ACCESS CODE FOR TRANSMISSION

Attachment A:

Transmission Model

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1 Definitions

Unless the context requires otherwise, the definitions set out in the Attachment 3 of the STA apply to this Attachment A. Capitalized words and expressions used in this Attachment A which are not defined in the Attachment 3 of the STA shall have the following meaning:

1.1 Naming conventions

The variables and parameters used in this Attachment are named according to the following naming conventions, unless indicated otherwise:

- indices to *sum* function (e.g. $\sum_{indice} variable_i$), *max* and *min* functions :
    - *d* = sum of values per hour of Gas Day *d*
    - *m* = sum of values per Gas Day *d* of Gas Month *m*
    - *zone* = sum of values of all Interconnection Points or Domestic Exit Points of the Zone, as specified
    - *(all) Grid Users* = sum of values for all Grid Users
- indices : *h* = hourly; *d* = daily; *m* = monthly; *y* = yearly
- indices : *f* = forecast; *r* = real (actual)
- index: *a* = auction
- prefix (tariffs) : *T* = Regulated Tariff
- prefix : *E* = Entry; *X* = Exit
- prefix (nominations, allocations) : *E* = Energy; *V* = Volume
- suffix : *M* = Metering; *N* = Nomination; *A* = Allocation
- suffix prime (') = final (allocation) or last (nomination); no quote means provisional (allocation) or initial (nomination)
- suffix m = matched
- suffix * = before settlement; no suffix means after settlement
- indices (exceedings) : *p* = peak; *np* = non-peak
- prefix (incentives) : *E* = Excess or Exceeding; *S* = Shortfall; *I* = Incentives
- indices (capacity services): e = Entry; x = Exit, dl = Direct Line
- indices (capacity type): f = Firm; b = Backhaul; i = Interruptible; io = Operational Interruptible
- indices (rate type): y = Yearly; s = Seasonal; st = Short Term; ff = Fix/Flex
- indices (Point): IP = Interconnection Point; XP = Domestic Exit Point, z = Zone

- indices ts = Transmission Service; ct = Capacity Type; rt = Rate Type; rs = Reshuffling Service
- indices (market): 1m = Primary Market; 2m = Secondary Market,
- indices (Grid User): g = Grid User,
- indices qcs = Quality Conversion Service; bl = base load; pl = peak load; sl = seasonal load,
- indices implicit allocation: ia = implicit allocation; h-n = a previous hour in the same Gas Day

1.2 List of definitions

The following term is defined as:

The variables and parameters used in this Agreement are listed hereunder:

$AS_{d,z,g}$	Allocation Settlement – daily value per Grid User per Zone, compensating the difference between allocations based on provisional data and allocations based on final data, expressed in kWh, as provided for in section 5.45.4.
$ASGP_{d,z,g}$	Allocation Settlement Grid User Purchase – daily value per Grid User per Zone, purchase compensating a negative Allocation Settlement ($AS_{d,z,g}$) , expressed in €, as provided for in section 5.45.4.
$ASGS_{d,z,g}$	Allocation Settlement Grid User Sale – daily value per Grid User per Zone, sale compensating a positive Allocation Settlement ($AS_{d,z,g}$) , expressed in €, as provided for in section 5.45.4.
$CGCV_z$	Conversion Gross Calorific Value – fix conversion factor per Zone *z*, expressed in kWh/m³(n) for conversion of a MTSR subscribed in m³(h)/h towards kWh/h, which is equal to 11.3 for H calorific gas and to 9.8 for L calorific gas.
D_{dl}	Distance of Direct Line – expressed in km; as provided for in section 6.2.1.36.2.1.3.
$D'_{h,IP}$	Degree of UK Pollution – validated – hourly value per Interconnection Point, as provided for in section 3.9.3.43.9.3.4.
$D'_{h,Hzone}$	Degree of UK Pollution – validated – hourly value for the H zone, as provided for in section 3.9.3.43.9.3.4.
$DPRS_{XP}$	Dedicated Pressure Reduction Station – value per Domestic Exit Point; physical characteristic of a Domestic Exit Point; equals 1 if the Domestic Exit Point is equipped with a DPRS, and 0 otherwise, may be any value between 0 and 1 for Distribution Domestic Exit Points; as provided for in section 6.2.1.26.2.1.2.

$EBP_{d,z}$	Excess Balancing Price ($EBP_{d,z}$) – daily value per Zone; the lowest price of any sales in which the TSO is involved in respect of the Gas Day; for the considered Zone z; expressed in €/kWh. In case the TSO has not been able to totally or partially sell the Natural Gas compensating for the considered Market Excess ($ME_{d,z}$) in L-Zone, it will do so in the H-zone. In case of a quantity sold in H-Zone for compensating a Market Excess ($ME_{d,z}$) in the L-Zone, the price at which the TSO has sold the gas in the H-Zone in respect of the Gas Day will be decreased with a corresponding conversion fee in accordance with the applicable regulated tariff for a daily Firm Peak Load Gas Quality Conversion Service L→H offered by Fluxys Belgium, corresponding to the Firm capacity needed to convert such quantity in one hour.
$EBP_{h,z}$	Excess Balancing Price ($EBP_{h,z}$) – hourly value per Zone; the lowest price of any sales in which the TSO is involved in respect of the gas hour; for the considered Zone z; expressed in €/kWh. In case the TSO has not been able to totally or partially sell the Natural Gas compensating for the considered Market Excess ($ME_{h,z}$) in L-Zone, it will do so in the H-zone. In case of a quantity sold in H-Zone for compensating a Market Excess ($ME_{h,z}$) in the L-Zone, the Excess Balancing Price ($EBP_{h,z}$) will be decreased with a corresponding conversion fee in accordance with the applicable regulated tariff for a daily Firm Peak Load Gas Quality Conversion Service L->H, corresponding to the Firm capacity needed to convert such quantity in one hour. The Balancing Price for each Market Excess shall be published on the Electronic Data Platform.
$EBSP_{d,z}$	Excess Balancing Settlement Price ($EBSP_{d,z}$) – daily value per Zone z; determined in accordance with 5.3.7~~5.3.7~~ and 5.3.8~~5.3.8~~; expressed in €/kWh. The Excess Balancing Settlement Price ($EBSP_{d,z}$) will be published on the Electronic Data Platform for each End-of-Day Market Excess.
$EBSP_{h,z}$	Excess Balancing Settlement Price ($EBSP_{h,z}$) – hourly value per Zone z; determined in accordance with 5.3.3~~5.3.3~~; expressed in €/kWh. The Excess Balancing Settlement Price ($EBSP_{h,z}$) will be published on the Electronic Data Platform for each Within-day Market Excess.
$ECG_{h,z}$	Excess Causing Grid Users – hourly list of Grid Users causing the Market Excess for the considered hour *h*, for the considered Zone *z*, as set out in 5.3.3~~5.3.3~~.

EA'_h	Energy (final) Allocation – hourly value per Grid User and per Connection Point; expressed in kWh; as provided for in section 3.1.3~~3.1.3~~.
EEA'_h	Entry Energy (final) Allocation – hourly value per Grid User and per Connection Point; positive value expressed in kWh; as provided for in section 4.4~~4.4~~.
EEA_h	Entry Energy (provisional) Allocation – hourly value per Grid User and per Connection Point; positive value expressed in kWh; as provided for in section 4.4~~4.4~~.
EEE_d	Exceeding of Entry Energy – daily value per Grid User and per Connection Point; expressed in kWh/h; daily maximum of exceeding of entry energy, as provided for in section 3.1.3.1~~3.1.3.1~~.
$EEE_{m,\ np}$	Non-Peak Exceeding of Entry Energy – monthly value per Grid User and per Connection Point; expressed in kWh/h; sum of EEE_d over Month *m*, less $EEE_{m,\ p}$, as provided for in section 3.1.3.1~~3.1.3.1~~.
$EEE_{m,\ p}$	Peak Exceeding of Entry Energy – monthly value per Grid User and per Connection Point; expressed in kWh/h; maximum of EEE_d over Month *m*, as provided for in section 3.1.3.1~~3.1.3.1~~.
EEN_h	Entry Energy (initial) Nomination – hourly value per Grid User and per Connection Point; positive value expressed in kWh; nomination received by the TSO before 14:00 hours of Gas Day *d*-1 and accepted by the TSO, as provided for in section 4.2~~4.2~~.
EEN'_h	Entry Energy (last) Nomination – hourly value per Grid User and per Connection Point; positive value expressed in kWh; last nomination confirmed by the TSO, as provided for in section 4.2~~4.2~~.
$EEN'^{\,m}_h$	Entry Energy (last) Nomination – matched - hourly value per Grid User and per Connection Point; positive value expressed in kWh; last nomination confirmed by the TSO, as provided for in section 4.2~~4.2~~.
$EIMTSR_h$	Energy Interrupted Maximum Transmission Services Right – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in kWh; the part of $MTSR_i$ and/or $MTSR_{io}$ and/or $MTSR_b$ that is interrupted at hour *h*, as provided for in section 3.1.1~~3.1.1~~.
EM'_h	Energy (final) Measurement – hourly value per Interconnection Point or Domestic Exit Point; expressed in kWh; as provided for in section 4.

EM_h	Energy (provisional) Measurement – hourly value per Interconnection Point or Domestic Exit Point; expressed in kWh; as provided for in section 4.
$EMTSR_d$	Energy MTSR – daily value per Interconnection Point or Domestic Exit Point; expressed in kWh/h; as provided for in section 3.1.2~~3.1.2~~.
EVA'_h	Entry Volume (final) Allocation – hourly value per Grid User and per Interconnection Point; positive value expressed in m³(n); as provided for in section 4.
EVA_h	Entry Volume (provisional) Allocation – hourly value per Grid User and per Interconnection Point; positive value expressed in m³(n); as provided for in section 4.
EVM'_h	Entry Volume (final) Measurement – hourly value per Interconnection Point; expressed in m³(n); as provided for in section 4.
EVM_h	Entry Volume (provisional) Measurement – hourly value per Interconnection Point; expressed in m³(n); as provided for in section 4.
EXE_d	Exceeding of Exit Energy – daily value per Grid User and per Domestic Exit Point or Interconnection Point; expressed in kWh/h, daily maximum of exceeding of hourly exit energy, as provided for in section 3.1.3~~3.1.3~~.
$EXE_{m,\,np}$	Non-Peak Exceeding of Exit Energy – monthly value per Grid User and per Domestic Exit Point or Interconnection Point; expressed in kWh/h; sum of EXE_d over Month *m*, less $EXE_{m,\,p}$, as provided for in section 3.1.3~~3.1.3~~.
$EXE_{m,\,p}$	Peak Exceeding of Exit Energy – monthly value per Grid User and per Domestic Exit Point or Interconnection Point; expressed in kWh/h; maximum of EXE_d over Month *m*, as provided for in section 3.1.3~~3.1.3~~.
$GBP^*_{d,z,g}$	Grid User Balancing Position before settlement – End-of-Day hourly value per Grid User per Zone, for the last hour of the considered Gas Day d, expressed in kWh, based on provisional allocation values, as provided for in section 5.3.6~~5.3.6~~.
$GBP_{d,z,g}$	Grid User Balancing Position after settlement – End-of-Day hourly value per Grid User per Zone, for the last hour of the considered Gas Day d, expressed in kWh, based on provisional allocation values, as provided for in section 5.3.9~~5.3.9~~.
$GBP^*_{h,z,g}$	Grid User Balancing Position before settlement – hourly value per Grid User per Zone, expressed in kWh, based on provisional allocation values, as provided for in section 5.3.1~~5.3.1~~.

$GBP_{h,z,g}$	Grid User Balancing Position after settlement – hourly value per Grid User per Zone, expressed in kWh, based on provisional allocation values, as provided for in section 5.3.5~~5.3.5~~.
GCV'_h	Gross Calorific Value (final) – hourly value per Interconnection Point or Domestic Exit Point; expressed in kWh/m³(n); as provided for in section 3.1.2~~3.1.2~~.
GCV_h	Gross Calorific Value (provisional) – hourly value per Interconnection Point or Domestic Exit Point; expressed in kWh/m³(n); as provided for in section 3.1.2~~3.1.2~~.
$GE_{d,z,g}$	Grid User Excess – End-of-Day hourly value per Grid User per Zone, for the last hour of the considered Gas Day d, based on provisional values, expressed in kWh, as provided for in section 5.3.6~~5.3.6~~.
$GE_{h,z,g}$	Grid User Excess – hourly value per Grid User and per Zone, based on provisional values, expressed in kWh, as provided for in section 5.3.3~~5.3.3~~.
$GEBS_{d,z,g}$	Grid User Excess Balancing Settlement – End-of-Day value per Grid User and per Zone, based on provisional data, expressed in €; as provided for in section 5.3.7~~5.3.7~~.
$GEBS_{h,z,g}$	Grid User Excess Balancing Settlement – hourly value per Grid User and per Zone, based on Provisional data, expressed in €; as provided for in section 5.3.3~~5.3.3~~.
GP_d	Gas Price – reference price for Gas Day *d* – daily value; expressed in €/kWh. Fluxys Belgium will publish on its website – transmission tariff web-page – the currently applicable price reference together with the list of previous used references with their associated validity period. Such applicable price reference can change over time, subject to a notification by Fluxys Belgium to the market with pre-notice period of at least 1 month.
$GS_{d,z,g}$	Grid User Shortfall – End-of-Day hourly value per Grid User and per Zone, for the last hour of the considered Gas Day d, based on provisional values, expressed in kWh, as provided for in section 5.3.6~~5.3.6~~.
$GS_{h,z,g}$	Grid User Shortfall – hourly value per Grid User and per Zone, based on provisional values, expressed in kWh, as provided for in section 5.3.4~~5.3.4~~.
$GSBS_{d,z,g}$	Grid User Shortfall Balancing Settlement – End-of-Day value per Grid User *g* and per Zone *z*, based on provisional data, expressed in €, as provided for in section 5.3.8~~5.3.8~~.

$GSBS_{h,z,g}$	Grid User Shortfall Balancing Settlement – hourly value per Grid User *g* and per Zone *z*, based on Provisional data, expressed in €, as provided for in section 5.3.4~~5.3.4~~.
h	Hour – Period of 60 minutes, beginning at a full hour and ending at the next succeeding full hour, and identified by the beginning as herein defined.
$I_{h,z,g}$	Imbalance – hourly value in kWh per Zone and per Grid User; based on provisional values; as provided for in section 5.3.1~~5.3.1~~.
$I_{h,g,for\ allocation\ GDLux}$	Imbalance for GD Lux – hourly value – hourly imbalance in Grand Duchy Luxemburg for hour *h* and per Grid User *g*; based on the sum of provisional hourly Entry Allocation in energy on the Remich Interconnection Point (border between Germany and Great Duchy Luxemburg) and the provisional hourly Exit Allocations in energy (negative values) on the Domestic Exit Points in the Great Duchy Luxemburg.
$IEEE_{m,\ np}$	Incentives for Exceeding Entry Energy (non-peak) – monthly value per Grid User and per Interconnection Point; expressed in €; as provided for in section 3.1.3~~3.1.3~~.
$IEEE_{m,\ p}$	Incentives for Exceeding Entry Energy (peak) – monthly value per Grid User and per Interconnection Point; expressed in €; as provided for in section 3.1.3~~3.1.3~~.
$IEXE_{m,\ np}$	Incentives for Excess of Exit Energy (non-peak) – monthly value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in €; as provided for in section 3.1.3~~3.1.3~~.
$IEXE_{m,\ p}$	Incentives for Excess of Exit Energy (peak) – monthly value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in €; as provided for in section 3.1.3~~3.1.3~~.
$IIXS_m$	Incentives for Initial Exit Scheduling – monthly value per Grid User and per Domestic Exit Point; expressed in €; as provided for in section 4.5~~4.5~~.
$ILXS_m$	Incentives for Last Exit Scheduling – monthly value per Grid User and per Domestic Exit Point; expressed in €; as provided for in section 4.5~~4.5~~.
IXS_h	Initial Exit Scheduling – hourly value per Grid User and per Domestic Exit Point; expressed in kWh; as provided for in section 4.5~~4.5~~.
LXS_h	Last Exit Scheduling – hourly value per Grid User and per Domestic Exit Point; expressed in kWh; as provided for in section 4.5~~4.5~~.

$MBP_{d,z}$ Market Balancing Position after settlement – End-of-Day hourly value per Zone for the last hour of the considered Gas Day; expressed in kWh; as provided for in section 5.3.9~~5.3.9~~.

$MBP^*_{d,z}$ Market Balancing Position before settlement – End-of-Day hourly value per Zone, for the last hour of the considered Gas Day; expressed in kWh; as provided for in section 5.3.6~~5.3.6~~.

$MBP_{h,z}$ Market Balancing Position after settlement – hourly value per Zone; expressed in kWh; as provided for in section 5.3.5~~5.3.5~~.

$MBP^*_{h,z}$ Market Balancing Position before settlement – hourly value per Zone; expressed in kWh; as provided for in section 5.3.1~~5.3.1~~.

$ME_{d,z}$ Market Excess – End-of-Day hourly value per Zone for the last hour of the considered Gas Day; based on provisional values, expressed in kWh, positive value; as provided for in section 5.3.6~~5.3.6~~.

$ME_{h,z}$ Market Excess – hourly value per Zone; based on provisional values, expressed in kWh; as provided for in section 5.3.3~~5.3.3~~.

Monthly Administrative Fee

Amounts, invoiced to and payable by Grid User on a monthly basis based on the performed assignment transactions on the secondary market, cancellations and the subscribed real time data delivery service on the Electronic Data Platform, invoiced with the Monthly ADM Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Allocation Settlement Fee

Amounts payable by or to Grid User on a monthly basis based on the difference between the provisional and final allocations, invoiced with the Monthly COM Invoice or with the Monthly COM Self-billing Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Allocation Settlement Purchase Fee

Amounts, invoiced to and payable by Grid User on a monthly basis based on the subscribed Transmission Services, invoiced with the Monthly COM Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Allocation Settlement Sale Fee

Amounts, invoiced to and payable to Grid User on a monthly basis based on the subscribed Transmission Services, invoiced with the Monthly COM Self-billing Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Capacity Fee for implicitly allocated Transmission Services for Zeebrugge

Amounts, invoiced to and payable by Grid User on a monthly basis based on the implicit allocation of Transmission Services invoiced with the Monthly FIX Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Capacity Fee for Quality Conversion H->L

Amounts, invoiced to and payable by Grid User on a monthly basis based on the subscribed Quality Conversion H->L Services, invoiced with the Monthly FIX Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Capacity Fee for Quality Conversion L->H

Amounts, invoiced to and payable by Grid User on a monthly basis based on the subscribed Quality Conversion H->L Services, invoiced with the Monthly FIX Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Capacity Pooling Service Fee

Amounts, invoiced to and payable by Grid User on a monthly basis based on the subscribed Capacity Pooling Services, invoiced with the Monthly FIX Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6) section 6 of this Attachment and the Regulated Tariffs.

Monthly COM2 Invoice

Amounts, payable by Grid User on a monthly basis, in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly COM2 Self-billing Invoice

Amounts, payable to Grid User on a monthly basis, in accordance with the Standard Transmission Agreement (STA – Attachment 2

– Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Energy in Cash Fee

Amounts, payable by Grid User on a monthly basis, based on the transmitted quantities, invoiced with the Monthly COM Invoice, in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Variable Fee for Quality Conversion H->L

Amounts, payable by Grid User on a monthly basis, based on the converted quantities by the Quality Conversion H->L Service, invoiced with the Monthly COM Invoice, in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly DPRS Fee

Component of the Monthly Capacity Fee, invoiced to and payable by Grid User on a monthly basis, based on the Subscribed Transmission Services, invoiced with the Monthly FIX Invoice, in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Fixed Fees for ~~Hub~~ ZTP Trading Services

Amounts, invoiced to and payable by Grid User on a monthly basis based on the subscribed ZTP Trading~~Hub~~ Services, invoiced with the Monthly FIX Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Incentive Fee

Amounts, invoiced to and payable by Grid User on a monthly basis, for the Capacity Exceedings and Balancing Incentives, invoiced with the Monthly VAR Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Neutrality Charge Fee

Fee payable by or to be paid to Grid User on a monthly basis to cover the balancing costs as determined on the basis of the Regulated Tariffs.

Monthly Odorisation Fee

Amounts, invoiced to and payable by Grid User on a monthly basis, for the odorisation of the Natural Gas, invoiced with the Monthly COM Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Scheduling Fee

Amounts, invoiced to and payable by Grid User on a monthly basis, based on the inaccuracies in the Nominations, invoiced by the Monthly COM Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Settlement Fee

Amounts, payable by Grid User on a monthly basis based on the Grid User Balancing Position and the Market Balancing Position, invoiced with the Monthly COM Invoice, in accordance with this Standard Transmission Agreement (STA – Attachment 2 – Article 6 section 6 of this Attachment and the Regulated Tariffs.

~~*Monthly Settlement of Rounding, Automatic Back-Up and Offtake and of Additional Back-Up and Offtake*~~

~~Amounts, payable by Grid User or to the Grid user, on a monthly basis based on the provided rounding, Automatic and Additional Backup and Offtake, as described in ACT – Attachment C1$_{BE}$.~~

Monthly Transmission Imbalance Settlement Fee

Amounts, payable by Grid User on a monthly basis based on Transmission Imbalance, invoiced with the Monthly COM Invoice, in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly UK Compliancy Adjustment Fee

Amounts, invoiced to and payable by Grid User on a monthly basis, for the UK compliancy adjustment service, invoiced with the Monthly COM Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

Monthly Variable Fees for ZTP Trading~~Hub~~ Services

Amounts, invoiced to and payable by Grid User on a monthly basis, based on traded/transferred quantities of Gas through ZTP Trading~~Hub~~ Services, invoiced with the Monthly COM Invoice

in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs

Monthly Zee Platform Fee

Amounts, invoiced to and payable by Grid User on a monthly basis based on the subscribed Zee Platform Services, invoiced with the Monthly FIX Invoice in accordance with the Standard Transmission Agreement (STA – Attachment 2 – Article 6), section 6 of this Attachment and the Regulated Tariffs.

MP_{XP} Medium Pressure – value per Domestic Exit Point; physical characteristic of a Domestic Exit Point; equals 1 if the Domestic Exit Point is on a MP-grid, and 0 if the Domestic Exit Point is on a HP-grid; may be any value between 0 and 1 for Domestic Exit Points of type ARS, as provided for in section 6.2.1.2~~6.2.1.2~~.

$MS_{d,z}$ Market Shortfall – End-of-Day hourly value per Zone for the last hour of the considered Gas Day, based on provisional values; expressed in kWh; as provided for in section 5.3.6~~5.3.6~~.

$MS_{h,z}$ Market Shortfall – hourly value per Zone, based on provisional values; expressed in kWh, positive value; as provided for in section 5.3~~5.3~~.

$MT^{+}_{h,z}$ Market Threshold – upper limit – hourly value per Zone, as provided for in section 5.3.1~~5.3.1~~.

$MT^{-}_{h,z}$ Market Threshold – lower limit – hourly value per Zone, as provided for in section 5.3.1~~5.3.1~~.

MTSR Maximum Transmission Services Right – value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in kWh/h; as provided for in section 3.

MTSRBB Maximum Transmission Services Right Buy-Back – value per Grid User and per Interconnection Point that is bought back through the buy-back procedures from Grid User by TSO; expressed in kWh/h; as provided for in section 3.

$MTSR_{1m}$ Maximum Transmission Services Right – Primary Market – value per Grid User and per Interconnection Point or Domestic Exit Point; subscribed on the Primary market; expressed in kWh/h.

$MTSR_{2m}$ Maximum Transmission Services Right – Secondary Market – value per Grid User and per Interconnection Point or Domestic Exit Point, traded on the Secondary market, positive value if bought and a negative value if sold; expressed in kWh/h.

$MTSR_b$	Maximum Transmission Services Right – Backhaul – value per Grid User and per Interconnection Point; expressed in kWh/h; as provided for in section 3.
$MTSR_{cbds}$	Maximum Transmission Services Right – Cross Border Delivery Service – value per Grid User and per Interconnection Point; expressed in kWh/h; as provided in section 3.3~~3.3~~.
$MTSR_d$	Maximum Transmission Services Right – value per Grid User and per Interconnection Point or Domestic Exit Point for considered Gas Day *d*; expressed in kWh/h; as provided for in section 3.
$MTSR_{d,ct,y,XP,g}$	Maximum Transmission Services Right for Gas Day *d* for Capacity Type *ct*, of the Yearly Rate Type *y*, at Domestic Exit Point *XP* for Grid User *g*; expressed in kWh/h; as provided for in section 3.
$MTSR_{d,ct,s,XP,g}$	Maximum Transmission Services Right for Gas Day *d* for Capacity Type *ct*, of the Seasonal Rate Type *s*, at Domestic Exit Point *XP* for Grid User *g*; expressed in kWh/h; as provided for in section 3.
$MTSR_{d,ct,st,XP,g}$	Maximum Transmission Services Right for Gas Day *d* for Capacity Type *ct*, of the Short Term Rate Type *st*, at Domestic Exit Point *XP* for Grid User *g*; expressed in kWh/h; as provided for in section 3.
$MTSR_{d,ct,ff,XP,g}$	Maximum Transmission Services Right for Gas Day *d* for Capacity Type *ct*, of the Fix/Flex Rate Type, at Domestic Exit Point *XP* for Grid User *g*; expressed in kWh/h; as provided for in section 6.
$MTSR_{d,dl,y,XP,g}$	Maximum Transmission Services Right for Gas Day *d* for Direct Line *dl*, of the Yearly Rate Type, at Domestic Exit Point *XP* for Grid User *g*; expressed in kWh/h; as provided for in section 6.
$MTSR_{d,dl,s,XP,g}$	Maximum Transmission Services Right for Gas Day *d* for Direct Line *dl*, of the Seasonal Rate Type, at Domestic Exit Point *XP* for Grid User *g*; expressed in kWh/h; as provided for in section 6.
$MTSR_{d,ip1,ip2,ocuc,g}$	Maximum Transmission Services Right – OCUC – value per Grid User and for Entry at Interconnection Point 1 and Exit at Interconnection Point 2 for considered Gas Day *d*; expressed in kWh/h; as provided for in section 6.2.1.5~~6.2.1.5~~.
$MTSR_{d,ip1,ip2,w,g}$	Maximum Transmission Services Right – Wheeling – value per Grid User and for Entry at Interconnection Point 1 and Exit at Interconnection Point 2 for considered Gas Day *d*; expressed in kWh/h; as provided for in section 6.2.1.4~~6.2.1.4~~.
$MTSR_{d,QCH->L,bl,g}$	Maximum Transmission Services Right – Quality Conversion H->L, for the Quality Conversion Service Base Load *bl*, value per

	Grid User for Installation Point "QC" for Gas Day *d;* expressed in kWh/h; as provided for in section 6.2.5~~6.2.5~~.
$MTSR_{d,QCH->L,pl,ct,g}$	Maximum Transmission Services Right – Quality Conversion H->L, for the Quality Conversion Service Peak Load *pl*, for Capacity Type *ct*, value per Grid User for Installation Point "QC" for Gas Day *d*; expressed in kWh/h; as provided for in section 6.2.5~~6.2.5~~.
$MTSR_{d,QCH->L,sl,g}$	Maximum Transmission Services Right – Quality Conversion H->L, for the Quality Conversion Service Seasonal Load *sl*, value per Grid User for Installation Point "QC" for Gas Day *d;* expressed in kWh/h; as provided for in section 6.2.5~~6.2.5~~.
$MTSR_{d,QCL->H,g}$	Maximum Transmission Services Right – Quality Conversion L->H – value per Grid User for Installation Point "QC" for Gas Day *d*; as provided for in section 6.2.6~~6.2.6~~.
$MTSR_{d,ts,ct,s,IP,g}$	Maximum Transmission Services Right for Gas Day *d* for Transmission Service *ts*, of Capacity Type *ct*, of the Seasonal Rate Type, at Interconnection Point *IP* for Grid User *g*; expressed in kWh/h; as provided for in section 6.
$MTSR_{d,ts,ct,y,IP,g}$	Maximum Transmission Services Right for Gas Day *d* for Transmission Service *ts*, of Capacity Type *ct*, of the Yearly Rate Type, at Interconnection Point *IP* for Grid User *g*; expressed in kWh/h; as provided for in section 6.
$MTSR_e$	Maximum Transmission Services Right – Entry – value per Grid User and per Interconnection Point; expressed in kWh/h; as provided for in section 3.1.2~~3.1.2~~.
$MTSR_f$	Maximum Transmission Services Right – Firm – value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in kWh/h; as provided for in section 3.
$MTSR_{ff}$	Maximum Transmission Services Right – Fix/Flex – value per Grid User and per Domestic Exit Point, expressed in kWh/h; as provided for in section 3.1~~3.1~~.
$MTSR_i$	Maximum Transmission Services Right – Interruptible – value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in kWh/h; as provided for in section 3.
$MTSR_{io}$	Maximum Transmission Services Right – Interruptible Operational – value per Grid User and per Installation Point; expressed in kWh/h; as provided for in section 3.
$MTSR_{Zeebrugge}$~~$_{BITS}$~~	Maximum Transmission Services Right – Zeebrugge Imbalance Transfer Service – value per Grid User; expressed in kWh/h; as provided for in section 3.8.1.

$MTSR_{ZeebruggeBITSia}$	Maximum Transmission Services Right – Zeebrugge –Imbalance Transfer Service Implicit Allocation – value per Grid User; expressed in kWh/h; as provided for in section 3.8.1.
$MTSR_{QCH->L}$	Maximum Transmission Services Right – Quality Conversion H→L – value per Grid User on Installation Point "QC", in kWh/h; as provided for in section 3.5.
$MTSR_{QCL->H}$	Maximum Transmission Services Right – Quality Conversion L->H – value per Grid User for Installation Point "QC"; expressed in kWh/h; as provided for in section 3.6.
$MTSR_s$	Maximum Transmission Services Right – Seasonal – value per Grid User and per Interconnection Point or Domestic Exit Point, expressed in kWh/h; as provided for in section 3.
$MTSR_{st}$	Maximum Transmission Services Right – Short Term – value per Grid User and per Domestic Exit Point, expressed in kWh/h; as provided for in section 3.
$MTSR_x$	Maximum Transmission Services Right – Exit – value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in kWh/h; as provided for in section 3.
$MTSR_y$	Maximum Transmission Services Right – Yearly – value per Grid User and per Interconnection Point or per Domestic Exit Point; expressed in kWh/h; as provided for in section 3.
$MTSR_{zpf}$	Maximum Transmission Services Right – Yearly – unlimited MTSR per Grid User to transmit natural gas between Zee Platform Interconnection Points; on the conditions as set out in section 3.43.4.
$MVFF_{g,XP,y,m}$	Monthly Variable Flex Fee – monthly value per Grid User *g* per Domestic Exit Point *XP*, for the calendar year *y* and for the month *m*; expressed in €; as provided for in section 6.2.26.2.2.
$NCPS_{d,g}$	Number of Capacity Pooling Services – daily – the number of End User Domestic Exit Points for which Grid User *g* has Capacity Pooling Services for Gas Day *d*, as provided for in section 6.2.26.2.2.
$NCTT_{h,g,z}$	Net Confirmed Title Transfers – provisional – hourly value per Zone per Grid User, expressed in kWh, positive values indicate net purchases, negative values indicate net sales, as described in ACT – Attachment C1.
$NCTT'_{h,g,z}$	Net Confirmed Title Transfers – final – hourly value per Zone and per Grid User, expressed in kWh, positive values indicate net purchases, negative values indicate net sales, as described in ACT – Attachment C1.

$NCTTP_{h,g,z}$	Net Confirmed Title Transfers for ZTP Physical Trading Services being the net values transferred to or from the Grid User Balancing Position via Zeebrugge in order to have balanced ZTP Physical Trading Services – provisional – hourly value per Zone per Grid User, expressed in kWh, positive values indicate net purchases, negative values indicate net sales, as described in ACT – Attachment C1. The confirmation on Zeebrugge is not considered in the calculation of this net value.
$NCTTP'_{h,g,z}$	Net Confirmed Title Transfers for ZTP Physical Trading Services being the net values transferred to or from the Grid User Balancing Position via Zeebrugge in order to have balanced ZTP Physical Trading Services – final – hourly value per Zone and per Grid User, expressed in kWh, positive values indicate net purchases, negative values indicate net sales, as described in ACT – Attachment C1. The confirmation on Zeebrugge is not considered in the calculation of this net value.
$NCTTN_{h,g,z}$	Net Confirmed Title Transfers for ZTP Notional Trading Services being the net values transferred to or from the Grid User Balancing Position via ZTP or ZTPL in order to have balanced ZTP Notional Trading Services – provisional – hourly value per Zone per Grid User, expressed in kWh, positive values indicate net purchases, negative values indicate net sales, as described in ACT – Attachment C1.
$NCTTN'_{h,g,z}$	Net Confirmed Title Transfers for ZTP Notional Trading Services being the net values transferred to or from the Grid User Balancing Position via ZTP or ZTPL in order to have balanced ZTP Notional Trading Services – final – hourly value per Zone and per Grid User, expressed in kWh, positive values indicate net purchases, negative values indicate net sales, as described in ACT – Attachment C1.
$NE_{d,g}$	Nominated Energy – daily value in MWh per Grid User which is the nominated energy for ZTP Trading~~Hub~~ Services as provided for in section 6.3.1.8.
$NEA'h,IP,g$	Netted off Energy Allocation – final – hourly value per a Grid User *g* per Interconnection Point *IP* which is the result of: $EEA'_{h,IP,g} + XEA'_{h,IP,g}$ as provided for in section 3.9.
$NEN^{m}_{h,IP,g}$	Netted-off Energy Nomination – matched – hourly value per Grid User *g* per Interconnection Point *IP* which is the result of: $EEN'^{m}_{h,IP,g}, + XEN'^{m}_{h,IP,g}$ as provided for in section 3.9.
N_m	Number of Days within the considered calendar month, as provided in section 6.

N_y	Number of Days within the considered calendar year, as provided in section 6.
ODO_{XP}	Odorisation – value per Domestic Exit Point; physical characteristic of a Domestic Exit Point; equals 1 if the Domestic Exit Point is odorised, and 0 otherwise, may be any value between 0 and 1 for Distribution Domestic Exit Points, as provided for in section 6.3.1.5~~6.3.1.5~~.
$OF_{m,IPorXP,g}$	Occurrence Factor – monthly value per Grid User and per Interconnection Point or Domestic Exit Point; one increased by the number of Months of the preceding 12 Months during which capacity exceedings have taken place for Grid User for the concerned Interconnection Point or Domestic Exit Point, as provided for in section 3.1.3~~3.1.3~~.
$P'_{h,g}$	Degree of UK Pollution – validated – hourly value per Grid User, as provided for in section 3.9.
$P_{BB,g}$	Price for buy back paid by the TSO – daily; expressed in €/kWh/h/d as provided for in section 6.2.1~~6.2.1~~.
$RH_{g,XP,y,n}$	Running hours – monthly value based on final allocations, corresponding to the equivalent number of hours that the MTSR of Grid User *g* on Domestic Exit Point *XP* was used under full load in year *y* up to and including month *n* – expressed in hours, as provided for in section 6.2.2~~6.2.2~~.
RH-TRH	Running hours threshold – value provided in the Regulated Tariffs, expressed in number of hours and which represent the threshold of $RH_{g,XP,y,n}$ at which the applicable tariff changes from $T_{flex,ff,XP,1}$ to $T_{flex,ff,XP,2}$
$RMLS_{h,z}$	Rounding Minimum Lot Size – hourly value per Zone, as provided for in section 5.3~~5.3~~.
SA_{causer}	Small Adjustment for causer – percentage defined in the Regulated Tariffs which are approved by CREG and to be applied to the Gas Price (GP_d) in case, when a Within-day/End-of-day Balancing Settlement occurs, the Grid User Balancing Position (respectively $GBP^*_{h,z,g}$ or $GBP^*_{d,z,g}$) is in the same direction as the Market Balancing Position (respectively $MBP^*_{h,z}$ or $MBP^*_{d,z}$) in accordance with section 5.3~~5.3~~.
SA_{helper}	Small Adjustment for helper – percentage defined in the Regulated Tariffs which are approved by ILR and CREG and to be applied to the Gas Price (GP_d) in case, when a within-day/end-of-day balancing settlement occurs, the Grid User Balancing Position (respectively $GBP^*_{h,z,g}$ or $GBP^*_{d,z,g}$) is in the opposite direction as the Market Balancing Position (respectively $MBP^*_{h,z}$ or $MBP^*_{d,z}$) in accordance with section 5.3~~5.3~~.

$SBP_{d,z}$	Shortfall Balancing Price ($SBP_{d,z}$) – daily value per Zone; the highest price of any purchases in which the TSO is involved in respect of the Gas Day; for the considered Zone z; expressed in €/kWh. In case the TSO has not been able to totally or partially buy the Natural Gas compensating for the considered Market Shortfall ($MS_{d,z}$) in L-Zone, it will do so in the H-zone. In case of a quantity bought in H-Zone for compensating a Market Shortfall ($MS_{d,z}$) in L-Zone, the price at which the TSO has bought the gas in the H-Zone in respect of the Gas Day will be increased with a corresponding conversion fee in accordance with the applicable Regulated Tariff for a daily Firm Peak Load Gas Quality Conversion Service H->L, corresponding to the firm capacity needed to convert such quantity in one hour and related Peak Load Quality Conversion commodity fee.
$SBP_{h,z}$	Shortfall Balancing Price ($SBP_{h,z}$) – hourly value per Zone; the highest price of any purchases in which the TSO is involved in respect of the gas hour ; for the considered Zone z; expressed in €/kWh. In case the TSO has not been able to totally or partially buy the Natural Gas compensating for the considered Market Shortfall ($MS_{h,z}$) in L-Zone, it will do so in the H-zone. In case of a quantity bought in H-Zone for compensating a Market Shortfall ($MS_{h,z}$) in L-Zone, the price at which the TSO has bought the gas in the H-Zone in respect of the Gas Day will be increased with a corresponding conversion fee in accordance with the applicable regulated tariff for a daily Firm Peak Load Gas Quality Conversion Service H->L offered by Fluxys Belgium, corresponding to the firm capacity needed to convert such quantity in one hour and related Peak Load Quality Conversion commodity fee. The Balancing Price for each Market Shortfall shall be published on the Electronic Data Platform.
$SBSP_{d,z}$	End-of-day Shortfall Balancing Settlement Price ($SBSP_{d,z}$) – daily value per Zone z; determined in accordance with 5.3.7~~5.3.7~~ and 5.3.8~~5.3.8~~; expressed in €/kWh. The End-of-day Shortfall Balancing Settlement Price ($SBSP_{d,z}$) will be published on the Electronic Data Platform for each End-of-Day Market Shortfall.
$SBSP_{h,z}$	Shortfall Balancing Settlement Price ($SBSP_{h,z}$) – hourly value per Zone z; determined in accordance with 5.3.4~~5.3.4~~; expressed in €/kWh. The Shortfall Balancing Settlement Price ($SBSP_{h,z}$) will be published on the Electronic Data Platform for each Within-Day Market Shortfall.

$SCG_{h,z}$	Shortfall Causing Grid Users – hourly list of Grid Users causing to the Market Shortfall for the considered hour *h*, for the considered Zone *z*, as set out in section 5.3~~5.3~~.
SC_m	Seasonal Coefficient – monthly value; factor defining the seasonal capacity tariff versus the yearly capacity tariff, as defined in the Regulated Tariffs, as provided for in section 6.1~~6.1~~.
~~$SF_{ZeebruggeBITS}$~~	~~Service Fee for implicit allocation of Transmission Services for Zeebrugge Imbalance Transfer Service – Regulated Tariff; expressed in €/kWh/h/y, as defined in the Regulated Tariffs, as provided for in section 6.2.8.~~
STM	Short Term Multiplier – factor defining the Short Term capacity tariff versus the Seasonal capacity tariff, as defined in the Regulated Tariffs; as provided for in section 6.
T_{cps}	Tariff for the Capacity Pooling Service – Regulated Tariff; expressed in € / End User Domestic Exit Point / year, as provided for in section 6.
$T_{ct,HP,XP}$	Tariff for HP Supply of Capacity Type *ct* at Domestic Exit Point *XP* – Regulated Tariff; expressed in € / kWh/h / year, as provided for in section 6.
$T_{ct,MP,XP}$	Tariff for MP Supply of Capacity Type *ct* at Domestic Exit Point *XP* – Regulated Tariff; expressed in € / kWh/h / year, as provided for in section 6.
$T_{dt,ct}$	Tariff for Direct Line of Capacity Type *ct* – Regulated Tariff; expressed in € / kWh/h / year, as provided for in section 6.
$T_{dt,d}$	Tariff for Direct Line based on Distance D_{dl} – Regulated Tariff; expressed in € / kWh/h / km / year, as provided for in section 6~~0~~.
T_{DPRS}	Tariff for DPRS – Yearly – Regulated Tariff; expressed in €/ kWh/h)/year; as provided for in section 6.2.1.2~~6.2.1.2~~.
T_{EIC}	Tariff for Energy In Cash – Regulated Tariff; factor of applicable on the total allocated energy of a Grid User on an Interconnection Point or a Domestic Exit Point, used in the invoicing of the energy in cash, as provided for in section 6.
T_{Fix}~~*Hub*~~*ZTP*	Fixed tariff for ~~Hub~~ ZTP Trading Services - Regulated Tariff; expressed in €/Month, as provided for in section 6.
$T_{fix,ff,XP}$	Fix tariff – Fix/Flex – fixed tariff applicable on Transmission Services towards End Users of the Fix/Flex Rate Type – Regulated Tariff; as provided for in 6.2.1.2~~6.2.1.2~~.
$T_{flex,ff,XP,1}$	Flex tariff – Fix/Flex – variable tariff applicable on Transmission Services towards End User Domestic Exit Points *XP* with Rate

	Type Fix/Flex *ff*, applicable until $RH_{g,XP,y,n} \leq$ *RH*-TRH – Regulated Tariff; expressed in € / MWh, as provided for in 6.2.2~~6.2.2~~.
$T_{flex,ff,XP,2}$	Flex tariff – Fix/Flex – variable tariff applicable on Transmission Services towards End User Domestic Exit Points *XP* with Rate Type Fix/Flex *ff*, applicable as from $RH_{g,XP,y,n} >$ *RH-TRH* – Regulated Tariff; expressed in € / MWh, as provided for in 6.2.2~~6.2.2~~.
$T_{IP1,IP2,OCUC}$	Tariff for OCUC from Interconnection Point *IP1* to Interconnection Point *IP2* – Yearly – Regulated Tariff; expressed in €/(kWh/h)/year; as provided for in section 6.
$T_{IP1,IP2,w}$	Tariff for Wheeling from Interconnection Point *IP1* to Interconnection Point *IP2* – Yearly – Regulated Tariff; expressed in €/(kWh/h)/year; as provided for in section 6.
T_{ITS}	Tariff for the implicit allocation of Transmission Services at the Zeebrugge Interconnection Point Imbalance Transfer Service – Regulated Tariff; expressed in €/(kWh/h)/year, as defined in the Regulated Tariffs, as provided for in section 6.2.8~~0~~.
T_{msc}	Tariff for multi-shipper codes – Regulated Tariff; expressed in € / Additional Nomination Code / year; as provided for in section 6.
T_{ODO}	Tariff for Odorisation – variable term – Regulated Tariff; expressed in €/MWh; as provided for in section 6.3.1.5~~6.3.1.5~~.
$T_{QCH->L,bl}$	Tariff for Quality Conversion H->L, for Quality Conversion Service Base Load *bl* – Regulated Tariff; expressed in €/kWh/h/year, as provided for in section 6.
$T_{QCH->L,pl}$	Tariff for Quality Conversion H->L, for Quality Conversion Service Peak Load *pl* – Regulated Tariff; expressed in €/kWh/h/year, as provided for in section 6.
$T_{QCH->L,sl}$	Tariff for Quality Conversion H->L, for Quality Conversion Service Seasonal Load *sl* – Regulated Tariff; expressed in €/kWh/h/year, as provided for in section 6.
$T_{QCL->H}$	Tariff for Quality Conversion L->H – Regulated Tariff; expressed in € / kWh/h / year, as provided for in section 6.
$T_{ts,ct,IP}$	Tariff for Transmission Service *ts* of Capacity Type *ct* at Interconnection Point *IP* – Regulated Tariff; expressed in € / kWh/h / year, as provided for in section 6.
T_{UKCA}	Tariff for UK Compliancy Adjustment – Regulated Tariff, expressed in € per Day, as provided for in section 6.

$T_{Var\underline{ZTP}\sout{Hub}}$	Variable tariff for ZTP Trading~~Hub~~ Services - Regulated Tariff; expressed in €/MWh, as provided for in section 6.
$T_{var,qcH->L,pl}$	Variable tariff for Quality Conversion H->L, applicable on the Quality Conversion Service Peak Load *pl* – Regulated Tariff; expressed in € / MWh, as provided for in section 6.
$TI'_{h,g}$	Transmission Imbalance – validated – hourly value per Grid User based on final allocations for Wheeling Services, Zee Platform Services, Services submitted to an Operational Capacity Usage Commitment or Direct Line Services; expressed in kWh; as provided for in section 6.3.1.4~~6.3.1.4~~.
$TVFF_{g,XP,y,n}$	Total Variable Flex Fee – Total Variable Flex Fee in year *y* up to and including month *n*, total monthly value per Grid User and per Domestic Exit Point *XP*; expressed in €; as provided for in section 6.2.2~~6.2.2~~.
$TXEA_{h,z,g}$	Total Exit Energy Allocations – hourly value per Zone, per Grid User, expressed in kWh, as provided for in Attachment C section 5.1.4.
$UKCE_{h,g}$	UK Compliant Entry – provisional – hourly value per Grid User, expressed in kWh, as provided for in section 3.9.
$UKCE'_{h,g}$	UK Compliant Entry – final – hourly value per Grid User, expressed in kWh, as provided for in section 3.9.
$UKNCX_{h,g}$	UK Non-Compliant Exit flow – provisional – hourly value per Grid User, expressed in kWh, as provided for in section 3.9.
$UKNCX'_{h,g}$	UK Non-Compliant Exit flow – validated – hourly value per Grid User, expressed in kWh, as provided for in section 3.9.
$UKP'_{h,g}$	UK Pollution – final – hourly value per Grid User expressed in kWh, as provided for in section 3.9.
$UKPF_{h,g}$	UK Pollution Fee – hourly value per Grid User, expressed in €, as provided for in section 3.9.
VM'_h	Volume (final) Measurement – hourly value per Interconnection Point or Domestic Exit Point; expressed in m³(n); as provided for in section 4.
VM_h	Volume (provisional) Measurement – hourly value per Interconnection Point or Domestic Exit Point; expressed in m³(n); as provided for in section 4.
$VMTSR_d$	Volume MTSR – daily value per Interconnection Point or Domestic Exit Point; expressed in m³(n)/h; as provided for in section 3.1.2~~3.1.2~~.

$VIMTSR_h$	Volume Interrupted Maximum Transmission Services Right – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; expressed in m³(n)/h; the part of $MTSR_i$ and/or $MTSR_{i1}$ and/or $MTSR_{iN}$ and/or $MTSR_{io}$ and/or $MTSR_b$ that is interrupted at hour *h*, as provided for in section 3.1.2~~3.1.2~~.
$Wobbe'_{h,IP}$	Wobbe – final – hourly value per Interconnection Point, expressed in kWh/m³(n), as provided for in section 3.9.
XEA'_h	Exit Energy (final) Allocation – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in kWh; as provided for in section 4.
XEA_h	Exit Energy (provisional) Allocation – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in kWh; as provided for in section 4.
XEN_h	Exit Energy (initial) Nomination – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in kWh; nomination received by the TSO before 14:00 hours of Day *d*-1 and accepted by the TSO, as provided for in section 4.
XEN'_h	Exit Energy (last) Nomination – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in kWh; last nomination confirmed by the TSO, as provided for in section 4.
XEN^m_h	Exit Energy (initial) Nomination – matched - hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in kWh; nomination received by the TSO before 14:00 hours of Day *d*-1 and accepted by the TSO, as provided for in section 4.
XEN'^m_h	Exit Energy (last) Nomination – matched - hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in kWh; last nomination confirmed by the TSO, as provided for in section 4.
XS_d	Exit Scheduling – daily value per Grid User and per Domestic Exit Point; expressed in kWh; as provided for in section 4.5~~4.5~~.
XVA'_h	Exit Volume (final) Allocation – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in m³(n); as provided for in section 4.
XVA_h	Exit Volume (provisional) Allocation – hourly value per Grid User and per Interconnection Point or Domestic Exit Point; negative value expressed in m³(n); as provided for in section 4.
$XUK_{h,g}$	Exit Energy submitted to UK Compliancy – provisional – hourly value per Grid User for the sum of Interconnection Points IZT and

	Zeebrugge ~~Beach~~; expressed in kWh; as provided for in section 3.9.
$XUK'_{h,g}$	Exit Energy submitted to UK Compliancy – final – hourly value per Grid User for the sum of Interconnection Points IZT and Zeebrugge ~~Beach~~; expressed in kWh; as provided for in section 3.9.
$ZPF_{d,g}$	Number of Zee Platform Interconnection Points (minimum 2 points) for which Grid User has Zee Platform Services for Gas Day *d*, as provided for in section 3.4.

2 Application area

Fluxys Belgium and the TSO from Luxembourg, Creos Luxembourg, have worked on the integration of their respective H market as from 1 October 2015. The resulting BeLux zone consists of an entry/exit system with a Virtual Trading Point "Zeebrugge Trading Point" or "ZTP". Grid users don't have to subscribe to capacity services to transport gas between Belgium and Luxembourg (and vice versa). This Access Code for Transmission is applicable for services offered by Fluxys Belgium on the belgian territory.

3 Services

3.1 Entry and Exit Services

3.1.1 Overview and characteristics of subscribed MTSR of Entry and Exit Services

The Transmission Grid consists of two Zones (one for H-calorific Natural Gas and one for L-calorific Natural Gas), of Interconnection Points and Domestic Exit Points for each Zone. Each Interconnection Point and Domestic Exit Point is located in one Zone[1].

Each Transmission Service is characterized by respectively a location (Interconnection Point or Domestic Exit), by a Capacity Type, a Rate Type and a Service Duration (with a start date and an end date).

The following Entry and Exit Services exist:

- An Entry Transmission Service ($MTSR_e$) enables a Grid User to inject a quantity of Natural Gas at an Interconnection Point into a Zone.
- An Exit Transmission Service ($MTSR_x$) enables a Grid User to withdraw a quantity of Natural Gas from a Zone, at an Interconnection Point or a Domestic Exit Point.

The following Capacity Types exist for Transmission Services:

[1] Except for the Interconnection Point "Quality Conversion" which is located both in the H Zone and the L Zone.

- Firm Transmission Services ($MTSR_f$) are, subject to the terms and conditions of the Standard Transmission Agreement, always available and usable under normal operating conditions.
- Interruptible capacity ($MTSR_i$, $MTSR_{io}$) can be interrupted by the TSO, following the rules described in ACT – Attachment C1.
- Backhaul capacity ($MTSR_b$) is offered at uni-directional Interconnection Points, in the opposite direction of the physical gas flow direction and is available as long as the resulting physical flow remains in the physical direction of the Interconnection Point.

In the following tables, an overview is set out with the Capacity Types on offer for the different Point:

Interconnection Points	Zone	Entry Transmission Services			Exit Transmission Services		
		Firm	Backhaul	Interruptible	Firm	Backhaul	Interruptible
Alveringem*	H	X				X	
Blaregnies L	L		X		X		O
Blaregnies Segeo*	H	X	X		X		O
Blaregnies Troll*	H		X		X		O
Eynatten 1	H	X		O	X		O
Eynatten 2	H	X		O	X		O
IZT	H	X		O	X		O
Hilvarenbeek L	L	X		O		X	
's Gravenvoeren	H	X		O		X	
VIP FR-BE* [2]	H	X	X**	O	X		O
Zandvliet H	H	X		O		X	
Zeebrugge ~~Beach~~	H	X		O	X		O
Zelzate 1	H	X		O	X		O
Zelzate 2	H		X		X		O
ZPT	H	X		O		X	
Loenhout	H	X		X*	X		X*
Zeebrugge LNG Terminal	H	X		X*		X	
Dunkirk LNG Terminal	H	X					

- X = Service is offered and can be contracted within indicative availabilities as published on the Fluxys Belgium website
- X* = Operational Interruptible capacity that corresponds to capacities that Fluxys Belgium has secured for the operation of the Transmission Grid and that are made available to Grid Users on an Interruptible basis.

[2] temporary name for the virtual Interconnection Point between ZTP and PEG-N.

- X** = Ancillary service for existing backhaul contracts. Service no longer offered to Grid Users
- O = Service is optionally offered, depending on Firm availability
- * = On the 1th of October 2017 [3] , according to the regulations set out in NC CAM Art 19.9, the name of the Interconnection Points Alveringem, Blaregnies Segeo and Blaregnies Troll will be aligned with the name of the of the new "virtual" Interconnection Point VIP FR-BE. Any reference in a Service Confirmation to Alveringem, Blaregnies Segeo and Blaregnies Troll will then be considered as a reference to the new VIP FR-BE .

Former IP (name)	**New IP (name) "virtual"**
- Blaregnies Segeo	- VIP FR-BE
- Blaregnies Troll	- VIP FR-BE
- Alveringem	- VIP FR-BE

The Quality Conversion Service H~~->~~→L consists of the possibility to have Natural Gas transmitted from the H Zone to the L zone, at the Installation Point "QC". The Capacity Type can be Firm or Interruptible. The Quality Conversion Service L~~->H~~→H consists of the possibility to inject Natural Gas into the H Zone at the Installation Point "QC". The Capacity Type is Interruptible.

Even though it is no longer possible to subscribe capacities on the Interconnection Point GDLux, GDLux will continue to exist for amongst others the subject of section 4.

~~The Quality Conversion Service H->L consists of the possibility to have Natural Gas transmitted from the H Zone to the L zone, at the Installation Point "QC". The Capacity Type can be Firm or Interruptible. The Quality Conversion Service L->H consists of the possibility to inject Natural Gas into the H Zone at the Installation Point "QC". The Capacity Type is Interruptible. Even though it is no longer possible to subscribe capacities on the Interconnection Point GDLux, GDLux will continue to exist for amongst others the subject of section 4.~~

Domestic Exit Points	**Zone**	**Exit Transmission Services**		
		Firm	**Backhaul**	**Interruptible**
End User Domestic Exit Point	H of L	X		O
Distribution Domestic Exit Point	H of L	X		

The following Rate Types exists for Transmission Services:

- Yearly Transmission Services ($MTSR_y$);
- Seasonal Transmission Services ($MTSR_s$);

[3] date subject to prenotice of 8 weeks.

- Short Term Transmission Services ($MTSR_{st}$);
- Fix/Flex Transmission Services ($MTSR_{ff}$).

These Rate Types are attributed based on the characteristics of the Transmission Service (Entry or Exit, location and Service Period), as set out in the Access Code (ACT - Attachment B). For the sake of completeness of this AttachmentAttachment, these are summarized in the following table:

Capacity Transmission Services	Service Period	Rate Type	MTSR
Entry Transmission Services	>= 1 year (*)	Yearly	$MTSR_{d,e,ct,y,IP}$
	1 month>=x<1 year (*)	Seasonal	$MTSR_{d,e,ct,s,IP}$
	< 1 month (*)		
Exit Transmission Services on Interconnection Points	All Service Periods (*)	Yearly	$MTSR_{d,x,ct,y,IP}$
Exit Transmission Services on End User Domestic Exit Points	>= 1 year	Yearly	$MTSR_{d,x,ct,y,XP}$
		Fix/Flex (**)	$MTSR_{d,x,ct,ff,XP}$
	1 month(***) >=x<1 year	Seasonal	$MTSR_{d,x,ct,s,XP}$
	< 1 month	Short Term	$MTSR_{d,x,ct,st,XP}$
Exit Transmission Services on Distribution Domestic Exit Points	All Service Periods	Yearly	$MTSR_{d,x,ct,y,XP}$

- (*)The Service Periods for Transmission Services on Interconnection Points subscribed through PRISMA are defined by default as annual, quarterly, monthly, daily and within-day (as described in ACT – Attachment B).
- (**) As described in ACT – Attachment B, the Fix/Flex Rate Type can only be attributed for capacity subscriptions of 12 consecutive months from 1 January until and including 31 December of the same year.
- (***) The Service Period of Transmission Services with start date 14/mm/yy and 13/mm+1/yy as end date are considered as 1 calendar month.
- Note that for capacities allocated by the TSO (through implicit allocation), as is the case for Loenhout or for Distribution Domestic Exit Points, the Rate Type is always Yearly.

At Domestic Exit Points, the Transmission Services always include the high pressure (HP) Exit Service and may include the services of medium pressure (MP), Dedicated Pressure Reduction Station (DPRS) and odorisation (ODO).

- Via the medium pressure service, Fluxys Belgium transports the gas to a Domestic Exit Point via a medium pressure network.

- Via the Dedicated Pressure Reduction Station service, Fluxys Belgium reduces the pressure at a Domestic Exit Point within the contractual minimum and maximum pressure limits.

- Odorisation consists in Fluxys Belgium injecting an odorant in gas at Domestic Exit Points where an odorisation facility is operated by Fluxys Belgium.

The subscription of Exit Capacity at Domestic Exit Points ($MTSR_{d,x,ct,y,XP}$) implies the delivery (and the payment, according to section 5554556) of these services in function of the respective coefficients MP_{XP}, $DPRS_{XP}$,and ODO_{XP}. These coefficients are set per End User Domestic Exit Point or per Aggregated Receiving Station (ARS) for Distribution Domestic Exit Points, have a value between 0 and 1 and are published on Fluxys Belgium's website[4].

For two specific cases of End Users located in Belgium near a border and directly connected to the Transmission Grid of an Adjacent TSO or to the grid of a foreign Distribution Network Operator (currently: from Veldwezelt to Steenfabriek Wienerberger and from Momignies to Gerresheimer Momignies), Direct Line MTSR ($MTSR_{dl}$) is offered instead of Entry and Exit MTSR.

3.1.2 Energy MTSR (EMTSR) and Volume MTSR (VMTSR)

MTSR is always expressed in energy (kWh/h). For existing capacities that were subscribed in volume *[m³(n)/h]*, Grid User has the possibility to either convert these capacities to energy *[kWh/h]*, either keep this capacity in volume.

MTSR that was subscribed in volume and is not converted to energy by Grid User is referred to as Volume MTSR *(VMTSR)*.

MTSR that is subscribed in volume but converted to energy or that is subscribed in energy is referred to as Energy MTSR (*EMTSR*).

At a considered Interconnection Point[5] or Domestic Exit Point, the MTSR of a Grid User is calculated by multiplying the Volume MTSR $(VMTSR_d)$ by the conversion GCV of the Zone *z* at which the Interconnection Point or Domestic Exit Point is located $(CGCV_z)$, by adding the Energy MTSR $(EMTSR_d)$ and by subtracting the MTSR bought back through the buy-back procedure $(MTSRBB_d)$.

$$MTSR_d = EMTSR_d + (VMTSR_d \; x \; CGCV_z) - MTSRBB_d$$

The $MTSR_f$ bought back through the buy-back procedure $(MTSRBB_{d,IP,g})$ for Day *d*, for Interconnection Point *IP*, for a Grid User *g* is calculated as the maximum of $MTSR_{h,f}$ bought back during the specific gasday.

$$MTSRBB_{d,IP,g} = \max_{d} (MTSRBB_{h,IP,g})$$

[4] http://www.fluxys.com/belgium/en/Services/Transmission/TransmissionTariffs/TransmissionTariffs

[5] For $MTSR_{ZBeebruggeITS}$ also unused capacity at IZT, ZPT and Zeebrugge LNG Terminal are taking into account in accordance with section 3.8.1

3.1.3 Capacity Exceedings

3.1.3.1 Entry Capacity Exceedings at an Interconnection Point

For Grid Users having subscribed Entry Transmission Services in Volume *($VMTSR_d$)* at an Interconnection Point, Capacity Exceedings can apply, based on the measured GCV and the Energy Allocations.

The daily Entry Energy Exceeding ($EEE_{d,IP,g}$) for such Grid User *g* expressed in kWh/h for Gas Day *d*, is the highest excess, for that Gas Day *d*, of the final Entry Energy Allocation *(EEA'_h)* with respect to Transmission Services in Volume which are not switched to energy ($VMTSR_d$) and also considering the Transmission Services of Grid User that are in energy *($EMTSR_d$)*[6], the Volume Interrupted MTSR *($VIMTSR_h$)*, the Energy Interrupted MTSR *($EIMTSR_h$)* and the *MTSR* bought back through the buy-back procedure *($MTSRBB_h$)* on the considered Interconnection Point *IP*[7].

$$EEE_{d,IP,g} = \max_{d}\left[\max\left(0; EEA'_{h,IP,g} - EMTSR_{d,e,IP,g} + EIMTSR_{h,e,IP,g} - \left(VMTSR_{d,e,IP,g} - VIMTSR_{h,e,IP,g}\right) x\, GCV'_{h,IP,g} + MTSRBB_{h,e,IP,g}\right)\right]$$

The Peak Exceeding of Entry Energy for Grid User *g* ($EEE_{m,p,IP,g}$) for Month *m* is equal to the highest daily Entry Energy Exceeding over Month *m* on the considered Interconnection Point *IP:*

$$EEE_{m,p,IP,g} = \max_{m} EEE_{d,IP,g}$$

The Non-Peak Exceeding of Entry Energy for Grid User *g* ($EEE_{m,np,IP,g}$) for Month *m* is equal to the sum of all daily Entry Energy Exceedings of Grid User *g* for the considered Transmission Service less the Peak Exceeding of Entry Energy of Grid User *g* on the considered Interconnection Point *IP*:

$$EEE_{m,np,IP,g} = \sum_{m} EEE_{d,IP,g} - EEE_{m,p,IP,g}$$

The Peak Incentive for Exceeding Entry Energy for a Grid User *g*, for Month *m*, for Interconnection Point *IP* is calculated as follows:

$$IEEE_{m,p,IP,g} = EEE_{m,p,IP,g} \times T_{e,f,y,IP} \times \min\left[\frac{1.5 \times OF_{m,IP,g}}{12}; 1\right]$$

The Non-Peak Incentive for Exceeding Entry Energy for a Grid User *g*, for Month *m*, for Interconnection Point *IP* is calculated as follows:

---

[6] In case of Within-day auctions, the EMTSR can vary ~~during~~ on an hourly basis.

[7] In case Grid User has Wheeling Services from the considered Interconnection Point to another Interconnection Point and/or Entry Services at the considered Interconnection Point on which an OCUC applies, $EEA'_{h,IP,g}$ will also include allocations for Grid User for wheeling and OCUC and $EMTSR_{d,e,IP,g}$ and $VMTSR_{d,e,IP,g}$ will include Wheeling Services and Entry Services on which an OCUC applies. In case of interruption of Wheeling or OCUC, $IMTSR_{h,e,IP,g}$ will include this interruption.

$$IEEE_{m,np,IP,g} = \min\left[\frac{EEE_{m,np,IP,g} \times T_{e,f,y,IP}}{6} \times \min\left[\frac{1.5 \times OF_{m,IP,g}}{12}; 1\right]; IEEE_{m,p,IP,g}\right]$$

This section 3.1.3.13~~.1.3.13.1.3.13~~.1.3.1 is not applicable on Interconnection Point GDLux.

3.1.3.2 Exit Capacity Exceedings at an Interconnection Point

For Grid Users having subscribed Exit Transmission Services in Volume *($VMTSR_d$)* at an Interconnection Point, Capacity Exceedings can apply, based on the measured GCV and the Energy Allocations.

The daily Exit Energy Exceeding ($EXE_{d,IP,g}$) for such Grid User *g* expressed in kWh/h for Gas Day *d*, is the highest excess, for that Gas Day *d*, of the final Exit Energy Allocation (XEA'_h) with respect to Transmission Services in Volume which are not switched to energy ($VMTSR_d$) and also considering the Transmission Services of Grid User that were switched to energy *($EMTSR_d$)* [8], the Volume Interrupted MTSR *($VIMTSR_h$)*, the Energy Interrupted MTSR *($EIMTSR_h$)* and the MTSR bought back through the buy-back procedure *($MTSRBB_h$)* on the considered Interconnection Point *IP*[9].

$$EXE_{d,IP,g} = \max_{d}\left[\max\left(0; -XEA'_{h,IP,g} - EMTSR_{d,x,IP,g} + EIMTSR_{h,x,IP,g} - \left(VMTSR_{d,x,IP,g} - VIMTSR_{h,x,IP,g}\right) x\, GCV'_{h,IP,g} + MTSRBB_{h,e,IP,g}\right)\right]$$

The Peak Exceeding of Exit Energy for Grid User *g* ($EXE_{m,p,IP,g}$) for Month *m* is equal to the highest daily Exit Energy Exceeding over Month *m* on the considered Interconnection Point *IP:*

$$EXE_{m,p,IP,g} = \max_{m} EXE_{d,IP,g}$$

The Non-Peak Exceeding of Exit Energy for Grid User *g* ($EXE_{m,np,IP,g}$) for Month *m* is equal to the sum of all daily Exit Energy Exceedings of Grid User *g* for the considered Transmission Service less the Peak Exceeding of Exit Energy of Grid User *g* on the considered Interconnection Point *IP*:

$$EXE_{m,np,IP,g} = \sum_{m} EXE_{d,IP,g} - EXE_{m,p,IP,g}$$

The Peak Incentive for Exceeding Exit Energy for a Grid User *g*, for Month *m*, for Interconnection Point *IP* is calculated as follows:

$$IEXE_{m,p,IP,g} = EXE_{m,p,IP,g} \times T_{x,f,y,IP} \times \min\left[\frac{1.5 \times OF_{m,IP,g}}{12}; 1\right]$$

The Non-Peak Incentive for Exceeding Exit Energy for a Grid User *g*, for Month *m*, for Interconnection Point *IP* is calculated as follows:

---

[8] In case of Within-day auctions, the EMTSR can vary ~~during~~ on an hourly basis.

[9] In case Grid User has Wheeling Services from another Interconnection Point to the considered Interconnection Point and/or Exit Services at the considered Interconnection Point on which an OCUC applies, $XEA'_{h,IP,g}$ will also include allocations for Grid User for wheeling and OCUC and $EMTSR_{d,x,IP,g}$ and $VMTSR_{d,x,IP,g}$ will include Wheeling Services and Exit Services on which an OCUC applies. In case of interruption of Wheeling or OCUC, $IMTSR_{h,x,IP,g}$ will include this interruption.

$$IEXE_{m,np,IP,g} = \min\left[\frac{EXE_{m,np,IP,g} \times T_{x,f,y,IP}}{6} \times \min\left[\frac{1.5 \times OF_{m,IP,g}}{12};1\right];IEXE_{m,p,IP,g}\right]$$

This section 3.1.3.2~~3.1.3.2~~~~3.1.3.2~~~~3.1.3.2~~ is not applicable on Interconnection Point GDLux.

3.1.3.3 Capacity Exceedings at an End User Domestic Exit Point

Capacity Exceedings are applicable to End User Domestic Exit Points, and not to Distribution Domestic Exit Points.

The Energy Exit Exceeding ($EXE_{d,XP,g}$), expressed in kWh/h for Gas Day *d*, for Grid User *g*, for Domestic Exit Point *XP* is the highest excess, for that Gas Day *d*, of the final Exit Energy Allocation (XEA'_h) with respect to Transmission Services of Grid User that were switched to energy ($EMTSR_d$) [10] , the Volume Interrupted MTSR ($VIMTSR_h$), and the Energy Interrupted MTSR ($EIMTSR_h$) on the considered End User Domestic Exit Point :

$$EXE_{d,XP,g} = \max_{d}\left[\max\left(0; -XEA'_{h,IP,g} - EMTSR_{d,XP,g} + EIMTSR_{h,XP,g} - \left(VMTSR_{d,XP,g} - VIMTSR_{h,XP,g}\right) x\, GCV'_{h,XP,g}\right)\right]$$

The Peak Exceeding of Exit Energy for Grid User *g* ($EXE_{m,p,XP,g}$) for Month *m* is equal to the highest daily Exit Energy Exceeding over Month *m* on the considered Domestic Exit Point *XP:*

$$EXE_{m,p,XP,g} = \max_{m} EXE_{d,XP,g}$$

The Non-Peak Exceeding of Exit Energy for Grid User *g* ($EXE_{m,np,XP,g}$) for Month *m* is equal to the sum of all daily Exit Energy Exceedings of Grid User *g* for the considered Transmission Service less the Peak Exceeding of Exit Energy of Grid User *g* on the considered Domestic Exit Point *XP*:

$$EXE_{m,np,XP,g} = \sum_{m} EXE_{d,XP,g} - EXE_{m,p,XP,g}$$

The Peak Exit Exceeding Incentive for Month *m* for Grid User *g* for Domestic Exit Point *XP* is calculated as follows:

$$IEXE_{m,p,XP,g} = EXE_{m,p,XP,g} \times \left(T_{f,HP} + MP_{XP} \times T_{f,MP} + DPRS_{XP} \times T_{DPRS}\right) \times \min\left[\frac{1.5 \times OF_{m,XP,g}}{12};1\right]$$

The Non-Peak Exit Exceeding Incentive for Month *m* for Grid User *g* for Domestic Exit Point *XP* is calculated as follows:

$$IEXE_{m,np,XP,g} = \min\left[EXE_{m,np,XP,g} \times \frac{\left(T_{f,HP} + MP_{XP} \times T_{f,MP} + DPRS_{XP} \times T_{DPRS}\right)}{6} \times \min\left[\frac{1.5 \times OF_{m,XP,g}}{12};1\right];IEXE_{m,p,XP,g}\right]$$

[10] In case of Calendar Day Regime (as defined in ACT – Attachment B), the EMTSR can vary on an hourly basis during the Gas Day.

3.2 Wheelings and OCUC (Operational Capacity Usage Commitments)

Wheelings and OCUC **(***Operational Capacity Usage Commitments*) are operational agreements between the Grid User and the TSO, in the framework of proactive congestion management, as set out in the Code of Conduct and in Congestion Management (ACT - Attachment E).

A Wheeling or an OCUC consists of a commitment on the combined use of a given Entry Service at an Interconnection Point with a given Exit Service at another Interconnection Point, to avoid a potential congestion in the Transmission Grid, and without access to the Market Based Balancing model or to ZTP Notional Trading Services.

The Entry and Exit Services that are eligible for Wheelings or OCUC, in the framework of its proactive congestion management policy are the following ones:

Wheelings are offered between the following Interconnection Points:

- Eynatten 1 and Eynatten 2, and between Eynatten 2 and Eynatten 1
- Zelzate 1 and Zelzate 2, and between Zelzate 2 and Zelzate 1

Operational Capacity Usage Commitments are offered between the following Interconnection Points:

- Entry Eynatten 1 or Eynatten 2, with Exit ‘s Gravenvoeren
- Entry ‘s Gravenvoeren, with Exit Eynatten 1 or Eynatten 2
- Entry Zelzate 1 or Zelzate 2, with Exit IZT or Zeebrugge ~~Beach~~
- Entry IZT or Zeebrugge ~~Beach~~, with Exit Zelzate 1 or Zelzate 2
- Entry Alveringem, Dunkirk LNG Terminal or Blaregnies Troll/Segeo, with Exit IZT or Zeebrugge ~~Beach~~.

Entry and Exit Services subject to a Wheeling or an Operational Capacity Usage Commitment are subject to a specific Regulated Tariff on the MTSR that falls under the Wheeling or the OCUC, as described in the Regulated Tariffs.

3.3 Cross Border Delivery Service

A Cross Border Delivery Service ($MTSR_{cbds}$) enables a Grid User to inject a quantity of Natural Gas in the Transmission System at a Connection Point which is not located in Belgium nor directly physically connected to the Transmission System of Fluxys Belgium.

The Cross Border Delivery Service shall always be associated and subscribed together (meaning matched in quantity, time and Capacity Type) with its associated Entry, Exit and/or OCUC Services, as described in ACT – Attachment B. The Cross Border Delivery Service shall be offered on Interconnection Points linked to Cross Border Capacity. The Operator of the Transmission System or Installation connected to the Fluxys Belgium grid by means of the Cross Border Capacity shall be considered as an Adjacent TSO to the Fluxys Belgium’s grid.

Overview of existing Cross Border Delivery Services:

Capacity Transmission Services (*)	Service Period	Rate Type	MTSR code
Cross Border Delivery Service on Installation Point Dunkirk LNG Terminal	>= 1 year	Yearly	$MTSR_{d,cbd,f,y,IP}$
	< 1 year	Seasonal	$MTSR_{d,cbd,f,s,IP}$

(*) Note that the Cross Border Delivery Service is only offered on Entry and that the Capacity Type can only be Firm.

3.4 Zee Platform Service

The Zee Platform Service gives unlimited Firm or Backhaul MTSR *($MTSR_{f,zpf}$, $MTSR_{b,zpf}$)* between the Interconnection Points of the Zee Platform for which Grid User has registered.

The table below shows the Capacity Type of the Zee Platform Service per Zee Platform Interconnection Point:

	IZT	LNG	ZPT	Zeebrugge ~~Beach~~
Entry	$MTSR_{f,zpf}$	$MTSR_{f,zpf}$	$MTSR_{f,zpf}$	$MTSR_{f,zpf}$
Exit	$MTSR_{f,zpf}$	$MTSR_{b,zpf}$	$MTSR_{b,zpf}$	$MTSR_{f,zpf}$

Any $MTSR_{f,zpf}$ and/or $MTSR_{b,zpf}$ shall be considered as Transmission Services of unlimited capacity between the Zee Platform Interconnection Points, to the extent that the technical import and export capacities of the Adjacent Transmission Systems at ZPT, LNG or IZT remain at the level as set forth in the table below.

	Technical Import Capacity kWh/h	Technical Export Capacity m³(n)/h
Zeebrugge ZPT	19,775,000	0
Zeebrugge IZT	25,990,000	32,770,000
Zeebrugge LNG	19,210,000	0

$MTSR_{f,zpf}$ and $MTSR_{b,zpf}$ do not give access to ZTP Notional Trading Services nor to the Zone, and have no access to the Market Based Balancing model (for Zee Platform, Entry and Exit Nominations have to be balanced on an hourly basis).

The utilization of Zee Platform Services is separated from Entry and Exit Services in the Zeebrugge area through a separate nomination code.

In the event that the technical import and/or export capacities of the Adjacent Transmission Systems at ZPT, LNG and IZT change compared to the levels as set forth in the table above, the Transmission System Operator shall as soon as reasonably possible communicate to Grid User the resulting capacity limitations (if any) following from this new situation, which shall automatically and immediately apply to the $MTSR_{f,zpf}$ and/or $MTSR_{b,zpf}$.

3.5 Quality Conversion Services H→L

The following Quality Conversion Services H→L are offered, namely "peak load", "base load" and "seasonal load", each with a different tariff and different specifications regarding the availability of capacities, as described in Attachment C3.

The Quality Conversion Service H→L *($MTSR_{QCH\rightarrow L}$)* consists of the possibility to have Natural Gas transmitted from the H Zone to the L zone, at the Installation Point "QC". The peak load Quality Conversion Service H→L *($MTSR_{QCH\rightarrow L,pl,}$)* can be used from 1/11/Y until 31/03/Y+1 and the availability depends on the temperature, such that more capacity is available at cold temperatures. The seasonal load Quality Conversion Service H→L ($MTSR_{QCH\rightarrow L,sl}$) can be used during the whole Contract year, but its usage is limited from 1/04/Y+1 until 31/10/Y+1. The base load Quality Conversion Service H→L ($MTSR_{QCH\rightarrow L,bl}$) can be used during the whole Contract year.

Peak Load Quality Conversion Services H→L are offered in standard bundled units. One standard bundled unit consists of the following Quality Conversion Services:

Firm peak load H->L capacity	Interruptible peak load H->L capacity
1 kWh/h	0,13 kWh/h

Base and Seasonal Load Quality Conversion Service H→L are offered in energy *[kWh/h]*, as set out in Subscription & Allocation of Services (ACT – Attachment B). No additional Transmission Services from and towards the Installation Point "QC" are required. The following capacities are offered for the different Quality Conversion Services H→L[11]:

Peak load	Firm	177.000 m³(n)/h = 1.734.600 kWh/h	1.734.600 bundles
	Interruptible	23.010 m³(n)/h = 225.498 kWh/h	
Base load	Firm	100.000 m³/h = 980.000 kWh/h	-
Seasonal load	Firm		

Nominations for Quality Conversion H→L shall be made in accordance with the Operating Procedures (ACT – Attachment C.3).

The TSO calculates the Real Conversion Capacity in function of the equivalent temperature and period of year as set out in the Operating Procedures (ACT - Attachment C.3). The Nominations shall not exceed the Real Conversion Capacity of Grid User.

[11] Depending on operational needs, changes to the installations or the availability of the logistics contracts (e.g. with nitrogen suppliers), the TSO possibly has to adapt the Quality Conversion Service. offering.

3.6 Quality Conversion Services L→H

The Quality Conversion Service L→H consists of the possibility to inject L Natural Gas into the H Zone at the Installation Point "QC" ($MTSR_{QCL \rightarrow H,i}$).

Quality Conversion Services L→H can be subscribed as set out in Subscription & Allocation of Services (ACT - Attachment B). No additional Transmission Services from and towards the Installation Point "QC" are required.

3.7 Capacity Pooling Services

The Capacity Pooling Service enables Grid Users active on the same End User Domestic Exit Point to pool their Domestic Exit Services, as set out in the Capacity Pooling Agreement form (ACT - Attachment G).

Such a Capacity Pooling Service can only be subscribed for End User Domestic Exit Points, and not for Interconnection Points nor for Distribution Domestic Exit Points.

3.8 ZTP Trading~~Hub~~ Services

The TSO offers ZTP Trading~~Hub~~ Services, enabling Grid Users to execute transaction (exchange title of gas), through following services:

- ~~The~~ ZTP~~eebrugge Beach~~ Physical Trading Services, and associated Zeebrugge Imbalance Transfer Service ~~(on Zeebrugge Beach)~~
- ZTP Notional Trading Services (on ZTP for the H Zone, on ZTPL for the L Zone)

The operational aspects of the ZTP Trading~~Hub~~ Services are described in ACT-Attachment C1 (matching, ~~balance check, rounding, automatic backup and automatic offtake, and additional backup and additional offtake,~~ allocations, reporting).

3.8.1 Zeebrugge Imbalance Transfer Service

The Zeebrugge Imbalance Transfer Service is a Service performed by the TSO for the Grid User(s) whereby the Net Confirmed Title Transfer for ZTP Physical Trading Services ($NCTTP_{h,g,z}$) are automatically transferred ~~for a Grid User~~ to/from the Grid User Balancing Position in the BeLux H-Zone, insofar and up to the amount that wasn't nominated by the Grid User explicitly. The Transmission Services (Entry or Exit) at the Interconnection Point Zeebrugge required to perform such transfer are eventually implicitly allocated.

~~and whereby~~ Transmission Services at Zeebrugge ($MTSR_{ZeebruggeITSia}$) ~~implicitly~~ are implicitly allocated to ~~such~~the Grid User till the end of the same Gas Day in case and up to the amount the hourly quantities transferred under this Zeebrugge Imbalance Transfer Service plus the hourly matched Nominations ($EEN'^{m}_{h,g}$, $XEN'^{m}_{h,g}$) on Transmission Services for Interconnection Points IZT, Zeebrugge LNG Terminal and ZPT are exceeding the sum of:

- ~~the subscribed Transmission Services at Zeebrugge in the same direction ($MTSR_{Zeebrugge,h,g}$);~~

- the implicitly allocated Transmission Services at Zeebrugge till the end of the same Gas Day under the Zeebrugge Imbalance Transfer Service for (a) previous hour(s) of the same Gas Day $(MTSR_{ZeebruggeITSia,h-n,g})$ and
- the hourly subscribed Transmission Services at the Interconnection Points Zeebrugge, IZT, Zeebrugge LNG Terminal and ZPT of the Grid User in the same direction $(MTSR_{Zeebrugge,h,g} + MTSR_{IZT,h,g} + MTSR_{Zeebrugge-LNG-Terminal,h,g} + MTSR_{ZPT,h,g})$; and
- the implicitly allocated Transmission Services at Zeebrugge till the end of the same Gas Day under the Zeebrugge Imbalance Transfer Service for (a) previous hour(s) of the same Gas Day $(MTSR_{ZeebruggeITSia,h-n,g})$.;

This Service is an implicitassociated sService, which doesn't have to be subscribed by Grid Users and which is performed by the TSO for each Grid User using the ZTP Physical Trading Service as long as Firm Transmission Services are available at the Interconnection Points Zeebrugge, IZT, Zeebrugge LNG Terminal and ZPT in the same direction. The detailed calculation of the implicit allocation of Transmission Services at the Interconnection Point Zeebrugge for the Zeebrugge Imbalance Transfer Service is set out in ACT- Attachment B.

Calculation of the implicit allocated Transmission Service at Zeebrugge for the Zeebrugge Imbalance Transfer Service

For every hour, the quantity of implicit allocated entry [exit] Transmission Service at Zeebrugge for Grid User *g* ($MTSR_{ZeebruggeITSia,e,h,g}$,[$MTSR_{ZeebruggeITSia,x,h,g}$]) is calculated as the maximum of:

- The difference between
  - The sum of
    - the Net Confirmed Title Transfer for ZTP Physical Trading Services ($NCTTP_{h,g}$) in case this is a positive [negative] value for Grid User *g*;
    - The sum of the hourly Entry [Exit] Energy (last) matched Nomination ($EEN'^{m}_{h,g}$, [$XEN'^{m}_{h,g}$]) at IZT, Zeebrugge LNG Terminal and ZPT for Grid User *g* and
  - The sum of
    - The Entry [Exit] Transmission Services of Zeebrugge, IZT, Zeebrugge LNG Terminal and ZPT for Grid User g $(MTSR_{Zeebrugge,h,g} + MTSR_{IZT,h,g} + MTSR_{Zeebrugge\ LNG\ Terminal,h,g} + MTSR_{ZPT,h,g})$;
    - The Entry [Exit] Transmission Services at Zeebrugge implicitly allocated till the end of the same Gas Day under the Zeebrugge Imbalance Transfer Service at Zeebrugge for (a) previous hour(s) of the same Gas Day ($MTSR_{ZeebruggeITSia,h-n,z,g}$)
- Zero (0).

~~$$MTSR_{ZeebruggeITSia,e,h,g} = \max\left[sum(NCTTP_{h,e,g} + EEN^{'m}_{h,IPs,g}) - (MTSR_{IPsh,e,g} + MTSR_{ZeebruggeITS,ia,h-n,e,g});0\right]$$~~

~~$$MTSR_{ZeebrugeITSia,x,h,g} = \max\left[sum(NCTTP_{h,x,g} + XEN^{'m}_{h,IPs,g}) - (MTSR_{IPs,h,x,g} + MTSR_{ZeebruggeITS,ia,h-n,x,g});0\right]$$~~

3.9 UK Compliancy Adjustment Service

The UK Compliancy Adjustment Service is a Service performed by the TSO for the Grid User(s) using an Exit Service at Interconnection Point IZT and/or at Zeebrugge ~~Beach~~. This UK Compliancy Adjustment Service consists of the following aspects:

a. If, for a given hour, Grid User has at least the same quantity of UK Compliant Entry *($UKCE_{h,g}$)* at the H Zone as Exit at IZT and Zeebrugge ~~Beach~~ *($XUK_{h,g}$)*, the Exit quantity at IZT and Zeebrugge ~~Beach~~ for Grid User is considered to be UK Compliant *($UKCX_{h,g}$)*, and no UK Compliancy Polluter Fee *($UKPF_{h,g}$)* shall be charged to Grid User and no Gas Quality Constraint shall be set for Grid User ;
b. If Grid User has less UK Compliant Entry *($UKCE_{h,g}$)* at the H Zone than his Exit quantity at IZT and at Zeebrugge ~~Beach~~ *($XUK_{h,g}$)*, then:
    (i) On a reasonable endeavour basis, the TSO uses the Nitrogen Blending Installation to make the UK Non-Compliant quantities UK Compliant. The TSO charges the UK Pollution Fee *($UKPF_{h,g}$)* to the Grid User as set out in section 3.9.3~~3.9.3~~3.9.3~~3.9.3~~;
    (ii) The TSO has the right to set a Gas Quality Constraint interrupting or reducing part or all of the UK Non-Compliant Exit *($UKNCX_{h,g}$)* on Interconnection Point IZT and/or Zeebrugge ~~Beach~~, as provided for in section 3.9.2~~3.9.2~~3.9.2~~3.9.2~~;

This Service is an implicit service, which cannot be subscribed by Grid Users and which is performed by the TSO for each Grid User on the Exit at IZT and/or Zeebrugge ~~Beach~~.

3.9.1 UK Compliant Natural Gas

The applicable Wobbe specification for UK Compliant Natural Gas in the context of this UK Compliancy Adjustment Service is the upper Wobbe limit at IZT of 15,05 kWh/m³(n) (“Maximum UK Wobbe”), as can be amended from time to time.

Without prejudice to the Specific Requirements for IZT and Zeebrugge ~~Beach~~ and in the context of this Service, when the measured Wobbe index is lower than or equal to the UK Wobbe it is considered to be UK Compliant. Otherwise, it is considered to be UK Non-Compliant.

3.9.2 UK Gas Quality Constraint

3.9.2.1 Calculation of Exit submitted to UK compliancy

The Exit that is submitted to UK compliancy $(XUK_{h,g})$ for each Grid User g, is calculated as the matched Netted-off Energy Nominations ($NEN^{m}_{h,IP,g}$) of a Grid User g for a given hour h, on the Interconnection Points IZT and/or Zeebrugge ~~Beach~~.

$$XUK_{h,g} = \left[\max\left(0; -NEN^{m}_{h,IZT,g} - NEN^{m}_{h,Zeebrugge,g}\right)\right]$$

3.9.2.2 Calculation of the UK Compliant Entry

For each Grid User g, and for each hour h, the quantity of UK Compliant Entry $(UKCE_{h,g})$ is determined based on the matched Netted-off Energy[12] Nomination at each Interconnection Point *IP* of the H Zone $(NEN^{m}_{h,IP,ip})$ for which the last measured Wobbe index is UK compliant.

$$UKCE_{h,g} = \sum_{IP\in[Vx_h]} \max\left(0; NEN^{m}_{h,IP,g}\right) + \left(\max(0; NCTTN_{h,g}) + \max\left[0; XUK_{h,g} - \max(0; NCTTN_{h,g}) - \sum_{IP\in Hzone}\max(0; NEN^{m}_{h,IP,g})\right]\right)\Big|_{\text{Wobbe HZone}\le\text{MaximumUKWobbe}}$$

Where Vx_h are all Interconnection Points of the H zone for which the last measured Wobbe index at such Entry is lower or equal than the UK Wobbe.

For as long as the average Wobbe for the H Zone[13] - calculated as a weighted average Wobbe of all Interconnection Points with a physical incoming flow[14] into the H Zone for the considered hour - is lower than or equal to the UK Wobbe, the quantity of UK Compliant Entry $(UKCE_{h,g})$ is increased by:

- Provisional Net Confirmed Title Transfers for ZTP Notional Trading Services $(NCTTN_{h,g})$, in case the provisional Net Confirmed Title Transfers for ZTP Notional Trading Services $(NCTTN_{h,g})$ ~~for Notional Trading Services~~ are a positive value for hour h and for Grid User g.
- The difference between
  - Exit that is submitted to UK compliancy $(XUK_{h,g})$ and
  - the total matched Netted-off Energy Nomination at each Interconnection Point *IP* of the H , and
  - Provisional Net Confirmed Title Transfers for ZTP Notional Trading Services $(NCTTN_{h,g})$, in case such value is positive

  if this difference is positive.

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[12] Note that Wheeling Services and exit services that are submitted to an OCUC to other IPs than IZT or Zeebrugge ~~Beach~~ and Direct Line Services are not added to these matched Netted-off Energy Nominations

[13] The last calculated Wobbe for the H Zone for the current hour will be available via the Electronic Data Platform.

[14] For Eynatten 1 and ~~-~~Eynatten 2 the physical incoming flow shall be determined based on the sum of both Interconnection Points. This is also the case for Zelzate 1 and Zelzate 2.

3.9.2.3 Calculation of the UK Non-Compliant Exit for Grid User

For every hour, the quantities of UK Non-Compliant Exit at IZT and Zeebrugge ~~Beach~~ *($UKNCX_{h,g}$)* for Grid User are calculated as the difference between the matched Netted-off Exit Nominations submitted to UK compliancy *($XUK_{h,g}$)* and the UK Compliant Entry *($UKCE_{h,g}$)*.

$$UKNCX_{h,g} = \max\left[0;\ XUK_{h,g} - UKCE_{h,g}\right]$$

3.9.2.4 UK Gas Quality Constraint

For every hour, part or all of the UK Non-Compliant Exit *($UKNX_{h,g}$)* at IZT and/or Zeebrugge ~~Beach~~ can be interrupted by the TSO through a UK Gas Quality Constraint, in as provided for in the Operating Procedures (ACT - Attachment C.1).

3.9.3 The UK Pollution Fee

The calculation of the UK Polluter Fee *($UKPF_{h,g}$)* is performed after the Month and at the latest Month + 20 days, based on the final Allocations, and for every Hour of the Month as described below.

3.9.3.1 Calculation of Exit submitted to UK compliancy

The Exit that is submitted to UK compliancy for each Grid User *g*, is based on the Netted-off Energy Allocation *($NEA'_{h,IP,g}$)* of a Grid User *g* for a given Hour *h*, on the Interconnection Points IZT and Zeebrugge ~~Beach~~.

$$XUK'_{h,g} = \left[\max\left(0; -NEA'_{h,IZT,g} - NEA'_{h,Zeebrugge,g}\right)\right]$$

3.9.3.2 Calculation of the UK Compliant Entry

For each Grid User g, and for each hour *h*, the quantity of UK Compliant Entry *($UKCE'_{h,g}$)* is determined based on the final Netted-off Energy[15] Allocations at each Interconnection Point *IP* of the H Zone *($NEA'_{h,IP,ip}$)* for which the last measured Wobbe index is UK Compliant:

$$UKCE'_{h,g} = \sum_{IP\in[Vx_h]} \max\left(0; NEA'_{h,IP,g}\right) + \left(\max(0; NCTTN'_{h,g}) + \max\left[0; XUK'_{h,g} - \max(0; NCTTN'_{h,g}) - \sum_{IP\in Hzone} \max(0; NEA'_{h,IP,g})\right]\right)\Bigg|_{\text{Wobbe HZone} \le \text{MaximumUKWobbe}}$$

Where Vx_h are all Interconnection Points of the H zone for which the last measured Wobbe index at such Entry is lower or equal than the UK Wobbe.

For as long as the average Wobbe for the H Zone[16] - calculated as a weighted average Wobbe of all Interconnection Points with a physical incoming flow[17] into the H Zone

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[15] Note that Wheeling services and Exit services that are submitted to an OCUC to other IPs than IZT or Zeebrugge ~~Beach~~ and Direct Line services are not added to these Netted-off Energy Allocations

[16] The last calculated Wobbe for the H Zone for the current hour will be available via the Electronic Data Platform.

[17] For Eynatten 1 and Eynatten 2 the physical incoming flow shall be determined based on the sum of both Interconnection Points. This is also the case for Zelzate 1 and Zelzate 2.

for the considered hour - is lower than or equal to the UK Wobbe, the quantity of UK Compliant Entry *($UKCE_{h,g}$)* is increased by:

- Net Confirmed Title Transfers for ZTP Notional Trading Services *($NCTTN'_{h,g}$)*, in case the Net Confirmed Title Transfers for ZTP Notional Trading Services *($NCTTN'_{h,g}$)* ~~for Notional Trading Services~~ are a positive value for hour *h* and for Grid User *g*.
- The difference between
  - Exit that is submitted to UK compliancy and
  - the total final Netted-off Energy Allocations at each Interconnection Point *IP* of the H , and
  - Net Confirmed Title Transfers for ZTP Notional Trading Services *($NCTTN'_{h,g}$)*, in case such value is positve

  if this difference is positive.

3.9.3.3 Calculation of the UK Non-Compliant Exit Allocations for Grid User

For every hour, the quantities of UK Non-Compliant Exit at IZT and/or Zeebrugge ~~Beach~~ *($UKNCX'_{h,g}$)* for Grid User are calculated as the difference between the Exit Allocations submitted to UK compliancy *($XUK'_{h,g}$)* and the UK Compliant Entry *($UKCE'_{h,g}$)*.

$$UKNCX'_{h,g} = \max\left[XUK'_{h,g} - UKCE'_{h,g}; 0\right]$$

3.9.3.4 Degree of UK Pollution per Interconnection Point

The Degree of UK Non-Compliancy *($D'_{h,IP}$)* for a considered hour *h* for a considered Interconnection Point *IP* is calculated as the deviation between the last measured Wobbe index on the respective Interconnection Point *($Wobbe'_{h,IP}$)* and the Maximum UK Wobbe (15.05 kWh / m³(n)), and is calculated as follows:

$$D'_{h,IP} = \min\left(\frac{\max\left(0; Wobbe'_{h,IP} - MaximumUKWobbe\right)}{(15{,}56 - MaximumUKWobbe)}; 1\right)$$

The Degree of UK Non-Compliancy *($D'_{h,Hzone}$)* for a considered hour *h* for the H zone is calculated as the deviation between the last calculated Wobbe index on the H zone ($Wobbe'_{h,Hzone}$) and the Maximum UK Wobbe (15.05 kWh / m³(n)), and is calculated as follows:

$$D'_{h,Hzone} = \min\left(\frac{\max\left(0; Wobbe'_{h,Hzone} - MaximumUKWobbe\right)}{(15{,}56 - MaximumUKWobbe)}; 1\right)$$

3.9.3.5 Degree of UK Pollution per Grid User

The Degree of UK pollution *($P'_{h,g}$)* for a Grid User *g* for a given hour *h* is calculated as the sum of, for each Interconnection Point, the Degree of UK Non-Compliancy *($D'_{h,IP}$)* to the Netted-off Energy Allocations *($NEA'_{h,IP,g}$)* of Grid User *g*.

This is a weighted average, which is calculated as follows:

$$P'_{h,g} = \frac{\left(\sum_{IP \notin [Vx_h]} \left[D'_{h,IP}\ x\left(\max\left[NEA'_{h,IP,g};0\right]\right)\right]\right) + \left(D'_{h,Hzone}\ x \max\left[0; XUK'_{h,g} - \sum_{IP \in Hzone} \max(0; NEA'_{h,IP,g})\right]\right)}{\left(\sum_{IP \notin [Vx_h]} \max\left[NEA'_{h,IP,g};0\right]\right) + \left(\max\left[0; XUK'_{h,g} - \sum_{IP \in Hzone} \max(0; NEA'_{h,IP,g})\right]\right)}\Bigg|_{\text{Wobbe HZone} > \text{Maximum UKWobbe}}$$

3.9.3.6 UK Polluted Exit

The UK polluted Exit for an hour *h* and a Grid User *g* *(UKP'$_{h,g}$)* at the Exit IZT and Zeebrugge ~~Beach~~ is calculated by multiplying his degree of UK pollution *(P'$_{h,g}$)* with his UK Non-Compliant Exit Allocations *(UKNCX'$_{h,g}$)*.

$$UKP'_{h,g} = UKNCX'_{h,g}\ x\ P'_{h,g}$$

3.9.3.7 UK Pollution Fee

The UK Pollution Fee *(UKPF$_{h,g}$)* for an hour *h* for a Grid User *g* is calculated by multiplying the UK pollution *(UKP'$_{h,g}$)* of the considered Grid User with the applicable Regulated Tariff for the UK Compliancy Adjustment service (T_{UKCA}), divided by 1000, as specified in the Regulated Tariffs.

$$UKPF_{h,g} = \frac{UKP'_{h,g}}{1000}\ x\ T_{UKCA}$$

3.10 Imbalance Pooling Service

The Imbalance Pooling Service enables Grid Users to transfer, per Balancing Zone, the hourly Imbalance (based on provisional allocation) from one Grid User ('Imbalance Transferor') to another Grid User ('Imbalance Transferee') as an Imbalance Pooling Transfer $IPT_{h,z,g}$ as follows:

- the Imbalance Transferor shall authorise that its (whole) hourly Imbalance ($I_{h,z,g}$) being positive as well as negative shall be transferred to the Imbalance Transferee, as provided for in Section 5.3.2;
- the Imbalance Transferee shall authorise that the (whole) hourly Imbalance ($I_{h,z,g}$) of the Imbalance Transferor, if any, being positive as well as negative shall be taken into account for the calculation its Grid User Balancing Position, as provided for in Section 5.3.2;
- the transfer will be performed by the TSO as an implicit Nomination on the ZTP and will be accounted for as transaction for both Parties in accordance with Section 6.3.1.8;
- a Grid User can only perform the role of either Imbalance Transferor or Imbalance Transferee;
- as an Imbalance Transferee a Grid User can enter into several Imbalance Pooling Services with more than one Imbalance Transferor; and,

- for the avoidance of doubt, the Imbalance Transferor remains liable vis-à-vis the TSO for any Allocation Settlements in accordance with Section 5.4 when applicable.

The Imbalance Pooling Service can be subscribed according to the rules defined in ACT – Attachment B and via the Imbalance Pooling Service form (ACT - Attachment G).

3.11 Capacity Conversion Service

The Capacity Conversion Service enables Grid Users holding unbundled capacity at one side of an Interconnection Point to convert this capacity into bundled capacity according to the conditions set forth in ACT – Attachment B. ~~This Service is offered~~and free of extra charge. To apply, the Grid User will use the form G.1.m - Service Request Form for Capacity Conversion Service" in Attachment G. ~~according to the conditions set forth in ACT – Attachment B.~~

4 Nominations, Metering and Allocations

4.1 Overview

The following table illustrates the different parameters for Nominations and Allocations at Interconnection Points and Domestic Exit Points, defined and used in this section.

		Interconnection Point		**Domestic Exit Point**
		Entry	**Exit**	**Exit only**
Nominations	**Initial**	EEN_h	XEN_h	XEN_h
	Last	EEN'_h	XEN'_h	XEN'_h
Allocations	**Provisional**	EEA_h & EVA_h	XEA_h & XVA_h	XEA_h & XVA_h
	Final	EEA'_h & EVA'_h	XEA'_h & XVA'_h	XEA'_h & XVA'_h
Metering	**Provisional**	EM_h & VM_h & GCV_h	EM_h & VM_h & GCV_h	EM_h & VM_h & GCV_h
	Validated	EM'_h & VM'_h & GCV'_h	EM'_h & VM'_h & GCV'_h	EM'_h & VM'_h & GCV'_h

4.2 Nominations

In order to notify the TSO of the quantity of Natural Gas that will flow at each Interconnection Point, at the exception of Interconnection Point GDLux, or End User Domestic Exit Point, the Grid User shall send Nominations and, if applicable, renominations to the TSO, according to the Operating Procedures (ACT – Attachment C.1).

The Nominations and Allocation for Entry and Exit Services subject to a Wheeling or an OCUC, are independent from other Entry and Exit Services through the use of separate nomination codes, as described in the Operating Procedures (ACT – Attachment C.1).

4.3 Metering

Each Interconnection Point or Domestic Exit Point may contain one or more Nodes providing hourly measurement data, as set out in the Metering Procedures (ACT - Attachment D).

4.4 Allocations

At each Interconnection Point, at the exception of Interconnection Point GDLux, or Domestic Exit Point, the TSO shall allocate a quantity of the Natural Gas measured to each Grid User for which Natural Gas is transported at that Point, according to the relevant Allocation Agreement or Operating Balancing Agreement, as set out in the Operating Procedures (ACT - Attachment C.1).

The determination of provisional allocations of Natural Gas takes place every hour. The determination of the final allocated quantities of Natural Gas takes place on M+1 for every hour.

On Interconnection Point GDLux, Grid User receives from the TSO an allocation quantity of the Natural Gas equal to the hourly imbalance $I_{h,g,\text{before allocation GDLux}}$ of this Grid User calculated in accordance with the access code for transmission of Creos between Creos and Grid User. This quantity is equal to the Initial Allocation EEA_h or XEA_h. The final Allocation EEA'_h or XEA'_h shall be equal to the Initial Allocation EEA_h or XEA_h.

4.5 Scheduling fees

At the End User Domestic Exit Points, Monthly Scheduling Fees will be calculated taking into account the accuracy of the initial Nominations and the accuracy of the last Nominations. No Monthly Scheduling Fee shall be due neither for Distribution Domestic Exit Points nor for Interconnection Points.

For each End User Domestic Exit Point with a total $MTSR_d$ of all Grid Users together that exceeds 200 000 kWh/h, the difference between the initial Exit Energy Nomination XEN_h (at *d*-1 at 14:00 hours) and the final Exit Energy Allocation XEA'_h must not exceed 100 000 kWh, at each hour. The Initial Exit Scheduling IXS_h is defined as:

$$IXS_h = \max\left(0, \left| -XEN_h + XEA'_h \right| - 100\ 000\ \text{kWh}\right)$$

For each End User Domestic Exit Point, if IXS_h is positive, an Incentive for Initial Exit Scheduling $IIXS_m$ will be applied, corresponding to 0.2 % of IXS_h, calculated at a fix gas price of 0.02 €/kWh, cumulated for all hours of Month *m* :

$$IIXS_m = \sum_m \sum_d IXS_h \times 0.002 \times 0.02\,€/kWh$$

Additionally, for each End User Domestic Exit Point where the $MTSR_d$ is higher than or equal to 200 000 kWh/h, the difference between the last Exit Energy Nomination

XEN'_h and the final Exit Energy Allocation XEA'_h must not exceed 100 000 kWh, at each hour. The Last Exit Scheduling LXS_h is defined as :

$$LXS_h = \max\left(0, \left| -XEN'_h + XEA'_h \right| - 100\ 000\ \text{kWh}\right)$$

For each End User Domestic Exit Point, if LXS_h is positive, an Incentive for Last Exit Scheduling $ILXS_m$ will be applied, corresponding to 0.2 % of LXS_h, calculated at a standard gas price of 0.02 €/kWh, cumulated for all hours of Month *m* :

$$ILXS_m = \sum_m \sum_d LXS_h \times 0.002 \times 0.02 €/kWh$$

5 Balancing

There are balancing settlements (Within-Day and End-of-Day) and allocation settlements (only End-of-Day):

- Balancing settlements are based on provisional data (H+1);
- Allocation settlements are settlements based on the difference between the provisional and the final data and are settled after the considered Month.

The quantity to be settled by an balancing Within-Day hourly settlement for a Grid User ($GE_{h,z,g}$, $GS_{h,z,g}$), for an hour h not being the last hour of the considered Gas Day depends on:

- the provisional hourly allocations ($EEA_{h,g}$, $XEA_{h,g}$) for Grid User for the Interconnection Points and the Domestic Exit Points of the considered Zone;
- the Net Confirmed Title Transfers for ZTP Notional Trading Services[18] of the considered Zone, for the Grid User, ~~confirmed by Hub Operator towards the TSO~~ ($NCTTN_{h,z,g}$);
- the Imbalance Pooling Transfer ($IPT_{h,z,g}$) of the considered Zone - as Imbalance Transferee or Imbalance Transferor - under the Imbalance Pooling Service;
- the Market Balancing Position before the settlement ($MBP^*_{h,z}$) versus the Market Threshold ($MT^+_{h,z}$, $MT^-_{h,z}$);
- the proportion of the Grid User Balancing Position before the settlement ($GBP^*_{h,z,g}$) in the sum of the Excess Causing Grid Users or Shortfall Causing Grid Users, as the case may be;

The quantity to be settled by balancing End-of-Day settlement for a Grid User (End-of-Day Grid User Excess: $GE_{d,z,g}$, or End-of-Day Grid User Shortfall: $GS_{d,z,g}$) depends on:

[18] Net Confirmed Title Transfer for ZTP~~eebrugge Beach~~ Physical Trading Services ($NCTTP_{h,z,g}$) are considered as net Entry or Exit Allocations at Interconnection Point Zeebrugge ~~Beach~~

- the Grid User Balancing Position before settlement of the last hour of the Gas Day ($GBP^*_{d,z,g}$).

The difference between final and provisional allocations is settled via Allocation Settlements, based on section 5.45.45.45.4.

5.1 Balancing obligations for Grid Users

Pursuant to article 86 of the Code of Conduct, it is forbidden for Grid User to deliberately create an imbalance for reasons of commercial opportunities. A Grid User will not commit any act that would be constitutive of abuse and/or manipulation of the balancing system.

If a Grid User commits such act, then the TSO shall have the right to:

- refuse the (re)nominations of this Grid User; and
- charge to this Grid User, and the Grid User shall have to pay, any balancing costs incurred by the TSO relating to the specific behaviour of this Grid User.

It is reminded to Grid Users that the non-compliance of article 86 of the Code of Conduct shall be sanctioned under criminal law, in accordance with article 234 of the Code of Conduct.

5.2 Consideration of Net Confirmed Title Transfers into Grid User Balancing Position

The access to the ZTP Trading Services on is subject to an effective the confirmation by the TSO to the Hub Operator that the Grid User has a valid signed STA in force.

The Hub Operator notifies the TSO at least on an hourly basis of the net confirmed title transfers for Notional Trading Services of the Grid User (Net Confirmed Title Transfers for hour h, Grid User - $NCTT_{h,g}$).

For each hour, the TSO takes Net Confirmed Title Transfers for ZTP Trading Services[19] - insofar subscribed by the Grid User - into account for determining the Grid User Balancing Position $(GBP_{h,z,g})$ of the Grid User on the related Zone, as set out in section 5.35.35.35.3. Purchases are added as positive values to the Grid User Balancing Position, whereas sales are added as negative values to the Grid User Balancing Position.

The TSO may suspend the right to use the ZTP Trading Services for a Grid User with immediate effect and until further notice as soon as the Grid User has realized imbalances and/or is subject to settlements that may cause amounts to be due and payable, arising from the balancing regime, that are of such a nature that TSO may reasonably not expect to receive full and timely payment of these amounts.

[19] Net Confirmed Title Transfer for ZTP Physical Trading Services ($NCTTP_{h,z,g}$) are considered as net Entry or Exit Allocations at Interconnection Point Zeebrugge

5.3 Balancing Settlements

5.3.1 Market Threshold ($MT^{+}_{h,z}$; $MT^{-}_{h,z}$)

The table below shows the default Market Threshold values for each period of the year, for the H Zone.

Month	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
$MT^{+}_{h,H\ zone}$	22 GWh	22 GWh	22 GWh	25 GWh	29 GWh	29 GWh	30 GWh	30 GWh	29 GWh	25 GWh	22 GWh	22 GWh
$MT^{-}_{h,H\ zone}$	-22 GWh	-22 GWh	-22 GWh	-25 GWh	-29 GWh	-29 GWh	-30 GWh	-30 GWh	-29 GWh	-25 GWh	-22 GWh	-22 GWh

The table below shows the default Market Threshold values for each period of the year, for the L Zone.

Month	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
$MT^{+}_{h,L\ zone}$	13 GWh	13 GWh	13 GWh	13 GWh	15 GWh	15 GWh	16 GWh	16 GWh	15 GWh	13 GWh	13 GWh	13 GWh
$MT^{-}_{h,L\ zone}$	-13 GWh	-13 GWh	-13 GWh	-13 GWh	-15 GWh	-15 GWh	-16 GWh	-16 GWh	-15 GWh	-13 GWh	-13 GWh	-13 GWh

The TSO has the right to modify, at any time and acting in accordance with the standards of a Prudent and Reasonable Operator, the effective values of the Market Thresholds in function of the Transmission Grid operating conditions (for example but not limited to: in case of high gas demand, or as from an Incident Management level, etc) in accordance with the Operating Procedures (ACT – Attachment C.1).

Any structural revision of these Market Thresholds, based on evolved flexibility requirements of the market in Belgium, shall evaluated together with CREG and announced in due time on the website and on the Electronic Data Platform.

5.3.2 Within-Day balancing position before settlement

The Grid User starts the Gas Day with a Grid User Balancing Position which is equal to zero.

The hourly Imbalance ($I_{h,z,g}$) for an hour *h* for a Zone *z* and for Grid User *g* is calculated as the sum of all provisional hourly Entry Energy Allocations[20] for Grid User for the Interconnection Points of the considered Zone ($EEA_{h,g}$) increased by the provisional hourly Exit Energy Allocations[13] (negative values) for Grid User *g* for the Interconnection Points and the Domestic Exit Points of the considered Zone

[20] Entry and Exit Services submitted to an Operational Capacity Commitment and Wheeling Services, Direct Lines and Zee Platform Services are not considered in the hourly Imbalance, and for Distribution Domestic Exit, the Exit Energy Allocations are calculated as set out in the Operating Procedures (ACT - Attachment C.1).

($XEA_{h,z,g}$), increased by the Net Confirmed Title Transfers ~~*($NCTT_{h,z,g}$)*~~ for ZTP Notional Trading Services[21] *($NCTTN_{h,z,g}$)*:

$$I_{h,z,g} = \sum_{Zone} EEA_{h,g} + \sum_{Zone} XEA_{h,z,g} + NCTTN_{h,z,g}$$

The Grid User Balancing Position before settlement ($GBP^*_{h,z,g}$) for an hour *h* for a Zone *z* and for Grid User *g* is calculated by adding the Grid User Balancing Position after settlement of the previous hour ($GBP_{h-1,z,g}$), ~~with~~ the hourly Imbalance *($I_{h,z,g}$)* such as higher calculated and the Imbalance Pooling Transfer *($IPT_{h,z,g}$)* (as Imbalance Transferee or Imbalance Transferor) under the Imbalance Pooling Service, if applicable:

$$GBP^*_{h,z,g} = GBP_{h-1,z,g} + I_{h,z,g} + IPT_{h,z,g}$$

Where $IPT_{h,z,g}$ meaning the Imbalance Pooling Transfer of

- the Imbalance Transferor for which the Imbalance Transferor has an Imbalance Pooling Service in place;
- the Imbalance Transferee being the sum of the Imbalance Pooling Transfers of all Imbalance Transferors for whom the Imbalance Transferee has an Imbalance Pooling Service in place.

Such Grid User Balancing Position before settlement is communicated to the Grid User as set out in the Operating Procedures (ACT – Attachment C.1).

The Market Balancing Position before settlement ($MBP^*_{h,z}$) for an hour *h* for a Zone *z* is calculated by taking the sum of the Grid User Balancing Position before settlement ($GBP^*_{h,z}$) of all Grid Users for the considered hour and Zone:

$$MBP^*_{h,z} = \sum_{allGridUsers} GBP^*_{h,z,g}$$

Such Market Balancing Position is communicated to the Grid User as set out in the Operating Procedures.

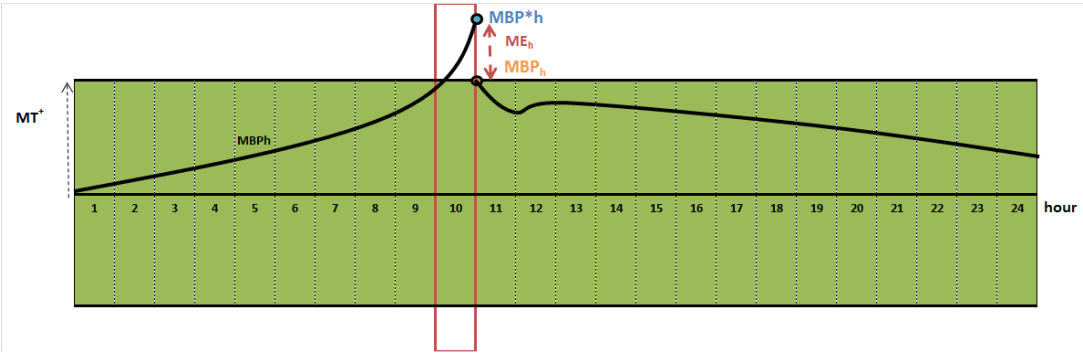
5.3.3 Within-Day Market Excess

In case the Market Balancing Position before settlement ($MBP^*_{h,z}$) for an hour h not being the last hour of the Gas Day exceeds the upper Market Threshold *($MT^+_{h,z}$)*, there is a Market Excess *($ME_{h,z}$)*, which is calculated as the difference between the Market

[21] Net Confirmed Title Transfer for ZTP Physical Trading Services ($NCTTP_{h,z,g}$) are considered as net Entry or Exit Allocations at Interconnection Point Zeebrugge

Balancing Position before settlement ($MBP^*_{h,z}$) and the upper Market Threshold ($MT^+_{h,z}$), rounded up (ceiling) taking into account the rounding parameter ($RMLS_{h,z}$):

$$ME_{h,z} = \max\left[\left\lceil \frac{MBP^*_{h,z} - MT^+_z}{RMLS_{h,z}} \right\rceil * RMLS_{h,z}; 0\right]$$



This Within-Day Market Excess ($ME_{h,z}$) is settled with the Excess Causing Grid Users ($ECG_{h,z}$), being Grid Users with a positive Grid User Balancing Position before settlement ($GBP^*_{h,z}$).

$$ECG_{h,z} : GBP^*_{h,z} > 0$$

The Within-Day Grid User Excess ($GE_{h,z,g}$) is calculated by distributing the Market Excess ($ME_{h,z}$) according to the proportion of the Grid User Balancing Position before settlement ($GBP^*_{h,z,g}$) in the sum of the Grid User Balancing Positions before settlement of all Excess Causing Grid Users, and is communicated to the Grid User as set out in the Operating Procedures.

$$GE_{h,z,g} = ME_{h,z} \; x \frac{GBP^*_{h,z,g}}{\sum_{Excess\ Causing\ Grid\ Users} GBP^*_{h,z}}$$

The Within-Day Grid User Excess Balancing Settlement ($GEBS_{h,z,g}$ - €) is calculated by multiplying the hourly Grid User Excess quantity ($GE_{h,z,g}$ - kWh) by minus one (negative value means this amount is credited) and by the hourly Excess Balancing Settlement Price ($EBSP_{h,z}$ - € / kWh).

$$GEBS_{h,z,g} = -GE_{h,z,g} \; x \; EBSP_{h,z}$$

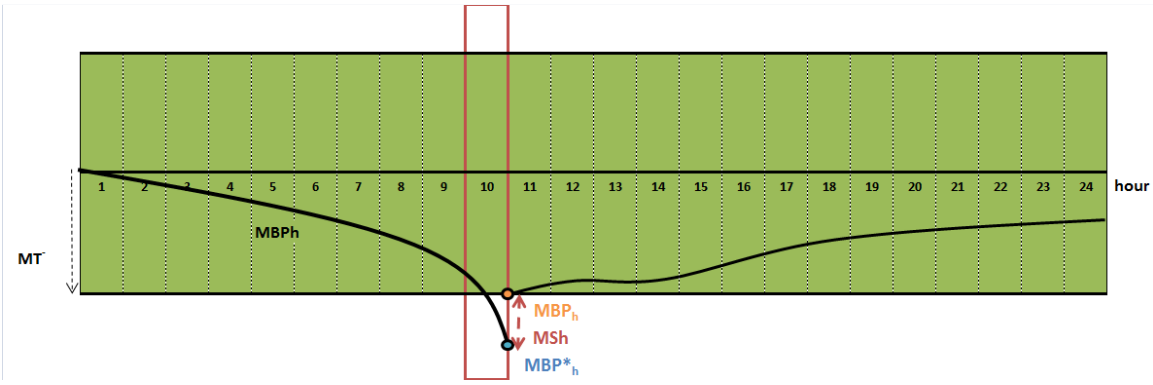
In case of Within-Day Market Excess, Excess Balancing Settlement Price ($EBSP_{h,z}$) is calculated as the minimum between the Excess Balancing Price ($EBP_{h,z}$) and the Gas Price (GP_d) to which the Small Adjustment for causer (SA_{causer}) is applied:

$$EBSP_{h,z} = \min(\; EBP_{h,z}; GP_d \; x \; (1 - SA_{causer}\;))$$

5.3.4 Within-Day Market Shortfall

In case the Within-Day Market Balancing Position before settlement ($MBP^*_{h,z}$) for an hour h not being the last hour of the Gas Day is lower than the lower Market Threshold ($MT^-_{h,z}$), there is a Market Shortfall ($MS_{h,z}$, positive value), which is calculated as the absolute value of the difference between the Market Balancing Position before settlement ($MBP^*_{h,z}$, negative value) and the Market Threshold ($MT^-_{h,z}$, negative value), rounded up (floor) taking into account the rounding ($RMLS_{h,z}$) :

$$MS_{h,zone} = \left| \min\left(\left\lfloor \frac{MBP^*_{h,z} - MT^-_z}{RMLS_{h,z}} \right\rfloor * RMLS_{h,z}; 0 \right) \right|$$



This Within-Day Market Shortfall ($MS_{h,z}$) is settled with the Shortfall Causing Grid Users ($SCG_{h,z}$), being Grid Users with a negative Grid User Balancing Position before settlement ($GBP^*_{h,z}$).

$$SCG_{h,z} : GBP^*_{h,z} < 0$$

The Grid User Shortfall ($GS_{h,z,g}$) is calculated by distributing the Market Shortfall ($MS_{h,z}$) according to the proportion of the Within-Day Grid User Balancing Position before settlement ($GBP^*_{h,z,g}$) in the sum of the Grid User Balancing Positions before settlement of all Shortfall Causing Grid Users, and is communicated to the Grid User as set out in the Operating Procedures (ACT – Attachment C.1).

$$GS_{h,z,g} = MS_{h,z} \; x \frac{GBP^*_{h,z,g}}{\sum GBP^*_{h,z}}$$
$$sum\ of\ all\ Shortfall\ Causing\ Grid\ Users$$

The Within-Day Grid User Shortfall Balancing Settlement ($GSBS_{h,z,g}$ - €) is equal to the Within-Day Grid User Shortfall ($GS_{h,z,g}$ - kWh) multiplied by the Shortfall Balancing Settlement Price ($SBSP_{h,z}$ - € / kWh).

$$GSBS_{h,z,g} = GS_{h,z,g} \; x \; SBSP_{h,z}$$

In case of Within-Day Market Shortfall, Shortfall Balancing Settlement Price ($SBSP_{h,z}$) is calculated as the maximum between the Shortfall Balancing Price ($SBP_{h,z}$) and the Gas Price (GP_d) to which the Small Adjustment for causer (SA_{causer}) is applied:

$$SBSP_{h,z} = \max(SBP_{h,z}; GP_d \times (1 + SA_{causer}))$$

5.3.5 *Within-Day balancing position after settlement*

The Grid User Balancing Position after settlement ($GBP_{h,z,g}$) for an hour *h* (not being the last hour of the considered Gas Day) for a Zone *z* and for Grid User *g* is calculated by adding the Grid User Balancing Position before settlement of the considered hour ($GBP^*_{h,,z,g}$) to the Grid User Shortfall for the considered hour ($GS_{h,z,g}$), decreased by the Grid User Excess for the considered hour ($GE_{h,z,g}$):

$$GBP_{h,z,g} = GBP^*_{h,z,g} + GS_{h,z,g} - GE_{h,z,g}$$

The Market Balancing Position after settlement ($MBP_{h,z}$) for an hour *h* for a Zone *z* is calculated by taking the sum of the Grid User Balancing Position after settlement ($GBP_{h,z,g}$) of all Grid Users for the considered hour and Zone:

$$MBP_{h,z} = \sum_{allGridUsers} GBP_{h,z,g}$$

5.3.6 *End-of-Day Market Excess and End-of-Day Market Shortfall*

In case the End-of-Day Market Balancing Position before settlement ($MBP^*_{d,z}$), being the Market Balancing Position before settlement of the last hour of the Gas Day ($MBP^*_{last\ h,z}$) is a positive value, there is an End-of-Day Market Excess ($ME_{d,z}$), which is equal to such End-of-Day Market Balancing Position before settlement. In case the End-of-Day Market Balancing Position before settlement is a negative value, there is an End-of-Day Market Shortfall ($MS_{d,z}$ – positive value), which is equal to such End-of-Day Market Balancing Position before settlement (absolute value).

$$MBP^*_{d,z} = MBP^*_{lasth,z}$$

$$If\ MBP^*_{d,z} > 0: \quad ME_{d,z} = MBP^*_{d,z}; MS_{d,z} = 0$$

$$If\ MBP^*_{d,z} < 0: \quad MS_{d,z} = |MBP^*_{d,z}|; ME_{d,z} = 0$$

$$If\ MBP^*_{d,z} = 0: \quad MS_{d,z} = ME_{d,z} = 0$$

The Excess Causing Grid Users are the Grid Users with a positive End-of-Day Grid User Balancing Position before settlement ($GBP^*_{d,z}$), being the Grid User Balancing Position before settlement of the last hour of the Gas ($GBP^*_{last\ h,z}$). The Shortfall Causing Grid Users are the Grid Users with a negative End-of-Day Grid User Balancing Position before settlement ($GBP^*_{d,z}$).

$$GBP^*_{d,z} = GBP^*_{lasth,z}$$

$$ECG_{d,z} : GBP^*_{d,z} > 0$$

$$SCG_{d,z} : GBP^*_{d,z} < 0$$

5.3.7 End-of-Day Settlements in case of End-of-Day Market Excess

For Excess Causing Grid Users, the End-of-Day Grid User Excess Balancing Settlement ($GEBS_{d,z,g}$) is equal to the End-of-Day Grid User Balancing Position before settlement ($GBP^*_{d,z,g}$) multiplied by the End-of-Day Excess Balancing Settlement Price ($EBSP_{d,z}$), multiplied by minus one (negative settlement means that amount is credited).

$$GEBS_{d,z,g} = -GBP^*_{d,z,g} \; x \; EBSP_{d,z}$$

In case of End-Of-Day Market Excess, Excess Balancing Settlement Price ($EBSP_{d,z}$) is calculated as the minimum between the Excess Balancing Price ($EBP_{d,z}$) and the Gas Price (GP_d) to which the Small Adjustment for causer (SA_{causer}) is applied:

$$EBSP_{d,z} = \min(EBP_{d,z}; GP_d \; x \; (1 - SA_{causer}))$$

For Grid Users who are not causing the Market Excess (being all other Grid Users than the Excess Causing Grid Users), the End-of-Day Grid User Shortfall Balancing Settlement ($GSBS_{d,z,g}$) is equal to the End-of-Day Grid User Balancing Position before settlement ($GBP^*_{d,z,g}$ – absolute value) multiplied by the End-of-Day Shortfall Balancing Settlement Price ($SBSP_{d,z}$).

$$GSBS_{d,z,g} = |GBP^*_{d,z,g}| \; x \; SBSP_{d,z}$$

In case of End-Of-Day Market Excess, Shortfall Balancing Settlement Price ($SBSP_{d,z}$) is calculated as the maximum between the Shortfall Balancing Price ($SBP_{d,z}$) and the Gas Price (GP_d) to which the Small Adjustment for helper (SA_{helper}) is applied :

$$SBSP_{d,z} = \max(SBP_{d,z}; GP_d \; x \; (1 + SA_{helper}))$$

5.3.8 End-of-Day Settlements in case of End-of-Day Market Shortfall

For Shortfall Causing Grid Users, the End-of-Day Grid User Shortfall Balancing Settlement ($GSBS_{d,z,g}$) is equal to the End-of-Day Grid User Balancing Position before settlement ($GBP^*_{d,z,g}$ - absolute value) multiplied by the End-of-Day Shortfall Balancing Settlement Price ($SBSP_{d,z}$).

$$GSBS_{d,z,g} = |GBP^*_{d,z,g}| \; x \; SBSP_{d,z}$$

In case of End-Of-Day Market Shortfall, Shortfall Balancing Settlement Price ($SBSP_{d,z}$) is calculated as the maximum between the Shortfall Balancing Price ($SBP_{d,z}$) and the Gas Price (GP_d) to which the Small Adjustment for causer (SA_{causer}) is applied:

$$SBSP_{d,z} = \max(SBP_{d,z}; GP_d \times (1 + SA_{causer}))$$

For Grid Users who are not causing the Market Shortfall (being all other Grid Users than the Shortfall Causing Grid Users), the End-of-Day Grid User Excess Balancing Settlement ($GEBS_{d,z,g}$) is equal to the End-of-Day Grid User Balancing Position before settlement ($GBP^*_{d,z,g}$) multiplied by the End-of-Day Excess Balancing Settlement Price ($EBSP_{d,z}$), multiplied by minus one (negative balancing settlement value means that amount is credited).

$$GEBS_{d,z,g} = -GBP^*_{d,z,g} \times EBSP_{d,z}$$

In case of End-Of-Day Market Shortfall, Excess Balancing Settlement Price ($EBSP_{d,z}$) is calculated as the minimum between the Excess Balancing Price ($EBP_{d,z}$) and the Gas Price (GP_d) to which the Small Adjustment for helper (SA_{helper}) is applied:

$$EBSP_{d,z} = \min(EBP_{d,z}; GP_d \times (1 - SA_{helper}))$$

5.3.9 End-of-Day balancing position after settlement

The End-of-Day Grid User Balancing Position after settlement ($GBP_{d,z,g}$) for a Zone *z* and for Grid User *g* is equal to 0 (zero). As a consequence the End-of-Day Market Balancing Position after settlement ($MBP_{d,z}$) for a Zone *z* is also equal to 0 (zero).

5.4 Allocation Settlements

The difference between provisional allocations and the final allocations is settled via the Allocation Settlements.

The quantity to be settled for Gas Day *d* for a Grid User *g*, in the Zone *z* for Allocation Settlement (*ASd,z,g*) is calculated as the sum of the difference between the provisional and final Entry Allocations (*EEA'h,z,g* and *EEAh,z,g* respectively) and between the provisional and final Exit Allocations (*XEA'h,z,g* and *XEAh,z,g* respectively).

$$AS_{d,z,g} = \sum_{h \in d} \left[\left(EEA_{h,z,g} - EEA'_{h,z,g} \right) + \left(XEA_{h,z,g} - XEA'_{h,z,g} \right) \right]$$

The following cases can occur:

- Allocation Settlement Grid User Sale *(ASGSd,z,g)*;
- Allocation Settlement Grid User Purchase *(ASGPd,z,g)*.

5.4.1 Allocation Settlement Grid User Sale

In case the Allocation Settlement (*ASd,z,g*) is negative, there will be an Allocation Settlement Grid User Sale (*ASGSd,z,g* – negative value):

$$ASGS_{d,z,g} = AS_{d,z,g} * GP_{d,z,g}$$

5.4.2 Allocation Settlement Grid User Purchase

In case the Allocation Settlement (*ASd,z,g*) is positive, an Allocation Settlement Grid User Purchase (*ASGPd,z,g* – positive value) will take place:

$$ASGP_{d,z,g} = AS_{d,z,g} * GP_{d,z,g}$$

6 Invoicing

6.1 General

There are 4 monthly invoices:

- Monthly FIX Invoice;
- Monthly COM Invoice is composed by:
  - Monthly COM Invoice;
  - Monthly COM Self-Billing Invoice;
  - Monthly COM2 Invoice;
  - Monthly COM2 Self-Billing Invoice;
- Monthly VAR Invoice;
- Monthly ADM Invoice.

The following Fees are invoiced with the Monthly FIX Invoice:

- Monthly Capacity Fees;
- Monthly Variable Flex Fee;
- Monthly Capacity Pooling Service Fee;
- Monthly Zee Platform Fee;
- Monthly Quality Conversion H→L Capacity Fee;
- Monthly Quality Conversion L->H Capacity Fee;
- Monthly Fixed Fees for ZTP Trading~~Hub~~ Services;

- Monthly Fee for implicitly allocated Transmission Service at Zeebrugge Interconnection Point for Zeebrugge -Imbalance Transfer Service.

The following Fees are invoiced with the Monthly COM Invoice:

- Monthly COM Invoice:
  - Monthly Energy In Cash Fee;
  - Monthly Variable Fee for Quality Conversion H->L;
  - Monthly Allocation Settlement Grid User Purchase Fees;
  - Monthly Transmission Imbalance Fee;
  - Monthly Odorisation Fee;
  - Monthly UK Compliancy Adjustment Fee;
  - Monthly Scheduling Fees;
  - Monthly Variable Fees for ZTP Trading~~Hub~~ Services and transactions;
  - ~~o~~ Monthly Variable Fee for Imbalance Pooling Service on ZTP
  - ~~Positive Monthly Settlement of Rounding, Automatic Back-Up and Offtake and of Additional Back-Up and Offtake~~.
- Monthly COM Self-billing Invoice:
  - ~~o~~ Monthly Allocation Settlement Grid User Sales Fees
  - ~~Negative Monthly Settlement of Rounding, Automatic Back-Up and Offtake and of Additional Back-Up and Offtake~~.
- Monthly COM2 Invoice:
  - Shortfall Monthly Balancing Settlement Fee;
  - If applicable, Monthly Balancing Neutrality Charge Fee.
- Monthly COM2 Self-billing Invoice:
  - Excess Monthly Balancing Settlement Fee;
  - If applicable, Monthly Balancing Neutrality Charge Fee.

The following Fees are invoiced with the Monthly VAR Invoice:

- Monthly Incentive Fees.

The following Fees are invoiced with the Monthly ADM Invoice:

- Monthly Administrative Fees.

6.2 Monthly Fix Invoice

6.2.1 Monthly Capacity Fees

The Monthly Capacity Fee (*MCAF*) is calculated for the *MTSR* subscribed by Grid User for each Interconnection Point or Domestic Exit Point, for each Transmission Service, for each Capacity Type and for each Rate Type.

Monthly Capacity Fees can either be:

- positive, for the MTSR subscribed by the Grid User or;
- negative, Grid User will be credited by the TSO in case of buy-back, surrender of capacity or long-term use-it-or-lose-it, as described in section 6.2.1.1.

6.2.1.1 Monthly Capacity Fees at Interconnection Points

For Yearly Transmission Services at an Interconnection Point IP[22], the Monthly Capacity Fee is the sum, for each Gas Day of the considered Gas Month, of the terms that are the result of the following calculations:

- The quantity for Grid User *g*, of Transmission Service *ts*, of Capacity Type *ct*, with Rate Type yearly (y), for Interconnection Point *IP*, for Gas Day *d* ($MTSR_{d,ts,ct,y,IP,g}$)[23];
- multiplied by the corresponding Regulated Tariff ($T_{ts,ct,IP}$)
- divided by the number of Days in the considered Year (N_y).

$$= \sum_{all\ days\ d\ of\ month\ m} \left[MTSR_{d,ts,ct,y,IP,g} \; x \; \frac{T_{ts,ct,IP}}{N_y} \right]$$

For Seasonal Transmission Services, the Monthly Capacity Fee is the sum, for each Gas Day of the considered Month of the terms that are the result of the following calculations:

- The quantity of Grid User *g*, for Transmission Service *ts*, of Capacity Type *ct*, with Rate Type seasonal (s), at Interconnection Point *IP*, for Gas Day *d* ($MTSR_{d,ts,ct,s,IP,g}$)[24];
- multiplied by the corresponding Regulated Tariff ($T_{ts,ct,IP}$);
- multiplied by the Seasonal Coefficient of the considered month *m* (SC_m);
- divided by the number of Days in the considered Year (N_y).

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[22] For Wheeling Services, IP refers to "from IP1 to IP2"
[23] As specified in the Regulated Tariffs, for the Transmission Services booked during Within-Day Auctions, the highest hourly MTSR of the Gas Day is taken into account as $MTSR_d$.
[24] As specified in the Regulated Tariffs, for Transmission Services booked during Within-Day Auctions, the highest hourly MTSR of the Gas Day is taken into account as $MTSR_d$.

$$= \sum_{all\ days\ d\ of\ month\ m} \left[MTSR_{d,ts,ct,s,IP,g} \; x \; \frac{T_{ts,ct,IP}}{N_y} \; x \; SC_m \right]$$

In addition to the invoicing of the Regulated Tariffs as described in the first two paragraphs of this section, for Transmission Services subscribed by Grid User via an Auction, the Monthly Capacity Fee is increased by the sum of the Auction Premiums for the delivered Transmission Services of this monthly period.

Grid User will be credited for an amount corresponding with the Transmission Services bought back through the buy-back procedure(s), taking into account, for each Gas Day of the considered Month, the following elements:

- The sum of the quantities per day of Firm Transmission Services ($MTSRBB_d$) bought back through the relevant buy-back procedure(s); multiplied with
- Price ($P_{BB,g}$) for the relevant buy-back procedure,

$$= \sum_{all\ days\ d\ of\ month\ m} \left[\sum [MTSRB_d] x P_{BB,g} \right]$$

In case of long term use-it-or-lose-it or surrender as described in Attachment E, Grid User will also be credited.

6.2.1.2 Monthly Capacity Fees at Domestic Exit Points

For Yearly Transmission Services at a Domestic Exit Point *XP*, the Monthly Capacity Fee is the sum, for each Gas Day of the considered Month, of the terms that are the result of the following calculations:

- The quantity of Grid User *g*, of Capacity Type *ct*, with Rate Type yearly (y), at Domestic Exit Point *XP*, for Gas Day *d* ($MTSR_{d,ct,y,XP,g}$);
- multiplied by the corresponding Regulated Tariff(s), taking into account the physical MP and DPRS characteristics of the considered Domestic Exit Point ($T_{ct,HP,XP}$, MP_{xp}, $T_{ct,MP,XP}$, $DPRS_{xp}$, T_{DPRS});
- divided by the number of Days in the considered Year (N_y).

$$= \sum_{all\ days\ d\ of\ month\ m} \left[MTSR_{d,ts,ct,y,XP,g} \; x \; \frac{\left(T_{ts,ct,HP,XP} + MP_{XP} \; x \; T_{ct,MP,XP} + DPRS_{XP} \; x \; T_{DPRS} \right)}{N_y} \right]$$

For Seasonal Transmission Services at a Domestic Exit Point *XP*, the Monthly Capacity Fee is the sum, for each Gas Day of the considered Month, of the terms that are the result of the following calculations:

- The quantity for Grid User *g*, of Capacity Type *ct*, with Rate Type seasonal (s),at Domestic Exit Point *XP*, for Gas Day *d* ($MTSR_{d,ct,s,XP,g}$);

- multiplied by the corresponding Regulated Tariff(s), taking into account the physical MP and DPRS characteristics of the considered Domestic Exit Point ($T_{ct,HP,XP}$, MP_{XP}, $T_{ct,MP,XP}$, $DPRS_{XP}$, T_{DPRS});
- multiplied by the Seasonal Coefficient of the considered month *m* (SC_m);
- divided by the number of Days in the considered Year (N_y).

$$= \sum_{all\ days\ d\ of\ month\ m} \left[MTSR_{d,ct,s,XP,g} \; x \; \frac{\left(T_{ts,ct,HP,XP} + MP_{XP} \; x \, T_{ct,MP,XP} + DPRS_{XP} \; x \, T_{DPRS}\right)}{N_y} x \, SC_m \right]$$

For Short Term Transmission Services at a Domestic Exit Point *XP*, the Monthly Capacity Fee is the sum, for each Gas Day of the considered Month, of the terms that are the result of the following calculations:

- The quantity for Grid User *g*, of Capacity Type *ct*, with Rate Type Short Term (st),at Domestic Exit Point *XP*, for Gas Day *d* ($MTSR_{d,ct,st,XP,g}$)[25];
- multiplied by the corresponding Regulated Tariff(s), taking into account the physical MP and DPRS characteristics of the considered Domestic Exit Point ($T_{ct,HP,XP}$, MP_{xp}, $T_{ct,MP,XP}$, $DPRS_{xp}$, T_{DPRS});
- multiplied by the Seasonal Coefficient of the considered month *m* (SC_m);
- divided by the number of Days in the considered Year (N_y);
- multiplied by the Short Term Multiplier (*STM*).

$$= \sum_{all\ days\ d\ of\ month\ m} \left[MTSR_{d,ts,ct,st,XP,g} \; x \; \frac{\left(T_{ts,ct,HP,XP} + MP_{XP} \; x \, T_{ct,MP,XP} + DPRS_{XP} \; x \, T_{DPRS}\right)}{N_y} x \, SC_m \, xSTM \right]$$

For Fix/Flex Transmission Services at a Domestic Exit Point *XP*, the Monthly Capacity Fee is the sum, for each Gas Day of the considered Month, of the terms that are the result of the following calculations:

- The quantity for Grid User *g*, of Capacity Type *ct*, with Rate Type Fix/Flex (*ff*),at Domestic Exit Point *XP*, for Gas Day *d* ($MTSR_{d,ct,ff,XP,g}$);
- multiplied by the corresponding Regulated Tariff(s), taking into account the physical MP and DPRS characteristics of the considered Domestic Exit Point ($T_{ff,HP,XP}$, MP_{xp}, $T_{ct,MP,XP}$, $DPRS_{xp}$, T_{DPRS});
- divided by the number of Days in the considered Year (N_y);

$$= \sum_{all\ days\ d\ of\ month\ m} \left[MTSR_{d,ts,ct,ff,XP,g} \; x \; \frac{\left(T_{ff,HP,XP} + MP_{XP} \; x \, T_{ct,MP,XP} + DPRS_{XP} \; x \, T_{DPRS}\right)}{N_y} \right]$$

[25] In case the Calendar Day Regime is active, calendar days are invoiced as the reference Gas Day.

6.2.1.3 For Direct Line Services

The Yearly Monthly Capacity Fee for Direct Line Services for a Direct Line *dl* is calculated as the sum, for each Gas Day *d* of the considered Month *m*, of the terms that are the result of the following calculations:

- The direct line quantity for Grid User *g*, of Capacity Type *ct*, with Rate Type yearly (y), at Domestic Exit Point *XP*, for Gas Day *d* ($MTSR_{d,dl,ct,y,XP,g}$);
- divided by the number of Days in the considered Year (N_y).
- multiplied by the sum of the following parameters:
  - the fix Direct Line Tariff ($T_{dl,ct}$),
  - the multiplication of de Distance of the Direct Line (D_{dl}) and the direct Line Distance Tariff ($T_{dl,d}$).

$$= \sum_{all\ days\ d\ of\ month\ m} \left[\frac{MTSR_{d,dl,ct,y,XP,g} \ x \left(T_{dl,ct} + D_{dl} \ x \ T_{dl,d} \right)}{N_y} \right]$$

The Seasonal Monthly Capacity Fee for Direct Line Services for a Direct Line *dl* is calculated as the sum, for each Gas Day *d* of the considered Month *m*, of the terms that are the result of the following calculations:

- The direct line quantity of Grid User *g*, of Capacity Type *ct*, with Rate Type seasonal (s), at Domestic Exit Point *XP*, for Gas Day *d* ($MTSR_{d,dl,ct,s,XP,g}$).
- divided by the number of Days in the considered Year (N_y);
- multiplied by the Seasonal Coefficient of the considered month *m* (SC_m);
- multiplied by the sum of the following parameters:
  - the fix Direct Line Tariff ($T_{dl,ct}$),
  - the multiplication of de Distance of the Direct Line (D_{dl}) and the direct Line Distance Tariff ($T_{dl,d}$).

$$= \sum_{all\ days\ d\ of\ month\ m} \left[MTSR_{d,dl,ct,s,XP,g} \ x \frac{\left(T_{dl,ct} + D_{dl} \ x \ T_{dl,d} \right)}{N_y} x \ SC_m \right]$$

6.2.1.4 For Entry and Exit Services subject to a Wheeling

For Entry and Exit Services subject to a Wheeling, a Wheeling Tariff is charged instead of an Entry and an Exit Tariff.

The monthly Wheeling Fee is calculated as the sum, for each Gas Day *d* of the considered Month *m*, of the terms that are the result of the following calculations:

- The quantity of Grid User *g*, for Entry at Interconnection Point *IP1* and Exit at Interconnection Point *IP2*, for Gas Day *d* ($MTSR_{d,IP1,IP2,w,g}$);
- divided by the number of Days in the considered Year (N_y);
- multiplied by the Wheeling Tariff ($T_{IP1,IP2,w}$).

$$= \sum_{\text{all days } d \text{ of month } m} \left[\frac{MTSR_{d,IP1,IP2,w,g} \ x \ T_{IP1,IP2,w}}{N_y} \right]$$

6.2.1.5 For Entry and Exit Services subject to an Operational Capacity Usage Commitment

For Entry and Exit Services subject to an Operational Capacity Usage Commitment, an OCUC Tariff is charged instead of an Entry and an Exit Tariff.

The monthly OCUC Fee is calculated as the sum, for each Gas Day *d* of the considered Month *m*, of the terms that are the result of the following calculations:

- The quantity of Grid User *g*, for Entry at Interconnection Point *IP1* and Exit at Interconnection Point *IP2*, for Gas Day *d* ($MTSR_{d,IP1,IP2,ocuc,g}$);
- divided by the number of Days in the considered Year (N_y);
- multiplied by the OCUC Tariff ($T_{IP1,IP2,OCUC}$).

$$= \sum_{\text{all days } d \text{ of month } m} \left[\frac{MTSR_{d,IP1,IP2,ocuc,g} \ x \ T_{IP1,IP2,OCUC}}{N_y} \right]$$

6.2.1.6 For Cross Border Delivery Services

As specified in the Regulated Tariffs, the applicable tariff for the subscription of the Cross Border Delivery Service shall be approved by the regulator which is competent with regards to the associated Cross Border Capacity. The invoices sent to Fluxys Belgium by the Adjacent TSO which operates the Cross Border Capacity shall be invoiced "pass-through" to the Grid Users having subscribed the associated Cross Border Delivery Service pro rata to their respective $MTSR_{cbds}$.

Any potential fee reduction granted to Fluxys Belgium by the Adjacent TSO which operates the Cross Border Capacity as a result of such Cross Border Capacity interruption or any other reason including Force Majeure shall be passed through pro rata to the interrupted part of $MTSR_{f,cbds}$.

6.2.2 Monthly Variable Flex Fee

The Monthly Variable Flex Fee ($MVFF_{g,XP,y,m}$) is only applicable on Transmission Services on End User Domestic Exit Points *XP* with the Fix/Flex Rate Type. This fee is calculated by taking the difference between the Total Variable Flex Fee in year *y* up to and including month *n* ($TVFF_{g,XP,y,n}$) and the Total Variable Flex Fee in year *y* up to and including month *n-1* ($TVFF_{g,XP,y,n-1}$) as follows:

$$MVFF_{g,XP,y,n} = TVFF_{g,XP,y,n} - TVFF_{g,XP,y,n-1}$$

The number of Running Hours of a Domestic Exit Point *XP*, of Grid User *g*, in year *y* up to and including month *n* ($RH_{g,XP,y,n}$) is calculated as follows:

$$RH_{g,XP,y,n} = \frac{\sum_{All\ months\ m \in \{1,\dots,n\}\ in\ year\ y}\left(\sum_{All\ days\ d\ of\ month\ m}\left(\sum_{All\ hours\ h\ of\ day\ d} - XEA'_{h,XP,g}\right)\right)}{MTSR_{d,ff,XP,g}}$$

Based on the number of Running Hours up to and including month *n* ($RH_{g,XP,y,n}$), on the Regulated Tariff ($T_{flex,\ XP,\ 1\ and\ 2}$), on the subscribed capacities ($MTSR_{d,ff,XP,g}$) and on the GCV of the Zone in which the Domestic Exit Point is located ($CGCV_z$), the Total Variable Flex Fee up to and including month *n* ($TVFF_{g,XP,y,n}$) can be calculated as follows:

- For $RH_{g,XP,y,n} \leq$ RH-TRH:

$$TVFF_{g,XP,y,n} = \frac{MTSR_{d,ff,XP,g}}{1000} * RH_{g,XP,y,n} * T_{flex,XP,1} * \frac{CGCV_{zone\ H}}{CGCV_z}$$

- For RH-TRH< $RH_{g,XP,y,n}$:

$$TVFF_{g,XP,y,n} = \frac{MTSR_{d,ff,y,XP,g}}{1000} * \left(\text{RH-TRH} * T_{flex,XP,1} + \left(RH_{g,XP,y,n} - \text{RH-TRH}\right) * T_{flex,XP,2}\right) * \frac{CGCV_{zone\ H}}{CGCV_z}$$

In case a Capacity Pooling Allocation Agreement is in place on a Domestic Exit Point *XP*, the Capacity Responsible Grid User (CRGU, as defined in ACT – Attachment G) has to pay the Monthly Variable Flex Fee for all Running Hours on this Domestic Exit Point *XP*. These Running Hours will be based on the sum of all Allocations and the sum of subscribed MTSR for all Grid Users active on this Domestic Exit Point *XP*.

For the avoidance of doubt, in case of transfer of all rights and obligations except for the payment obligation of the Monthly Capacity Fee (assignment with retained payment obligation, as described in ACT – Attachment B), the MVFF remains due by the initial holder and will be calculated based on the sum of the Allocations of both the initial and final capacity holder.

6.2.3 Monthly Capacity Pooling Service Fee

The Monthly Capacity Pooling Service Fee for Grid User *g* for Month *m* is calculated by multiplying the number of End User Domestic Exit Points at which Grid User *g*

participates in a Capacity Pooling Service during Month *m* by the monthly Regulated Tariff for a Capacity Pooling Service.

$$= \sum_{\text{all days } d \text{ of month } m} NCPS_{d,g} \; x \; T_{cps} \; x \frac{N_m}{N_y}$$

6.2.4 Monthly Zee Platform Fee

The Monthly Zee Platform Fee for Grid User g for Month m is a Fix Fee, in function of the number of Zee Platform Interconnection Points for which Grid User has Zee Platform Services during the considered Month *m*.

6.2.5 Monthly Quality Conversion H->L Capacity Fee

The Monthly Capacity Fee for the different H→L Quality Conversion Services *qcs* is calculated as the sum, for each Gas Day *d* of the considered Month *m*, of the terms that are the result of the following calculations:

- The quantity of the Quality Conversion H->L Service of Grid User *g*, of Quality Conversion Service *qcs* of the Capacity Type *ct*, for Gas Day *d* ($MTSR_{d,QCH->L,qcs,ct,g}$);
- divided by the number of Days in the considered Year (N_y).
- Multiplied by the Regulated Tariff ($T_{QCH->L,qcs}$).

$$= \sum_{\text{all qcs}} \left[\sum_{\text{all days } d \text{ of month } m} \left[MTRS_{d,QCH\rightarrow L,qcs,ct,g} \right] * \frac{T_{QCH\rightarrow L,qcs}}{N_y} \right]$$

6.2.6 Monthly Quality Conversion L->H Capacity Fee

The Monthly Capacity Fee for Quality Conversion L->H is calculated as the sum, for each Gas Day *d* of the considered Month *m*, of the terms that are the result of the following calculations:

- The quantity for Quality Conversion L->H for Grid User *g*, for Gas Day *d* ($MTSR_{d,,QCL->H,g}$);
- divided by the number of Days in the considered Year (N_y)
- multiplied by the Regulated Tariff ($T_{QCL->H}$).

$$= \sum_{\text{all days } d \text{ of month } m} \left[MTSR_{d,QCL->H,g} \; x \frac{T_{QCL->H}}{N_y} \right]$$

6.2.7 *Monthly Fix ZTP Trading~~Hub~~ Services Fee*

The Monthly Fix ZTP Trading~~Hub~~ Services Fee, for Grid User *g* for Month *m*, is equal to the Regulated Tariff "ZTP Trading~~Hub~~ Services Monthly Fixed Fee": $T_{Fix\,ZTP\,Hub}$.

This tariff is charged only once per Grid User and per month independently of the number of ZTP Trading~~Hub~~ Services subscribed by Grid User (ZTP~~eebrugge Beach~~ Physical Trading Services, ZTPL Notional Trading Services and/or ZTP Notional Trading Services).

6.2.8 *Monthly Fee for implicitly allocated Transmission Services at the Zeebrugge Interconnection Point ~~for Zeebrugge Imbalance Transfer Service~~*

The Monthly Fee for implicitly allocated Transmission Service at the Zeebrugge Interconnection Point for Zeebrugge Imbalance Transfer Service, for Grid User *g* for M~~m~~onth ~~*M*~~*m* is calculated as the sum, for each Gas Day of the considered Gas Month, of the terms that are the result of the following calculations:

- The quantity for Grid User *g*, of Transmission Service *ts* (entry or exit)~~,~~ of Capacity Type *ct~~, with Rate Type seasonal (s)~~* (firm),~~,~~ for Gas Day *d* ($MTSR_{ZeebruggeITSia,d,ts,ct,s,g}$)[26] *d*;
- multiplied by the sum of:
  - the corresponding Regulated Tariff for IP Zeebrugge ($T_{ts,ct,IP}$), multiplied by the eventually applicable Seasonal Coefficient of the considered Month *m* (SC_m), ~~divided by the number of Days in the considered Year (N_y)~~ and
  - the corresponding Regulated Tariff ~~Service Fee~~ for implicit allocation of Transmission Services at the Zeebrugge Interconnection Point for Zeebrugge Imbalance Transfer Service (~~*SF*~~$T_{ZBeebruggeITS}$)~~.~~
  - divided by the number of Days in the considered Year (N_y)

$$= \sum_{all\ days\ d\ of\ month\ m} \left[\begin{array}{l} MTSR_{\ ZeebruggeI\ \ TSia\ ,d\ ,entry\ ,\ firm\ ,g}\ x\left(\dfrac{T_{entry\ ,\ firm\ ,Zeebrugge}\ * SC_{\ m}\ + T_{ITS}}{N_{\ y}} \right) \\ + MTSR_{\ ZeebruggeI\ \ TSia\ ,d\ ,exit\ ,\ firm\ ,g}\ x\left(\dfrac{T_{exit\ ,\ firm\ ,Zeebrugge}\ + T_{ITS}}{N_{\ y}} \right) \end{array} \right]$$

[26] As specified in the Regulated Tariffs, for the Within Day Transmission Services, the highest hourly MTSR of the Gas Day is taken into account as $MTSR_d$.

6.3 Monthly COM Invoice

6.3.1 Monthly COM Invoice

6.3.1.1 Monthly Energy In Cash Fee

The Monthly Energy In Cash Fee is applicable on all Connection Points, except for Zeebrugge ~~Beach~~ and the Installation Point "QC" and is calculated as follows:

- the sum of the final Energy Allocations of the considered Gas Day ($EEA'_{d,g}$, $-XEA'_{d,g}$)[27].
- multiplied by the Energy In Cash Tariff (T_{IEC}),
- multiplied by the Gas Price for Gas Day *d* (GP_d).

$$= \sum_{\text{all days } d \text{ of month } m} \left[\left(\sum_{\text{All hours } h \text{ of day } d} EEA'_{h,g} \right) x\, CT\ x\, GP_d \right] + \sum_{\text{all days } d \text{ of month } m} \left[\left(\sum_{\text{All hours } h \text{ of day } d} - XEA'_{h,g} \right) x\, CT\ x\, GP_d \right]$$

6.3.1.2 Monthly Variable Fee for Quality Conversion H->L

The Monthly Variable Fee for Peak Load *pl* Quality Conversion H->L Service is calculated as follows:

$$= \sum_{\text{all days } d \text{ of month } m} \frac{\left(\sum_{\text{All hours } h \text{ of day } d} - XEA'_{h,QC\,H->L,pl} \right)}{1000} x\, T_{\text{var}\,QC\,H->L,pl}$$

6.3.1.3 Monthly Allocation Settlement Fees

The calculation of the Allocation Settlement Fees is described in Section 8 of this Attachment:

- Allocation Settlement Grid User Purchase ($ASGP_{d,z,g}$).

6.3.1.4 Monthly Transmission Imbalance Fees

The Monthly Transmission Imbalance Fees for the considered Month m consist of the settlement of the Transmission Imbalance for the following Services:

- Services submitted to an Operational Capacity Usage Commitment;
- Wheeling Services;

[27] Including Entry, Exit, Wheeling, Entry and Exit subject to Operational Capacity Usage Commitment, Zee Platform, and Direct Line.

- Direct Line Services;
- Zee Platform Services.

These Services are normally balanced on an hourly basis, but there can be small differences, for example but not excluded to the matching process.

The Transmission Imbalance $(TI'_{h,g})$ for a Grid User g for a Hour h is the sum of all final Entry Allocations for the abovementioned Services increased by the final Exit Energy Allocations (negative values) for the abovementioned Services for the considered Grid User for the considered Hour.

The Monthly Transmission Imbalance Settlement Fee is calculated as, for each Gas Day d, the sum of the hourly Transmission Imbalances $(TI'_{h,g})$ for Grid User g multiplied by the Gas Price (GP_d) for the considered Gas Day.

$$= \sum_{\text{all days } d \text{ of month } m} \left[\sum_{\text{All hours } h \text{ of day}} TI'_{h,g} \; x \, GP_d \right]$$

6.3.1.5 Monthly Odorisation Fees

The Monthly Odorisation Fee is applicable for Domestic Exit Points other than Distribution Domestic Exit Points, and is calculated by multiplying the odorisation coefficient of the considered Domestic Exit Point (ODO_{XP}) by the sum of the final Domestic Exit Energy Allocations ($XEA'_{h,XP}$) of the considered Domestic Exit Point for the considered Month and by the Regulated Tariff for Odorisation (T_{ODO}).

$$= \sum_{\text{all days } d \text{ of month } m} \frac{\left(\sum_{\text{All hours } h \text{ of day } d} - XEA'_{h,g,XP} \right)}{1000} x \, ODO_{XP} \; x \, T_{ODO}$$

6.3.1.6 Monthly UK Compliancy Adjustment Fee

The Monthly UK Polluters Fee for Grid User g for Month m is calculated in function of UK Pollution for that month as described in paragraph 3.9.3~~3.9.3~~3.9.3~~3.9.3~~.

6.3.1.7 Monthly Scheduling Fees

The calculation of the following Monthly Scheduling Fees is described in section 4.5~~4.5~~4.5~~4.5~~:

- Incentive for Initial Exit Scheduling $(IIXS_m)$;
- Incentive for Last Exit Scheduling $(ILXS_m)$.

6.3.1.8 Monthly Variable Fees for ZTP Trading~~Hub~~ Services and transactions

The Monthly Variable Fee for ZTP Trading~~Hub~~ Services is calculated as follows:

$$= \sum_{\text{all days } d \text{ of month } m} \text{NE}_{d,g} \times T_{VarZTP}$$

Where:

- $NE_{d,g}$ represents the nominated energy (explicit or implicit – see Section 3.10), in MWh, during day "*d*" on ZTP~~Hub~~ Services. If for a given Day or part thereof several Nominations or Renominations have been received, the highest nominated figures shall apply for said Day and ZTP Trading~~Hub~~ Service~~s~~.
- $T_{Var~~Hub~~ZTP}$ is the regulated variable tariff for ZTP Trading~~hub~~ ~~s~~Services
- ~~Service charge for Automatic Backup and Offtake is as described in ACT-Attachment C1~~

~~6.3.1.9 Monthly Settlement of Rounding, Automatic Back-Up and Offtake and of Additional Back-Up and Offtake~~

~~The positive settlements of Rounding, of Automatic Back-Up and Offtake and of Additional Back-Up and Offtake (as described in ACT – Attachment C1) are included in the COM invoice.~~

6.3.2 Monthly COM Self-billing Invoice

6.3.2.1 Monthly Allocation Settlement Grid User Sales Fees

The calculation of the Allocation Settlement Fees is described in section 5.4 of this Attachment:

- Allocation Settlement Grid User Sale ($ASGS_{d,z,g}$)

~~6.3.2.2 Monthly Settlement of Rounding, Automatic Back-Up and Offtake and of Additional Back-Up and Offtake~~

~~The negative settlements of Rounding, of Automatic Back-Up and Offtake and of Additional Back-Up and Offtake (as described in ACT – Attachment C1) are included in the COM Self-Bill invoice.~~

6.3.3 Monthly COM2 Invoice

6.3.3.1 Shortfall Monthly Balancing Settlement Fee

The calculation of the following Balancing Settlement Fees is described in section 5.3:

- Within-Day Grid User Shortfall Balancing Settlement *($GSBS_{h,z,g}$);*
- End-of-Day Grid User Shortfall Balancing Settlement *($GSBS_{d,z,g}$);*

The Shortfall Monthly Balancing Settlement Fee is calculated as the sum of the Shortfall Balancing Settlements for all the Hours of all the days in the Month.

6.3.3.2 Monthly Balancing Neutrality Charge Fee

The Neutrality Charge Fee and the applicable Allocationrule are determined in accordance with the Regulated Tariffs.

6.3.4 Monthly COM2 Self-Billing Invoice

6.3.4.1 Excess Monthly balancing settlement Fee

The calculation of the following Balancing Settlement Fees is described in section5.3~~5.35.35.3~~:

- Within-Day Grid User Excess Balancing Settlement *($GEBS_{h,z,g}$);*
- End-of-Day Grid User Excess Balancing Settlement *($GEBS_{d,z,g}$);*

The Excess Monthly Balancing Settlement Fee is calculated as the sum of the Excess Balancing Settlements for all the Hours of all the days in the Month.

6.3.4.2 Monthly Balancing Neutrality Charge Fee

The Neutrality Charge Fee and the applicable Allocationrule are determined in accordance with the Regulated Tariffs.

6.4 Monthly VAR Invoice

6.4.1 Monthly Incentive Fees

6.4.1.1 Capacity Exceedings

The calculation of the following Capacity Exceedings is described in section 3.1.3~~3.1.33.1.33.1.3~~:

- Peak Incentive for Exceeding of Entry Energy *($IEEE_{m,p,IP,g}$)*,
- Non-Peak Incentive for Exceeding of Entry Energy *($IEEE_{m,np,IP,g}$)*,
- Peak Incentive for Exceeding of Exit Energy *($IEXE_{m,p,IPorXP,g}$)*;
- Non-Peak Incentive for Exceeding of Exit Energy ($IEXE_{m,np,IPorXP,g}$)

6.5 Monthly ADM Invoice

6.5.1 Monthly Administrative Fees

(i) Over-the-counter Assignment:

In case the Grid User assigns a Transmission Service on the Secondary Market via an over-the-counter Assignment, an administrative fee is due in accordance with the Regulated Tariffs, for each over-the-counter Assignment in which Grid User *g* was a party in Month *m*.

(ii) Assignment on behalf of the Grid User:

In case the TSO assigns a Transmission Service on the Secondary Market on behalf of the Grid User, an administrative fee is due in accordance with the Regulated Tariff "Transfer of capacity – Transaction realised by Fluxys Belgium on behalf of".

(iii) Surrender of capacity:

In case a Grid User surrenders a Transmission Service, an administrative fee for the reallocated Transmission Services is due in accordance with the Regulated Tariff "Transfer of capacity – Transaction realised by Fluxys Belgium on behalf of".

(iv) Cancellation of non-used capacity in case of congestion:

In case the TSO suspends a non-used capacity in case of congestion, based on a decision of the CREG as set out in Congestion Management (ACT - Attachment E), an administrative fee is charged for each cancellation for Grid User *g*, during Month *m*, as set out in the Regulated Tariffs.

(v) Real time data delivery services on the Electronic Data Platform

In case Grid User has subscribed the real time data delivery services on the Electronic Data Platform, the fix monthly Regulated Tariff for this service is due, in accordance with the Regulated Tariffs.