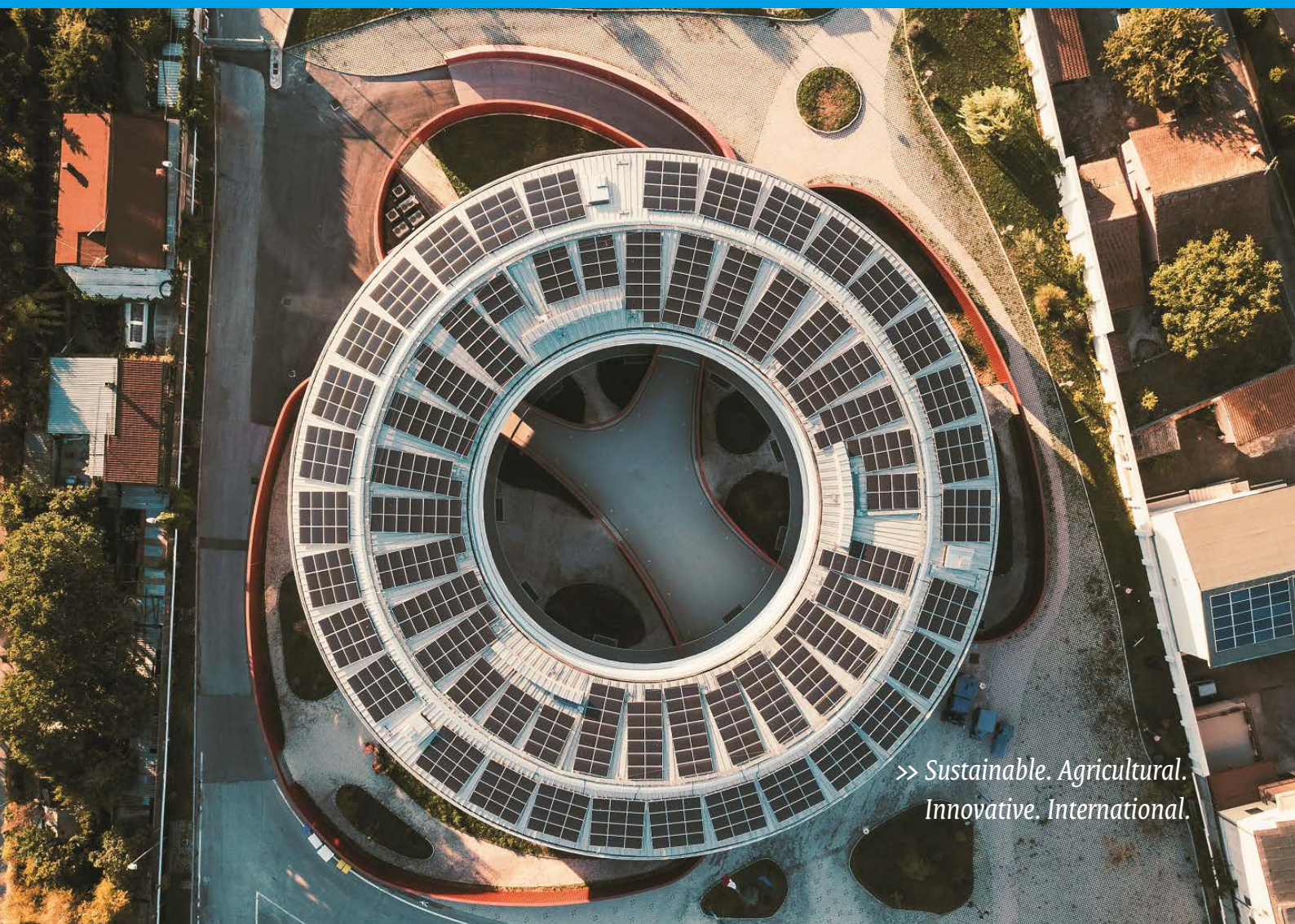


Netherlands Enterprise Agency

# Energy Investment Allowance (EIA)

Energy List 2022

Commissioned by the Ministry of Economic Affairs and Climate Policy



>> Sustainable. Agricultural.  
Innovative. International.

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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 CO<sub>2</sub> 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 45.5% 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 2022 on the Internet

The Energy List 2022 indicates which assets are eligible for the EIA. The Energy List 2022 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](http://www.wetten.nl). In addition to providing a list of energy-efficient technologies, the brochure explains how the scheme functions. The Energy List 2022 can be consulted on [www.rvo.nl/eia](http://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](#)), 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'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 € 126 million in a calendar year. 45,5% 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 2022 is € 500,000. Corporation tax is 15% for the first tax bracket up to € 395,000 and 25,8% above € 395,000.

You make new energy investments amounting to € 300,000. The EIA is 45,5% of € 300,000, i.e. € 136,500.

Your taxable profit is now € 363,500 (€ 500,000 - € 136,500).

Without the EIA you would be liable for corporation tax of € 86,340. By making use of the EIA you pay corporation tax of only € 54,525. Your tax benefit is € 31,815.

**The net EIA benefit is about 10,6% 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.

- **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, (recreation) 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 and is this investment subsidy final? 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 € 2,400 and € 328,721 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.

\* 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 the building.

### **EIA and SDE+(+) (Stimulation of Sustainable Energy production and Climate Transition)**

When a SDE+(+) decision > € 0 has been issued for an investment, then this investment is not eligible for EIA, except from code 251117 (grid connection for solar panels with SDE 2016-2020).

The components which have been included by the PBL Netherlands Environmental Assessment Agency, in the calculation of the SDE+(+) basic amount, are considered as investments. Parts of the project which are exempted, might be eligible if these parts meet the demands of the EIA.

### **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-investeringsaftrek*, MIA)? If so, either you must choose one of them, or 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 ISDE (Investment Subsidy Sustainable Energy and energy saving)**

The Sustainable Energy Investment Subsidy scheme includes equipment that is also found on the Energy List 2022. 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.

### **EIA and Subsidy scheme Cooperative Energy generation (SCE)**

Provided you use the EIA for an installation for generation of sustainable electricity, you're not entitled to a SCE-subsidy.

### **EIA and the 2010 Regulation implementing the Investment Allowance for Aruba, Curaçao, Sint Maarten and the BES islands 2010**

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 fulfil the requirements stipulated in this scheme.

## **1.4 Permits and decisions**

Some investments require permits and decisions. RVO 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:

- **Environmental section of the environmental permit**

You must have an environmental permit for the environmental section for an investment in a cogeneration plant (231002).

- **SDE permit**

For an investment in the following equipment, an SDE decision greater than € 0 based on the SDE scheme must have been issued at the time of reporting:

- grid connection for solar panels with SDE 2016 -2020 (251117).

## 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 payback time 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 description is followed by the code you need for the application.

If an investment is reported under a code where a maximum investment amount is included and parts of this investment also can be reported under another code (without a maximum amount), then it still stands, that the maximum investment amount for the total investment, is applicable on the total applications issued.

### 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 up to and including D, under the codes 310000, 410000, 320000, 420000, 340000, 440000 and 450000. 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 publication date 1 January 2007, 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/subsidie-en-financieringswijzer/energie-investeringsaftrek/ondernemers/aanvragen](http://www.rvo.nl/subsidie-en-financieringswijzer/energie-investeringsaftrek/ondernemers/aanvragen).

#### eHerkenning

You will need an e-identification (eHerkenning) account to access RVO's eLoket and complete the digital EIA form. The procedure is explained in RVO's eLoket. You can apply for eHerkenning via [www.rvo.nl/eLoket](http://www.rvo.nl/eLoket) or directly via [www.eHerkenning.nl](http://www.eHerkenning.nl). Security level 2+ is required. 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 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. heatpumps) 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 can request this information from you at a later time.

- **Production costs**

RVO 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 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 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 may request you to submit supplementary information, such as a confirmation of the order and a cost specification, to enable RVO to assess whether your investment complies with the requirements. When your application complies with all requirements, RVO 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 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 notifies the Netherlands Tax and Customs Administration of the results from RVO 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 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 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.

### 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 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.

### Product requirements, product legislation

In the Netherlands, many products are subject to legislation regarding safety requirements and sustainability. It can happen that the equipment purchased by you also has to meet these requirements, such as the 'low voltage directive' or Ecodesign regulation. This situation applies, for example, when purchasing LED lighting, which is subject to a European Regulation (EU) 2019/2020 and European standard NEN-EN IEC 62471:2008.

More information about requirements for market participants and product demands is available on:

<https://www.rvo.nl/onderwerpen/tools/wet-en-regelgeving/eu-wetgeving/ce-markering>

<https://www.rvo.nl/onderwerpen/internationaal-ondernemen/kennis-en-informatie/eu-wetgeving/ce-markering/overzicht-van-ce-richtlijnen/elektronische-apparatuur>.

## 3. Summary of energy investments 2022

**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, customised recommendations and CO<sub>2</sub> emission reduction plan.

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”.

There is mention of means of transport (Category C), if an asset is used to move objects or persons from location A to location B. An asset concerning means of transport<sup>2</sup> used for production activities, is an investment in processes and therefore falls under category B 'Processes'.

## A. Commercial buildings

Generic	Code	Page
- Technical facilities for energy saving in or near to existing commercial buildings.....	310000	15
- Technical facilities for energy saving in or near to new commercial buildings.....	410000	17
Equipment specified in specific terms by function	Code	Page
• <b>Improvement in energy performance</b>		
- Improvement in the energy performance of existing commercial buildings.....	210000	19
• <b>Heating</b>		
- High-efficiency air heater .....	210102	20
- Direct gas-fired radiation panel .....	210106	20
- Heat recovery system from air scrubbers .....	210109	20
- Heating system for existing poultry houses .....	210110	20
- Heat pump boiler .....	211102	20
- Heat pump.....	211103	21
- Air-related heat pump .....	211104	22
- Heat pump with a halogen-free coolant.....	211105	23
- Heat pump boiler with a halogen free coolant.....	211106	23
• <b>Refrigerating/freezing</b>		
- Heat exchanger for free cooling .....	210206	24
- Air cooling through water evaporation .....	210207	24
- Adiabatic air cooling in stables.....	210208	24
• <b>Ventilation</b>		
- Airtight air distribution system .....	210302	25
- Low-flow extraction hood in industrial kitchens.....	210304	25
- Energy efficient fan .....	210306	25
- System for cold or heat recovery from ventilation air (> 1.000 m <sup>3</sup> per hour).....	210801	26
- System for cold or heat recovery from ventilation air (≤ 1.000 m <sup>3</sup> per hour).....	210802	26
- System for cold or heat recovery from ventilation air in industrial kitchens .....	210805	26
- System for cold or heat recovery from ventilation air in livestock.....	210806	27
- Air handling unit for swimming pools .....	210807	27
• <b>Insulation</b>		
- High-efficiency glass for existing commercial buildings.....	210401	27
- High-efficiency glass for new commercial buildings.....	210402	27
- Insulation for existing structures.....	210403	28
- Phase change material .....	210405	28
- High-speed door for cold stores or freezer rooms.....	210406	28
- Air curtain with sensor-driven automatic control .....	210407	28
- Heat-resistant coating .....	210408	28
• <b>Lighting</b>		
- Energy saving system for lighting .....	210502	29
- LED lighting system .....	210506	29
- LED illumination system for stages or theatres.....	210508	29
• <b>Drives</b>		
- High-efficiency electric motor.....	210601	30
- Improvement in the energy performance of existing lifts.....	210602	30



Equipment specified in specific terms by function	Code	Page
• <b>Drying/humidifying</b>		
- Drying and heating system for ventilation air in storage warehouses .....	210707	30
- Adiabatic humidifying equipment.....	210708	30
• <b>Energy reuse</b>		
- System for the utilisation of waste heat <sup>1</sup> .....	210803	31
• <b>Management/control</b>		
- Energy-efficient extraction system .....	210905	31
- Energy saving system for climate control systems.....	210906	31
• <b>Utilities</b>		
- Cogeneration plant <sup>5</sup> .....	231002	32
• <b>Conversion</b>		
- Fuel cell system .....	231101	32
• <b>Energy saving in the production chain</b>		
- System for the utilisation of waste heat <sup>1</sup> .....	210803	32
• <b>Other</b>		
- High-efficiency pump .....	211001	32

310000 [W] [CHANGED]

#### Technical facilities for energy saving in or near to existing commercial buildings

The payback period for the investment must be at least 5 years, but not more than 25 years. The benchmark for existing commercial buildings is the historical energy consumption<sup>8</sup>.

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

The calculation of the payback period is as follows:

$$\text{Payback period (PBP)} = \frac{\text{Amount of investment}}{(\text{Energy consumption} \times \text{energy cost})_{\text{benchmark}} - (\text{Energy consumption} \times \text{energy cost})_{\text{new situation}}}$$

- Amount of investment consists of all the costs needed to get the technical facility in use. Costs for financing the project are no part of 'amount of investment'.
- Energy cost must be taken from the following table, unless the savings are other than electricity or gas. In that case the real energy cost paid by the company is the relevant parameter.

#### Natural gas:

	Extent of purchase by the company location [Nm <sup>3</sup> per year]	Energy cost per Nm <sup>3</sup>
1	Not higher than 170,000 Nm <sup>3</sup>	€ 0.58
2	Higher than 170,000 Nm <sup>3</sup> , not higher than 1,000,000 Nm <sup>3</sup>	€ 0.30
3	Higher than 1 million, not higher than 10 million Nm <sup>3</sup>	€ 0.24
4	Higher than 10 million Nm <sup>3</sup>	€ 0.23

#### Electricity:

	Extent of purchase by the company location [kWh per year]	Energy cost per kWh
1	Not higher than 10,000 kWh	€ 0.20
2	Higher than 10,000 kWh, not higher than 50,000 kWh	€ 0.16
3	Higher than 50,000 kWh, not higher than 10 million kWh	€ 0.10
4	Higher than 10 million kWh	€ 0.05

An example calculation is given on the website of the Energy Investment Allowance:

[Berekenen terugverdientijd EIA | RVO.nl | Rijksdienst.](#)

The facilities must achieve the energy saving by:

- improving the energy efficiency by:
  - the use of automated measurement and control instruments;
  - the use of more efficient equipment;
  - additional efficiency improvement measures.
- reducing the heating or cooling load by:
  - the reduction of losses due to ventilation or draughts.
- 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.

*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).*
- *When the energy saving is achieved in more than one energy carrier (e.g. natural gas, electricity) the cost savings of the different energy carriers must be totalized to calculate the payback period of the investment.*

410000 [W] [CHANGED]

#### Technical facilities for energy saving in or near to new commercial buildings

The payback period for the investment must be at least 5 years, but not more than 25 years. 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 calculation of the payback period is as follows:

$$\text{Payback period (PBP)} = \frac{\text{Amount of investment}}{(\text{Energy consumption} \times \text{energy cost})_{\text{benchmark}} - (\text{Energy consumption} \times \text{energy cost})_{\text{new situation}}}$$

- Amount of investment consists of all the costs needed to get the technical facility in use. Costs for financing the project are no part of 'amount of investment'.
- Energy cost must be taken from the following table, unless the savings are other than electricity or gas. In that case the is the relevant parameter.

#### Natural gas:

	Extent of purchase by the company location [Nm <sup>3</sup> per year]	Energy cost per Nm <sup>3</sup>
1	Not higher than 170,000 Nm <sup>3</sup>	€ 0.58
2	Higher than 170,000 Nm <sup>3</sup> , not higher than 1,000,000 Nm <sup>3</sup>	€ 0.30
3	Higher than 1 million, not higher than 10 million Nm <sup>3</sup>	€ 0.24
4	Higher than 10 million Nm <sup>3</sup>	€ 0.23

#### Electricity:

	Extent of purchase by the company location [kWh per year]	Energy cost per kWh
1	Not higher than 10,000 kWh	€ 0.20
2	Higher than 10,000 kWh, not higher than 50,000 kWh	€ 0.16
3	Higher than 50,000 kWh, not higher than 10 million kWh	€ 0.10
4	Higher than 10 million kWh	€ 0.05

An example calculation is given on the website of the Energy Investment Allowance:

[Berekenen terugverdientijd EIA | RVO.nl | Rijksdienst.](#)

The facilities must achieve the energy saving by:

- improving the energy efficiency by:
  - the use of automated measurement and control instruments;
  - the use of more efficient equipment;
  - additional efficiency improvement measures.
- reducing the heating or cooling load by:
  - the reduction of losses due to ventilation or draughts.
- 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.

*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).*
- *When the energy saving is achieved in more than one energy carrier (e.g. natural gas, electricity) the cost savings of the different energy carriers must be totalized to calculate the payback period of the investment.*



## Improvement in energy performance

210000 [W] [CHANGED]

### Improvement in the energy performance of existing commercial buildings

**Intended for:** the improvement of the energy performance of existing commercial buildings as determined by means of an energy index calculation as laid down in ISSO 75.1 method 2014 (Energy Performance Advice for Utility Buildings Manual, Energy Label + General Part (*Handleiding Energieprestatie Advies Utiliteitsgebouwen, Energielabel + Algemeen deel*),

**and consisting of:** a package of energy investments based on customised recommendations as laid down in ISSO 75.2 publication date 1 January 2007 (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 **€ 85 per m<sup>2</sup> of the useable floorspace when moving up one label**. The label improvement must be determined in accordance with the basic method laid down in ISSO 75.2 publication date 1 January 2007.

#### Explanation:

- The investments submitted for the EIA must be included in the EPA-U report, which is based on the NEN 7120. On 1<sup>st</sup> January 2021 the energy performance calculation based on NTA 8800, is in effect. However a customised recommendation based on this method, is not available on 1st January 2021. Therefore chosen is for the 'old systematics' where both the energy performance calculation and the EPA-U customised recommendations are based on NEN 7120.
- 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.
- The energy performance of a commercial building based on the measures mentioned in a customized recommendation according to ISSO 75.2 and NEN 7120, does not have to lead to a similar energy performance based on NTA8800.

## 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 a intermediate equipment, assembled into a single unit, with an efficiency of 90% in accordance with NEN-EN 17082:2019 based on the gross calorific value of the applied type of gas. as, combustion gas exhaust systems (when installed), air supply system (when installed), for rooms with an average height above 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).

**210106 [W]**

### Direct gas-fired radiation panel

**Intended for:** the heating of closed inner rooms with an average height above 4 metres in commercial buildings other than horticultural glasshouses,

**and consisting of:**

- a. direct gas-fired infrared radiator with a combustion efficiency equal to or greater than 86% measured in accordance with NEN-EN 416-2:2019 or NEN-EN 17175:2019, a combustion gas exhaust system, a heat exchanger in the flue gas exhaust (when installed), an air supply system (when installed);
- b. 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).

**210109**

### Heat recovery system from air scrubbers

**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 or heat exchanger in the wash water circuit, 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 houses

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

**and consisting of:**

- 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. 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<sup>3</sup>/h per m<sup>2</sup> of barn surface area.

**211102 [W] [CHANGED]**

### 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 >3,0 as measured in accordance with NEN-EN 16147:2017, storage tank, a geothermal heat exchanger or groundwater well (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.

## 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 seasonal efficiency of performance of space SCOP  $\geq 4,5$  heating ( $\eta_{s,h}$ )  $\geq 310\%$  (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, 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 heat delivery network<sup>1</sup> (when installed), a heat delivery network (when installed), a modification to the existing power connection (if necessary);
- b. an electrically driven heat pump with a direct exchange geothermal heat exchanger with a seasonal efficiency of performance of space SCOP  $\geq 5,0$  heating ( $\eta_{s,h}$ )  $\geq 344\%$  (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, 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 heat delivery network (when installed), a heat delivery network (when installed), a modification to the existing power connection (if necessary);
- c. an electrically driven water/water heat pump with a seasonal efficiency of performance of space heating SCOP  $\geq 5,0$  ( $\eta_{s,h}$ )  $\geq 344\%$  (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, a groundwater well (when installed), a buffer or an ice buffer (when installed), a residual heat storage tank (when installed), a connection to the heat delivery network (when installed), a heat delivery network (when installed), a modification to the existing power connection (if necessary);
- d. an electrically driven brine/air heat pump with a seasonal efficiency of performance of space heating SCOP  $\geq 3,0$  ( $\eta_{s,h}$ )  $\geq 207\%$  (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, 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 heat delivery network (when installed), a heat delivery network (when installed), a modification to the existing power connection (if necessary);
- e. an electrically driven water/air heat pump with a seasonal efficiency of performance of space heating SCOP  $\geq 4,5$  ( $\eta_{s,h}$ )  $\geq 310\%$  (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018 or an electrically driven heat pump with a seasonal efficiency of performance of space heating SCOP  $\geq 5,0$  ( $\eta_{s,h}$ )  $\geq 344\%$  (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018 (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 heat delivery network (when installed), a heat delivery 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 heat delivery network and the actual heat delivery network as referred to under a, b, c, d and e that is eligible for the Energy Investment Allowance is **€ 400 per installed kW<sub>th</sub> of the heat pump's thermal power output.**

#### Explanation:

- PEF of 1.45 is used to determine the  $\eta_{s,h}$ . The  $\eta_{s,h}$  includes the correction percentage as required in NEN-EN 14825:2018.
- 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 code 220212.
- 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.
- Heat delivery 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 seasonal efficiency of performance of space heating  $SCOP \geq 4,3$  ( $\eta_{s,h}$ )  $\geq 297\%$  for the outdoor unit at nominal thermal input (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, a residual heat storage tank (when installed), a connection to the heat delivery network<sup>1</sup> (when installed), a heat delivery network (when installed), a modification to the existing power connection (if necessary);
- b. an electrically driven air/water and air (combined) heat pump with a seasonal efficiency of performance of space heating  $SCOP \geq 4,3$  ( $\eta_{s,h}$ )  $\geq 297\%$  for the outdoor unit at nominal thermal input (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, a residual heat storage tank (when installed), a connection to the heat delivery network (when installed), a heat delivery network (when installed), a modification to the existing power connection (if necessary);
- c. an electrically driven air/air heat pump (air-conditioning systems) with a nominal thermal input of  $\leq 12\text{kW}$ , with a seasonal efficiency of performance of space heating  $SCOP \geq 4,4$  ( $\eta_{s,h}$ )  $\geq 303\%$ , at nominal thermal input (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, a modification to the existing power connection (if necessary);
- d. an electrically driven air/air heat pump with a nominal thermal input of  $> 12\text{kW}$ , with a seasonal efficiency of performance of space heating  $SCOP \geq 4,0$  ( $\eta_{s,h}$ )  $\geq 276\%$  for the outdoor unit at nominal thermal input (for heating season "A" = average) as measured in accordance with NEN-EN 14825:2018, a modification to the existing power connection (if necessary);
- e. an electrically driven air/water heat pump other than letter a, with an outdoor panel, without an electric fan, for direct heat exchange with the outdoor ambient air with a seasonal efficiency of performance of space heating  $SCOP \geq 3,3$  ( $\eta_{s,h}$ )  $\geq 228\%$  for the system, a residual heat storage tank (when installed), a connection to the heat delivery network (when installed), a heat delivery network (when installed), a modification to the existing power connection (if necessary).

When determining the SCOP, the cooling capacity of the outdoor unit serves as the maximum lower limit, with the exception of category e.

The maximum amount that is eligible for the heat pump, including the heat delivery network as referred to under a, up to and including d, is **€ 1,200 per installed  $\text{kW}_{th}$  of the outdoor unit's rated thermal power output**. The maximum amount that is eligible for the heat pump, including the heat delivery network as referred to under e, is **€ 1,200 per installed  $\text{kW}_{th}$  of the system rated thermal power output**. The rated power output is defined as the thermal power output on which the SCOP is based. Here nominal power is rated power.

#### Explanation:

- PEF of 1.45 is used to determine the  $\eta_{s,h}$ . The  $\eta_{s,h}$  includes the correction percentage as required in NEN-EN 14825:2018.
- Under c, heatpumps are intended which falls under the scope of Lot 10 (EU regulation 813/2013).
- Under d, heatpumps are intended which falls under the scope of Lot 21 (EU regulation 2016/2281).
- 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. See code 220212.
- 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.
- The heat delivery 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>).
- Letter e concerns an indoor heat pump. Electrically driven air/water heat pumps (outdoor units), in which the SCOP has to be determined on NEN-EN 14825:2018, must be applied for under code 211104 letter a.

**211105 [W] [CHANGED]**

**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  $\geq 4.0$  for a dT up to +40°C;
  - COP  $\geq 3.5$  for a dT from +40°C to +50°C;
  - COP  $\geq 3.0$  for a dT  $\geq +50^\circ\text{C}$ ;a system for extracting heat (when installed), a connection to the heat delivery network (when installed)<sup>11</sup>, heat delivery network (when installed) 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<sup>1</sup> or sustainable heat<sup>2</sup>, a connection to the heat delivery network (when installed)<sup>11</sup>, heat delivery network (when installed), a modification to the existing power connection (if necessary), a residual heat storage tank (when installed).

The investment amount for the heat pump itself may be submitted in full. The maximum amount of the investment for the connection to the heat delivery network and the actual heat delivery network as referred to under a and b, 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 is not assessed as a heat pump. However, the installation can be a cooling installation. See codes 220212.
- 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 heat delivery network in homes is not eligible.

**211106 [W] [CHANGED]**

**Heat pump boiler with a halogen free coolant**

**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  $> 2.8$  as measured in accordance with NEN-EN 16147:2017, storage tank, an underground heat exchanger or groundwater well (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 (not in the home) that are used to heat tap water for homes or other buildings are 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 a 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.

### 210207 [W] [CHANGED]

#### Air cooling through water evaporation

- a. direct adiabatic dew point cooler

**Intended for:** the cooling of commercial buildings, in which the outdoor air, through direct humidification, through direct nebula or with a water saturated package is cooled down,

**and consisting of:** fan, humidifier appliance, control (when installed), water treatment installation (when installed), filter (when installed). Roof fans, roof shutters for venting, air ducts and air hoses are not eligible.

- b. indirect adiabatic dew point cooler

**Intended for:** the cooling of commercial buildings, in which inlet air is cooled down in a separation heat exchanger, through a second air stream which is cooled through evaporation,

**and consisting of:** fan, heat exchanger, humidifier appliance, control (when installed), water treatment installation (when installed), filter (when installed). Air ducts and air hoses are not eligible.

- c. direct operating mobile adiabatic air cooler

**Intended for:** cooling of commercial buildings, in which the air is cooled down, through direct humidification by means of nebulizing or a saturated package,

**and consisting of:** fan with a minimum flow rate of 5000 m<sup>3</sup>/h, humidifier appliance, control, water treatment installation (when installed), filter (when installed). Air ducts and air hoses and roof fans are not eligible.

The maximum investment amount for **sensors and controls** eligible for Energy Investment Allowance is **€ 5,000 per air cooler**.

*Toelichting bij a:*

*If the humidifier appliance is applied combined with an heat exchange system, the whole installation might be eligible under code 210801.*

### 210208

#### Adiabatic air cooling in stables

**Intended for:** under high pressure nebulizing of water with a maximum drop size of 10 micrometre for the adiabatic cooling of stables.

**and consisting of:** high pressure pump unit, outgoing high pressure pipes including nozzles.

## Ventilation

### 210302 [W] [CHANGED]

#### 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 reheater 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 a minimal air leakage class (Luka) C as measured in accordance with NEN-EN 1751:2014, NEN-EN 12237:2003 en NEN-EN 1507:2006 or maximum I ATC 3 measured according to NEN-EN 16798-3:2017,. The maximum amount of the investment eligible for the Energy Investment Allowance is € 25/m<sup>2</sup> of usable area.

A fan convector or fan coil unit is not regarded as one of the above airtight components.

### 210304

#### 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.

### 210306 [W] [CHANGED]

#### Energy-efficient fan

**Intended for:** mechanical ventilation or air circulation systems,

**and consisting of:**

- a. direct driven fan, of which the efficiency grade (N) is at least 5 points higher than the amount, which is demanded as of 1 January 2015 pursuant to Commission Regulation (EU) nr. 327/2011, sensors (when installed), control unit (when installed).
- b. indirect driven fan, of which the assembly of motor and fan is measured as whole and of which the efficiency grade (N) is at least 5 points higher than the amount, which is demanded as of 1 January 2015 pursuant to Commission Regulation (EU) nr. 327/2011, sensors (when installed), control unit (when installed).

The table below displays per fan the minimal efficiency grade, which is required to qualify.

Required efficiency grade (N)			
Fan type	Efficiency category	Power range P (kW)	Minimal required N
Axial fan	A, C (static)	0,125 ≤ P ≤ 500	45
	B, D (total)	0,125 ≤ P ≤ 500	63
Centrifugal forward curved fan or centrifugal radial bladed fan	A, C (static)	0,125 ≤ P ≤ 500	49
	B, D (total)	0,125 ≤ P ≤ 500	54
Centrifugal backward curved fan without housing	A, C (static)	0,125 ≤ P ≤ 500	67
Centrifugal backward curved fan with housing	A, C (static)	0,125 ≤ P ≤ 500	66
	B, D (total)	0,125 ≤ P ≤ 500	69
Mix flow fan	A, C (static)	0,125 ≤ P ≤ 500	55
	B, D (total)	0,125 ≤ P ≤ 500	67
Cross flow fan	B, D (total)	0,125 ≤ P ≤ 500	26

**210801 [W]**

**System for cold or heat recovery from ventilation air (> 1.000 m<sup>3</sup> per hour)**

**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 handling unit, with an airflow of more than 1.000 m<sup>3</sup> per hour, 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<sup>1</sup> or sustainable heat<sup>12</sup>.

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 13053:2019.

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.

**210802 [W] [CHANGED]**

**System for cold or heat recovery from ventilation air (≤ 1.000 m<sup>3</sup> per hour)**

**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 handling unit, with an airflow up to and including 1.000 m<sup>3</sup> per hour, with a heat exchanger with an efficiency of at least 80%.

The air ducts including air grilles, air control valves or air fire dampers and heat pumps are not eligible. The mentioned technical requirements has to be determined in accordance with NEN-EN 13053:2019 of NEN-EN 13141-7:2021.

**210805 [W] [CHANGED]**

**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:**

- a. 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<sup>1</sup> or sustainable heat<sup>12</sup>, 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 13053:2019.

- b. heat exchanger placed in an air duct

**Intended for:** cooling or heating of buildings, by using the cold or heat from the exhaust air of industrial kitchens.

**and consisting of:** heat exchanger placed in an exhaust duct of (industrial) kitchens

The chiller or heater, airducts including air grills, air control valves or air fire dampers and heat pumps are not eligible.

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.

#### **210806 [W]**

##### **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 13053:2019.

#### **210807 [W] [NEW]**

##### **Air handling unit for swimming pools**

**Intended for:** dehumidification, ventilation and heating of swimming pools.

**and consisting of:** an air handling unit, equipped with a heat pump, heat recovery system with an efficiency of 65%, automatic control, heat exchanger for heating of swimming pool water (bath water condensor) (when installed).

The central boiler, air ducts included air vents, air regulation valves and air fire dampers, are not eligible. The maximum investment amount that qualifies for EIA, for not integrated measurement and control technology in favour of the air handling unit, is **€ 5,000 per cold or heat recovery system**.

## **Insulation**

#### **210401 [W] [CHANGED]**

##### **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 vacuum or gas-filled cavity with a heat transfer coefficient of a maximum of 1.1 W/m<sup>2</sup>K 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 **€ 300/m<sup>2</sup> glass**.

#### **210402 [W] [CHANGED]**

##### **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 vacuum or gas-filled cavity with a heat transfer coefficient of a maximum of 0.7 W/m<sup>2</sup>K 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 **€ 300/m<sup>2</sup> glass**.

**210403 [W] [CHANGED]**

**Insulation for existing structures**

- a. Intended for:** the improvement of the insulation of existing floors, roofs, ceilings or walls of commercial buildings, other than chilling rooms or freezer rooms,  
**and consisting of:** insulation material in which the total heat resistance of the layers,  $R = \Sigma(R_m) = \Sigma(d/\lambda)$ , is increased by at least  $2.00 \text{ m}^2\text{K/W}$  as compared to the original situation.  
The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 30/m<sup>2</sup> of the area to be insulated.**
- b. Intended for:** the improvement of the insulation and heat reflection of existing 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,  $R = \Sigma(R_m) = \Sigma(d/\lambda)$ , is increased by at least  $2.00 \text{ m}^2\text{K/W}$  compared to the original situation. The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 40/m<sup>2</sup> 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  $0.17 \text{ m}^2\text{K/W}$  (which must be taken into account). The heat resistance must be calculated to an accuracy of two decimal places.

**210405 [W]**

**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  $100 \text{ kJ/kg}$ . 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.

**210406**

**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  $0.3 \text{ W/m}^2\text{K}$ . The opening speed of the door is at least  $1.50 \text{ m/s}$ .

**210407 [W] [CHANGED]**

**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 inside and outside sensor that provides the automatic control system with measurement data on the outside and inside temperatures as well as the position of the door.

**210408 [W] [CHANGED]**

**Heat-resistant coating for existing cold stores**

**Intended for:** the improvement of the energy performance of existing cold stores and freezer rooms by applying a heat-resistant coating on the outer layer of existing cold stores and existing freezer rooms,  
**and consisting of:** a coating with a minimum sunlight reflection of 85%, measured in accordance with NEN-EN-ISO 22969:2021, a primer (when installed).



## Lighting

### 210502 [W]

#### 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:**

- a. External light sensors or motion sensors (not integrated in lighting fixture), switching unit or control unit, dimmer control (when installed).

The maximum amount of the investment eligible for the EIA is **€ 150 per sensor**.

- b. Light control components integrated in a lighting fixture with (wireless) communication of the LED driver and (wireless) light sensors or motion sensors, connection to a Building Control System (when installed).

The maximum amount of the investment eligible for the EIA is **€ 50 per in the lighting fixture integrated light control component**.

*Explanation:*

*Lighting fixtures with an efficacy of 125 lm/W and meet a lifetime criterium of L<sub>90</sub> at 50,000 hours and equipped with an integrated daylight sensor or motion sensor can be submitted under code 210506.*

### 210506 [W] [CHANGED]

#### LED lighting system

**Intended for:** lighting in or near commercial buildings,

**and consisting of:** LED lighting fixtures with an integrated non-exchangeable LED-light source with an efficacy of at least 125 lm/W and a minimum lifetime L<sub>90</sub> by 50,000 hours and a tq= 25 degree Celsius or better. The maximum investment amount which is eligible for EIA is **€ 500 per fixture**.

The efficacy must be measured in accordance with LM-79-19, NEN-EN-IEC 62722-2-1:2016 or equivalent standards/protocols. Under efficacy is meant the ratio between the luminous flux of the lighting system (in lumen) and the electrical power consumption (in Watt). The minimum lifetime criteria must be determined in accordance with LM-80-08 in combination with TM 21, NEN-EN-IEC 62722-2-1:2016 or equivalent standards/protocols.

Measurements on the basis of LM-79-19, LM-80-08, TM21 and NEN-EN-IEC 62722-2-1:2016 or equivalent standards/ protocols must be done by accredited institutions. Electrical and photometric measurements must be part of the scope of the accreditation of the institution.

Exchangeable LED light sources such as LED tubes and emergency lighting fixtures are excluded for the Energy Investment Allowance.

*Explanation:*

- Example: Fixtures with lifetime criteria L<sub>70</sub> or L<sub>80</sub> do not comply. Fixtures with lifetime criterium L<sub>95</sub> comply.
- Example: Fixtures with an efficacy of 125 lm/Watt and a lifetime criterium of L<sub>90</sub> at 50,000 hours or better, equipped with an integrated daylight and/or motion sensors, should be requested under code 210506.
- Components for lighting control, which are integrated in a fixture that does not qualify under code 210506, might be eligible under code 210502 letter b. The costs of these lighting control component, must be specified apiece.
- Stage lighting or theatre lighting has to be applied for under code 210508.

### 210508 [W]

#### LED illumination system for stages or theatres

**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 and driver are eligible. LED screens or LED displays are not eligible.*

## 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 60034-30-1:2014.
- 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 NVN-CLC-IEC/TS 60034-30-2:2021, 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] [CHANGED]

#### 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 NEN-EN-ISO 25745-2:2015 standard.

## Drying/humidifying

### 210707 [W] [CHANGED]

#### 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 functioning with a halogen free refrigerant, direct functioning evaporator (when installed) with CO<sub>2</sub> or NH<sub>3</sub> as a secondary refrigerant in the incoming airflow (when installed), a heat exchanger in the exhausted airflow (when installed), a fan (when installed), a control system (when installed).

A drying or heating installation in which the combination of facilities a halogen free refrigerant or other secondary refrigerant such as CO<sub>2</sub> or NH<sub>3</sub> is applied, is not eligible for Energy Investment Allowance. Under the combination of facilities is meant, all the available equipment connected together, for drying and/or heating of products.

*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.*

### 210708

#### Adiabatic humidifying equipment

**Intended for:** direct adiabatic humidifying equipment as replacement of existing steam humidifiers in ventilation systems.

**and consisting of:** humidifying equipment, water treatment equipment (when installed).

*Explanation:*

*If the humidifying equipment is being applied in combination with a heat recovery system, an application for the whole installation can be submitted under code 210801.*

## Energy reuse

**210803 [W] [CHANGED]**

### **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<sup>9</sup>, a heat exchanger at the waste heat source (when installed), a heat distribution network<sup>10</sup> (when installed), a heat exchanger between the heat distribution network and the heat delivery network<sup>11</sup> (when installed), delivery set<sup>19</sup> (when installed). Heat delivery networks<sup>11</sup> 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<sup>12</sup>.

*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]**

### **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 sensor 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<sup>5</sup>**

**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<sup>4</sup> 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, other than by a piston engine<sup>6</sup>, connection to the electric grid (when installed).

A cogeneration plant using a piston engine is not eligible for the Energy Investment Allowance.

A cogeneration plant newly installed with a nominal electrical output equal or greater than 300 Mwe is not eligible.

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 production chain

**210803 [W] [CHANGED]**

### **System for the utilisation of waste heat<sup>7</sup>**

**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<sup>8</sup>, a heat exchanger at the waste heat source (when installed), a heat distribution network<sup>10</sup> (when installed), a heat exchanger between the heat distribution network and the heat delivery network<sup>11</sup> (when installed), delivery set<sup>9</sup> (when installed). Heat delivery networks<sup>11</sup> 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<sup>12</sup>.

*Explanation:*

*See also code 220814 for processes.*

## Other

**211001 [W]**

### **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] [CHANGED]

#### Technical facilities for energy saving in existing processes

The payback period for the investment must be at least 5 years, but not more than 15 years. The benchmark for existing processes is the historical energy consumption<sup>8</sup>.

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

The calculation of the payback period is as follows:

$$\text{Payback period (PBP)} = \frac{\text{Amount of investment}}{(\text{Energy consumption} \times \text{energy cost})_{\text{benchmark}} - (\text{Energy consumption} \times \text{energy cost})_{\text{new situation}}}$$

- Amount of investment consists of all the costs needed to get the technical facility in use. Costs for financing the project are no part of 'amount of investment'.
- Energy cost must be taken from the following table, unless the savings are other than electricity or gas. In that case the real energy cost paid by the company is the relevant parameter.

#### Natural gas:

	Extent of purchase by the company location [Nm <sup>3</sup> per year]	Energy cost per Nm <sup>3</sup>
1	Not higher than 170,000 Nm <sup>3</sup>	€ 0.58
2	Higher than 170,000 Nm <sup>3</sup> , not higher than 1,000,000 Nm <sup>3</sup>	€ 0.30
3	Higher than 1 million, not higher than 10 million Nm <sup>3</sup>	€ 0.24
4	Higher than 10 million Nm <sup>3</sup>	€ 0.23

#### Electricity:

	Extent of purchase by the company location [kWh per year]	Energy cost per kWh
1	Not higher than 10,000 kWh	€ 0.20
2	Higher than 10,000 kWh, not higher than 50,000 kWh	€ 0.16
3	Higher than 50,000 kWh, not higher than 10 million kWh	€ 0.10
4	Higher than 10 million kWh	€ 0.05

A calculation example can be found on the website of the Energy Investment Allowance:

[Berekenen terugverdiëntijd EIA](#) | [RVO.nl](#) | [Rijksdienst](#).

The calculation of the energy saving does not take account of the savings from the reduction of 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.

*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.*
- *When the energy saving is achieved in more than one energy carrier (e.g. natural gas, electricity and diesel) the cost savings of the different energy carriers must be totalized to calculate the payback period of the investment.*

420000 [W] [CHANGED]

#### Technical facilities for energy saving in new processes

The payback period for the investment must be at least 5 years, but not more than 15 years. 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 payback period is as follows:

$$\text{Payback period (PBP)} = \frac{\text{Amount of investment}}{(\text{Energy consumption} \times \text{energy cost})_{\text{benchmark}} - (\text{Energy consumption} \times \text{energy cost})_{\text{new situation}}}$$

- Amount of investment consists of all the costs needed to get the technical facility in use. Costs for financing the project are no part of 'amount of investment'.
- Energy cost must be taken from the following table, unless the savings are other than electricity or gas. In that case the real energy cost paid by the company is the relevant parameter.

#### Natural gas:

	Extent of purchase by the company location [Nm <sup>3</sup> per year]	Energy cost per Nm <sup>3</sup>
1	Not higher than 170,000 Nm <sup>3</sup>	€ 0.58
2	Higher than 170,000 Nm <sup>3</sup> , not higher than 1,000,000 Nm <sup>3</sup>	€ 0.30
3	Higher than 1 million, not higher than 10 million Nm <sup>3</sup>	€ 0.24
4	Higher than 10 million Nm <sup>3</sup>	€ 0.23

#### Electricity:

	Extent of purchase by the company location [kWh per year]	Energy cost per kWh
1	Not higher than 10,000 kWh	€ 0.20
2	Higher than 10,000 kWh, not higher than 50,000 kWh	€ 0.16
3	Higher than 50,000 kWh, not higher than 10 million kWh	€ 0.10
4	Higher than 10 million kWh	€ 0.05

A calculation example can be found on the website of the Energy Investment Allowance:

[Berekenen terugverdientijd EIA](#) | [RVO.nl](#) | [Rijksdienst](#).

The energy saving does not take into account the saving from the reduction of 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.

*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.*
- *When the energy saving is achieved in more than one energy carrier (e.g. natural gas, electricity and diesel) the cost savings of the different energy carriers must be totalized to calculate the payback period of the investment.*

## Heating

**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.

**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 [CHANGED]**

### **Electrical 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 or with electrical elements positioned in the cooking oil, a control system (when installed), a modification to the existing power connection (if necessary).

*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.*
- *The one time costs of connection are not eligible.*

**220120**

### **Heat bridge for catering industry and professional kitchens**

**Intended for:** maintaining the elevated temperature of prepared meals in catering industry or professional kitchens

**and consisting of:** heat bridge by means of halotherm lamps, integrated detection and control on heat demand.

**220121**

### **Electrical heating for grow tables in green houses**

**Intended for:** localized heating of growing pots on grow tables,

**and consisting of:** electrical heating mat, control system and sensors for controlling the temperature in the pot (when installed).

**220122**

### **Electrical baking carousel**

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

**and consisting of:** rotating baking carousel with multiple electrical baking plates equipped with an overhead infrared burner.

**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  $\geq 4.0$  for a dT up to  $+40^{\circ}\text{C}$ ;
  - COP  $\geq 3.5$  for a dT from  $+40^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ;
  - COP  $\geq 3.0$  for a dT from  $+50^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ;
  - COP  $\geq 2.5$  for a dT from  $+60^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ ;
  - COP  $\geq 2.3$  for a dT  $\geq +70^{\circ}\text{C}$
- 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. an absorption or adsorption heat pump, in which the regenerator is heated by waste heat<sup>12</sup> or sustainable heat<sup>12</sup>, 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. See code 220212. A low-temperature heating network in a horticultural glasshouse that is mainly fed by the heat pump may also be eligible.
- The low temperature net in a horticultural greenhouse that is mainly fed by a heat pump may 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  $+16^{\circ}\text{C}$ ,  
**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  $+13^{\circ}\text{C}$ ;
- electronic expansion control (for a direct expansion system);
- an evaporator, excluding a cooling tunnel;
- adiabatic precooler blocks (pads) for an air-cooled condenser (when installed);
- the cold network with  $\text{CO}_2$  or  $\text{NH}_3$  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.

The ambient temperature is a dry-bulb temperature of  $+30^{\circ}\text{C}$  with a relative humidity of 50% for the air-cooled condenser and a wet-bulb temperature of  $+22^{\circ}\text{C}$  for the evaporation condenser. When not cooling with outside air, the ambient temperature is the temperature of the water supply.

The maximum 10 K temperature difference between the condensation and ambient temperature applies to an outdoor temperature of  $+13^{\circ}\text{C}$  and higher.

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.

The maximum amount of the investment eligible for the Energy Investment Allowance for the refrigerator and/or freezer installation is € 1,500 per kW cooling capacity or freezing capacity of the compressors at the aforementioned conditions.

*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<sub>2</sub> refrigerator and/or freezer installations are frequently used in supermarkets and must comply with the description of code 220223.
- A plug-in cooling and/or freezing cabinet is not regarded as a refrigerator and/or freezer installation.
- Adiabatic precooling pads must not be a spraying or nebulizing installation in which there is a loss of water or a loss of droplets to the surroundings and formation of aerosols.

#### 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).

#### 220215 [W] [CHANGED]

##### 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 25 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, A+, A++ or A+++ and freezers with EcoDesign Label C, B, A, A+, A++ or A+++ as laid down in Regulation (EU) 2015/1094, comply with the aforementioned Energy Efficiency Indices.
- Cooling appliances for direct sales are not eligible.

**220216 [W] [CHANGED]**

**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 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.

**220218**

**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.

**220219**

**Free cooling of server rooms<sup>13</sup> or existing data centres**

**Intended for:** the cooling of new or existing server rooms or existing data centres by using 100% by using free 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).

**220221 [W]**

**Energy-efficient rack cooling**

**Intended for:** the cooling of ICT 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<sup>13</sup> of up to 100 m<sup>2</sup>**

**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 m<sup>2</sup> 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]**

**Transcritical CO<sub>2</sub> chilling 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 CO<sub>2</sub> as a coolant, with:

- at least one frequency controlled or electronic speed 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 84 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;
- adiabatic precooler blocks (pads) for an air-cooled condenser (when installed);
- the connected cooling and/or freezing cabinet (when installed);

The ambient temperature is a dry-bulb temperature of +32°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.

The maximum amount of the investment for the connected cooling and/or freezing cabinets eligible for the Energy Investment Allowance is **€ 2,500 per installed kW of the cooling compressors' cooling capacity** under design conditions. Installation components that do not contain the CO<sub>2</sub> 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.
- Adiabatic precooler blocks (pads) are not spraying installations with waterloss or waterdroplet loss in the form of aerosols to the surroundings.

**220224**

**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.*

**220225 [W]**

**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.

The determination of the cooling capacity and the seasonal energy performance ratio (SEPR) for condenser units are laid down in Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009, as well as in Regulation (EU) 2015/1095 implementing the Directive.

**220226**

**Energy-efficient blowing air cooler with EC fans**

**Intended for:** the cooling and long-term storage of fruit and agricultural products 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.*

**220227 [W]**

**Decentralized cooling system (hydroloop) with a total refrigeration output of up to 50 kW**

**Intended for:** cooling of products in cabinets and/or cells to a maximum temperature of +16°C,  
**and consisting of:** plug-in cooling cabinets and/or cooled cells interconnected with a glycolnet and drycooler and where:

- the connected cabinets and/or condenser units:
  - use a coolant free of halogen;
  - are equipped with at least one frequency controlled or electronic speed controlled compressor;
  - use an electronic expansion control;
- the drycooler is designed:
  - to a maximum difference in temperature of 14 K between condensation temperature and ambient temperature;
  - to a maximum difference in temperature of 4 K between water inlet temperature and water outlet temperature;
  - with a specific power consumption of the dry cooler of a maximum 21 W per kW dry cooler power output;
- weather-dependent control of the condensation pressure to an outdoor temperature of + 13°C.

The specific absorbed power of the dry cooler is the sum of the total power absorption of the fans and pumps, divided by the dry cooler capacity at a 14 K maximum temperature difference between the condensation temperature and the ambient temperature.

The ambient temperature is a dry-bulb temperature of +30°C with a relative humidity of 50%.

The maximum temperature difference of 14K between the condensation temperature and the ambient temperature is applicable for an outdoor temperature of +13°C and higher.

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.

The maximum amount of the investment eligible for the Energy Investment Allowance is **€ 3,500 per installed kW of the cooling capacity of the decentralized cooling system.**

Condenser units intended for refrigeration and freezing applications must comply with the requirements stated for refrigeration applications.

The total cooling capacity is the sum of the separate cooling capacities of the connected cabinets and/or condenser units, determined at a condensation temperature of +44°C, and an evaporation temperature of -10°C (for refrigeration applications) or an evaporation temperature of -35°C (for freezing applications).

**220228 [W] [NEW]**

**Energy-efficient packaged drinks cooler**

**Intended for:** the cooling and selling of packaged drinks in temperature class M4 (+9°C/-1°C) with an Energy Efficiency Index (EEL) of less than 50 as measured in accordance with Regulation (EU) 2019/2018 and 2019/2024 in climate class CC1 (+25°C, 60% RH) or CC2 (+32°C, 65% RH),

**and consisting of:** drinks cooler as described in article 2 of Regulation (EU) 2019/2024 that uses a halogen-free coolant.

*Explanation:*

- Drink coolers with energy label A,B,C or D as laid down in Regulation (EU) 2019/2018, comply with the aforementioned Energy Efficiency Indices.
- Cooling appliances for supermarkets are not considered as laid down in article 10f Regulation (EU) 2019/2024 are not considered drink coolers and are therefore not eligible.

## Ventilation

### 220304 [CHANGED]

#### System for the dehumidification of horticultural glasshouses

- a. **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 heat delivery network<sup>11</sup> 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.

### 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.

### 220306 [W] [CHANGED]

#### Energy-efficient fan

**Intended for:** mechanical ventilation or air circulation systems,

**and consisting of:**

- a. direct driven fan, of which the efficiency grade (N) is at least 5 points higher than the amount, which is demanded as of 1 January 2015 pursuant to Commission Regulation (EU) nr. 327/2011, sensors (when installed), control unit(when installed).
- b. indirect driven fan. The combination of motor and fan is measured as one unit and the efficiency grade (N) is at least 5 points higher than the amount, which is demanded as of 1 January 2015 pursuant to Commission Regulation (EU) nr. 327/2011, sensors (when installed), control unit(when installed).

In the table below the minimum demanded efficiency grade is listed.

Required efficiency grade (N)			
Fan type	Efficiency category	Power range P (kW)	Minimal required N
Axial fan	A, C (static)	$0,125 \leq P \leq 500$	45
	B, D (total)	$0,125 \leq P \leq 500$	63
Centrifugal forward curved fan or centrifugal radial bladed fan	A, C (static)	$0,125 \leq P \leq 500$	49
	B, D (total)	$0,125 \leq P \leq 500$	54
Centrifugal backward curved fan without housing	A, C (static)	$0,125 \leq P \leq 500$	67
Centrifugal backward curved fan with housing	A, C (static)	$0,125 \leq P \leq 500$	66
	B, D (total)	$0,125 \leq P \leq 500$	69
Mix flow fan	A, C (static)	$0,125 \leq P \leq 500$	55
	B, D (total)	$0,125 \leq P \leq 500$	67
Cross flow fan	B, D (total)	$0,125 \leq P \leq 500$	26

## Insulation

### 220402 [CHANGED]

#### 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, or a double layer consisting of ETFE film.

### 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 mm<sup>2</sup> 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 mm<sup>2</sup> and where the translucence for diffuse incident light is greater than 10%, mechanical operating mechanism, gap-sealing facilities (when installed).

*Explanation:*

*These are translucent (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 mm<sup>2</sup> 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 2.00 m<sup>2</sup>K/W as compared to the original situation.  
The maximum amount of the investment eligible for the Energy Investment Allowance is € 20/m<sup>2</sup> 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 m<sup>2</sup>K/W (which must be taken into account). The heat resistance must be calculated to an accuracy of two decimal places.

**220408 [W]**

**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.*

## 220409

### 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:

$$R_l = \frac{\ln \frac{d_a}{d_i}}{2 \cdot \pi \cdot \lambda} \quad \left[ \frac{\text{m} \cdot \text{K}}{\text{W}} \right]$$

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

$$R = \frac{s}{\lambda} \quad \left[ \frac{\text{m}^2 \cdot \text{K}}{\text{W}} \right]$$

$d_a$  = exterior diameter of the insulated pipe [m]

$d_i$  = exterior diameter of the pipe [m]

$s$  = insulation thickness [m]  $\rightarrow d_a = d_i + 2 \cdot s$

$\lambda$  = 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:

Process temperature between:	50°C ≤ 150°C	150°C ≤ 250°C	250°C ≤ 350°C	350°C ≤ 450°C	450°C ≤ 550°C
$\lambda$ value for $T_m$ [°C]:*	50°C	100°C	200°C	200°C	300°C
DN40 – DN80	3.4	3.7	3.4	3.6	2.7
DN100 – DN150	2.5	2.8	2.6	2.6	2.0
DN200 – DN350	1.8	1.9	1.8	1.9	1.4
DN400 – DN500	1.3	1.5	1.3	1.4	1.1
Pipes >DN500 and flat plates	2.4	2.6	2.7	2.8	3.0

\* The thermal conduction coefficient ( $\lambda$ ) 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  $\lambda$  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]**

### **Illuminating system for horticultural crops**

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

**and consisting of:**

- a. Lighting fixtures including light source with a luminous efficiency of at least 2.50 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 1.80 micromol photons per second per watt.

The luminous efficiency must be measured in accordance with LM-79-19 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-79-19 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 NVN CLC/IEC/TS 60034-30-2:2021, 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. tumbler dryer heat pump.

**220719 [W]**

### **UV-A LED drying installation**

**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.

**220720 [W]**

### **Energy-efficient crate dryer**

**Intended for:** the drying of washed plastic crates for food,

**and consisting of:** a crate drying machine that removes moisture using centrifugal force and compressed air.

The residual moisture content after drying must be less than 5 grams per crate.

## Energy reuse

### 220801 [W]

#### System for cooling and heating 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).

### 220809 [W]

#### 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**.

### 220814 [W] [CHANGED]

#### System for the utilisation of waste heat<sup>1</sup>

**Intended for:** the recovery of waste heat<sup>1</sup> at the source and transport of the waste heat to heat processes

**and consisting of:** a waste heat transport duct<sup>9</sup>, heat exchanger at the waste heat source (when installed), heat distribution network<sup>10</sup> (when installed), heat exchanger between the heat distribution network and the heat delivery network<sup>11</sup> (when installed).

Heat delivery networks<sup>11</sup> 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<sup>12</sup>.

*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<sup>10</sup> is not eligible.

*Explanation:*

*In a flue gas/air heat exchanger, heat coming from flue gas is transferred to air. This air is deployed elsewhere in the process.*

*A heat exchanger where the heat of the flue gas is transferred to (process) water, might be eligible under code 220814 or 210803 if there is use of waste heat.*

### 220817 [W]

#### Energy saving in repeating batch processes

**Intended for:** temporarily storing of heat or cold recovered by respectively cooling or heating of repeating batch processes, in which not more than 7000 batches each year are produced.

**and consisting of:** a buffer tank for storage of heat or cold with piping and pumps, heat exchanger (when installed), control system (when installed).

**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<sup>1</sup>,  
**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 [CHANGED]**

**Braking energy recovery from existing production facilities**

**Intended for:** the recovery of electrical energy generated on braking rotating machine parts,  
**and consisting of:** brake energy recovery system, flywheel (when installed), super capacitor (when installed), chopper installation (when installed), frequency control (when installed), power electronics/power control of the motor (when installed).

**Management/control**

**220909**

**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**

**e. 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/NO<sub>x</sub>/CO<sub>x</sub> 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.

**220912 [W] [CHANGED]**

**Energy-efficient UPS**

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

**and consisting of:**

**a. 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 62040-3:2021, in operating mode and with a UPS load of 50%. If a UPS has more than one mode, all modes must comply to the above efficiency requirement.

**220913 [W]**

**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.*

**220914**

**Appendages for compressed air installations**

**a. Valve in compressed air system**

**Intended for:** shutting down a compressed air line for a production line that is temporarily inactive **and**

**consisting of:** valve in compressed air line, monostable air nozzle damper, speed control valve, flowmeter (when installed);

**b. pulse valve in compressed air system**

**Intended for:** delivering blow air in a pulsated manner to production machines

**and consisting of:** pulse blow valve, blow nozzles (when installed), valve (when installed);

**c. standby valve in compressed air system**

**Intended for:** reduction of compressed air pressure in the production machine in standby mode

**and consisting of:** standby valve

**d. pressure controlled vacuum ejector**

**Intended for:** reduction of compressed air use by shutting down compressed air intake when reaching the designated level of vacuum

**and consisting of:** pressure controlled vacuum ejector, vacuum pad (when installed).

**Utilities**

**231002 [W]**

**Cogeneration plant<sup>5</sup>**

**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<sup>4</sup> 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 other than by a piston engine<sup>6</sup>, connection to the electric grid (when installed). A cogeneration plant using a piston engine is not eligible for 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 production chain

**220814 [W] [CHANGED]**

### **System for the utilisation of waste heat<sup>1</sup>**

**Intended for:** the recovery of waste heat at the source and the transport of the waste heat<sup>1</sup> for heating in processes,

**and consisting of:** a waste heat transport duct<sup>9</sup>, a heat exchanger at the waste heat source (when installed), a heat distribution network<sup>10</sup> (when installed), a heat exchanger between the heat distribution network and the heat delivery network<sup>11</sup> (when installed).

Heat delivery networks<sup>11</sup> 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<sup>12</sup>.

*Explanation:*

*See code 210803 for buildings.*

**221005 [W]**

### **Transport duct for the supply of CO<sub>2</sub> 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<sub>2</sub> cleaning equipment (when installed), CO<sub>2</sub> compressor/fan for CO<sub>2</sub> transport to the horticultural glasshouse (when installed).

The distribution system for CO<sub>2</sub> in the glasshouse, CO<sub>2</sub> capture, CO<sub>2</sub> storage in the ground and a CO<sub>2</sub> compressor for storage in the ground are not eligible.

## Other

**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 [W]**

### **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.*

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]

**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 (when installed).

221225 [W] [NEW]

**Mobile high-pressure cleaner fired on compressed natural gas**

*Intended for:* the cleaning of surfaces with high-pressure hot water. The appliance has an efficiency at least 93% at low power,

*and consisting of:* mobile high-pressure cleaner fired on compressed natural gas, battery (when installed).

## C. Means of transport

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340000 [W] [CHANGED]

#### Technical facilities for energy saving in or on existing means of transport<sup>2</sup>

The payback period for the investment must be at least 5 years, but not more than 15 years. The benchmark for existing means of transportation is the historical energy consumption<sup>8</sup>.

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

The calculation of the payback period is as follows:

$$\text{Payback period (PBP)} = \frac{\text{Amount of investment}}{(\text{Energy consumption} \times \text{energy cost})_{\text{benchmark}} - (\text{Energy consumption} \times \text{energy cost})_{\text{new situation}}}$$

- Amount of investment consists of all the costs needed to get the technical facility in use. Costs for financing the project are no part of 'amount of investment'.
- Energy cost must be taken from the following table, unless the savings are other than electricity or gas. In that case the real energy cost paid by the company is the relevant parameter.

#### Natural gas:

	Extent of purchase by the company location [Nm <sup>3</sup> per year]	Energy cost per Nm <sup>3</sup>
1	Not higher than 170,000 Nm <sup>3</sup>	€ 0.58
2	Higher than 170,000 Nm <sup>3</sup> , not higher than 1,000,000 Nm <sup>3</sup>	€ 0.30
3	Higher than 1 million, not higher than 10 million Nm <sup>3</sup>	€ 0.24
4	Higher than 10 million Nm <sup>3</sup>	€ 0.23

#### Electricity:

	Extent of purchase by the company location [kWh per year]	Energy cost per kWh
1	Not higher than 10,000 kWh	€ 0.20
2	Higher than 10,000 kWh, not higher than 50,000 kWh	€ 0.16
3	Higher than 50,000 kWh, not higher than 10 million kWh	€ 0.10
4	Higher than 10 million kWh	€ 0.05

#### Diesel:

		Energy cost per liter
1	For shipping (inland navigation vessel, fishing boats et cetera)	€ 0.64
2	For road transport	€ 1.16

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.

A calculation example can be found on the website of the Energy Investment Allowance:

[Berekenen terugverdientijd EIA](#) | [RVO.nl](#) | [Rijksdienst](#).

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.

*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.*
- *When the energy saving is achieved in more than one energy carrier (e.g. natural gas, electricity and diesel) the cost savings of the different energy carriers must be totalized to calculate the payback period of the investment.*

440000 [W] [CHANGED]

#### Technical facilities for energy saving in or on new means of transport<sup>2</sup>

The payback period for the investment must be at least 5 years, but not more than 15 years. 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.

The calculation of the payback period is as follows:

$$\text{Payback period (PBP)} = \frac{\text{Amount of investment}}{(\text{Energy consumption} \times \text{energy cost})_{\text{benchmark}} - (\text{Energy consumption} \times \text{energy cost})_{\text{new situation}}}$$

- Amount of investment consists of all the costs needed to get the technical facility in use. Costs for financing the project are no part of 'amount of investment'.
- Energy cost must be taken from the following table, unless the savings are other than electricity or gas. In that case the real energy cost paid by the company is the relevant parameter.

#### Natural gas:

	Extent of purchase by the company location [Nm <sup>3</sup> per year]	Energy cost per Nm <sup>3</sup>
1	Not higher than 170,000 Nm <sup>3</sup>	€ 0.58
2	Higher than 170,000 Nm <sup>3</sup> , not higher than 1,000,000 Nm <sup>3</sup>	€ 0.30
3	Higher than 1 million, not higher than 10 million Nm <sup>3</sup>	€ 0.24
4	Higher than 10 million Nm <sup>3</sup>	€ 0.23

#### Electricity:

	Extent of purchase by the company location [kWh per year]	Energy cost per kWh
1	Not higher than 10,000 kWh	€ 0.20
2	Higher than 10,000 kWh, not higher than 50,000 kWh	€ 0.16
3	Higher than 50,000 kWh, not higher than 10 million kWh	€ 0.10
4	Higher than 10 million kWh	€ 0.05

#### Diesel:

	Energy cost per liter
1	For shipping (inland navigation vessel, fishing boats et cetera) € 0.64
2	For road transport € 1.16

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.

A calculation example can be found on the website of the Energy Investment Allowance:

[Berekenen terugverdientijd EIA](#) | [RVO.nl](#) | [Rijksdienst](#).

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

*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.*
- *When the energy saving is achieved in more than one energy carrier (e.g. natural gas, electricity and diesel) the cost savings of the different energy carriers must be totalized to calculate the payback period of the investment.*

## Heating

### 241101

#### 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

### 240202 [W]

#### Cryogenic transport refrigeration

**Intended for:** the refrigeration of goods during transport,

**and consisting of:**

- a. cryogenic cooling installation with CO<sub>2</sub> as a coolant, storage tank for liquid CO<sub>2</sub>;
- 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 NVN IEC/TS 60034-30-2:2021, 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. 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. 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 195 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 195 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 a 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 195 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 is eligible. The engines powering the bow thrusters and other applications are not eligible.

**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.

**240618 [W]**

**Fuel cell system on means of transport<sup>2</sup>**

*Intended for:* the generation of electrical energy whereas a fuel is converted directly into electrical energy,

*and consisting of:* fuel cell and fuel reformer (when installed).

## 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.

**240607 [NEW]**

**Energy Axis**

*Intended for:* the recovery of braking energy from a trailer,

*and consisting of:* a generator built in the rear axle, battery, power electronics (when installed).

**240608 [NEW]**

**Turbo Compound**

*Intended for:* the recovery of energy from the exhaust gases from the engine of a truck,

*and consisting of:* additional turbo placed behind the turbo in the exhaust gas, electronics (when installed).

**240801 [CHANGED]**

**Heat recovery on an existing inland navigation vessel**

*Intended for:* the recovery of heat from the engine of an existing inland navigation vessel,

*and consisting of:* a heat exchanger, a heat transport pipe<sup>9</sup> (when installed), a buffer tank (when installed).

The heat delivery network<sup>11</sup> 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 air nozzles (when installed), a display (when installed);
- b. *Intended for:*** the automatic monitoring and correction of the programmed 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).

**240907 [W] [NEW]**

### **Cruise control for trucks**

***Intended for:*** the drive of a truck,

***and consisting of:*** cruise control that controls the transmission on the basis of road map information and GPS data.

*Explanation:*

*Other cruise control systems, for instance adaptive cruise control (ACC) are not eligible.*

## 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 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.



**241213 [W]**

**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.*

**241215**

**Energy storage on means of transport<sup>2</sup>**

**Intended for:** the storage of electricity from a generator  
**and consisting of:**

- a. a. a lithium battery, a current/voltage converter, a control system;
- b. redox flow battery, a current/voltage converter, a control system.

**241216**

**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.*

**221221 [W]**

**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.*

**241222**

**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.

**241223 [W]**

**Spud pole for existing work vessel**

**Intended for:** maintaining stability in an existing work vessel during the execution of work,  
**and consisting of:** spud pole,  
The maximum amount of investment eligible for energy investment allowance is € 20.000 for each spud pole. Spud poles for inland transport ships, tugboats and push boats are excluded from Energy Investment Allowance.

*Explanation:*

*A spud pole only qualifies if it is constructed in an existing work vessel. Work vessels do not transport cargo, but are used for building and reconstruction works in or near waterways. Examples are a crane ship and/or dredging ship.*

**241224 [CHANGED]**

**Improvement of energy performance in road transport**

**Intended for:** improvement of energy performance for road transport,  
**and consisting of:** a combination of facilities in which two or more of the following components are added to one means of transport: stationary air conditioner (240207), energy axis (240607), turbocompound (240608), Hybrid power take-off (PTO) drive (240614), tyre pressure control system (240906), cruise control for truck (240907), side skirts (241202), mirror camera (241225) or lightweight rims (241227).  
**Investments submitted under this code have to qualify to the conditions of the separate codes.**

**241225**

**Mirror camera**

**Intended for:** reducing the air resistance of vehicles in road transport and passenger bus transport,  
**and consisting of:** cameras (in lieu of outside mirrors) fitted on the exterior of the vehicle, combined with monitors inside the vehicle.

**241226 [NEW]**

**Trailer with double loading floor**

**Intended for:** transport of goods or pallets or rolling containers in road transport with the exception of animal transport.  
**and consisting of:** trailer with two fixed loading floors, each with a minimum loading height of 180 cm.

**241227 [NEW]**

**Lightweight rims**

**Intended for:** reduction of weight of means of transportation in road transport.  
**and consisting of:** rims with a material density lower than 4,5 gram/cm<sup>3</sup> on towing vehicles, trailers or semi-trailers.

**251115 [W]**

**Solar panels or film for electricity generation on means of transport<sup>2</sup>**

**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	Code	Page
- Technical facilities for the use or application of sustainable energy .....	450000	68
Equipment specified in specific terms by function	Code	Page
• <b>Sustainable heat</b>		
- Solar thermal collector system .....	250101	68
- Boiler fired with biomass <sup>3</sup> .....	251105	68
- Geothermal heat or cold storage in the ground (aquifer) .....	251201	69
- Ground heat exchanger .....	251202	69
• <b>Sustainable electricity generation</b>		
- Solar panels for electricity generation .....	251102	70
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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<sup>3</sup>.

450000 [W]

**Technical facilities for the use or application 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 m<sup>2</sup>, 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 m<sup>2</sup>, 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>).*

251105 [W] [CHANGED]

**Boiler fired with biomass<sup>3</sup>**

*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 89%,

*and consisting of:*

boiler with a power output of less than 500 kW, flue gas cleaner, 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), heat transport pipe (when installed). Heat distribution networks<sup>10</sup> and heat delivery networks<sup>11</sup> are not eligible.

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 fired with gaseous or liquid energy carriers obtained from biomass.

*Explanation:*

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

**251201 [W] [CHANGED]**

**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) or cold transport pipe<sup>o</sup> (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.*

**251202 [W]**

**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, then an application can be submitted for the whole combination under code 211103.*

## Sustainable electricity generation

### 251102 [W]

#### 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 15 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. Photovoltaic solar cells on agricultural land or in nature reserves are not eligible.

Agricultural land is defined here as land according to article 4.1.e of regulation 1307/2013.

Nature reserve is defined here according to regulation 'Vogel - Habitatrichtlijn, article 1.1 of the Nature Preserve legislation'; areas indicated as National parks and areas indicated according to Nature network Netherlands.

### 251115 [W]

#### Solar panels or film for electricity generation on means of transport<sup>a</sup>

**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]

#### 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.

### 251117 [W]

#### Grid connection for solar panels with SDE2016-2020

**Intended for:** the supply of electricity by panels with photovoltaic solar cells, panels which are not attached to buildings.

**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 SDE in the years 2016 up to and including 2020, 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 >€ 0 pursuant to the SDE scheme in the years 2016 up to and including 2020.

251118 [W]

**Battery for the storage of sustainably generated electricity**

*Intended for:* the storage of electrical energy,

*and consisting of:* battery, current/voltage converter (when installed).

Batteries of (internal) means of transportation are not eligible.

251110 [W]

**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<sup>12</sup>,

*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

251206 [W]

**Wind-water mill**

*Intended for:* the direct pumping of water using wind power,

*and consisting of:* rotor blades, tower, water pump.

251207 [W]

**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*

Specific equipment	Code	Page
- Storage of electrical energy .....	260101	73
- Mobile generation of electricity .....	260102	73
- Conversion of electrical energy to hydrogen (power to gas).....	260201	73
- Conversion of electrical energy to heat (power to heat) .....	260301	73
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- Intelligent local energy network (smart grid).....	260401	73
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- Storage of electrical energy with a flywheel storage system .....	260404	74
- Storage of surplus heat.....	260405	74



**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<sup>14</sup>;
- b. NaS battery, inverter, control electronics, optimisation software;
- c. redox flow battery, inverter, control electronics, optimisation software;
- d. Salt water 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.

**260102 [W] [CHANGED]**

**Mobile generation of electricity**

**Intended for:** buffering and delivering electrical energy

**and consisting of:** transportable container containing lithium batteries with a installed capacity of at least 30 kVA, inverter, control electronics, built-in climate system (when installed), solar panels or solar foil (when installed), active solar tracker (when installed).

Facilities connected to a combustion engine (hybrid systems) are not eligible.

**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<sup>14</sup>, compressor (when installed), buffer for hydrogen storage (when installed), connection to the natural gas network (when installed), connection to a hydrogen network

**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<sup>14</sup>, 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.

**260302 [W]**

**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<sup>3</sup>, optimisation software<sup>14</sup>, heat exchanger (when installed), control system (when installed).

**260401 [W]**

**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.

**260402 [W] [CHANGED]**

**Grid balancing through active control of production**

**Intended for:** the automatic control of electricity demand of installations based on the electricity market,  
**and consisting of:** optimisation software<sup>14</sup>, control unit (when installed).

*Explanation:*

*The actual installation is not eligible.*

**260403 [W]**

**Booster installation for the use of superfluous green gas**

**Intended for:** compressing and transportation of gas from a network with relatively low pressure to a regional or national network on a higher pressure level (the regional transport pipe system (RTL) or national transport pipe system (HTL) to form a buffer capacity in order to avoid limitation in the input into a low pressure gas network (network of the regional provider (RNB)) during the production of green gas,  
**and consisting of:** compressor installation, connection to regional distribution network, connection to regional or national transport pipe network.

The booster installation is to be used only in case of superfluous green gas.

Superfluous green gas is defined as gas that can not be delivered to the low pressure network (network of regional transport pipe system (RNB)) at a certain moment because capacity for intake, without the use of a booster installation, is insufficient.

**260404 [W] [NEW]**

**Storage of electrical energy with a flywheel storage system**

**Intended for:** stationary storage of surplus energy by the automatic enabling or disabling dependent on an electrical sub-market.

**and consisting of:** flywheel storage system, inverter, control electronics, optimisation software<sup>14</sup>.

**260405 [W] [NEW]**

**Storage of surplus heat**

**Intended for:** the long term underground storage of waste heat<sup>1</sup>, residual heat<sup>17</sup> or surplus heat from renewable sources<sup>16</sup>, with a temperature of at least 30°C to a depth of maximum 500 meters,

**and consisting of:** underground heat storage system, pipes, pumps, heat exchanger (when installed), control system (when installed).

## F. Energietransitie

Specific equipment	Code	Page
- Electric ovens .....	270101	76
- Steam recompression .....	270102	76
- Infrared panels .....	270103	76
- Electrical equipment for production of steam and thermal oil .....	270104	76
- Cogeneration plant <sup>s</sup> fired with hydrogen .....	270105	76
- Mobile electric tool .....	270106	76
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- Energy system for heating and/or cooling of buildings .....	270204	77
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**270101 [W]**

**Electric ovens**

*Intended for:* the replacement of gas-fired ovens,

*and consisting of:* electric oven, modification to the existing power connection (if necessary).

**270102 [W]**

**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] [CHANGED]**

**Infrared panels**

*Intended for:* the local heating of fixed work places in spaces with an average height of more than 4 metres,

*and consisting of:* electrical infrared panels, presence detector (when installed).

*Explanation:*

- Investments in infrared panel foils and infrared mats are not covered under this code.
- Heating with infrared panels of entire rooms is not eligible.

**270104 [W] [CHANGED]**

**Electrical equipment for generation of steam or heating of thermal oil for processes**

*Intended for:* the generation of steam or heating of thermal oil.

*and consisting of:*

- a. Electrical equipment that generates steam or heating of thermal oil, necessary adaptations in the grid connection (when installed).
- b. hybrid equipment that generates steam using electricity as well as gas, necessary adaptations in the grid connection (when installed).

**270105 [W]**

**Cogeneration plant<sup>s</sup> fired with hydrogen**

*Intended for:* the simultaneous generation of heat and mechanical or electrical power fired solely with hydrogen,

*and consisting of:* cogeneration plant, residual heat storage tank (when installed), flue gas cleaner (when installed), connection to the electric grid (when installed).

**270106 [W] [NEW]**

**Mobile electric tool**

*Intended for:* the replacement of a fossil fuel driven mobile tool without a fixed driver place.

*and consisting of:* electrical motor, battery with a electrical power rating of at least 5 kVA and a energy consumption of 15 kWh.

*Explanation:*

- Not the whole tool is eligible.
- Tools with a fixed driver place are not eligible.

**270201 [W]**

**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).

**270202 [W] [CHANGED]**

**Heat and/or cold network<sup>15</sup>**

**Intended for:** the disengagement of heat at the source and transportation of the heat or cold to be applied for the heating or cooling in buildings and/or processes,

**and consisting of:** heat or cold transport pipe<sup>9</sup>, heat exchanger at the heat source (when installed), heat or cold distribution network<sup>10</sup> (when installed), heat exchanger between heat distribution network and heat delivery network<sup>11</sup> (when installed), delivery set (when installed), absorption cooling machine.

The heat delivery network is not eligible.

At least 70% of the energy content used in the system should come from one of the following sources: cogeneration of heat and power (CHP) fed by biomass<sup>3</sup> or green gas, waste incinerators, renewable energy sources<sup>16</sup>, residual heat<sup>17</sup> from processes, power to heat<sup>18</sup>, aquifer thermal energy storage.

**270204 [W] [NEW]**

**Energy system for heating and/or cooling of buildings**

**Intended for:** the collective heating or cooling of commercial buildings and/or houses,

**and consisting of:** source of which the energy capacity exist for minimal 70% of a renewable energy source<sup>16</sup> or sustainable heat<sup>12</sup>, heat pump, heat or cold distribution network<sup>10</sup>, delivery set<sup>19</sup>, heat or cold transport pipe<sup>9</sup> (when installed), heat pump boiler according to code 211102 or 211106.

The heat delivery network is not eligible.

The costs of the following renewable energy sources are not eligible: geothermics, generation of electricity with hydro power, wind energy or tidal energy.

For specific assets for sustainable heat described in chapter D, all requirements which are imposed, apply.

Only electrical driven brine/water, water/water and air/water heat pumps may be applied. An air/water heat pump should only be applied in combination with an brine/water or water/water heat pump.

*Explanation:*

- Non collective energy systems are not eligible and possibly can be applied for under code 211103 or 211104.
- Of the described technique a principal scheme is available on the website of RVO, [www.rvo.nl/eia/faq](http://www.rvo.nl/eia/faq).

**270301 [W]**

**CO<sub>2</sub> capture for permanent storage (CCS)**

**Intended for:** the separation, recovery, transport and storage of CO<sub>2</sub> from flue gases or other gas streams for permanent storage,

**and consisting of:** CO<sub>2</sub> cleaning equipment, CO<sub>2</sub> compressor, transport pipe to the storage location, scrubber (when installed), dryer (when installed), cooler (when installed), CO<sub>2</sub> buffer for temporary storage (when installed), costs for preparation of the aquifer or reservoir (when installed).

**270302 [W] [CHANGED]**

**Technical facilities for CO<sub>2</sub>-emission reduction in existing processes**

**Intended for:** reduction of CO<sub>2</sub>-emission in existing processes,

**and consisting of:** technical facility that is part of an emission reduction plan.

The following must be taken into account:

- the technical facility in itself is mentioned in the emission reduction plan;
- the sum of the emission reductions by all the technical facilities mentioned in the emission reduction plan must at least amount to 20% of the emission in 2020;
- the emission reduction of each technical facility must at least be 1% of the emission in 2020;
- the emission reduction plan qualifies to the conditions in chapter G under c;
- only investments that lead to scope 1 and/or scope 2 CO<sub>2</sub>-emission reduction are eligible;
- the contribution to the emission reduction of investments in generating sustainable energy may be taken into account, but the investments themselves are not eligible under this code;
- the maximum amount of investment eligible for Energy Investment Allowance is **€ 150/ton reduced CO<sub>2</sub>-emission per year**.

Explanation:

- It is not required that all investments in the various technical facilities are contracted at the same time or executed at the same time.
- Contracts and production costs must be submitted before the deadline mentioned in this brochure.
- Scope 1 CO<sub>2</sub>-emission are all direct emissions by the company itself resulting from the use of fuels and the use of its own company vehicles. Scope 2 CO<sub>2</sub>-emission are all indirect emissions by the company itself resulting from the use of energy generated outside of the processes. This relates for example to electricity or heat generated elsewhere. The costs for drafting the emission reduction plan are eligible for Energy Investment Allowance.

#### 270401 [W] [NEW]

##### Private hydrogen network

**Intended for:** the transport of gaseous hydrogen with a purity of at least 95%, with the exception of pipes which falls under the regulated domain,

**and consisting of:** pipes intended for hydrogen transport and hydrogen distribution with a joint length of maximum 40 km, compressors (when installed), measurement and controls technology.

Investments in public hydrogen networks are not eligible for Energy Investment Allowance.

#### 270402 [W] [NEW]

##### Stationary hydrogen storage

**Intended for:** ground mounted storage of liquid hydrogen, gaseous hydrogen with a purity of at least 95% or hydrogen bound to a liquid carrier material (LOHC),

**and consisting of:**

- a. storage tank, compressor (when installed), expander (when installed), installation for liquefaction of hydrogen (when installed), connection to network (when installed);
- b. installations for the utilization of a salt cavern, reservoir or aquifer, compressor (when installed), expander (when installed), connection to network (when installed).

#### 270403 [W] [NEW]

##### Hydrogen production by means of electrolyses

**Intended for:** the production of hydrogen,

**and consisting of:** electrolyser, electrical connection (when installed), installation for demineralized water (when installed), installation to divide oxygen and hydrogen (when installed), installation for compression and drying of hydrogen (when installed).

## **G. Energy recommendations, customised recommendations and CO<sub>2</sub> emission reduction plan**

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;
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 ISSO 75.2 publication date 1 January 2007 and aligned with BRL9500, Part 4 method 2011, version 2015 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 ([Vind je energieadviseur - Centraal register techniek](#)).
- 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.

#### **c. CO<sub>2</sub>-emission reduction plan**

The CO<sub>2</sub>-emission reduction plan (hereinafter: plan) consists of an exploration of the possibilities to reduce CO<sub>2</sub>-emissions from your existing process. New processes and new facilities are explicitly excluded. The plan consists of a package of technical facilities with which a reduction of the total Scope 1 and/or Scope 2 CO<sub>2</sub>-emission will be achieved of at least 20% at last in 2030 compared to the Scope 1 and/or Scope 2 CO<sub>2</sub>-emission at the time of the creation of the plan.

The plan contains at least:

1. Description of the processes;
2. An overview of the current total Scope 1 and Scope 2 CO<sub>2</sub>-emission from the process;
3. A CO<sub>2</sub>-emission subdivision in the relevant parts of the existing process. The subdivision should cover at least 90%;
4. Explanation of the method(s) of calculation used to determine the CO<sub>2</sub>-emission;
5. An overview of the possibilities to CO<sub>2</sub>-reduction and the quantification of those reductions;
6. An estimate of the expected investment costs per technical facility;
7. Action plan for planning and execution of the technical facilities mentioned in the plan.

#### **Additional conditions for the CO<sub>2</sub>-emission reduction plan**

The plan must meet the following additional conditions:

- The contract for the first facility mentioned in the plan must be commissioned within 24 months starting from the establishment of the plan;
- The plan must be drawn up by an independent third party;
- The costs of the plan can only be submitted once in an application.



## 4. Changes compared to 2021

### Built environment

The technical demands required for drying and heating system for ventilation air in storage warehouses, are sharpened to solely support the best energetic solution. Solely direct working systems based on a natural refrigerant, without an intermediate medium, are eligible.

The maximum investment amount eligible for airtight air distribution systems, insulation of existing constructions and high efficiency glass, has been increased, to fit the size of the needed investment.

In line with the new market developments, vacuum glass also is eligible under the description for high efficiency glass.

For air curtains, the demand for integrated temperature sensors no longer apply. Also non integrated temperature sensors may be applied. This way more different systems are eligible, by which energy saving still is assured compared with a standard air curtain.

From now on, LED lighting must comply with the lifetime criterium L90 and a minimum efficacy of 125 lumen per Watt. By this modification solely lighting is stimulated which is energy efficient and has a long lifespan.

Air handling units for swimming pools, which are equipped with a heat pump, are added to the Energy list. In the given situation this application is the best alternative.

### Processes

The description of the electrical frying device is changed in order to accommodate the adaptation of the electrical connection to the grid.

The gas fired high pressure cleaner has been removed, because of the availability of electrical and hybrid alternatives. For these alternatives a new description is added to the Energy list.

The energy efficient cooling and/or freezing installation is extended through which a cold network with NH<sub>3</sub> as a secondary refrigerant, from now on also is eligible.

The description of braking energy recovery from production facilities is changed to restrict this to existing production facilities.

The flue gas heat exchanger is more precisely described to pinpoint the exchanger that is eligible.

In the code description the Energy Efficiency Index (EEI) for refrigerators is sharpened because of the market developments.

A new description is added for energy an efficient beverages cooler.

For lighting systems the specific yield is raised because of technical developments.

The description for the energy efficient milk cooling installation is adapted, so that now better is described which assets are eligible.

Flue gas cleaning for CO<sub>2</sub>-fertilisation has been removed due to a short pay back time.

A double layer of foil as an option to insulate has been added to the description of the insulation of facades of existing horticultural glasshouses. This is a new development.

### Means of transport

A cruise control controlled by GPS data is added. This technique enables fuel savings by freight transport by road.

The energy axis is added to recover braking energy from a trailer.

The turbocompound is a turbo to recover energy from the exhaust gases from the engine of a truck. This is a new description in the Energy List.

The description of the mirror camera is more specific to apply only to the left and right side outside mirrors.

To improve the efficiency of transport of goods or pallets or rolling containers in a trailer the description of a double loading floor is added.

For the reduction of weight in road transport lightweight rims are added in a new description.

The description of the improvement of energy performance in road transport has been extended with new descriptions from the Energy List.

### Sustainable energy

The biofuel production installation is deleted because of the very limited use of the description.

For the biomass fired heating system, there are now installations available with a higher efficiency. Because of this the efficiency requirements are sharpened. The stove fired with biomass does not meet the efficiency demands. Therefore this technique has been deleted.

Roof and façade panels with an integrated solar collector has been deleted because of the very limited use of the description.

### Energy balancing

To support smaller systems from 30 kVA, the mobile electrical facilities has been customized.

To enable energy storage with flywheels, a new description is added.

To the electrical energy storage, the saltwater-activated battery is added. In the area of energy storage this is a new development.

The description of network balancing by active control of production is changed to indicate a wider application area.

The long term storage of surplus residual heat and sustainable heat is added. By temporary storage of surplus heat, this heat is not lost.

The conversion of electrical energy to hydrogen (Power to gas) is adapted, so that produced hydrogen which is applied as raw material in a production facility, also is eligible. In addition, the connection to a private hydrogen network also is eligible.

### Energy transition and CO<sub>2</sub> emission reduction

The description of infrared panels has been clarified with an explanation to exclude the entire heating of areas. This description is specifically meant for the local heating of a fixed workplace, for instance a workplace in a large production hall.

The description of electrical equipment for generation of steam or heating of thermal oil for processes is changed. The condition 'replacement of a gas fired equipment' is dropped to further improve the electrification.

A description is added for collective heating and cooling of houses and other buildings by means of a source and a heat pump. This description particularly focuses at the replacement of gas fired heating in existing buildings.

For the transition a clean, climate neutral society, hydrogen will play an important role. To support the developments in this area, a threesome new specific means are included in the scheme. The stimulation focuses on the production of hydrogen by means of electrolysis, stationary storage of hydrogen and private hydrogen networks.

A new description is added for the replacement of a fossil fuel driven mobile tool.

# 5. Definitions

## Definitions

### <sup>1</sup> **Waste heat**

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

### <sup>2</sup> **Means of transport**

Vehicles for transport by road, vehicles for intern transport, vessels and railbound vehicles.

### <sup>3</sup> **Biomass**

Material that contains combustible constituents comprised solely or almost solely of carbonaceous compounds originating from a short CO<sub>2</sub> cycle, although the potential presence of carbonaceous compounds originating from a long CO<sub>2</sub> 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;
- organic residues from the food and beverages industry.

### <sup>4</sup> **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.*

### <sup>5</sup> **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.

### <sup>6</sup> **Piston engine**

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

### <sup>7</sup> **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).

### <sup>8</sup> **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 descriptions of the equipment.

<sup>9</sup> **Heat or cold transport pipe**

A heat or cold transport pipe is understood as the pipe between the heat source and the point where the heat is distributed to the local end users.

<sup>10</sup> **Heat or cold distribution network**

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

<sup>11</sup> **Heat delivery network**

A heat delivery network is understood as the system of pipes and appliances for the release of the heat in the end user's building.

<sup>12</sup> **Sustainable heat**

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

<sup>13</sup> **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.

<sup>14</sup> **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.

<sup>15</sup> **Heat network or cold network**

Combination of connected piping accompanying installation and miscellaneous auxiliary equipment favouring the transport of heat and/or cold up to and including a delivery set<sup>19</sup>. An indoor heat or cold distribution network<sup>10</sup>, installations and auxiliary means that are located inside a building in which there is no mention of delivery sets, are not covered by the definition of heat or cold network.

<sup>16</sup> **Renewable Energy Sources**

Energy from renewable non-fossil sources, namely wind energy, solar energy (thermal solar energy and photovoltaic solar energy) and geothermal energy, ambient energy, tidal energy, wave energy and other energy forms such as energy from the oceans, hydro-power, energy from biomass, gas from landfills, gas from waste water treatment installations and biogas.

<sup>17</sup> **Rest heat**

Heat or cold that is generated inevitably as one of the products in industrial installations or electricity generation, that would otherwise end up unused in air or water with no connection to a district heating system or a district cooling system.

<sup>18</sup> **Power to heat**

Conversion of excess electricity to heat using electrical power.

<sup>19</sup> **Delivery set**

Defined under a delivery set is: the connection between the heat or cold distribution network<sup>10</sup> of a heat supplier and the heat delivery network<sup>11</sup> of an end user. This set contains a heat exchanger, equipment for pressure and temperature control, metering and the enclosure in which this equipment is accommodated.

## 6. Proposal for the Energy List 2023

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 <https://www.rvo.nl/subsidie-en-financieringswijzer/energie-investeringsaftrek/leveranciers>. 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. The total investment costs required to purchase and commission the equipment (excluding VAT);
5. A substantiated calculation of the payback period. The calculation of the energy saving is based on the difference between the energy consumption of the equipment and the energy consumption of the most comparable alternative (the benchmark). Subsequently the payback period is to be calculated with the formula and the energy prices defined in the generic codes in this Energylist;
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 description. Your proposal needs to be accompanied by a proposal for the description of the equipment. The description 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 2023. These criteria include:

- The payback period; see codes 310000, 410000, 320000, 420000, 340000 and 440000. 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 description 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 2022** to [energielijst@rvo.nl](mailto:energielijst@rvo.nl).

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Published by

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This publication was commissioned by the Ministry of Economic Affairs and Climate Policy  
© Netherlands Enterprise Agency | December 2021

Publication number: RVO-227-2021/BR-DUZA

NL Enterprise Agency is a department of the Dutch Ministry of Economic Affairs and Climate Policy that implements government policy for agricultural, sustainability, innovation, and international business and cooperation. NL Enterprise Agency is the contact point for businesses, educational institutions and government bodies for information and advice, financing, networking and regulatory matters.

Netherlands Enterprise Agency is part of the Ministry of Economic Affairs and Climate Policy.