

Renewable Energy

in Netherlands

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MARKET FRAMEWORK

Government electricity participants

Who are the principal government participants in the electricity sector? What roles do they perform in relation to renewable energy?

At the government level, the principal actor for the electricity sector is the Minister of Economic Affairs and Climate Policy (the Minister). With regard to offshore wind energy, it is the Minister who adopts the development framework for offshore wind energy. This framework sets an outline for the design, construction, availability and service life of the offshore grid. By combining these conditions together with the roadmap on offshore wind energy, the wind farm site decisions and permits, the framework provides for clarity in advance to offshore wind developers.

Furthermore (and if applicable), the Minister grants subsidies to the offshore system operator for the design, build and operation of the offshore electricity transmission system.

Other ministerial roles include approval of change of control requests with regard to large-scale energy projects.

With regard to government regulatory bodies the Authority for Consumer and Markets (the ACM) is the main regulator for the energy sector and in particular for the electricity sector. The ACM does this at the:

- consumer level: through regulation of permits required by electricity suppliers to small-scale consumers. The ACM does not regulate retail prices. However, if energy suppliers charge too much, the ACM can establish maximum tariffs for the supply of electricity.
- distribution and transmission system operator-level: by regulating tariffs for transport and distribution. Also, complaints against a distribution system operator (DSO) or a transmission system operator (TSO) can be brought before the ACM. Finally, it is the ACM who can grant an exemption from the obligation to designate a DSO or a TSO to private grid owners, when certain conditions are met.

The Netherlands Enterprise Agency (RVO) operates under the auspices of the Ministry of Economic Affairs and Climate Policy. Next to aiding and supporting entrepreneurs, the RVO coordinates and grants the subsidy to 'Stimulate sustainable energy production and climate transition' (the SDE++ subsidy).

The Dutch electricity transmission system is operated by TenneT TSO BV (TenneT). TenneT is designated by the Minister. Although it is a private company, its shares are 100 per cent-owned by the Dutch state. The obligation that shares of system operators need to be publicly held result from the unbundling regime covered by EU regulations and the implementation thereof in the Dutch Electricity Act 1998. Next to this obligation, system operators also need to comply to (1) the group prohibition (ie , a system operator cannot be part of a group together with a electricity producer or a supplier) and (2) the ancillary activities prohibition (ie , system operators are only allowed to perform their statutory tasks). If a system operator is part of a system or network group, the group subsidiaries are only allowed to perform statutory ancillary activities to avoid unfair competition or cross-subsidisation). TenneT only has beneficial ownership of the transmission system.

In the Netherlands, the Electricity Act 1998 provides that ownership of (power and gas) transmission systems and the shares in the transmission system operator (TSO) are publicly held, namely by the state. Pursuant to the Independent System Management Act, which amended the Electricity Act 1998 (and the Gas Act) in 2008, private ownership of transmission systems is prohibited.

The distribution systems are regionally operated by seven DSOs. These DSOs are designated by law by the Minister. The largest DSOs are Liander, Stedin and Enexis. All shares of each of the seven DSOs are publicly held by provinces and municipalities, similar to the ownership of the national transmission system. The DSOs have beneficial ownership

only.

The Dutch Emissions Authority (Nea) is the designated government body to supervise on three main areas with regard to greenhouse gas emissions. The first area comprises the procedure and participants of the EU ETS (companies subject to mandatory participation in the EU ETS). The Nea issues the permits to greenhouse gas emitting companies, and supervises the registry.

Second, the supervision of the obligations related to EU ETS. The Nea also supervises the energy for the mobility market. This system entails obligations for companies that deliver renewable fuel or energy to the mobility market. Per 1 Gigajoule of renewable fuel or energy, such companies can receive a renewable fuel unit.

And thirdly, since the entry into force of the Industry Carbon Tax Act on 1 January 2021, Nea's newest task is to administer and collect the CO2 levy and monitor compliance with the act.

Law stated - 24 September 2021

Private electricity participants

Who are the principal private participants in the electricity sector? What roles do they serve in relation to renewable energy?

The Electricity Act 1998 (and the Gas Act) provide for a mandatory 'ownership unbundling' of system operation activities. As a result, system operators may not form or be part of a company group that includes generation or production, trade or supply of electricity or gas. Furthermore, Dutch TSOs and DSOs are state-owned, their shares are held by the state, provinces or municipalities respectively.

Electricity and natural gas

In the Netherlands, all forms of electricity generation and (bio)gas (including hydrogen gas) production are fully liberalised. In the conventional electricity generation market the following energy companies are the lead players: RWE (formerly known as Essent), Vattenfall (formerly known as Nuon), Uniper (formerly known as E.On), and Eneco/Castleton Commodities International (Enecogen).

Wind and solar energy

Renewable energy producers vary from small and local energy cooperative associations and solar PV parks and onshore wind energy companies such as Pure Energie, Powerpeers, Vandebroek and HVC Energie to offshore wind energy parties such as Ørsted, Eneco, Shell (in consortium with Van Oord, Eneco and Mitsubishi/DGE) and Nuon (now Vattenfall).

Energy trading and supply

Electricity can be traded via the independent European Power Exchange EPEX Spot (APX), ETPA or ICE. Electricity supply to large-scale end consumers is also fully liberalised. Supply to small-scale end consumers, however, is regulated (a permit to supply is required from the Authority for Consumer and Markets (ACM)).

Transmission and distribution system operators

Even though shares of transmission system operators (TSOs) and distribution system operators (DSOs) are publicly held, the TSOs and DSOs all have a private limited company structure. TSOs develop, operate and maintain the national

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electricity and gas transmission systems. The high-voltage electricity transmission system is operated by TenneT TSO BV (TenneT). TenneT is the designated TSO by the Minister of Economic Affairs and Climate Policy (the Minister). Next to developing, operating and maintaining the high-voltage electricity transmission system in the Netherlands, TenneT also monitors and controls the electricity balancing regime. TenneT is also the designated TSO of the offshore electricity system in the North Sea.

The general tasks and organisation of TSOs equally apply to DSOs at the regional level, except for the balancing regime and the operation of the offshore system. In the Netherlands, there are seven designated DSOs, each covering a designated region. The largest DSOs are Liander, Stedin and Enexis. The DSOs have statutory tasks to develop, operate and maintain the distribution systems, the obligation to comply with a connection request within a certain reasonable period and for electricity DSOs, to provide for transport capacity in relation to the system connection.

Heat supply

Heat supply also play a key role in the energy transition in the Netherlands. According to the Heat Monitor 2019 (published on 25 August 2020 by Statistics Netherlands (CBS)), renewable heat contributes to 7 per cent of the total heat supply in the Netherlands and the number is still growing. The six largest (renewable) heat suppliers are Vattenfall, Eneco, Ennatuurlijk, HVC, Westpoort Warmte and Stadsverwarming Purmerend (SVP). The largest district heating areas are located in Amsterdam, Rotterdam, Utrecht and The Hague. In total, a number of 329,000 connections and 20.4 PJ of heat were realised and supplied in 2018. A heat supply permit is required from the Authority for Consumer and Markets (the ACM) to supply heat to household consumers (exceptions aside). Furthermore, the ACM establishes a maximum heat tariff and sets a maximum one-off contribution a heat supplier can charge to a heat consumer who has requested a connection to the heat system.

Hydrogen

On 30 March 2020, the Minister of Economic Affairs and Climate Policy published a letter to the House of Representatives on the government's hydrogen vision and the role of (carbon neutral) hydrogen to contribute to a carbon neutral energy system. Throughout the country, several hydrogen pilot projects are running or in the process of development. Parties such as Nouryon and Gasunie (in combined activities with BioMCN) are project partners in Project DJewels to realise a 20MW Electrolyser in Delfzijl). Another project of significance is Project Porthos (which is a development of CCUS infrastructure for blue hydrogen in the Port of Rotterdam, in cooperation with Gasunie and EBN). Also located in the Rotterdam area is the H-Vision project (realisation of production of blue industrial hydrogen, a cooperation with Air Liquide, BP, Deltalinqs, Gasunie and others). In Amsterdam, the Port of Amsterdam is currently active with project Hemweg hub Amsterdam (to realise of a 100MW green hydrogen plant as part of a hub (together with Vattenfall and Metropool Regio Amsterdam)). And finally, in the north of the Netherlands, the province of Groningen presents itself as a 'Hydrogen Valley' with one of the largest hydrogen projects, named Heavenn. This project focuses on sectoral integration of large scale production of green hydrogen and hydrogen energy applications, and researches wide applications of hydrogen as raw material for the industry, as well as the possibility of using it as an energy carrier for both the industry, the built environment and transportation (mobility).

Law stated - 24 September 2021

Definition of 'renewable energy'

Is there any legal definition of what constitutes 'renewable energy' or 'clean power' (or their equivalents) in your jurisdiction?

The Electricity Act includes the legal definition of 'renewable energy sources' and states: wind, solar energy, ambient air,

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surface water and geothermal heat, energy from oceans, water power, biomass, landfill gas, sewage gas, and biogas as such sources.

The Electricity Act also includes a legal definition for 'sustainable electricity', which is electricity generated from production installations that only use renewable energy sources, as well as electricity generated from renewable energy sources in hybrid production installations that also use conventional energy sources, including electricity generated from renewable energy sources used for accumulation systems; however, this is excluding electricity generated from accumulation systems.

Finally, a legal definition is given to 'climate neutral electricity' within the Electricity Act. This is electricity, generated from a production installation in which hydrogen or electricity is produced from fossil energy carriers, in which the released carbon or carbon dioxide will be re-used or stored in the underground and for which a certificate, as set out by ministerial regulation, is obtained.

Law stated - 24 September 2021

Framework

What is the legal and regulatory framework applicable to developing, financing, operating and selling power and 'environmental attributes' from renewable energy projects?

Electricity

The Electricity Act 1998 regulates the Dutch electricity market, together with the government and ministerial decrees related to the Electricity Act 1998. Next to these, detailed regulations are applicable such as the network codes determined by the Netherlands Authority for Consumer and Markets (ACM). These codes provide secondary legislation on tariffs, technical conditions and procedures with respect to inter alia system access, system operation and measuring services.

Coal-fired power plants

The 'Ban on the use of coal for electricity generators' Act phases out the use of coal to generate electricity completely per 1 January 2030. The act entered into force on 20 December 2019.

Even though the Act does not force coal-fired power plants to close down and only to ban the use of coal, the owners of these power plants (Uniper and RWE) have started legal proceedings against the Dutch state to compensate financial losses. Riverstone is the only party to accept an offer from the Dutch state to close down its coal-fired power plant 'Onyx Power' in Rotterdam (of 731 MW) of one's own accord, in exchange for remuneration.

Heat

The Heat Act regulates the Dutch heat supply market, currently only applicable to the supply of heat to household customers and small enterprises by large heat systems (such as district heating, and low temperature heating combined with heat pumps). The Heat Act regulates, amongst others, conditions for heat suppliers (such as a supply licence), maintenance of heat systems, maximum tariffs to be applied for heat supply and (third party) access for heat producers to heat systems.

Offshore wind energy

A specific licensing regime applies to offshore wind power generation, pursuant to the Offshore Wind Energy Act. Applicants must present a full financing, technical and economic plan for the realisation of an offshore wind farm, and

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licences are awarded only to the winner of the related (subsidy) tender. The first tenders were held through a permit application procedure for the exclusive right to build and operate an offshore wind farm within the location of the designated offshore wind energy site in combination with a SDE+-subsidy application.

In 2018, the Dutch government awarded the offshore wind farm licences to Vattenfall to develop two 350MW wind farms to be built by 2022. Vattenfall won the tender with a zero-subsidy bid. As a consequence, the regulatory offshore wind energy framework – initially primarily based on an SDE+-combined tender – needed to be reviewed, among others, to enable auctioning and other selection processes (eg, comparative assessment) as an option to issue an offshore wind farm licence. A bill to amend the Offshore wind energy Act was submitted to parliament on 28 November 2018 and approved by the House of Representatives on 9 February 2021. The Senate approved the bill on 29 June 2021.

Renewable energy subsidy

The subsidy sustainable energy transition Scheme (SDE++) supports qualifying renewable energy and CO₂-reduction projects. Producers and generators of renewable energy, applying CO₂-reduction techniques, may be eligible for the SDE++ subsidy. The difference between the former SDE+ subsidy and the SDE++-subsidy is that the first promotes production and generation of renewable energy, whereas the latter has broadened the focus not only to renewable energy production but also to CO₂ reduction. Subsidy can be granted per tonne avoided CO₂ emission.

Energy taxation

Users of electricity have to pay energy tax, varying from household customers of electricity who pay the energy tax through their energy bill received by their energy supplier to wholesale companies who use electricity obtained from a power exchange. However, users of renewable electricity are exempted from the energy tax. Furthermore, under certain other specific conditions, Energy tax can also be exempted. The Energy Tax is based on consumption volume against a rate (this rate is amended annually).

In addition to the energy tax, the electricity user is subject to the Sustainable Energy Surcharge (ODE), which is a surcharge to the Energy Tax and has a similar tariff system.

On 1 January 2021, a national CO₂ levy was introduced (and entered into force) for industrial production and waste incineration (the Industry Carbon Tax Act). This levy was introduced alongside the existing system for the pricing of CO₂ at EU level (EU-ETS). This tax measure will affect industrial companies in the Netherlands.

The system of the carbon tax coincides with the European emissions trading system. The EU-ETS sees to the restricted allowances for emitted greenhouse gases. Following this EU-ETS, a market price for carbon dioxide emissions is created to further stimulate CO₂ emission reduction in the Netherlands.

The industry carbon tax is related to this market price. The Dutch government introduces a statutory carbon rate (of which the amount is currently unknown). The carbon tax will be the difference between the statutory carbon rate and the (fluctuating) EU-ETS market price and is currently (2021) set at €30,48 per tonne CO₂-equivalent and will accumulate each year with €10,73 up to and including the year 2030 to end up at a rate of €127 per tonne CO₂.

Next to the Industry Carbon Tax Act, the 'Minimum CO₂-price power generation' Bill was submitted to Parliament on 3 June 2019, which is a separate carbon tax measure for power plants but with a similar taxation method as introduced by the Industry Carbon Tax Act. On 22 June 2021, the House of Representatives approved the bill. This bill is currently still under debate before the Senate.

Law stated - 24 September 2021

Stripping attributes

Can environmental attributes be stripped and sold separately?

Environmental attributes that can be stripped and sold separately in the Netherlands are the Guarantees of Origins (GoOs). Certificates of Origins (CoOs) are issued for electricity generated from fossil fuels and nuclear energy. These certificates are issued per 1 MWh of electricity generated from a (renewable) source by CertiQ to prove from which source the electricity is generated. In addition to renewable electricity (through sources such as solar, wind, water energy and biomass), generation of renewable heat (through sources such as biomass, solarthermia and geothermia) and electricity combined with heat (through biomass) can qualify for GoO/CoO certificates. We expect that a similar certification system will be set up for (green) hydrogen and stored CO₂.

For GoOs, it is important to ensure that the supplied energy is generated from renewable sources and to certify the correct implementation of the electricity labelling. The GoOs are issued digitally by CertiQ and are credited to a certificate account of a trader for trading purposes. GoOs are also necessary as proof to receive the Stimulation of Sustainable Energy-subsidy (SDE++).

CertiQ is a 100 per cent TenneT TSO NV subsidiary. TenneT is mandated by the Minister of Economic Affairs and Climate Policy (the Minister) to issue these certificates to proof its validity of origin. On 1 January 2020, the amended ministerial regulation (the 'Regulation on guarantees of origins and certificates of origins') entered into force, stipulating that supply of all electricity must be certified with a GoO or a CoO (known as the 'full disclosure' obligation) for reasons of transparency and sustainability.

Only GoOs and CoOs which are issued for electricity that is not supplied for own use, can be stripped, traded and sold separately.

Law stated - 24 September 2021

Government incentives

Does the government offer incentives to promote the development of renewable energy projects? In addition, has the government established policies that also promote renewable energy?

The Dutch government promotes the production and generation of renewable energy by awarding sustainable energy transition subsidy (SDE++).

Producers and generators of renewable energy, applying CO₂-reduction techniques, may be eligible for the SDE++ subsidy. The SDE++ subsidises the unprofitable top, which is the difference between the cost price of the technique (the base amount) and the market price.

The difference between the former SDE+-subsidy (from 2011 to 2020) and the SDE++-subsidy (since November 2020) is that the first promoted production and generation of renewable energy, whereas the latter has broadened the focus not only to renewable energy production but also to CO₂-reduction. A subsidy can be granted per tonne avoided CO₂-emission. The SDE++ subsidy scheme consists of a single round (with four phases) in 2021, which opens on 5 October 2021 and closes on 8 November 2021. For 2021, the Minister of Economic Affairs and Climate Policy ('the Minister') made available a budget of €5 billion. A maximum subsidy intensity for which the applicant SDE++ technology may be entitled to is set at €300 per tonne CO₂ reduction.

Other government methods to promote renewable energy and sustainable and environmental investments in environmentally friendly techniques through taxation incentives are the Environmental Investment Deduction (MIA) and the Arbitrary depreciation of environmental investments schemes (Vamil). These two tax incentives sees to a deduction facility (of up to 36 per cent) for investment costs and the possibility to choose when to write off the

investment costs (limited to 75 per cent) respectively. A third tax incentive is the Energy Investment Allowance (EIA), which is a tax reduction (of 11 per cent) when the taxpayer invests in energy efficient techniques and renewable energy.

Law stated - 24 September 2021

Are renewable energy policies and incentives generally established at the national level, or are they established by states or other political subdivisions?

Renewable energy policies and incentives are generally established at the national level. However, local and regional authorities play a major role to implement and set out further specific policies. Municipalities and provinces are and will be actively involved in renewable energy projects that see to the heat transition (the process to change from heating of buildings with natural gas to the use of renewable heat) on the one hand, and to implement the Climate Agreement (2019) by establishing (a total of 30) regional energy strategies (RES) on the other.

The heat transition is necessary as an alternative owing to the government's policy to phase out production (and therefore the use) of natural Groningen gas in 2030. In a draft bill to amend the Heat Act (which was publicly consulted in the summer 2020), municipalities will be given more powers to stimulate construction, installation and operation of collective heat systems as well as to ensure public interests.

The RES can be seen as an instrument to organise and implement spatial planning for the desired renewable energy projects in the particular region.

To establish a final version of a RES (before 1 October 2021), not only do municipalities and provinces have to work together, but all stakeholders, such as distribution system operators, industrial parties (if applicable), housing corporations, transportation sector and (household) consumers are asked for their input as well.

At the municipal level, municipalities must present a 'Heat Transition Vision' by the end of 2021. The Heat Transition Vision contains proposals on how to establish a sustainable and natural gas free supply of heat for buildings (and cooking). These proposals need to be established by municipalities in cooperation with real estate and property owners, residents, DSOs and other stakeholders.

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Purchasing mechanisms

What mechanisms are available to facilitate the purchase of renewable power by private companies?

The Electricity Act 1998 (and the Gas Act) provide for a mandatory 'ownership unbundling' of system operation activities. As a result, system operators may not form or be part of a company group that includes generation or production, trade or supply of electricity or gas. Furthermore, Dutch TSOs and DSOs are state-owned: their shares are held by the state, provinces and municipalities respectively.

The most important incentive to facilitate the purchase of renewable power by private companies is to buy and trade the guarantees of origins (GoOs) in relation to the produced renewable power. (Direct) power purchase agreements are usually agreed upon between private parties and are governed by contract law, such as when concerning a direct line on-site generation (ie, when a renewable energy producer directly produces or generates for the offtaker).

Law stated - 24 September 2021

Legislative proposals

Describe any notable pending or anticipated legislative proposals regarding renewable energy in your jurisdiction.

At the moment, law-making procedures have come to a halt owing to the slow-paced formation process of the government. Prior to the national elections in March 2021, two draft bills were published by the Minister of Economic Affairs and Climate Policy (the Minister). The first draft bill, presented on 17 December 2020, contains an overhaul of the current energy acts, which will also replace these acts (ie, the Electricity Act, the Gas Act and the Heat Act) (the Energy Bill). The Energy Bill envisages a modern, up to date, and comprehensive as well as future proof framework for the electricity and gas market to support energy transition in the Netherlands.

This major overhaul consists of plans to strengthen legislation with regard to future system integration (1st pillar), energy data as necessary and promising 'commodity' for the energy system (2nd pillar), adjusting systems to support the energy transition (3rd pillar), creating more possibilities for market initiatives (4th pillar), more protection for end consumers (5th pillar). The 6th and final pillar will regulate supervision. Finally, the Energy Bill will also implement EU 'Clean Energy Package' legislation. The draft Energy Bill has not yet been submitted to Parliament.

The second draft bill, which was published on 22 June 2020, sees to an overhaul of the current Heat Act to stimulate development of collective heat systems by introducing new (market regulation) rules; provide more transparency in tariffs and pricing; extend requirements regarding security of supply; and ensure sustainability.

On 5 July 2021, the caretaker State Secretary of Economic Affairs and Climate Policy announced in her letter to Parliament that she will not send the draft Bill on collective heat supply to the Council of State for its legislative advice, which means that the legislative process to amend the Heat Act is put on hold. The reason for this is the lack of support by municipalities, water boards and other local government bodies to the current draft bill.

Law stated - 24 September 2021

Drivers of change

What are the biggest drivers of change in the renewable energy markets in your jurisdiction?

One of the biggest drivers of change (in addition to the phasing out of production (and therefore the use) of natural Groningen gas in 2030) is the Urgenda case, brought on behalf of 886 Dutch citizens before the district court and its groundbreaking judgment on 24 June 2015, ruling that the government must cut its greenhouse gas emissions by at least 25 per cent by the end of 2020 (compared to levels in 1990). The district court judgment was upheld by The Hague Court of Appeal on 28 May 2018 and again before the Supreme Court on 20 December 2019.

Transportation capacity is scarce in certain areas in the Netherlands (where the electricity grid has not yet been fully developed) and therefore congestion and dispatching problems have risen in the last couple of years. This resulted in delays for renewable energy project developers such as solar PV parks and onshore wind farms, who need transportation capacity to start operating and supplying renewable electricity (in order to receive subsidy).

As an effect, and to ensure that distribution and transportation electricity systems are well equipped for the ongoing energy transition, the DSOs and TSOs are attracting funds to invest considerably in the grid expansion.

Next to the grid capacity problem, the Dutch Council of State ruled on 29 May 2019 that the Dutch nitrogen policy is in breach of the new EU (habitat and nature conservation) rules and regulations (nitrogen deposition is no longer allowed near or in Nature2000 areas). As a result, construction and environmental permits are difficult to obtain, putting many construction projects on hold, among them energy projects such as grid extension on transmission and distribution level.

Currently, the covid-19 pandemic has fuelled the energy transition process and the willingness to take action to reach a carbon neutral energy system in the Netherlands. One of the key focus areas is the development of blue and green hydrogen. This multi deployable gas can be used by industry, as fuel, and as an alternative source for heating of buildings. However, at the time of writing, there is no specific legislation applicable to hydrogen.

Most recently, after Urgenda , another groundbreaking judgment was given by the district court of The Hague. The case was brought before the court by seven Dutch environmental groups, among which the Dutch Friends of the Earth and more than 17,000 Dutch citizens against Royal Dutch Shell PLC (RDS). The District Court ordered RDS to cut its CO2 emissions with 45 per cent in 2030 compared to its CO2 emission levels in 2019. This unprecedented ruling may trigger legal actions against other companies in (and maybe even outside) the Netherlands.

Law stated - 24 September 2021

Disputes framework

Describe the legal framework applicable to disputes between renewable power market participants, related to pricing or otherwise.

In disputes pertaining to private law, parties can conduct legal proceedings before the district court and may submit a full appeal to the Court of Appeal. Subsequent to an appeal, cassation is open on limited grounds at the Dutch Supreme Court. Which particular court has jurisdiction is oftentimes agreed by parties in contract. Generally, these disputes are also arbitrable and may thus be arbitrated. The Netherlands Arbitration Institute (NAI)'s Arbitration Rules are most often applied in these type of disputes. A considerable pool of experienced arbitrators is available. Dutch law also provides for a particular form of dispute resolution that is generally referred to as 'binding advice'. This is a misnomer: it is a binding decision in a rather unstructured procedure. Generally, binding advice is only advisable for specific disputes on, for example the determination of a price or financial figure by an accountant or financial expert. Mediation is also often applied, albeit that mediation agreements are not yet enforceable as a matter of Dutch law. The Netherlands Mediation Institute and various other institutions provide standard sets of rules to govern mediation procedures.

In administrative disputes decisions of administrative authorities (of (decentralised) government (ie, state, provinces and municipalities) or other administrative authorities (such as the Authority for Consumers and Markets (ACM) and the Netherlands Emissions Authority (NEa)), are at issue. Legal proceedings pertaining to these disputes are governed by administrative law. The most important procedural provisions are laid down in the General Administrative Law Act (GALA), but sector-specific legislation and regulations may contain provisions that deviate from (and prevail over) the provisions laid down in the GALA. Pursuant to the GALA, generally, a decision of a public or administrative authority can be appealed in three consecutive instances: (1) objection proceedings, which are lodged at the competent authority that took the decision, (2) appeal proceedings, which are lodged at the district court and (3) appeal proceedings, which are lodged at the Council of State. Lodging an objection or appeal does not suspend the contested decision. To obtain a suspension of the contested decision pending administrative legal proceedings, a request for preliminary relief can be filed at the district court (or, in the case of a pending appeal, at one of the highest administrative courts (such as the Council of State or the Trade and Industry Appeals Tribunal). If such a request is granted, the decision may be suspended during the pending legal proceedings on the merits.

Pursuant to administrative law, there are many deviations from this 'general proceeding', both in the GALA itself and in sector-specific legislation and regulations, depending on the legal basis of the decision at issue. These deviations can pertain, inter alia, to which competent administrative district court an appeal can be brought (such as the Trade and Industry Appeals Tribunal instead of the Council of State), whether an interested party must lodge an objection prior to lodging an appeal (which is the general principle) or can directly appeal to an administrative court. As these deviations are too extensive to describe in this section, it is advised to always sort out thoroughly which proceeding administrative law prescribes for the specific administrative decision at issue.

UTILITY-SCALE RENEWABLE PROJECTS

Project types and sizes

Describe the primary types and sizes of existing and planned utility-scale renewable energy projects in your jurisdiction.

The largest renewable energy projects in the Netherlands are offshore wind energy, onshore wind energy and solar PV energy projects. Upcoming projects which are in pilot phase are blue (combined with CCUS) and green hydrogen projects.

The Climate Act (entered into force on 1 September 2019) sets targets to reduce greenhouse gas emissions by 49 per cent by 2030 and by 95 per cent by 2050 (versus 1990 levels). In 2020, the share of renewable energy grew from 8.8 per cent in 2019 to 11.1 per cent of the total energy use.

In 2019, offshore wind energy farms generated around 1 GW of renewable electricity. According to Dutch government, this number should grow to at least 4.5 GW in 2023. Around 12 wind farm zones with a capacity of 700MW each (to 1 GW for the IJmuiden Ver, Sites I to IV, planned to be tendered in 2023 and 2025) are scheduled in the North Sea.

As for other renewable energy projects: the largest solar PV energy projects in 2019 vary in size from 14MW to 103MW; and towards the end of 2019 a total of 3,534MW of wind energy capacity was operational in the Netherlands. Sizes of onshore wind farms vary from 6MW to 383MW (Wind farm Fryslân).

Law stated - 24 September 2021

Development issues

What types of issues restrain the development of utility-scale renewable energy projects?

Apart from local resistance to renewable energy projects such as onshore wind farms when a project lacks a local public support base, the following development issues restrain development of renewable energy projects.

Transportation capacity is scarce in certain areas in the Netherlands (where the electricity grid has not (yet) been fully developed) and therefore congestion and dispatching problems have risen in the last couple of years. This resulted in delays by renewable energy project developers such as solar PV parcs and onshore wind farms, who need transportation capacity to start operating and supplying renewable electricity (in order to receive subsidy).

The Minister addressed this problem, among others, by setting the condition that a transportation indication is needed from the DSO of the area in which the project will be constructed. This indication needs to be requested by the developer. An SDE-subsidy application can only be submitted if a positive transportation indication is granted by the regional DSO. This, however, does not bring an effective solution to the problem of scarce transportation capacity, which can only be solved by constructing new distribution and transmission systems, which take years to realise.

At the moment, (controversial) law-making procedures have come to a stop owing to the slow formation process of the government. Prior to the national elections in March 2021, two draft bills were published by the Minister of Economic Affairs and Climate Policy (the Minister). The draft bills see to an overhaul and amendment of the current Electricity Act and the Gas Act on the one hand, and the Heat Act on the other. The latter draft bill on amendment of the Heat Act is put on hold, as stated by the caretaker State Secretary of Economic Affairs and Climate Policy in her letter to Parliament of 5 July 2021.

Law stated - 24 September 2021

HYDROPOWER

Primary types of project

Describe the primary types of hydropower projects that are prevalent.

The Netherlands currently has three medium-sized hydroelectric power plants in operation, based near Dutch rivers such as:

- the Maas: Alphen/Lith (14MW capacity; owned and operated by Vattenfall) and Linne (11.5MW capacity; currently owned and operated by RWE); and
- the Nederrijn river: Maurik/Amerongen (with a 10 MW capacity; currently owned and operated by Vattenfall).

As mentioned, these hydroelectric power plants are located near the large Dutch rivers. The power plants generate electricity via conventional hydropower (via dam or barrages). There are also smaller hydroelectric power plants, mostly of the waterwheels type.

With only 0.08 per cent out of the 11.1 per cent consumption of renewable energy in the Netherlands in 2020, hydropower plays a minor role in the renewable energy mix in the Netherlands.

Law stated - 24 September 2021

What legal considerations are relevant for hydroelectric generation in your jurisdiction?

To construct and operate a hydropower plant, a water permit is required from the Minister of Infrastructure and Water Management (the Minister). The water permit is issued by the Minister, subject to conditions.

In a judgment from the Administrative Jurisdiction Division of the Council of State (the Administrative Jurisdiction Division) of 9 December 2020, RWE and Vattenfall, owners of the hydropower plants which are currently operational, lodged an appeal against the Minister's decision to grant the water permits for a specified period. The limitation of the validity period of the water permit was related to a 10 per cent limit of fish mortality. Both Vattenfall and RWE contended that the condition of limiting the validity period of the water permit (which is based on fish mortality of more than 10 per cent) is unnecessary and unreasonably onerous. The Administrative Jurisdiction Division ruled that – briefly put – the 10 per cent limit of fish mortality is not statutorily determined under the Environmental Management Act. The Minister has wrongly compared the results of fish mortality in relation to the 10 per cent limit resulting in wrongly setting the conditions and the limited validity period of the water permits. The Minister is ordered to review the conditions and to issue new water permits.

Law stated - 24 September 2021

DISTRIBUTED GENERATION

Prevalence

Describe the prevalence of on-site, distributed generation projects.

In the Netherlands, two kinds of onsite distributed generation projects can be distinguished. The first is the 'direct line'; this is either a connection between an electricity generator or producer and an offtaker or offtakers, not connected to a transmission or distribution system, or a connection between an electricity generator or producer and an offtaker or offtakers with of these parties connected to a transmission or distribution system.

The closed distribution system (CDS) is another form of onsite distribution generation. A CDS is a distribution system for which the requirement of appointing a system operator is exempted. Definitions of both the direct line and the CDS in the Electricity Act follow from EU regulations (ie, the preceding directives and the EU Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU).

The producer or generator that operates a direct line and supplies electricity to the offtaker does not have statutory (regulatory) obligations other than a notification obligation with the Authority for Consumer & Markets (ACM). The notification consists only of stating the producer's or generator's name and address, a general description of the direct line and an indication of where the direct line is located. A significant change compared to the original notification needs to be notified as soon as possible. The ACM keeps a notification register on its website. In 2020, four direct lines were notified, all of which are solar PV energy projects.

Next to the technical differences between a direct line and a CDS, the procedure of establishing a CDS differs substantially. A private owner of multiple natural gas or electricity systems, not being a distribution system operator (DSO), cannot operate his own gas or electricity system, but is required by law to designate a DSO. However, exceptions are applicable. If that is the case, the owner can apply for an exemption to the obligation of designating a DSO. These exceptions are when the gas or electricity system is located in a geographically delineated industrial area, with no more than 500 connections, which do not include household consumers and if safety and reliability of energy supply is sufficiently secured.

Law stated - 24 September 2021

Types

Describe the primary types of distributed generation projects that are common in your jurisdiction.

The primary types of distributed generation of renewable energy projects common in the Netherlands are onshore wind energy and solar PV energy projects. Other types of renewable energy projects are heat supply through aquathermia (such as thermal energy from surface water, drinking water and waste water). Upcoming projects which are in pilot phase are blue (combined with CCUS) and green hydrogen projects.

Distributed generation projects can be either a 'direct line'; as a connection between an electricity generator or producer and an offtaker or offtakers, not connected to a transmission or distribution system, or a connection between an electricity generator or producer; and an offtaker or offtakers with these parties connected to a transmission or distribution system; or a 'closed distribution system' (CDS). A CDS is a distribution system for which the requirement of appointing a system operator is exempted. Agreements on offtake of heat or energy are governed by contract law.

Solar PV projects can be third party owned and mounted on rooftops of logistics centres or other large industrial buildings or ground mounted. Ownership of the solar PV panels by the panel supplier or solar PV project developer is guaranteed by creating rights of superficies (notarial deed) or (under conditions) through rental agreements.

Law stated - 24 September 2021

Regulation

Have any legislative or regulatory efforts been undertaken to promote the development of microgrids? What are the most significant legal obstacles to the development of microgrids?

Microgrids are not very common in the Netherlands. Dutch transmission and distribution system operators are statutorily obligated to connect anyone who requests a connection to the grid. Microgrids without a connection to the transmission or distribution grid are not very common.

However, microgrids which are an on-site, distributed generation project through a 'closed distribution system' (CDS) exist in the Netherlands. A CDS is a distribution system for which the requirement of appointing a system operator is exempted, when certain conditions are met. Agreements between parties are governed by private law.

If energy storage is part of a microgrid, then a significant obstacle to the development of microgrids is the 'double taxation' of electricity in relation to energy storage. At the time of writing, the supply of (renewable) electricity to an energy storage operator is levied via the Energy Tax. Under certain circumstances, not only the supply of (renewable) electricity is taxed but also the consumption of the supplied electricity. This mostly regards energy storage via a large-scale consumer connection. The caretaker State Secretary of Finance intends to resolve this bottleneck per 1 January 2022, as stated in his letter to Parliament of 20 April 2021.

Law stated - 24 September 2021

Other considerations

What additional legal considerations are relevant for distributed generation?

Supply of electricity to household consumers is regulated. If a microgrid energy supplier intends to supply to this group of consumers, a supply permit needs to be obtained by the ACM. However, there are exceptions to the permit obligation.

Law stated - 24 September 2021

ENERGY STORAGE

Framework

What storage technologies are used and what legal framework is generally applicable to them?

Currently, large-scale energy storage in the Netherlands mostly sees to storage of natural gas and CO₂. Experiments are currently underway with regard to storage of (renewable) electricity. There are pilot projects to convert renewable electricity to hydrogen, which can be stored in the natural gas buffer Zuidwending (project Hystock). The pilot project of Nuon Magnum plant to convert natural gas (to start with) to hydrogen in combination with CCUS is another energy storage project related to hydrogen. Depleted salt caverns will be made ready as a facility to store CO₂ or hydrogen.

Law stated - 24 September 2021

Development

Are there any significant hurdles to the development of energy storage projects?

At the time of writing, there are no regulations on electricity storage. European legislation stipulate that transmission and distribution system operators are not allowed (or only under certain conditions) to own, develop or operate energy storage facilities.

A major hurdle to stimulate and develop renewable energy storage is the problem of the double taxation with regard to the Energy Tax as well as the tariff structure for passing on net tariffs for electricity. The caretaker State Secretary of Finance intends to remove the double taxation-bottleneck per 1 January 2022, as stated in his letter to Parliament of 20 April 2021.

Law stated - 24 September 2021

FOREIGN INVESTMENT

Ownership restrictions

May foreign investors invest in renewable energy projects? Are there restrictions on foreign ownership relevant to renewable energy projects?

The Electricity Act 1998 (and the Gas Act) provide for a mandatory 'ownership unbundling' of system operation activities versus production and supply activities. As a result, system operators may not form or be part of a company group that includes generation or production, trade, or supply of electricity or gas.

Dutch TSOs and DSOs are state-owned: their shares are (directly or indirectly) held by the state, provinces and municipalities respectively. These strict requirements are not applicable to energy supply companies as the energy supply market in the Netherlands is fully liberalised. The largest energy suppliers to small-scale end-users are held by foreign entities. For example, in March 2020, Eneco, owned by 44 Dutch municipalities, was sold to Mitsubishi Corporation (80 per cent) and Chubu Electric Power (20 per cent).

Law stated - 24 September 2021

Equipment restrictions

What restrictions are in place with respect to the import of foreign manufactured equipment?

Currently, there are no restrictions that specifically pertain to energy equipment. General import rules and regulations apply.

Law stated - 24 September 2021

PROJECTS

General government authorisation

What government authorisations must investors or owners obtain prior to constructing or directly or indirectly transferring or acquiring a renewable energy project?

With regard to the construction or expansion of (1) a wind farm with a capacity of at least a 100MW size, or (2) a production installation other than a wind farm with a capacity of at least a 50MW size, or (3) a production installation that does not generate renewable electricity, with a capacity of at least a 500MW size, a special administrative coordination procedure is applicable. The project developer (producer) is obligated to notify (in writing) plans to construct or expand a production installation as soon as possible to the Minister of Economic Affairs and Climate Policy. This administrative coordination procedure entails the coordination of all required environmental and building permits. After notification, the Minister will assess whether an administrative coordination procedure needs to be applied.

Next to this, a change of control (as referred to in article 26 of the Competition Act) with regard to large-scale (renewable) energy production installations should be notified to the Minister at least four months prior to closing of the intended transaction. The Minister can prohibit or attach conditions to the transaction for reasons of safeguarding public safety or security of supply.

Law stated - 24 September 2021

Offtake arrangements

What type of offtake arrangements are available and typically used for utility-scale renewables projects?

Depending on the renewable energy source, offtake arrangements such as power purchase agreements (in any form) are typically used in the Netherlands. With regard to heat, specific heat supply agreements are used. These arrangements are governed by Dutch contract law.

Law stated - 24 September 2021

Procurement of offtaker agreements

How are long-term power purchase agreements procured by the offtakers in your jurisdiction? Are they the subject of feed-in tariffs, the subject of multi-project competitive tenders, or are they typically developed through the submission of unsolicited tenders?

Long-term power purchase agreements are usually arranged between private parties and are therefore governed by private (general) contract law.

Law stated - 24 September 2021

Operational authorisation

What government authorisations are required to operate a renewable energy project and sell electricity from renewable energy projects?

Government authorisations are required when it concerns the environmental aspects of the construction of a renewable project, the application of the Stimulation of Sustainable Energy-subsidy (SDE++). However, no government authorisations are required to sell electricity from renewable energy projects, except for the rule that a permit is required to supply electricity to consumers.

Law stated - 24 September 2021

Decommissioning

Are there legal requirements for the decommissioning of renewable energy projects? Must these requirements be funded by a sinking fund or through other credit enhancements during the operational phase of a renewable energy project?

Decommissioning of renewable energy projects is governed by environmental law. When obtaining the specific permits, the corresponding conditions entail, among others, the set-up of a decommissioning plan, the required timeline in which decommissioning should be completed and arranging funds (ie, providing a bank guarantee).

Law stated - 24 September 2021

TRANSACTION STRUCTURES

Construction financing

What are the primary structures for financing the construction of renewable energy projects in your jurisdiction?

Many renewable energy projects can benefit from state subsidies. That being the case, they usually provide for a solid and predictable cash flow. That makes them suitable for non-recourse or limited-recourse project financing. Renewable energy projects that use tested technology can benefit from debt financing already in the construction stage. In addition to debt financing, Dutch and foreign investors are active in the Dutch market that provide for equity funding. The most common model is a combination of equity investment and project financing, also during the development phase.

Law stated - 24 September 2021

Operational financing

What are the primary structures for financing operating renewable energy projects in your jurisdiction?

In general, the financing structures during the operating phase are similar to those in the construction phase. Debt financing during operating phase can be in the form of non-recourse project financing. Debt financing during construction phase can provide for limited recourse to project parties to cover construction risks. During the operating phase, the financing is typically a mix of long-term project financing and equity investment.

Law stated - 24 September 2021

UPDATE AND TRENDS

Recent developments

Describe any market trends with respect to development, financing or operation in the renewables sector or other pertinent matters.

Hydrogen

On 30 March 2020, the Minister of Economic Affairs and Climate Policy published a letter to the House of Representatives on the government's hydrogen vision and the role of (carbon-neutral) hydrogen to contribute to a carbon-neutral energy system. Throughout the country, several hydrogen pilot projects are running or in the process of development. Parties such as Nouryon and Gasunie (in combined activities with BioMCN) are project partners in Project DJewels: realisation of a 20MW Electrolyser in Delfzijl); Port of Rotterdam with Project Porthos (which is a development of CCUS infrastructure for blue hydrogen in the Port of Rotterdam, together with Gasunie and EBN) as well as H-Vision (production of blue industrial hydrogen in Rotterdam, together with Air Liquide, BP, Deltalinqs, Gasunie and others); Port of Amsterdam with project Hemweg hub Amsterdam (realisation of a 100MW green hydrogen plant as part of a hub (together with Vattenfall and Metropool Regio Amsterdam)); but also in the north of the Netherlands (Groningen) presenting itself as a 'Hydrogen Valley' with one of the largest hydrogen projects, Heavenn, which focuses on sectoral integration of large-scale production of green hydrogen and hydrogen energy applications. This project researches wide applications of hydrogen as raw material for the industry, but also as an energy carrier for both the industry as well as the built environment and as fuel for the transportation sector (mobility). These projects are mostly based on public-private partnerships between project partners.

Heat

Heat supply plays a key role in the energy transition in the Netherlands. According to the Heat Monitor 2019 (published on 25 August 2020 by Statistics Netherlands (CBS)), renewable heat contributes to 7 per cent of the total heat supply in the Netherlands and the number is still growing. The six largest (renewable) heat suppliers are Vattenfall, Eneco, Ennatuurlijk, HVC, Westpoort Warmte and Stadsverwarming Purmerend (SVP). The largest district heating areas are located in Amsterdam, Rotterdam, Utrecht and The Hague. In total, a number of 329.000 connections and 20.4 PJ of heat were realised and supplied in 2018.

Large data centres signed a declaration in which they commit themselves to (on request) supply residual heat from data centres free of charge to heat suppliers.

The reason why renewable heat projects are becoming more important is (next to the Paris Agreement obligations) owing to the urgency to find alternatives related to the government's policy to phase out production (and therefore the use) of natural Groningen gas in 2030. In a draft bill to amend the Heat Act (which was publicly consulted in the summer 2020), municipalities will be given more powers to stimulate construction, installation and operation of collective heat systems as well as to ensure public interests.

Law stated - 24 September 2021

Describe any notable pending or anticipated legislative proposals.

At the moment, law-making procedures have come to a halt owing to the slow-paced formation process of the government. Prior to the national elections in March 2021, two draft bills were published by the Minister of Economic Affairs and Climate Policy (the Minister). The first draft bill, presented on 17 December 2020, contains an overhaul of the current energy acts, which will also replace these acts (ie, the Electricity Act, the Gas Act and the Heat Act) (the Energy Bill). The Energy Bill envisages a modern, up-to-date, and comprehensive, as well as future-proof, framework for the electricity and gas market to support energy transition in the Netherlands.

This major overhaul consists of plans to strengthen legislation with regard to future system integration (1st pillar), energy data as necessary and promising 'commodity' for the energy system (2nd pillar), adjusting systems to support the energy transition (3rd pillar), creating more possibilities for market initiatives (4th pillar), more protection for end consumers (5th pillar) and the 6th and final pillar will regulate supervision. Finally, the Energy Bill will also implement EU 'Clean Energy Package' legislation. Even though the consultations were closed long before the national elections of 2021 (the draft Energy Bill ended on 11 February 2021), the bill was not submitted by the Minister to the House of Representatives.

The second draft bill, which was published on 22 June 2020, sees to an overhaul of the current Heat Act to: stimulate development of collective heat systems by introducing new (market regulation) rules; provide more transparency in tariffs and pricing; extend requirements regarding security of supply; and ensure sustainability.

On 5 July 2021, the caretaker State Secretary of Economic Affairs and Climate Policy announced in her letter to Parliament that she will not send the draft Bill on collective heat supply to the Council of State for its legislative advice, which means that the legislative process to amend the Heat Act is put on hold. The reason for this is the lack of support by municipalities, water boards and other local government bodies to the current draft bill.

Hydrogen transport, distribution and supply is currently not regulated. The Gas Act stipulates rules and regulations with regard to natural gas. However, on 3 June 2021, the ACM stated in its Signal 2021 (an annual statement in which the ACM signals a gap in legislation and to call for action by the government to either present solutions or modifications or amendments), the ACM calls upon the government to regulate hydrogen supply to household consumers (for heating purposes), not only in view of consumer protection but also in view of safety and creating a legal basis for current

natural gas (transport and distribution) operators to enable them to take part in hydrogen experiments or pilot projects.

The caretaker State Secretary for Economic Affairs and Climate Policy reacted to ACM's Signal 2021 in a letter to Parliament dated 8 June 2021, stating – in brief – that preparations will commence to amend the Gas Act in light of the legislative gaps with regard to hydrogen transport, distribution and supply (to household consumers).

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Law stated - 24 September 2021