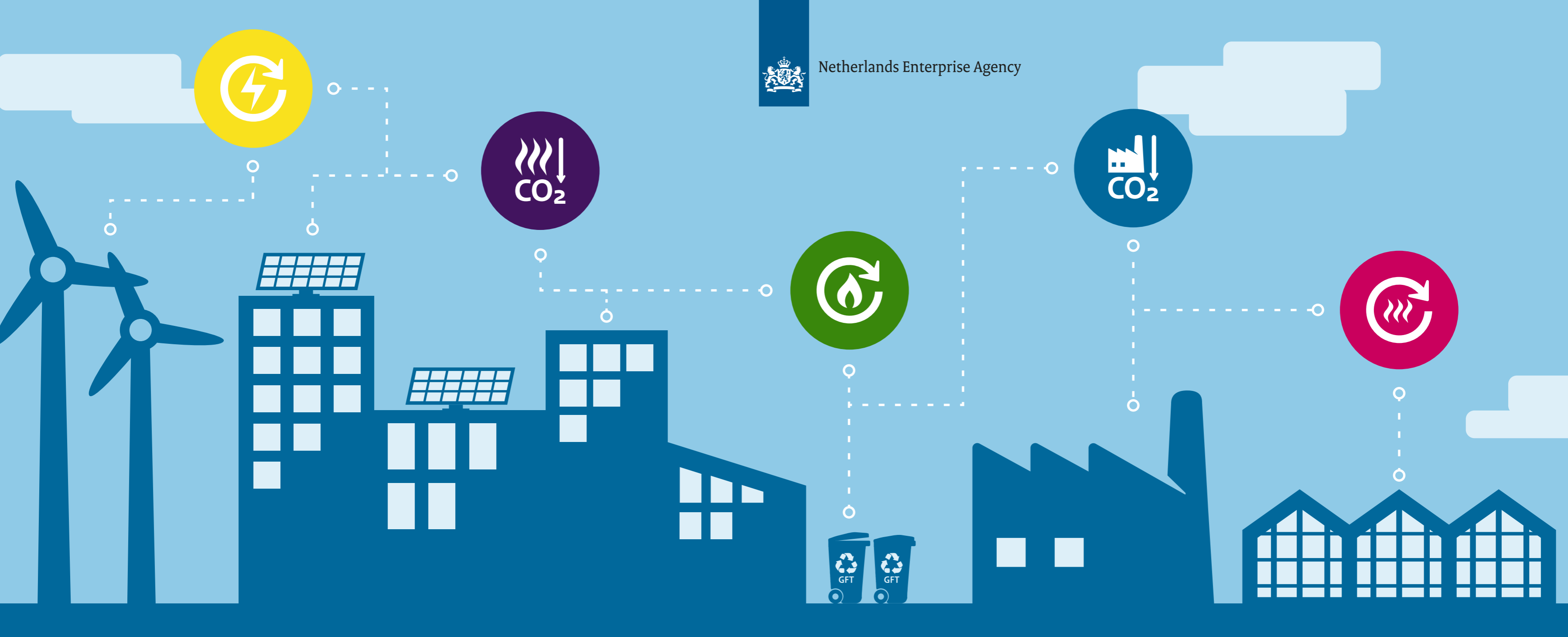




Netherlands Enterprise Agency



SDE++ 2020

Stimulation of Sustainable Energy Production and Climate Transition

Opening period: 24 November - 17 December 2020

Commissioned by the Ministry of Economic Affairs and Climate Policy

» Sustainable. Agricultural. Innovative. International.

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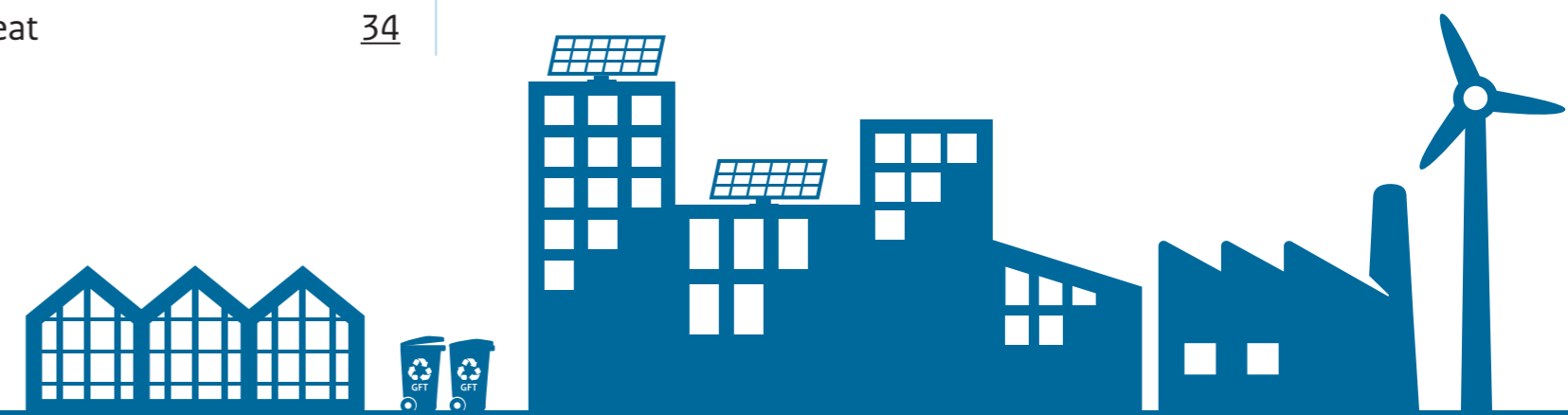
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The SDE++ scheme

Stimulation of Sustainable Energy Production and Climate Transition (SDE++)

The Stimulation of Sustainable Energy Production and Climate Transition (SDE++) scheme is the follow up of the Stimulation of Sustainable Energy Production (SDE+) scheme. The SDE++ will focus on the large-scale rollout of technologies for renewable energy production and other technologies that reduce greenhouse gas (CO₂) emissions.

What is the SDE++ scheme?

The SDE++ is an operating subsidy. In other words, you can receive a subsidy during the operating period of your project. Do you have facilities for the production of renewable energy? Do you have facilities that reduce CO₂ emissions or systems to capture CO₂? If so, you may be entitled to an SDE++ subsidy. An SDE++ subsidy compensates the difference between the cost price of the sustainable energy or the reduction in CO₂ emissions and the revenue (if any). This is referred to as the “unprofitable component”. The subsidy is calculated over 12 to 15 years. The duration of your subsidy will depend on which technology you use. The amount of the subsidy depends

on the technology used and the level of CO₂ reduction you can achieve. This brochure explains which technologies are entitled, what conditions apply and how to apply.

For who is the SDE++ scheme?

You can obtain a subsidy as a company or a non-profit organisation. You must be operating in a sector such as industry, mobility, electricity, agriculture or the urban environment. The national government entities cannot apply for a subsidy.

Only the intended producer may apply SDE++ subsidies. If you are not planning to set up and operate the production facility yourself, then you are not an producer and you cannot apply for a subsidy.

When will the SDE++ scheme open, and what is the budget?

The 2020 round of applications for the SDE++ scheme will open on 24 November 2020 09.00 CET and close at 17 December 2020 17.00 CET. A total budget of €5 billion is available for all phases and categories combined.

Key principles of the SDE++ scheme

The base amount and application amount

A different base amount has been set for each technology. The base amount is the cost price for the production of renewable energy or the reduction of CO₂ emissions. The base amount is the maximum amount of the subsidy you can apply for. You may also apply for a lower subsidy. This will give you more chance of obtaining a subsidy. Accordingly, your “application amount” will be the same as or less than the base amount.

Correction amount and base energy price/base greenhouse gas amount

If you use one of the listed technologies to produce and supply energy in the form of electricity, heat, green gas or hydrogen gas, or to store CO₂ underground, you will generate revenue. We set the revenue level in the form of a correction amount. The correction amount is partly determined by the market value.

A new feature of the SDE++ scheme is that the value of [guarantees of origin \(GOs\)](#) for the “Wind” and “Solar PV” categories forms part of the correction amount. The Netherlands Environmental Assessment Agency (PBL) sets the average value of GOs on an annual basis. If the technology concerned helps prevent the purchase, or yields proceeds from the sale, of CO₂ emission allowances under the European Emissions Trading System (EU-ETS), this too is taken into account in the correction amount. The base amount and application amount are fixed for the entire duration of the subsidy, but the correction amount is set annually.

The maximum SDE++ subsidy is equal to the base amount or application amount minus the correction amount. For the Solar PV categories, we make a distinction between electricity fed into the grid (“grid supply”) and electricity used internally by the facility (“non-grid supply”). Therefore there are two correction amounts in the Solar PV categories,

A lower limit is set for the correction amount: the base energy price or the base greenhouse gas amount. The correction amount may, therefore, not be lower than the base energy price or the base greenhouse gas amount. These amounts are based on two-thirds of the average expected revenue over the entire duration of the SDE++ subsidy. If the correction amount is equal to the base energy price or base greenhouse gas amount, you will receive the maximum subsidy.

Subsidy intensity

When considering SDE++ applications, we look at the subsidy requirement per tonne of CO₂ reduction. In 2020, the maximum [subsidy intensity](#) for which your SDE++ technology may be entitled is €300 per tonne of CO₂ reduction.

If the budget limit is exceeded on a given day, we will rank the projects on that day based on subsidy intensity. This means that projects with a lower subsidy intensity will be ranked higher. If the budget limit is exceeded by projects with the same subsidy intensity, lots will be drawn for these projects.

You may submit your application with an application amount of up to four decimal places. For ranking purposes, we will round the amount to three decimal places.

The subsidy intensity depends on the amount for which you apply (the application amount), the [long-term price and the emission factor](#).

Subsidies will be applied for, measured and paid out per measured unit of electricity, heat, green gas, hydrogen or stored CO₂. These units must be converted into subsidy intensities to enable projects to be ranked. We calculate the subsidy intensity using one of the following formulas:

Subsidy intensity, all categories apart from CO₂ capture and storage (CCS)

$$\text{Subsidy intensity [euros/tonne CO}_2\text{]} = (\text{application amount [euros/kWh]} - \text{long-term price [euros/kWh]}) / (\text{emission factor [kg CO}_2\text{/kWh]} / 1,000)$$

CCS subsidy intensity

$$\text{Subsidy intensity [euros/tonne CO}_2\text{]} = (\text{application amount [euros/tonne CO}_2\text{]} - \text{long-term price [euros/tonne CO}_2\text{]}) / (\text{emission factor [kg CO}_2\text{/tonne CO}_2\text{]} / 1,000)$$

Spread call for applications and ranking

In 2020, the SDE++ scheme has 4 phases. During each phase, you may only submit subsidy applications up to a certain [subsidy intensity](#) per tonne of CO₂ emissions reduction. This is the phase limit. During subsequent stages, this amount will increase gradually. You may also submit projects with a lower subsidy requirement than the maximum set for the technology in question. This will give you a greater chance of obtaining a subsidy.

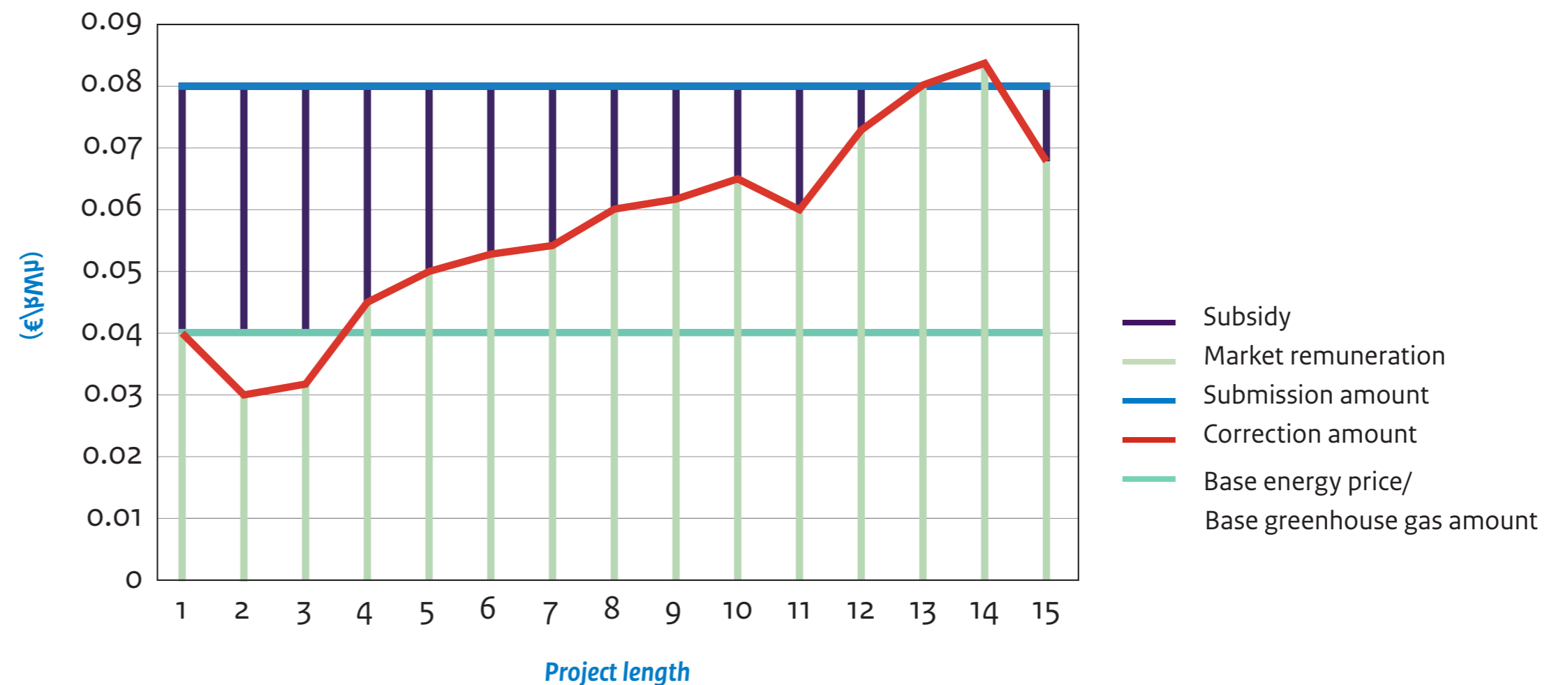
First come, first serve

We will process subsidy applications in the order in which we receive them. Applications received after 17.00 CET will be considered to have been received on the next business day. In other words, each business day begins at 17.00 CET and runs until 17.00 CET the following business day. This also applies at the start of a new phase. Within each business day, the time of receipt of the grant application does not matter. Applications received on non-business days or after 17.00 CET on business days will be considered to have been received on the next business day.

Reaching the budget limit

If the budget limit is exceeded on a given day, we will rank the projects on that day based on subsidy intensity. This means that projects with a lower subsidy intensity will be ranked higher. If the budget limit is exceeded by projects with the same subsidy intensity, lots will be drawn for these projects.

Phase	Start and end date	Phase subsidy intensity limit (€/tonne CO ₂)
Phase 1	24 November 2020 09.00 CET to 30 November 2020 17.00 CET	65
Phase 2	30 November 2020 17.00 CET to 7 December 2020 17.00 CET	85
Phase 3	7 December 2020 17.00 CET to 14 December 2020 17.00 CET	180
Phase 4	14 December 2020 17.00 CET to 17 December 2020 17.00 CET	300



SDE++ subsidy

In short: The amount of the SDE++ subsidy depends on the application amount and changes in the revenue from energy supplied or CO₂ reduced, up to a certain lower limit. The higher the revenue, the smaller the SDE++ subsidy you receive. If you earn less revenue, you will receive a higher SDE++ subsidy, up to a set lower limit.

Subsidy grant decisions

The subsidy granted to you by the Netherlands Enterprise Agency is the maximum amount you will receive over the entire duration of the subsidy (12 or 15 years). We determine this maximum amount based on the specified capacity and production. Production is capped based on a maximum number of [full-load hours](#) for each technology.

Every year, we re-calculate the actual subsidy amount you get paid based on the amount of energy you produce or the amount of CO₂ you reduce. Revenue levels are also taken into account. You will receive a subsidy up to a maximum number of [full-load hours](#) per year. Subsidies are also subject to a maximum duration, depending on the technology used.

Maximum SDE++ subsidy =

*(base amount or application amount – base energy price or base greenhouse gas amount) * production or CO₂ reduction.*

Measuring production

When you receive an SDE++ subsidy, you have to measure your production or your CO₂ reduction in the case of CO₂ capture and storage. You can do so by installing a number of gross production meters in your production facility. Talk to your metering company about how to measure production.

SDE++ categories

Main category



Renewable electricity



Renewable heat (CHP)



Renewable gas



Low-CO₂ heat



Low-CO₂ production

Subcategory

Osmosis

Hydropower

Wind

Solar PV

Biomass (fermentation and combustion)

Composting mushroom compost

Geothermal heat (deep and ultra-deep)

Solar thermal energy

Biomass (fermentation and gasification)

Aquathermal energy (thermal energy from surface water, wastewater and drinking water)

Daylight greenhouses

Electric boilers

Geothermal heat (shallow)

Waste heat

Heat pumps

CO₂ capture and storage (CCS)

Electrolytic hydrogen



Renewable electricity



Renewable electricity

In 2020, the “Renewable electricity” SDE++ category is divided into “Solar PV”, “Wind”, “Hydropower” and “Osmosis” subcategories. A new feature of the SDE++ scheme is that the value of GOs for the “Wind” and “Solar PV” categories forms part of the correction amount. The PBL sets the average value of GOs on an annual basis.

Transmission capacity indication

If you are submitting an application for renewable electricity, you must include an indication of the grid operator’s transmission capacity. This is to show that sufficient transmission capacity is available for the location to which your application relates. The transmission capacity indication cannot be construed as a guarantee of transmission capacity. Please note: The transmission capacity indication must be issued in relation to the application round in which you are applying for a subsidy.

Negative electricity prices

If the price of electricity is negative for a period of six consecutive hours or longer, you will not receive an SDE++ subsidy for the feed-in of renewable electricity. This does not apply to small-scale projects (projects with a [rated output per electricity](#) grid connection of less than 500 kW). It also does not apply to projects for which applications were submitted before 1 December 2015.

For wind energy projects, the lower limit is set at 3 MW per electricity grid connection.

The [SDE++ website](#) has a list of dates in 2020 on which electricity prices were negative.

Osmosis

If you produce renewable electricity by harnessing the difference in salt concentration between two bodies of water (osmosis), you can apply for a subsidy for this production facility.

Permits

Usually, you will require one or more permits for an osmosis facility. These must be issued by the competent authority before you submit your subsidy application. The following permits may be required:

- Environmental permit. If your facility needs a permit under the Environmental Permitting (General Provisions) Act (Wabo), you need to attach both the permit application and the permit itself to your subsidy application.
- Water permit. If your facility requires a permit under the Water Decree (Paragraph 5, 6 or 7 of section 6), attach the permit to your subsidy application.
- Public Works and Water Management Act (Wbr) permit. If you are conducting activities on or around public works or water management structures, such as roads, motorways, viaducts, tunnels, bridges or dykes, your facility will require a Wbr permit. Attach it to your subsidy application.

If you would like to know more about environmental and water permits, visit the online [environmental service desk](#).

Hydropower

Subsidies are available for three categories:

- “New hydroelectric power plants with a fall height of < 50 cm”*
- “New hydroelectric power plants with a fall height of ≥ 50 cm”
- “Renovation of existing hydroelectric power plants with new turbines and a fall height of ≥ 50 cm”. All turbines for which you are applying for a subsidy must be newly-installed in existing structures. The other components do not have to be new.

In all cases, such plants must produce energy from water that is not pumped upwards, specifically for the purpose of generating energy.

* Energy from free-flowing water. Within the first category, you can also apply for a subsidy for water turbines that use tidal energy with a fall height of < 50 cm.

* Wave energy. Within the first category, you can also apply for a subsidy for a production plant which converts energy from waves into renewable electricity.

Permits

Usually, you will require one or more permits for a hydroelectric power plant. These must be issued by the competent authority before you submit your subsidy application. The following permits may be required:

- Environmental permit. If your facility needs a permit under the Environmental Permitting (General Provisions) Act (Wabo), you need to attach both the permit application and the permit itself to your subsidy application.
- Water permit. If your facility requires a permit under the Water Decree (Paragraph 5, 6 or 7 of section 6), attach the permit to your subsidy application.
- Public Works and Water Management Act (Wbr) permit. If you are conducting activities on or around public works or water management structures, such as roads, motorways, viaducts, tunnels, bridges or dykes, your facility will require a Wbr permit. Attach it to your subsidy application.

If you would like to know more about environmental and water permits, visit the online [environmental service desk](#).

Wind

You can apply for a subsidy for wind turbines in the “Onshore wind”, “Onshore wind with a height restriction”, “Wind on flood defences” and “Wind on lakes” categories.

Wind speeds

All municipalities in the Netherlands have been classified in one of six wind speed categories. A different base amount has been calculated for each wind speed category. The wind speed categories are:

- “≥ 8.5 m/s” (new wind speed category for the 2020 round of the SDE++ scheme)
- “≥ 8 and < 8.5 m/s”
- “≥ 7.5 and < 8.0 m/s”
- “≥ 7.0 and < 7.5 m/s”
- “≥ 6.75 and < 7.0 m/s”
- “< 6.75 m/s”

Wind map

The [“Wind Speed in the Netherlands by Municipality”](#) map shows the average wind speed for each municipality in the Netherlands and is based on a wind map produced by the Royal Netherlands Meteorological Institute (KNMI). In 2020, the SDE++ scheme will apply the municipality classification from 31 December 2019. You can find a list of municipalities in Annex 2 of the “Regulation designating SDE categories”. A different base amount has been calculated for each wind speed category.

The wind map shows which wind speed category applies to your project location. When you submit your subsidy application through the online portal eLoket, select the municipality in which your project will be implemented. The name of the municipality may be different from the place name of the location where you will implement the project. Due to significant differences in wind speeds, the municipality of Rotterdam has been subdivided at district and

neighbourhood level. Keep this in mind when selecting a municipality in the online portal eLoket.

We use the wind map for the following wind categories:

- “Onshore wind”;
- “Onshore wind with a height restriction”;
- “Wind on flood defences”.

Onshore wind with a height restriction

The “Onshore wind with a height restriction” category has been added to the SDE++ scheme. This is due to national laws and regulations related to the presence of an airport in the surrounding area, which means the tip height of wind turbines in that area is limited to 150 metres. If you are applying for a subsidy for wind turbines in an area subject to height restrictions, indicate this when you submit your application.

You can find more information about these height restrictions in Paragraph 2.5.4 “Civilian airports and military airfields (CNS and aviation safety)” of the PBL’s [“Height-restricted onshore wind category”](#) memorandum.

The “Aviation Height Restrictions” viewer can be found on the [“Building height restrictions”](#) page of the Netherlands Enterprise Agency’s website. For display areas with assessment or restriction levels for airports, the Defence and the Human Environment and Transport Inspectorate (ILT) layers in the viewer apply. A height restriction may apply due to the presence of an airport in the surrounding area, which means the tip height of wind turbines in that area is legally limited to 150 metres. The viewer is only a guide. When you apply, you cannot use it as your sole proof that a height restriction exists.

Wind on flood defences

In the “Wind on flood defences” category, you can apply for a subsidy for wind turbines on a public work structure. The wind turbines may also be in the protection zone of the flood defences. For a list of eligible flood defences, see Chapter 5 of Annex II of the [‘Primary Flood Defences Regulation 2017’](#).

You can also apply for a subsidy for wind turbines in the protection zone of coastal flood defences. This relates to wind turbines on the waterside of flood defences bordering the North Sea, Western Scheldt, Eastern Scheldt, Wadden Sea, the Dollard or the Ems. In 2019, this category was expanded to include the hard and soft Maasvlakte 2 seawalls.

Wind turbines placed on flood defences that do not fall into the “Wind on flood defences” category fall under the “Onshore wind” category. The [“SDE++ Wind on flood defences”](#) map provides an overview of inland and coastal flood defences.

Wind on lakes

For the “Wind on lakes” category, the wind turbines’ foundations must be in the water of a lake at least one square kilometre in size. The foundations must be completely underwater. The centre of the foundations must be at least 25 metres from the water’s edge. Entitled bodies of water include the IJsselmeer and the lakes of Zeeland.

Replacement of wind turbines

When replacing wind turbines, you can apply for a subsidy only if:

- The nominal and target output for each wind turbine is at least 1 MW greater than the turbine it is replacing; or
- At the time of replacement, the wind turbine to be replaced has been in use at the location in question for at least 15 years and was commissioned at least 13 years before the subsidy application.

Wind report and Windviewer

When applying for an SDE++ subsidy for wind energy over 100 kW, please attach a wind report as an appendix to the [feasibility study](#). The wind report should include a wind energy yield calculation. You should base the average wind speed you use on your calculations using local wind data over a period of at least ten consecutive years. This average wind speed may not exceed the average wind speed for the location concerned, as stated in the [Windviewer](#). The Windviewer provides the average wind speed for every location in the Netherlands at every height from 20 to 260 metres.

For small wind turbines with an output of less than 100 kW, you do not have to provide a wind report written by an independent expert. A simple energy yield calculation from your supplier will suffice. Include the result of this calculation in your application.

Permits

Usually, you will require one or more permits for the construction of wind turbines. These must be issued by the competent authority before you submit your subsidy application. The following permits may be required:

- Environmental permit. If your wind turbines need a permit under the Environmental Permitting (General Provisions) Act (Wabo), you need to attach both the permit application and the permit itself to your subsidy application.
Please note: A temporary permit based on the “Kruimellijst” list in the Environment Law Decree is insufficient.
- Water permit. If your wind turbines require a permit under the Water Decree (Paragraph 5, 6 or 7 of section 6), attach the permit to your subsidy application.
- Public Works and Water Management Act (Wbr) permit. If you are conducting activities on or around public works or water management structures, such as roads, motorways, viaducts, tunnels, bridges or dykes, your wind turbines will require a Wbr permit. Attach it to your subsidy application.

If you would like to know more about environmental and water permits, visit the [online environmental service desk](#).

Solar PV

You can apply for a subsidy for photovoltaic solar panels (solar PV). Entitled solar panels are those with a peak output of ≥ 15 kWp and a large-scale energy connection to the grid. There are six categories. For solar PV, the following categories will be open for applications in the 2020 round of the SDE++ scheme:

- “ ≥ 15 kWp and < 1 MWp”
- “ ≥ 1 MWp, building-mounted”
- “ ≥ 1 MWp, ground-mounted”
- “ ≥ 1 MWp, ground-mounted, sun-tracking”
- “ ≥ 1 MWp floating”
- “ ≥ 1 MWp floating, sun-tracking”

Implementation period

The system must be completed within the following timeframes:

- Solar PV < 1 MWp: 1.5 years
- Solar PV ≥ 1 MWp, building-mounted systems: 3 years
- Solar PV ≥ 1 MWp, ground-mounted and floating systems: 4 years

Feasibility study with drawing

If you are applying for a subsidy for renewable energy, you must perform a feasibility study. When preparing your subsidy application, always include a map or drawing with your [feasibility study](#). Showing the solar PV system that is the subject of the application. If other systems are or will be installed at the site in question, please clearly indicate this fact.

For the “Solar PV with output of less than 1MW” category, all you need to do for your feasibility study is to provide a map or drawing showing the solar PV system that is the subject of the application, and answer a series of questions about the feasibility of your project in the [online portal](#).

Permits

In a number of situations, you will require one or more permits for the installation of solar panels. These must be issued by the competent authority before you submit your subsidy application. The following permits may be required:

- Environmental permit. If the solar panels are to be set up in a field array, on a newly-constructed roof or on a building façade (within view), rather than on an existing roof, you will need a permit under the Environmental Permitting (General Provisions) Act (Wabo). The same applies to floating systems and systems integrated into a carport or installed on a listed building. In these situations, please attach a copy of the environmental permit to your subsidy application.
Please note: A temporary permit based on the “Kruimellijst” list in the Environment Law Decree is insufficient.
- Public Works and Water Management Act (Wbr) permit. If you are conducting activities on or around public works or water management structures, such as roads, motorways, viaducts, tunnels, bridges or dykes, your facility will require a Wbr permit. Attach it to your subsidy application.
- Water permit. If your solar PV facility requires a permit under the Water Decree (Paragraph 5, 6 or 7 of section 6), attach the permit to your subsidy application.

If you would like to know more about environmental and water permits, visit the [online environmental service desk](#).

Large-scale energy connection

The “Solar PV” category applies solely to systems connected to a large-scale grid connection. (This is a connection to the electricity grid with a total maximum transmission value of more than $3 * 80$ A.) Systems with a large-scale grid connection cannot use the offsetting scheme. It is also possible to connect your system to the grid using multiple large-scale connections.

Or you could connect your generating plant to the electricity grid using the major consumer connection of an adjacent plot, though of course your system must be installed in the location for which the subsidy is granted. If you intend to construct a generating plant at two adjacent sites, or if your site has multiple street numbers, describe the situation clearly in your subsidy application.

If you have a solar PV project with non-building-mounted panels, such as a ground or water-mounted system, and your project already has an SDE grant decision issued in 2016 or later, you may be able to apply for the [Energy Investment Allowance](#) to cover the investment costs for the grid connection.

If you are a producer with a small consumer connection, you may be entitled for one or more of the following:

- Offsetting scheme
- Energy Investment Allowance (EIA)
- Subsidy scheme for construction and maintenance of sports facilities

“Grid supply” and “Non-grid supply”

For the “Solar PV” categories in the SDE++ scheme, there is a distinction between grid supply and non-grid supply (own use). Different base energy prices and correction amounts apply to each type of supply. You will derive a greater financial benefit if you use the generated electricity internally, because you will not pay any energy tax, sustainable energy surcharge (ODE) or transmission costs. Accordingly, electricity generated for “own use” is subject to a higher correction amount. The procedure is as follows:

- In the online form, indicate how much of the electricity you produce will be used internally (“non-grid supply”).
- We will base the subsidy amount on the base energy price for “grid supply” electricity.
- We will make advance payments every autumn based on the relative proportions of “grid supply” and “non-grid supply” electricity over a recent 12-month period. To calculate the first advance payment, we will use the “grid supply” and “non-grid supply” percentages you specify in the application form.
- The advance payments may also be adjusted. We will calculate these adjustments based on the measured values for “grid supply” and “non-grid supply” electricity as labelled by CertiQ for the calendar year concerned.

This example is based on a building-mounted solar PV system with 40% grid supply and 60% non-grid supply, with 10 MWp output.

Category: Solar PV ≥ 1 MWp, building-mounted

Maximum application amount, Phase 1 onwards	0.0694 €/kWh
Maximum application amount, Phase 2 onwards	0.0731 €/kWh
GO value solar PV grid supply	0.007 €/kWh
2020 provisional correction amount for grid supply*	0.047 + 0.007 = 0.054 €/kWh
2020 provisional correction amount for non-grid supply	0.069 €/kWh

Provisional 2020 SDE++ subsidy in Phase 1:

Grid supply	6.94 – 5.4 = 1.54 € cents/kWh = €15.40/MWh
Non-grid supply	6.94 – 6.9 = 0.04 € cents/kWh = €0.40/MWh

Provisional 2020 SDE++ subsidy in Phase 2:

Grid supply	7.31 – 5.4 = 1.91 € cents/kWh = €19.10/MWh
Non-grid supply	7.31 – 6.9 = 0.41 € cents/kWh = €4.10/MWh

Maximum number of full-load hours entitled for the subsidy	950 full-load hours
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Total rated output	10 MWp
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Maximum annual production entitled for the subsidy for a facility with a 10 MWp output	10 * 950 = 9,500 MWh
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Provisional 2020 SDE++ subsidy for applications submitted from Phase 1 onwards

Grid supply	(40 % * 9,500)* € 15.40 = €58,520
Non-grid supply	(60% * 9,500) * € 0.40 = €2,280

Total	€60,800
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Roof installation

Before you submit your application, carry out a proper analysis of the roof on which you intend to install your solar system. Make sure it will be constructed quickly – within 18 months or 3 years. Correctly calculate the available roof surface area, taking into account skylights and HVAC systems on the roof. Have an expert determine whether the load-bearing strength of the roof is sufficient for the solar system.

Sun-tracking systems

With sun-tracking systems, the panels automatically turn to follow the sun, enabling you to achieve higher energy production. Sun-tracking systems have higher investment costs than standard systems, but they also have a higher number of [full-load hours](#) that are entitled to the subsidy. For this reason, the base amounts and correction amounts are the same.

A [feasibility study](#) is required for sun-tracking systems. In addition, you must provide an energy yield calculation. We will use this to establish the maximum number of full-load hours.

Solar farms with a mix of fixed and sun-tracking solar panels

If you want to submit a subsidy application for a solar farm where not all of the solar panels track the sun, you will have to submit two separate applications: one for the panels that track the sun and one for those that do not. You only have to calculate the energy yield for the application for the sun-tracking panels. It is not possible to change categories once you have applied.

Provisional 2020 SDE++ subsidy for applications submitted from Phase 2 onwards

Grid supply	(40% * 9,500)* €19.10 = €72,580
Non-grid supply	(60% * 9,500)* €4.10 = €23,370
Total	€ 95,950

* When calculating the provisional correction amount for this category, the GO value must be taken into account

Ranking and phases by maximum category base amount	Maximum phase amount/base amount				Base energy price		2020 provisional correction amount		Maximum full-load hours	Commissioning period	Subsidy term
	Phase 1 €/kWh	Phase 2 €/kWh	Phase 3 €/kWh	Phase 4 €/kWh	(for solar PV grid supply) €/kWh	Solar PV non- grid supply €/kWh	(for solar PV grid supply and wind including the value of GOs) €/kWh	Solar PV non- grid supply €/kWh	hours/year	years	years
Water											
New hydropower, < 50 cm fall height (including energy from free-flowing water and wave energy)	0.0652	0.0689	0.0867	0.1090	0.035		0.049		3700	4	15
New hydropower, ≥ 50 cm fall height	0.0652	0.0689	0.0867	0.1090	0.035		0.049		5700	4	15
Hydropower renovation with new turbine, ≥ 50 cm fall height	0.0652	0.0689	0.0867	0.0970	0.035		0.049		2600	4	15
Osmosis	0.0652	0.0689	0.0867	0.1090	0.035		0.049		8000	4	15
Wind											
Onshore wind ≥ 8.5 m/s	0.0400	0.0400	0.0400	0.0400	0.029		0.050		P50	4	15
Onshore wind ≥ 8.0 and < 8.5 m/s	0.0420	0.0420	0.0420	0.0420	0.029		0.050		P50	4	15
Onshore wind ≥ 7.5 and < 8.0 m/s	0.0450	0.0450	0.0450	0.0450	0.029		0.050		P50	4	15
Onshore wind ≥ 7.0 and < 7.5 m/s	0.0480	0.0480	0.0480	0.0480	0.029		0.050		P50	4	15
Onshore wind ≥ 6.75 and < 7.0 m/s	0.0520	0.0520	0.0520	0.0520	0.029		0.050		P50	4	15
Onshore wind < 6.75 m/s	0.0552	0.0560	0.0560	0.0560	0.029		0.050		P50	4	15
Onshore wind, height-restricted ≥ 8.5 m/s	0.0450	0.0450	0.0450	0.0450	0.029		0.050		P50	4	15
Onshore wind, height-restricted ≥ 8.0 and < 8.5 m/s	0.0470	0.0470	0.0470	0.0470	0.029		0.050		P50	4	15
Onshore wind, height-restricted ≥ 7.5 and < 8.0 m/s	0.0520	0.0520	0.0520	0.0520	0.029		0.050		P50	4	15
Onshore wind, height-restricted ≥ 7.0 and < 7.5 m/s	0.0550	0.0550	0.0550	0.0550	0.029		0.050		P50	4	15
Onshore wind, height-restricted ≥ 6.75 and < 7.0 m/s	0.0552	0.0589	0.0590	0.0590	0.029		0.050		P50	4	15
Onshore wind, height-restricted < 6.75 m/s	0.0552	0.0589	0.0630	0.0630	0.029		0.050		P50	4	15
Wind on flood defences ≥ 8.5 m/s	0.0430	0.0430	0.0430	0.0430	0.029		0.050		P50	4	15
Wind on flood defences ≥ 8.0 and < 8.5 m/s	0.0460	0.0460	0.0460	0.0460	0.029		0.050		P50	4	15
Wind on flood defences ≥ 7.5 and < 8.0 m/s	0.0490	0.0490	0.0490	0.0490	0.029		0.050		P50	4	15

Ranking and phases by maximum category base amount	Maximum phase amount/base amount				Base energy price		2020 provisional correction amount		Maximum full-load hours	Commissioning period	Subsidy term
	Phase 1 €/kWh	Phase 2 €/kWh	Phase 3 €/kWh	Phase 4 €/kWh	(for solar PV grid supply) €/kWh	Solar PV non-grid supply €/kWh	(for solar PV grid supply and wind including the value of GOs) €/kWh	Solar PV non-grid supply €/kWh	hours/year	years	years
Wind on flood defences ≥ 7.0 and < 7.5 m/s	0.0520	0.0520	0.0520	0.0520	0.029		0.050		P50	4	15
Wind on flood defences ≥ 6.75 and < 7.0 m/s	0.0552	0.0570	0.0570	0.0570	0.029		0.050		P50	4	15
Wind on flood defences < 6.75 m/s	0.0552	0.0589	0.0610	0.0610	0.029		0.050		P50	4	15
Wind on lakes ≥ 1 km ²	0.0552	0.0589	0.0590	0.0590	0.029		0.050		P50	4	15
Solar											
Solar PV ≥ 15 kWp and < 1 MWp connection > 3 * 80 A	0.0748	0.0785	0.0800	0.0800	0.029	0.060	0.054	0.078	950	1.5	15
Solar PV ≥ 1 MWp, building-mounted	0.0694	0.0731	0.0740	0.0740	0.029	0.051	0.054	0.069	950	3	15
Solar PV ≥ 1 MWp, ground-mounted	0.0595	0.0632	0.0690	0.0690	0.029	0.051	0.054	0.069	950	4	15
Solar PV ≥ 1 MWp, ground-mounted and sun-tracking	0.0595	0.0632	0.0690	0.0690	0.029	0.051	0.054	0.069	1045	4	15
Solar PV ≥ 1 MWp, floating	0.0595	0.0632	0.0800	0.0800	0.029	0.051	0.054	0.069	950	4	15
Solar PV ≥ 1 MWp, sun-tracking on water	0.0595	0.0632	0.0800	0.0800	0.029	0.051	0.054	0.069	1190	4	15

Renewable heat



Renewable heat

The “Renewable heat” SDE++ category is divided into the following subcategories: “Biomass (fermentation and combustion)”, “Composting mushroom compost”, “Geothermal (deep and ultra-deep)” and “Solar thermal”.

Transmission capacity indication for combined heat and power (CHP) at a sewage treatment plant and CHP from biomass fermentation

If you are submitting an application in a “[CHP](#) from biomass fermentation” category or for CHP at a sewage treatment plant, you must include an indication of the grid operator’s transmission capacity for the feed-in of electricity. This is to show that sufficient transmission capacity is available for the location to which your application relates. The transmission capacity indication must be issued in relation to the application round in which you are applying for a subsidy.

Negative electricity prices for CHP from biomass fermentation and sewage treatment plants

If the price of electricity is negative for a period of six consecutive hours or longer, you will not receive an SDE++ subsidy for the feed-in of renewable electricity. This does not apply to small-scale CHP projects (projects with a rated output per electricity grid connection of less than 500 kW). It also does not apply to projects for which applications were submitted before 1 December 2015.

The [SDE++ website](#) has a list of dates in 2020 on which electricity prices were negative.

Emissions Trading System (ETS)

A new feature of the SDE++ is a provision relating to the ETS. If your facility benefits from the ETS, we will factor this ETS benefit into the correction amount. This situation may change during the production period. Under the SDE++, it is possible to adjust this correction during the production period.

Biomass (fermentation, combustion and composting)

In 2020, the SDE++ scheme is supporting the production of energy from biomass. You can apply for a subsidy for all-purpose fermentation, manure mono-fermentation, combustion (thermal conversion), sludge fermentation as part of sewage treatment and composting of mushroom compost.

Fermentation

The dividing lines between the co-fermentation, all-purpose fermentation and 100% livestock manure fermentation (manure mono-fermentation) categories have become blurred. This was made clear by various analyses performed by the PBL in regard to the increase in manure use. Accordingly, since 2019 there has been no separate co-fermentation category in the SDE+ or SDE++ schemes. Applications for co-fermentation may be submitted under the “All-purpose fermentation” category.

All-purpose fermentation

In the “All-purpose fermentation” subcategory, you can submit a subsidy application for almost any type of biomass. This includes manure co-fermentation for the production of heat, heat and electricity (CHP) or renewable gas. This is subject to the condition that the biogas yield from the incoming biomass stream must be at least 25 Nm³ natural gas equivalent per tonne. For combined heat and power (CHP), the rated output is determined by adding together the electrical and thermal outputs.

Manure mono-fermentation

Manure mono-fermentation is used for the production of heat, heat and electricity (CHP) or renewable gas. The input must consist exclusively of livestock manure, with no co-products. There are two output categories for manure mono-fermentation: “≤ 400 kW” and “> 400 kW”. For combined heat and power (CHP), the rated output is determined by adding together the electrical and thermal outputs.

Improved or existing sludge fermentation in sewage treatment plants

The SDE++ scheme is supporting improved sludge fermentation for the production of renewable heat or electricity in sewage treatment plants. This subcategory does not relate to a specific technology, which means there are more opportunities to apply innovative technologies. Sewage treatment plants vary widely in terms of size and type of facility. For an SDE++ application, you need to show that you can increase the

existing biogas production by at least 25%. The facility components responsible for the increased biogas production must be new.

Combustion

The end products of renewable heat and renewable electricity are subsidised. You can apply for an SDE++ subsidy in one of seven “Biomass combustion” categories. We distinguish between the following outputs and types of biomass used:

- “Liquid biomass boilers with a thermal output ≥ 0.5 MWth and \leq MWe.”
- “Large solid or liquid biomass boilers with a thermal output ≥ 5 MWth for which the [graduated scale](#) applies.”
- “B-grade wood boilers with an output ≥ 5 MWth.”
- “Steam boilers burning sustainable wood pellets with a minimum output ≥ 5 MWth.”
- “Burners using sustainable wood pellets for industrial applications, with an output ≥ 5 MWth” (existing components may be used for this category).” An upper limit of 100 MW electrical output applies.
- “Large boilers burning sustainable wood pellets for the urban environment with an output ≥ 10 MWth.”
- “Service life extension for solid or liquid biomass boilers with a minimum output of 5 MWth that have previously received an SDE subsidy.”

Heat or CHP

For all seven categories, generating both heat and electricity is permitted. The base amount and correction amount are calculated on the basis of supplying heat. If you want to produce electricity, you may use an existing steam turbine.

The Guarantees of Origin and Certificates of Origin Regulation states that heat that is used to generate electricity cannot be considered as “usefully employed heat”. The correct subsidy amount is calculated by taking into account both electricity and other “usefully employed heat”. Accordingly, for these categories we no longer set requirements around the electricity yield of the facility.

Liquid biomass boilers, ≥ 0.5 MWth

For the “Liquid biomass boilers, ≥ 0.5 MWth” category, you can submit a subsidy application for a production plant for which you have previously received an SDE+ subsidy. It seems that there are facilities which, due to changing circumstances, can now operate for more [full-load hours](#) than was previously possible. The base amount for this type of facility does not take account of the cost price of a boiler to avoid the risk of over-incentivisation. In addition, in every production year, you must fully use the previous grant before you receive any subsidy money under the later grant. You must demonstrate the sustainability of the liquid biomass every year in a report.

Facilities operating on sustainable wood pellets

For the “Facilities operating on sustainable wood pellets” categories, you do not have to use only pellets made from fresh wood. You can also use up to 15% A-grade wood pellets and 25% waste flows from biorefining. B-grade wood (demolition wood) is not permitted. The duration of the subsidy is 12 years. To be entitled to an SDE++ subsidy, every year you must demonstrate the sustainability of the biomass used.

Fuel criteria

B-grade wood is excluded for most boilers. When calculating the base amount for these facilities we, therefore, take account of the higher price you have to pay for clean wood. Conversely, for “B-grade wood boilers”, the calculation of the base amount is based on the lower price paid for B-grade wood. This means the base amount for these boilers is lower. You can also burn other types of biomass in a “B-grade wood boiler”. If you have made an application in a category specifically intended for boilers using sustainable wood pellets as fuel, you may generate up to 15% of the energy production using A-grade wood pellets and up to 25% using waste flows from biomass refining. In the SDE++ scheme, “biorefining” is considered to be a process in which the primary product replaces a fossil raw material. For this reason, lignin produced by the paper industry does not meet the criteria, but lignin released in the production of sugar from wood does. If the sugar is used to make bioplastics, the lignin is considered to be a waste flow from biorefining.

If you are using one of the following technologies: “Solid or liquid biomass boilers”, “Wood pellet steam boilers”, “B-grade wood boilers”, “Service life extension for solid or liquid biomass boilers” or “Wood pellet boilers for district heating”, at least 95% of the [energy value](#) of the fuel used must be biogenic. This excludes the possibility of boilers being used for the combustion of waste or selected streams of waste, or the co-firing of natural gas.

Liquid biomass may be used in all biomass combustion facilities, but the sustainability of the liquid biomass must be demonstrated.

Sustainability criteria

The biomass you use must meet sustainability criteria. Separate criteria apply for solid and liquid biomass.

Solid biomass

For solid biomass, sustainability criteria apply for the following categories:

- “Wood pellet steam boilers ≥ 5 MWth”;
- “Wood pellet burners for industrial applications ≥ 5 MWth and ≤ 100 MWe”;
- “Wood pellet boilers ≥ 10 MWth for urban environments (district heating)”.

The sustainability criteria apply to all types of biomass, including woody biomass, waste from the agricultural sector and biomass from biorefining.

The certification, verification and enforcement of the sustainability criteria for solid biomass are embedded in the Environmental Management Act (Wet Milieubeheer). The order in council under the Environmental Management Act took effect on 1 January 2019. The producer must commission a conformity assessment body to draw up the annual declaration of conformity. The producer uses this to demonstrate it has satisfied the conformity requirements throughout the entire year.

Liquid biomass

Sustainability criteria apply for liquid biomass if you use this biomass for all categories in which you burn biomass. The sustainability criteria for liquid biomass are set out in the Renewable Energy Directive (RED).

This example is based on a 10 MWth solid or liquid biomass boiler which runs for 5,000 full-load hours per year. Participation in the ETS has not been factored into this example.

Category: large solid or liquid biomass boilers ≥ 5 MWth, 5000 full-load hours

Maximum application amount, Phase 1 onwards	€0.0387
Maximum application amount, Phase 2 onwards	€0.0432
2020 provisional correction amount	€0.020
Provisional 2020 SDE++ subsidy in Phase 1:	$3.87 - 2.0 = 1.87$ € cents/kWh = €18.70/MWh
Provisional 2020 SDE++ subsidy in Phase 2:	$4.32 - 2.0 = 2.32$ € cents/kWh = €23.20/MWh
Maximum number of full-load hours entitled for the subsidy	5,000 full-load hours
Total rated output	10 MWth
Maximum annual production entitled for the subsidy for a facility with a 10 MW boiler output	$10 * 5,000 = 50,000$ MWh
Provisional 2020 SDE++ subsidy for applications submitted from Phase 1 onwards	$50,000 * €18.70 = € 935,000$
Provisional 2020 SDE++ subsidy for applications submitted from Phase 2 onwards	$50,000 * €23.20 = €1,160,000$

In this calculation example, the phase amounts are rounded to four decimal places.

You must demonstrate the sustainability of the liquid biomass every year in a report.

In this category you may only use mushroom compost, since it has not been established that composting of other waste flows has an unprofitable component.

Composting (mushroom compost)

A new category in the SDE++ scheme is “Composting champost”. Composting mushroom compost releases very low-value heat. This low-value heat can be used to heat buildings or horticultural greenhouses.

Permits

Usually, you will require one or more permits for a biomass facility. These must be issued by the competent authority before you submit your subsidy application. The following permits may be required:

- Environmental permit. If your biomass facility needs a permit under the Environmental Permitting (General Provisions) Act (Wabo), you need to attach both the permit application and the permit itself to your subsidy application. Please note: A limited environmental assessment environmental permit (OBM) is also a permit.
- Nature Conservation Act (Wet natuurbescherming – Wnb). For the 2020 round of the SDE++ scheme you must attach a Wnb permit to your application, if such a permit is required. A permit or exemption under the Wnb is an increasingly important precondition for ensuring renewable energy projects are implemented on time. This applies to projects with a substantial nitrogen discharge during the operating phase, such as biomass projects.

If you would like to know more about environmental permits, visit the [online environmental service desk](#).

Solar thermal energy

You can submit an application in the 2020 round of the SDE++ scheme under the “Solar thermal energy” category. This category applies to facilities exclusively using “covered” solar collectors. They must have a total thermal output of ≥ 140 kW. Indicate the aperture area in your subsidy application.

In the 2020 round of the SDE++ scheme, there are two output classes for solar thermal energy. Because larger systems are more cost-efficient, a lower base amount applies to this category. The base energy price and correction amount also differ for small and large facilities.

Categories:

- “ ≥ 140 kWth and < 1 MWth”
- “ ≥ 1 MWth”

Smaller systems may be entitled to the Sustainable Energy Investment Grant (ISDE).

The thermal output of the facility in kW is equal to the total aperture area in square metres multiplied by a factor of 0.7. For a facility to be eligible for a subsidy, the light-absorbing surface must form an integrated whole with the translucent layer. The translucent layer provides insulation, such as a glass sheet or tube. The greenhouse glazing is a translucent layer and PVT also has a translucent layer, but neither of these forms an integrated whole with the light-absorbing surface. For this reason, neither is eligible for the subsidy. However, if you have PVT panels you can apply for a subsidy under the “Solar PV” category.

Implementation period

The implementation period for solar thermal energy is 3 years.

Permits

In a number of situations, you will require one or more permits for the installation of solar collectors. These must be issued by the competent authority before you submit your subsidy application. The following permits may be required:

- Environmental permit. If instead of installing the solar collectors on an existing roof you have opted for a field array, or installation on a newly-constructed roof, listed building or building façade (within view), you will need a permit under the Environmental Permitting (General Provisions) Act (Wabo). Attach both the permit application and the permit itself to your subsidy application. Please note: A temporary permit based on the “Kruimellijst” list in the Environment Law Decree is insufficient.
- Public Works and Water Management Act (Wbr) permit. If you are conducting activities on or around public works or water management structures, such as roads, motorways, viaducts, tunnels, bridges or dykes, your facility will require a Wbr permit. Attach it to your subsidy application.
- Water permit under the Water Decree (Paragraph 5, 6 or 7 of section 6). If you are combining your solar thermal energy project with heat storage in the soil, you will need a permit. Attach the permit to your subsidy application.

If you would like to know more about environmental and water permits, visit the [online environmental service desk](#).

Geothermal heat

Geothermal heat is eligible for an SDE++ subsidy. We make a distinction between geothermal energy used for the production of renewable heat and geothermal energy used for the production of low-CO₂ heat.

Shallow geothermal heat with a heat pump as a component of the production facility falls into the category of low-CO₂ heat. Both renewable heat and low-CO₂ heat include a number of subcategories:

Renewable heat

- “Geothermal heat with a minimum depth of 500 metres, situated below the formation layers of the North Sea Group and with an output of up to 20 MW.”
- “Geothermal heat with a minimum depth of 500 metres, situated below the formation layers of the North Sea Group and with an output of at least 20 MW.”
- “Geothermal heat with a minimum depth of 4,000 metres.”
- “Geothermal heat with a minimum depth of 500 metres, situated below the formation layers of the North Sea Group and with an output of up to 20 MW, where existing oil or gas wells are used for one or both wells in the doublet.”
- “Geothermal heat with a minimum depth of 500 metres, situated below the formation layers of the North Sea Group and with an output of at least 20 MW, where existing oil or gas wells are used for one or both wells in the doublet.”
- “Geothermal heat involving expansion of a production facility with at least one additional well, with a minimum depth of

500 metres, situated below the formation layers of the North Sea Group.”

- “Geothermal heat with a minimum depth of 500 metres, situated below the formation layers of the North Sea Group, where the heat is used in an urban environment.”

Low-CO₂ heat

- “Geothermal heat with a minimum depth of 500 metres, situated in the formation layers of the North Sea Group, where the heat is upgraded using a heat pump and is used in an urban environment with 3,500 [full-load hours](#).”
- “Geothermal heat with a minimum depth of 500 metres, situated in the formation layers of the North Sea Group, where the heat is upgraded using a heat pump, with 6,000 [full-load hours](#).”

For these two categories, the compression heat pump must have a COP value of at least 3.0 and a rated thermal output of at least 500 kWth.

Geological report

Geothermal projects require a geological survey. Attach your geological report to your subsidy application. The TNO report “Specifications for geological surveys for geothermal projects – SDE+ and RNES reporting requirements” sets out the minimum requirements that must be met by the geological survey underpinning your SDE++ subsidy application. You can find more information on the [SDE++ website](#).

DoubletCalc calculation

TNO can facilitate the geological survey. TNO has made the software package and DoubletCalc user guide available on the [Netherlands oil and gas portal \(NLOG\)](#). You can use DoubletCalc to calculate the P50 output. The user guide explains the method to follow to calculate the P50 output.

For the SDE++ scheme, the rated output for geothermal heat must be determined with a probability of at least 50%.

Permits

One or more permits are generally required for a geothermal facility. These must be issued by the competent authority before you submit your subsidy application:

- Exploration permit. If you are developing a new geothermal project, you’ll need an exploration permit issued under the Mining Act. Always attach the permit to your subsidy application.
- Extraction permit. If there is an existing geothermal project for which you already have an extraction permit, and you are planning to expand within the area covered by that permit, attach the extraction permit to your subsidy application.

Phasing and rates for renewable heat and CHP	Maximum phase amount/base amount				Base energy price €/kWh	2020 provisional correction amount		Maximum full-load hours hours/year	Commissioning period years	Subsidy term years
	Phase 1 €/kWh	Phase 2 €/kWh	Phase 3 €/kWh	Phase 4 €/kWh		ETS facilities (incl. ETS correction) €/kWh	Non-ETS facilities €/kWh			
Biomass cogeneration of electricity and heat										
All-purpose fermentation, combined generation	0.0565	0.0606	0.0670	0.0670	0.029	0.041	0.038	7622	4	12
Manure mono-fermentation, combined generation ≤ 400 kW	0.0863	0.0935	0.1210	0.1210	0.049	0.062	0.059	6374	4	12
Manure mono-fermentation, combined generation > 400 kW	0.0663	0.0735	0.0740	0.0740	0.029	0.042	0.039	7353	4	12
Sewage treatment plant improved sludge fermentation, combined generation	0.0440	0.0440	0.0440	0.0440	0.033	0.045	0.043	5729	4	12
Biomass heat										
All-purpose fermentation, heat	0.0477	0.0522	0.0600	0.0600	0.023	0.033	0.028	7000	4	12
Manure mono-fermentation, heat ≤ 400 kW	0.0576	0.0652	0.0980	0.0980	0.023	0.033	0.028	7000	4	12
Manure mono-fermentation, heat > 400 kW	0.0576	0.0620	0.0620	0.0620	0.023	0.033	0.028	7000	4	12
Sewage treatment plant improved sludge fermentation, heat	0.0290	0.0290	0.0290	0.0290	0.023	0.033	0.028	7000	4	12
Heat from composting mushroom compost	0.0430	0.0430	0.0430	0.0430	0.023	0.033	0.028	5200	4	12
Biomass heat (or the cogeneration of electricity and heat)										
Liquid biomass boilers ≥ 0.5 Mwth and ≤ 100 MWe	0.0477	0.0522	0.0690	0.0690	0.023	0.033	0.028	7000	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 4500 full-load hours	0.0387	0.0432	0.0470	0.0470	0.016	0.025	0.020	4500	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 5000 full-load hours	0.0387	0.0432	0.0460	0.0460	0.016	0.025	0.020	5000	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 5500 full-load hours	0.0387	0.0432	0.0460	0.0460	0.016	0.025	0.020	5500	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 6000 full-load hours	0.0387	0.0432	0.0450	0.0450	0.016	0.025	0.020	6000	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 6500 full-load hours	0.0387	0.0432	0.0450	0.0450	0.016	0.025	0.020	6500	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 7000 full-load hours	0.0387	0.0432	0.0440	0.0440	0.016	0.025	0.020	7000	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 7500 full-load hours	0.0387	0.0432	0.0440	0.0440	0.016	0.025	0.020	7500	4	12

Phasing and rates for renewable heat and CHP	Maximum phase amount/base amount				Base energy price €/kWh	2020 provisional correction amount		Maximum full-load hours hours/year	Commissioning period years	Subsidy term years
	Phase 1 €/kWh	Phase 2 €/kWh	Phase 3 €/kWh	Phase 4 €/kWh		ETS facilities (incl. ETS correction) €/kWh	Non-ETS facilities €/kWh			
Large solid or liquid biomass boilers ≥ 5 MWth, 8000 full-load hours	0.0387	0.0432	0.0440	0.0440	0.016	0.025	0.020	8000	4	12
Large solid or liquid biomass boilers ≥ 5 MWth, 8500 full-load hours	0.0387	0.0432	0.0440	0.0440	0.016	0.025	0.020	8500	4	12
B-grade wood boilers ≥ 5 MWth	0.0270	0.0270	0.0270	0.0270	0.016	0.025	0.020	7500	4	12
Wood pellet boilers for district heating ≥ 10 MWth	0.0387	0.0432	0.0647	0.0660	0.016	0.025	0.020	6000	4	12
Wood pellet steam boilers ≥ 5 MWth	0.0387	0.0432	0.0640	0.0640	0.016	0.025	0.020	8500	4	12
Direct use of wood pellets for industrial applications ≥ 5 MWth and < 100 MWe	0.0447	0.0492	0.0520	0.0520	0.021	0.030	0.025	3000	4	12
Solid or liquid biomass boilers ≥ 5 MWth, service life extension	0.0310	0.0310	0.0310	0.0310	0.016	0.025	0.020	8000	4	12
Geothermal heat *										
Deep geothermal heat < 20 MWth, base load (6000 full-load hours)	0.0382	0.0425	0.0440	0.0440	0.016	0.025	0.020	6000	4	15
Deep geothermal heat ≥ 20 MWth, base load (6000 full-load hours)	0.0380	0.0410	0.0410	0.0410	0.016	0.025	0.020	6000	4	15
Deep geothermal heat < 20 MWth, conversion of existing oil and/or gas wells (6000 full-load hours)	0.0382	0.0425	0.0440	0.0440	0.016	0.025	0.020	6000	4	15
Deep geothermal heat ≥ 20 MWth, conversion of existing oil and/or gas wells (6000 full-load hours)	0.0380	0.0410	0.0410	0.0410	0.016	0.025	0.020	6000	4	15
Deep geothermal heat, heating urban environments (3500 full-load hours)	0.0378	0.0421	0.0623	0.0830	0.016	0.025	0.020	3500	4	15
Deep geothermal heat, expansion of production facility by at least one extra well (6000 full-load hours)	0.0310	0.0310	0.0310	0.0310	0.016	0.025	0.020	6000	4	15
Ultra-deep geothermal heat (7000 full-load hours)	0.0381	0.0424	0.0631	0.0650	0.016	0.025	0.020	7000	4	15
Solar heat										
Solar thermal energy ≥ 140 kW and < 1 MW	0.0547	0.0592	0.0807	0.0950	0.030	0.040	0.035	600	3	15
Solar thermal energy ≥ 1 MW	0.0477	0.0522	0.0737	0.0800	0.023	0.033	0.028	600	3	15

* The shallow geothermal energy categories are shown in the table on Page 34 (phasing and rates for low-carbon heat)

Renewable gas



Renewable gas

In 2020, the SDE++ scheme is supporting the production of renewable gas from biomass. This is subject to the condition that the gas produced must meet the quality requirements of the gas network operator. In addition, you must feed the gas into a gas network. For this reason, the production of syngas is excluded from the subsidy.

Biomass (fermentation and gasification)

In 2020, the SDE++ scheme is supporting the production of energy from biomass. You can apply for a subsidy for all-purpose fermentation, manure mono-fermentation, sludge fermentation as part of sewage treatment and biomass gasification.

Fermentation

The dividing lines between the co-fermentation, all-purpose fermentation and 100% livestock manure fermentation (manure mono-fermentation) categories have become blurred. This was made clear by various analyses performed by the PBL in regard to the increase in manure use. Accordingly, since 2019 there has been no separate co-fermentation category in the SDE+ or SDE++ schemes. Applications for co-fermentation may be submitted under the “All-purpose fermentation” category.

All-purpose fermentation

You can submit a subsidy application under the “All-purpose fermentation” category for all types of biomass, including co-fermentation of manure. You can also apply under this category for almost any type of biomass. This is subject to the condition that the biogas yield from the incoming biomass stream must be at least 25 Nm³ natural gas equivalent per tonne.

All-purpose fermentation – service life extension

“All-purpose fermentation – service life extension” is a new category in the SDE++ scheme. It is intended for projects that first received an SDE subsidy in the period 2008–2010 and are now nearing the end of their subsidy period. Generally speaking, due to operating costs, these projects still have an unprofitable component. Based on market interest, the PBL has issued an opinion on the conversion of a CHP plant to green gas. This kind of upgrading system would require a substantial investment. Accordingly, this category in the SDE++ scheme is only open to the conversion of CHP plants to green gas. You may submit an application if your current subsidy grant decision expires within three years. This may give your plant some temporary certainty around the future.

Manure mono-fermentation

Manure mono-fermentation can be used to produce renewable gas. The input must consist exclusively of livestock manure, with no co-products. There are two output categories for manure mono-fermentation: “≤ 400 kW” and “> 400 kW”.

Sewage treatment plants

The SDE++ scheme is supporting improved sludge fermentation for the production of renewable heat or electricity in sewage treatment plants. This subcategory does not relate to a specific technology, which means there are more opportunities to apply innovative technologies. Sewage treatment plants vary widely in terms of size and type of facility. For an SDE++ application, you need to show that you can increase the existing biogas production by at least 25%. The facility components responsible for the increased biogas production must be new.

Another subcategory is “Existing sludge fermentation at sewage treatment plants with reprocessing into renewable gas.” This subcategory is for sludge fermentation systems without increased production. The gas reprocessing facility must be new. This subcategory is designed for projects to upgrade biogas to green gas, which can then be fed into the natural gas network.

Gasification

In the 2020 round of the SDE++ scheme there are two categories for the production of renewable gas from biomass gasification. Bio-syngas is not entitled to the subsidy. This is because biosyngas must first be converted to methane before it can be fed into the gas network:

- “Biomass gasification excluding B-grade wood”;
- “Biomass gasification including gasification of B-grade wood”.

Fuel criteria

When calculating the base amount for “Gasification excluding B-grade wood”, we take account of the higher price you have to pay for clean wood.

Conversely, for “Gasification of B-grade wood”, the calculation of the base amount is based on the lower price paid for B-grade wood. This means the base amount for this category is lower. You can also burn other types of biomass under the “Gasification of B-grade wood” category.

Permits

Usually, you will require one or more permits for a biomass facility. These must be issued by the competent authority before you submit your subsidy application.

The following permits may be required:

- Environmental permit. If your biomass facility needs a permit under the Environmental Permitting (General Provisions) Act (Wabo), you need to attach both the permit application and the permit itself to your subsidy application. Please note: A limited environmental assessment environmental permit (OBM) is also a permit.

If you would like to know more about environmental permits, visit the [online environmental service desk](#).

- Nature Conservation Act (Wet natuurbescherming – Wnb). For the 2020 round of the SDE++ scheme you must attach a Wnb permit to your application, if such a permit is required. A permit or exemption under the Wnb is an increasingly important precondition for ensuring renewable energy projects are implemented on time. This primarily applies to projects with a substantial nitrogen discharge during the operating phase.

If you would like to know more about Wnb permits, visit the [Bij12.nl](#) website.

Phasing and rates for renewable gas		Maximum phase amount/base amount				Base energy price	2020 provisional correction amount	Maximum full-load hours	Commissioning period	Subsidy term
Category	Phase 1 €/kWh	Phase 2 €/kWh	Phase 3 €/kWh	Phase 4 €/kWh	€/kWh	€/kWh	hours/year	years	years	
Biomass										
All-purpose fermentation, renewable gas	0.0359	0.0396	0.0569	0.0640	0.016	0.020	8000	4	12	
Manure mono-fermentation, renewable gas ≤ 400 kW	0.0458	0.0526	0.0845	0.0880	0.016	0.020	8000	4	12	
Manure mono-fermentation, renewable gas > 400 kW	0.0458	0.0526	0.0680	0.0680	0.016	0.020	8000	4	12	
Sewage treatment plant improved sludge fermentation, renewable gas	0.0359	0.0396	0.0420	0.0420	0.016	0.020	8000	4	12	
Sewage treatment plant existing sludge fermentation, new gas upgrading system	0.0300	0.0300	0.0300	0.0300	0.016	0.020	8000	4	12	
Biomass gasification (including B-grade wood)	0.0359	0.0396	0.0569	0.0730	0.016	0.020	7500	4	12	
Biomass gasification (excluding B-grade wood)	0.0359	0.0396	0.0569	0.0790	0.016	0.020	7500	4	12	
All-purpose fermentation, service life extension, renewable gas	0.0359	0.0396	0.0569	0.0640	0.016	0.020	8000	4	12	

Low-CO₂ heat



Low-CO₂ heat

Low-CO₂ heat is heat that does not come, or only partially comes, from a renewable source. The SDE++ scheme contains a number of specific options to reduce CO₂ emissions. These include electric boilers, large-scale heat pumps and the use of waste heat. The heat that is eligible for the subsidy is heat that does not come, or only partially comes, from a renewable source. Consequently, when determining the heat produced, we cannot use the system of measurement and certification as described in the Guarantees of Origin and Certificates of Origin Regulation. For that reason, extra provisions were included in the General Implementing Regulation. These provisions govern how we establish what is “[usefully employed heat](#)”. They also contain requirements for establishing the suitability of the production facility, the installation and classification of meters and how the measurement report should be drafted.

Availability of renewable electricity for electric boilers and electric hydrogen production

Over the next few years, the percentage of sustainably-generated electricity will increase. With all the options presented here, the use of natural gas to produce heat will decrease. However, electric boilers and electric hydrogen production are still limited in terms of the number of [full-load hours](#) per year. For the next few years, the supply of renewable electricity will still be insufficient to ensure that longer use of these technologies will sufficiently reduce CO₂. For other facilities that use varying amounts of electricity, this restriction does not apply.

This includes facilities which produce heat partially consisting of renewable energy or waste heat, which could be made suitable for re-use by means of a heat pump. With more full-load hours per year eligible for the subsidy, these facilities will still achieve an adequate CO₂ reduction.

ETS

A new feature of the SDE++ scheme is the provision relating to the ETS. Will you benefit from the ETS when your facility is commissioned? If so, this ETS benefit will be factored into the correction amount. This situation may change during the production period. Under the scheme, it is possible to adjust this correction during the production period.

In 2020, the “Low-CO₂ heat” SDE++ category is divided into the following subcategories: “Aquathermal energy (thermal energy from surface water, wastewater and drinking water)”, “Daylight greenhouses”, “Electric boilers”, “Shallow geothermal heat”, “Industrial heat pumps” and “Use of waste heat”.

Aquathermal energy (thermal energy from surface water, wastewater and drinking water)

The SDE++ scheme includes three technologies which extract heat from water for [heating in the urban environment](#). This could be used for district heating, space heating or domestic hot water. The heat could be supplied directly or via a district heating network. Process heating, including greenhouse horticulture, is excluded from this category.

Thermal energy from surface water

This type of system extracts heat from surface water and stores it in a seasonal storage system. The heat is then taken out of the seasonal storage system during the heating season. A heat pump increases the temperature. The heat can then be used to heat buildings and domestic hot water. The system is subject to technical preconditions. To be entitled to a subsidy, your system must meet the following criteria:

- You cannot use the seasonal storage system for cooling. The PBL has indicated that systems that do so are profitable and do not require a subsidy.
- The heat pump must deliver a thermal output of at least 0.5 MWth and have a COP (Coefficient of Performance) value of at least 3.0.
- You must use the heat exclusively for heating in the urban environment.

Thermal energy from wastewater or drinking water

This type of system extracts heat from wastewater or drinking water. A heat pump increases the temperature, after which you can use it to heat buildings or domestic hot water. The system is subject to technical preconditions.

To be entitled to a subsidy, your system must meet the following criteria:

- The heat pump must deliver a thermal output of at least 0.5 MWth and have a COP value of at least 3.0.
- You must use the heat exclusively for heating in the urban environment.

Daylight greenhouses

Some crops in horticultural greenhouses prefer less direct sunlight. In these cases, you can trap some of the incoming sunlight using a solar thermal system. You can then store the heat in a seasonal storage system, and take it out again during the heating season. You can use a heat pump to increase the temperature, then use the heat to heat the greenhouse. The system is subject to certain technical preconditions. To be eligible for a subsidy, you must meet the following criteria:

- The sun-tracking collector system must form an integral part of a new horticultural greenhouse.
- The power output of the solar collector must be at least four times the power output of the heat pump to be installed. This will ensure the solar collector generates enough heat to fill the seasonal storage system completely.
- You cannot use the seasonal storage system for cooling. The PBL has indicated that systems that do so are profitable and do not require a subsidy.
- The heat pump must have a thermal output of at least 0.5 MWth and a COP value of at least 5.0.

Electric boilers

With support from an SDE++ subsidy, you can generate heat for businesses using an electric boiler instead of a gas boiler. You can also employ hybrid boilers that use both gas and electricity to supply heat. The boiler must be new; the conversion of a gas boiler already present at the site is not permitted. For hybrid boilers, both the heat and the electricity used must be measured. You will receive a subsidy only for the heat generated from electricity.

The full-load hours for using electric boilers will be limited for the next few years because the supply of renewable electricity will still be insufficient to stimulate this technology to achieve 2,000 full-load hours.

The system is subject to certain technical preconditions. To be eligible for a subsidy, you must meet the following criteria:

- The electric boiler must have a thermal output of at least 5 MWth.
- The system the heat will be fed into must have a design temperature of at least 100°C. This prevents electric boilers from being used in situations where a heat pump would be preferable due to its higher COP value.
- The capacity of the connection to the electricity grid must be at least as high as the output of the electric boiler.
- The output of the electric boiler must not be higher than the thermal output of the boilers present in the location that is fired with fossil fuels.

The maximum numbers of full-load hours for electric boilers that are entitled to a subsidy in the calendar years 2021 to 2024 are:

Year	Full-load hours for electric boilers
2021	1,490
2022	1,670
2023	1,790
2024	1,860

The lower production in the years 2021 to 2024 can be made up from 2025 onwards through [banking](#).

Geothermal heat (shallow)

You can find information about the “Geothermal heat (shallow)” category, in which a heat pump is used, under the “Geothermal” category in the “Renewable heat” section.

Use of waste heat

Waste heat is released in industrial processes. The temperature of this heat is too low for the factory itself to use it. Through the SDE++ scheme, we want to make it possible for this heat to be used elsewhere. It could also be supplied to a district heating network. The supply of steam is excluded from this category, as it does not involve an unprofitable component.

Waste heat

“Waste heat” means the unavoidable thermal energy generated by a factory as a by-product, which, if not usefully employed, would be released unused into the air or water, and

which at the time of the application is not being usefully employed. There are two possible scenarios:

- **Without a heat pump**

The temperature of the waste heat is sufficient for other users. The system is subject to certain technical preconditions. To be entitled to a subsidy, you must meet the following criteria:

- The output connection must have a thermal capacity of at least 5 MWth.
- At least 0.3833 kilometres of new transport pipeline must be laid per MWth output capacity.

If you are intending to use multiple output connections from the same new transport pipeline, add the output capacity figures together for the purposes of this calculation.

- **With a heat pump**

The temperature of the waste heat is too low to be directly usable by other users. A heat pump can be used to increase the temperature. The system is subject to certain technical preconditions. To be entitled to a subsidy, you must meet the following criteria:

The heat pump must deliver a thermal output of at least 5 MWth and have a COP value of at least 3.0.

Industrial heat pumps

Factories can also use the waste heat themselves by using a heat pump to increase the temperature. Through the SDE++ scheme we are enabling this unusable heat to be upgraded to

This example is based on the use of waste heat (in the form of hot water), without a heat pump system, 6,000 full-load hours and a 10 MWth output. Participation in the ETS has been factored into this example.

Category: Use of waste heat (hot water) without a heat pump system

Maximum application amount, Phase 1 onwards	0.0330 €/kWh
ETS	0.005 €/kWh
2020 provisional correction amount*	0.020 + 0.005 = 0.025 €/kWh
Provisional 2020 SDE++ subsidy:	3.30 – 2.50 = 0.80 € cents/kWh = €8.00/MWh
Maximum number of full-load hours eligible for the subsidy	6,000 Full-load hours
Total rated output	10 MWth
Maximum annual production entitled for the subsidy for a facility with a 10 MW output	6,000 * 10 = 60,000 MWh
Provisional 2020 SDE++ subsidy	60,000 * € 8.00 = € 480,000

* In the calculation of the example of the provisional correction amount, the ETS value is taken into account

a higher level, making it usable for industrial applications. Under this category, you can also make steam usable, so it can be reinjected into a process. There are two possible scenarios:

- **With a closed-loop heat pump**

The system is subject to certain technical preconditions. To be eligible for a subsidy, you must meet the following criteria:

- The heat pump must have a thermal output of at least 0.5 MWth and a COP value of at least 2.3.

- **With an open-loop heat pump, such as mechanical vapour recompression**

The system is subject to certain technical preconditions. To be eligible for a subsidy, you must meet the following criteria:

–The heat pump must have a thermal output of at least 0.5 MWth, a minimum COP value of 2.3 and a maximum COP value of 8.0. This upper limit has been added because it is not clear whether projects with a higher COP value require support.

Permits

Facilities usually require one or more permits. These must be issued by the competent authority before you submit your subsidy application. The following permits may be required:

- Environmental permit. If your facility needs a permit under the Environmental Permitting (General Provisions) Act (Wabo), you need to attach both the permit application and the permit itself to your subsidy application.
- Water permit. If your facility requires a permit under the Water Decree (Paragraph 5, 6 or 7 of section 6), attach the permit to your subsidy application.
- Public Works and Water Management Act (Wbr) permit. If you are conducting activities on or around public works or water management structures, such as roads, motorways, viaducts, tunnels, bridges or dykes, your facility will require a Wbr permit. Attach it to your subsidy application.

If you would like to know more about environmental and water permits, visit the [online environmental service desk](#).

This example is based on an electrically-driven heat pump in a closed-loop system with a 5 MW output, running for 8,000 hours per year. Participation in the ETS has been factored into this example.

Category: Electrically-driven heat pumps, closed-loop system

Maximum application amount, Phase 1 onwards	0.0352 €/kWh
Maximum application amount, Phase 2 onwards	0.0380 €/kWh
ETS	0.005 €/kWh
2020 provisional correction amount *	0.020 + 0.005 = 0.025 €/kWh
Provisional 2020 SDE++ subsidy in Phase 1:	3.52 – 2.5 = 1.02 € cents/kWh = €10.20/MWh
Provisional 2020 SDE++ subsidy in Phase 2:	3.80 – 2.5 = 1.30 € cents/kWh = €13.00/MWh
Maximum number of full-load hours entitled for the subsidy	8,000 full-load hours
Total rated output	5 MW
Maximum annual production entitled for the subsidy for a facility with a 5 MW output	5 * 8,000 = 40,000 MWh
Provisional 2020 SDE++ subsidy for applications submitted from Phase 1 onwards	40,000 * €10.20 = €408,000
Provisional 2020 SDE++ subsidy for applications submitted from Phase 2 onwards	40,000 * €13.00 = €520,000

* In the calculation of the example of the provisional correction amount, the ETS value is taken into account

Phasing and rates for low-carbon heat	Maximum phase amount/base amount				Base greenhouse gas amount	2020 provisional correction amount		Maximum full-load hours	Commissioning period	Subsidy term
	Phase 1 €/kWh	Phase 2 €/kWh	Phase 3 €/kWh	Phase 4 €/kWh	€/kWh	ETS facility (incl. ETS correction) €/kWh	Non-ETS facility €/kWh	hours/year	year	year
Geothermal energy										
Shallow geothermal heat, base load (6000 full-load hours)	0.0438	0.0471	0.0600	0.0600	0.023	0.033	0.028	6000	4	15
Shallow geothermal heat, heating urban environments (3500 full-load hours)	0.0438	0.0471	0.0629	0.0810	0.023	0.033	0.028	3500	4	15
Water										
Aquathermal energy – thermal energy from surface water	0.0508	0.0541	0.0699	0.0900	0.030	0.040	0.035	3500	4	15
Aquathermal energy – thermal energy from drinking water and waste water	0.0508	0.0541	0.0699	0.0770	0.030	0.040	0.035	6000	4	15
Solar										
Daylight greenhouses	0.0360	0.0397	0.0573	0.0770	0.016	0.025	0.020	3850	4	15
Electrification										
Industrial heat pumps (closed-loop system)	0.0352	0.0380	0.0380	0.0380	0.016	0.025	0.020	8000	4	12
Industrial heat pumps (open-loop system)	0.0369	0.0370	0.0370	0.0370	0.016	0.025	0.020	8000	4	12
Large-scale electric boilers	0.0387	0.0432	0.0647	0.0720	0.016	0.025	0.020	2000	4	15
Use of waste heat										
Use of waste heat (hot water) without a heat pump system	0.0330	0.0330	0.0330	0.0330	0.016	0.025	0.020	6000	4	15
Use of waste heat (hot water) with a heat pump system	0.0347	0.0380	0.0440	0.0440	0.016	0.025	0.020	6000	4	15

Low-CO₂ production



Low-CO₂ production

Electrolytic hydrogen

At present, most hydrogen is produced from natural gas in a furnace, because this method is cost-efficient. But using electrolysis powered by renewable electricity to produce hydrogen reduces CO₂ emissions. The full-load hours for using such facilities will be limited for the next few years, because the supply of renewable electricity will still be insufficient for this technology to operate full time.

A system is eligible for a subsidy only if its hydrogen production capacity is at least 0.5 MW.

In the calendar years 2021 to 2026, the actual production of hydrogen from electrolysis must not exceed:

Year	Full-load hours for electrolytic hydrogen
2021	0
2022	0
2023	1,490
2024	1,590
2025	1,820
2026	2,330

The lower production in the years 2021 to 2025 can be made up from 2026 onwards through [banking](#).

CO₂ capture and storage (CCS)

CCS is a CO₂-reducing solution for businesses who, in the short term, cannot make their processes carbon-neutral in any other way. Their reasons may be both technical and financial. The captured CO₂ is stored in empty gas fields under the sea. If you would like to receive support from the SDE++ scheme for CCS, as a producer you have to capture the CO₂ yourself. However, the removal and storage of the CO₂ in the ground are done in collaboration with other producers, using a common pipeline and compressor. Attach to your subsidy application a declaration from the party or parties who will be responsible for the transport and permanent storage of the captured CO₂ about the quantities of CO₂ you will be transporting and storing. This lets the parties involved know what to expect and ensures the transport and storage facilities will be ready in time. Due to the scale of this type of project, a longer contracting period (2.5 years) and the implementation period (5 years) apply to this category.

Production limit

The Climate Agreement includes agreements about the maximum amount of CO₂ that will be stored by 2030. The agreement also specifies 7.2 Mt per year of agreed emissions reductions for industry and 3 Mt per year for the electricity sector. In the scheme, the limit is expressed in kg of greenhouse gases. The amounts are multiplied by 15, because the CCS subsidy is granted for a period of 15 years. The difference between the two upper limits was determined on the basis of the Standard Industrial Classification (SBI) codes.

ETS price = Correction amount

CCS facilities are eligible to benefit from the Emissions Trading System (ETS). This ETS benefit will be factored into the correction amount. For CCS, this will remain the case throughout the duration of the subsidy. No adjustment will be made based on project level.

There are a number of possible scenarios:

- *Existing capture facility*
You may use an existing capture facility, but you must install at least one new compressor. This was one of the principles used in determining the base amount for the SDE++ scheme. In addition, you can choose one of the following options:
– 4,000 full-load hours/year
This means that, each year, you would keep some of the captured CO₂ and make it available for other applications, such as CO₂ fertilisation in greenhouse horticulture.
– 8,000 full-load hours/year.
- *New capture facility*
This applies when you are installing a new capture facility and a new compressor:
– 8,000 full-load hours/year in an **existing production process**
Integrating a capture facility in an existing production process is more difficult than in a brand-new production process. Accordingly, a slightly higher base amount applies than for a new production process.
– 8,000 full-load hours/year in a **new production process**.

Permit requirements for new capture facilities

Different submission requirements apply for CCS. This is because no infrastructure exists for CCS yet. At the same time, the required capacity depends on the capacity of the capture projects. To give you sufficient certainty and to enable work to be done on CCS, producers can submit applications without obtaining permits. However, you must still apply for a permit under the Environment Act (environmental permit) for the implementation of a capture project and attach a copy to your application.

If you would like to know more about environmental permits, visit the online [environmental service desk](#).

Permit requirements for existing capture facilities

You do not need to attach any permits for existing facilities.

Transport and storage capacity declaration

You must attach a declaration about the availability of capacity to your CCS subsidy application. The declaration must be issued by the party or parties who will be responsible for the transport and permanent storage of the captured CO₂. This helps us to be certain that the capacity you are applying for can actually be stored.

This example is calculated based on CO₂ capture in an existing production process with 8,000 full-load hours and a capacity of 100 tonnes of CO₂/hour. Participation in the ETS has been factored into this example.

Category: Existing CO₂ capture in existing production processes (8000 full-load hours)

Maximum application amount, Phase 1 onwards	62.476 €/tonne CO ₂
ETS	25.264 €/tonne CO ₂
2020 provisional correction amount*	0.000 + 25.264 = 25.264 €/tonne CO ₂
Provisional 2020 SDE++ subsidy	€62.476 - €25.264 = €37.212
Maximum number of full-load hours entitled for the subsidy	8,000 Full-load hours
Total capacity	100 tonnes of CO ₂ /hour
Maximum annual production entitled for the subsidy for a facility with a capacity of 100 tonnes of CO ₂ /hour	8,000 * 100 = 800,000 tonnes CO ₂ /year
Provisional 2020 SDE++ subsidy	800,000 * €37.212 = €29,769,600

* In the calculation of the provisional correction amount, the product CO₂ itself has no value, but in this example the ETS value is included

Implementation agreement and bank guarantee

If you are applying for a new capture facility or applying for a subsidy of more than €400,000,000, the following additional conditions apply:

- Within two weeks after the subsidy grant decision is issued, you must sign an implementation agreement with the government.
- Within four weeks after the subsidy grant decision is issued, you must supply a bank guarantee.

Phasing and rates for low-carbon production	Maximum phase amount/base amount				Base greenhouse gas amount	2020 provisional correction amount		Maximum full-load hours	Commissioning period	Subsidy term
	Phase 1 €/unit of product ¹	Phase 2 €/unit of product ¹	Phase 3 €/unit of product ¹	Phase 4 €/unit of product ¹	€/unit of product ¹	ETS facility (incl, ETS correction) €/unit of product ¹	Non-ETS facility €/unit of product ¹	hours/year	years	years
CO₂ capture and storage (CCS)										
Existing CO ₂ capture in existing production processes (4000 full-load hours)	86,9640	86,9640	86,9640	86,9640	25,264	25,264	25,164	4000	5	15
Existing CO ₂ capture in existing production processes (8000 full-load hours)	62,4760	62,4760	62,4760	62,4760	25,264	25,264	25,164	8000	5	15
New CO ₂ capture in existing production processes (8000 full-load hours)	96,1773	100,3310	100,3310	100,3310	25,264	25,264	25,164	8000	5	15
New CO ₂ capture in new production processes (8000 full-load hours)	92,3040	92,3040	92,3040	92,3040	25,264	25,264	25,164	8000	5	15
Electrification										
Electrolytic hydrogen production	0.0512	0.0556	0.0764	0.1030	0.027	0.032	0.032	2000	4	15
¹ Unit of product is in tonne CO ₂ for CO ₂ capture and storage and in kWh for the other categories,										

Applying for an SDE++ subsidy

If you would like to take advantage of the SDE++ scheme, applying for a subsidy is quick and easy via the Netherlands Enterprise Agency's online portal eLoket.

The 2020 round of the SDE++ scheme is open from 24 November 09.00 CET until 17 December 17.00 CET. Applications will be accepted in four phases. The phase amount will increase for each phase.

1. Form of ID for eLoket

Before you can use eLoket, you must identify yourself with a username and password. Businesses and organisations can identify themselves with an eHerkenning ID. For the 2020 round of the SDE++ scheme, a Level 1 eHerkenning ID will be sufficient. Individuals can log in using the DigiD for citizens.

2. Logging in to eLoket

To log in to eLoket, follow these steps:

- Go to mijn.rvo.nl/sde.
- Click the “Aanvragen” (Apply) button, under the “Direct regelen” (Do it yourself) heading.
- Select the form of ID you want to use and log in#.
- By default, you will be taken to the eLoket home page.
- On the “Nieuwe aanvraag” (New application) tab, you can scroll through the “Formulierencatalogus” (Forms catalogue)

list and open the “Stimuleren Duurzame Energieproductie and Klimaattransitie 2020 (SDE++)” (Stimulation of Sustainable Energy Production and Climate Transition 2020 (SDE++)) form.

- Next, indicate the category under which you are applying for the SDE++ subsidy on the “Thema selecteren” (Topic selection) tab. On the “Formulier aanmaken” (Form creation) tab you will be asked a series of questions, after which the correct form will be created for you.

3. Filling in the application form

You will then be directed to the application form containing the questions relevant for your application:

- Before moving on to the next tab, you can check your answers by clicking the “Controleren” (Verify) button. If any information is missing or has not been entered correctly you will see an alert message.
- You can upload documents on the last tab of the application form. Mandatory documents are indicated with an asterisk (*).
- Check the entire application for errors before you submit it. If you get an alert message, navigate to the specified tab to correct your response.
- You can submit your application from 9 am on 24 November 2020. You can also save your application as a draft, log out and come back to it later. When you are ready to submit your application, log in again and follow the steps under Point 4 below.

4. Submitting your application

- To submit a correctly completed form, click “Naar verzenden” (Ready to submit) on the “Controleren” (Verification) tab. Here, verify once more that all the information is accurate. All questions and answers appear in sequence on the screen. Indicate the phase and the amount per megawatt hour (1 megawatt hour equals 1,000 kilowatt hours) or per tonne of CO₂ for which you are submitting your application.
- Then tick “Verklaring en ondertekening” (Declaration and signature). Finally, submit your application by clicking “Ondertekenen en verzenden” (Sign and submit).
- You will receive a confirmation message via the email address indicated in your profile.

5. Retrieving your application

- Your application form will be saved automatically when you navigate to a new tab. You can also choose to save the information at any other point.
- Saved applications can be found under “Mijn overzicht” (My overview).
- A project number is assigned to all submitted applications. You can use this number in correspondence relating to your application.

** If you are logging in for the first time, a profile screen will be displayed. Complete the required fields and click Save. You will then be logged out and will need to log in again, which you can do by repeating steps 1–4.*

Do you not have eHerkenning or DigiD?

Click the link below to request one. It can take several days to be issued. An eHerkenning ID with Trust Level 1 is required when applying for an SDE++ subsidy.

www.eherkenning.nl or www.digid.nl

Combined applications for wind and renewable gas hubs

You can combine applications in the wind category, and applications for production facilities that are part of a renewable gas hub. This may be useful if you want to implement the project in collaboration with other applicants, but only if all of your collaborators' applications are also approved.

If the subsidy applications received on a single day exceed the available budget, we will rank the applications by subsidy intensity, in euros per tonne of CO₂ reduction. In the case of combined applications, the highest amount of the applications in the combination will apply. If it becomes necessary to draw lots, the combined applications will be treated as a single application.

Preparing your application: what documents must be attached?

The application form for the 2020 round of the SDE++ scheme lists the specific documents that must be attached for each category.

Transmission capacity indication from the grid operator

If you are applying for a subsidy to produce renewable electricity, you must include an indication of the grid operator's transmission capacity (a "transportindicatie") . This is to show that sufficient transmission capacity is available for the location to which your application relates. Ask your grid operator to prepare the transmission capacity indication for you. Because transmission capacity in the electricity grid can change, the transmission capacity indication must be issued specifically for the 2020 round of the SDE++ scheme. A transmission capacity indication requested for a previous round of the SDE+ scheme is not sufficient. If you do not know who your grid operator is, visit www.eancodeboek.nl.

Capacity declaration for CO₂ transport and storage (CCS)

If you are submitting an application for CCS, you must attach a declaration about the quantity of CO₂ you are going to transport and store. This lets the parties involved know what to expect and ensures the transport and storage facilities will be ready in time.

Feasibility study

You must attach a [feasibility study](#) to your application, unless you are applying under the "Solar PV with output of less than 1MW" category.

Compulsory elements of the feasibility study include: a clear financial plan, proof of your equity capital, a statement of operations and a detailed timeframe for the commissioning of the production facility. The study must also include a technical description of the production facility and an energy or product yield calculation. For more complex facilities, you must also

include a process diagram. Equity capital figures must be substantiated with documents demonstrating that the necessary resources (financial and otherwise) are available, or will be available at the time the investment is made. These documents may include annual financial statements or a balance sheet. The [feasibility study](#) must also include proof of equity capital to cover the total value of the projects for which you are applying for an SDE++ subsidy in 2020.

For the sake of completeness, your application must include information on the following:

- Total equity capital;
- The amount of equity capital to be contributed by third parties or shareholders.

If the percentage of equity capital in the overall investment is less than 20%, a declaration from your financial backers is also required. Proof of the equity capital sourced from third parties or shareholder(s) should be provided in the form of a contract, which must also provide information on these parties' own equity capital. Depending on the project, we may request additional information.

Tip: Use the most recent version of the "SDE++ [feasibility study](#) guide" and the "SDE++ [feasibility study](#) template".

Drawing of the solar PV system

When submitting an application for a solar PV system, you must attach a detailed drawing of the site, which clearly shows the system. If there are multiple systems or you hold multiple grant decisions, clearly indicate which decisions relate to which systems. The drawing must also show the orientation of the system.

Required permits

One or more permits are often required for production facilities. Different permits are required for each category. Refer to the sections on the various categories earlier in this brochure to find out which permits are required. Please note that it is up to the competent authority to determine whether a permit is actually necessary for a particular facility. Any required permits must be issued by the competent authority before you submit your application. You must then attach them to your application.

Permission of the owner

If you are not the owner of the site intended for the production facility, you must obtain the owner's permission. Ask the owner to complete and sign the "Site owner's permission form" ("Model toestemming locatie-eigenaar), which you can find on the [SDE++ website](#). In this form, the site owner gives permission for you to install and operate the production facility. If there are multiple owners, all of them must complete a permission declaration. This applies to all categories.

Points to note

- To be entitled to an SDE++ subsidy your application must be completed in full. Make sure your project is properly substantiated, you have provided a strong [feasibility study](#), you have attached the required permits and other documents and you have completed all sections of the online application form.
- You can submit your 2020 SDE++ application between 24 November 09.00 CET and 17 December 17.00 CET.

- In each application round, you can submit a maximum of one application per production facility category and per production facility site address.
- It is up to you to decide the subsidy amount you will apply for. The maximum base amount depends on the technology. You can also apply for a subsidy at a lower rate. However, your project must be feasible.
- The Netherlands Enterprise Agency will process applications in the order in which they are received: first come, first served. If mandatory documents are sent later, this will affect the date on which your application is ranked.
- If the applications received on a single day exceed the available budget, we will rank the applications by [subsidy intensity](#).
- If more CCS applications are received on a single day than the CCS production limits allow, we will rank the CCS applications by [subsidy intensity](#).
- The application with the lowest [subsidy intensity](#) will be ranked highest. If the budget limit falls between applications with an equal subsidy intensity, lots will be drawn for these applications.
- For the purpose of allocating the subsidy budget, applications received after 17.00 CET on business days will be considered to have been received on the next business day.
- Applications for wind categories and applications for production facilities that form part of a renewable gas hub can be submitted as a combined application. You can find more information about combined applications in eLoket on the [SDE++ website](#).

SDE++ grant decisions

Implementation agreement and bank guarantee

If you have received a subsidy grant decision for a CCS project with a new capture facility, or your grant decision relates to a subsidy of €400 million or more for your project, you should note that the decision is subject to the following conditions:

- Within two weeks after the subsidy grant decision is issued, you must send the Netherlands Enterprise Agency a signed implementation agreement. You can find the implementation agreement on the website under “After your application”. The implementation agreement is also set out in Annex 1 of the “Regulation designating the 2020 SDE++ categories”.
- The bank guarantee associated with the implementation agreement must be sent to the Netherlands Enterprise Agency within four weeks after the subsidy grant decision is issued. The bank guarantee template is also set out in Annex 1 of the “Regulation designating the 2020 SDE++ categories”, and is on the website.

You can find more information in the “[Implementation agreement FAQ](#)” section on the website.

Receiving your SDE++ subsidy

Once you have been granted an SDE++ subsidy, you must complete several further steps before you can actually receive it.

- After receiving your subsidy grant decision, you must send the Netherlands Enterprise Agency details of your agreements with contractors within 18 months. For CCS projects, this timeframe is extended to 2.5 years. The documents you provide must describe the components of the production facility and the contracts issued for the construction of the facility. For the “Solar PV \geq 15 kWp and $<$ 1 MWp” category, you do not need to send contractor agreement details within the 18-month implementation period.
- You must carry out the project in accordance with your application, and the production facility must be commissioned within the implementation period.
- You must register with a certifying authority: CertiQ for renewable electricity and heat and Vertogas for renewable gas.
- You must register with the grid operator (or in the case of heat or CCS, with the metering company) as a producer.

Once these steps have been completed, you will receive monthly advance payments. Every year, we make a retrospective correction based on the actual energy price and the certified meter readings received by the Netherlands Enterprise Agency. You can find more information on rvo.nl/sde.

Over-incentivisation assessment

For all categories, an over-incentivisation assessment (based on the Environmental guidelines) will be performed one year after the facility is commissioned. If you have received additional support for the production facility, based on the result of the over-incentivisation assessment your subsidy may be reduced to prevent over-incentivisation. For the “Electric boilers”, “CCS” and “Residual heat” categories, your subsidy may be reduced even if no additional support has been received.

When will I be entitled to an SDE++ subsidy?

To be entitled to an SDE++ subsidy, your application must be completed in full. Make sure you do the following:

- Ensure your project is properly substantiated.
- Ensure your [feasibility study](#) is strong.
- Attach the required permits and other supporting documents.
- Fill in all sections of the digital application form.

Tip: Use the “[SDE++ feasibility study guide](#)” and the “[SDE++ feasibility study template](#)”.

Ranking and phases by maximum category base amount	Subsidy intensity ¹	Base amount	Long-term price	Emission factor
Category	€/tonne CO ₂	€/unit of product ²	€/unit of product ²	kg CO ₂ /unit of product ²
	A=(B-C)/D	B	C	D
Phase 1 - 24 November 2020 09.00 CET to 30 November 2020 17.00 CET	Maximum 65 €/tonne CO₂			
Sewage treatment plant improved sludge fermentation, heat	-17.699	0.029	0.033	0.226
Onshore wind ≥ 8.5 m/s	-16.043	0.040	0.043	0.187
Sewage treatment plant improved sludge fermentation, combined generation	-14.851	0.044	0.047	0.202
Onshore wind ≥ 8.0 and < 8.5 m/s	-5.348	0.042	0.043	0.187
Wind on flood defences ≥ 8.5 m/s	0.000	0.043	0.043	0.187
Onshore wind ≥ 7.5 and < 8.0 m/s	10.695	0.045	0.043	0.187
Onshore wind, height-restricted ≥ 8,5 m/s	10.695	0.045	0.043	0.187
B-grade wood boilers ≥ 5 MWth	13.274	0.027	0.024	0.226
Wind on flood defences ≥ 8.0 and < 8.5 m/s	16.043	0.046	0.043	0.187
Onshore wind, height-restricted ≥ 8.0 and < 8.5 m/s	21.390	0.047	0.043	0.187
Existing CO ₂ capture in existing production processes (8000 full-load hours)	25.169	62.476	37.895	976.625
Onshore wind ≥ 7.0 and < 7.5 m/s	26.738	0.048	0.043	0.187
Solid or liquid biomass boilers ≥ 5 MWth, service life extension	30.973	0.031	0.024	0.226
Wind on flood defences ≥ 7.5 and < 8.0 m/s	32.086	0.049	0.043	0.187
Deep geothermal heat, expansion of production facility by at least one extra well (6000 full-load hours)	32.110	0.031	0.024	0.218
Sewage treatment plant existing sludge fermentation, new gas upgrading system	32.787	0.030	0.024	0.183
Use of waste heat (hot water) without a heat pump system	40.359	0.033	0.024	0.223
Heat from composting mushroom compost	44.248	0.043	0.033	0.226
Onshore wind ≥ 6.75 and < 7.0 m/s	48.128	0.052	0.043	0.187
Onshore wind, height-restricted ≥ 7.5 and < 8.0 m/s	48.128	0.052	0.043	0.187

Ranking and phases by maximum category base amount	Subsidy intensity¹	Base amount	Long-term price	Emission factor
Category	€/tonne CO₂	€/unit of product²	€/unit of product²	kg CO₂/unit of product²
	A=(B-C)/D	B	C	D
Wind on flood defences ≥ 7,0 and < 7,5 m/s	48.128	0.052	0.043	0.187
Existing CO ₂ capture in existing production processes (4000 full-load hours)	50.243	86.964	37.895	976.625
New CO ₂ capture in new production processes (8000 full-load hours)	60.284	92.304	37.895	902.549
Onshore wind, height-restricted ≥ 7,0 and < 7,5 m/s	64.171	0.055	0.043	0.187
Phase 2 - 30 November 2020 17.00 CET to 7 December 2020 17.00 CET	Maximum 85 €/tonne CO₂			
Industrial heat pumps (open-loop system)	65.327	0.037	0.024	0.199
Onshore wind < 6,75 m/s	69.519	0.056	0.043	0.187
New CO ₂ capture in existing production processes (8000 full-load hours)	69.633	100.331	37.895	896.650
Wind on flood defences ≥ 6,75 and < 7,0 m/s	74.866	0.057	0.043	0.187
Manure mono-fermentation, heat > 400 kW	76.517	0.062	0.033	0.379
Deep geothermal heat ≥ 20 MWth, base load (6000 full-load hours)	79.070	0.041	0.024	0.215
Deep geothermal heat ≥ 20 MWth, conversion of existing oil and/or gas wells (6000 full-load hours)	79.070	0.041	0.024	0.215
Industrial heat pumps (closed-loop system)	80.925	0.038	0.024	0.173
Phase 3 - 7 December 2020 17.00 CET to 14 December 2020 17.00 CET	Maximum 180 €/tonne CO₂			
Onshore wind, height-restricted ≥ 6,75 and < 7,0 m/s	85.561	0.059	0.043	0.187
Wind on lakes ≥ 1 km ²	85.561	0.059	0.043	0.187
Manure mono-fermentation, combined generation > 400 kW	86.351	0.074	0.043	0.359
Large solid or liquid biomass boilers ≥ 5 MWth, 7000 full-load hours	88.496	0.044	0.024	0.226
Large solid or liquid biomass boilers ≥ 5 MWth, 7500 full-load hours	88.496	0.044	0.024	0.226
Large solid or liquid biomass boilers ≥ 5 MWth, 8000 full-load hours	88.496	0.044	0.024	0.226
Large solid or liquid biomass boilers ≥ 5 MWth, 8500 full-load hours	88.496	0.044	0.024	0.226

Ranking and phases by maximum category base amount	Subsidy intensity ¹	Base amount	Long-term price	Emission factor
Category	€/tonne CO ₂	€/unit of product ²	€/unit of product ²	kg CO ₂ /unit of product ²
	A=(B-C)/D	B	C	D
Solar PV ≥ 1 MWp, building-mounted	89.840	0.074	0.0572	0.187
Deep geothermal heat < 20 MWth, base load (6000 full-load hours)	91.743	0.044	0.024	0.218
Deep geothermal heat < 20 MWth, conversion of existing oil and/or gas wells (6000 full-load hours)	91.743	0.044	0.024	0.218
Large solid or liquid biomass boilers ≥ 5 MWth, 6000 full-load hours	92.920	0.045	0.024	0.226
Large solid or liquid biomass boilers ≥ 5 MWth, 6500 full-load hours	92.920	0.045	0.024	0.226
Solar PV ≥ 15 kWp and < 1 MWp connection > 3 * 80 A	93.048	0.080	0.0626	0.187
Wind on flood defences < 6,75 m/s	96.257	0.061	0.043	0.187
Direct use of wood pellets for industrial applications ≥ 5 MWth and < 100 MWe	97.345	0.052	0.030	0.226
Large solid or liquid biomass boilers ≥ 5 MWth, 5000 full-load hours	97.345	0.046	0.024	0.226
Large solid or liquid biomass boilers ≥ 5 MWth, 5500 full-load hours	97.345	0.046	0.024	0.226
Sewage treatment plant improved sludge fermentation, renewable gas	98.361	0.042	0.024	0.183
Large solid or liquid biomass boilers ≥ 5 MWth, 4500 full-load hours	101.770	0.047	0.024	0.226
Onshore wind, height-restricted < 6,75 m/s	106.952	0.063	0.043	0.187
All-purpose fermentation, combined generation	115.942	0.067	0.043	0.207
Solar PV ≥ 1 MWp, ground-mounted	116.043	0.069	0.0473	0.187
Solar PV ≥ 1 MWp, ground-mounted and sun-tracking	116.043	0.069	0.0473	0.187
All-purpose fermentation, heat	119.469	0.060	0.033	0.226
Use of waste heat (hot water) with a heat pump system	121.212	0.044	0.024	0.165
Manure mono-fermentation, renewable gas > 400 kW	130.952	0.068	0.024	0.336
Liquid biomass boilers ≥ 0,5 Mwth and ≤ 100 MWe	159.292	0.069	0.033	0.226
Manure mono-fermentation, combined generation ≤ 400 kW	161.560	0.121	0.063	0.359

Ranking and phases by maximum category base amount	Subsidy intensity ¹	Base amount	Long-term price	Emission factor
	€/tonne CO ₂	€/unit of product ²	€/unit of product ²	kg CO ₂ /unit of product ²
	A=(B-C)/D	B	C	D
Shallow geothermal heat, base load (6000 full-load hours)	162.651	0.060	0.033	0.166
Manure mono-fermentation, heat ≤ 400 kW	171.504	0.098	0.033	0.379
Solar PV ≥ 1 MWp, floating	174.866	0.080	0.0473	0.187
Solar PV ≥ 1 MWp, sun-tracking on water	174.866	0.080	0.0473	0.187
Wood pellet steam boilers ≥ 5 MWth	176.991	0.064	0.024	0.226
Phase 4 - 14 December 2020 17.00 CET to 17 December 2020 17.00 CET	Maximum 300 €/tonne CO₂			
Wood pellet boilers for district heating ≥ 10 MWth	185.841	0.066	0.024	0.226
Ultra-deep geothermal heat (7000 full-load hours)	188.940	0.065	0.024	0.217
Manure mono-fermentation, renewable gas ≤ 400 kW	190.476	0.088	0.024	0.336
Solar thermal energy ≥ 1 MW	207.965	0.080	0.033	0.226
Large-scale electric boilers	212.389	0.072	0.024	0.226
All-purpose fermentation, renewable gas	218.579	0.064	0.024	0.183
All-purpose fermentation, service life extension, renewable gas	218.579	0.064	0.024	0.183
Aquathermal energy – thermal energy from drinking water and waste water	222.892	0.077	0.040	0.166
Hydropower renovation with new turbine, ≥ 50 cm fall height	235.294	0.097	0.053	0.187
Solar thermal energy ≥ 140 kW and < 1 MW	243.363	0.095	0.040	0.226
Biomass gasification (including B-grade wood)	267.760	0.073	0.024	0.183
Deep geothermal heat, heating urban environments (3500 full-load hours)	276.995	0.083	0.024	0.213
Daylight greenhouses	286.486	0.077	0.024	0.185
Shallow geothermal heat, heating urban environments (3500 full-load hours)	289.157	0.081	0.033	0.166
New hydropower, < 50 cm fall height (including energy from free-flowing water and wave energy)	299.465	0.109	0.053	0.187

Ranking and phases by maximum category base amount	Subsidy intensity ¹	Base amount	Long-term price	Emission factor
Category	€/tonne CO ₂	€/unit of product ²	€/unit of product ²	kg CO ₂ /unit of product ²
	$A=(B-C)/D$	B	C	D
New hydropower, ≥ 50 cm fall height	299.465	0.109	0.053	0.187
Osmosis	299.465	0.109	0.053	0.187
Biomass gasification (excluding B-grade wood)	300.546 ³	0.079	0.024	0.183
Aquathermal energy – thermal energy from surface water	301.205 ³	0.090	0.040	0.166
Electrolytic hydrogen production	301.370 ³	0.103	0.037	0.219

¹ If the application amount is less than the maximum base amount the subsidy intensity will be lower and you may be able to submit in an earlier phase. You can use the SDE++ ranking amount calculation tool to work out the ranking amount and see which phase you can submit your application in.

² The unit is tonnes of CO₂ for CO₂ capture and storage, and kWh for all other categories.

³ For this category, the base rate has been calculated at €300/tonne of CO₂ and rounded up to three decimal places; working backwards to the subsidy intensity this works out at more than €300/tonne of CO₂.

Glossary

Banking

Banking is possible for most SDE++ applications. This means that any annual production that is eligible for the subsidy and that you do not use can be carried forward to later years (forwards banking). In addition, production that is higher than the maximum annual production eligible for the subsidy can be transferred to a subsequent year (backwards banking). You can then use it if production is lower in a later year. The latter form of banking is capped at 25% of the annual production eligible for a subsidy. You can read more about banking on the [SDE++ website](#). For “Electrolytic hydrogen production” and “Electric boilers”, only forwards banking is permitted. This is capped at 100% of the annual production eligible for a subsidy.

CHP

Combined heat and power.

Commissioning deadline

The last date of a set period (following the grant decision) within which your facility must start production.

Emission factor

Avoided emissions related to the commissioning of the technology concerned. Examples:

- Electricity 0.187 kg CO₂/kWh
- Heat 0.226 kg CO₂/kWh
- Gas 0.183 kg CO₂/kWh
- Hydrogen 0.219 kg CO₂/kWh

- CCS, existing capture 976,625 kg CO₂/tonne CO₂

Energy value

The amount of energy that can be extracted from a specific quantity of matter through combustion.

Full-load hours

The maximum number of production hours at the rated output for each year for which you receive a subsidy.

Graduated scale for heat

A graduated scale for heat applies to the “Large solid or liquid biomass boilers ≥ 5 MWth” category. Under this system, we calculate a base amount depending on the full-load hours.

Guarantees of Origin

Guarantees of Origin are issued by Vertogas and CertiQ. For renewable gas, registration and certification via Vertogas is required. For renewable heat and renewable electricity, the route of registration and certification via CertiQ is required.

Heating urban environments

District heating, space heating and domestic hot water supply in a building, where the producer supplies the heat directly to the building in question.

Long-term price

The unweighted average of the actual energy, product or ETS

price over the subsidy period, based on price movements estimated by the International Energy Agency (IEA).

Rated output

The maximum output of the production facility when used under nominal (design) conditions, guaranteed by the supplier for continuous use.

Subsidy intensity

The subsidy amount in euros per tonne of CO₂ avoided. The subsidy intensity determines the phase at which you can submit your subsidy application. It is also used to determine where your application will be ranked. You can calculate the subsidy intensity as follows:

$(Phase\ amount - Long-term\ price) / Emission\ factor.$

Subsidy period

The maximum period (in years) for which you can receive the subsidy.

Usefully employed heat

The Netherlands Enterprise Agency only grants subsidies for heat if it meets the definition of “usefully employed heat” in the Guarantees of Origin and Certificates of Origin Regulation or the General Implementing Regulation for the SDE++ scheme. You can find information and an informative video about the Guarantees of Origin and Certificates of Origin Regulation on the CertiQ website.

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