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About the SDE+

General

The SDE+ is an incentive for the production of renewable energy in the Netherlands. Renewable energy is generated from clean, inexhaustible sources. This is why it is called 'renewable energy'. In 2014, the SDE+ is open from 1 April, 9.00 am, to 18 December, 5.00 pm.

What is the SDE+?

The SDE+ is an operating (feed-in-tariff) subsidy. In other words: producers receive a subsidy for the production of renewable energy, and not for the acquirement of production installations, such as with investment subsidies. The SDE+ is aimed at companies and (non-profit) organisations that would like to produce renewable energy. The cost price of renewable energy is higher than that of grey (fossil) energy. Likewise, the production of renewable energy is not always profitable. The SDE+ compensates for the difference between the cost price of grey energy and that of renewable energy, over a period of 5, 12 or 15 years, depending on the relevant technology. The subsidy amount depends on the technology used and the amount of renewable energy produced. The SDE+ has one budget for all categories and is opened in phases. The 'less expensive' forms of technology may apply for the subsidy during the first phase. The subsidy amount increases per phase. It is also possible to apply for a so-called free category, in certain cases.

Pillars of the SDE+

1. One integral budget ceiling
2. Phased opening
3. A maximum base amount
4. A free category

Which renewable energy sources does the SDE+ apply to?

In 2014, the SDE+ is opened for the production of:

- Renewable electricity;
- Renewable gas;
- Renewable heat or a combination of renewable heat and power (CHP).

For energy from:

[Biomass](#) [Geothermal](#) [Hydro](#) [Wind](#) [Solar](#)

To whom does the SDE+ apply?

Primary target groups for the SDE+ are companies, institutions, and non-profit organisations. The national government is excluded from participation.

New in the SDE+ 2014

The most important changes compared to 2013

- From 2014, projects that apply for the SDE+ subsidy will no longer be eligible for the Energy Investment Allowance (Energie Investeringsaftrek, EIA) tax relief programme.
- The deadline for submission of extended lifespan for installations of thermal conversion of biomass, all-purpose fermentation and co-fermentation with manure, has been extended from 1.5 years to 3 years before the expiry of the MEP or OVMEP subsidy.
- Splitting up of the category 'boiler on solid biomass ≥ 0.5 MW' into two categories, namely 'boiler on solid biomass ≥ 0.5 MW and < 5 MW' and 'boiler on solid biomass ≥ 5 MW'.
- As of the SDE+ 2014, a feasibility study for the project is a requirement. Projects with a total nominal requested capacity of ≥ 0.5 MW, 500 kWp or 50 Nm³/hour must include the feasibility study along with their application submission.
- From now on, the formal permission of the location's owner will be required with the submission of applications for all projects.
- A geological survey is required for geothermal projects.
- A producer with an installation for mono-fermentation of manure is considered a producer of renewable electricity. As of the SDE+ 2014, the heat component is no longer subsidised.

The SDE+ contribution

The cost price for the production of renewable energy is recorded in the base amount for the technology. The earnings for (fossil) energy are recorded in the correction amount.

The SDE+ compensates the unprofitable component or the difference between the cost price for renewable energy and the earnings for (fossil) energy:

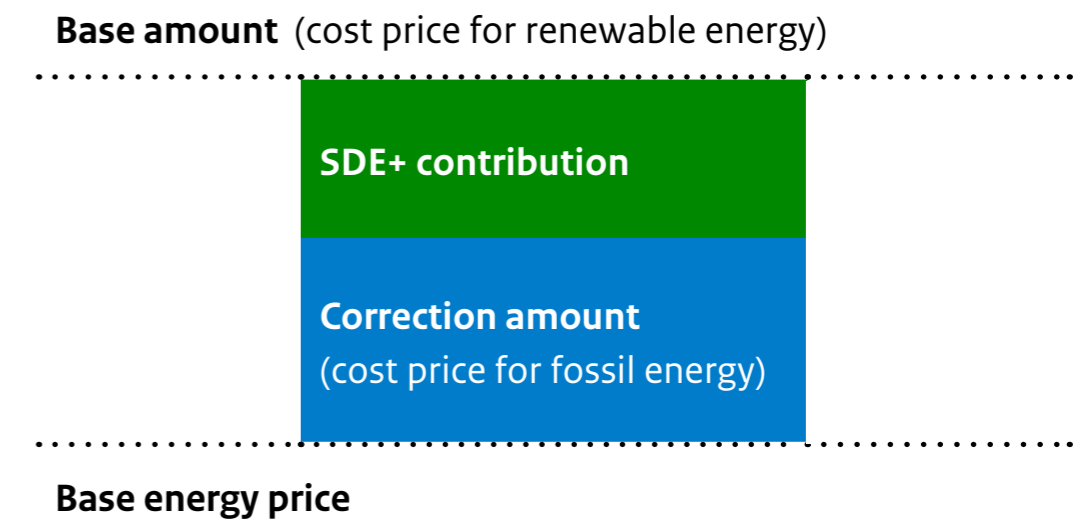
$SDE+ \text{ contribution} = \text{base amount} - \text{correction amount}$.

The amount of the SDE+ contribution is accordingly dependent on the evolution of the energy price. With a higher energy price you will receive less SDE+, while receiving more from your energy purchaser. With a lower energy price you will receive more SDE+, while receiving less from your energy purchaser.

The subsidy granted to you by the Netherlands Enterprise Agency in the decision, is the maximum subsidy over the entire period of the subsidy (5, 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 decision and budget claim. The base energy price is the lower limit for the correction amount. The correction amount cannot be lower than this lower amount. If the correction amount is equal to the base energy price, the maximum subsidy is reached. The final subsidy payments are calculated per year based on the amount of energy produced and the actual energy price.

The subsidy applies to a maximum number of full load hours and has a maximum period, depending on the technology.

$SDE+ \text{ contribution} = \text{base amount} - \text{correction amount}$



Visit the [SDE+ website](#) for more information concerning the calculation of the SDE+ subsidy.

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 decision) within which the installation must produce energy. Decisions for installations with an electricity production capacity greater than 125 MWe must be submitted for approval to the European Commission, in connection with government support. These decisions will only take effect after approval from the European Commission. In these cases, the latest term for commissioning and contract obligation (of one year), will only start after approval from the Commission.

Subsidy period

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

Calculation example SDE+ contribution

New 3 MWe hydro-electric power station and a drop height ≥ 50 cm

Base amount phase 1 (free category)	7.0 €ct/kWh
Base amount phase 5 (free category)	13.0 €ct/kWh
Provisional correction amount for 2014	5.2 €ct/kWh
Provisional contribution SDE+ 2014 phase 1	$7.0 - 5.2 = 1.8$ €ct/kWh = 18 €/MWh
Provisional contribution SDE+ 2014 phase 5	$13.0 - 5.2 = 7.8$ €ct/kWh = 78 €/MWh
Maximum number of eligible full load hours	5,700
Maximum annual production eligible for a subsidy for new 3 MWe hydro-electric power station	$3 * 5,700 = 17,100$ MWh
Provisional SDE+ contribution for 2014 when applied for phase 1	$18 * 17,100 = € 307,800$
Provisional SDE+ contribution for 2014 when applied for phase 5	$78 * 17,100 = € 1,333,800$

The SDE+ contribution indicated is a provisional contribution, based on the provisional correction amount for 2014. The provisional correction amount will be finalised in the calendar year following the year of production, with 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 amount determined for the 2014 SDE+ applies to the entire duration of the SDE+ subsidy.



BIOMASS

In 2014, the SDE+ will support the production of energy from biomass.

You may apply for a subsidy for fermentation of manure and co-fermentation with manure, all-purpose fermentation, thermal conversion, gasification, sewer water purification, and heat from existing waste combustion installations.

It is also possible to apply for a subsidy for an extended lifespan for installations that were subsidised before out of the (OV)MEP.





1. Which installations come into consideration for the SDE+ subsidy in 2014?

Fermentation of manure and co-fermentation with manure

Renewable gas, heat and/or electricity are subsidised as end products. It is also possible to apply for a subsidy for an extended lifespan for installations that were subsidised before out of the subsidy scheme for fermentation installations (OV) MEP, and which have reached the end of their subsidy period of 10 years. The installation must be at least 7 years old at the moment the application is submitted. Owners of these installations are given the option to switch to renewable gas or heat. There is also the possibility, for (OV)MEP and SDE2008 installations, to extend the subsidy application with a supplement for heat. A requirement is that the subsidy period has not yet come to an end. This applies to the co-fermentation with manure and to fermentation of agricultural vegetable matter (cat. 1. A-G1 in the Fertiliser Act), such as the fermentation of corn, for example. If the applicant submits a subsidy application for an extended lifespan and he already has a subsidy allocated for heat extension from a previous SDE scheme, the subsidy period for the heat extension will end, at least, at the moment the subsidy period for the extended lifespan commences.

In the biomass fermentation category for renewable heat and/or renewable electricity, all heat produced during mono-fermentation of manure is used during the fermentation process. Therefore, the base amount for mono-fermentation of manure is calculated using the renewable electricity produced.

All-purpose fermentation

Renewable gas, heat and/or electricity are subsidised as end products. In 2012, the first decisions were issued with regard to the MEP subsidy (Environmental quality of electricity production) for an extended lifespan. Owners of these installations are given the option to switch to renewable gas or heat. In 2014, it is also possible to apply for a subsidy for an extended lifespan for installations that were subsidised before out of the MEP.

The installation must be at least 7 years old at the moment the application is submitted. It also applies that, when an application for an extended lifespan is submitted and a subsidy has already been allocated for a heat extension, the latter will end, at least, at the moment the subsidy period for the extended lifespan commences. It is also possible for MEP installations and biomass installations with SDE subsidies for 2008, to obtain a supplement for heat production.

Thermal conversion

Renewable gas, heat and/or electricity are subsidised as end products. In 2012, the first decisions were issued with regard to the extended lifespan from the MEP. In 2014, it is also possible to apply for a subsidy for an extended lifespan for installations that were subsidised before out of the MEP. The installation must be at least 7 years old at the moment the application is submitted.

For thermal conversion, the subcategory 'boiler on solid biomass ≥ 0.5 MW' is split into two subcategories, namely 'boiler on solid biomass ≥ 0.5 MW and < 5 MW' and 'boiler on solid biomass ≥ 5 MW'.

Waste combustion

Like last year, there is a category opened for waste combustion. This provides waste combustors the option to modify their installation so that heat can be derived and applied in an efficient way. It should, in this case, involve installations that do not receive (have not received) MEP or SDE(+) subsidies.

Waste water treatment installation / Sewage treatment installation

In 2014, water purification installations that are equipped with thermal pressure hydrolysis will be eligible for the SDE+ subsidy. The text is formulated in such a way that even those existing purification installations that are already equipped with a gas engine will be eligible. In addition, a category for the production of renewable gas is opened. These installations cannot be part of a green gas hub.

Gasification

In this scheme, a category is opened for the production of renewable gas through biomass gasification. The syngas must be upgraded to renewable gas, so that it can be fed into the gas grid.



2. Characteristics and changes compared to 2013

Fermentation of manure

Installations that add less than 5% co-products for the fermentation of manure will be able to apply for a subsidy in the category for fermentation of more than 95% animal manure. ECN has calculated a higher base amount for this type of installation, compared to that for co-fermentation with manure. The first three phases in the category of renewable gas from mono-fermentation of manure are closed. During this period you can submit an application in the category for co-fermentation: you will then have the same base amount but with more freedom in terms of the products that can be utilised. This is not applicable to the category of electricity from mono-fermentation of manure.

Fermentation of vegetable matter

Fermentation installations for vegetable matter, such as fermenters for corn, for example, that receive the (OV) MEP subsidy, can receive an extra subsidy for heat extension. They can be eligible for this under the same conditions as those that were already formulated in 2013. The input should comply with category 2, Appendix Aa, under IV.1.A through G1 of the Fertiliser Act Implementation Regulations.

Subsidy for electricity produced for own consumption

Installations for which a subsidy has been granted under SDE 2008 – 2013, can also receive a subsidy for electricity produced for own consumption, as from February 1, 2013. If CertiQ also hands in certificates for electricity that is not fed into the electricity grid, you will not have to undertake any further action. In that case, the Netherlands Enterprise Agency will also include the electricity for which certificates were issued in its calculation for the subsidy to be paid out. These certificates must be indicated as ‘non-network delivery’. If CertiQ does not issue certificates regarding own consumption, you can request this from CertiQ. The measuring equipment may need to be adjusted accordingly.

Sustainability requirements for liquid biomass

In the case of thermal conversion of liquid biomass (boiler or CHP), the producer must prove the sustainability, after the production year, indicating that the liquid biomass which was used, complies with the sustainability criteria of the European Commission. The producer will demonstrate this by means of certificates issued by a certification system approved by the European Commission:

http://ec.europa.eu/energy/renewables/biofuels/sustainability_schemes_en.htm

Fermentation installations

For new fermentation installations, or the expansion of existing installations for fermentation, the fermenter must be new. The gas engine, boiler or upgrading installation does not need to be new.

Hubs

In 2014, the same rate will also apply for solo and hub installations. Only in case of waste water and sewage treatment installations, which produce renewable gas, will hub structures not be eligible for a subsidy.



3. Phasing and rates for Biomass

Renewable heat and CHP

	Phase 1 From 1 Apr 9.00	Phase 2 From 12 May 17.00	Phase 3 From 16 June 17.00	Phase 4 From 1 Sept 17.00	Phase 5 From 29 Sept 17.00	Phase 6 From 3 Nov 17.00	Base energy price	Provisional correction amount for 2014	Max. full load hours per year	Max. subsidy period (years)	Latest term for operation (years)
Biomass: Renewable heat and CHP	Base amount per phase (€ / GJ)						(€ / GJ)				
All-purpose fermentation Heat											
• All-purpose fermentation	14.7	14.7	14.7	14.7	14.7	14.7	6.8	9.8	7,000	12	4
• Extended lifespan	16.0	16.0	16.0	16.0	16.0	16.0	3.9	5.8	7,000	12	3
• Heat extension	6.4	6.4	6.4	6.4	6.4	6.4	3.9	5.8	7,000	5	1.5
All-purpose fermentation CHP											
• All-purpose fermentation	19.444	22.222	25.000	26.3	26.3	26.3	8.3	11.0	5,739	12	4
• Extended lifespan	19.444	22.222	24.1	24.1	24.1	24.1	8.5	11.3	5,855	12	3
Fermentation of manure Heat											
• (Co-)fermentation	19.444	20.6	20.6	20.6	20.6	20.6	6.8	9.8	7,000	12	4
• Extended lifespan	18.8	18.8	18.8	18.8	18.8	18.8	3.9	5.8	7,000	12	3
• Heat extension	8.2	8.2	8.2	8.2	8.2	8.2	0	0	4,000	5	1.5
Vegetable matter											
• Heat extension	8.2	8.2	8.2	8.2	8.2	8.2	0	0	4,000	5	1.5
Fermentation of manure CHP											
• (Co-)fermentation	19.444	22.222	25.000	30.556	31.4	31.4	8.3	11.0	5,732	12	4
• Extended lifespan	19.444	22.222	25.000	28.2	28.2	28.2	8.5	11.3	5,855	12	3
Thermal conversion Heat											
• Heat extension	6.4	6.4	6.4	6.4	6.4	6.4	3.9	5.8	7,000	5	1.5
• Boiler liquid biomass ≥ 0.5 MWth	19.444	19.8	19.8	19.8	19.8	19.8	6.8	9.8	7,000	12	4
• Boiler solid biomass ≥ 0.5 and < 5 MWth	14.2	14.2	14.2	14.2	14.2	14.2	6.8	9.8	4,000	12	4
• Boiler solid biomass ≥ 5 MWth	11.8	11.8	11.8	11.8	11.8	11.8	3.9	5.8	7,000	12	4
Thermal conversion CHP											
• Extended lifespan	18.1	18.1	18.1	18.1	18.1	18.1	6.5	8.9	4,429	12	3
• Biomass >10 MWe and ≤100 MWe	19.444	22.222	22.7	22.7	22.7	22.7	5.1	7.2	7,500	12	4
• Biomass ≤ 10 MWe	19.444	22.222	25.000	30.556	36.111	40.9	6.0	8.3	4,241	12	4



Renewable heat and CHP ctd.

	Phase 1 From 1 Apr 9.00	Phase 2 From 12 May 17.00	Phase 3 From 16 June 17.00	Phase 4 From 1 Sept 17.00	Phase 5 From 29 Sept 17.00	Phase 6 From 3 Nov 17.00	Base energy price	Provisional correction amount for 2014	Max. full load hours per year	Max. subsidy period (years)	Latest term for operation (years)
Biomass: Renewable heat and CHP	Base amount per phase (€ / GJ)						(€ / GJ)				
Existing waste combustion installation • Heat extension	11.4	11.4	11.4	11.4	11.4	11.4	7.0	10.4	3,920	15	1.5
	Base amount per phase (€ / kWh)						(€ / kWh)				
Waste water treatment / Sewage treatment • Thermal pressure hydrolysis	0.070	0.080	0.090	0.096	0.096	0.096	0.040	0.052	8,000	12	4
Fermentation of manure • Mono-fermentation	0.070	0.080	0.090	0.110	0.130	0.150	0.040	0.052	8,000	12	4

Renewable gas

	Phase 1 From 1 Apr 9.00	Phase 2 From 12 May 17.00	Phase 3 From 16 June 17.00	Phase 4 From 1 Sept 17.00	Phase 5 From 29 Sept 17.00	Phase 6 From 3 Nov 17.00	Base energy price	Provisional correction amount for 2014	Max. full load hours per year	Max. subsidy period (years)	Latest term for operation (years)
Biomass: Renewable gas	Base amount per phase (€ / Nm ³)						(€ / Nm ³)				
All-purpose fermentation • All-purpose fermentation • Extended lifespan	0.4828 0.4828	0.5517 0.5517	0.601 0.619	0.601 0.619	0.601 0.619	0.601 0.619	0.177 0.177	0.262 0.262	8,000 8,000	12 12	4 3
Fermentation of manure • (Co-)fermentation • Extended lifespan • Mono-fermentation	0.4828 0.4828 -	0.5517 0.5517 -	0.6207 0.6207 -	0.750 0.710 0.7586	0.750 0.710 0.8966	0.750 0.710 1.0345	0.177 0.177 0.177	0.262 0.262 0.262	8,000 8,000 8,000	12 12 12	4 3 4
Biomass gasification	0.4828	0.5517	0.6207	0.7586	0.8966	1.0345	0.177	0.262	7,500	12	4
Waste water treatment / Sewage treatment solo	0.333	0.333	0.333	0.333	0.333	0.333	0.177	0.262	8,000	12	4



4. Calculation examples Biomass

Calculation example SDE+ contribution – Thermal conversion > 10 MWe and ≤ 100 MWe (cogeneration)

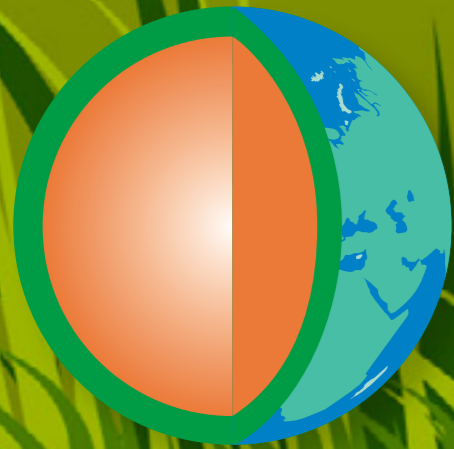
Base amount phase 1 (free category)	19.444 €/GJ
Base amount from phase 3	22.7 €/GJ
Provisional correction amount for 2014	7.2 €/GJ
Provisional SDE+ contribution for 2014 phase 1	$19.444 - 7.2 = 12.244$ €/GJ
Provisional SDE+ contribution for 2014 from phase 3	$22.7 - 7.2 = 15.5$ €/GJ
Maximum number of eligible full load hours	7,500
Total nominal capacity	15 MWe + 45 MWth = 60 MW
Maximum eligible annual production at an installation with a capacity of 60 MW	$60 * 7,500 = 450,000$ MWh (corresponds to) 1,620,000 GJ
Electric capacity percentage: $15/60 * 100\% = 25\%$ The electric capacity percentage is greater than 10% and the CHP therefore suffices.	
Annual production of electricity + heat for which you are applying for a subsidy: 1,500,000 GJ. The annual production for which you are applying for a subsidy is lower than the maximum annual production to be subsidised. In this case, the subsidy is granted for a maximum of 1,500,000 GJ/year.	
Provisional SDE+ contribution for 2014 when applied for phase 1	$12.244 * 1,500,000 = € 18,366,000$
Provisional SDE+ contribution for 2014 when applied from phase 3	$15.5 * 1,500,000 = € 23,250,000$

Calculation example SDE+ contribution – All-purpose fermentation renewable gas

Base amount phase 1 (free category)	48.28 €/Nm ³
Base amount from phase 3	60.1 €/Nm ³
Provisional correction amount for 2014	26.2 €/Nm ³
Provisional SDE+ contribution for 2014 phase 1	$48.28 - 26.2 = 22.08$ €/Nm ³
Provisional SDE+ contribution for 2014 from phase 3	$60.1 - 26.2 = 33.9$ €/Nm ³
Maximum number of eligible full load hours	8,000
Maximum eligible annual production at an installation with a capacity of 500 Nm ³ /hour	$500 * 8,000 = 4,000,000$ Nm ³
Provisional SDE+ contribution for 2014 when applied for phase 1	$0.2208 * 4,000,000 = € 883,200$
Provisional SDE+ contribution for 2014 when applied from phase 3	$0.339 * 4,000,000 = € 1,356,000$

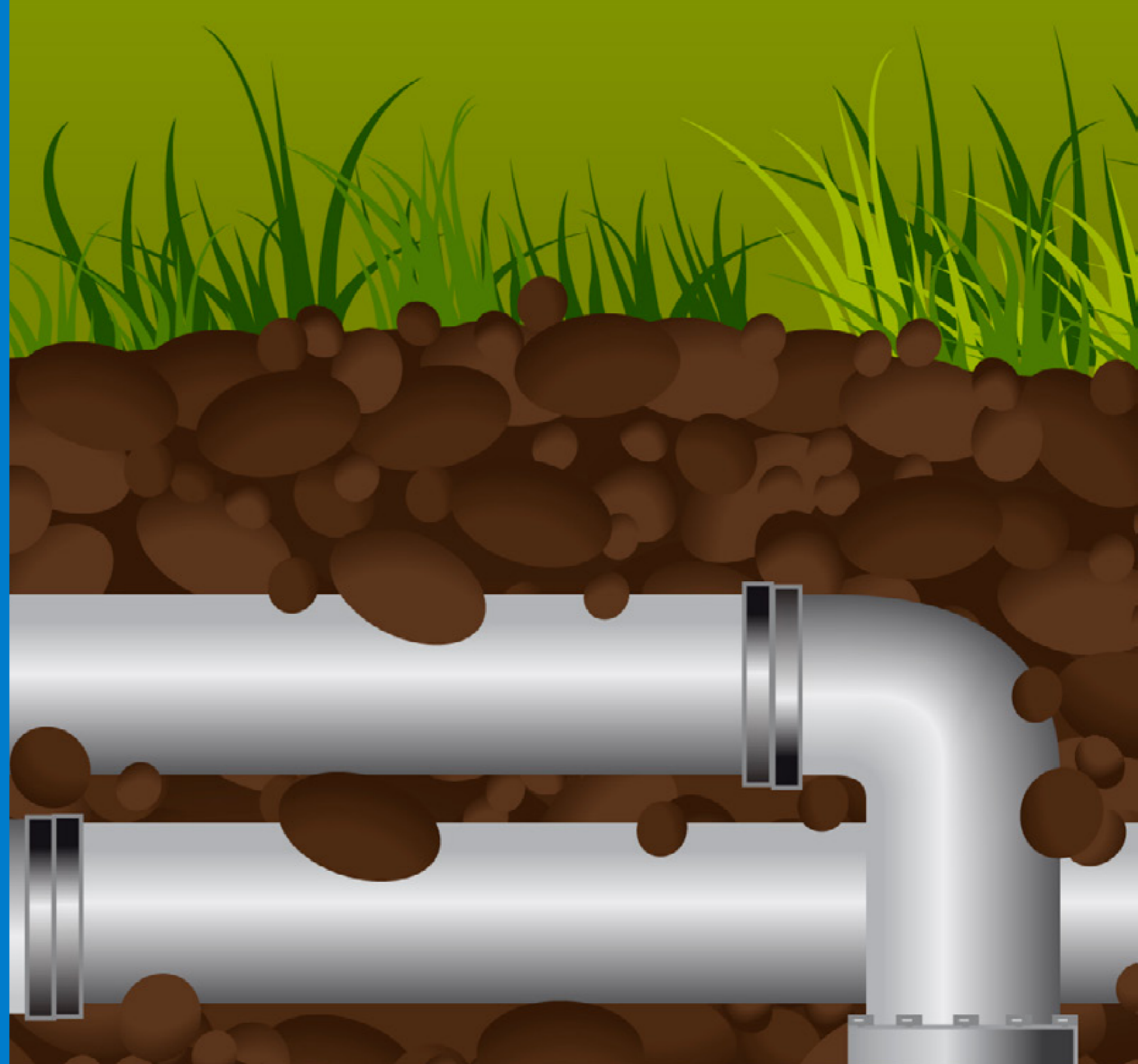
Calculation example SDE+ contribution – Boiler solid biomass ≥ 0.5 MW and < 5 MW

Base amount from phase 1	14.2 €/GJ
Provisional correction amount for 2014	9.8 €/GJ
Provisional SDE+ contribution for 2014 from phase 1	$14.2 - 9.8 = 4.4$ €/GJ
Maximum number of eligible full load hours	4,000
Maximum eligible annual production at an installation with a thermal capacity of 2 MWth	$2 * 4,000 = 8,000$ MWh (corresponds to) 28,800 GJ
Annual production of an installation with a thermal capacity of 2 MWth, for which you are applying for a subsidy: 30,420 GJ. The annual production for which you are applying for a subsidy is higher than the maximum annual production to be subsidised. In this case, the subsidy is granted for a maximum of 28,800 GJ / year.	
Provisional SDE+ contribution for 2014 when applied from phase 1	$4.4 * 28,800 = € 126,720$



GEO THERMAL

In 2014, you will be able to call on the SDE+ scheme for installations that use geothermal heat as an energy source. Subsidies are available for geothermal heat and geothermal combined heat and power. This year, an upper limit will be applicable for the eligible annual production per doublet.





1. Which installations come into consideration for the SDE+ subsidy in 2014?

There are three geothermal categories in the SDE+ 2014:

- Geothermal heat with a depth of at least 500 metres
- Geothermal heat with a depth of at least 3,300 metres
- Geothermal combined heat and power with a depth of at least 500 metres (CHP)

2. Characteristics and changes compared to 2013

Compared to 2013, the maximum eligible annual production has been changed for renewable heat.

For deeper geothermal heat, the minimum depth is changed from 2,700 metres to 3,300 metres.

In 2014, it is possible to apply for a production installation consisting of multiple doublets on one address, in which the maximum eligible annual production is maximised per doublet. This implies, for installations with a greater annual production than the maximum eligible annual production per doublet, that the excess production share will not be subsidised.

This is illustrated in the table below.

Category	Maximum eligible annual production per doublet
Geothermal heat with a depth \geq 500 m	432,000 GJ
Geothermal heat with a depth \geq 3,300 m	352,800 GJ
Geothermal combined heat and power with a depth \geq 500 metres (CHP)	178,129 GJ

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

The calculation of the nominal capacity for a CHP installation is based on the sum of the nominal heat capacity and electrical capacity, in which case both do not need to occur at the same time. See next example.

Example

Let us assume that geothermal heat can be utilised to the utmost during summer months for the production of electricity, such as in an ORC (Organic Rankine Cycle). The electric capacity of the ORC is 1 MWe. The simultaneous efficient heat capacity is 0.5 MWth. During winter months, the steam turbine can be switched off and all heat produced can be utilised in an efficient manner as heat with a capacity of 4 MWth. The total nominal capacity of the CHP is therefore $1 + 4 = 5$ MW.

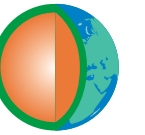
Geological research

In order to obtain a better assessment of the energy production, geological research will be requested as of 2014 in support of the budget claim. The geological research must comply with the SDE+ Model Geological Research and must be included when applying for the subsidy. The Geological Research SEI Geothermal Heat can also be used for this purpose.

Both geological research models are only available in Dutch.

Exploration permit

When applying for subsidy in the Geothermal category, an exploration permit must be issued, in the context of the Mining Act. This exploration permit must also be included when you submit your application.



3. Phasing and rates for Geothermal

	Phase 1 From 1 Apr 9.00	Phase 2 From 12 May 17.00	Phase 3 From 16 June 17.00	Phase 4 From 1 Sept 17.00	Phase 5 From 29 Sept 17.00	Phase 6 From 3 Nov 17.00	Base energy price	Provisional correction amount for 2014	Max. full load hours per year	Max. subsidy period (years)	Latest term for operation (years)
Geothermal	Base amount per phase (€ / GJ)						(€ / GJ)				
Geothermal CHP • ≥ 500 m deep, max. 178,129 GJ/year per doublet	19.444	22.222	25.000	25.8	25.8	25.8	5.3	7.4	4,158	15	4
Geothermal heat • ≥ 500 m deep, max. 432,000 GJ/year per doublet • ≥ 3,300 m deep, max. 352,800 GJ/year per doublet	11.9 14.4	11.9 14.4	11.9 14.4	11.9 14.4	11.9 14.4	11.9 14.4	3.9 3.9	5.8 5.8	6,000 7,000	15 15	4 4

4. Calculation example Geothermal

Calculation example SDE+ contribution – Geothermal with a depth ≥ 3,300 metres (heat)

Base amount from phase 1	14.4 €/GJ
Provisional correction amount for 2014	5.8 €/GJ
Provisional SDE+ contribution for 2014 from phase 1	$14.4 - 5.8 = 8.6$ €/GJ
Maximum number of eligible full load hours	7,000
Maximum eligible annual production per doublet	352,800 GJ
Annual production at an installation, consisting of 1 doublet, with a capacity of 10 MW	$10 * 7,000 = 70,000$ MWh (corresponds to) 252,000 GJ
The annual production for which you are applying for a subsidy is lower than the maximum eligible annual production per doublet. In this case, the subsidy is granted for a maximum of 252,000 GJ/year.	
Provisional SDE+ contribution for 2014 when applied from phase 1	$8.6 * 252,000 = € 2,167,200$



HYDRO

In 2014, the SDE+ will also subsidise installations that generate hydro power, free flowing energy and electricity from osmosis. A distinction will not be made between hydro-electric power stations with a drop of more or less than five metres.



1. Which installations come into consideration for the SDE+ subsidy in 2014?

Hydro

- New hydro-electric power stations with a drop ≥ 50 cm
- Renovation of existing hydro-electric power stations with new turbines and a drop ≥ 50 cm

Free flowing energy

Water turbines that use tidal power, for example, with a drop < 50 cm. In all cases, it involves energy from water which is not especially pumped up for the purpose of generating energy.

Osmosis

A production installation with which renewable electricity is produced from osmosis by means of the different salt concentrations of two bodies of water.

2. Characteristics and changes compared to 2013

A distinction will not be made between hydro-electric power stations with a drop of more or less than five metres. Since 2013 these categories have been combined. A requirement for the category 'renovation of existing hydro-electric power station' is that all turbines, for which the subsidy is requested, must be new ones placed in existing structures. The other components do not have to be new.

3. Phasing and rates for Hydro

	Phase 1 From 1 Apr 9.00	Phase 2 From 12 May 17.00	Phase 3 From 16 June 17.00	Phase 4 From 1 Sept 17.00	Phase 5 From 29 Sept 17.00	Phase 6 From 3 Nov 17.00	Base energy price	Provisional correction amount for 2014	Max. full load hours per year	Max. subsidy period (years)	Latest term for operation (years)
Hydro	Base amount per phase (€ / kWh)						(€ / kWh)				
Hydro-electric power station											
• New, drop ≥ 50 cm	0.070	0.080	0.090	0.110	0.130	0.150	0.040	0.052	5,700	15	4
• Renovation, drop ≥ 50 cm	0.066	0.066	0.066	0.066	0.066	0.066	0.040	0.052	4,300	15	4
Free flowing energy, drop < 50 cm	0.070	0.080	0.090	0.110	0.130	0.150	0.040	0.052	2,800	15	4
Osmosis	0.070	0.080	0.090	0.110	0.130	0.150	0.040	0.052	8,000	15	4

4. Calculation example Hydro

Renovation of 12 MW hydro-electric power station and a drop ≥ 50 cm

Base amount from phase 1	6.6 €ct/kWh	Maximum number of eligible full load hours	4,300
Provisional correction amount for 2014	5.2 €ct/kWh	Maximum eligible annual production for a renovated 12 MW hydro-electric power station	$12 * 4,300 = 51,600$ MWh
Provisional SDE+ contribution for 2014 from phase 1	$6.6 - 5.2 = 1.4$ €ct/kWh = 14 €/MWh	Provisional SDE+ contribution for 2014 when applied from phase 1	$14 * 51,600 = € 722,400$



WIND

In 2014, you can also apply for the SDE+ subsidy for wind turbines: for onshore wind energy, wind energy in a lake and offshore wind energy.

The number of eligible full load hours for onshore wind energy and offshore wind energy is changed, compared to last year.





1. Which installations come into consideration for the SDE+ subsidy in 2014?

Onshore wind energy

- Turbines with a nominal capacity < 6 MW
- Turbines with a nominal capacity ≥ 6 MW

Wind energy in a lake

Turbines with their foundation in the water of a lake of at least 1 km². For example the IJsselmeer or the Zeeland waters.

Offshore wind energy

Turbines in the territorial waters or in the Dutch Exclusive Economic Zone.

2. Characteristics and changes compared to 2013

Wind factor

The ‘wind factor’ is applied in the SDE+. This is done to prevent the producer from receiving less in subsidy payments over the entire period, compared to that which is necessary for the profitable operation of the project. In extreme situations, the wind yield in a calendar year can deviate from the average expected wind yield, by up to 20%. The SDE+ subsidy is paid out over a maximum number of full load hours per year. In a poor wind year, a wind turbine operator will receive less in subsidy payments. The operator will not be able to compensate for this during a good year, because an upper limit is in place for the subsidy. The subsidy is therefore paid out at a maximum of 80% of the full load hours.

In the determination of the base amount, the calculated base amount is multiplied by a correction factor of 1.25 (= 1/80%), the so-called ‘wind factor’. This ensures that operators do not receive a lower subsidy amount with this adjusted maximum of 80%. The same applies for the free category. This wind factor is also applied in the determination of the base electricity price and in the annual determination of the correction amount. The wind factor is introduced for all wind categories. It is therefore not possible to use ‘banking’ to compensate for a poor wind year.

In the SDE+, subsidies will be granted in the order in which (complete) applications were received. If multiple applications are received on the same day, the Netherlands Enterprise Agency will grant the subsidies in rank, starting with the lowest base amount.

In the category of wind energy, the ranking is based on the base amount, without implementation of the wind factor. As a result, wind projects will not be disadvantaged in this classification, compared to technologies without a wind factor.

Higher number of full load hours in the free category for onshore wind energy

The number of full load hours per year, with which a wind turbine can produce energy, depends to a great extent on the location of the wind turbine. Wind turbines in windy locations run for more full load hours and therefore require a lower base amount. For this reason, the number of full load hours for onshore wind energy is differentiated in the various free categories: a higher base amount is accompanied by a lower number of full load hours, and vice versa.

A wind project can thus compete in the free category on the basis of the wind supply at the location. This form of differentiation is not applied to ‘wind energy on a lake’ or ‘offshore wind energy’, because it is not likely that these will yield more full load hours than the reference installation. The category of ‘offshore wind energy’ will only be eligible for a subsidy in the free category.



3. Phasing and rates for Wind

	Phase 1 From 1 Apr 9.00	Phase 2 From 12 May 17.00	Phase 3 From 16 June 17.00	Phase 4 From 1 Sept 17.00	Phase 5 From 29 Sept 17.00	Phase 6 From 3 Nov 17.00	Base energy prise	Provisional correction amount for 2014	Max. subsidy period (years)	Latest term for operation (years)
Wind	Base amount per phase (€ / GJ)						(€ / kWh)			
Onshore wind energy < 6 MW (max. full load hours)	0.0875 (2800)	0.1000 (2280)	0.1125 (1960)	0.1125 (1960)	0.1125 (1960)	0.1125 (1960)	0.045	0.058	15	4
Onshore wind energy ≥ 6 MW (max. full load hours)	0.0875 (2960)	0.1000 (2960)	0.1125 (2520)	0.1213 (2320)	0.1213 (2320)	0.1213 (2320)	0.045	0.058	15	4
Wind energy in a lake (max. full load hours)	0.0875 (2560)	0.1000 (2560)	0.1125 (2560)	0.1375 (2560)	0.1538 (2560)	0.1538 (2560)	0.045	0.058	15	4
Offshore wind energy (max. full load hours)	0.0875 (3000)	0.1000 (3000)	0.1125 (3000)	0.1375 (3000)	0.1625 (3000)	0.1875 (3000)	0.045877	0.059443	15	5

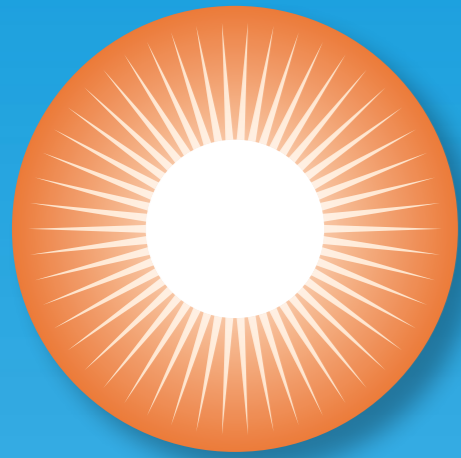
4. Calculation example Wind

Calculation example SDE+ contribution – Onshore wind energy < 6 MW

Base amount phase 1 (free category)	8.75 €ct/kWh
Maximum number of eligible full load hours phase 1	2,800
Base amount phase 2 (free category)	10.00 €ct/kWh
Maximum number of eligible full load hours phase 2	2,280
Provisional correction amount for 2014	5.8 €ct/kWh
Provisional SDE+ contribution for 2014 phase 1	$8.75 - 5.8 = 2.95$ €ct/kWh = 29.5 €/MWh
Provisional SDE+ contribution for 2014 phase 2	$10.00 - 5.8 = 4.20$ €ct/kWh = 42.0 €/MWh

Maximum eligible annual production at an installation with a capacity of 3 MW	Phase 1: $3 * 2,800 = 8,400$ MWh Phase 2: $3 * 2,280 = 6,840$ MWh
Provisional SDE+ contribution for 2014 when applied for phase 1	$29.5 * 8,400 = € 247,800$
Provisional SDE+ contribution for 2014 when applied for phase 2	$42.0 * 6,840 = € 287,280$

The indicated amounts and full load hours are after application of the wind factor (1.25).



SOLAR

In 2014, the SDE+ also offers a subsidy for the production of electricity and heat using solar panels. The solar PV category of ≥ 15 kWp is only open for installations that are connected to a large-scale energy connection. The 'solar thermal' category is open for subsidy applications involving installations with an aperture surface area ≥ 100 m² and covered solar collectors.





1. Which installations come into consideration for the SDE+ subsidy in 2014?

Renewable electricity

Photovoltaic solar panels (solar PV) with a capacity ≥ 15 kWp.

Renewable heat

Solar thermal with an aperture surface area ≥ 100 m², in which case only covered solar collectors are used.

2. Characteristics and changes compared to 2013

Solar-PV

The solar PV ≥ 15 kWp category will only be open for installations that are connected to a large-scale energy connection (a connection to the electricity grid exceeding $3 * 80$ Amp). Major costs can be involved with the acquirement of a large-scale energy connection. The grid operator will be able to provide more information on the costs.

If you are submitting an application for a solar PV installation, and you are not the owner of the intended location for the production installation, you will be obliged to submit a declaration from the owner along with your application. In this declaration the owner gives his/her authorisation to have the production installation built and operated at the intended location.

Environmental permit

An environmental permit is required for production installations in a field setup. If an environmental permit is not required, the applicant must be able to demonstrate this by means of sending along relevant documentation.

Solar thermal

For the 'solar thermal' category, an application can be submitted for the SDE+ 2014 for installations with an aperture surface area ≥ 100 m², where only covered solar collectors are used. In a covered solar collector, a light-permeable layer that ensures insulation (such as a glass plate or tube) sits on top of a light-absorbing surface.

3. Phasing and rates for Solar

	Phase 1 From 1 Apr 9.00	Phase 2 From 12 May 17.00	Phase 3 From 16 June 17.00	Phase 4 From 1 Sept 17.00	Phase 5 From 29 Sept 17.00	Phase 6 From 3 Nov 17.00	Base energy price	Provisional correction amount for 2014	Max. full load hours per year	Max. subsidy period (years)	Latest term for operation (years)
Solar	Base amount per phase (€ / kWh)						(€ / kWh)				
Solar PV ≥ 15 kWp	0.070	0.080	0.090	0.110	0.130	0.147	0.044	0.054	1.000	15	3
	Base amount per phase (€ / kWh)						(€ / GJ)				
Solar thermal with aperture surface area ≥ 100 m²	19.44	22.222	25.000	30.556	36.111	38.2	13.0	15.8	700	15	3



4. Calculation examples Solar

Calculation example SDE+ contribution - Solar-PV ≥ 15 kWp (electricity)

Base amount phase 1 (free category)	7.0 €ct/kWh
Base amount phase 6	14.7 €ct/kWh
Provisional correction amount for 2014	5.4 €ct/kWh
Provisional SDE+ contribution for 2014 phase 1	$7.0 - 5.4 = 1.6$ €ct/kWh = 16.0 €/MWh
Provisional SDE+ contribution for 2014 phase 6	$14.7 - 5.4 = 9.3$ €ct/kWh = 93.0 €/MWh
Maximum number of eligible full load hours	1,000
Maximum eligible annual production at an installation with a capacity of 100 kWp	$100 * 1,000 = 100,000$ kWh = 100 MWh
Provisional SDE+ contribution for 2014 when applied for phase 1	$16.0 * 100 = € 1,600$
Provisional SDE+ contribution for 2014 when applied for phase 6	$93.0 * 100 = € 9,300$

For a solar PV ≥ 15 kWp application, you do not have to provide a production framework (= capacity * full load hours). The Netherlands Enterprise Agency will base its decision on the maximum number of eligible full load hours (1,000).

Calculation example SDE+ contribution – Solar thermal aperture surface area ≥ 100 m² (heat)

Base amount phase 1 (free category)	19.444 €/GJ
Base amount phase 6	38.2 €/GJ
Provisional correction amount for 2014	15.8 €/GJ
Provisional SDE+ contribution for 2014 phase 1	$19.444 - 15.8 = 3.644$ €/GJ
Provisional SDE+ contribution for 2014 phase 6	$38.2 - 15.8 = 22.4$ €/GJ
Maximum number of eligible full load hours	700
Maximum capacity of an installation with an aperture surface area of 100 m ²	$100 * 0.7 = 70$ kW
Maximum eligible annual production of an installation with an aperture surface area of 100 m ²	$70 * 700 = 49,000$ kWh (corresponds to) 176.4 GJ
Provisional SDE+ contribution for 2014 when applied for phase 1	$3.644 * 176.4 = € 642.80$
Provisional SDE+ contribution for 2014 when applied for phase 6	$22.4 * 176.4 = € 3,951.36$

For a solar thermal application, you must enter the aperture surface area and the capacity. The maximum capacity of the installation in kW is equal to the aperture surface area in m², multiplied by a factor of 0.7. You do not have to provide a production framework (= capacity * full load hours). The Netherlands Enterprise Agency will base its decision on the maximum number of eligible full load hours (700).

Subsidy applications

Would you like to use the SDE+? Applying for the SDE+ subsidy is quick and easy via the online eLoket of the Netherlands Enterprise Agency. The SDE+ 2014 is open from 1 April 9:00 am to 18 December 5.00 pm. The opening of the subsidy scheme takes place in six phases and the base amount increases per phase.

1 Sign in with eLoket (e-Service)

You must identify yourself with a username 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 Create your profile

If you are using eLoket for the first time, you will have to create your profile. You will complete your contact information only once, accompanied by the CoC number or personal identification number (BSN number) for the type of identification used. You will also enter your own information if you want to apply on behalf of another party in the capacity of an intermediary.

3 Create your draft application

You can reach eLoket through the eLoket homepage or through the SDE+ website. If you enter eLoket via the eLoket homepage, you will find the questionnaires for the SDE+ under the 'S' on the 'New application' tab.

Did you enter eLoket via the SDE+ website?

If so, you will be taken directly to the SDE+ application screen. In the 'Select Theme' tab, you need to specify for which production installation category you would like to create an application. In the 'Create Form' tab, you need to answer several questions before the correct form is created for you.

4 Fill in

You are now directed to the application form containing the questions relevant to your application. Before moving on to the next tab, you can verify your input with the 'Verification' button. If any information is missing or incorrect, you will be notified. You can add the appendices to the last tab of the application form. Mandatory appendices are indicated with an *.

Check the entire application for errors before submitting your actual application. If error messages appear, navigate to the indicated tab to correct your input. You can submit your application from 1 April 2014, 9:00 am (opening), for an application in phase 1. You can save your draft application at any time. If you would like to submit your application at a later stage, you will simply have to sign in and follow the steps under '5' in order to submit your application.

5 Submission

If you would like to submit a (correctly completed) form, click on 'To submission' in the 'Verification' tab. Here, you will verify that all information is accurate once more.

All questions and answers appear in sequence on the screen. You indicate which phase and base amount you are submitting the application for, and tick 'Declared and signed'. Hereafter you perform the final submission of the application by clicking on 'Sign and submit'. You will receive an e-mail confirmation on the e-mail address listed in your profile.

6 Retrieval

Your application form will automatically be saved when you navigate to the next tab. You can also choose to save the information in between. Saved applications are available in 'My overview'. Submitted applications get a project number. This number can be used in any correspondence relating to your application.

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 want to proceed with the project if all applications in the bundle are honoured.

If, on one day, the budget claim of the applied subsidies exceeds the available budget, applications will be classified in order of the base amount. In case of a bundled application, the highest base amount of the applications in the bundle will apply. Bundles will be considered as single applications in the event that lots must be drawn amongst applications with the same base amount.

Do you still require an eHerkenning or DigiD?

Click the link below to request one of these. Keep in mind the lead time of several days. An eHerkenning trust level 1 will be required when applying for the SDE+ subsidy.
www.eherkenning.nl and www.digid.nl

Preparation of your application: which appendices must be included in your application?

Several appendices are required for the SDE+ 2014 application.

Permission from the owner

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

You will indicate in the application form whether or not you are the owner of the intended location. If you are not the owner, you must include a formal 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.

Feasibility study

As of 2014, a feasibility study must be carried out for the project. Applicants of a production installation with a total nominal requested capacity of ≥ 0.5 MW, 500 kWp or 50 Nm³/hour must include this feasibility study along with their application submission. The feasibility study does, in any event, consist of operation calculations, a financial plan, and an elaborated timeframe regarding the commissioning of the production installation. Depending on the project, additional information will be requested. Information on the feasibility study is available on our [website](#) (only available in Dutch).

Geological research

If you are submitting an application in the Geothermal category, you will also require a geological research, in addition to the feasibility study. This research should be submitted along with your application. The geological research must comply with the [SDE+ Model Geological Research](#). The [Geological Research SEI Geothermal Heat](#) can also be used for this purpose.

Both geological research models are only available in Dutch.

Required permits

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 considered to be up-to-date with the permit requirements for the production installation for which you are applying for a subsidy.

In accordance with the SDE+ Order, the application form asks whether or not permits are required for the production installation:

- Based on the Environmental Law (General Provisions) Act (Environmental permit);
- And/or based on Chapter 6, paragraph 6 of the Water Decree (Water permit);
- Based on the Mining Act.

You will indicate on the form whether or not the requested permits are required. If you answer a question with 'yes', you must also include this (these) permit(s) in your application.

Points of interest

- You can submit your application from 1 April 2014, 9.00 am to 18 December 2014, 5.00 pm.
- You can only submit one application per production installation categories and per address at which the production installation will be built.
- The base amount applicable for the subsidy grant may vary, depending on the moment the application is submitted. Different base amounts will apply for an application in the free category.
- The Netherlands Enterprise Agency will process the applications in the order of entry. In other words: first come, first served. Applications will be classified in order of the base amount if more subsidies are applied for on one day than what is still available in terms of budget. The application with the lowest base amount will come first in the classification. If the budget limit falls between applications with an equal base amount, lots will be drawn amongst the applications. The base amount for all categories will be expressed in €/GJ to one decimal.
- For the allocation of the subsidy budget, applications received at or after 5.00 pm will be considered as having been received on the next workday.
- Applications for wind categories and applications for production installations that form a part of a green gas hub can be submitted as a bundled application. More information on bundled applications in eLoket can be obtained on the [SDE+ website](#) (only available in Dutch).
- For a complete application, all required permits must be included along with the application.

Receiving the SDE+

Is the SDE+ subsidy granted to you? If so, you will still have to take several steps in order to actually receive the subsidy:

- The project must be developed and the production installation commissioned.
- You must register with a certifying authority, such as CertiQ or VertoGas.
- The network operator, or in case of heat, the measuring company, should establish you as a producer of renewable energy and a measurement protocol must be set up.

Once these steps have all 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.

More information

www.rvo.nl/sde

Questions concerning the SDE+?

Contact our Client Contact Centre (KlantContact Centrum):

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E info@rvo.nl

Film tip: [Informational film on the SDE+ 2014](#)

(only available in Dutch)

Pillars of the SDE+

1 One integral budget ceiling

One subsidy ceiling is determined for all categories combined. In 2014, € 3.5 billion will be available to support projects. Applications will be classified in order of the base amount if more subsidies are applied for on one day than what is still available in terms of budget. The application with the lowest base amount will come first in the classification. Lots will be drawn amongst applications with the same base amount, in the event that the budget limit falls between applications with an equal base amount. The base amount for all categories will be expressed in €/GJ to one decimal.

2 Phased opening

The SDE+ will open in phases. In 2014, six phases will be opened from 1 April, 9.00 am to 18 December 2014, 5.00 pm. Each phase has a maximum base amount that increases from 7 €/kWh (converted to 48.28 €/Nm³ or 19.444 €/GJ) in phase 1 to 15 €/kWh (converted to 103.45 €/Nm³ or 41.667 €/GJ) in phase 6.

A maximum base amount applies to each technology, and no subsidy will be paid out above this amount. In phase 1, cost-effective technologies with a base amount lower or equal to 7 €/kWh may submit an application. Applicants in phase 1 will have a greater chance that a sufficient budget will still be available, compared to technologies with a higher maximum base amount.

3 A maximum base amount

The SDE+ 2014 assumes a maximum base amount of 15 €/kWh (converted to 103.45 €/Nm³ or 41.667 €/GJ). Technologies that are able to produce renewable energy for this amount or lower can be eligible for the subsidy.

4 A free category

Each phase includes a free category. This allows innovative operators who can produce energy in a way that is cheaper than the calculated base amount for the relevant technology to gain access to the SDE+ sooner. Projects in the free category are subject to a base amount that is equal to the upper limit for the relevant phase in which the subsidy is applied for. A condition is that this amount is lower than the base amount for the technology concerned.

In this way, the free category also offers room for a number of technologies for which the costs are generally higher than 15 €/kWh (converted to 103.45 €/Nm³ or 41.667 €/GJ). Technologies that only come into consideration in the free category in 2014 are: new hydro-electric power stations, free flowing energy, osmosis, offshore wind energy, mono-fermentation of manure, and biomass gasification.

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