Investments in Poland – General Requirements and Funding

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Waste-to-energy technologies has as in other Central and East European countries not enjoyed much interest or importance in Poland so far. In 2010, in Poland only one installation for thermal treatment of municipal waste was in operation. However, this situation is about to change, due to European standards regarding waste reduction and generation of energy from renewable sources, which Poland as a Member State of the EU has to fulfil.

The European Union law provides for a legal framework, which regulates the entire waste cycle from generation to disposal within the Community. Emphasis is placed on recovery and recycling of waste with a simultaneous reduction of harmful emissions released into the air. Member States must ensure that existing landfill sites may not continue operation unless they are made compliant with the provisions of the Directive as soon as possible. The Directive also obliges the Member States to redirect biodegradable waste, so that two-thirds of it are disposed by using methods other than landfill. In order to meet these standards, after a negotiated transitional period, the Polish waste law established the following deadlines for landfilling of biodegradable waste, referring to the amount of waste produced in 1995:

- Until 31st December 2010 – not more than 75 %,
- Until 31st December 2013 – not more than 50 %,
- Until 31st December 2020 – not more than 35 %.

Biodegradable waste in this context means any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard. Besides, until 31st December 2011 theoretically many of the Polish landfill sites will have to be closed, because they do not comply with the standards of the Directive 1999/31/EC.

Directive 2009/28 EG on the promotion of use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EG and 2003/30/EG obligates Poland to increase the share of energy from renewable sources in gross final consumption of energy from 7,2 % up to 15 % before 2020.

Having the aforesaid goals in mind and taking into account the energetic value of biomass, waste-to-energy technologies are about to become a very interesting investment sector in Poland. In the Operational Programme Infrastructure and Environment for 2007 to 2013, the construction of 10 incinerators for municipal waste in different Polish cities had been planned. After serious delays the first tenders are now on their way.

1. Waste law

1.1. Amendment of the law on cleanliness and tidiness in municipalities

On 17th May 2011 the Sejm adopted an amended law on cleanliness and tidiness in municipalities and forwarded it to the Senat, the second chamber of the Polish legislative body. The amended law contains several provisions, which shall render the waste management more efficient by extending the recycling level, the recovery of selectively collected waste and also reducing the amount of waste subject to biodegradation.

Planning and organization of municipal waste management is within the responsibility of the municipalities, but has not been very effective under environmental aspects so far. Certain obligations of the municipalities, which have been contained in waste law so far, will be specified in the new law on cleanliness and tidiness in municipalities. According to the new law, the municipalities will take over the obligation of the real estate owners regarding management of municipal waste. They will conduct tenders in order to establish the company in charge of the collection of municipal waste. By way of municipal county resolution municipalities will determine the fee to be paid by the citizens for this service. .

Besides, the municipality's responsibility for the construction and operation of new modern installations for treatment of waste, including its elimination and recovery has been expressly stated and specified in the new law.

Municipalities will be obliged to reach the following levels by 31 December 2020:

- of recycling and preparation for re-use of the following fractions of municipal waste: paper, metal, synthetic material and glass to the amount of a minimum of 50 % in terms of weight;
- of recycling, preparation for re-use and recovery by other means of other than dangerous construction and demolition waste to the amount of 70 % in terms of weight.

Municipalities falling short of the aforementioned thresholds may be subject to fine, imposed by the Environmental Protection Inspectorate.

The new law is expected to become effective by the end of 2011 and will include grace periods.

1.2. Permit for recovery and/or elimination of waste

Any person possessing waste, which recovers or eliminates waste, generally is obliged to obtain a permit for carrying out such activity. The permit is issued upon application of the entrepreneur for a period of maximum 10 years. Competent authority for the issuance of the permit is principally the district administrator, in certain cases it will be the Marshall of the Voivodship or the Regional Director for Environmental Protection.

The application for issuance of the permit has to contain amongst others the following information:

- A break-down of the sorts of waste intended for recovery and/for elimination
- Determination of the amounts of waste of different sorts committed to recovery and/or elimination within one year,
- Estimated duration of waste recovery and/or elimination activity
- Detailed description of used methods for waste recovery and/or elimination, including indication of the recovery and/or elimination process in line with the legal listing of recovery and elimination processes, as well as description of the technological process.

1.3. Thermal treatment of waste

The rules on thermal treatment of waste are mainly included in the waste law and in three executive regulations to the waste law. According to the waste law, thermal treatment may take place in waste incinerators as well as in installations for co-incineration of waste. Waste incinerators and installations for co-incineration of waste must be projected, constructed, equipped and operated in a manner, which guarantees a level of thermal treatment for which the amount and contagiousness for human life, health and/or the environment of waste and other emission accruing as a result of thermal treatment of waste will be as low as possible.

The entrepreneur operating the waste incinerators and/or the installations for co-incineration of waste has several obligations, in order to secure waste management safe for human beings and environment, including amongst others:

- Upon collection of waste
  - Determination of the mass of waste
  - Checking received waste in terms of compliance with the data in the delivered information on waste
  - Becoming acquainted with the provided description of received waste
  - Taking samples in order to verify compliance of the waste with the physical and chemical composition and the characteristics as contained in the delivered description of waste, yet before unloading of the waste
  - Retaining the samples for minimum one month after thermal treatment of the waste.
- Physical and chemical examination of the waste generated as a result of the thermal treatment of waste, especially regarding fractions of heavy metals
- Employment of a manager for the waste incinerators and/or the installations for co-incineration of waste, possessing a certificate stating his qualifications in the field of waste management. Such certificate is issued by the Marshal of the relevant Voivodship after the candidate has passed an examination related to waste management.

Exemptions from the aforementioned obligations regard, amongst others, waste incinerators and/or the installations for co- incineration of waste which exclusively treat certain biomass waste as listed in the waste law.

2. Energy law

According to the Action Plan of the Polish Ministry of Economy from December 2010, biogas and biomass will have an essential share within energy from renewable energies. Generation and sale of renewable energy (hereinafter also: RE), including energy from biomass but exempt generation of energy from agricultural biogas, require a license issued by the Energy Regulation Office (further: URE).

So far, in Poland there is no special law on renewable energy. Instead, the relevant regulations have been included in the Energy Act dated 10th of April 1997, last amended on 1st of January 2011 uniform text.

2.1. Promotion of renewable energy and energy from CHP

Promotion of renewable energy in Poland takes place, amongst others, by a system of tradable certificates, not by feed-in tariffs. In order to fulfil the quota of 15 % by 2020, the system of tradable certificates had been extended in 2010. For RE from different sources, the URE issues differently coloured certificates (green, yellow, red, purple and brown). Purple certificates can be obtained since August 2010, and since January 2011 brown certificates are supposed to be available for generation and feed-in of agricultural biogas into the gas distribution system. However, since no regulation containing necessary implementing provisions to brown certificates has been adopted so far, issuance of brown certificates actually cannot yet take place.

In detail, the correlation between certificates and colours is as follows:

- green certificates for electric energy generated from renewable energy sources (hereinafter: RES),
- yellow certificates for electric energy generated by high duty combined heat and power (hereinafter: CHP), either with a capacity of less than 1 MW, or generated from gas fuels,
- red certificates for electric energy generated by other high duty CHP,
- purple certificates for electric energy generated by high duty CHP from mine gas or with biogas from biomass,
- brown certificates for agricultural biogas.

Yellow and red certificates will be issued until 31st of March 2013, purple certificates will be issued until 31st of March 2019.

The mechanism of tradable certificates works as follows: energy suppliers, end-users and broker institutions, as defined by law, are obliged to submit a certain number of green, yellow, red and purple certificates to the URE for confiscation before 31st March of the year following the year in which they are purchased. Otherwise, the entrepreneur must pay a compensation fee. Compensation fees are of different amounts, depending on the certificate category for which the quota has not been fulfilled. One factor within the formulas for calculation of the relevant compensation fee is the so called *compensation fee per unit*.

The valorised compensation fee per unit for green and brown certificates for 2011 e.g. amounts to PLN 274,92. For 2012 the compensation fees per unit for yellow certificates amount to PLN 128,80 per MWh, for red certificates PLN 29,30 per MWh and for purple certificates PLN 60,00 per MWh.

The URE issues the certificates on application of the producers of the given form of RE through the network operator, in the activity area of which the RES and the CHP entity respectively is located. The producer can register and trade these certificates at the Polish Power Exchange. Therewith he has a second, next to the sale of the generated RE, revenue. The certificates are purchased by energy suppliers, end-users and broker institutions, who have to fulfil the given quota. Market prices for the certificates are indirectly established by the abovementioned compensation fees.

The obligation to submission of RES and/or CHP certificates is considered to be fulfilled, if the quantitative share of the amount of electric energy as documented in the RES and / or CHP certificates which have been obtained and submitted for confiscation, and/or resulting from the paid compensation fee within the entire annual energy sale to end-users by a given energy company amounts to a certain (minimum) percentage.

Table 1: Current percentages for RES-certificates and for CHP-certificates

	2011	2012	2013	2014	2015	2016	2017
green/brown	10,4	10,4	10,9	11,4	11,9	12,4	12,9
yellow	3,3	3,5					
red	22,2	23,2					

The percentages for purple certificates are still to be established.

The system of tradable certificates is being complemented by grid priority, which has been established in favour of energy from RES and in high duty CHP. The law also provides for take-over obligations of network operators to the benefit of energy generated from agricultural biogas and by high duty CHP. Besides, energy suppliers certified by way of tender, so called *suppliers of the last resort* have the obligation to purchase all energy from RE sources connected to the network in the activity area of the given energy supplier, offered by certified producers, at a price being the average electricity price for the previous year as announced by URE. These certified energy suppliers sell the energy to private households, which did not exercise the right, to choose an energy supplier.

Renewable energy investments and other environment-friendly and/or energy-saving investments may be funded by European grants and subsidies.

2.2. Energy from biomass

For energy purposes (in particular obtaining a licence and applying for certificates) generally, the following definition of biomass applies: Biomass consists of solid and/or liquid substances of vegetable and/or animal derivation, which are subject to biological degradation, stemming from products, waste and residues from agricultural and/or forestry production, as well as from industries processing its products and also consists of parts of remaining waste, which are subject to biological degradation, as well as of grains not subject to or excluded from supporting purchase.

A very important factor when producing renewable energies form waste is the term biomass waste and the question what makes up biomass waste. The definition of biomass for energy purposes indicates that of key importance is the biodegradation of fractions of products, remains and waste.

Therefore, every waste, which consists of biodegradable fractions, including industry and municipal waste, may qualify as biomass waste. A definition of biomass waste is contained in the Polish waste law: Waste being subject to biodegradation means waste, which is subject to aerobic and/or anaerobic decomposition by microorganisms.

The criteria of biodegradation decides whether the given waste is biomass waste and if it can be used for renewable energy purposes, e.g. as AGRO biomass.

In order to restrict the use of biomass from wood, which may and will be used for economically more profitable purposes, the law establishes certain minimum shares of so-called AGRO biomass within the amount of biomass entirely used for energy purposes, depending on electric capacity and applied technology for generation of RE. If these minimum shares are not met, the energy from this source may not be recognized as energy from RES and will not participate in the benefits for RE. In particular, the entrepreneur operating such energy source will not get any certificates for the energy generated in this source.

Biomass AGRO comprises biomass

- from energetic crops and/or
- waste and remains from agricultural production and from industries processing its products and
- grains not subject to or excluded from supporting purchase and
- parts of remaining waste, which are subject to biological degradation

excluding waste and remains from forestry production, as well as from industries processing its products.

For the purposes of generation of renewable energy, in Poland it is common to use biomass as a single fuel in biomass installations, as well as the technology of co-firing of biomass, hybrid technology and the technology of combined heat and power (CHP).

Renewable energy from municipal biomass waste

Municipal waste consists largely of biomass waste and is therefore very suitable for the purposes of generating renewable energy. However, since municipal waste is mixed waste (biomass waste and other components), it is necessary for the operator of the waste incineration plant to keep exact records in order to establish the real share of renewable energy within the entire amount of energy recovered from waste. Otherwise, no promotion by way of certificates will be obtained.

The waste law defines municipal waste as waste accruing in households, except vehicles out of commission, as well as waste not containing dangerous waste, which originates from other producers of waste and – regarding its character and composition – is similar to waste accruing in households. The law contains nine requirements, which jointly need to be fulfilled for classification of a part of the energy recovered from thermal treatment of municipal waste as energy from renewable energy sources.

Only the below types of fractions, after thermal treatment in waste incinerators, may be recognized as biodegradable fractions and therefore as suitable for recovery of renewable energy:

- subscreen fraction with a granulation of 0-20 mm
- kitchen waste originating from plants and/or animals, garden waste or waste from green areas
- wood
- paper and/or board
- textiles out of natural fibres
- multi-material waste
- leather

Combusted mixed municipal waste must contain at least one of the aforementioned biodegradable fractions; otherwise, it will not qualify as renewable energy.

The most important requirement is the threshold of 42 %. This means that the flat value of the share of chemical energy of biodegradable fractions within the chemical energy of the entire amount of mixed municipal waste, which is submitted to thermal treatment, must reach the level of 42 % of the entire energy recovered. Only such level or larger qualifies this part of energy as renewable energy. If the share of chemical energy of biodegradable fractions remains beneath 42 %, it will also be excluded from promotion as renewable energy.

Other requirements provide, amongst others, that:

- mixed municipal waste originates exclusively from areas, where waste is collected selectively with the purpose of being subjected to other recovery processes, including recycling
- the subscreen fraction is part of mixed municipal waste, which is subject to aerobic and/or anaerobic decomposition by microorganisms.

It is further required to conduct an examination of the proportion of chemical energy of biodegradable fractions within the chemical energy of the entire mass of mixed municipal waste submitted to thermal treatment. The examination must take place on the basis of the methodology of examinations, which confirm the real proportion of chemical energy of biodegradable fractions within the chemical energy of the entire mass of mixed municipal waste. The methodology is determined by regulation. The examinations are to be effected by an accredited laboratory or a laboratory possessing certain certificates or certain authorization as determined by law.

Finally, the entrepreneur needs to keep a credible record regarding the amount and quality of waste delivered for the purposes of thermal treatment and regarding the results of examinations.

2.3. Energy from biogas

For energetic purposes, the Polish law defines biogas as gas derived from biomass, particularly from installations for the transformation of animal and/or vegetable waste, sewage plants and landfills. Methane rich biogas emerges as a result of anaerobic digestion and is very suitable for generation of electric energy.

Electric energy from a source generating energy from biogas is recognized by law as energy generated in RES. Best use of biogas, however, may be made by applying combined heat and power technologies (CHP), which allow for simultaneous generation of heat and power during the same technological process. The Polish law also recognizes the term *High duty CHP* (HD CHP). This means generation of electric and/or mechanic energy and useful heat by means of CHP, which secures saving of primary energy. As to the amount of savings, the law differs between HD CHP entities with an installed energy capacity of less than 1 MW and such with an installed energy capacity of 1 MW and over. For entities with installed energy capacity of less than 1 MW, any savings in comparison with generation of energy in installations with separate generation of heat and power, which possess efficiency reference values for the separate generation, are sufficient. In entities with installed energy capacity of 1 MW and more, only savings of minimum 10 % in comparison with the aforementioned installations with separate generation of heat and power, qualify the produced energy as generated in HD CHP.

Entrepreneurs investing in generation of electric energy from biogas should use the HD CHP technologies, because only for electric energy generated by HDCHP the CHP certificates will be granted. RES-certificates will be granted for generation of electric energy from biogas in a biogas power plant.

High duty combined heat and power (HD CHP)

However, in order for energy to be recognized as energy generated by means of high duty combined heat and power and, thus, to get CHP certificates for such energy, a couple of legal requirements need to be fulfilled.

The first one is already included in the definition of HD CHP: The criteria of primary energy savings. The installation must provide such savings, depending on its size, either in an amount of more than 10 % or in any amount.

As the definition of HD CHP shows, another essential element of HD CHP technology is the generation of useful heat. Useful heat in HD CHP is obtained from outlets and mouthpieces of steam turbines, heat recovery steam generators , heating plant gas turbines and combustion engines, forming a separate set of installations in a given combined heat and power unit, which is delivered to installations and/or heat supply networks. Besides, the generated heat must be designated for particular purposes, i. e heating of buildings and preparation of warm tap water, industrial technological processes, for facilities used in agriculture, vegetable and or animal production in order to secure adequate temperature and moisture in these objects as well as for generation of coolness in the aforesaid cases.

Since HD CHP energy is based upon energy from CHP, also the element which constitutes energy from CHP must be fulfilled: A certain annual marginal average efficiency regarding the conversion of chemical energy from fuel into electric energy and heat (further: annual marginal average efficiency). The law establishes different types of installations used in CHP units and two different values of annual marginal average efficiency. For gas-steam facilities with recovery of heat and steam turbines with outlet-condensing the annual marginal average efficiency amounts to 80 %. For other installations, as e.g. microturbines, combustion engines, Stirling engines and gas turbine with recovery of heat the annual marginal average efficiency amounts to 75 %.

If the aforesaid requirements are fulfilled, all the generated energy qualifies as HD CHP energy. This means that for certificate purposes the generated electric energy from CHP complies with the generated electric energy. For units which do not reach the abovementioned

marginal percentages of average efficiency, the generated electric energy from CHP for certificate purposes is established using a coefficient for CHP. The coefficient determines the proportion of electric energy from CHP to useful heat in CHP.

If within a CHP unit combusted are gas fuels, mine gas or gas from biomass in the meaning of the law of biocomponents and liquid biofuels together with other fuels (co firing), for HD CHP purposes the electric energy corresponding to the chemical energy of gas fuels, mine gas or gas from biomass is being accounted for.

3. Spatial planning issues

According to the Polish law, the mandatory tasks of municipalities within the management of municipal waste include in particular: waste disposal, municipal waste collection, reduction of biodegradable waste collection, including waste recovery. These tasks are implemented in accordance with the local zoning plans and studies on the spatial conditions and planning. Therefore, waste recovery plants may be located only on the basis of the aforementioned planning instrument. In the event that there is no local zoning plan in place in the municipality, the location of the project shall take place upon obtainment of the Decision on Land Development and Management Conditions. Please note that, due to the fact that most Polish municipalities do not have a local zoning plan implemented, the location of the project will take place pursuant to a Decision on Land Development and Management Conditions.

The local zoning plan is resolved by the local municipality council after stating its compliance with the provisions of the study on the spatial conditions and planning. The procedure of adoption of the local zoning plan is very time-consuming and involves a number of arrangements, consultations and opinions. Also, the local communities might give their opinion as to the provisions of the plan.

Another option to locate waste recovery plants, in case of a lack of the local zoning plan, may be Decision of a Public Purpose Investment. Obtainment of the Decision of a Public Purpose Investment is more beneficial for the investor, due to the fact that the whole investment process is much faster.

Under the Polish law, the waste recovery plants may be classified as public utility. According to the Act on the Management of Real Estate, only certain construction projects can be classified as public utility investments. The catalogue of public utility enterprises is closed and cannot be extended. The Polish law provides for the stipulations that waste recovery plants and sewage plants are included in the above mentioned catalogue. Construction and maintenance of public facilities for public water supply, storage, transmission, treatment and disposal of sewage and waste recovery and disposal may be classified as a public utility.

4. Concessions

For companies investing in waste recovery the provisions of the Polish Law on Concessions will be of special interest. The granting of concessions is the most likely way in which municipalities will try to realize its tasks of securing the construction, maintenance and operation of regional installations for processing of municipal waste, as established in the new Law on Cleanliness and Tidiness in Municipalities.

The rules on concessions are contained in the Act on Concession for Construction Works or Services of 9th January 2009 (further: the *Concession Act*) and apply to contracts concluded

by authorities and public agencies. Concession procedures differ from *classic* public procurement procedures in so far as the concessionaire is not entitled to fixed remuneration and he predominantly bears the economic risk of the investment.

The Concession Act provides for a special procedure regarding selection of the concessionaire. Opening of the procedure takes place, depending on contract value, by announcement of the tender in the Supplement to the Official Journal of the European Union or in the Public Procurement Bulletin. EU thresholds apply. The deadline for submission of bids is in principle 21 days, in urgent cases – 14 days, and for tenders on European platform – minimum 45 days. Regularly contracting authorities apply the minimum time limits, in order to avoid allegations as to irregularities of the tender procedure.

Within the tender procedure, the contracting authority defines needs and requirements regarding the project. It is also possible to put for tender the preparation of functional and technical requirements to the project at the same time.

Contractors interested in a tender need to deliver the following declarations, in order to be admitted to tender procedure:

- Information on economic and financial abilities
- Information on technical and professional qualifications, including know-how and references, technical potential, availability of required professionals for performance of the project
- Information on concessions and permits, if needed for the performance of the project
- Criminal clearance certificate.

Only the contractor, the bid of which had been selected, has to submit documents confirming his ability to perform the concession contract. Declarations alone are sufficient for participation in the tender procedure.

After submission of bids, the contracting authority invites all contractors, which submitted a proper bid, to negotiations. The object of negotiations covers every aspect of the project, thus legal, financial and technical aspects. After the end of negotiations, the contracting authority may alter tender conditions and also – ratio legis – other conditions, so far not included in the tender, and invite to submission of binding bids. However, the Concession Act is not clear in this point, so we have to wait and see how administrative practice will develop.

Selection of bids takes place according to the criteria provided in the tender. Therefore, tender criteria may not be modified.

The concession contract must contain certain essential terms of contract, without which the contract will not be legally enforceable, as e.g. object of concession, performance deadline, contract period, remuneration, mode of payment, diversification of risks, requirements regarding quality, other requirements and standards and supervision over the object of concession by the contracting authority.

The Concession Act not only defines the content of the contract, to a significant extent, but it also restricts the amount of remuneration. The remuneration of a private partner in a concession contract consists of the right to use the construction facility and/or to provide services, or this right together with a payment of a sum of money by the grantor. The payment from the grantor to the concessionaire may not lead to a recovery by the concessionaire of all costs and expenses incurred by the concessionaire in relation to the performance of the concession contract. The key economical risk related to the performance of the concession contract lies with the concessionaire.

According to a brochure released by the Public Procurement Office at the end of 2010 *Public Private Partnership. A guidebook* (Partnerstwo Publiczno-Prywatny. Poradnik), the request to the concessionaire to incur the essential part of the economic risk means that the grantor's payments to the concessionaire may not exceed 50 % of the costs accrued in connection with realization and performance of the project, irrelevant of the manner, in which the second half of costs and connected risks are/will be incurred.

The Concession Act also restricts the term of the concession contract. The period, for which the concession contract is concluded, should take into consideration the recovery of the costs and expenses incurred by the concessionaire in relation to the performance of the concession contract, and may not be longer than:

- 30 years, when a concession for construction works in concerned
- 15 years, when a concession for services is concerned.

The above limitations are not unconditional. Should the recovery of the costs and expenses incurred by the concessionaire be expected to take longer than 15 or 30 years, then the concession contract may be concluded for a longer period.

Modifications of the concession contract are allowed only if they were not foreseeable upon the conclusion of the contract.

The ownership right to the object of the concession always belongs to the grantor. Therefore, only tenancy, leasing contracts etc. are suitable for concession contracts.

The aforementioned brochure of the Public Procurement Office represents a rigorous interpretation of the provisions on awarding subcontracts: private concessionaires (i.e. not being public contractual authorities), if they award contracts with a value exceeding the EU thresholds to subcontractors, always need to apply certain provisions of the Public Procurement Law. In the opinion of the Public Procurement Office, such obligation occurs also if subcontractors, upon submission of the request for the conclusion of a concession contract or submission of a bid to the contracting authority, already had been engaged.

5. Environmental issues

5.1. Emissions of substances or dust into the air

Polish law provides for clean air standards, which need to be kept in order to secure the best air quality. To certain types of installations, amongst others installations combusting and/or co combusting waste and installations combusting fuels, special emissions standards apply, provided for in the Regulation on Emissions Standards for Installations, as amended on 10th May 2011 (further: the Regulation). Emission standards refer e.g. to dioxins and furans, sulphur dioxide, heavy metals and their compounds, and carbon monoxide. They differ, amongst others, depending on the type of activity, the technological process and/or technical operations and time of handing over for operations, time of end of operations and/or further entire time of operation.

The provisions and emissions standards for installations combusting waste and co-combusting waste do not apply to installations which exclusively combust or co-combust biomass waste in the meaning of the Regulation. Biomass waste in the meaning of the regulation means:

- Vegetable waste from agriculture and forest
- Vegetable waste from food processing industry, if the generated thermal energy is recovered

- Fibered vegetable waste from production of primary cellulosic mass and from process of paper from such mass, if this waste is combusted in the place, where it originates and the generated thermal energy is recovered
- Cork waste,
- Waste from wood, except wood waste, which may contain fluoric organic compounds and/or heavy metals as a result of treatment with means for wood impregnation and/or coating, in particularly wood waste originating from construction, and waste from demolition.

Since however fuel within the meaning of the Regulation comprises biomass waste, to such installations the emissions standards and provisions for installations combusting fuel apply. They also apply to biogas, which is likewise included in the definition of fuel.

Use of facilities, which release dust or gases into the air, generally is subject to permit.

Exceptions are contained in the Regulation of the Minister of Environment on Cases, in which Emission of Dust and/or Gases into the Air is not subject to Permit. The exceptions comprise, amongst others, power plants of up to 10 MW when firing biomass together with certain other fuels and power plants of up to 15 MW when firing biomass together with certain other fuels, under the condition however, that certain values for nominal heat capacity are not exceeded. Exempted from the obligation to obtain a permit also are waste water cleaning plants.

The permit is usually issued by the district administrator for a maximum period of 10 years.

5.2. Environmental permit

30 % of the land surface of Poland is environmentally protected. Of particular importance when erecting waste recovery installations is therefore the statutory requirement to obtain an environmental permit for certain investments. If such requirement exists in the given case, the investor has to file the application for issuing the environmental permit yet before application for issuing of certain decisions, as specified by the law (e.g. building permit).

The environmental permit is required only for those projects, which can have a *significant impact on the environment*. The law defines such projects as follows: on one hand, there are projects which are always assumed to have a significant impact on the environment (group 1), and on the other hand there are projects where an audit has to be carried out by the authorities, in order to state if such projects can have a significant impact on the environment (group 2). Proceedings vary depending on whether the investment falls in group 1 or group 2.

The classification of projects into group 1 or group 2 is contained in the new *Regulation on Projects, which can have a significant Impact on the Environment*, dated 9th of November 2010. According to this regulation different types of installations for treatment of waste are listed as group 1 or group 2 projects. Regarding waste recovery plants, the following provisions are important:

Installations for recovery and/or elimination of waste other than dangerous waste under use of thermal and/or chemical processes are listed as group 1 projects; exempted are however installations combusting waste which is biomass within the meaning of the provisions on Emissions Standards for Installations. The definition of biomass for emissions standards purposes differs from the definition of biomass for energy purposes. Therefore, entrepreneurs operating waste-to-energy plants should check whether the biomass used for generating energy is covered by this definition or not.

If a waste recovery plant is not subject to the aforementioned provision, it still might be comprised by a corresponding provision, which qualifies certain waste treatment installations as group 2 projects. This provision refers to installations in connection with recycling and elimination of waste, other than those listed as group 1 projects. This provision also refers to waste-to-energy plants generating energy from solid biomass as well as from biogas. Exemptions from this provision concern amongst others agricultural biogas plants of an electric capacity of up to 5 MW and/or biogas facilities generating the equivalent amount of agricultural biogas used for other purposes than the generation of electric energy.

In case of projects, which are always assumed to have a significant impact on the environment (group 1), one of the requirements for issuing the environmental permit is the execution of an environmental impact assessment. Moreover, the investor has to prepare and submit a report on the impact of the investment on the environment (hereinafter: the environmental report). The environmental report includes information regarding the impact of the project on the environment, including flora, fauna with bird protection, noise level appraisal, as well as geological documentation. Alternative scenarios should be provided for in the report, in order to offer an option guaranteeing the lowest possible environmental impact. Impact on Natura 2000 areas should also be mentioned, and this is particularly important for projects to be located in the vicinity of such areas.

In case of group 2 projects, the authorities state by way of decision whether the execution of an environmental impact assessment is obligatory in the given case. If so, the authorities also state the volume of the environmental report, which is then to be prepared by the investor.

In general, an environmental permit is issued if the planned investment is in conformity with the provisions of the local zoning plan, provided that such plan is in place. When considering such a decision, the relevant authorities take into account the results of the environmental report, but also feedback from cooperating authorities and the local population. The procedure is open to the public, and NGOs also have the right to participate without having to justify their legal interest. Such organizations also enjoy the right to file their opposition with an administrative court.

In the environmental permit, the competent authorities specify, inter alia,

- the manner and place of project implementation,
- the conditions for the use of the area,
- the requirements of the environmental law, which must be considered in the building design, and
- measures to prevent, restrain and monitor the impact on the environment, if the environmental impact assessment states such necessity.

In cases of group 2 projects, for which authorities could state no need for carrying out an environmental assessment, the environmental permit confirms the lack of such obligation.

The environmental permit is valid for four years. It becomes the basis of further permits, particularly for building and water management permits. It also provides the basis for the occupancy certificate, which means that if the conditions described in the environmental permit are violated, or if the underlying circumstances change, the occupancy certificate cannot be issued. The authority responsible for issuing environmental permits is usually the municipality.

Natura 2000 environmental permit

A permit similar to the environmental permit, this being a permit concerning the *agreement of conditions for implementing a project with regard to its impact on a Natura 2000 area* (hereinafter: the *Natura 2000 environmental permit*) must be granted for investments not directly connected with a designated Natura 2000 area or result from its protection, and for which the authorities imposed the obligation to carry out an environmental impact assessment. These investments are different from the ones subject to the statutory requirement to obtain the environmental permit talked about above. When an investor applies for issuing any sort of permit, the competent authorities are obliged to check if the investment, for which the permit shall be issued potentially might have a significant impact on a Natura 2000 area.

Natura 2000 areas are protected territories designated by the legislator on the basis of the Birds Directive 79/409/EEC and the Habitats Directive 92/43 EEC, which have been approved by the European Commission and to which, consequently, the program Natura 2000 applies. The register of the protected areas is available on the websites of the Minister of Environment, of the Voivodship authorities, of national parks and of NGOs. The Natura 2000 network is incomplete and will be extended in the near future. NGOs have already submitted the so-called shadow list with appropriate suggestions. When selecting a location for a RE installation, there should always be an investigation conducted as to whether the respective site is located in or near such a territory.

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