

› eex group

EEX Transparency Data
- API User Guide

20.01.2023
Leipzig

Ref. 5

› eex

› pxe

› ecc

› cltx

› epexspot

› nodal

› powernext

› nodalclear

› pegas

› gaspoint
nordic

Table of Contents

1.	Versions	5
2.	Glossary	6
3.	Introduction	7
3.1	Scope	7
3.2	Overview	7
3.3	Subscription	7
4.	Included Transparency Data	8
4.1	Available Countries	8
4.2	Transparency Data Types	9
4.3	Detailed definition of Line Types	10
5.	Transparency Data API	12
5.1	Request method	12
5.2	EndPoint	13
5.3	Authentication	13
5.4	Definition of API Formats	14
5.5	Definition of API Data Fields	14
5.5.1	Specific Range of Data Fields	19
5.6	Field specification for API Responses	22
5.6.1	Time series Data	22
5.6.1.1	ExAntelInformationAvailableCapacityPower	22
5.6.1.2	ExAntelInformationNonUsableCapacityPower	22

5.6.1.3	ExPostInformationActualPlantGenerationPower	22
5.6.1.4	ExPostInformationActualUnitGenerationPower	23
5.6.1.5	ExAntelInformationPlannedGenerationPower	23
5.6.1.6	ExPostInformationGenerationSolarPower	23
5.6.1.7	ExAntelInformationGenerationSolarPower	23
5.6.1.8	ExPostInformationGenerationWindPower	24
5.6.1.9	ExAntelInformationGenerationWindPower	24
5.6.1.10	ExPostInformationGenerationEuroSolarPower	24
5.6.1.11	ExAntelInformationGenerationEuroSolarPower	25
5.6.1.12	ExPostInformationGenerationEuroWindPower	25
5.6.1.13	ExAntelInformationGenerationEuroWindPower	25
5.6.1.14	ExPostInformationActualConsumptionPower	26
5.6.1.15	ExAntelInformationPlannedConsumptionPower	26
5.6.1.16	ExAntelInformationWorkingCapacityStoragePower	26
5.6.1.17	ExPostInformationActualStoragePower	26
5.6.1.18	ExPostInformationActualConsumptionGas	27
5.6.1.19	ExAntelInformationPlannedConsumptionGas	27
5.6.2	Event Data	27
5.6.2.1	NonUsabilityGenerationPower	27
5.6.2.2	NonUsabilityConsumptionPower	28
5.6.2.3	NonUsabilityStoragePower	29
5.6.2.4	NonUsabilityConsumptionGas	29
5.6.2.5	NonUsabilityTransmissionGas	30
5.6.2.6	AdhocMessages	31
5.6.3	Master Data	32
5.6.3.1	Company	32
5.6.3.2	ProdCons	32
5.6.3.3	Unit	32
5.6.3.4	Capacity	33
6.	API Methods	34
6.1	getTimeSeries	34

6.1.1	getTimeSeries Parameters	34
6.2	getEvent	35
6.2.1	getEvent Parameters	35
6.3	getMasterDataCompany	36
6.3.1	getMasterDataCompany Parameters	36
6.4	getMasterDataProdCons	37
6.4.1	getMasterDataProdCons Parameters	37
6.5	getMasterDataUnit	37
6.5.1	getMasterDataUnit Parameters	37
6.6	getMasterDataCapacity	38
6.6.1	getMasterDataCapacity Parameters	38
7.	API Calls	39
7.1	API Requests	39
7.1.1	URL Example Request	39
7.1.2	Java Example Request	40
7.1.3	C# Example Request	42
7.2	API Responses	43
7.3	JSON sample return	44
7.4	XML sample return	45
7.5	Examples	46
7.5.1	getTimeSeries	46
7.5.2	getEvent	46
7.5.3	getMasterData	46
8.	Known Issues	47
8.1	General known issues	47
8.2	Symbol specific known issues	47
8.2.1	ExPostInformationActualPlantGenerationPower	47
8.2.2	ExPostInformationActualUnitGenerationPower	47
8.2.3	NonUsabilityGenerationPower	47
8.2.4	NonUsabilityConsumptionPower	47
8.2.5	NonUsabilityStoragePower	47

1. Versions

Version	Description	Date	Author
0001	Initial Draft	01.11.2018	EEX, Erik Hanns
0002	<p>Changing of the field status. 'Inactive' will be replaced with 'Dismissed'.</p> <p>The unit for non-usabilities of gas consumption units will change from MW to KW.</p>	15.07.2020	EEX, Sebastian Wykowski
0003	<p>Adding Country ES including Control Area 'REE' (10YES-REE-----0) and Country RO including Control Area 'Transelectrica' (10YRO-TEL-----P).</p>	19.03.2021	EEX, Sebastian Wykowski
0004	<p>Inserting an overview of available data types and countries.</p> <p>Adding Country SE including Control Area 'Svenska kraftnät' (10YSE-1-----K), Country PL including Control Area 'PSE' (10YPL-AREA-----S) and Market Area 'THE' (37Y005053MH0000R).</p> <p>Extension of the API responses for power non-usability data to consider events with changing capacity intervals. Furthermore, the non-usability data contains additional information, such as ACERCode, EIC, InstalledCapacity and AvailableCapacity.</p>	01.06.2022	EEX, Erik Hanns
0005	<p>Adding new data type for non-usabilities of gas transmission lines (NonUsabilityTransmissionGas).</p> <p>Extension of the API responses for gas non-usability data to consider events with changing capacity intervals. Furthermore, the non-usability data contains additional information, such as ACERCode, EIC, InstalledCapacity and AvailableCapacity.</p> <p>Adding Country IE including Control Area 'EirGrid' (10YIE-1001A00010) and Country GR including Control Area 'IPTO' (10YGR-HTSO-----Y).</p>	20.01.2023	EEX, Erik Hanns

2. Glossary

Term	Description
A	
API	Application Programming Interface
C	
CSV	Comma-separated values
E	
EEX	European Energy Exchange
Endpoint	A URL address which services the API requests
J	
JSON	JavaScript Object Notation
M	
MDS	Market Data Services
Method	An operation that takes parameters to create a specific request for data
T	
TPE	Transparency Platform of EEX
U	
URL	Uniform Resource Locator
UTC	Universal Time Coordinated
X	
XML	eXtensible Markup Language

Table 1: Glossary of Terms

3. Introduction

3.1 Scope

The scope of this document is to provide a programmer who is familiar with web service Application programming interface (web API) with the information required to retrieve transparency data via programmatically.

3.2 Overview

The API User Guide provides information about how to retrieve transparency data of the EEX Transparency Platform in a programmatic way. This service provides real time updates of the transparency data available from EEX. The web service API returns XML and JSON responses. In order to access the API users will require credentials. These are available from EEX as part of a subscription package.

3.3 Subscription

The API solution allows users to receive real-time or delayed market data and transparency data. Get connected to EEX Group DataSource with fast and robust data directly from the source. Please find all information regarding ordering, prices and available modules of the API on our website.

How to subscribe:

<https://www.eex.com/en/market-data/market-data-download/subscription/subscription-process>

Contact:

Information Services
T +49 341 2156-288
datasource@eex-group.com

4. Included Transparency Data

EEX Group DataSource offers the following APIs for transparency data:

- Transparency Data Power
- Transparency Data Gas
- Transparency Data Ad-hoc Messages

4.1 Available Countries

	AT	BE	CH	CZ	DE	ES	FR	GB	GR	IE	IT	HU	NL	PL	RO	SE
NonUsabilityGenerationPower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ExAnteInformationAvailableCapacityPower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ExAnteInformationNonUsableCapacityPower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ExPostInformationActualPlantGenerationPower	X	X	X	X	X	X	X	X				X	X			
ExPostInformationActualUnitGenerationPower	X	X	X	X	X	X	X	X				X	X			
ExAnteInformationPlannedGenerationPower	X	X	X	X	X	X	X	X				X	X			
ExPostInformationGenerationSolarPower	X				X	X	X	X			X					
ExAnteInformationGenerationSolarPower	X				X	X	X	X			X					
ExPostInformationGenerationWindPower	X				X	X	X	X			X					
ExAnteInformationGenerationWindPower	X				X	X	X	X			X					
ExPostInformationGenerationEuroWindPower	X				X			X					X			
ExAnteInformationGenerationEuroWindPower	X				X			X								
ExPostInformationGenerationEuroSolarPower	X				X			X					X			
ExAnteInformationGenerationEuroSolarPower	X				X			X								
NonUsabilityConsumptionPower					X											
ExPostInformationActualConsumptionPower					X											
ExAnteInformationPlannedConsumptionPower					X											
NonUsabilityStoragePower	X		X		X				X							
ExAnteInformationWorkingCapacityStoragePower	X		X		X											
ExPostInformationActualStoragePower	X		X		X											
NonUsabilityConsumptionGas	X			X	X						X					
ExPostInformationActualConsumptionGas	X			X	X											
ExAnteInformationPlannedConsumptionGas	X			X	X											
NonUsabilityTransmissionGas					X											
MasterData-Power	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MasterData-Gas	X			X	X						X		X			
AdhocMessages	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

4.2 Transparency Data Types

The products available and their symbol are listed below – full details of the returned data for these symbols and the parameters that can be used, can be found in section 6.

Power

Time-series data:

- ExAntelInformationAvailableCapacityPower
- ExAntelInformationNonUsableCapacityPower
- ExPostInformationActualPlantGenerationPower
- ExPostInformationActualUnitGenerationPower
- ExAntelInformationPlannedGenerationPower
- ExPostInformationGenerationSolarPower
- ExAntelInformationGenerationSolarPower
- ExPostInformationGenerationWindPower
- ExAntelInformationGenerationWindPower
- ExPostInformationGenerationEuroWindPower
- ExAntelInformationGenerationEuroWindPower
- ExPostInformationGenerationEuroSolarPower
- ExAntelInformationGenerationEuroSolarPower
- ExPostInformationActualConsumptionPower
- ExAntelInformationPlannedConsumptionPower
- ExAntelInformationWorkingCapacityStoragePower
- ExPostInformationActualStoragePower

Event data:

- NonUsabilityGenerationPower
- NonUsabilityConsumptionPower
- NonUsabilityStoragePower

Master data:

- Company
- ProdCons
- Unit
- Capacity

Gas

Time-series data:

- ExPostInformationActualConsumptionGas
- ExAnteInformationPlannedConsumptionGas

Event data:

- NonUsabilityConsumptionGas
- NonUsabilityTransmissionGas

Master data:

- Company
- ProdCons
- Unit
- Capacity

Adhoc Messages

Event data:

- AdhocMessages

4.3 Detailed definition of Line Types

In order to give users the possibility to establish a relation between API responses and the provided transparency files on sFTP, below is an overview of the Line Types and the respective API symbols.

Line Type	Definition	Symbol for API
ACIL	Available Capacity Information Line	ExAnteInformationAvailableCapacityPower
NUIL	Non-Usable Capacity Information Line	ExAnteInformationNonUsableCapacityPower
APGL	Actual Plant Generation Line	ExPostInformationActualPlantGenerationPower
AUGL	Actual Unit Generation Line	ExPostInformationActualUnitGenerationPower
CPGL	Country Planned Generation Line	ExAnteInformationPlannedGenerationPower
ASPL	Actual Solar Power Generation Line	ExPostInformationGenerationSolarPower
ESPL	Expected Solar Power Generation Line	ExAnteInformationGenerationSolarPower
AWPL	Actual Wind Power Generation Line	ExPostInformationGenerationWindPower
EWPL	Expected Wind Power Generation Line	ExAnteInformationGenerationWindPower
ASPL	Actual Solar Power Generation Line	ExPostInformationGenerationEuroSolarPower
ESPL	Expected Solar Power Generation Line	ExAnteInformationGenerationEuroSolarPower

Line Type	Definition	Symbol for API
AWPL	Actual Wind Power Generation Line	ExPostInformationGenerationEuroWindPower
EWPL	Expected Wind Power Generation Line	ExAnteInformationGenerationEuroWindPower
ACPL	Actual Consumption Power Line	ExPostInformationActualConsumptionPower
PCPL	Planned Consumption Power Line	ExAnteInformationPlannedConsumptionPower
WCPL	Working Capacity Power Line	ExAnteInformationWorkingCapacityStoragePower
APSL	Actual Power Storage Line	ExPostInformationActualStoragePower
ACGL	Actual Consumption Gas Line	ExPostInformationActualConsumptionGas
APGL	Planned Consumption Gas Line	ExAnteInformationPlannedConsumptionGas
NUGL	Non-Usability Generation Line	NonUsabilityGenerationPower
NUCL	Non-Usability Consumption Line	NonUsabilityConsumptionPower
NUSL	Non-Usability Storage Line	NonUsabilityStoragePower
NUCL	Non-Usability Consumption Line	NonUsabilityConsumptionGas
NUTL	Non-Usability Transmission Line	NonUsabilityTransmissionGas
AHML	Ad hoc Message Line	AdhocMessages
COIL	Company Information Line	MasterData-Power/Gas
PCIL	Producer Consumer Information Line	MasterData-Power/Gas
GUIL	Generation Unit Information Line	MasterData-Power
CUIL	Consumption Unit Information Line	MasterData-Power/Gas
SUIL	Storage Unit Information Line	MasterData-Power
GCIL	Generation Capacity Information Line	MasterData-Power
CCIL	Consumption Capacity Information Line	MasterData-Power/Gas
SCIL	Storage Capacity Information Line	MasterData-Power

Table 2: Definition of Line Types

The line type is a returned field, however as the line type is defined and linked to the symbol used when requesting data (for example ExAnteInformationAvailableCapacityPower will return line type ACIL) it is not a parameter that can be filtered on.

5. Transparency Data API

Criterion	Description
URL	All API calls will be made to: <ul style="list-style-type: none"> https://api1.datasources.eex-group.com
Data Domain	The API provides access to the Transparency data (Time Series, Event and Master Data) stored in the EEX Transparency Platform Database. This covers the following data areas: <ul style="list-style-type: none"> Power; Gas; Ad-hoc Messages.
Access	Access to the API is only possible if a client has a subscription package purchased from EEX. Furthermore, API customers will be permissioned for specific subscribed Products/Modules.
Availability	Transparency Data and the API are available for customers 24/7. The return formats provided are XML and JSON.
Source of Data	EEX Transparency Platform
Data Depth	Depending on the request parameters, the API will return real time data updates and historical data.

Table 3: API Basics

5.1 Request method

The API is a synchronous interface. It supports one method of requesting data:

- **Https Get**

Any date or filter parameters are a part of the URL query string that is submitted (section 6)

In general, the request string is built as follows:

<https://datasources.eex-group.com/<method>>? followed by “**Parameter Name**=”**Parameter Value**”, where each pair of parameter name and value are separated by an ampersand (“&”)

Three methods are supported:

- GetTimeSeries
- GetEvent
- GetMasterData

As the Get request is a URL string, special characters will need to be escaped. Escaping means to replace the special character with the escape symbol. For instance to replace the space in 'a link', you have to use this 'a%20link' in the URL. The most common of these special characters including their respective translation can be found in the table below.

Character	Escape Symbol	Character	Escape Symbol
Space	%20	,	%2C
!	%21	/	%2F
#	%23	:	%3A
\$	%24	;	%3B
&	%26	=	%3D
'	%27	?	%3F
(%28	@	%40
)	%29	[%5B
*	%2A]	%5D
+	%2B		

Table 4: URL Escape Characters

This is not a comprehensive list. There are many resources on the internet that provide lookups for translation of URLs or specific special characters.

5.2 EndPoint

The endpoint for the service is:

- <https://api1.datasource.eex-group.com>

Please note, the endpoint supports html only. Furthermore, only https (secure http) address is supported.

5.3 Authentication

Authentication uses Basic access authentication. This is a user and password pair.

The user and password will be provided by EEX once a subscription is in place.

5.4 Definition of API Formats

The following formats will be used for the data fields of the API.

Term	Description	Example
<dateTime>	Time format – information of a point in time. Please note that all points in time are in UTC.	2017-01-17T01:00:00Z
<string>	Alphanumeric string – used for text information.	Nuclear
<decimal>	The decimal data type is used to specify a numeric value including the zero.	100.9
<boolean>	The boolean data type is used to specify a true or false value.	true
<integer>	The integer data type is used to specify a numeric value without a fractional component.	99

Table 5: URL Escape Characters

5.5 Definition of API Data Fields

This is a full list of the data fields and their types for reference. The specific fields returned in a message are defined in section 5.5.1.

Fieldname	Format	Description	example
ACERCode	<string>	The ACER code is the ACER identifier for the respective company assigned upon registration as a market participant.	123456789.AB
ActualConsumption	<decimal>	This field contains the actual consumption of consumer. The unit is MW.	80,4
ActualGeneration	<decimal>	This field contains the actual production of generation units. The unit is MW.	82465,4
ActualSolarEnergy	<decimal>	This field contains the actual solar power generation. The unit is MW.	135,5
ActualWindEnergy	<decimal>	This field contains the actual wind power generation. The unit is MW.	18254,6

Fieldname	Format	Description	example
AvailableCapacity	<decimal>	This field contains the amount of the available capacity (daily average value). The unit is MW. The unit of measure for power generators, storages and consumers is MW. The unit of measure for gas consumers is kW. The unit of measure for gas transimssion is kWh/d.	366,7
CapacitySeries	<string>	This field contains the information for AvailableCapacity, NUMCapacity, IntervalStart and IntervalEnd as a series separated by " ".	AvailableCapacity="18.0", NUMCapacity="45.0", IntervalStart="2022-05-25T00:00:00Z", IntervalEnd="2022-05-25T06:36:00Z" AvailableCapacity="21.0", NUMCapacity="42.0", IntervalStart="2022-05-25T06:36:00Z", IntervalEnd="2022-05-25T23:59:59Z"
ControlArea	<string>	This field contains the name of the control area the generation or consumer unit is connected to.	Amprion
Commercialisation	<boolean>	Commercialization of a generation unit.	True
Commodity	<string>	Commodity of the affected Unit.	Power
Country	<string>	Code of the country; Please refer to ISO 3166-1.	DE
CompanyID	<string>	The unique identifier of a company.	POWERHSLTD01
CompanyName	<string>	The name of a company.	Powerhouse Generation Ltd.
CreationTimeStamp	<dateTime>	The timestamp of the file creation.	2009-11-18T18:00:00Z
Direction	<string>	This field includes information on the flow direction.	Entry

Fieldname	Format	Description	example
EIC	<string>	EIC is the 'Energy Identification Code' of an power or gas facility or unit.	49W000000000181Q
EndDate	<dateTime>	The end date the data of the generation or consumer unit are delivered.	2011-01-01T00:00:00Z
EventID	<string>	Unique ID for the respective Non-Usability. The EventID is always 29 characters long and is built as follows: <ul style="list-style-type: none"> • Filling (000000000000) • EventID (20180913) • Unique (#2435) • Version number (_013) 	00000000000022246422#2415_001
ExpectedSolarEnergy	<decimal>	This field contains the forecast of the expected generation from solar energy. The unit is MW.	127,5
ExpectedWindEnergy	<decimal>	This field contains the forecast of the expected generation from wind energy. The unit is MW.	2376,5
Facility	<string>	Identifier for the value chain of a Unit.	Producer
InstalledCapacity	<decimal>	For generation units the field contains the amount of the installed net bottleneck output. For consumption units the maximum consumption capacity is filled in. The unit is MW.	366,7
IntervalEnd	<dateTime>	The expected end date of a specific interval of a power generation, consumption or storage non-usability.	2011-11-20T14:15:00Z
IntervalStart	<dateTime>	The expected start date of a specific interval of a power generation, consumption or storage non-usability.	2011-11-20T14:00:00Z

Fieldname	Format	Description	example
LineNumbers	<integer>	Information about the number of lines of the file.	32
MarketArea	<string>	This field contains the name of market area the generation or consumer unit is connected to.	CEGH
MarketParticipantCode	<string>	This field contains the Market Participant Code (ACER Code) of the reporting company.	A0001523E.DE
Message	<string>	Reports additional information.	Revision finished
ModificationTimeStamp	<dateTime>	The timestamp of the modification of this information by the dispatcher.	2009-11-15T11:43:00Z
NonUsableCapacity	<decimal>	This field contains the amount of the non-usable capacity (daily average value). The unit is MW.	366,7
NonavailabilityReason	<string>	Reason of the Non-Availability (i.e. Maintenance, Outage)	Maintenance
NUMCapacity	<decimal>	This field contains the amount of the non-usability of a unit. The unit of measure for power generators, storages and consumers is MW. The unit of measure for gas consumers is kW. The unit of measure for gas transimssion is kWh/d.	1265,2
NUMEndDate	<dateTime>	The expected end date of a non-usability.	2011-11-20T14:15:00Z
NUMStartDate	<dateTime>	The start date of a non-usability.	2009-11-19T23:15:12Z
PlannedConsumption	<decimal>	This field contains the forecast of the planned consumption for the next day. The unit is MW.	85405,6
PlannedGeneration	<decimal>	This field contains the forecast of the planned generation for the next day. The unit is MW.	85405,6

Fieldname	Format	Description	example
PublicationTimeStamp	<dateTime>	The timestamp of the publication of this information on the website.	2009-11-16T00:00:00Z
ProdConsID	<string>	The unique identifier of a generation, consumption or storage plant.	E000001
ProdConsName	<string>	The name of a plant, consumer or storage.	Warp Generator
Quantity	<decimal>	This field contains the actual filling level of power storages. The unit is MWh.	454164,2
RealConsumption	<decimal>	Real consumption of a unit. The unit is MW.	854,6
Remarks	<string>	Any other information that facilitates the full understanding of the potential impact of the event.	Revision finished
ReportingAvailableCapacity	<string>	This field contains information if the production company reports available capacity for all production units.	True
Source	<string>	Name of the source.	Biomass
StartDate	<dateTime>	The start date the data of the generation or consumer unit are delivered.	2011-01-01T00:00:00Z
Status	<integer>	The status of a non-usability source.	Active
TechnicalCapacity	<decimal>	For gas consumption units the field contains the amount of the maximum consumption capacity in kW. For gas transmission units the field contains the amount of the maximum transmission capacity in kWh/d.	366,7
TimeStamp	<dateTime>	The timestamp of the referring data.	2009-12-31T23:00:00Z
Type	<string>	This field indicates if a generation or consumption unit already was	Planned

Fieldname	Format	Description	example
		disturbed when the notification was sent.	
UnitID	<string>	The unique identifier of a generation, consumption or storage unit.	E000001-001
UnitName	<string>	The name of a generation, consumption or storage unit.	Core 1
WorkingCapacity	<decimal>	Working capacity of a power storage unit. The unit is MW.	854,6
WGS84Latitude	<decimal>	Latitude gives the location of a place on Earth north or south of the equator.	51.3378
WGS84Longitude	<decimal>	Longitude is the geographic coordinate most commonly used in cartography and global navigation for east-west measurement.	12.3790

Table 6: Definition of API Data Fields

5.5.1 Specific Range of Data Fields

Some fields have a fixed set of values that are valid. These are listed below, along with the values that will be returned or can be used for querying.

Fieldname	Value	Translation
Commercialisation	false	Predominantly not for free marketing
	true	Predominantly for free marketing
ControlArea	50Hertz	10YDE-VE-----2
	Amprion	10YDE-RWENET---I
	APG	10YAT-APG-----L
	CEPS	10YCZ-CEPS-----N
	EirGrid	10YIE-1001A00010
	Elia	10YBE-----2
	IPTO	10YGR-HTSO-----Y

Fieldname	Value	Translation
	MAVIR	10YHU-MAVIR----U
	National Grid	10YGB-----A
	TenneT (DE)	10YDE-EON-----1
	TenneT (NL)	10YNL-----L
	Terna	10YIT-GRTN-----B
	Transelectrica	10YRO-TEL-----P
	TransnetBW	10YDE-ENBW-----N
	REE	10YES-REE-----0
	RTE	10YFR-RTE-----C
	PSE	10YPL-AREA-----S
	Svenska kraftnät	10YSE-1-----K
	SwissGrid	10YCH-SWISSGRIDZ
MarketArea	Gaspool	37Y701133MH0000P
	NCG	37Y701125MH0000I
	CEGH	21Y000000000009E
	PSV IT	21Y---A001A010-A
	VOB	21Y---A001A001-B
	THE	37Y005053MH0000R
ReportingAvailable Capacity	false	The company delivers no information on a voluntary commitment.
	true	The company delivers information on a voluntary commitment.
Source	Biomass	Biomass
	Fossil Hard coal	Hard Coal
	Fossil Coal-derived gas	Coal-derived Gas
	Waste	Waste
	Fossil Gas	Gas
	Geothermal	Geothermal
	Fossil Brown coal/Lignite	Lignite

Fieldname	Value	Translation
	Marine	Marine
	Fossil Oil	Oil
	Fossil Oil shale	Oil shale
	Other	Other
	Other renewable	Other Renewable
	Fossil Peat	Peat
	Hydro Pumped Storage	Pumped Storage
	Hydro Run-of-river and poundage	Run-of-River
	Hydro Water Reservoir	Water Reservoir
	Solar	Solar
	Nuclear	Nuclear
	Wind Offshore	Wind (Offshore)
	Wind Onshore	Wind (Onshore)
Status	Active	The non-usability message is active (not cancelled).
	Dismissed	The non-usability message is not active (cancelled).
Type	Planned	If the disturbance takes place after the notification was sent.
	Unplanned	If the disturbance has already begun before the notification was sent.
Reason	External factors	Official instructions, environmental legislation requirements, work stoppages or the like lead to a restriction in output or to the standstill of the production, consumption or storage facility.
	Maintenance	Regular planned outage for the renewal, maintenance and review of components.
	Other	There is a reason which is not covered by the reasons below.
	Outage	There is a technical malfunction on at least one or several components of the production, consumption or storage unit.

Table 7: Specific Range of Data Fields

5.6 Field specification for API Responses

5.6.1 Time series Data

The following chapter will list all available data types and the fields that the API can return. The heading for each section is the SYMBOL as passed into the API.

5.6.1.1 ExAnteInformationAvailableCapacityPower

The Available Capacity Information contains information on the available capacity of generation units. The Available Capacity Information will return the following data types:

- Symbol
- LineType
- Country
- Source
- TimeStamp
- AvailableCapacity
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.2 ExAnteInformationNonUsableCapacityPower

The Non-Usable Capacity contains information on the non-usable capacity of generation units. The Non-Usable Capacity Information will return the following data types:

- Symbol
- LineType
- Country
- Source
- TimeStamp
- NonUsableCapacity
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.3 ExPostInformationActualPlantGenerationPower

The Actual Generation contains information on the production of all power generation units per source in the respective country. The Actual Generation information will return the following data types:

- Symbol
- LineType
- Country
- Source
- TimeStamp
- ActualGeneration
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.4 ExPostInformationActualUnitGenerationPower

The Actual Unit Generation contains information on the actual production of generation units. The Actual Unit Generation will return the following data types:

- Symbol
- LineType
- Country
- UnitID
- TimeStamp
- ActualGeneration
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.5 ExAnteInformationPlannedGenerationPower

The Country Planned Generation Line containing information of the planned generation in the respective country by source. The Country Planned Generation will return the following data types:

- Symbol
- LineType
- Country
- Source
- TimeStamp
- PlannedGeneration
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.6 ExPostInformationGenerationSolarPower

The Actual Solar Power Generation contains publications of the actual generation from solar energy per control area. The Actual Solar Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp
- ActualSolarEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.7 ExAnteInformationGenerationSolarPower

The Expected Solar Power Generation Line is used for publication of the expected generation from solar energy per control area. The Expected Solar Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp

- ExpectedSolarEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.8 ExPostInformationGenerationWindPower

The Actual Wind Power Generation contains publications of the actual generation from wind energy per control area. The Actual wind Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp
- ActualWindEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.9 ExAnteInformationGenerationWindPower

The Expected Wind Power Generation Line is used for publication of the expected generation from wind energy per control area. The Expected wind Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp
- ExpectedWindEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.10 ExPostInformationGenerationEuroSolarPower

The Actual Solar Power Generation contains publications of the actual generation from solar energy per control area provided by EuroWind. The Actual Solar Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp
- ActualSolarEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.11 ExAnteInformationGenerationEuroSolarPower

The Expected Solar Power Generation Line is used for publication of the expected generation from solar energy per control area provided by EuroWind. The Expected Solar Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp
- ExpectedSolarEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.12 ExPostInformationGenerationEuroWindPower

The Actual Wind Power Generation contains publications of the actual generation from wind energy per control area provided by EuroWind. The Actual wind Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp
- ActualWindEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.13 ExAnteInformationGenerationEuroWindPower

The Expected Wind Power Generation Line is used for publication of the expected generation from wind energy per control area provided by EuroWind. The Expected wind Power Generation will return the following data types:

- Symbol
- LineType
- ControlArea
- Source
- TimeStamp
- ExpectedWindEnergy
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.14 ExPostInformationActualConsumptionPower

The Actual Consumption Power contains information on the actual consumption of power units in the respective country. The Actual Consumption Power will return the following data types:

- Symbol
- LineType
- Country
- TimeStamp
- ActualConsumption
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.15 ExAnteInformationPlannedConsumptionPower

The Planned Consumption Power Line containing information of the planned consumption in the respective country. The Planned Consumption Power will return the following data types:

- Symbol
- LineType
- Country
- TimeStamp
- PlannedConsumption
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.16 ExAnteInformationWorkingCapacityStoragePower

The Working Capacity Power contains information on the working capacity of power units. The Working Capacity Power will return the following data types:

- Symbol
- LineType
- UnitID
- TimeStamp
- WorkingCapacity
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.17 ExPostInformationActualStoragePower

The Actual Power Storage contains information on the actual storage of power units in the respective country. The Actual Power Storage will return the following data types:

- Symbol
- LineType
- Country
- TimeStamp
- Quantity
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.18 ExPostInformationActualConsumptionGas

The Actual Consumption Gas contains information on the actual consumption of gas units. The Actual Consumption Gas will return the following data types:

- Symbol
- LineType
- MarketArea
- TimeStamp
- ActualConsumption
- PublicationTimeStamp
- ModificationTimeStamp

5.6.1.19 ExAnteInformationPlannedConsumptionGas

The Planned Consumption Gas Line containing information of the planned consumption in the respective market area. The Planned Consumption Gas will return the following data types:

- Symbol
- LineType
- MarketArea
- TimeStamp
- ActualConsumption
- PublicationTimeStamp
- ModificationTimeStamp

5.6.2 Event Data

5.6.2.1 NonUsabilityGenerationPower

The Non-Usability Generation Line is used for publication of Non-Usability Messages of power generation units. The Non-Usability Generation will return the following data types:

- Symbol
- LineType
- Country
- CompanyID
- ACERCode
- ProdConsID
- UnitID
- EIC
- Commodity
- Facility
- ControlArea
- Source
- InstalledCapacity
- Type
- EventID
- NUMStartDate
- NUMEndDate

- CapacitySeries
 - AvailableCapacity
 - NUMCapacity
 - IntervalStart
 - IntervalEnd
- NonavailabilityReason
- Remarks
- TimeStamp
- Status
- PublicationTimeStamp
- ModificationTimeStamp

5.6.2.2 NonUsabilityConsumptionPower

The Non-Usability Consumption Line is used for publication of Non-Usability Messages of power consumption units. The Non-Usability Consumption will return the following data types:

- Symbol
- LineType
- Country
- CompanyID
- ACERCode
- ProdConsID
- UnitID
- EIC
- Commodity
- Facility
- ControlArea
- InstalledCapacity
- Type
- EventID
- NUMStartDate
- NUMEndDate
- CapacitySeries
 - AvailableCapacity
 - NUMCapacity
 - IntervalStart
 - IntervalEnd
- NonavailabilityReason
- Remarks
- TimeStamp
- Status
- PublicationTimeStamp
- ModificationTimeStamp

5.6.2.3 NonUsabilityStoragePower

The Non-Usability Storage Line is used for publication of Non-Usability Messages of power storage units. The Non-Usability Generation will return the following data types:

- Symbol
- LineType
- Country
- CompanyID
- ACERCode
- ProdConsID
- UnitID
- EIC
- Commodity
- Facility
- ControlArea
- InstalledCapacity
- Type
- EventID
- NUMStartDate
- NUMEndDate
- CapacitySeries
 - AvailableCapacity
 - NUMCapacity
 - IntervalStart
 - IntervalEnd
- NonavailabilityReason
- Remarks
- TimeStamp
- Status
- PublicationTimeStamp
- ModificationTimeStamp

5.6.2.4 NonUsabilityConsumptionGas

The Non-Usability Consumption Line is used for publication of Non-Usability Messages of gas consumption units. The Non-Usability Consumption will return the following data types:

- Symbol
- LineType
- Country
- CompanyID
- ACERCode
- ProdConsID
- UnitID
- EIC
- Commodity
- Facility
- MarketArea
- TechnicalCapacity

- Type
- EventID
- NUMStartDate
- NUMEndDate
- CapacitySeries
 - AvailableCapacity
 - NUMCapacity
 - IntervalStart
 - IntervalEnd
- NonavailabilityReason
- Remarks
- TimeStamp
- Status
- PublicationTimeStamp
- ModificationTimeStamp

5.6.2.5 NonUsabilityTransmissionGas

The Non-Usability Transmission Line is used for publication of Non-Usability Messages of gas transmission units. The Non-Usability Transmission will return the following data types:

- Symbol
- LineType
- Country
- CompanyID
- ACERCode
- ProdConsID
- UnitID
- EIC
- Commodity
- Facility
- MarketArea
- TechnicalCapacity
- Type
- Direction
- EventID
- NUMStartDate
- NUMEndDate
- CapacitySeries
 - AvailableCapacity
 - NUMCapacity
 - IntervalStart
 - IntervalEnd
- NonavailabilityReason
- Remarks
- TimeStamp
- Status
- PublicationTimeStamp

- ModificationTimeStamp

5.6.2.6 AdhocMessages

The Ad hoc Message contains information on the ad hoc messages. The Ad hoc Message will return the following data types:

- Symbol
- LineType
- Country
- CompanyID
- CompanyName
- EventID
- Status
- AdhocType
- StartDate
- EndDate
- Message
- TimeStamp
- PublicationTimeStamp
- ModificationTimeStamp

5.6.3 Master Data

5.6.3.1 Company

The Company Information Line is used for publication of company information. The Company Information will return the following data types:

- Symbol
- LineType
- CompanyID
- CompanyName
- MarketParticipantCode
- ReportingAvailableCapacity
- PublicationTimeStamp
- ModificationTimeStamp

5.6.3.2 ProdCons

In the Producer and Consumer Information Line information to producers and consumers can be found. The Producer and Consumer Information will return the following data types:

- Symbol
- LineType
- CompanyID
- ProdConsID
- ProdConsName
- Commodity
- Facility
- WGS84Latitude
- WGS84Longitude
- Country
- PublicationTimeStamp
- ModificationTimeStamp

5.6.3.3 Unit

The Consumption Unit Information Line is used for publication of information regarding to consumption units. The Consumption Unit Information will return the following data types:

- Symbol
- LineType
- CompanyID
- ProdConsID
- UnitID
- UnitName
- Commodity
- Facility
- ControlArea (Power) ; MarketArea (Gas)
- Source
- Commercialisation

- StartDate
- EndDate
- PublicationTimeStamp
- ModificationTimeStamp

5.6.3.4 Capacity

The Generation Capacity Information Line is used for publication of information referring to the installed capacity of generation (installed net bottleneck output) units. The Generation Capacity Information will return the following data types:

- Symbol
- LineType
- UnitID
- TimeStamp
- Capacity
- PublicationTimeStamp
- ModificationTimeStamp

6. API Methods

6.1 getTimeSeries

The method returns time series data from the EEX Transparency Platform database:

6.1.1 getTimeSeries Parameters

Name	Optional	Description
Symbol	No	Identifier for time series data package.
Start	No	A date in the format, depending on the time resolution of the time series requested (e.g. 'YYYY-MM-DD hh:mm'). Is equal to the first output TimeStamp.
End	No	A date in the format, depending on the time resolution of the time series requested (e.g. 'YYYY-MM-DD hh:mm'). Is equal to the last output TimeStamp.
DaysBack	No	Synonymous with the START/ END pair, with the proviso that END is the current date. So 3, would count 3 days back from today.
Country	Yes	Country which data is requested for (e.g. DE, AT, CH, ...).
ControlArea	Yes	Control Area which data is requested for (e.g. Amprion, APG, ...).
MarketArea	Yes	Market Area which data is requested for (e.g. CEGH, VOB, ...).
Source	Yes	Fuel type which data is requested for (e.g. Biomass, Fossil Gas, ...).
UnitID	Yes	Unit which data is requested for (e.g. E110235-001, S110328-001, ...).
TimeStamp	Yes	Is related to quantity value. Number of time stamps depends on request.
Quantity	Yes	Value for a specific time stamp in the specific unit (e.g. MW, MWh, ...).
PublicationTimeStamp	Yes	Date and time of the publication into database of the respective value.
ModificationTimeStamp	Yes	Date and time of the last update of the respective value.

Table 8: getTimeSeries Parameters

6.2 getEvent

The method returns event data from the EEX Transparency Platform database:

6.2.1 getEvent Parameters

Name	Optional	Description
Symbol	No	Identifier for event data package.
Event_Start	No	A date in the format, 'YYYY-MM-DD hh:mm'. Is equal to the NUMStartDate.
Event_End	No	A date in the format, 'YYYY-MM-DD hh:mm'. Is equal to the NUMEndDate.
Update_Start	No	Expressed as date in the format, 'YYYY-MM-DD hh:mm'. Requests events with ModificationTimeStamp \geq 'YYYY-MM-DD hh:mm'. If specified, Update_End needs be specified as well.
Update_End	No	Expressed as date in the format, "YYYY-MM-DD hh:mm". Requests events with ModificationTimeStamp \leq 'YYYY-MM-DD hh:mm'. If specified, Update_Start needs be specified as well.
Event_Back	No	Expressed as an integer. Returns the most recent events based on the ModificationTimeStamp for the requested parameters.
Update_Back	No	Expressed as an integer. Synonymous with the Update_Start/ Update_End pair, with the proviso that Update_End is the current date.
Country	Yes	Country which data is requested for (e.g. DE, AT, CH, ...).
CompanyID	Yes	Affected company
ProdConsID	Yes	Affected facility
UnitID	Yes	Affected unit
Commodity	Yes	Commodity of the affected Unit (Power, Gas).
Facility	Yes	Identifier if the affected Unit is Producer, Storage or Consumer.
ControlArea	Yes	Power: Control Area of the affected unit (e.g. Amprion, APG, ...).
MarketArea	Yes	Gas: Market Area of the affected unit (e.g. CEGH, VOB, ...).
Source	Yes	Fuel type of the affected unit (e.g. Biomass, Fossil Gas, ...).
Type	Yes	Type of Non-Usability (Planned or Unplanned).
EventID	Yes	Unique identifier of the specific event.

Name	Optional	Description
NUMStartDate	Yes	Begin of the event (same as Event_Start).
NUMEndDate	Yes	Stop of the event (same as Event_End).
NUMCapacity	Yes	Value for non-usable capacity in MW.
NonavailabilityReason	Yes	Reason of the event (e.g. Outage, Maintenance, ...).
TimeStamp	Yes	Date and time of the initial message.
Status	Yes	Status of the event (Active or Dismissed).
PublicationTimeStamp	Yes	Date and time of publication into database.
ModificationTimeStamp	Yes	Date and time of the last modification of the respective event.

Table 9: getEvent Parameters

6.3 getMasterDataCompany

The method returns master data from the EEX Transparency Platform database:

6.3.1 getMasterDataCompany Parameters

Name	Optional	Description
Symbol	No	Identifier for Company data package
CompanyID	Yes	ID of the company.
CompanyName	Yes	Name of the company.
MarketParticipantCode	Yes	Market Participant Code (ACER Code) of the reporting company.
ReportingAvailableCapacity	Yes	Flag for the reporting of the available capacity (true or false).
PublicationTimeStamp	Yes	Date and time of publication into database.
ModificationTimeStamp	Yes	Date and time of the last modification of the entries.

Table 10: getMasterDataCompany Parameters

6.4 getMasterDataProdCons

The method returns master data from the EEX Transparency Platform database:

6.4.1 getMasterDataProdCons Parameters

Name	Optional	Description
Symbol	No	Identifier for ProdCons data package.
CompanyID	Yes	ID of the company.
ProdConsID	Yes	ID of the facility.
ProdConsName	Yes	Name of the facility.
Commodity	Yes	Commodity of the affected unit (Power, Gas).
Facility	Yes	Identifier if the affected unit is Producer, Storage or Consumer.
WGS84Latitude	Yes	location of a place on earth north or south of the equator
WGS84Longitude	Yes	geographic coordinate navigation for east-west
Country	Yes	Country of the facility.
PublicationTimeStamp	Yes	Date and time of publication into database.
ModificationTimeStamp	Yes	Date and time of the last modification of the entries.

Table 11: getMasterDataProdCons Parameters

6.5 getMasterDataUnit

The method returns master data from the EEX Transparency Platform database:

6.5.1 getMasterDataUnit Parameters

Name	Optional	Description
Symbol	No	Identifier for unit data package.
Commodity	No	Valid values are Gas or Power.
CompanyID	Yes	ID of the company.
ProdConsID	Yes	ID of the facility.
UnitID	Yes	ID of the unit.
UnitName	Yes	Name of the unit.

Name	Optional	Description
Commodity	Yes	Commodity of the affected unit (Power, Gas).
Facility	Yes	Identifier if the affected unit is Producer, Storage or Consumer.
ControlArea	Yes	Control Area of the affected unit (e.g. Amprion, APG, ...).
MarketArea	Yes	Market Area of the affected unit (e.g. CEGH, VOB, ...).
Source	Yes	Fuel type which data is requested for (e.g. Biomass, Fossil Gas, ...).
Commercialisation	Yes	Is the output free for marketing (true or false).
StartDate	Yes	Begin of reporting.
EndDate	Yes	End of reporting.
PublicationTimeStamp	Yes	Date and time of publication into database.
ModificationTimeStamp	Yes	Date and time of the last modification of the entries.

Table 12: getMasterDataUnit Parameters

The compulsory parameter Commodity will determine whether ControlArea or MarketArea is returned in the response. If the Commodity=Power, then ControlArea will be returned. If the Commodity=Gas, then the MarketArea will be returned. If the request specifies Power but tries to filter using the MarketArea parameter, no results will be returned. Similarly, if the request specifies Gas but tries to filter using the ControlArea parameter, no results will be returned.

6.6 getMasterDataCapacity

The method returns master data from the EEX Transparency Platform database:

6.6.1 getMasterDataCapacity Parameters

Name	Optional	Description
Symbol	No	Identifier for time capacity data package.
UnitID	Yes	ID of the unit.
TimeStamp	Yes	Describes the date from which this value is valid.
Capacity	Yes	Value for the installed Capacity (MW).
PublicationTimeStamp	Yes	Date and time of publication into database.
ModificationTimeStamp	Yes	Date and time of the last modification of the entries.

Table 13: getMasterDataCapacity Parameters

7. API Calls

Below you will find examples for accessing the API.

7.1 API Requests

As described in section 5.1, subscribed customers are able to request the web service API. In the following the major request methods as well as example responses are described.

7.1.1 URL Example Request

The simplest example is using an https request and should illustrate the structure of the request and the expected form of response.

The requests below query the results for the Power Consumption Non-Usabilities for the company ID ENBWTRADING0 with Update time between 2018-01-01 11:20 and 2018-08-11 11:15 UTC.

JSON Request (additional /JSON qualifier in request):

- `https://api1.datasource.eex-group.com/getEvent/json?Symbol=NonUsabilityConsumptionPower&Update_Start=2018-01-01%2011:20&Update_End=2018-08-11%2015:00&CompanyID=ENBWTRADING0`

XML Request (no qualifier):

- `https://api1.datasource.eex-group.com/getEvent/?Symbol=NonUsabilityConsumptionPower&Update_Start=2018-01-01%2011:20&Update_End=2018-08-11%2011:15&CompanyID=ENBWTRADING0`

The data format required to be passed into the call is UTC standard date format: YYYY-MM-DD hh:mm. In the response the times returned are also in UTC, in standard format.

The API call must always include one of these start/end parameters as follows:

- Update_Start/End pair
- Event_Start/End pair
- Update_Back
- Event_Back

Additionally, the following conditions need to be considered:

- If an Update_Start parameter is provided, an Update_End parameter must be provided (and vice-versa)

- If an Event_Start parameter is provided, an Event_End parameter must be provided (and vice versa)
- An Update_Back parameter is a numeric value representing number of days back
- An Event_Back parameter is a number value representing the number of events back (for the events method) to retrieve data for

date parameters take precedence over the Update_Back and Event_Back parameters. If dates are provided, the relevant “Back” parameter is ignored. If dates are not provided, the “Back” parameter(s) calculate days back using 00:00:00 UTC time as a start time and 23:59:59 as an end time.

Please note, if all parameters are left blank, an error is returned noting all of the parameters cannot be left blank.

Additional filter parameters can be included. The example above uses the CompanyID to filter the results to return only those from ENBWTRADING0.

The range parameters should be the first parameters in the API call, after that the order of parameters is not important.

A full list of parameters for each call is detailed in the section 6 (API Methods).

7.1.2 Java Example Request

Below is the same example request written using Java.

```
package com.company.ps.test;

import java.io.DataOutputStream;
import java.io.IOException;
import java.net.HttpURLConnection;
import java.net.MalformedURLException;
import java.net.URL;
import java.util.Scanner;

import sun.misc.BASE64Encoder;

public class EEXRequest {

    // Main method
    public static void main(String[] args) {

        EEXRequest client = new EEXRequest();
        if (args.length >= 3) {
            try {
                client.execute(args[0], args[1], args[2]);
            } catch (Exception e) {
```



```

        e.printStackTrace();
    }
} else {
    System.out.println("Usage : EEXRequest <URL> <user>
<password>");
    // Example https://api1.datasources.eex-
group.com/getEvent/csv?Symbol=NonUsabilityConsumptionPower&Update_Start=2018-01-
01T11:20Z&Update_End=2018-08-11T11:15Z user1 password123
    }
}

public void execute(String serverURL, String user, String password) throws
MalformedURLException, IOException {

    // If you need to go through proxy by setting system properties

    // Proxy server
//
//      System.getProperties().setProperty("proxySet", "true");
//
//      System.getProperties().setProperty("proxyHost", proxy);
//
//      System.getProperties().setProperty("proxyPort", proxyPort);

    // Proxy server credentials if needed
//
//      System.getProperties().setProperty("proxy.authentication.username",
proxyUsername);
//
//      System.getProperties().setProperty("proxy.authentication.password",
proxyPassword);

    // Construct request
URL httpsFile = new URL(serverURL);
HttpsURLConnection connection =
(HttpsURLConnection)httpsFile.openConnection();
connection.setRequestMethod("GET");
connection.setRequestProperty("Content-Type", "application/x-www-form-
urlencoded");

    // Add credential to the request.
BASE64Encoder enc = new sun.misc.BASE64Encoder();
String encodedUsernameAndPassword = enc.encode((user + ":" +
password).getBytes());
connection.setRequestProperty("Authorization", "Basic " +
encodedUsernameAndPassword);

    //Send request
connection.setUseCaches(false);
connection.setDoInput(true);
connection.setDoOutput(true);
DataOutputStream wr = new
DataOutputStream(connection.getOutputStream());

```

```

        wr.flush();
        wr.close();

        // Read response and write to screen
        Scanner scanner = new Scanner(connection.getInputStream());
        String responseBody = scanner.useDelimiter("\\A").next();
        System.out.println(responseBody);
    }
}

```

The same rules apply to the parameters, so users are advised to read section 7.1.1– Basic Example.

7.1.3 C# Example Request

Below is an example using C# to interact with the API.

```

using System;
using System.IO;
using System.Net;
using System.Net.Http;
using CsvHelper;
using CsvHelper.Configuration;

public class Event {
    public string Symbol { get; set; }
    public string LineType { get; set; }
    public string Country { get; set; }
    public string CompanyID { get; set; }
    public string ACERCode { get; set; }
    public string ProdConsID { get; set; }
    public string UnitID { get; set; }
    public string EIC { get; set; }
    public string ControlArea { get; set; }
    public string Source { get; set; }
    public string InstalledCapacity { get; set; }
    public string Type { get; set; }
    public string EventID { get; set; }
    public DateTime NUMStartDate { get; set; }
    public DateTime NUMEndDate { get; set; }
    public string CapacitySeries { get; set; }
    public string NonavailabilityReason { get; set; }
    public string Remarks { get; set; }
    public DateTime TimeStamp { get; set; }
    public string Status { get; set; }
    public DateTime PublicationTimeStamp { get; set; }
    public DateTime ModificationTimeStamp { get; set; }
}

```

```

        public override string ToString() {
            return base.ToString();
        }
    }

class Program {
    static void Main(string[] args) {
        var client = new HttpClient(new HttpClientHandler { Credentials =
new NetworkCredential("user", "password") });
        var resp = client.GetAsync("https://api1.datasources.eex-
group.com/getEvent?Symbol=NonUsabilityConsumptionPower&Update_Start=2018-01-
01T11:20Z&Update_End=2018-08-11T11:15Z").Result;
        if (!resp.IsSuccessStatusCode) {
            Console.Error.WriteLine(resp.StatusCode + ": " +
resp.ReasonPhrase);
            Environment.Exit(1);
        }

        using (var csv = new CsvReader(new
StreamReader(resp.Content.ReadAsStreamAsync().Result), new Configuration {
ShouldSkipRecord = arr => arr[0] == "Error" })) {
            csv.Read();
            csv.ReadHeader();
            while (csv.Read()) {
                var record = csv.GetRecord<Event>();
                Console.WriteLine(record);
            }
        }
    }
}

```

The same rules apply to the parameters, so users are advised to read section 7.1.1– Basic Example.

7.2 API Responses

API responses are available in two formats:

- a) JSON
- b) XML

Example responses for each type to be found in the following section.

7.3 JSON sample return

```

"Symbol": "NonUsabilityGenerationPower",
"LineType": "NUGL",
"Country": "NL",
"CompanyID": "Outsmart_Noordzeewind",
"ACERCode": "A0012844D.NL",
"ProdConsID": "E110645",
"Commodity": "Power",
"Facility": "Producer",
"UnitID": "E110645-001",
"EIC": "49W000000000118X",
"ControlArea": "Tennet (NL)",
"Source": "Wind Offshore",
"InstalledCapacity": 108,
"Type": "Planned",
"EventID": "00000SPRFL2022-05-05#5485_002",
"NUMStartDate": "2022-05-05T00:00:00Z",
"NUMEndDate": "2022-05-05T23:59:59Z",
"CapacitySeries":
"AvailableCapacity=\"18.0\",NUMCapacity=\"42.0\",IntervalStart=\"2022-05-05T00:00:00Z\",IntervalEnd=\"2022-05-05T14:00:00Z\"|AvailableCapacity=\"21.0\",NUMCapacity=\"39.0\",IntervalStart=\"2022-05-05T14:00:00Z\",IntervalEnd=\"2022-05-05T23:59:59Z\"",
"NonavailabilityReason": "Outage",
"Remarks": "",
"TimeStamp": "2022-04-30T16:35:03Z",
"Status": "Active",
"PublicationTimeStamp": "2022-05-05T05:56:05Z",
"ModificationTimeStamp": "2022-05-05T05:55:04Z"
}

```

This is one example record from the retrieved response. It is standard JSON containing name/value pairs for the returned data.

7.4 XML sample return

```

<Row>
<Field Name="Symbol">NonUsabilityGenerationPower</Field>
<Field Name="LineType">NUGL</Field>
<Field Name="Country">NL</Field>
<Field Name="CompanyID">Outsmart_Noordzeewind</Field>
<Field Name="ACERCode">A0012844D.NL</Field>
<Field Name="ProdConsID">E110645</Field>
<Field Name="Commodity">Power</Field>
<Field Name="Facility">Producer</Field>
<Field Name="UnitID">E110645-001</Field>
<Field Name="EIC">49W000000000118X</Field>
<Field Name="ControlArea">Tennet (NL)</Field>
<Field Name="Source">Wind Offshore</Field>
<Field Name="InstalledCapacity">108</Field>
<Field Name="Type">Planned</Field>
<Field Name="EventID">0000OSPRFL2022-05-05#5485_002</Field>
<Field Name="NUMStartDate">2022-05-05T00:00:00Z</Field>
<Field Name="NUMEndDate">2022-05-05T23:59:59Z</Field>
<Field Name="CapacitySeries">AvailableCapacity="18.0",NUMCapacity="42.0",Intervals
tart="2022-05-05T00:00:00Z",IntervalEnd="2022-05-
05T14:00:00Z"|AvailableCapacity="21.0",NUMCapacity="39.0",IntervalStart="2022-05-
05T14:00:00Z",IntervalEnd="2022-05-05T23:59:59Z"</Field>
<Field Name="NonavailabilityReason">Outage</Field>
<Field Name="Remarks"/>
<Field Name="TimeStamp">2022-04-30T16:35:03Z</Field>
<Field Name="Status">Active</Field>
<Field Name="PublicationTimeStamp">2022-05-05T05:56:05Z</Field>
<Field Name="ModificationTimeStamp">2022-05-05T05:55:04Z</Field>
</Row>

```

This is standard XML representing the fields returned in the response.

7.5 Examples

7.5.1 getTimeSeries

- 1) <https://api1.datasources.eex-group.com/getTimeSeries?Symbol=ExPostInformationActualUnitGenerationPower&Country=BE&DaysBack=6>
- 2) <https://api1.datasources.eex-group.com/getTimeSeries?Symbol=ExPostInformationActualUnitGenerationPower&Country=DE&Start=2018-10-18%2022:00&End=2018-10-19%2021:45>
- 3) <https://api1.datasources.eex-group.com/getTimeSeries?Symbol=ExAnteInformationPlannedGenerationPower&Start=2018-10-17%2022:00&End=2018-10-18%2021:45>
- 4) <https://api1.datasources.eex-group.com/getTimeSeries?Symbol=ExAnteInformationPlannedGenerationPower&Country=NL&Start=2018-10-17%2022:00&End=2018-10-18%2021:00>
- 5) <https://api1.datasources.eex-group.com/getTimeSeries?Symbol=ExAnteInformationAvailableCapacityPower&Start=2018-10-01&End=2018-10-02>

7.5.2 getEvent

- 1) https://api1.datasources.eex-group.com/getEvent?Symbol=NonUsabilityGenerationPower&Country=DE&Update_Back=1
- 2) https://api1.datasources.eex-group.com/getEvent?Symbol=NonUsabilityConsumptionGas&Country=DE&Update_Back=100
- 3) https://api1.datasources.eex-group.com/getEvent?Symbol=NonUsabilityConsumptionPower&Update_Back=100
- 4) https://api1.datasources.eex-group.com/getEvent?Symbol=NonUsabilityStoragePower&Country=DE&Update_Back=5
- 5) https://api1.datasources.eex-group.com/getEvent/xml?Symbol=NonUsabilityTransmissionGas&Update_Back=10
- 6) https://api1.datasources.eex-group.com/getEvent?Symbol=AdhocMessages&Update_Back=10

7.5.3 getMasterData

- 1) <https://api1.datasources.eex-group.com/getMasterData?Symbol=Company>
- 2) <https://api1.datasources.eex-group.com/getMasterData?Symbol=ProdCons>
- 3) <https://api1.datasources.eex-group.com/getMasterData?Symbol=Unit>
- 4) <https://api1.datasources.eex-group.com/getMasterData?Symbol=Capacity>

8. Known Issues

8.1 General known issues

- a) Occasional missing values for "ModificationTimeStamp" of historic data only

8.2 Symbol specific known issues

8.2.1 ExPostInformationActualPlantGenerationPower

- a) incomplete data in API return for AT and DE (2014-12-31T23:00:00Z to 2015-07-24T21:00:00Z)

8.2.2 ExPostInformationActualUnitGenerationPower

- a) Occasional missing historic data for inactive units only

8.2.3 NonUsabilityGenerationPower

- a) The information on AvailableCapacity is only included from 2020-06-29
- b) The information on InstalledCapacity is only included from 2022-06-28

8.2.4 NonUsabilityConsumptionPower

- a) The information on AvailableCapacity is only included from 2020-06-29
- b) The information on InstalledCapacity is only included from 2022-06-28

8.2.5 NonUsabilityStoragePower

- a) The information on AvailableCapacity is only included from 2020-06-29
- b) The information on InstalledCapacity is only included from 2022-06-28