EurObserv'ER

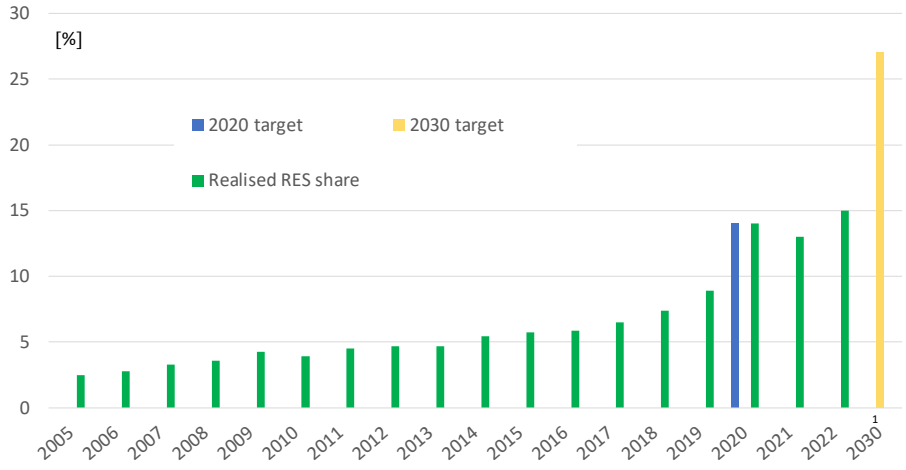
Renewable Energy Policy Factsheet

June 2024

The Netherlands

Renewable energy status

Share of energy from renewable sources in total gross final energy consumption



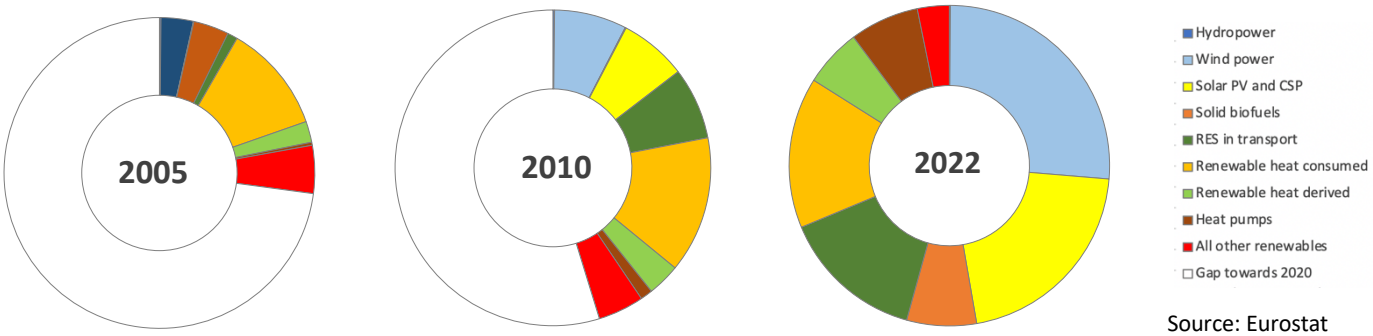
Source: Eurostat

Abbreviations used:

RES: renewable energy sources
RES-E: renewable electricity
RES-H/C: renewable heating/cooling
RES-T: renewable transport fuels

Data for 2022

Overall RES share:	15.0%	Avoided fossil fuels:	9.0 [Mtoe]
Overall RES 2020 target:	14.0%	Avoided fuel expenses:	8 665 [MEUR]
Overall RES 2030 target:	27.0%	RES Turnover:	12 010 [MEUR]
Share RES-E in electricity:	39.9%	RES Employment:	77 800 [jobs]
Share RES-T in transport:	10.8%	RES imports[2]:	6 306 [MEUR]
Share RES-H/C in heating:	8.6%	RES exports[2]:	3 624 [MEUR]



Source: Eurostat

	2005	2010	2022		
	Energy in ktoe	Energy in ktoe	Energy in ktoe	Employment in FTE	Turnover in MEUR
Hydropower	8.6	8.7	7	<100	<10
Wind power	174.9	387.1	1 840	11 400	1 840
Solar PV, and CSP	3.0	4.8	1 469	30 100	4 350
Solid biomass	193.2	360.9	493	6 200	890
Biofuels in transport	55.4	384.6	1 012	1 200	260
Renew. heat consumed	590.8	730.3	1 068		
Renew. heat derived	114.2	175.5	411		
Heat pumps	16.6	65.1	490	27 100	4 340
All other renewables	260.3	246.0	225	1 700	320

Source: Eurostat, EurObserv'ER

FTE = Full time equivalent, PV=Photovoltaics, CSP=Concentrated Solar Power. Biofuels in transport only covers compliant fuels (employment and turnover additionally cover the non-compliant biofuels). Derived heat includes heat produced in main activity producer plants and heat sold produced in auto-producer plants. Its counterpart is the final heat consumption in the final consumption sectors (such as households).

[1] From Integrated National Energy Climate Plan for France

[2] Referring to the International Trade chapter from the publication: EurObserv'ER - *The State of Renewable Energy in Europe, 2022 edition*

CURRENT RENEWABLE ENERGY POLICY

RES-E

In the Netherlands, electricity production from renewable sources is mainly promoted through a tendered premium tariff system (the SDE++). A premium tariff is added on top of the sale price producers get on the electricity market, in order to cover the costs of their installations and ensure their profitability. Energy producers compete with each other and industry in an auction for support, which favors the projects with the lowest cost per tonne of CO_2 reduction. Offshore wind energy is not included in the SDE++, but has a separate framework and tendering system for the realization of new projects. Other promotional instruments for renewable electricity include fiscal instruments such as tax credits. Small scale electricity prosumers (producers/consumers) also benefit from a net metering scheme ("de salderingsregeling"). The annual electricity bill is based on net consumption of electricity from the grid, thereby avoiding energy tax, value added tax and other surcharges on the electricity bill over their self-produced electricity consumption.

RES H&C

Heating (and cooling) is also mainly supported through the tendered premium tariff system (SDE++), which is also available for producers of green gas and heat production based on biogas, biomass, geothermal and solar thermal energy. Since the shift of the SDE scheme from renewable energy to CO_2-reduction technologies in 2020, a number of industrial electrification options such as electric boilers and heat pumps have also been included. For these technologies it is assumed that (renewable) electricity is used to produce heat in industry.

Next to the SDE++ scheme, the government promotes renewable heating and cooling through a number of fiscal instruments such as tax credits. For small consumers (private persons and small-scale business) there is an investment subsidy (ISDE) for the purchase of solar thermal collectors, heat pumps, biomass boilers, pellet stoves and investments in insulation efforts.

RES-T

Renewable energy use in transport is mainly supported through a biofuels quota scheme, which obliges companies importing or producing gasoline, gas or diesel fuels to comply with a pre-set minimum biofuels quota with regard to their annual fuel sales. For ensuring compliance with the annual quota, there are tradable green certificates ("Hernieuwbare Brandstofeenheden"). Since 2021 the production of advanced biofuels has been included in the SDE++ tender. Through the scheme advanced biofuels projects can receive a premium to ensure profitability of projects if there is a gap between production costs and market prices, including the market price for tradable green certificates (HBE's). There are also fiscal instruments for promoting the use of biofuels and hydrogen in transport. There is also a subsidy scheme for new (4000 euros) and used (2000 euros) electric passenger cars.

Table 1: Brief description of key policy instruments aimed at promoting RES in the Netherlands

Instrument	*Description*
SDE++: Stimulation of Sustainable Energy Production and Climate Transition *Stimulering Duurzame Energieproductie en Klimaattransitie*	Floating feed-in premium scheme which is used to promote RES-based electricity, gas and heating, as well as non-renewable CO2 reduction technologies such as carbon capture and storage (CCS). SDE++ subsidies are allocated through a quasi-tendering process, where energy producers and industry compete against each other for feed-in premium support. It encompasses a system of annual phased admission rounds with escalating reference cost of rates which favours technologies with the lowest cost per tonne CO2 avoided. Website: https://english.rvo.nl/subsidies-programmes/sde#
SCE: Subsidy for Coöperative Energy Production *Subsidieregeling Coöperatieve Energieopwek*	Similar subsidy scheme as the SDE++, targeted at energy cooperatives or homeowners associations that want to produce renewable electricity. Technologies included are solar PV, wind energy and hydropower. The subsidy scheme is tendered with a system favoring bids with the lowest cost per unit of electricity produced. Website: https://www.rvo.nl/subsidies-financiering/sce
ISDE: Sustainable energy investment subsidy scheme *Investeringssubsidie Duurzame Energie*	Provides both private persons and small-scale business with a subsidy for the purchase of solar thermal collectors, heat pumps, biomass boilers and pellet stoves. Website: https://www.rvo.nl/subsidies-financiering/isde
EIA: Energy Investment Allowance *Energie investerings-aftrek*	A tax relief programme which gives a direct financial advantage to companies that invest in energy-saving equipment and sustainable energy. In 2022 entrepreneurs may deduct 45% of in the investment costs for such equipment (purchase and/or production costs) from their company's pre-tax profits, over the calendar year in which the equipment was purchased. The business assets that qualify for the EIA for 2022 are set out in the Energy List 2022. Website: https://english.rvo.nl/subsidies-programmes/energy-investment-allowance-eia#
MIA/VAMIL: Environmental Investment Rebate *Milieu-investerings aftrek* **Arbitrary depreciation of environmental investments** *Willekeurige afschrijving milieu-investeringen*	The MIA scheme, offering a tax refund on environmental investment, and the Vamil scheme providing for voluntary depreciation on environmental investment, are two different schemes run by the Ministry of Economic Affairs and Climate and the Ministry of Finance. The aim of both of them is to encourage Dutch entrepreneurs to invest in their business operations in an environmentally friendly way. The MIA scheme allows investment tax credits up to 36% of the investment cost of an environmentally sound investment from pre-tax corporate profit while the Vamil scheme facilitates accelerated depreciation for 75% of eligible investment costs. Website: https://english.rvo.nl/subsidies-programmes/mia-and-vamil#
Net-metering scheme *Salderingsregeling*	Households and small businesses that have renewable energy production capacity (such as solar PV or wind energy) can supply electricity they produce back to the grid. The electricity supplied to the grid is subtracted from the energy consumed. The electricity bill is only based on the net electricity consumed. As a result the small-scale renewable electricity producers have reduced energy taxes and grid fees. Website: https://www.rijksoverheid.nl/onderwerpen/duurzame-energie/zonne-energie
Biofuels quota	The biofuel quota obliges companies importing or producing gasoline, gas or diesel fuels to ensure that biofuels make up a defined percentage of the company's total annual sale of fuel. Renewable Energy Units (in Dutch: *Hernieuwbare Brandstofeenheden* or HBE's) are used by companies to comply with their annual obligation. The HBE's are issued by the Dutch Emissions Authority (NEa) and companies need to book the required HBE's to meet the quota with the authority. The HBE's are

	tradable between parties that produce renewable fuels and the parties that are subject to the biofuels quota. Website: https://www.emissionsauthority.nl/topics/obligations---renewable-energy-for-transport

For further information:

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Member State Progress Report, available at the Renewable Energy pages of the European Commission. http://ec.europa.eu/energy/en/topics/renewable-energy

MIA/VAMIL fiscal stimulation instruments. https://english.rvo.nl/subsidies-programmes/mia-and-vamil#

PBL, 2021. Klimaat- en Energieverkenning 2021.
https://www.pbl.nl/en/publications/climate-and-energy-outlook-2021

REN21, 2021. Global Status Report 2022.
https://www.ren21.net/reports/global-status-report/

RES Legal database. http://www.res-legal.eu/search-by-country/netherlands/

Renewable Energy Units (Hernieuwbare Brandstofeenheden), 2022, June 13.
https://www.emissionsauthority.nl/topics/general---energy-for-transport/renewable-energy-units

SDE++ subsidy programme, https://english.rvo.nl/subsidies-programmes/sde#

What is meant by …?

Auctions for granting renewable energy support	An auction is a process of granting production or investment support to renewable energy projects based on the lowest bids by eligible project developers.
Feed-in tariff (FiT)	A support scheme which provides for a technology-specific remuneration per unit of renewable energy payable to eligible renewable energy producers. A proper, periodic review of FiT rates is often undertaken with the aim to prevent both too high FiTs so as to minimise regulatory rents, i.e. supra-normal returns and too low FiTs to preclude below-target market uptake because of FiT levels that are perceived by market participants to be less attractive. In addition, feed-in tariffs often include "tariff degression", a mechanism according to which the price (or tariff) ratchets down over time.
Feed-in premium (FiP)	A scheme which provides for a support level per unit of renewable energy to eligible renewable energy producers, typically for a period of 10-20 years, at a pre-set fixed or floating rate. The premium is typically adjusted periodically to exactly offset change in the average energy wholesale market price, based on a pre-specified benchmark market price. A floating FiP may move freely or may only be allowed to move within a pre-set interval.
Grants	Grants are non-repayable funds disbursed by one party (grant makers), often a government department, corporation, foundation or trust, to a recipient, often (but not always) a non-profit entity, educational institution, business or an individual. (Source: Wikipedia.org)
Green public procurement	In Green public procurement contracting authorities take environmental issues into account when tendering for goods or services. The goal is to reduce the impact of the procurement on human health and the environment. (Source: Wikipedia.org)
Renewable quota scheme (RQS)	A RQS mandates certain market actors (typically retail suppliers or large energy end-users) to respect a pre-set minimum share or amount of their total energy procurements from renewable sources of energy. Typically a tradable green certificate (TGC) scheme is operated to enable the obligated parties to prove their compliance with the prevailing renewable quota target by means of TGCs.
Sliding feed-in-tariff	A FiT scheme which pre-sets technology-specific declining feed-in tariffs for certain prospective vintages in line with the technology-specific learning curve, as projected by the National Regulatory Agency (NRA). Often a degression rate is used indicating the %/annum decrease in the rate level.
Soft loans	Loans at concessional (below market-based) terms, for example at sub-market-conform interest rates, made available in several Member States to stimulate certain renewable energy technologies.
Tax credits	These are amounts a tax paying entity is allowed to deduct when declaring payable taxes, for example company tax or income tax, to the tax authorities, for example the producer tax credits (PTCs) used in the United States to stimulate among others wind energy deployment.

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