



# Legal Opinion – Legal Aspects of European Energy Data

**Output 2 of the "Study on the quality of  
electricity market data" commissioned by the  
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# 1. PREFACE AND USE CASES

This legal opinion addresses the legal situation of the reuse<sup>1</sup> of data in both the European and Germany energy markets. In particular, we focus on such data that is covered by transparency regulation. Neon was in charge of this section, with the contribution of Dr Till Jaeger, Certified Copyright and Media Law Attorney.

Transparency regulation on the national and European level in the field of energy markets requires the establishment of transparency platforms and the publication of data. For example, the central information transparency platform on the European level (“ENTSO-E”) shall be available to the public free of charge through the internet and the data shall be up to date, easily accessible, downloadable and available for at least five years.

As a consequence to the legal requirements to transparency in the field of the energy markets the stakeholders in this market shall receive fundamental information of the functioning and shall, among others, increase the security of energy supplies.<sup>2</sup> Energy data comprises, among others, the following data:

- The actual total load of energy<sup>3</sup>
- The actual generation and consumption of energy per type (i.e. biomass, fossil brown coal etc.)<sup>4</sup>
- Installed generation capacity according to each country and production type<sup>5</sup>

However, the potential use of the published data is not restricted to accessing the information provided by ENTSO-E and other transparency platforms. The data provided by data owners can be aggregated, used as input for computer models and analysed in many ways for scientific and commercial purposes. In the following, all these usages based on data that is published for transparency purposes are referred to as “reuse of data”.

Reuse of data may have a wide range of advantages: using energy data is of tremendous importance for market actors and system operators as well as for policy and research. Short-term and mid-term production planning as well as investment decisions by utility companies are based on computer models that require large amounts of energy data, such as hourly-resolution electricity demand, projected generation of wind and solar power, and availability of conventional plants. Similar computer models are used for wholesale trading on power exchanges. Transmission system operators require data for short-term and real-time operation of the transmission grid as well as long-term planning of grid expansion. Researchers, consultants and policy advisers use data-intensive computer models for everything from policy evaluation to long-term scenario-based policy design.

Against this background, we have identified the following use cases for the reuse of energy data for further legal analysis:

1. Downloading data from a public accessible data platform for private reasons and taking a look at it
2. Downloading data from a public accessible data platform for professional purposes (commercial use within a company and research at university)
3. Sending downloaded data to a colleague, member of the same team
4. Sending downloaded data to a colleague from another university or company

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<sup>1</sup> In this context, “reuse” means any activity to copy, modify, publish or distribute energy data or communicate the data to the public subsequently to the publication by the data provider.

<sup>2</sup> See Recital 4 of Regulation (EU) No 543/2013

<sup>3</sup> <https://transparency.entsoe.eu/load-domain/r2/totalLoadR2/show>

<sup>4</sup> <https://transparency.entsoe.eu/generation/r2/actualGenerationPerProductionType/show>

<sup>5</sup> <https://transparency.entsoe.eu/generation/r2/installedGenerationCapacityAggregation/show>

5. Putting downloaded data on an internal network drive or database in order to share it with colleagues
6. Downloading data and using it privately in a visualization app (e.g. showing yesterday's evolution of load and wind power generation)
7. Downloading data and using it commercially in a visualization app (e.g. showing yesterday's evolution of load and wind power generation) and selling the app
8. Using data as input to a computer model and publishing the model results
9. Publishing downloaded data along with research results in an academic journal that requires publication of data and models
10. Using data as input to a computer model and selling the data-model package including the data
11. Modifying data (e.g. re-scale) and sharing with a colleague in the same company or university
12. Downloading data and putting it on a website for free, along with other free-of-charge data
13. Downloading data, modifying it (e.g. re-scale), and putting it on a website for free
14. Downloading data, modifying it (e.g. re-scale), and putting it on a website under an open data license, such as Creative Commons

The question in focus is whether these activities are allowed and under which conditions this is the case.

First, we describe the legal background of the statutory requirements for the publication of energy data in the EU and in Germany as well as the protection of data under copyright law (II.). Following, we provide an analysis whether the activities described in the uses cases are permitted under applicable law (III.). Finally, we take a closer look at current legislative projects which might change the legal situation (IV.) and provide guidance how to create legal certainty by appropriate licensing and provisions in multilateral agreements (V.).

## **2. LEGAL BACKGROUND**

In order to clarify the legal background of the reuse of energy data we summarise the statutory requirements for the publication of energy data in the EU and Germany on the one hand (1.) and describe the legal protection of databases and which exceptions exist (2.). Subsequently, we reflect upon the relationship of transparency obligations and copyright protection in the field of energy data.

### **2.1 Statutory Requirements for the Publication of Energy Data**

Statutory requirements for the publication of data exist on the national and international level.

#### ***2.1.1 European Law***

The legislative basis on transparency in the energy market in the EU consists of the following legal acts:

- Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003<sup>6</sup>
- Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency<sup>7</sup>

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<sup>6</sup> <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32009R0714>

<sup>7</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32011R1227>

- Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council<sup>8</sup>

**a) Regulation (EC) No 714/2009**

Regulation (EC) No 714/2009 lays down requirements for Transmission System Operators (TSOs) to publish data on the availability of networks, capacities of cross-border interconnectors and generation, load and network outages. Article 15 of Regulation (EC) No 714/2009 reads as follows:

*"Provision of information*

- 1. Transmission system operators shall put in place coordination and information exchange mechanisms to ensure the security of the networks in the context of congestion management.*
- 2. The safety, operational and planning standards used by transmission system operators shall be made public<sup>9</sup>. The information published shall include a general scheme for the calculation of the total transfer capacity and the transmission reliability margin based upon the electrical and physical features of the network. Such schemes shall be subject to the approval of the regulatory authorities.*
- 3. Transmission system operators shall publish estimates of available transfer capacity for each day, indicating any available transfer capacity already reserved. Those publications shall be made at specified intervals before the day of transport and shall include, in any event, week-ahead and month-ahead estimates, as well as a quantitative indication of the expected reliability of the available capacity.*
- 4. Transmission system operators shall publish relevant data on aggregated forecast and actual demand, on availability and actual use of generation and load assets, on availability and use of the networks and interconnections, and on balancing power and reserve capacity. For availability and actual use of small generation and load units, aggregated estimate data may be used.*
- 5. The market participants concerned shall provide the transmission system operators with the relevant data.*
- 6. Generation undertakings which own or operate generation assets, where at least one generation asset has an installed capacity of at least 250 MW, shall keep at the disposal of the national regulatory authority, the national competition authority and the Commission, for five years all hourly data per plant that is necessary to verify all operational dispatching decisions and the bidding behaviour at power exchanges, interconnection auctions, reserve markets and over-the-counter-markets. The per-plant and per hour information to be stored shall include, but shall not be limited to, data on available generation capacity and committed reserves, including allocation of those committed reserves on a per-plant level, at the times the bidding is carried out and when production takes place."*

**b) Regulation (EU) No 1227/2011**

Additionally, Art. 4 of the Regulation (EU) No 1227/2011 recognizes that publication of inside information:

*"Article 4*

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<sup>8</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32013R0543>

<sup>9</sup> Underlining by the author of this legal opinion.

### *Obligation to publish inside information*

1. Market participants shall publicly disclose in an effective and timely manner inside information which they possess in respect of business or facilities which the market participant concerned, or its parent undertaking or related undertaking, owns or controls or for whose operational matters that market participant or undertaking is responsible, either in whole or in part. Such disclosure shall include information relevant to the capacity and use of facilities for production, storage, consumption or transmission of electricity or natural gas or related to the capacity and use of LNG facilities, including planned or unplanned unavailability of these facilities.

2. ...

3. ....

4. The publication of inside information, including in aggregated form, in accordance with Regulation (EC) No 714/2009 or (EC) No 715/2009, or guidelines and network codes adopted pursuant to those Regulations constitutes simultaneous, complete and effective public disclosure."

### **c) Commission Regulation (EU) No 543/2013**

Finally and according to the Commission Regulation (EU) No 543/2013 a central information transparency platform has been established and is operating within the European Network of Transmission System Operators for Electricity (hereinafter referred as "ENTSO-E"). This Regulation lays down the minimum common set of data relating to generation, transportation and consumption of electricity to be made available to market participants. It also provides for a central collection and publication of the data. The European Network of Transmission System Operators for Electricity is established as a central information transparency platform. The ENTSO-E shall publish on the central information transparency platform all data which Transmission System Operators are required to submit to the ENTSO-E.

However, the aforementioned regulations do not contain any explicit stipulations about the reuse of published energy data. They regulate *what* information has to be published and in which form but there are no requirements of which rights of use have to be granted to the stakeholders of the energy market or the general public accordingly.

### **2.1.2 German Law**

The German Renewable Energies Act from 2017 (EEG 2017)<sup>10</sup> stipulates in its part 5:

*"Transparency*

*Division 1*

*Obligations to communicate and publish information*

*Section 70*

*Principle*

*Installation operators, grid system operators and electricity suppliers must provide to one another without delay the data required for the nationwide equalisation pursuant to Sections 56 to 62, and particularly the data cited in Sections 71 to 74. Section 62 shall be applied mutatis mutandis.*

*Section 71*

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<sup>10</sup> English version available at [http://www.bmwi.de/Redaktion/EN/Downloads/E/eeg-2017-gesetz-en.pdf?\\_\\_blob=publicationFile&v=3](http://www.bmwi.de/Redaktion/EN/Downloads/E/eeg-2017-gesetz-en.pdf?__blob=publicationFile&v=3), German version available at [http://www.gesetze-im-internet.de/eeg\\_2014/](http://www.gesetze-im-internet.de/eeg_2014/)

### *Installation operators*

*Installation operators must provide the grid system operator with*

- 1. all the necessary data for the final invoicing of the preceding calendar year by 28 February of a year for each installation,*
- 2. information as to whether and to what extent, for the electricity generated in the installation, ...*

### *Section 77*

#### *Information to be provided to the public*

*(1) Transmission system operators must publish on their websites:*

- 1. the information pursuant to Sections 70 to 74 immediately following their transmission and*
- 2. a report on the determining of the data transmitted by them pursuant to Sections 70 to 74 without delay after 30 September of a year.*

*Only the post code and the municipal code shall be cited for the location of installations with a maximum installed capacity of 30 kilowatts. They must retain the information and the report until the end of the following year. This shall be without prejudice to Section 73 subsection 1.*

*(2) The transmission system operators must publish the payments pursuant to Section 57 subsection 1 and sold quantities of electricity pursuant to Section 59 and the information pursuant to Section 72 subsection 1 number 1 letter c in line with the Renewable Energy Sources Ordinance on a joint website in non-personal form.*

*(3) The information and the report must enable a qualified third party to fully understand the payments and the commercially purchased quantities of electricity without further information.*

*(4) Information which is published online in the register does not have to be published by the grid system operators."*

As on European level, EEC 2017 regulates *what* information has to be published and in which form but there are no requirements of which rights of use have to be granted to the stakeholders of the energy market or the general public accordingly.

## **2.2 Legal Protection of Databases under Copyright Law**

Hereinafter, we describe the legal protection of databases (a) and its limitations (b) in general and provide an analysis whether energy data published on transparency platforms is protected as a database under copyright law (c).

### **2.2.1 Copyright Protection of databases**

"Directive 96/9/EC of the European Parliament and of the Council of 11 March 1996 on the legal protection of databases"<sup>11</sup> contains the statutory framework for the protection of databases. The protection is twofold:

- Databases which, by reason of the selection or arrangement of their contents, constitute the author's own intellectual creation shall be protected as such by copyright (Article 3).
- Independently, Member States shall provide for a right for the maker of a database which shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents to prevent extraction and/or re-utilization of the whole or of a substantial part, evaluated qualitatively and/or quantitatively, of the contents of that database (Article 7).

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<sup>11</sup> <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:31996L0009>



In the field of energy data, transparency regulation specifies which data has to be selected for publication and how to arrange it. Thus, there is little scope left for data providers for an own intellectual creation resulting in classical copyright protection. Accordingly, for the purpose of this legal opinion, we do not assume any copyright protection of energy data under Article 3 of Directive 96/9/EC or Section 4 (2) of the German Copyright Act.

Directive 96/9/EC established in its Article 7 a so called "*sui generis* database right" which was newly introduced at that time and which does not exist in other jurisdictions outside the European Union. The *sui generis* database right is similar to copyright but is not granted for an intellectual creation but for the financial and professional investment made in obtaining and collection the contents.<sup>12</sup> German law makers have adopted the *sui generis* database right in Section 87a ff. German Copyright Act.

According to Article 1 Directive 96/9/EC and Section 87a (1) 1 German Copyright Act a *database* shall mean a "*collection of independent works, data or other materials arranged in a systematic or methodical way and individually accessible by electronic or other means*".<sup>13</sup> Additionally, and to be subject to legal protection there has been qualitatively and/or quantitatively a substantial investment of the maker of a database in either the obtaining, verification or presentation of the contents.

Thus, the protection does not cover a single data but certain collections of data to a database. Furthermore, the software to manage a database is a separate subject matter of copyright protection (as a computer program) and does not fall under the scope of the *sui generis* database right.

To determine whether a database is protected by the "*Sui generis* Database right" the following requirements need to be met:

- Existence of a "collection"
- Subject of the collection are "data or other independent elements"
- The data needs to be "arranged in a systematic or methodical way"
- The data needs to be "individually accessible"
- There has been "qualitatively and/or quantitatively a substantial investment of the maker of a database in either the obtaining, verification or presentation of the contents"

Accordingly, we have analysed these five criteria with regard to typical energy data as required to be published at ENTSO-E and German transparency platforms (see examples above).

### **2.2.2 Energy Data protected as a Database**

#### **a) Collection**

Neither the German Copyright Act nor the Directive 96/9/EC contain a definition of what is considered a "*collection*" of data. Courts provide examples but have not defined the boundaries of the term.

Mostly, it is required that there is an "*intention to collect data*" and the factual "*bringing together*" of data.<sup>14</sup> According to Art. 1 of the Regulation 543/2013 the regulation "*provides for a central collection and publication of the data*". Thus, information about the total load of energy consumption in various countries, the generation of energy per

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<sup>12</sup> Recital 39 of Directive 96/9/EC

<sup>13</sup> English version of the German Copyright Act available at [http://www.gesetze-im-internet.de/englisch\\_urhg/index.html](http://www.gesetze-im-internet.de/englisch_urhg/index.html)

<sup>14</sup> See *Dreier/Schulze-Dreier, UrhG*, 4. Aufl., § 87a, para 4.

production type (Biomass, fossil brown coal, gas etc), installed capacity per production type and many other information as well are collected and the results are therefore and without doubt a "collection" of data.

#### **b) Data or independent elements**

Energy data is stored as electronic information and the collections consist therefore of classical data in the meaning of Directive 96/9/EC.

#### **c) Arranged in a systematic or methodical way**

An arrangement in a *systematic* way requires predefined logical and objective criteria. An arrangement in a *methodical* way requires a certain purpose of the planned structuring. Typical examples are the alphabetical or chronological arrangement.<sup>15</sup>

The regulation on submission and publication of data in electricity markets provides clear specifications how to structure the energy data. A good example is Art. 7 of Regulation (EU) No 543/2013 with regard to information relating to the unavailability of consumption units. The information is structured in:

- bidding zone,
- available capacity per market time unit during the event,
- reason for the unavailability,
- the estimated start and end date (day, hour) of the change in availability;

For the avoidance of doubt, we want to emphasize that the systematic or methodical arrangement does not need to be creative. Even simple structuring as an alphabetical order suffices. The required publication of energy data on transparency platforms as ENTSO-E is structured in a systematic way and meets the criterion of the definition of a database.

#### **d) Individually accessible data**

The criterion of "*individually accessible data*" is interpreted in a broad way,<sup>16</sup> although it is not entirely clear what are the concrete requirements for it. Nevertheless, the criterion is satisfied in any event if any single information can be accessed and/or researched by electronic means as a search engine.

The information published by ENTSO-E is individually accessible and the requirement is met. Even if not all information is individually accessible the accessible parts of the collection of data would be considered a database.

#### **e) Substantial investment**

Article 7(1) Directive 96/9/EC provides for specific protection, called a *sui generis* right, for the maker of a database within the meaning of Article 1(2) of the directive, provided that it "*shows that there has been qualitatively and/or quantitatively a substantial investment in either the obtaining, verification or presentation of the contents*".

The investment does not need to be a financial one but may consist of labour or technical resources.<sup>17</sup> However, the investment must refer to the obtaining, verification or presentation of the contents of a database whereas the creation of the data itself has to be disregarded. Hence, the European Court of Justice ruled in *British Horseracing Board*:

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<sup>15</sup> See BGH GRUR 2011, 724, 725 – *Zweite Zahnarztmeinung II*

<sup>16</sup> *Dreier/Schulze-Dreier*, UrhG, 4. Aufl., § 87a, para 8.

<sup>17</sup> See BGH GRUR 2011, 724, 725 – *Zweite Zahnarztmeinung II*.

*"The expression 'investment in ... the obtaining ... of the contents' of a database in Article 7(1) of the directive must be understood to refer to the resources used to seek out existing independent materials and collect them in the database. It does not cover the resources used for the creation of materials which make up the contents of a database."* (European Court of Justice, 09.11.2004 - C-203/02 – British Horseracing Board).

When examining whether here there has been qualitatively and/or quantitatively a substantial investment the creation of the data does not have to be taken into account. Most of the energy data is created during the operation of transmission system operators and power plant operators. Accordingly, any investment made later to the creation which is necessary for the obtaining, verification or presentation of the contents within a database has to be taken into account (e.g. running a platform to publish the data, technical investment to structure the content and to make it easily accessible etc.).

Against this background, it is a case-by-case decision whether a substantial investment has been made into a collection of energy data. For those who want to reuse the published data it is usually not apparent if the data provider has made a substantial investment (e.g. which resources have been used with a view to ensuring the reliability of the information contained in that database, to monitor the accuracy of the materials collected when the database was created and during its operation) and, hence, the database is protected by the *sui generis* right.

Up to now, the Federal Court of Germany was quite liberal in assessing a substantial investment and accepted any "not entirely insignificant, from anyone easily to render investments".<sup>18</sup> In the decision *Zweite Zahnarztmeinung II* the Federal Court of Germany considered the amount of EUR 4.000 for obtaining, maintenance and further development of the database management software as well as the verification of 3.500 valuations as sufficient.

Thus, any person who wants to reuse a database with energy data has to assume that the database is protected by copyright, i.e. the *sui generis* database right according to Article 7 of the Directive 96/9/EC.

### **2.2.3 Limitations on the Protection of the *sui generis* right**

Article 9 of the Directive 96/9/EC allows Member States to stipulate limitations on the *sui generis* database right:

*"Exceptions to the sui generis right*

*Member States may stipulate that lawful users of a database which is made available to the public in whatever manner may, without the authorization of its maker, extract or re-utilize a substantial part of its contents:*

*(a) in the case of extraction for private purposes of the contents of a non-electronic database;*

*(b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved;*

*(c) in the case of extraction and/or re-utilization for the purposes of public security or an administrative or judicial procedure.*

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<sup>18</sup> BGH GRUR 2011, 724 – Zweite Zahnarztmeinung II.

Under the German Copyright Act the appropriate regulation can be found in Section 87c.<sup>19</sup>

It shall be noted that these exceptions have little significance in the field of energy data. Extractions for private purposes are restricted to non-electronic databases. However, ENTSO-E and other transparency platforms publish electronic databases. Furthermore, the use for both, private purposes and scientific research, is restricted to “*substantial parts*” of the database and does not allow any reuse of complete databases. To maximize the accuracy of analysis, industry analysts and research will regularly make use of all data available. Hence it is plausible to assume that users of the Transparency Platform will often download an entire database.

### **2.3 Relationship between Transparency Obligations and Database Rights**

Transparency obligations about energy data are limited to the publication of the data. *Inter alia*, the goal of the transparency obligations is to allow new market participant access to market information which was prior unevenly distributed among market participants with large incumbent players having exclusive access to information in relation to their own assets.<sup>20</sup> However, Article 3 reads as follows:

*“The central information transparency platform shall be available to the public free of charge through the internet and shall be available at least in English. The data shall be up to date, easily accessible, downloadable and available for at least five years. Data updates shall be time-stamped, archived and made available to the public.”*

Any other reuse beyond accessing, reading and downloading the data is not mentioned in Regulation 543/2013.

The question arises as to whether Regulation 543/2013 provides a limitation to the *sui generis* database right and how the relationship is formed among these statutory provisions.

Under traditional German doctrine in copyright law the limitations in Section 87c German Copyright Act contain a definitive list.<sup>21</sup> Exceptions may be based on constitutional rights or the European fundamental rights and liberties. However, general law cannot limit the exclusive rights a right-holder of copyrights or neighbouring rights might have.

As a result, Art. 3 of Regulation 543/2013 and similar provisions have to be interpreted in a way that the data providers, e.g. ENTSO-E, have the obligation to license the *sui generis* database rights so as to allow the public to access and download the data on and from the website of the data provider. Insofar as the license conditions of a data provider do not comply with the requirements of the Regulation 543/2013 the reuse cannot be directly deducted from the Regulation but the data provider might be in breach of the regulation and legal recourse might be possible.

### **2.4. Right-holders of the Energy Data published on the ENTSO-E Transparency Platform**

The data published on the ENTSO-E Transparency Platform stems from several sources and is stored in several differing databases:

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<sup>19</sup> See below 3.1.2

<sup>20</sup> See recital 5 of the Regulation 543/2013

<sup>21</sup> *Schricker/Loewenheim-Loewenheim, Urheberrecht*, 5. Aufl. 2017, § 87c, para 1.

- Transmission system operators, power plant operators and other Primary Data Owners
- Energy exchanges and other "intermediaries" (which might be at the same time Primary Data Owners) that serve as Data Providers
- ENTSO-E

This raises the question of who has to be considered the right-holder of the data available on the ENTSO-E Transparency Platform and who has the legal power to license *sui generis* database rights. A first review of how data is collected, processed and forwarded from Primary Data Owners to Intermediaries and, finally, to ENTSO-E shows that substantial investments are made at all levels.

Primary Data Owners collect the data to be published according to Regulation (EU) No 543/2013 and Regulation (EU) No 1227/2011. Additionally, several Primary Data Owners collect data for their own needs. At least in some cases, all this data is collected in a central database. After that, the data is converted in a format required by the Intermediary or ENTSO-E respectively.<sup>22</sup> During the forwarding of the data to an Intermediary the Primary Data Owner conducts automated quality checks. All these steps of processing the data need considerable resources (e.g. software development, staff to carry out the necessary tasks).<sup>23</sup> Accordingly, there is no doubt that the databases created by the Primary Data Owners need substantial investments and therefore are protected by the *sui generis* database right.

Intermediaries as the EEX seem to take additional steps before they forward the data to ENTSO-E. Since Regulation (EU) No 543/2013 and Regulation (EU) No 1227/2011 have different requirements about which data has to be provided the data received from Primary Data Owners need to be filtered, aggregated from several Primary Data Owners, verified and modelled to fit ENTSO-E's standard. Additionally, own data of the Energy Exchanges are added (e.g. prices). Thus, Intermediaries establish their own databases by using pre-existing databases from Primary Data Owners, modifying it *and* adding additional data. These steps need an own substantial investment and therefore Intermediaries as Energy Exchanges acquire their own database rights.<sup>24</sup>

Finally, the data published by ENTSO-E itself are an aggregated database for which the data from numerous sources are collected and processed. Although we did not receive relevant information about the concrete steps ENTSO-E undertakes to process, aggregate and present the data received from Primary Data Owners and Intermediaries but the resulting database(s) clearly shows that ENTSO-E made substantial investments for that work. Please note, that Art. 7 of Directive 96/9/EC is explicitly mentioning the investment in the presentation of the data as relevant for assessing a substantial investment ("*substantial investment in either the obtaining, verification or presentation of the contents*"). Accordingly, ENTSO-E is right-holder of the *sui generis* database right for its database(s) as it is the case for the Primary Data Owner and the Intermediaries for the respective pre-existing databases.

The relationship of the aforementioned databases and their right-holders is as follows:

- Primary Data Owners are the only right-holders of their respective databases and are able to license such databases for the reuse of third parties without any dependencies.
- Intermediaries receive data from Primary Data Owners for the purpose of processing such data, aggregate it and forward it to ENTSO-E. Independently from

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<sup>22</sup> E.g. European Energy Exchange (EEX) provides a handbook with a description of the required format of the data.

<sup>23</sup> Despite significant automation there is still a need for manual verification and correction. One Primary Data Owner qualified the necessary amount of time as 1-2 hours daily.

<sup>24</sup> One Intermediary qualified the necessary amount of time as a 0,75 position.

any explicit license agreements (of which we have no knowledge) there is, at least, an implicit permission from the Primary Data Owners for the Intermediaries to conduct the necessary activities to fulfil these purposes. However, for any other licensing of databases containing substantial parts of one or more databases of Primary Data Owners or the repeated and systematic extraction and/or re-utilization of insubstantial parts of the contents of the databases Intermediaries would need the additional consent of the respective right-holders (i.e. Primary Data Owners).

- The same legal situation applies to the relationship of ENTSO-E and the Primary Data Owners and the Intermediaries. ENTSO-E is allowed to use the data provided by Primary Data Owners and Intermediaries according to the purpose of the delivery, i.e. to process and present the data in an own database according to legal requirements of the applicable regulations but would need an additional license from all right-holders from pre-existing databases used from ENTSO-E to allow any other use of the data needing copyright permission.

**Consequently, third parties interested in the reuse of the data would need all of those: the permission of the Primary Data Owners and the permission of the Intermediaries and the permission of ENTSO-E.** Taking into account the significant number of Primary Data Owners and the missing consent of the right-holders about under which license conditions such data shall be publicly available, a legal reuse of the database of ENTSO-E is practically impossible. Additionally, if one or more right-holders refuse to license their databases an interested party would have to extract the relevant data to be allowed to reuse the remaining parts for which the respective right-holders allowed the use. To provide a practical example: if ENTSO-E would like to license its database under a Creative Commons License for free reuse the permission of all right-holders would be needed. If one or several Primary Data Owners refuse such licensing ENTSO-E would have to identify the respective data and restrict the Creative Commons License to the remaining part of the database. The parts of the database licensed under the Creative Commons license need to be identified as taking part of such licensing to allow practically the reuse.

### **3. REUSE OF ENERGY DATA – USE CASES**

The maker of the database has the exclusive right to reproduce and distribute the database as a whole or a qualitatively or quantitatively substantial part of the database and to make this available to the public. Therefore and as a default, any such use is not permitted except a limitation on the *sui generis* database right applies or the maker of the *sui generis* database grants a license to the user. Accordingly, the use cases described above are examined in three steps:<sup>25</sup>

- Is the respective act of reusing the data covered by the exclusive rights of the right-holder (or is the use outside the scope of the protection)?
- Are any exceptions to the *sui generis* right applicable (e.g. some kinds of private use, scientific research)?
- Is the respective act of reusing the data allowed under the license provided by the maker of the database?

#### **3.1 Downloading data from a public accessible data platform**

The uses cases described above do all require a download for later reuse. First of all, the question is whether the download is allowed or not and to what extent the intention for later reuse does affect the lawfulness of the download.

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<sup>25</sup> See list with uses cases above in Section 1.

### **3.1.1 Necessary rights for downloading energy data**

When downloading data from the website of a data provider, the downloading person is creating a new copy of the data. This reproduction affects the rights of the owner of the *sui generis* right if the database is copied as a whole or a qualitatively or quantitatively substantial part of the database is copied. In cases in which only a few data of a database are needed, the threshold of a "substantial part" may not be reached.

For the purpose of this legal opinion we assume that a substantial part of the database is downloaded, or the database as a whole and therefore the right in the database is affected.

### **3.1.2 Applicable limitations on the sui generis right**

§ 87c German Copyright Act regulates certain exceptions to the *sui generis* right depending on the intended use of the database. It reads as follows:

*(1) The reproduction of a qualitatively or quantitatively substantial part of a database shall be permissible*

*1. for private use; this shall not apply to a database whose elements are accessible individually by electronic means,*

*2. for personal scientific use if and insofar as the reproduction is justified for that purpose and the scientific use does not serve commercial purposes,*

*3. for purpose of illustrative teaching insofar as this does not serve commercial purposes.*

*In the cases referred to in numbers 2 and 3 the source shall be clearly indicated.*

*(2) The reproduction, distribution and communication to the public of a qualitatively or quantitatively substantial part of a database shall be permissible for use in proceedings before a court, an arbitration tribunal or authority, as well as for the purposes of public safety.*

On the one hand reproductions for the private and the scientific use of the database are allowed, on the other hand this use cases are restricted to "substantial parts" of the database and non-commercial usage. Hence, the reproduction of the complete database is not allowed without an appropriate license.<sup>26</sup> Furthermore, commercial reuse of the database is not allowed. Accordingly, substantial parts of a database cannot be reused within a new database under an Open Data license since Open Data licenses mostly do not restrict the usage to non-commercial purposes.

"Substantial parts" of the database are all limited versions of the database not containing the complete database. So far, no case law is known whether a court would accept the use of a "nearly complete database" (i.e. reproducing the complete database after having extracted one data or a few data sets) as a "substantial part" rather than considering it the use of a complete database. However, the reproduction of the database needs to be "justified" for scientific use. This criterion means that the amount of reproductions shall be limited to the necessary extent.<sup>27</sup>

It is difficult to assess which reuse serves "commercial purposes". In any case the research of companies and contract research of universities do fall under the scope of "commercial purposes".

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<sup>26</sup> Prevailing opinion, see *Schricker/Loewenheim-Vogel*, Urheberrecht, 5. Aufl. 2017, § 87c, para 9.

<sup>27</sup> *Schricker/Loewenheim-Loewenheim*, Urheberrecht, 5. Aufl. 2017, § 87c, para 4.

### **3.1.3 License grant for reuse of Energy Data**

In most cases the statutory exceptions to the *sui generis* right will not suffice to be permitted to do the intended reuse. Therefore, this raises the issue of applicable license conditions of the data providers. In this context, "license" means the grant of a right to use the database with the scope of the right specified in the license. Under German law a license is considered a contract.

The "General Terms and Conditions for the Use of the ENTSO-E Transparency Platform" is governing the use of data published at ENTSO-E's website.<sup>28</sup> This is not a classical license agreement but it stipulates which uses shall be allowed.

Sec. II.2. (5) provides as follows:

#### *"5. Use of the Transparency Platform Data*

*In accordance with the applicable legislation, the Data User shall, when using of the Transparency Platform Data for any purpose whatsoever:*

- use the Transparency Platform Data in good faith and always comply with good business practices regarding the re-use of publicly available data;*
- mention the ENTSO-E Transparency Platform as the source of publication of the data, in accordance with good industry practices and comply with all reasonable requests from ENTSO-E regarding the visibility of the ENTSO-E Transparency Platform origin of the re-used Transparency Platform Data;*
- be only allowed to make reference to the ENTSO-E Transparency Platform as the source of publication of the re-used data. It is therefore expressly prohibited to use the ENTSO-E Transparency Platform name or the ENTSO-E name in any manner that is likely to cause confusion regarding the possible existence of any kind of sponsorship or of endorsement of any use of the Transparency Platform Data by the Data User;*
- not cause prejudice to the copyright or related right on a Transparency Platform Data, which may be owned by the concerned Primary Owner of Data. In case of a risk to cause prejudice to said right, the Data User shall seek the prior agreement of the holder of the copyright or related right."*

There is no explicit clause for a grant of rights but the permission is somewhat assumed ("when using of the Transparency Platform Data for any purpose whatsoever"). Therefore, it remains unclear to which extent a re-use is permitted.

Moreover, ENTSO-E points out that the "Primary Owner of the Data (i.e. the entity which "creates data and which has an obligation to submit this data to the Transparency Platform via a TSO or Data Provider, as stipulated in Regulation (EU) N°543/2013") may be the rightholder of the *sui generis* right. This raises additional questions. In particular, it is unclear whether such Primary Owner of the data has provided ENTSO-E with the necessary rights to allow the reuse of the data. Section II.1. of the Terms of Use contain rules for the "submission of data for publication on the transparency platform" but these rules do not contain a license grant.

Even more confusing is the fact that ENTSO-E's website disclaimer contains additional details about the use of content:<sup>29</sup>

#### *2. Ownership of Content*

*The Site and all of its contents including, but not limited to, all text, graphs and images ("Content") are owned and copyrighted by ENTSO-E or others with all rights*

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<sup>28</sup> Terms of Use from June 2015, [https://www.entsoe.eu/Documents/MC%20documents/Transparency%20Platform/150615\\_ENTSOE\\_Transparency\\_Terms\\_Conditions\\_Full.pdf](https://www.entsoe.eu/Documents/MC%20documents/Transparency%20Platform/150615_ENTSOE_Transparency_Terms_Conditions_Full.pdf)

<sup>29</sup> <https://www.entsoe.eu/disclaimer/Pages/default.aspx>



reserved unless otherwise noted. Your use of any Content, except as provided in these Terms of Use, without the written permission of ENTSO-E is strictly prohibited.

### 3. Your Use of the Site

The ENTSO-E grants you permission to use the Site as follows:

- with the exception of images of people or places that are located outside of the "News" section of the Site, you may download Content, but only for non-commercial, personal use and provided that you also retain all copyright and other proprietary notices contained on the Content;
- you may not use any images or graphs without ENTSO-E's written permission;
- Content within the "News" section of the Site may be reproduced solely for editorial purposes in newspapers, news magazines, specialized publications and broadcast media;
- you may not distribute, modify, copy (except as set forth above), transmit, display, reuse, reproduce, publish, license, create derivative works from, transfer, sell or otherwise use Content without ENTSO-E's written permission;
- ...

It seems that these conditions are meant to be applicable to the general content of the website but not to the data of the transparency platform although ENTSO-E itself refers to the terms and conditions of this disclaimer.

Both Terms of Use and the disclaimer are governed by the laws of Belgium. Therefore, we cannot provide a proper interpretation under German law. However, it is quite probable that the intention of the Terms of Use is to be in accordance Regulation (EU) N°543/2013.<sup>30</sup> Therefore, it can be argued that downloading the energy data – i.e. complete data sets – for private and scientific use shall be allowed implicitly. But the exact scope of the license remains as unclear as the question whether Primary Owners of Data provide the necessary rights for such use.

## 3.2 Sending downloaded data to a colleague

Providing other people with downloaded energy data can happen in many ways:

- Sending the data via email to a colleague of the same team
- Sending the data via email to another researcher of a different university
- Sending data via email to another researcher of a company

### 3.2.1 Necessary rights for forwarding energy data

Sending energy data via email to third parties results in creating a new copy of the data. This reproduction affects the rights of the owner of the *sui generis* right if the database is copied as a whole or a qualitatively or quantitatively substantial part of the database is copied. For the purpose of this legal opinion we assume that substantial part of the database or the database as a whole is sent to third parties and therefore the right in the database is affected.

### 3.2.2 Applicable limitations on the *sui generis* right

§ 87c German Copyright Act allows the reproduction of substantial parts of a database for "personal scientific use if and insofar as the reproduction is justified for that purpose and

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<sup>30</sup> See the first sentence of the Terms of Use: "In accordance with Article 3 of the Regulation (EU) N°543/2013 on submission and publication of data in electricity markets ("Regulation (EU) N°543/2013"), ENTSO-E has established and is operating an information transparency platform (the Transparency Platform)."

*the scientific use does not serve commercial purposes*". Therefore, sending energy data to a researcher of another university or company would not be considered "*personal scientific use*".

Most legal scholars interpret the requirement "*insofar the reproduction is justified*" in a way that no direct purchase is easily possible.<sup>31</sup> Consequently, energy data from a publicly available source must not be sent to colleagues of the same university but sending a link would be allowed. If the energy data is not easily accessible (e.g. the website is shut down or the data modified), forwarding the energy data to colleagues from the same university or scientific institution would be permitted but restricted to substantial parts of the database but not the complete database file. Thus, one would need to extract data before sending it to a colleague.

### **3.2.3 License grant for reuse of Energy Data**

The Terms of Use are unclear and therefore no unambiguous assessment can be provided. Section 16 about "liability" is mentioning the transmission of data but it remains unclear if such transmission is considered as illegal by default or if ENTSO-E takes it for granted that such transmission and other reuse is allowed. Therefore, it is recommended to contact ENTSO-E directly to ask for permission of such kind of uses.

## **3.3 Putting downloaded data on an internal network drive**

Putting downloaded data on an internal network drive allows other colleagues access to the data. The question is whether this kind of reuse is permitted.

### **3.3.1 Necessary rights for putting downloaded data on an internal network drive**

Copying the data on a network drive requires the reproduction of the data. The situation in this regard is comparable to forwarding the data to a colleague of the same university or research institution. Additionally, the possibility to access the database might affect the right to make the database available to the public according to § 87b (1) German Copyright Act. The question remains whether the colleagues of a university or a research institution are considered as the "public". A definition of the term "public" can be found in § 15 (3) German Copyright Act:

*"The communication of a work shall be deemed public if it is intended for a plurality of members of the public. Anyone who is not connected by a personal relationship with the person exploiting the work or with the other persons to whom the work is made perceivable or made available in non-material form shall be deemed to be a member of the public."*

Traditionally, the use within a university is considered public since the number of (potential) users is significant.<sup>32</sup>

However, the European Court of Justice stated in the cases *SGAE./Rafael* and *Svensson./Retriever Sverige* "that the need for uniform application of Community law and the principle of equality require that where provisions of Community law make no express reference to the law of the Member States for the purpose of determining their meaning and scope, as is the case with Directive 2001/29/EC, they must normally be given an autonomous and uniform interpretation throughout the Community."<sup>33</sup> This also applies to the interpretation of Directive 96/9/EC on the legal protection of databases. Therefore,

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<sup>31</sup> *Schricker/Loewenheim-Loewenheim*, Urheberrecht, 5. Aufl. 2017, § 53, para 45.

<sup>32</sup> *Schricker/Loewenheim-v. Ungern-Sternberg*, Urheberrecht, 5. Aufl. 2017, § 15, para 392.

<sup>33</sup> Case C-306/05, <http://curia.europa.eu/juris/celex.jsf?celex=62005CJ0306>

the term “public” cannot be interpreted according to German law but needs to be interpreted as a European term.

The European Court of Justice emphasized in these two cases:

- ‘communication to the public’ must be interpreted broadly to establish a high level of protection
- the term ‘public’ refers to an indeterminate number of persons
- a transmission is made to a public different from the public at which the original act of communication of the work is directed, that is, to a new public.
- it follows from Article 3(1) of Directive 2001/29 that, by the term ‘public’, that provision refers to an indeterminate number of potential recipients and implies, moreover, a fairly large number of persons.<sup>34</sup>
- it is sufficient that the work is made available to the public in such a way that the persons forming that public may access it. Therefore, it is not decisive, that customers have not actually had access to the works.

The case law resulting from the jurisdiction of the European Court of Justice does not draw a clear line which number of persons is the minimum to be considered a “public”. This was denied for the patients of a dental practice (but with reference to the fact that they enjoyed the work without any active choice on their part),<sup>35</sup> but taken when hotel guests had access to television in their hotel rooms.<sup>36</sup>

Thus, an overall view of the circumstances of the concrete situation must be provided. Providing access to a smaller group of researchers by putting downloaded data on an internal network drive might be outside the scope of the term “public” but providing (potential) access to a whole university might be considered as public.

For the purpose of this legal opinion we assume that the data is made publicly available.

### **3.3.2 Applicable limitations on the *sui generis* right**

§ 87c German Copyright Act allows the *reproduction* of substantial parts of a database under certain circumstances but not to make them publicly available. Hence, § 87c does not apply here.

The same is true for § 52a German Copyright Act which provides an exception for making works available to the public for instruction and research. But this limitation of copyright is restricted to copyrightable “works” but does not cover databases under the *sui generis* right for databases.

### **3.3.3 License grant for reuse of Energy Data**

As mentioned before, the Terms of Use are unclear and therefore no unambiguous assessment can be provided. Therefore, it is recommended to contact ENTSO-E directly to ask for permission of such kind of uses.

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<sup>34</sup> Recital 21, <http://curia.europa.eu/juris/document/document.jsf?docid=147847>

<sup>35</sup> Case C-135/10, <http://curia.europa.eu/juris/document/document.jsf?docid=120443>

<sup>36</sup> Case C-306/05, <http://curia.europa.eu/juris/celex.jsf?celex=62005CJ0306>

### **3.4 Using data as input to a computer model and publishing the model results**

#### ***3.4.1 Necessary rights for using data as input to a computer model and publishing the model results***

As long as the model results do not contain a substantial part of the database the publication is allowed and independently from any rights in the database. The reason is that the publication of the results is not a publication of the database itself and therefore the activity does not affect the exclusive rights of the maker of the database.

However, using the data as input to a computer model will usually require the internal reproduction of the database or substantial part of it.

#### ***3.4.2 Applicable limitations on the sui generis right***

Section 87c (1) No. 2 German Copyright Act allows the reproduction of substantial parts of a database for personal scientific use if and insofar as the reproduction is justified for that purpose and the scientific use does not serve commercial purposes. This is usually the case if the complete database is not reproduced but a substantial part only. Nevertheless, the use when performing contract research and the use of the database as a whole is not permitted under Section 87c (1) No. 2 German Copyright Act.

#### ***3.4.3 License grant for reuse of Energy Data***

With regard to our analysis above, it is quite probable that the intention of the Terms of Use is to be in accordance with the Regulation (EU) N°543/2013. Therefore, it can be argued that reproducing the energy data – i.e. complete data sets – for scientific use in a computer model shall be allowed. But the exact scope of the license remains as unclear as the question whether Primary Owners of Data provide the necessary rights for such use.

### **3.5 Modifying energy data**

Modifying data is a usual activity when working with it. This includes acts as extracting data from a database, adding new attributes and combining data from different sources as well.

#### ***3.5.1 Necessary rights for modifying energy data***

§ 87b (1) German Copyright Act does not recognize an exclusive right of the maker of the database to modify the database (which is different to copyrightable works where the right to adaptations is part of the exclusive rights of the right owner).<sup>37</sup> However, most modifications need reproductions (e.g. the extraction of a substantial part of the database) and therefore a permission for copying is needed.

From the copyright perspective the more relevant activity is the publication and distribution of the database afterwards (see below 6.).

#### ***3.5.2 Applicable limitations on the sui generis right***

The reproductions to conduct the modification of the data is allowed under Section 87c (1) No. 2 German Copyright Act insofar as there is no commercial purpose and the reproduction is not covering the complete database.

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<sup>37</sup> *Schricker/Loewenheim-Loewenheim, Urheberrecht, 5. Aufl. 2017, § 87b, para 23*

Sharing modified data with a colleague must be treated as sending the unmodified database to a colleague (see above 2.).

### **3.5.3 License grant for reuse of Energy Data**

Sharing modified data with a colleague must be treated as sending the unmodified database to a colleague (see above 2.).

## **3.6 Putting energy data on a website for download**

Publishing data on a website can occur in various constellations. As explained above the fact that the data has been modified is not the relevant point – modified and unmodified database can be treated in the same way if a substantial part of the database is published on the website.

The energy data can be made available free of charge without specific license conditions for further reuse or under an Open Data license as the Creative Commons licenses.<sup>38</sup>

### **3.6.1 Necessary rights for modifying energy data**

Putting data on a publicly accessible website needs a reproduction on a server and the right to make the database publicly available.

### **3.6.2 Applicable limitations on the sui generis right**

§ 87c German Copyright Act allows the reproduction of substantial parts of a database under certain circumstances but not to make them publicly available. Hence, § 87c does not apply here.

### **3.6.3 License grant for reuse of Energy Data**

As mentioned before, the Terms of Use are unclear and therefore no unambiguous assessment can be provided. Therefore, it is recommended to contact ENTSO-E directly to ask for permission of such kind of uses.

## **4. DE LEGE FERENDA – LEGISLATION TO COME TO IMPROVE THE SITUATION FOR THE REUSE OF DATA**

### **4.1 Amendments to the German Copyright Act**

On June 30, 2017 the German Parliament (“Bundestag”) passed a bill for the adaptation of copyright law to the requirements of the information society.<sup>39</sup> The goal of this law is to improve the statutory limitations of copyright for the scientific use. This includes the use of databases protected under the *sui generis* database right. In the future, Section 87c (1) Nr.2 German Copyright Act reads as follows:

*“(1) The reproduction of a qualitatively or quantitatively substantial part of a database shall be permissible*

*1. ...,*

*2. for the purpose of scientific research according to Sections 60c and 60d”*

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<sup>38</sup> See an overview at <http://opendefinition.org/licenses/>

<sup>39</sup> <http://dip21.bundestag.de/dip21/btd/18/130/1813014.pdf>

Section 60d German Copyright Act is a new exception for data and text mining whereas Section 60c (1) German Copyright Act is a specific exception for scientific non-commercial research allowing the reproduction, distribution and communication to the public of up to 15 % of a work for a restricted number of persons for the scientific research of these persons, and to single persons to examine the scientific quality of the scientific research. Furthermore, 75 % of a work are permitted to be reproduced for "personal research" (commercial and non-commercial) according to Section 60c (2) German Copyright Act.

However, it remains somewhat unclear how the reference in Section 87c (1) No 2 German Copyright Act shall be understood. On the one hand Section 87c (1) No 2 German Copyright Act refers to "*The reproduction of a qualitatively or quantitatively substantial part of a database*", on the other hand Section 60c German Copyright Act limits the use to 75 % and 15% "*of the work*" respectively. It remains unclear whether these percentages apply to databases as well and how to calculate it. Does it mean that 75 % and 15% of the complete database may be used or 75 % and 15% of a substantial part of the respective database? In any case the exception will not permit the use of a nearly complete database, i.e. more than 75 %, for personal research.

Differing from Section (7c (1) No 2 German Copyright Act Section 60c (2) German Copyright Act does not require that the reproduction is permitted only "*to the extent justified*".

It seems that the new exception in Section 60c German Copyright Act will allow the passing on of smaller parts of a database (15 %) to other researchers or within a network of researchers for non-commercial research but sharing more than 15 % will be not permitted.

Section 60d German Copyright Act allows the reproduction of a database for the purpose of non-commercial data mining and it does allow communication of the database to the public for a restricted number of persons for joint scientific research of these persons, and to single persons to examine the scientific quality of the scientific research. "Data mining" is defined as "*automated analysis of a great number of works for scientific research*".

According to the reasons chapter of the amendment bill the restrictions to non-commercial use are made with regard to the *acquis communautaire*, in particular Article 9 b Directive 96/9/EG ("*in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved*").<sup>40</sup> However, it is clarified that external funding of the research ("Drittmittelforschung") is not considered "commercial".

## **4.2 Proposal for a Directive on Copyright in the Digital Single Market**

The *Digital Single Market Strategy* adopted in May 2015 identified the need "*to reduce the differences between national copyright regimes and allow for wider online access to works by users across the EU*".<sup>41</sup> This Communication highlighted the importance to enhance cross-border access to copyright-protected content services, facilitate new uses in the fields of research and education, and clarify the role of online services in the distribution of works and other subject-matter.

In September 2016 the European Commission proposed a "Directive on copyright in the Digital Single Market".<sup>42</sup> Article 3 of the proposed directive shall read as follows:

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<sup>40</sup> See <http://dip21.bundestag.de/dip21/btd/18/123/1812329.pdf>, p. 39

<sup>41</sup> COM(2015) 192 final.

<sup>42</sup> COM(2016) 593 final.

### *"Text and data mining"*

1. *Member States shall provide for an exception to the rights provided for in Article 2 of Directive 2001/29/EC, Articles 5(a) and 7(1) of Directive 96/9/EC and Article 11(1) of this Directive for reproductions and extractions made by research organisations in order to carry out text and data mining of works or other subject-matter to which they have lawful access for the purposes of scientific research.*
2. *Any contractual provision contrary to the exception provided for in paragraph 1 shall be unenforceable.*
3. *Rightholders shall be allowed to apply measures to ensure the security and integrity of the networks and databases where the works or other subject-matter are hosted. Such measures shall not go beyond what is necessary to achieve that objective.*
4. *Member States shall encourage rightholders and research organisations to define commonly-agreed best practices concerning the application of the measures referred to in paragraph 3."*

This would allow Member States to introduce a new exception to the *sui generis* database right to carry out data mining to which they have lawful access for the purposes of scientific research. There is no restriction to "*substantial parts of the database*" or "*non-commercial purposes*" required. Hence, the exception for text and data mining goes beyond the scope of the new exception under the German Copyright Act. According to Article 2 (2) "*text and data mining*" is defined as "*any automated analytical technique aiming to analyse text and data in digital form in order to generate information such as patterns, trends and correlations*"

The definition of "research institution" in Article 2 (1) clarifies that the organisation has to be on a non-for-profit basis or recognised by a Member State as "pursuant to a public interest mission":

*"research organisation" means a university, a research institute or any other organisation the primary goal of which is to conduct scientific research or to conduct scientific research and provide educational services:*

*(a) on a non-for-profit basis or by reinvesting all the profits in its scientific research; or*

*(b) pursuant to a public interest mission recognised by a Member State; in such a way that the access to the results generated by the scientific research cannot be enjoyed on a preferential basis by an undertaking exercising a decisive influence upon such organisation;"*

Additionally, the exception in Directive 06/9 /EC will be amended as follows according to Article 17:

*(a) In Article 6(2), point (b) is replaced by the following:*

*"(b) where there is use for the sole purpose of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved, without prejudice to the exceptions and the limitation provided for in Directive [this Directive];"*

*(b) In Article 9, point (b) is replaced by the following:*

*"(b) in the case of extraction for the purposes of illustration for teaching or scientific research, as long as the source is indicated and to the extent justified by the non-commercial purpose to be achieved, without prejudice to the exceptions and the limitation provided for in Directive [this Directive];"*

Therefore, the previous exceptions remain more or less as stated in Article 9 of the Directive 96/9/EC with smaller modifications but the exception for data mining is added to those pre-existing exceptions.

## **5. APPROPRIATE LICENSING FOR LEGALLY RELIABLE REUSE OF ENERGY DATA**

Whereas the proposed directive on copyright in the Digital Single Market will improve the situation of researchers in the field of text and data mining, the existing statutory exceptions do not permit many uses cases which are necessary to conduct research in the field of energy data. This affects uses as using data in software models, combining existing databases to new databases and sharing data from protected databases among researchers of different research organizations.

This is why an appropriate licensing of databases protected under *sui generis* database right is crucial to facilitate new uses in the fields of research.

### **5.1 Providing no licence**

If a data provider does not use any license for the published data, reuse is not permitted except to the extent that copyright exceptions apply.<sup>43</sup> Additionally, the fact that the data provider provides access to a database without technical or legal restrictions can be interpreted as an implicit consent to review the data and – if technically possible – to download the data.<sup>44</sup> However, any other kind of reuse is not permitted without explicit permission of the right holder. As a consequence, providing no license is not an option for legally reliable reuse of energy data.

### **5.2 Open Data Licensing**

Open Data is the idea that data should be available to everyone to use and republish without restrictions of usage rights and license fees.<sup>45</sup> The concept of Open Data is based on the philosophy of Free and Open Source Software which is very successful in the field of software development, including commercial use of the software.<sup>46</sup> Whether or not a database can be considered as Open Data depends on the applicable license. Typical Open Data licenses are:

- Open Database License (ODC-ODbL) – Attribution/Share-Alike for data/databases<sup>47</sup>
- Attribution License (ODC-By) – Attribution for data/databases<sup>48</sup>
- Public Domain Dedication and License (PDDL) – Public Domain for data/databases<sup>49</sup>
- Creative Commons Attribution Share-Alike 4.0 (CC-BY-SA-4.0) – Attribution/Share Alike for data/Databases<sup>50</sup>
- Creative Commons Attribution 4.0 (CC-BY-4.0) – Attribution for data/databases<sup>51</sup>
- Creative Commons CC0 (CC0) - Public Domain for data/databases<sup>52</sup>

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<sup>43</sup> See above 3.1.2

<sup>44</sup> This interpretation is based on German civil law and might be different if a foreign jurisdiction is applicable.

<sup>45</sup> See Open Definition, <http://opendefinition.org/od/2.1/en/>

<sup>46</sup> See <https://www.gnu.org/philosophy/selling.html>

<sup>47</sup> <https://opendatacommons.org/licenses/odbl/>

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<sup>53</sup> <https://www.govdata.de/dl-de/by-2-0>

<sup>54</sup> <https://www.govdata.de/dl-de/zero-2-0>

<sup>55</sup> <https://www.govdata.de/>

<sup>56</sup> <https://data.europa.eu/euodp/en/data/>