

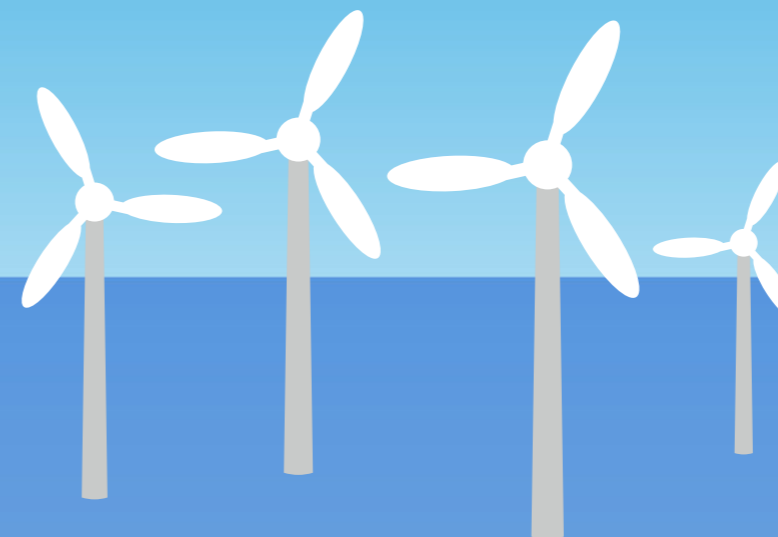


Netherlands Enterprise Agency



# SDE+ Spring 2018

Instructions on how to apply for a subsidy for the production of renewable energy  
Opening period: 13 March – 5 April 2018



Commissioned by the Ministry of Economic Affairs and Climate Policy

>> Sustainable. Agrarian. Innovative. International

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# About the SDE+

## General

The SDE+ is an incentive scheme for the production of renewable energy in the Netherlands. Renewable energy is generated from clean, inexhaustible sources.

There will be two periods for SDE+ subsidy applications in 2018, one in spring and one in autumn. The SDE+ round of applications for spring 2018 runs from 9 am on 13 March to 5 pm on 5 April 2018. The spring budget totals €6 billion.

## What is the SDE+?

The SDE+ is an operating (feed-in-tariff) subsidy. Producers receive a guaranteed payment (subsidy) for the energy they generate from renewable sources. The production of renewable energy is not always profitable, as the cost of production is higher than for fossil energy. SDE+ compensates for the difference between the cost price of renewable energy and the market value of the energy supplied: the non-profitable portion. Subsidies are allocated for periods of 8, 12 or 15 years. The duration of your subsidy will depend on which technology you use. Similarly, the amount of the subsidy depends on the technology used and the amount of renewable energy produced.

## What are the cornerstones of SDE+?

1. one budget for all categories taken together;
2. a phased release of funds;
3. a maximum base amount per production installation;
4. a “free category”.

There are two rounds of SDE+ applications in 2018. Each round is divided into three phases, each of which is subject to a maximum phase amount. There is one budget (for all categories together) per round of applications. The “less expensive” forms of technology may apply for a subsidy in the first phase. You can also apply for a lower subsidy than the maximum base amount for the technology in question. Such applications fall within the so-called “free category”. In such cases, your application can be tailored to your particular business case, for amounts equal to multiples of a tenth of a eurocent per kilowatt-hour. The amount of subsidy applied for, must be lower than or equal to the maximum phase amount and higher than the base energy price.

## Which energy sources does SDE+ apply to?

In 2018, SDE+ subsidies are available for the production of:

- renewable electricity;
- renewable gas;
- renewable heat or combined heat and power (CHP).

For energy from:



Biomass



Geothermal



Hydro



Wind



Solar

## Who can apply for the SDE+?

The target groups are companies, institutes and (non-profit) organizations that intend to produce renewable energy. The national government is not allowed to apply for SDE+ subsidies.

## Who is the applicant?

Only the intended producer may apply for the SDE+. If the applicant does not intend to set up and operate the production installation itself, it does not count as an intended producer.

## Who is eligible for the SDE+?

To be eligible for a SDE+ subsidy, your application must be completed in full, so be sure to read this brochure and the “Handleiding Haalbaarheidsstudie SDE+” (SDE+ Feasibility Study Guidebook, Dutch only) carefully. Make sure your application includes proper justification for your project, a thorough feasibility study and all necessary permits and appendices and that you have filled in the digital application form completely.

Tip: make use of the “[SDE+ Feasibility Study Template](#)” (Model Haalbaarheidsstudie SDE+, Dutch only).

# New in SDE+ 2018

## General

- As in previous years, there are two application rounds for SDE+ in 2018: spring and autumn. In 2018, each round will have three phases.
- Each phase has a maximum phase amount, rising from 9 €ct/kWh (6.4 €ct/kWh for renewable gas) in phase 1 to 13 €ct/kWh (9.2 €ct/kWh for renewable gas) in phase 3.
- The total SDE+ spring budget for 2018 is €6 billion.

## Biomass

- The categories “extended lifespan” are not stimulated in 2018.

## Geothermal

- The TNO-report “[Specificaties geologisch onderzoek voor geothermieprojecten – Rapportagevereisten SDE+ en RNES](#)” (Dutch only) has been updated. This report describes the minimum requirements for the geological survey.

## Wind

- The Dutch municipal divisions will apply to SDE+ Spring 2018 as of 31 December 2017 in the categories “onshore wind” and “wind on primary flood defences”.
- The category “wind on primary flood defences” has been adjusted to the new definitions in “Regeling veiligheid primaire waterkering 2017”. Consult the map titled “Wind op primaire waterkering” (Wind on primary flood defences SDE+, Dutch only) on the [website](#).

## Solar

- Solar PV: Beginning in 2018, for Solar PV a distinction will be made between electricity which is fed into the grid, referred to as “grid delivery”, and electricity which is used directly, referred to as “own use” (i.e. non grid delivery). Because of this, the categories Solar PV have two correction amounts and two base energy amounts. In the application form you fill in an estimate amount for own use (i.e. “non grid delivery”).
- Solar thermal: There are two categories in the SDE+ 2018 rounds for Solar thermal. Solar thermal with a thermal capacity  $\geq 140$  kW and  $\leq 1$  MW and the category with a thermal capacity  $\geq 1$  MW.
- The definition of the Solar thermal categories has been changed. SDE+ 2018 subsidies are available for installations with “covered” solar collectors only when the light-absorbing surface is *integrated* with the translucent layer which provides isolation like a glass plate or tube. Greenhouses are excluded since the integration of the light-absorbing surface with the translucent layer has not been established.

## The SDE+ contribution

The cost price for the production of renewable energy is recorded in the base amount for the technology. The market value of the energy supplied, is recorded in the correction amount. The base amount applied for applies to the entire duration of the SDE+ subsidy. The correction amount is re-established each year.

The SDE+ compensates for the difference between the cost price and the market value of the energy supplied. The maximum SDE+ contribution is therefore equal to the maximum base amount minus the correction amount.

For the Solar PV categories a distinction will be made between electricity which is fed into the grid, referred to as “grid delivery”, and electricity which is used directly, referred to as “own use” (i.e. non grid delivery). Therefore there are two correction amounts in the solar PV categories.

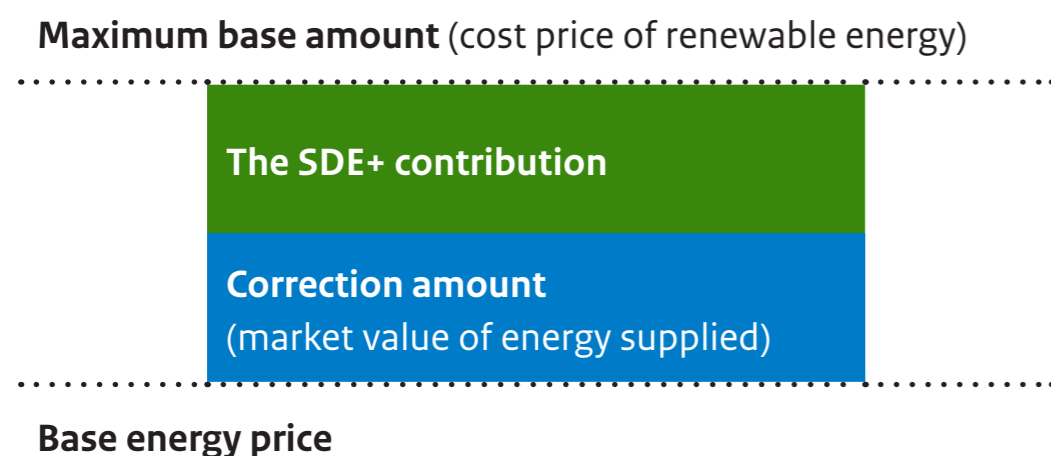
It follows that the SDE+ contribution you receive depends on energy price trends. If the energy price goes up, you get a lower SDE+ contribution, but your energy purchaser will pay you more. If, on the other hand, the energy price falls, you will get a higher SDE+ contribution, but will receive less from your energy purchaser.

The subsidy granted to you by the Netherlands Enterprise Agency in its grant is the maximum subsidy over the entire period of the subsidy (8, 12 or 15 years). This maximum is determined based on the indicated capacity and the maximum number of full load hours for the technology. The base energy price is used to determine the grant and budget claim.

The base energy price is the lower limit for the correction amount. The correction amount cannot be lower than this. If the correction amount is equal to the base energy price, the maximum subsidy is reached.

The ultimate subsidy payments are calculated per year based on the amount of energy produced and the actual energy price. You will receive a subsidy up to a maximum number of full load hours per year. Subsidies are also subject to a maximum term, depending on the technology used.

*Maximum SDE+ contribution = maximum base amount - correction amount*



### Negative electricity price

No SDE+ subsidy is given for feeding renewable electricity into the grid if the price of electricity is negative for an uninterrupted period of six hours or more. Small projects (with a nominal power of less than 500 kW per connection) or projects where the subsidy was applied for, before 1 December 2015 are exempt from this ruling. The limit for wind energy projects is 3 MW.

### Terms

#### Full load hours

The maximum number of production hours at full load (nominal capacity) per year for which the subsidy is paid.

#### Latest term for operation

The period (after the subsidy is granted) within which the installation must start producing energy.

#### Subsidy period

The maximum period (in years) in which the subsidy can be received.

#### Banking

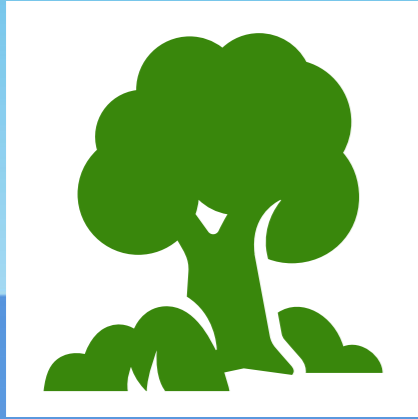
Banking applies for SDE+ 2018 applications. This means unused production eligible for subsidy can be used in later years (“Forward Banking”). In addition, producers can also carry over any excess output (i.e. electricity generated over and above the maximum level eligible for subsidy) to a following year (“Backward Banking”). This can be used if production is lower than expected in a later year. This latest form of banking is maximized to 25% of the annual production eligible for subsidy. The “Rekenmodel banking SDE+” (Banking Calculation Model, Dutch only) allows you to calculate your SDE+ subsidy based on the fluctuations in your production installation’s annual production.

### Calculation example: SDE+ contribution

*New 3 MWe hydroelectric power plant, drop of  $\geq 50$  cm*

Maximum phase amount for phase 1 (free category)	9.0 €ct/kWh
Maximum base amount for phase 3	13.0 €ct/kWh
Provisional correction amount 2018	3.8 €ct/kWh
Provisional SDE+ 2018 contribution applied for in phase 1 at 9.0 €ct/kWh	$9.0 - 3.8 = 5.2$ €ct/kWh = 52 €/MWh
Provisional SDE+ 2018 contribution applied for in phase 3 at 13.0 €ct/kWh	$13.0 - 3.8 = 9.2$ €ct/kWh = 92 €/MWh
Maximum number of full load hours eligible for subsidy	5,700
Maximum annual production eligible for subsidy for new 3 MWe hydroelectric power plant and drop of $\geq 50$ cm	$3 * 5,700 = 17,100$ MWh
<b>Provisional SDE+ contribution for 2018 applied for in phase 1 at 9.0 €ct/kWh</b>	<b>52 €/MWh * 17,100 MWh = €889,200</b>
<b>Provisional SDE+ contribution for 2018 applied for in phase 3 at 13.0 €ct/kWh</b>	<b>92 €/MWh * 17,100 MWh = €1,573,200</b>

The SDE+ contribution indicated is a provisional contribution, based on the provisional correction amount for 2018. The correction amount will be finalised in the calendar year following the year of production, followed by an adjustment based on advance sums already paid. The correction amount (provisional and final) is re-established each year, on the basis of the evolution of the energy price. The base or phase amount applied for applies to the entire duration of the SDE+ subsidy.



## BIOMASS

The SDE+ Spring 2018 supports the production of energy from biomass. You can apply for subsidies on all-purpose fermentation, (mono-) fermentation of manure, thermal conversion, sewage treatment and gasification.





## 1. Which installations qualify for SDE+ subsidy in 2018?

### **Mono- and co-fermentation of manure**

You can apply for subsidies when renewable gas, renewable heat and/or renewable electricity are the end products. The category “extended lifespan” is not stimulated in 2018. The upper limit for the maximum configured capacity for the category “mono-fermentation of manure” is 400 kW. Applications for mono-fermentation projects that are larger than 400 kW may apply for a subsidy in the category “fermentation of manure”. In contrast to former years, no other products than manure may be used in the “mono-fermentation of manure” category.

The categories “mono-fermentation of manure larger than 400 kW” and “co-fermentation” from ECN’s “Final advice base amounts SDE+ 2018” have been combined in one category “fermentation of manure”. For this category the, by ECN, calculated amounts for mono-fermentation of manure larger than 400 kW are being combined with the full load hours of co-fermentation of manure.

### **All-purpose fermentation**

You can apply for subsidies when renewable gas, renewable heat and/or renewable electricity are the end products. The category “extended lifespan” is not stimulated in 2018.

### **Thermal conversion**

You can apply for subsidies when renewable gas, renewable heat and/or renewable electricity are the end products. The category “extended lifespan” is not stimulated in 2018.

There are five different categories of biomass boilers which qualify for subsidies in 2018. They differ in their power rating and the type of biomass they can handle as follows:

- liquid biomass boiler with a capacity of  $\geq 0.5$  MWth (existing parts may be used in this category) and an upper limit of 100 MW electric;
- small solid or liquid biomass boiler with a capacity of  $\geq 0.5$  MWth and  $< 5$  MWth;
- large solid or liquid biomass boiler with a capacity of  $\geq 5$  MWth with a sliding heat scale;
- wood pellet boiler for industrial steam production with a minimum capacity of  $\geq 5$  MWth;
- wood pellet burner with a minimum capacity of  $\geq 5$  MWth (existing parts may be used in this category) and an upper limit of 100 MW electric.

There will be no separate CHP categories. For all five categories it is permitted to generate heat as well as electricity. You may use, for example, an existing steam turbine. The “Regeling van garanties van oorsprong” (scheme Guarantees of origin) claims that heat which is used for electricity production may not be categorised as “useful heat”. By taking electricity as well as other “useful heat” into account, the right amount of subsidy can be provided. Therefore, there are no more requirements to the electrical efficiency of the installation in these categories.

### **Allowed biomass**

The last two categories “biomass boilers” and “wood pellet burner” may also be supplemented with up to 15% grade A wood pellets in addition to fresh wood pellets. Verifiable evidence must be provided that the biomass source meets the relevant sustainability requirements. The requirements for liquid biomass follow from the EU “[Renewable Energy Directive](#)” (RED).

The information on the sustainability criteria for wooden pellets is provided under “Sustainability criteria” on the next page. The use of B-grade wood is not allowed in any category boilers. At least 95% of the energy produced by the fuel must be biogenic (renewable) to ensure that combustion of waste or selected streams from waste are excluded from the categories “solid or liquid biomass boiler” and for the category “wood pellet boiler for industrial steam production”.



### **Sustainability criteria**

The condition set for the categories “wood pellet boiler for industrial steam production with a minimum capacity of  $\geq 5$  MWth” and “wood pellet burner” in which solid biomass is used, is that they satisfy sustainability criteria. The same criteria apply for “existing capacity for co-gasification and co-firing” and “new capacity for co-firing”. The sustainability criteria are applicable to all types of biomass like woody biomass and residues from the agricultural sector.

The producer has to demonstrate that the solid biomass meets the legal sustainability requirements that apply to it. These requirements are still included in appendix 4 of the General Implementing Regulations for Stimulating Sustainable Energy Production (Algemene uitvoeringsregeling stimulerend duurzame energieproductie). In addition, work has been done on the embedding and certification of the sustainability criteria in the Environmental Act (Wet Milieubeheer) to ensure certification and verification and to make enforcement and supervision possible. The legal framework was published in December 2017. As a result, a system has been set up for the approval of sustainability schemes and the admission of certified organizations.

The Environmental Act (Wet Milieubeheer) requires sustainability evidence to be based on sufficient sustainability schemes and acknowledgement of certified organizations. Until this requirement is met, you have to demonstrate compliance with the sustainability requirements by sending in a yearly report on the sustainability characteristics of all consignments of solid biomass that have been used in your installation. Further information on this process can be found on the [website](#).

### **Sewage water treatment installation, improved sludge fermentation**

Subsidy is available for renewable gas, heat and/or electricity as end products. For this category, a generic approach has been opted for in 2018 because the techniques applied by this sector are diverse. In the application you should demonstrate that by using the new installation at least 25% more biogas will be produced in relation to the existing situation. At the time of the application, the new technique may not be in use.

### **Gasification**

A category for the production of renewable gas through the gasification of biomass is stimulated in the 2018 SDE+ incentive scheme. The production of syngas is not subsidised, as this has to be converted into methane before it can be fed into the gas grid. Gasification of B-grade wood is allowed for spring round in 2018.





## 2. Features and changes since 2017

### **Extended lifespan**

The “extended lifespan” categories are not stimulated in 2018.

### **Mono-fermentation of manure**

100% Manure should be used for the category “mono-fermentation of manure  $\leq$  400 kW”. Coproducts are not allowed.

### **Fermentation of manure**

The categories mono-fermentation of manure  $\leq$  400 kW and co-fermentation have been combined in one category “fermentation of manure”.

### **Heat and CHP at boilers**

There are no different categories for heat or CHP. All category boilers are allowed for heat as well as for CHP purposes. Previously requirements for electrical efficiency no longer apply for these categories. When using a steam turbine with a generator for electricity production, this part does not have to be new to qualify for subsidy.

### **Biomass boilers**

A slided heat scale is introduced for “large solid or liquid biomass boilers with a capacity of  $\geq$  5 MWth”. A base amount is calculated, depending on the chosen number of full load hours. The aim is tailor made applications for the intended producer. This option will be investigated further for other categories in 2019.

### **Wood pellets burner**

At request of market parties, a new category for “wood pellets burners” is stimulated with a capacity of  $\geq$  5 MWth. To rule out applications for coal-fire plants, the maximum capacity is set at 100 MWe. This category may also be supplemented with up to 15% grade A wood pellets in addition to fresh wood pellets.

No B-grade wood may be used as fuel.

The subsidy is allocated for a period of 12 years. To qualify, you have to demonstrate compliance with the sustainability requirements by sending in a yearly report on the sustainability characteristics of all consignments of solid biomass that have been used in your installation.

### **Determining the electrical efficiency of the production installation**

The regulation includes requirements for the electrical efficiency of the installation. The electrical efficiency is determined as described below.

- for a combustion engine: the electrical capacity divided by the sum of the electrical capacity and the heat capacity; and
- for a boiler with a steam turbine or ORC: the electrical capacity divided by the heat capacity of the boiler.



### 3. Phasing and rates for Biomass

Renewable heat, gas and CHP SDE+ 2018

2018	Phase 1 From 9 am 13 March	Phase 2 From 5 pm 19 March	Phase 3 From 5 pm 26 March to 5 pm 5 April	Base energy price	Provisional correction amount 2018	Maximum full load hours per annum	Maximum subsidy period (years)	Operation must start at the latest within (years)
<b>Renewable heat, gas and CHP from Biomass</b>	<b>Maximum base amount / phase amount (€/kWh)</b>			<b>(€/kWh)</b>				
<b>All purpose fermentation</b>								
• heat	0.061	0.061	0.061	0.023	0.024	7,000	12	4
• gas	0.055	0.055	0.055	0.016	0.017	8,000	12	4
• CHP	0.067	0.067	0.067	0.025	0.031	7,623	12	4
<b>Mono-fermentation of manure (100% animal manure) ≤ 400 kW</b>								
• heat	0.090	0.100	0.100	0.054	0.054	7,000	12	4
• gas	0.064	0.078	0.092	0.016	0.017	8,000	12	4
• CHP	0.090	0.110	0.124	0.040	0.046	6,374	12	4
<b>Fermentation of manure</b>								
• heat	0.065	0.065	0.065	0.023	0.024	7,000	12	4
• gas	0.064	0.065	0.065	0.016	0.017	8,000	12	4
• CHP	0.068	0.068	0.068	0.028	0.035	7,322	12	4
<b>Sewage treatment, improved sludge fermentation</b>								
• heat	0.033	0.033	0.033	0.023	0.024	7,000	12	4
• gas	0.046	0.046	0.046	0.016	0.017	8,000	12	4
• CHP	0.049	0.049	0.049	0.028	0.035	5,729	12	4

[Continue →](#)



2018	Phase 1 From 9 am 13 March	Phase 2 From 5 pm 19 March	Phase 3 From 5 pm 26 March to 5 pm 5 April	Base energy price	Provisional correction amount 2018	Maximum full load hours per annum	Maximum subsidy period (years)	Operation must start at the latest within (years)
<b>Renewable heat, gas and CHP from Biomass</b>	<b>Maximum base amount / phase amount (€/kWh)</b>			<b>(€/kWh)</b>				
<b>Thermal conversion for heat and CHP</b>								
• Liquid biomass boiler ≥ 0.5 MWth and ≤ 100 MWe	0.073	0.073	0.073	0.023	0.024	7,000	12	4
• Small solid or liquid biomass boiler ≥ 0.5 MWth and < 5 MWth	0.055	0.055	0.055	0.029	0.029	3,000	12	4
• Large solid or liquid biomass boiler ≥ 5 MWth, sliding heat scale	0.081	0.081	0.081	0.016	0.017	3,000	12	4
	0.074	0.074	0.074	0.016	0.017	3,500	12	4
	0.068	0.068	0.068	0.016	0.017	4,000	12	4
	0.064	0.064	0.064	0.016	0.017	4,500	12	4
	0.060	0.060	0.060	0.016	0.017	5,000	12	4
	0.057	0.057	0.057	0.016	0.017	5,500	12	4
	0.055	0.055	0.055	0.016	0.017	6,000	12	4
	0.053	0.053	0.053	0.016	0.017	6,500	12	4
	0.051	0.051	0.051	0.016	0.017	7,000	12	4
	0.050	0.050	0.050	0.016	0.017	7,500	12	4
	0.048	0.048	0.048	0.016	0.017	8,000	12	4
	0.047	0.047	0.047	0.016	0.017	8,500	12	4
	• Wood pellet boiler for industrial steam production ≥ 5 MWth	0.066	0.066	0.066	0.016	0.017	8,500	8
• Wood pellet burner ≥ 5 MWth and ≤ 100 MWe	0.050	0.050	0.050	0.021	0.021	3,000	12	4
<b>Gasification of biomass (≥ 95% biogenic)</b>	0.064	0.078	0.092	0.016	0.017	7,500	12	4



## 4. Calculation examples for Biomass

Calculation example: SDE+ contribution – Burning of biomass in boiler  $\geq 5$  MWth, maximum of 5,000 full load hours (co-generation)

In the steam system is an existing back pressure steam turbine included with a 3 MWe generator with 4,000 full load hours

Maximum base amount from phase 1	6.0 €/ct/kWh
Provisional correction amount 2018	1.7 €/ct/kWh
Provisional SDE+ 2018 contribution applied for from phase 1 at 6.0 €/ct/kWh	$6.0 - 1.7 = 4.3$ €/ct/kWh = 43 €/MWh
Maximum number of full load hours eligible for subsidy	5,000
Total nominal power	30 MWth
Maximum annual production eligible for subsidy for 30 MW boiler	$30 * 5,000 = 150,000$ MWh
<ul style="list-style-type: none"> <li>• Production steam turbine / generator</li> <li>• The heat after the steam turbine is fully exploited</li> <li>• Total eligible production</li> </ul>	$4,000 * 3 = 12,000$ MWh <u>138,000</u> MWh 150,000 MWh
<b>Provisional SDE+ contribution for 2018 applied for from phase 1 at 6.0 €/ct/kWh</b>	<b><math>43</math> €/MWh * <math>150,000</math> MWh = €6,450,000</b>

Calculation example: SDE+ contribution – Fermentation of manure, renewable gas

Maximum phase amount for phase 1 (free category)	6.4 €/ct/kWh
Maximum base amount from phase 2	6.5 €/ct/kWh
Provisional correction amount 2018	1.7 €/ct/kWh
Provisional SDE+ 2018 contribution applied for in phase 1 at 6.4 €/ct/kWh	$6.4 - 1.7 = 4.7$ €/ct/kWh = 47 €/MWh
Provisional SDE+ 2018 contribution applied for from phase 2 at 6.5 €/ct/kWh	$6.5 - 1.7 = 4.8$ €/ct/kWh = 48 €/MWh
Maximum number of full load hours eligible for subsidy	8,000
Maximum annual production eligible for subsidy for an installation with 3 MW power rating (corresponding to about 306 Nm <sup>3</sup> /hour)	$3 * 8,000 = 24,000$ MWh
<b>Provisional SDE+ contribution for 2018 applied for in phase 1 at 6.4 €/ct/kWh</b>	<b><math>47</math> €/MWh * <math>24,000</math> MWh = €1,128,000</b>
<b>Provisional SDE+ contribution for 2018 applied for from phase 2 at 6.5 €/ct/kWh</b>	<b><math>48</math> €/MWh * <math>24,000</math> MWh = €1,152,000</b>



Calculation example: SDE+ contribution – Mono-fermentation (100% animal manure) ≤ 400 kW heat

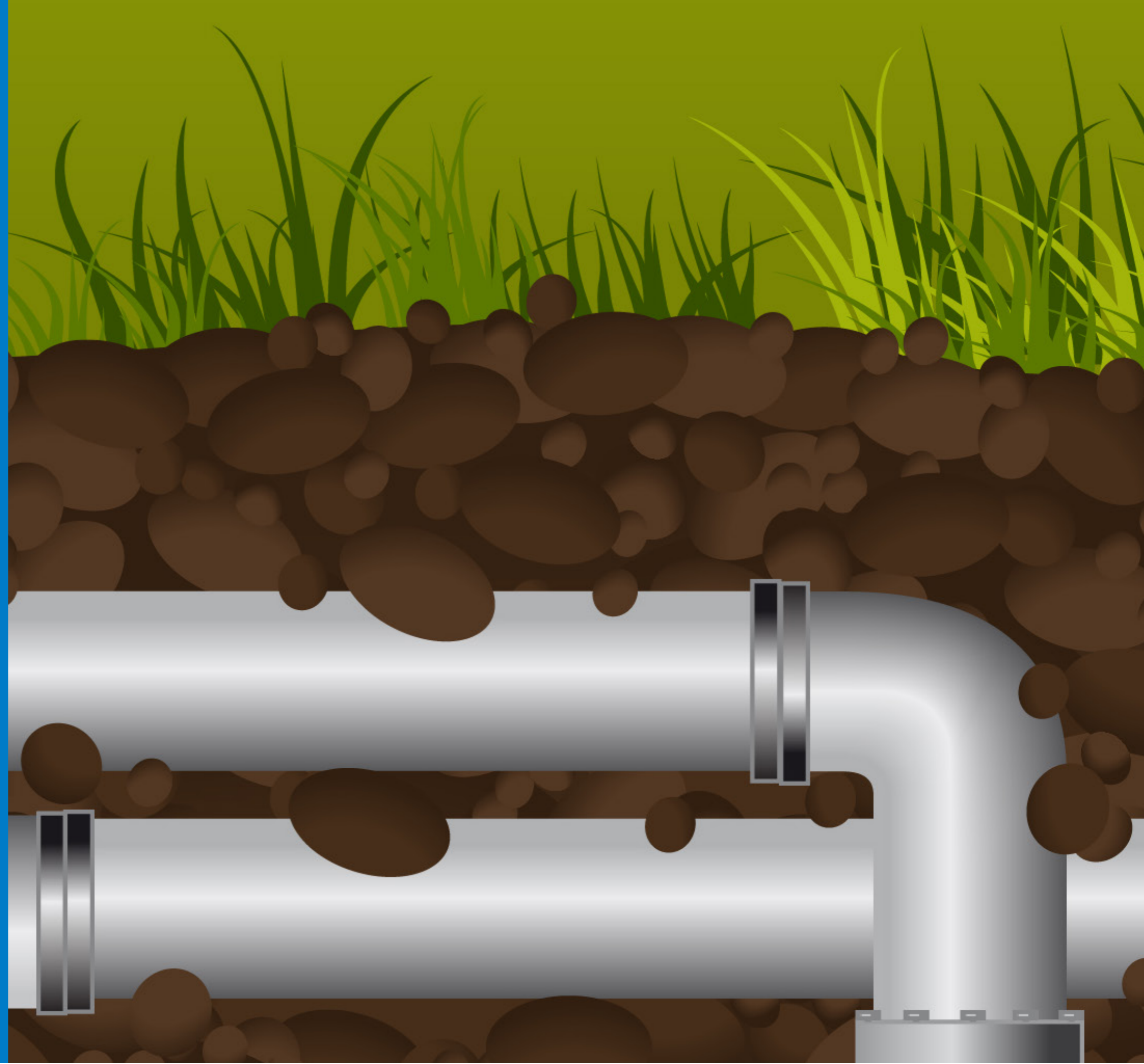
Maximum base amount from phase 2	10.0 €/ct/kWh
Provisional correction amount 2018	5.4 €/ct/kWh
Provisional SDE+ 2018 contribution applied for from phase 2 at 10.0 €/ct/kWh	$10.0 - 5.4 = 4.6 \text{ €/ct/kWh} = 46 \text{ €/MWh}$
Maximum number of full load hours eligible for subsidy	7,000
Maximum annual production eligible for subsidy for an installation with 0.4 MWth thermal power rating	$0.4 * 7,000 = 2,800 \text{ MWh}$
Scenario: the thermal power rating of the installation for which you have applied for a subsidy is 0.4 MWth, and the installation is expected to run for 7,500 hours per annum at full load. The annual production of your installation is then 3,000 MWh. This is higher than the maximum annual production eligible for subsidy. In this case, a subsidy is granted for a maximum of 2,800 MWh/annum.	
<b>Provisional SDE+ contribution for 2018 applied for from phase 2 at 10.0 €/ct/kWh</b>	<b><math>46 \text{ €/MWh} * 2,800 \text{ MWh} = \text{€128,000}</math></b>
If your business case shows that your project is profitable with less than the maximum possible subsidy, you have the option of applying for a lower subsidy. As all projects for which a subsidy is applied for compete on the basis of the sum applied for, applying for a lower subsidy gives you a better chance of having your application approved. Your project therefore has an advantage compared with less cost-effective projects.	
<b>Subsidy applied for in phase 2 (free category)</b>	<b>9.4 €/ct/kWh</b>
Provisional correction amount 2018	5.4 €/ct/kWh
Provisional SDE+ 2018 contribution applied for in phase 2 at 9.4 €/ct/kWh	$9.4 - 5.4 = 4.0 \text{ €/ct/kWh} = 40 \text{ €/MWh}$
Maximum number of full load hours eligible for subsidy	7,000
Maximum annual production eligible for subsidy for an installation with 0.4 MWth thermal power rating	$0.4 * 7,000 = 2,800 \text{ MWh}$
<b>Provisional SDE+ contribution for 2018 applied for in phase 2 at 9.4 €/ct/kWh</b>	<b><math>40 \text{ €/MWh} * 2,800 \text{ MWh} = \text{€112,000}</math></b>

The “Berekening” (Calculation) page of the SDE+ website describes (Dutch only) how the SDE+ subsidy is determined and how much is paid out. The SDE+ contribution for 2018 indicated here is a provisional contribution, based on the provisional correction amount for 2018. The correction amount will be finalised in the calendar year following the year of production, followed by an adjustment based on advance sums already paid. The correction amount (provisional and final) is re-established each year, on the basis of the evolution of the energy price. The base or phase amount applied for applies to the entire duration of the SDE+ subsidy.



GEOTHERMAL

*You can apply for 2018 SDE+ subsidies for installations that use geothermal heat as an energy source.*





## 1. Which installations qualify for SDE+ subsidy in 2018?

The 2018 SDE+ subsidy scheme contains the following four geothermal categories:

- geothermal heat from a depth of at least 500 metres;
- geothermal heat from a depth of at least 3,500 metres;
- geothermal heat from a depth of at least 500 metres, where an existing oil or gas well is used for one or both wells of the doublet;
- geothermal heat from a depth of at least 500 metres, where the production installation is expanded by drilling at least one extra well.

## 2. Features and changes since 2017

The nominal capacity for geothermal must be determined at a probability of at least 50% (P50).

### **Geological survey**

In order to obtain a better assessment of the energy production, a geological survey will be requested in support of the budget claim. The geological survey must comply with the “SDE+ Geological Survey Model” (Model Geologisch Onderzoek SDE+). This survey must be submitted along with your application. The TNO-report [“Specificaties geologisch onderzoek voor geothermieprojecten – Rapportagevereisten SDE+ en RNES”](#) (Dutch only) describes the minimum requirements for the geological survey.

### **Exploration permit**

When applying for a subsidy in the Geothermal category, an exploration permit must be issued as required by the Dutch Mining Act (Mijnbouwwet). This permit must be obtained before you apply for a SDE+ subsidy and should be included with your subsidy application.

### **Grants on top of existing SDE+ projects in case of an extra well**

In case of expanding existing geothermal SDE+ projects with at least one well, only the heat surplus on top of the existing SDE+ subsidy will be granted in the new SDE+ application. The new SDE+ grant becomes eligible when the eligible production in the existing SDE+ grants has been fully exploited.



### 3. Phasing and rates for Geothermal

2018	Phase 1 From 9 am 13 March	Phase 2 From 5 pm 19 March	Phase 3 From 5 pm 26 March to 5 pm 5 April	Base energy price	Provisional correction amount 2018	Maximum full load hours per annum	Maximum subsidy period (years)	Operation must start at the latest within (years)
<b>Geothermal</b>	Maximum base amount / phase amount (€/kWh)			(€/kWh)				
<b>Geothermal heat</b>								
• ≥ 500 m deep	0.053	0.053	0.053	0.016	0.017	6,000	15	4
• Conversion of existing oil and/or gas wells, ≥ 500 m deep	0.053	0.053	0.053	0.016	0.017	6,000	15	4
• Expansion of production installation with at least one extra well, ≥ 500 m deep	0.034	0.034	0.034	0.016	0.017	6,000	15	4
• ≥ 3,500 m deep	0.060	0.060	0.060	0.016	0.017	7,000	15	4

### 4. Calculation example for Geothermal

Calculation example: SDE+ contribution – Geothermal heat at a depth of ≥ 3,500 metres

Maximum base amount from phase 1	6.0 €/ct/kWh
Provisional correction amount 2018	1.7 €/ct/kWh
Provisional SDE+ 2018 contribution applied for from phase 1 at 6.0 €/ct/kWh	$6.0 - 1.7 = 4.3 \text{ €/ct/kWh} = 43 \text{ €/MWh}$
Maximum number of full load hours eligible for subsidy	7,000
Annual production of an installation consisting of 1 doublet with a 30 MW power rating	$30 * 7,000 = 210,000 \text{ MWh}$
<b>Provisional SDE+ contribution for 2018 applied for from phase 1 at 6.0 €/ct/kWh</b>	<b><math>43 \text{ €/MWh} * 210,000 \text{ MWh} =</math> <math>\text{€9,030,000}</math></b>

The “Berekening” (Calculation) page of the SDE+ website describes (Dutch only) how the SDE+ subsidy is determined and how much is paid out. The SDE+ contribution for 2018 indicated here is a provisional contribution, based on the provisional correction amount for 2018. The correction amount will be finalised in the calendar year following the year of production, followed by an adjustment based on advance sums already paid. The correction amount (provisional and final) is re-established each year, on the basis of the evolution of the energy price. The base or phase amount applied for applies to the entire duration of the SDE+ subsidy.





## HYDRO

*In 2018, the SDE+ will also subsidise installations that generate energy from hydro power, free flowing energy and osmosis. The category “free flowing energy” also includes wave energy.*



## 1. Which installations qualify for SDE+ subsidy in 2018?

### Hydro

The following are eligible for subsidy:

- new hydroelectric power stations with a drop of < 50 cm;
- new hydroelectric power stations with a drop of ≥ 50 cm;
- renovation of existing hydroelectric power stations with new turbines and a drop of ≥ 50 cm.

### Free flowing energy

You can apply for a subsidy in the category “new hydroelectric power stations with a drop of < 50 cm” for turbines that use tidal power with a drop of < 50 cm, for example. In all cases, this must involve energy derived from water that is not specially pumped upwards for the purpose of generating energy.

### Wave energy

Under the SDE+ 2018, installations that convert wave energy into renewable electricity are eligible for subsidy. You can apply for a subsidy in the category “new hydroelectric power stations with a drop of < 50 cm”.

### Osmosis

You can apply for a subsidy for an installation that generates renewable electricity by means of the difference between the salt concentrations of two bodies of water.

## 2. Features and changes since 2017

As of 2017, there is a requirement for the category “renovation of existing hydroelectric power stations” that all turbines for which the subsidy is requested must be new ones placed in existing engineering structures. The other components do not have to be new.

## 3. Phasing and rates for Hydro

2018	Phase 1 From 9 am 13 March	Phase 2 From 5 pm 19 March	Phase 3 From 5 pm 26 March to 5 pm 5 April	Base energy price	Provisional correction amount 2018	Maximum full load hours per annum	Maximum subsidy period (years)	Operation must start at the latest within (years)
<b>Hydro</b>	Maximum base amount / phase amount (€/kWh)			(€/kWh)				
<b>Hydroelectric power station</b>								
• New, drop of < 50 cm including: Free flowing energy and Wave energy	0.090	0.110	0.130	0.027	0.038	3,700	15	4
• New, drop of ≥ 50 cm	0.090	0.110	0.130	0.027	0.038	5,700	15	4
• Renovation with new turbine, drop of ≥ 50 cm	0.090	0.100	0.100	0.027	0.038	2,600	15	4
<b>Osmosis</b>	0.090	0.110	0.130	0.027	0.038	8,000	15	4

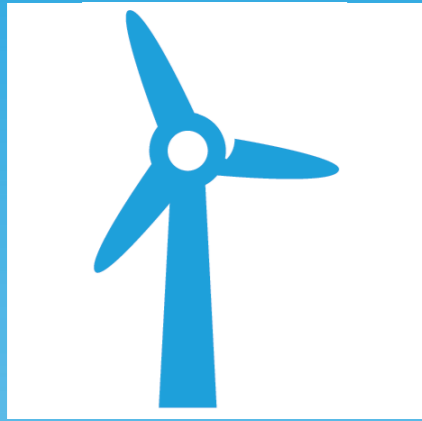


## 4. Calculation example for Hydro

Calculation example: SDE+ contribution – Renovation of 12 MWe hydroelectric power plant, drop of  $\geq 50$  cm

Maximum phase amount for phase 1 (free category)	9.0 €/ct/kWh
Maximum base amount from phase 2	10.0 €/ct/kWh
Provisional correction amount 2018	3.8 €/ct/kWh
Provisional SDE+ 2018 contribution applied for in phase 1 at 9.0 €/ct/kWh	$9.0 - 3.8 = 5.2$ €/ct/kWh = 52 €/MWh
Provisional SDE+ 2018 contribution applied for from phase 2 at 10.0 €/ct/kWh	$10.0 - 3.8 = 6.2$ €/ct/kWh = 62 €/MWh
Maximum number of full load hours eligible for subsidy	2,600
Maximum annual production eligible for subsidy for renovated 12 MWe hydroelectric power plant	$12 * 2,600 = 31,200$ MWh
<b>Provisional SDE+ contribution for 2018 applied for in phase 1 at 9.0 €/ct/kWh</b>	<b><math>52</math> €/MWh * <math>31,200</math> MWh = €1,622,400</b>
<b>Provisional SDE+ contribution for 2018 applied for from phase 2 at 10.0 €/ct/kWh</b>	<b><math>62</math> €/MWh * <math>31,200</math> MWh = €1,934,400</b>

The “Berekening” (Calculation) page of the SDE+ website describes (Dutch only) how the SDE+ subsidy is determined and how much is paid out. The SDE+ contribution for 2018 indicated here is a provisional contribution, based on the provisional correction amount for 2018. The correction amount will be finalised in the calendar year following the year of production, followed by an adjustment based on advance sums already paid. The correction amount (provisional and final) is re-established each year, on the basis of the evolution of the energy price. The base or phase amount applied for applies to the entire duration of the SDE+ subsidy.



WIND

*You can apply for spring 2018*

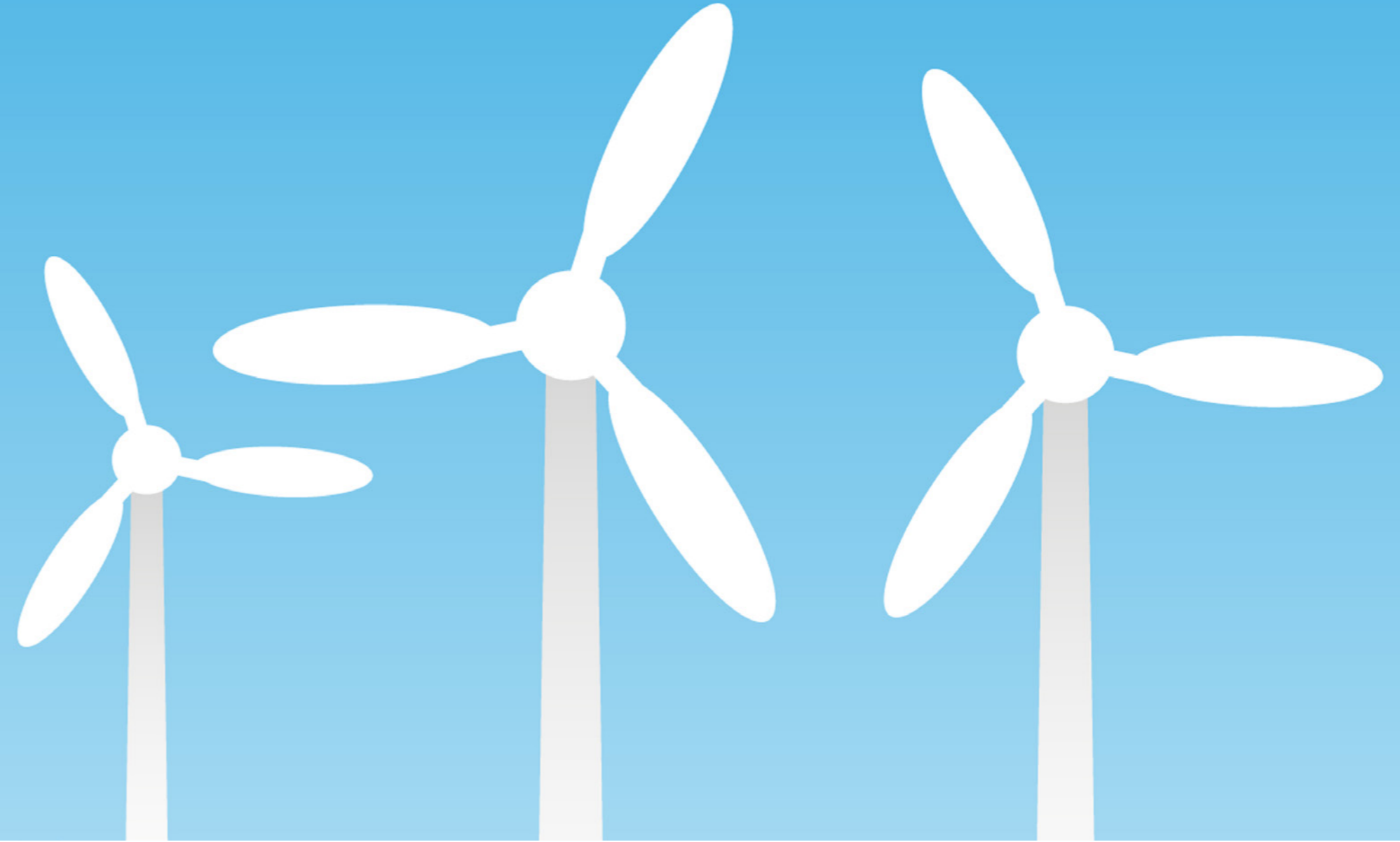
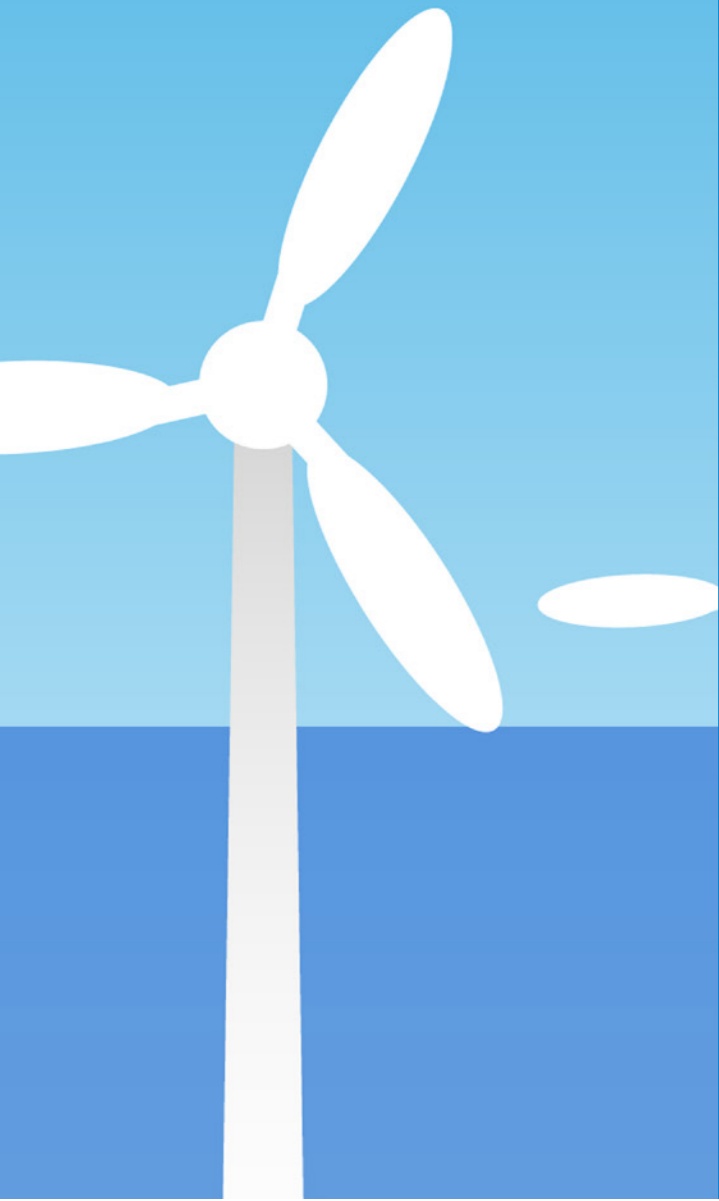
*SDE+ subsidies for wind turbines*

*for the categories “onshore wind”,*

*“wind on primary flood defences”,*

*and “wind on lake”. Separate tender*

*procedures apply to “offshore wind”.*





## 1. Which installations qualify for SDE+ subsidy in 2018?

**SDE+ Spring 2018 includes the following three subsidy categories for wind energy:**

- onshore wind;
- wind on primary flood defences;
- wind on lake.

## 2. Features and changes since 2017

### Wind map

Each Dutch municipality is assigned to one of the following four wind speed categories:

- $\geq 8.0$  m/s;
- $\geq 7.5$  and  $< 8.0$  m/s;
- $\geq 7.0$  and  $< 7.5$  m/s;
- $< 7.0$  m/s.

The map of “[Windsnelheid per gemeente SDE+](#)” (Wind speeds for individual Dutch municipalities) shows the average wind speed for each Dutch municipality and is based on a wind map produced by the Royal Dutch Meteorological Institute KNMI.

The municipal divisions will apply to SDE+ 2018 as of 31 December 2017. A separate base amount has been calculated for each wind speed category. It follows that the maximum subsidy you can apply for depends on the municipality where your wind turbine is located. The name of the municipality can differ from the city location where the installation will be built.

Due to large differences in wind speed, the municipality of Rotterdam is subdivided up to neighbourhood level. Please take this into consideration when selecting a municipality within eLoket (E-Service). A list of the municipalities is published under “[Aanwijzingsregeling SDE-categorieën voorjaar 2018](#)”. (Dutch only).

### Wind on primary flood defences

With regard to the category “wind on primary flood defences”, subsidy applications can be submitted for wind turbines located within water works structures or the protection zones of a preventive flood defence system. A list of eligible preventive flood defences are published under chapter 5 of “[Bijlage II van de Regeling veiligheid primaire waterkeringen 2017](#)”. Also, applications are possible for wind turbines within water works structure or for the sea-facing protection zone of a primary (marine) flood defence system, bordering the North Sea, the Western and Eastern Scheldt Estuary, the Wadden Sea, the Dollard of the Ems. The map titled “[Wind op primaire waterkering SDE+](#)” (Wind on primary flood defences, SDE+) gives an overview of these water defences. Wind turbines which will be located on flood defences that don’t fall into the category “wind on primary flood defences”, can apply for subsidy in the category “onshore wind”.

### Wind on lake

Subsidy can also be requested for a wind turbine with the foundation entirely located in the water of a lake with an area of at least 1 km<sup>2</sup>. The midpoint of the foundation must be at least 25 m from the shore of the lake. This ruling applies, for example, to the IJsselmeer and the lakes in the Dutch province of Zeeland.

### Replacement of wind turbines

Subsidies for the replacement of wind turbines are only available under the following conditions:

- the nominal and actual power ratings of each new wind turbine are at least 1 MW more than those of the old one; or
- the wind turbine to be replaced has been in use for 15 years at the relevant location at the time of replacement, and has been in use for at least 13 years when the subsidy is applied for.

### Windviewer and wind report

A wind report, including a calculation of the wind energy yield, must be included as part of the feasibility study for wind projects. The maximum average wind speed used in such calculations is derived from the [Windviewer](#), which gives the average wind speed at any height between 20 and 160 metres for any location in the Netherlands. This information is based on wind data collected by the Royal Dutch Meteorological Institute KNMI in the period 2004-2013.

### No “offshore wind” in SDE+ 2018

Separate tender procedures apply to “[offshore wind](#)”.



### 3. Phasing and rates for Wind

2018	Phase 1 From 9 am 13 March	Phase 2 From 5 pm 19 March	Phase 3 From 5 pm 26 March to 5 pm 5 April	Base energy price	Provisional correction amount 2018	Maximum full load hours per annum	Maximum subsidy period (years)	Operation must start at the latest within (years)
Wind	Maximum base amount / phase amount (€/kWh)			(€/kWh)				
<b>Onshore wind</b>								
• ≥ 8,0 m/s	0.054	0.054	0.054	0.022	0.032	*	15	4
• ≥ 7,5 en < 8,0 m/s	0.059	0.059	0.059	0.022	0.032	*	15	4
• ≥ 7,0 en < 7,5 m/s	0.064	0.064	0.064	0.022	0.032	*	15	4
• < 7,0 m/s	0.073	0.073	0.073	0.022	0.032	*	15	4
<b>Wind on primary flood defences</b>								
• ≥ 8,0 m/s	0.058	0.058	0.058	0.022	0.032	*	15	4
• ≥ 7,5 en < 8,0 m/s	0.063	0.063	0.063	0.022	0.032	*	15	4
• ≥ 7,0 en < 7,5 m/s	0.069	0.069	0.069	0.022	0.032	*	15	4
• < 7,0 m/s	0.077	0.077	0.077	0.022	0.032	*	15	4
<b>Wind on lake, water ≥ 1 km<sup>2</sup></b>	0.085	0.085	0.085	0.022	0.032	*	15	4

\* Net P50-value of full load hours taken from applicant's wind report. This value is determined on an individual basis for each project.

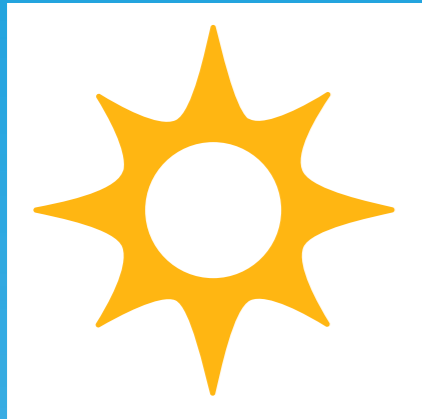


## 4. Calculation example for Wind

Calculation example: SDE+ contribution – Onshore wind < 7.0 m/s  
For example, a project in the municipality of Amersfoort

Maximum base amount from phase 1	7.3 €ct/kWh
Maximum number of full load hours eligible for subsidy, the net P50-value taken from the applicant's wind report. This value is determined on an individual basis for each project.	2,350
Provisional correction amount 2018	3.2 €ct/kWh
Provisional SDE+ 2018 contribution applied for from phase 1 at 7.3 €ct/kWh	$7.3 - 3.2 = 4.1 \text{ €ct/kWh} = 41 \text{ €/MWh}$
Maximum annual production eligible for subsidy for 3 MW installation	$3 * 2,350 = 7,050 \text{ MWh}$
<b>Provisional SDE+ contribution for 2018 applied for from phase 1 at 7.3 €ct/kWh</b>	<b><math>41 \text{ €/MWh} * 7,050 \text{ MWh} = \text{€}289,050</math></b>

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## SOLAR

*2018 SDE+ subsidies are available for the production of electricity and heat from solar technology. The “solar PV from 15 kWp” categories are only open for installations connected to a large-scale energy connection. Subsidies for the “solar thermal” categories are available for installations with covered solar collectors and a thermal capacity of  $\geq 140$  kW.*







## 1. Which installations qualify for SDE+ subsidy in 2018?

### Renewable electricity

Subsidies are available for photovoltaic solar panels (solar PV) with a capacity of  $\geq 15$  kWp and a large-scale energy connection to the grid.

### Renewable heat

You can apply for a subsidy for “solar collectors with a total thermal capacity of  $\geq 140$  kW”, as long as all the collectors used are covered with a translucent layer.

## 2. Features and changes since 2017

### Solar PV

In SDE+ 2018 you can apply for subsidy for two solar PV categories. “solar PV with a capacity  $\geq 15$  kWp and  $< 1$  MWp” and the category “solar PV with a capacity  $\geq 1$  MWp”. The period within operation must start at the latest for solar PV  $< 1$  MWp is a year and a half. The solar PV categories are opened for installations connected to a large-scale energy connection (i.e. a connection to the electricity grid with a rating of more than  $3 * 80$  A). The costs associated with the acquisition of an installation suitable for large-scale energy connection may be high. Contact the grid operator before submitting a grant application to receive a quotation of the costs and time limit for the large-scale energy connection.

### Solar PV “grid delivery” and “own use”

In SDE+ 2018, there are different base energy amounts and correction amounts published for grid delivery and own use (i.e. non grid delivery). The correction amount is higher for own use because of a higher financial advantage.

The procedure is as follows:

- the maximum subsidy to be granted is based on the base energy amount for grid delivery.
- the correction amounts are based on the allocation between grid delivery and own use (i.e. non grid delivery) in the last twelve months. Or, if these data have not been determined, based on the applicant’s indication.
- adjustments of the advance sums already paid will be based on the measured values by CertiQ for grid delivery and own use.

If you are submitting an application and are not the owner of the intended location for the production installation, you will be obliged to submit a declaration from the owner with your application. In this declaration, the owner gives his/her authorisation to have the production installation built and operated at the intended location. In case of several owners, all owners must give his/her authorisation separately. Include all these authorisations with your application. This applies for all categories production installations. Producers who don’t intend to take or don’t have a large-scale energy connection, may possibly apply under the netting scheme (salderingsregeling), the Energy Investment Allowance (EIA) or Energy Conservation and Sustainable Energy for Sports Premises (Energiebesparing en duurzame energie sportaccommodaties, EDS).

### Feasibility study

If you are applying for a subsidy for an installation with a rating of more than 500 kWp, you must perform a feasibility study and include the results of this study in your application. Such a feasibility study is also required if you are applying for a subsidy for several installations with a combined total power rating of more than 500 kWp (0.5 MWp) in the same round of applications. If the total capacity of your production installations for any single round exceeds 500 kWp (0.5 MW), make sure to include a feasibility study for every application. The feasibility study must contain a substantiation of the equity capital for the total number of projects in the same round of applications for the same applicant. Find out more about the feasibility study on [mijn.rvo.nl/sde](http://mijn.rvo.nl/sde) under the tab “Bijlagen bij uw SDE+ aanvraag” (Appendices to accompany SDE+ application).

### Environmental permit

If the Solar-installation is placed in a field set-up or to a façade, an environmental permit will be required. The permit must be granted prior to submitting the SDE+ application. Also, the permit in question must be used for building the installation, mentioned in the permit. A (temporary) permit intended to be used for submitting a SDE+ application early and not to build an installation, is not allowed.

Do you place the Solar-installation on a new build building? Then add in the environmental permit granted for the building.



### Solar-installations on the roof

A fast realization within one year and a half or three years is possible if the roof on which the installation will be built, has been analysed well prior to the application. Calculate the roof surface accurate and take account of skylights and climate installations on the roof. Also determine if the roof has sufficient capacity to support the Solar-installation.

### Solar thermal

SDE+ 2018 subsidies are stimulated in the “solar thermal” category exclusively for installations with “covered” solar collectors with a total thermal capacity  $\geq 140$  kW. Capacity is calculated based on a thermal capacity of 0.7 kW per square meter of solar collector aperture surface.

There are two power ratings for solar thermal in the SDE+ 2018. A lower base amount is calculated for larger systems because this category is more cost-effective. Also, the base energy amount and the correction amount differ between the small and large installations.

- solar thermal with a capacity of  $\geq 140$  kWth en  $< 1$  MWth
- solar thermal with a capacity of  $\geq 1$  MWth

To apply for a subsidy in 2018, the light-absorbing surface has to be *integrated* with the translucent layer which provides isolation like a glass plate or tube. Greenhouses are excluded because there is no integration of the light-absorbing surface with the translucent layer. For smaller systems you can apply for “Investeringssubsidie Duurzame Energie ISDE” (Sustainable Energy Investment Grant) scheme. (Dutch only).

## 3. Phasing and rates for Solar

2018	Phase 1	Phase 2	Phase 3	Base energy price		Provisional correction amount 2018		Maximum full load hours per annum	Maximum subsidy period (years)	Operation must start at the latest within (years)
	From 9 am 13 March	From 5 pm 19 March	From 5 pm 26 March to 5 pm 5 April	(€/kWh)		(€/kWh)				
<b>Solar</b>	Maximum base amount / phase amount (€/kWh)			(€/kWh)		(€/kWh)				
<b>Solar PV</b> connection $> 3 * 80$ A capacity: • $\geq 15$ kWp en $< 1$ MWp • $\geq 1$ MWp	0.090 0.090	0.110 0.107	0.112 0.107	grid delivery 0.022 0.022	own use 0.047 0.039	grid delivery 0.038 0.038	own use 0.063 0.055	950 950	15 15	1.5 3
<b>Solar thermal</b> thermal capacity: • $\geq 140$ kW en $< 1$ MW • $\geq 1$ MW	0.090 0.083	0.094 0.083	0.094 0.083	0.029 0.023		0.029 0.024		700 700	15 15	3 3



## 4. Calculation examples for Solar

Calculation example: SDE+ contribution – Solar PV  $\geq$  15 kWp and  $<$  1 MWp (electricity)

Maximum phase amount for phase 1 (free category)	9.0 €ct/kWh
Maximum base amount in phase 3	11.2 €ct/kWh
Provisional correction amount 2018 for grid delivery Provisional correction amount 2018 for own use	3.8 €ct/kWh 6.3 €ct/kWh
Application in phase 1 at 9.0 €ct/kWh: provisional SDE+ 2018 contribution for grid delivery provisional SDE+ 2018 contribution for own use	$9.0 - 3.8 = 5.2$ €ct/kWh = 52 €/MWh $9.0 - 6.3 = 2.7$ €ct/kWh = 27 €/MWh
Application in phase 3 at 11.2 €ct/kWh: provisional SDE+ 2018 contribution for grid delivery provisional SDE+ 2018 contribution for own use	$11.2 - 3.8 = 7.4$ €ct/kWh = 74 €/MWh $11.2 - 6.3 = 4.9$ €ct/kWh = 49 €/MWh
Maximum number of full load hours eligible for subsidy#	950
Maximum annual production eligible for subsidy for 400 kWp installation# 50% grid delivery 50% own use	$400 * 950 = 380,000$ kWh = 380 MWh $50\% * 380$ MWh = 190 MWh $50\% * 380$ MWh = 190 MWh
<b>Provisional SDE+ contribution for 2018 applied for in phase 1 at 9.0 €ct/kWh for 400 kWp 50% grid delivery 50% own use Total</b>	<b><math>52</math> €/MWh * 190 MWh = € 9,880 <math>27</math> €/MWh * 190 MWh = € 5,130 € 15,010</b>
<b>Provisional SDE+ contribution for 2018 applied for in phase 3 at 11.2 €ct/kWh for 400 kWp 50% grid delivery 50% own use Total</b>	<b><math>74</math> €/MWh * 190 MWh = € 14,060 <math>49</math> €/MWh * 190 MWh = € 9,310 € 23,370</b>

# You do not need to give a production estimate (capacity \* hours at full load) when making a subsidy application for “solar PV”. The Netherlands Enterprise Agency will base its decision on the assumption that the maximum number of full load hours eligible for subsidy is 950.

The “Berekening” (Calculation) page of the SDE+ website describes (Dutch only) how the SDE+ subsidy is calculated and how much is paid out. The SDE+ contribution for 2018 indicated here is a provisional contribution, based on the provisional correction amount for 2018. The correction amounts will be finalised in the calendar year following the year of production, followed by an adjustment based on advance sums already paid. The correction amount (provisional and final) is re-established each year, on the basis of the evolution of the energy price. The base or phase amount applied for applies to the entire duration of the SDE+ subsidy.



Calculation example: SDE+ contribution – Solar thermal with a total thermal capacity of  $\geq 140$  kW and  $< 1$  MW (heat)

Maximum phase amount for phase 1 (free category)	9.0 €ct/kWh
Maximum base amount from phase 2	9.4 €ct/kWh
Provisional correction amount 2018	2.9 €ct/kWh
Provisional SDE+ 2018 contribution applied for in phase 1 at 9.0 €ct/kWh	$9.0 - 2.9 = 6.1$ €ct/kWh = 61 €/MWh
Provisional SDE+ 2018 contribution applied for from phase 2 at 9.4 €ct/kWh	$9.4 - 2.9 = 6.5$ €ct/kWh = 65 €/MWh
Maximum number of full load hours eligible for subsidy#	700
Total thermal capacity of an installation with an aperture surface area of 200 m <sup>2</sup>	$200 * 0.7 = 140$ kW
Maximum annual production eligible for subsidy for an installation with thermal capacity of 140 kW#	$140 * 700 = 98,000$ kWh = 98 MWh
<b>Provisional SDE+ contribution for 2018 applied for in phase 1 at 9.0 €ct/kWh</b>	<b>61 €/MWh * 98 MWh = €5,978</b>
<b>Provisional SDE+ contribution for 2018 applied for from phase 2 at 9.4 €ct/kWh</b>	<b>65 €/MWh * 98 MWh = €6,370</b>

# When applying for a subsidy for “solar thermal”: you must fill in the aperture area. The thermal capacity of the installation in kW is equal to the total aperture surface area in m<sup>2</sup> multiplied by 0.7. You do not need to give a production estimate (= capacity \* hours at full load).

The “Berekening” (Calculation) page of the SDE+ website describes (Dutch only) how the SDE+ subsidy is calculated and how much is paid out. The SDE+ contribution for 2018 indicated here is a provisional contribution, based on the provisional correction amount for 2018. The correction amounts will be finalised in the calendar year following the year of production, followed by an adjustment based on advance sums already paid. The correction amount (provisional and final) is re-established each year, on the basis of the evolution of the energy price. The base or phase amount applied for applies to the entire duration of the SDE+ subsidy.

# Spring 2018 SDE+ applications open: 13 March – 5 April

If you wish to apply for a SDE+ subsidy, applications can be submitted quickly and easily via the online eLoket of the Netherlands Enterprise Agency.

The SDE+ round of applications for spring 2018 runs from 9 am on 13 March to 5 pm on 5 April 2018. This round is divided into three phases, and the phase amount increases for each phase.

## 1. Identification eLoket (e-Service)

You must identify yourself with a user name and password before you can use eLoket. Businesses and organisations can identify themselves with eHerkenning (eRecognition). Private individuals have to use the DigiD service for that purpose.

## 2. Sign in

The procedure for signing in:

1. Go to [mijn.rvo.nl/sde](http://mijn.rvo.nl/sde)
2. Click on the button “Aanvragen” (Applications), right under “Direct regelen” (Arrange now).
3. Choose the way you wish to identify yourself and login.
4. The login brings you to the start page of eLoket.
5. Under the “Nieuwe aanvraag” (New application) tab, you will find the application form for the SDE+ in the forms catalogue.
6. In the “Thema selecteren” (Select theme) tab, you need to specify the production installation category you would like to apply for. Under the “Formulier aanmaken” (Create form) tab, you will need to answer several questions, after which the correct form will be created for you.

## 3. Filling in the application form

You are then directed to the application form containing the questions relevant for your application. Before moving on to the next tab, you can verify your input with the “Controleren” (Verification) button. You will be notified if any information is missing or incorrect. You can add appendices in the last tab of the application form. Mandatory appendices are indicated with an asterisk (\*). Check the entire application for errors before submitting it. If you still get error messages, navigate to the specified tab to correct your input. You can submit your application from 9 am on 13 March 2018.

You can save your draft application at any time. To submit your application at a later time, sign in again and follow the steps under “4” in order to submit your application.

## 4. Submission

To submit a correctly completed form, click on “Naar verzenden” (To submission) in 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 which phase and amount per MWh (1 MWh = 1000 kWh) you are submitting the application for; then tick “Verklaring en ondertekening” (Declared and signed). Next, perform the final submission of the application by clicking on “Ondertekenen en verzenden” (Sign and submit). You will receive a message of confirmation via the e-mail address indicated in your profile.

## 5. Retrieval

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 in “Mijn overzicht” (My overview). Submitted applications are assigned a project number. This number can be used in any correspondence relating to your application.

### **Do you not yet have an eHerkenning or DigiD?**

Click on the link below to request one. Please note that this process will likely take several days. An eHerkenning trust level 1 will be required when applying for the SDE+ subsidy.

[www.eherkenning.nl](http://www.eherkenning.nl) and [www.digid.nl](http://www.digid.nl)

### **Bundled applications for wind and green gas hubs**

Application bundling is possible for applications in the wind category and applications for production installations that are part of a green gas hub. This can be useful when the joint applicants only wish to proceed with a project if all applications in the bundle are honored. If, one day, the budget claim of the applied subsidies exceeds the available budget, applications will be classified in order of the amounts of subsidy applied for. In the case of a bundled application, the highest amount of the applications in the bundle will apply. If lots are drawn amongst applications with an equal amount, bundles will be considered as a single application.

### **Preparing your application: which appendices do you need to include?**

The SDE+ 2018 application form indicates which appendices are required in each category.

### **Feasibility study**

From a nominal requested capacity of 0.5 MW or 500 kWp, it is mandatory to include a feasibility study ("Haalbaarheidsstudie", under "Bijlagen bij uw SDE+ aanvraag" tab) on the project with the application. Compulsory elements of the feasibility study include: a clear financial plan, proof of your equity, an operation calculation, and a detailed time frame regarding the commissioning of the production installation. Equity capital figures must be substantiated with documents demonstrating that the necessary resources (financial and otherwise) are available, such as annual financial accounts or a profit and loss statement.

For the sake of completeness, your application should always provide information on the following aspects:

- *the applicant's own equity capital; and the*
- *capital being invested by third parties or one or more shareholders.*

If the applicant's own equity capital represents less than 20% of the total investment, a statement by a financial adviser will also be required. The equity capital sourced from third parties or one or more shareholders must be secured by means of a contract, including data on these parties' own equity capital.

Extra details may be requested depending on the project.

Information on the feasibility study can be found on [mijn.rvo.nl/sde](http://mijn.rvo.nl/sde) (only available in Dutch).

Tip: make use of the updated "Model haalbaarheidsstudie SDE+" (SDE+ Feasibility Study Template), available in Dutch only.

Such a feasibility study is also required if you are applying for a subsidy for several installations with a total power rating of more than 0.5 MW (500 kWp) in the same round of applications. Make sure to include a feasibility study for every application. The feasibility study must contain a substantiation of the equity capital for the total number of projects in the same round of applications for the same applicant.

### **Wind report**

If you are applying under the "Wind (onshore, lake or primary flood defences)" category, you must also submit a wind report containing a wind energy yield calculation. Use the Windviewer to determine the maximum average wind speed.

### **Geological survey**

If you are submitting an application in the Geothermal category, you will require a geological survey. This survey should be submitted along with your application.

Use the TNO-report "Specificaties geologisch onderzoek voor geothermieprojecten – Rapportagevereisten SDE+ en RNES" (Dutch only). This report describes the minimum requirements for the geological survey .

### **Permits required**

In most cases, one or more permits will be required for production installations. When you submit your application, these permits must already have been issued by the competent authorities. As an applicant, you are expected to be aware of the permit requirements for the production installation for which you are applying for a subsidy. In accordance with the “SDE Decision”, the application form asks whether permits are required for the production installation. For example:

- permits with regard to the Environmental Act – General Provisions (Wet algemene bepalingen omgevingsrecht). The permit must be used for building the installation. A (temporary) permit intended to be used for submitting an SDE+ application early and not to build a production-installation, is not allowed.
- permits on the basis of Chapter 6, Paragraph 6, of the Water Decree (Water permit); and/or
- permits with regard to the Mining Act (Mijnbouwwet).

You should indicate on the form whether or not the permits are required. If you answer a question with “yes”, you must include this/these permit(s) in your application.

If environmental permits are required, you have to submit the relevant permit(s) plus the application forms for the permit(s) with your subsidy application. For solar installations only the permits, if necessary, are required.

### **Permission from the owner**

Is someone else the owner of the intended location for the production installation? Under the SDE+, you will need prior permission from the owner of the intended location or, at the latest, you need to obtain permission at the moment of the application.

In the application form, you must indicate whether you are the owner of the intended location. If you are not, you must include a formal declaration of permission from the owner of the location with your application. In this declaration, the owner gives his/her authorisation to have the production installation built and operated at the intended location. If there are several owners, you have to add the formal declaration of permission from all owners to your application.

## Points of interest

- to be eligible for a SDE+ subsidy, your application must be completed in full. Make sure your application includes proper justification for your project, a thorough feasibility study and all necessary permits and appendices and that you have filled in the digital application form completely.
- you can submit your subsidy application between 9 am on 13 March and 5 pm on 5 April 2018.
- during the above-mentioned application period, you can only submit one application per production installation category and per address where the production installation will be built.
- the amount of subsidy applied for can vary. The maximum base amount depends on the technology used. You can also apply for a subsidy at a lower amount, in what is known as the “free category”.
- the Netherlands Enterprise Agency will process the applications in the order of submission (i.e. on a first-come, first-served basis). Applications will be classified in order of the amount of subsidy applied for in the event that more subsidies are applied for on one day than is available in terms of the SDE+ budget. Renewable gas does not entirely count for the European sustainable energy targets. Therefore, the ranking regarding the amount for the categories renewable gas are divided by a correction factor 0.706 and rounded to three decimal places unless the application amount equals the maximum phase amount. If so, then this applicable maximum phase amount applies for the production of renewable electricity, renewable heat of co-production counts. The application for the lowest amount will be ranked first in the classification system. If the budget limit falls between applications with an equal amount, lots will be drawn amongst the applications.

- for the allocation of the subsidy budget, applications received at or after 5 pm will be considered as having been received on the next working day.
- applications for wind categories and applications for production installations that form a part of a renewable gas hub can be submitted as a bundle. More information on bundled applications in the eLoket can be found on the [SDE+ website](#) under the “Aanvragen voor SDE+” (Apply for SDE+) tab.

## SDE+ grants

### Implementation agreement and bank guarantee

If you are to be granted a subsidy of €400 million or more for your project, the grant will be subject to a suspensory condition. Within two weeks of the grant being issued, you must send a signed implementation agreement to RVO.nl. This agreement (in accordance with the implementation agreement as included in the appendix to the Allocation Regulations for SDE categories in Spring 2018) can be found on the [website](#) under the “Na uw aanvraag” (After your application) tab.

The bank guarantee required under the implementation agreement must be submitted to RVO.nl within four weeks after sending the grant. Sample bank guarantees have been included in the Allocation Regulations for SDE categories in Spring 2018, and can also be found on the [website](#).

Further information: see “Veelgestelde vragen SDE+ Uitvoeringsovereenkomst (Dutch only)” (Implementation Agreement FAQ) on the [website](#).

## Receiving the SDE+

Have you been granted SDE+ subsidy? If so, several more steps are required before you will actually receive it:

- within one year of being allocated your subsidy, you must submit copies of your job assignments that outline the components of the production installation and the contracts issued for the construction of this facility. You don't have to submit these copies for the category Solar PV with a capacity  $\geq 15$  kWp and  $< 1$  MWp, because of the short implementation period of a year and a half.
- the project must be completed and the production installation put into service.
- you must register with a certifying authority: CertiQ for renewable electricity and heat and Vertogas for renewable gas.
- the network operator (or in case of heat, the metering company) should establish you as a producer of renewable energy.

Once these steps have been completed, you will receive a monthly advance payment. An annual correction will be applied, based on the actual energy price and the certified meter readings received by the Netherlands Enterprise Agency. See also the [SDE+ step-by-step instructions](#).



# Cornerstones of the SDE+

## **1. One budget for all categories taken together**

One subsidy budget has been set for all the categories together. For the spring 2018 round of applications, €6 billion has been made available to support projects. Applications will be classified in order of the amount of subsidy applied for if more subsidies are received one day than there is budget for. In such a case, the application for the lowest amount will be ranked first in the classification system. If the budget limit falls between applications with an equal amount, lots will be drawn amongst these applications.

## **2. A phased release of funds**

SDE+ subsidies are released in phases. There are three phases during the period between 9 am on 13 March and 5 pm on 5 April 2018. Each phase has a maximum phase amount, rising from 9 €ct/kWh (6.4 €ct/kWh for renewable gas) in phase 1 to 13 €ct/kWh (9.2 €ct/kWh for renewable gas) in phase 3. There is a maximum base amount for each technology, above which no subsidy is granted. Subsidies for cost-effective technologies with a maximum phase amount less than or equal to 9 €ct/kWh may be applied for in phase 1. There is a greater chance that budget will be available for these phase 1 applications than for technologies with a higher maximum base amount.


## **3. A maximum base amount per production installation**

The maximum base amount for SDE+ subsidies in 2018 is 13 €ct/kWh (9.2 €ct/kWh for renewable gas). Technologies that are able to produce renewable energy for this amount or lower may apply for subsidy.

## **4. A free category**

You can also apply for a lower subsidy than the maximum base amount for the technology in question. Such applications fall within the so-called “free category”. Renewable energy producers or those aiming to be renewable energy producers can apply for subsidies in this category for amounts equal to multiples of a tenth of a eurocent per kilowatt-hour. This allows applicants to tailor their subsidy application more closely to their business case. The amount of subsidy applied for in the “free category” is lower than the maximum phase amount and higher than the base energy price.


**Table: SDE+ Spring 2018 base amounts**

Category	Renewable energy form	Maximum base amount (€/kWh)	Base energy price (€/kWh)	Provisional correction amount 2018 (€/kWh)	Full load hours per annum
<b>Phase 1 - from 9 am 13 March</b>					
 Sewage treatment, improved sludge fermentation, heat	heat	0.033	0.023	0.024	7,000
 Geothermal heat, expansion of production installation with at least one extra well, ≥ 500 m deep	heat	0.034	0.016	0.017	6,000
 Sewage treatment, improved sludge fermentation, renewable gas	gas	0.046	0.016	0.017	8,000
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.047	0.016	0.017	8,500
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.048	0.016	0.017	8,000
 Sewage treatment, improved sludge fermentation, CHP	CHP	0.049	0.028	0.035	5,729
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.050	0.016	0.017	7,500
 Wood pellet burner ≥ 5 MWth and ≤ 100 MWe	heat/CHP	0.050	0.021	0.021	3,000
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.051	0.016	0.017	7,000
 Geothermal heat, ≥ 500 metres deep	heat	0.053	0.016	0.017	6,000
 Geothermal heat, conversion of existing oil and/or gas wells, ≥ 500 metres deep	heat	0.053	0.016	0.017	6,000
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.053	0.016	0.017	6,500
 Onshore wind, ≥ 8.0 m/s	electricity	0.054	0.022	0.032	*
 All-purpose fermentation for renewable gas	gas	0.055	0.016	0.017	8,000
 Small solid or liquid biomass boiler ≥ 0.5 MWth and < 5 MWth	heat/CHP	0.055	0.029	0.029	3,000
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.055	0.016	0.017	6,000
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.057	0.016	0.017	5,500
 Wind on primary flood defences, ≥ 8.0 m/s	electricity	0.058	0.022	0.032	*
 Onshore wind, ≥ 7.5 and < 8.0 m/s	electricity	0.059	0.022	0.032	*
 Geothermal heat, ≥ 3,500 metres deep	heat	0.060	0.016	0.017	7,000

\* Net P50-value of full load hours taken from applicant's wind report. This value is determined on an individual basis for each project.

[Continue →](#)

**Table: SDE+ Spring 2018 base amounts continued**

Category	Renewable energy form	Maximum base amount (€/kWh)	Base energy price (€/kWh)	Provisional correction amount 2018 (€/kWh)	Full load hours per annum
Phase 1 - from 9 am 13 March (continued)					
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.060	0.016	0.017	5,000
 All-purpose fermentation, heat	heat	0.061	0.023	0.024	7,000
 Wind on primary flood defences, ≥ 7.5 and < 8.0 m/s	electricity	0.063	0.022	0.032	*
 Onshore Wind, ≥ 7.0 and < 7.5 m/s	electricity	0.064	0.022	0.032	*
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.064	0.016	0.017	4,500
 Fermentation of manure, heat	heat	0.065	0.023	0.024	7,000
 Wood pellet boiler for industrial steam production ≥ 5 MWth	heat/CHP	0.066	0.016	0.017	8,500
 All-purpose fermentation, CHP	CHP	0.067	0.025	0.031	7,623
 Fermentation of manure, CHP	CHP	0.068	0.028	0.035	7,322
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.068	0.016	0.017	4,000
 Wind on primary flood defences, ≥ 7.0 and < 7.5 m/s	electricity	0.069	0.022	0.032	*
 Onshore wind, < 7.0 m/s	electricity	0.073	0.022	0.032	*
 Liquid biomass boiler ≥ 0.5 MWth and ≤ 100 MWe	heat/CHP	0.073	0.023	0.024	7,000
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.074	0.016	0.017	3,500
 Wind on primary flood defences, < 7.0 m/s	electricity	0.077	0.022	0.032	*
 Large solid or liquid biomass boiler ≥ 5 MWth	heat/CHP	0.081	0.016	0.017	3,000
 Solar thermal, thermal capacity ≥ 1 MW	heat	0.083	0.023	0.024	700
 Wind on lake, water ≥ 1 km <sup>2</sup>	electricity	0.085	0.022	0.032	*
Maximum phase amount for phase 1	gas <sup>1</sup>	0.064			
Maximum phase amount for phase 1	overig	0.090			






\* Net P50-value of full load hours taken from applicant's wind report. This value is determined on an individual basis for each project.

<sup>1</sup> Renewable gas is not fully included in European renewable energy targets. As a result, the phase boundaries for renewable gas differ from those for electricity and heat by a factor 0.706. Hence, different projects compete on the basis of the contributions they make to the target.

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**Table: SDE+ Spring 2018 base amounts continued**

Category	Renewable energy form	Maximum base amount (€/kWh)	Base energy price (€/kWh)	Provisional correction amount 2018 (€/kWh)	Full load hours per annum
Phase 2 – from 5 pm 19 march					
 Fermentation of manure for renewable gas	gas	0.065	0.016	0.017	8,000
 Solar thermal, thermal capacity ≥ 140 kW and < 1 MW	heat	0.094	0.029	0.029	700
 Renovation of hydroelectric power station with new turbine, drop of ≥ 50 cm	electricity	0.100	0.027	0.038	2,600
 Mono-fermentation of manure (100% animal manure) ≤ 400 kW heat	heat	0.100	0.054	0.054	7,000
 Photovoltaic solar panels, ≥ 1MWp and grid connection > 3*80 A	electricity	0.107	grid delivery 0.022 own use 0.039	grid delivery 0.038 own use 0.055	950
Maximum phase amount for phase 2	gas <sup>1</sup>	0.078			
Maximum phase amount for phase 2	overig	0.110			

<sup>1</sup> Renewable gas is not fully included in European renewable energy targets. As a result, the phase boundaries for renewable gas differ from those for electricity and heat by a factor 0.706. Hence, different projects compete on the basis of the contributions they make to the target.

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**Table: SDE+ Spring 2018 base amounts continued**

Category	Renewable energy form	Maximum base amount (€/kWh)	Base energy price (€/kWh)	Provisional correction amount 2018 (€/kWh)	Full load hours per annum
<b>Phase 3 - 5 pm 26 march to 5 pm 5 April</b>					
 Mono-fermentation of manure (100% animal manure) ≤ 400 kW gas	gas	0.092	0.016	0.017	8,000
 Gasification of biomass (≥ 95% biogenic)	gas	0.092	0.016	0.017	7,500
 Photovoltaic solar panels, ≥ 15 kWp and < 1MWp and grid connection > 3*80 A	electricity	0.112	grid delivery 0.022 own use 0.047	grid delivery 0.038 own use 0.063	950
 Monofermentation of manure (100% animal manure) ≤ 400 kW CHP	CHP	0.124	0.040	0.046	6,374
 Hydroelectric power station, drop of ≥ 50 cm, new	electricity	0.130	0.027	0.038	3,700
 Hydroelectric free-flow-energy or wave energy, drop of < 50 cm	electricity	0.130	0.027	0.038	3,700
 Hydroelectric power station, drop of ≥ 50 cm, new	electricity	0.130	0.027	0.038	5,700
 Osmosis	electricity	0.130	0.027	0.038	8,000
Maximum phase amount for phase 3	gas <sup>1</sup>	0.092			
Maximum phase amount for phase 3	overig	0.130			

<sup>1</sup> Renewable gas is not fully included in European renewable energy targets. As a result, the phase boundaries for renewable gas differ from those for electricity and heat by a factor 0.706. Hence, different projects compete on the basis of the contributions they make to the target.

## Further information

[rvo.nl/sde](http://rvo.nl/sde) and [english.rvo.nl/subsidies-programmes/sde](http://english.rvo.nl/subsidies-programmes/sde)

See also the [SDE+ information video](#).

This is a publication of:

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

*While the greatest possible care has been taken in the compilation of this publication, the Netherlands Enterprise Agency cannot be held responsible for any errors it may contain.*

The ministerial orders concerning the SDE+ can be found on [Wet- en regelgeving Stimulering Duurzame Energieproductie](#) page of the SDE+ website (Dutch only).

