# Harmoniziran model vlog ENTSO-E/ebIX/EFET na trgu z električno energijo

*Obrazložitev standarda in nacionalnih odstopanj za trg z električno energijo v Sloveniji*

***Avtor:*** Sekcija <!PeT>

***Verzija:*** ***1.0.2***

## KAZALO

# 1 ZGODOVINA

| # | Datum | Avtor | Opis | Verzija |
|---|---|---|---|---|
| 1. | 3.12.2012 | David Batič | Opis modela vlog in domen ter FAQ. Verzija za dopolnitev/validacijo na IPET.<br><br>Osnutek pripravljen na podlagi dokumenta UIPTEE "Harmoniziran model vlog ETSO/EFET/ebIX- Identifikacija posebnosti za Slovenijo" V5 z dne 1.10.2010 | Osnutek |
| 2. | 2.3.2013 | Gregor Panjan<br><br>Andraž Šavli<br><br>Mitja Prešern | Dopolnitve, korekcije, komentarji … | Osnutek |
| 3. | 8.5.2013 | Gregor Panjan | Dopolnitve | Osnutek |
| 4. | 9.5.2013 | David Batič | Dopolnitve | Osnutek |
| 5. | 30.8.2013 | David Batič | Dodelava, dopolnitve | Osnutek – V8 |
| 6. | 4.9.2013 | Gregor Panjan | Dodelava, dopolnitve | Osnutek – V8_1 |
| 7. | 17.9.2013 | David Batič | Minorni popravki, večjo strukturni popravek v prilogi 1, poglavje 2 | Osnutek - V9 |
| 8. | 27.9.2013 | David Batič | Finalizacija dokumenta | V1.0.0 |
| 9. | 16.10.2013 | Andraž Šavli | Minorni popravki, dopolnitve | V1.0.1 |
| 10. | 16.10.2013 | David Batič | Sprejeta verzija na 17. Sestanku sekcije | V1.0.2 |

# 2 TERMINOLOGIJA

| | |
|---|---|
| Party | Udeleženec (poslovni subjekt) na trgu z energijo (lahko igra eno ali več vlog hkrati) |
| Role | Vloga |

# 3 ODVISNOSTI

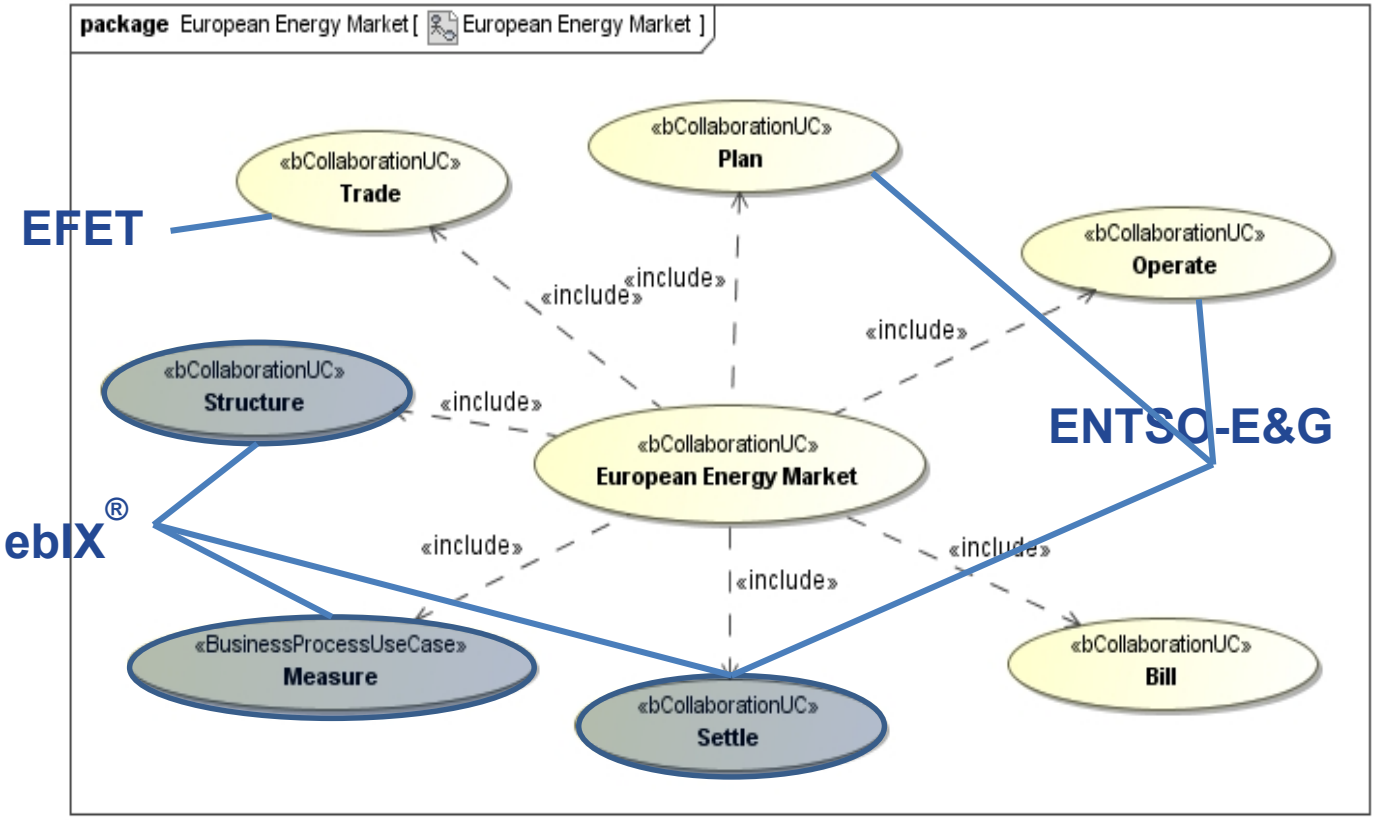
Dokument obravnava vsebino, ki je neposredno povezana z harmoniziranim modelom vlog ENTSO-E/EFET/ebIX® verzija **2011-01**.

Dokumentacija je dostopna na sledečih hiperpovezavah:

http://www.ebix.org/content.aspx?ContentId=1117&SelectedMenu=8
https://www.entsoe.eu/publications/electronic-data-interchange-edi-library/

# 4 OBRAVNAVANA PODROČJA NA TRGU Z ENERGIJO

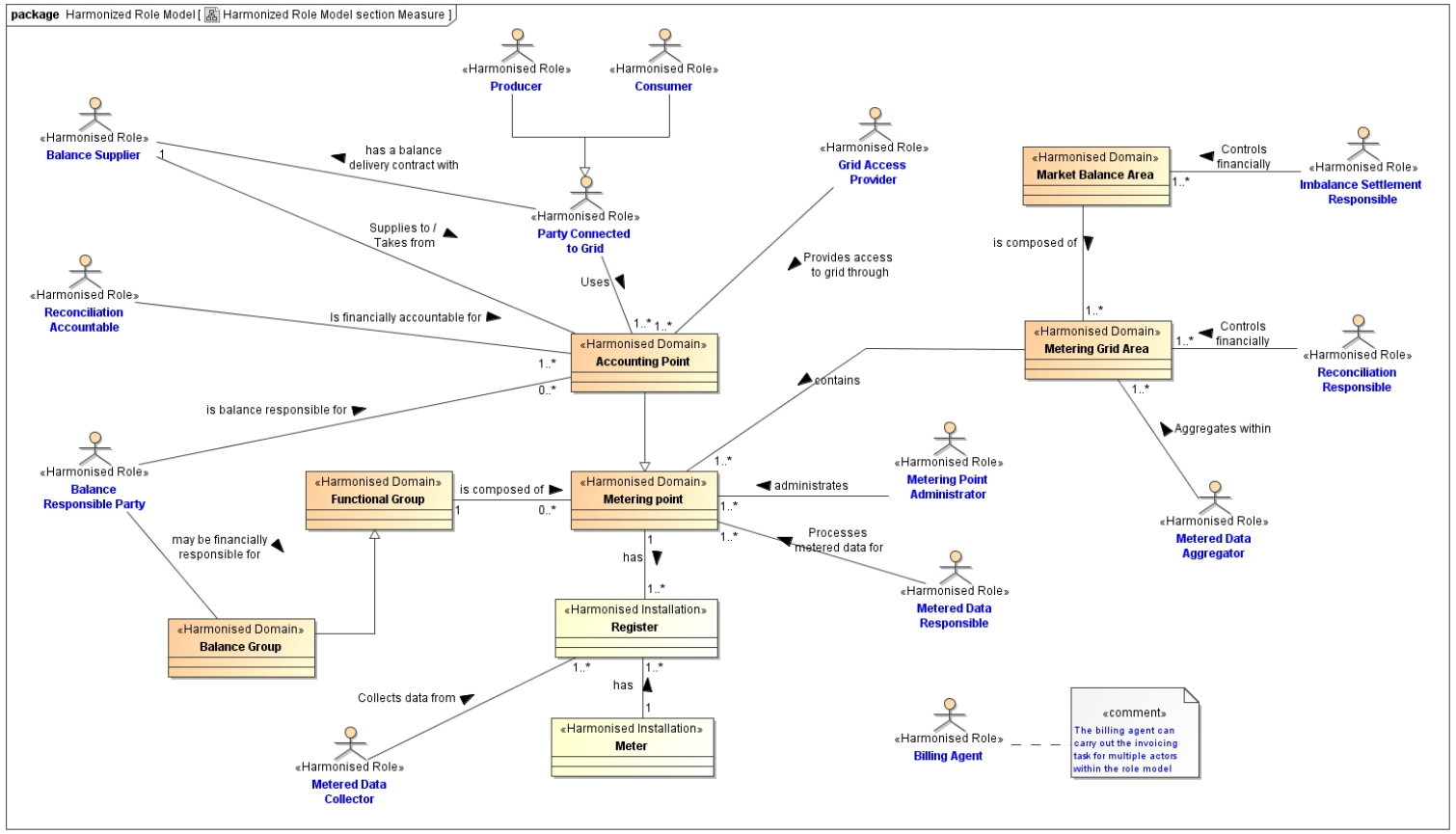
Dokument obravnava vloge in domene, ki nastopajo na evropskem trgu z energijo. Za standardizacijo posameznih procesov izmenjave podatkov so odgovorne različne organizacije, med katerimi ebIX, ENTSO-E/G in EFET delujejo predvsem na področjih, ki so prikazana na spodnji sliki.



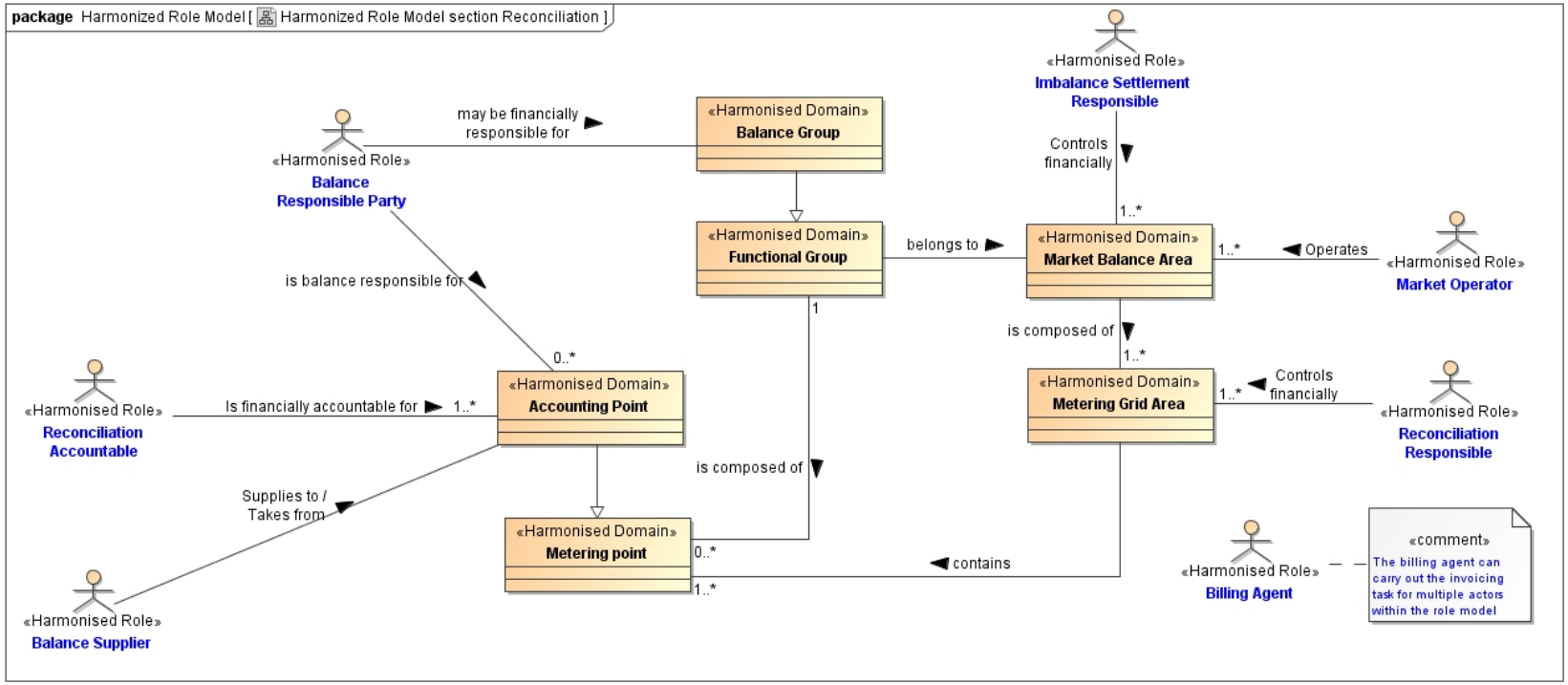
# 5 MODEL VLOG – PODSKLOPI EBIX

## 5.1 Merjenje (ebIX® Measure)

Podsklop vezan na ebIX® Measure domeno, ki se nanaša na izmenjavo zbranih podatkov, validiranih in/ali agregiranih merilnih podatkov za uporabo v različnih poslovnih procesih na evropskem trgu z energijo. Primeri takih poslovnih procesov so bilančni obračun, poravnava, obračun, označevanje (zeleni certifikati).

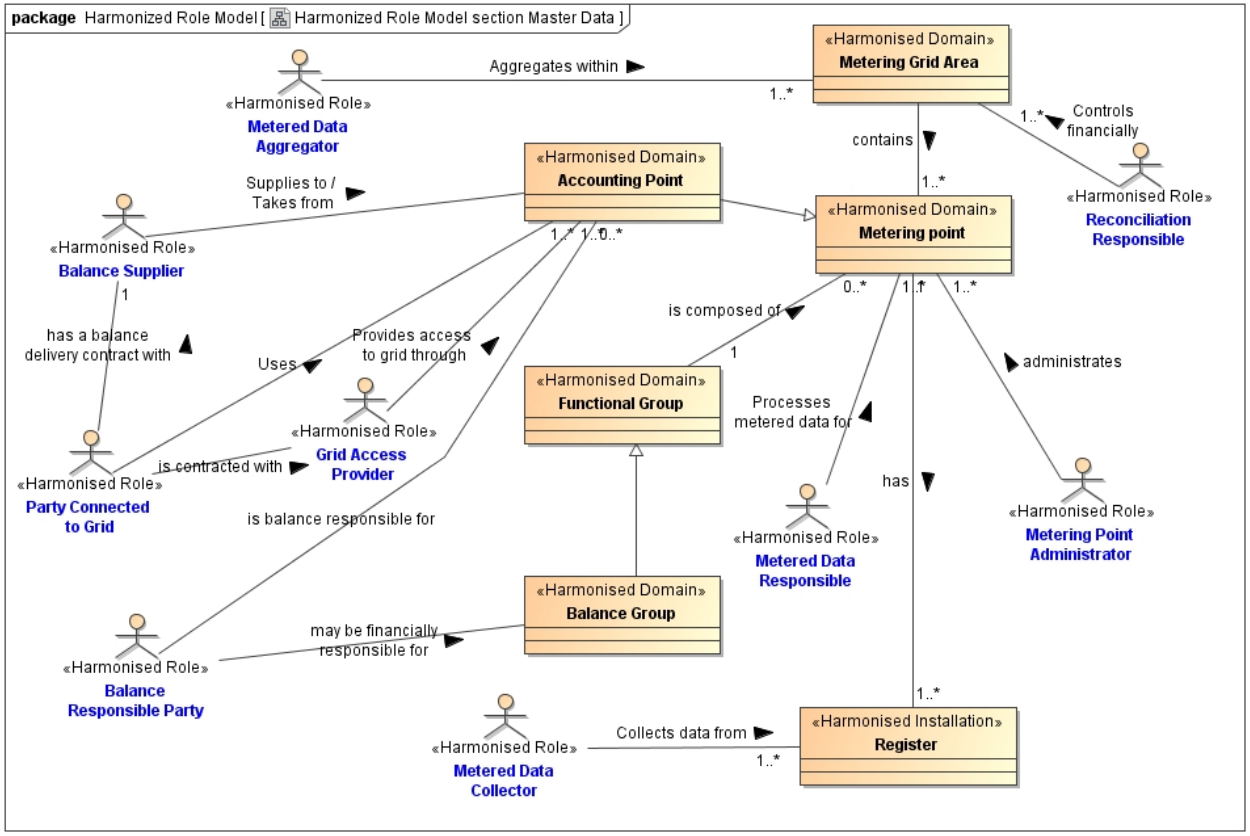


## 5.2 Poravnava (ebIX® Reconciliation)




Podsklop harmoniziranega modela vlog ENTSO-E, EFET in ebIX® vezan na ebIX® poslovni process poravnave (se uvršča v ebIX® Settle domeno), ki se nanaša izmenjavo poslovnih podatkov v različnih fazah procesa poravnave na evropskem trgu z energijo.

## 5.3 Matični podatki (ebIX® Master Data)




Podsklop harmoniziranega modela vlog ENTSO-E, EFET in ebIX® vezan na ebIX® Master Data procese, ki se nanašajo na spremembe, posodobitve in zaključevanja življenskega cikla entitet na evropskem trgu z energijo.Primeri the procesov so menjava dobavitelja, konec dobave energije, sprememba bilančne odgovornosti, izmenjava matičnih podatkov za določeno merilno mesto.

# 6 MODEL VLOG – PODSKLOPI ENTSO-E

V pripravi!

# 7 DEFINICIJE VLOG IN DOMEN

## 7.1 Vloge

| ROLES | | | |
|---|---|---|---|
| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Balance Responsible Party | A party that has a contract proving financial security and identifying balance responsibility with the Imbalance Settlement Responsible of the Market Balance Area entitling the party to operate in the market. This is the only role allowing a party to nominate energy on a wholesale level.<br><br>***Additional information:***<br>The meaning of the word "balance" in this context signifies that that the quantity contracted to provide or to consume must be equal to the quantity really provided or consumed.<br><br>Equivalent to "Program responsible party" in the Netherlands.<br>Equivalent to "Balance group manager" in Germany.<br>Equivalent to "market agent" in Spain. | Poslovni subjekt v vlogi OBS | Odgovorni za odstopanja (v bilančnem obračunu)<br><br>Skupina članov bilančne sheme, vrh katere predstavlja odgovorni bilančne skupine, pod katerim se lahko zvrsti poljubno mnogo hierarhično nižjih članov bilančne skupine. Bilančna skupina se ustanovi na podlagi bilančne pogodbe za namene dobave izravnalne energije, poslovanja odgovornega bilančne skupine na organiziranem trgu z ureditvijo bilančne odgovornosti, obvladovanja in upravljanja s tveganji odstopanj odgovornega bilančne skupine in hierarhično nižjih članov bilančne skupine.<br><br>Je lahko odgovorni bilančne skupine ali podskupine :<br>1. Odgovorni bilančne skupine: je pravna ali fizična oseba, ki s sklenitvijo bilančne pogodbe ustanovi bilančno skupino in je zanjo odgovorna Organizatorju trga v procesu prijave zaprtih pogodb in obratovalnih napovedi, procesu izravnave odstopanj električne energije ter procesu izmenjave potrebnih informacij z Organizatorjem trga;<br>2. Odgovorni bilančne podskupine: je pravna ali fizična oseba, ki s sklenitvijo pogodbe o izravnavi ustanovi bilančno podskupino in je zanjo odgovorna hierarhično nadrejenemu članu bilančne sheme in Organizatorju trga v procesu prijave zaprtih pogodb |

| ROLES | | | |
|---|---|---|---|
| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| | | | in obratovalnih napovedi, v procesu izravnave odstopanj električne energije ter v procesu izmenjave potrebnih informacij z Organizatorjem trga; |
| Balance Supplier | A party that markets the difference between actual metered energy consumption and the energy bought with firm energy contracts by the Party Connected to the Grid. In addition, the Balance Supplier markets any difference with the firm energy contract (of the Party Connected to the Grid) and the metered production.<br><br>***Additional information:***<br>There is only one Balance Supplier for each Accounting Point. | Poslovni subjekt v vlogi dobavitelja | Član bilančne sheme, ki ima ustrezne licence (za dobavitelja) in se v evidenci odprtih pogodb nahaja kot dobavitelj najmanj enemu prevzemno predajnemu mestu.<br><br>Dobavitelj je lahko odgovorni bilančne skupine (OBS) ali odgovorni bilančne podskupine (OBPS). Obenem velja, da vsak OBS ali OBPS ni tudi dobavitelj in je lahko samo trgovec. Tisti OBS in OBPS, ki nimajo licence za dobavitelja, to ne morejo biti. Največ je takih tujih podjetij, ki pri nas nimajo podružnice ali družbe.<br><br>Dobavitelj vsakemu izmed prevzemno-predajnih mest (PPM), ki mu pripadajo, dobavlja vso električno energijo, ki jo porabi ali pa odkupuje vso električno energijo, ki je proizvedena na PPM. Vsako PPM ima samo eno bilančno pripadnost.<br>Na prenosnem omrežju ima lahko PPM tudi več dobaviteljev, ki mu dobavljajo v naprej določen delež odjema ali odkupujejo v naprej določen delež proizvedene elektrike. |

| ROLES | | | |
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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Billing Agent | The party responsible for invoicing a concerned party. | Borzen d.o.o. | Poravnalni agent<br><br>Oseba, ki je po končanem bilančnem obračunu odgovorna za izdajo računa za plačilo odstopanj bilančnim skupinam<br><br>Vlogo izvaja Borzen v vlogi organizatorja trga. |
| Block energy Trader | A party that is selling or buying energy on a firm basis (a fixed volume per market time period). | | |
| Capacity Coordinator | A party, acting on behalf of the System Operators involved, responsible for establishing a coordinated Offered Capacity and/or NTC and/or ATC between several Market Balance Areas. | ELES | Koordinator čezmejnih prenosnih zmogljivosti<br><br>Subjekt, ki je odgovoren za koordinacijo in usklajevanje čezmejnih prenosnih zmogljivosti NTC in/ali ATC med več različnimi trgovalnimi območji |
| Capacity Trader | A party that has a contract to participate in the Capacity Market to acquire capacity through a Transmission Capacity Allocator.<br><br>***Note:***<br><br>The capacity may be acquired on behalf of an Interconnection Trade Responsible or for sale on secondary capacity markets. | Poslovni subjekt v vlogi trgovca | Trgovec s ČPZ<br><br>Pravni subjekt, ki ima pravico pridobiti pravico uporabe čezmejnih prenosnih zmogljivosti pri subjektu, ki skrbi za dodeljevanje ČPZ (vloga predana na avkcijski hiši CAO (http://www.central-ao.com/) in CASC (http://www.casc.eu/en). ELES skrbi le še za dodeljevanje kapacitet na SI-HR in SI-AT meji, kadar gre za trgovanje znotraj dneva).<br><br>Vsaka pravna ali fizična oseba, ki ima v skladu s Pravili za delovanje organiziranja trga z električno energijo, sklenjeno bilančno pogodbo oz. z odgovornim bilančne skupine sklenjeno pogodbo o izravnavi.<br>Po pravilih ni omejitve v številu nivojev bilančnih podskupin (BPS), vsaka BPS ima lahko torej svojo BPS, medtem ko pri dodeljevanju ČPZ omejitev določa Pravilnik o načinu in pogojih dodeljevanja čezmejnih prenosnih zmogljivosti, saj postavlja omejitev, da lahko sodeluje pri avkcijah le BPS, ki ima sklenjeno pogodbo o izravnavi z OBS – torej le do prvega nivoja BPS. |

| ROLES | | | |
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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Consumer | A party that consumes electricity.<br><br>***Additional information:***<br><br>This is a Type of Party Connected to the Grid. | Pravna ali fizična oseba, ki porablja električno energijo | Odjemalec<br><br>Pravna ali fizična oseba, ki porablja električno energijo. To je oseba, kateri se izda račun za porabljeno energijo in omrežnino. Vso energijo, ki jo porabi, mora dobaviti dobavitelj električne energije, kateremu bilančno pripada, preko odprte pogodbe (pogodbe o dobavi).<br><br>Na prenosnem omrežju ima lahko odjemalec tudi več dobaviteljev, ki mu dobavljajo v naprej določen delež odjema.<br><br>Ista oseba, ki je lastnik odjemnega PPM, lahko nastopa tudi kot član bilančne sheme (BS ali BPS) . V tem primeru ima lahko navidezno odprto pogodbo sam s sabo (lastna oskrba) in si vso energijo , ki jo odjema, dobavi sam. |
| Consumption Responsible Party | A party who can be brought to rights, legally and financially, for any imbalance between energy nominated and consumed for all associated Accounting Points.<br><br>***Additional information:***<br><br>This is a type of Balance Responsible Party. | Poslovni subjekt v vlogi OBS | Odgovorna oseba za odstopanje porabe<br><br>Specializacija vloge Odgovorni za odstopanja za potrebe upravljanja z odstopanji porabnikov.<br><br>SI: to so OBS ali OBPS; v praksi se ne ločuje po vrsti (odjem/proizvodnja) |

| ROLES | | | |
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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Control Area Operator | Responsible for :<br><br>1. The coordination of exchange programs between its related Market Balance Areas and for the exchanges between its associated Control Areas.<br>2. The load frequency control for its own area.<br>3. The coordination of the correction of time deviations. | ELES d.o.o. | Upravljavec/operater regulacijskega območja<br><br>Regulacijsko območje – Slovenija<br><br>Skrbi za usklajevanje izmenjav med posameznimi MBA znotraj regulacijskega območja in za uskladitev čezmejnih izmenjav s sosednjimi regulacijskimi območji.<br>Skrbi za izvajanje sekundarne regulacije svojega območja<br>Skrbi za odpravo odstopanj |
| Control Block Operator | Responsible for :<br><br>1. The coordination of exchanges between its associated Control Blocks and the organisation of the coordination of exchange programs between its related Control Areas.<br>2. The load frequency control within its own block and ensuring that its Control Areas respect their obligations in respect to load frequency control and time deviation.<br>3. The organisation of the settlement and/or compensation between its Control Areas. | ELES d.o.o. | Upravljavec regulacijskega bloka<br><br>Regulacijski blok (SI, CRO, BIH)<br><br>Skrbi za izmenjavo in uskladitev izmenjav med posameznimi regulacijskimi območji, ki sestavljajo blok. Ravno tako je odgovoren za izmenjavo podatkov in uskladitev čezmejnih izmenjav z upravljavci regulacijskih območjih, ki sestavljajo blok.<br><br>Skrbi za izvajanje sekundarne regulacije bloka in nadzoruje, da se posamezna regulacijska območja držijo pravil za izvajanje sekundarne regulacije in odstopanj.<br><br>Izvaja kompenzacije in poravnavo nenamernih odstopanj med posameznimi območji znotraj bloka. |

| ROLES | | | |
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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Coordination Center Operator | Responsible for :<br><br>1. The coordination of exchange programs between its related Control Blocks and for the exchanges between its associated Coordination Center Zones.<br>2. Ensuring that its Control Blocks respect their obligations in respect to load frequency control.<br>3. Calculating the time deviation in cooperation with the associated coordination centers.<br>4. Carrying out the settlement and/or compensation between its Control Blocks and against the other Coordination Center Zones. | Koordinacijski center v Laufenburgu, Brauweiler | Upravljavec koordinacijskega centra<br><br>https://www.entsoe.eu/fileadmin/user_upload/_library/publications/entsoe/Operation_Handbook/Policy_1_final.pdf (1. stran)<br><br>Skrbi za izmenjavo in uskladitev izmenjav med posameznimi regulacijskimi bloki. Ravno tako je odgovoren za izmenjavo podatkov in uskladitev čezmejnih izmenjav sosednjimi koordinacijskimi centri.<br><br>Skrbi in nadzoruje posamezne kontrolne bloke pri upoštevanju navodil in izvajanju sekundarne regulacije.<br><br>S sosednjim koordinacijskim centom skrbi za uravnovešeno frekvenco.<br><br>Izvaja kompenzacije in poravnavo nenamernih odstopanj med posameznimi bloki. |
| Grid Access Provider | A party responsible for providing access to the grid through an Accounting Point and its use for energy consumption or production to the Party Connected to the Grid. | SODO d.o.o.<br>ELES d.o.o. | Upravljavec dostopa do omrežja<br><br>Subjekt je odgovoren za zagotavljanje dostopa do omrežja. Vsakemu subjektu, ki mu odobri dostop do omrežja določi tudi obračunsko točko, ki jo uporablja za obračun porabe oz. proizvodnje el. energije. |
| Grid Operator | A party that operates one or more grids. | SODO d.o.o.<br>ELES d.o.o. | Upravljavec omrežja<br><br>Subjekt, ki skrbi za eno vali več EE omrežij. |

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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Imbalance Settlement Responsible | A party that is responsible for settlement of the difference between the contracted quantities and the realised quantities of energy products for the Balance Responsible Parties in a Market Balance Area.<br><br>Note:<br><br>The Imbalance Settlement Responsible has not the responsibility to invoice. The Imbalance Settlement Responsible may delegate the invoicing responsibility to a more generic role such as a Billing Agent. | Borzen d.o.o. | Odgovorni za bilančni obračun<br><br>Oseba, ki je odgovorna za izvedbo bilančnega obračuna, v okviru katerega se izračuna odstopanja realizacije bilančnih skupin od tržnih planov.<br>Tukaj gre za bilančni obračun za katerega je odgovoren Borzen, saj odgovornemu bilančne skupine izravnalno energijo dobavi Borzen preko bilančne pogodbe. ELES tu sodeluje kot Upravljavec omrežja in zagotavlja dobavo regulacijske energije. |
| Interconnection Trade Responsible | Is a Balance Responsible Party or depends on one. He is recognised by the Nomination Validator for the nomination of already allocated capacity.<br><br>***Additional information:***<br><br>This is a type of Balance Responsible Party. | Poslovni subjekt v vlogi ekvivalenta OBS | Uporabnik pravic uporabe ČPZ<br><br>Poslovni subjekt, ki lahko uporabi dodeljene čezmejne prenosne zmogljivosti (ČPZ).<br>Razlika med tem in »Capacity Trader« je v tem, da je »Capacity Trader« le lastnik ČPZ medtem, ko Interconnection Trade Responsible lahko te pravice tudi dejansko uporabi.<br><br>SI: V Sloveniji je to ekvivalent OBS. Pri Nomination Validatorju je registriran kot odgovorni za uporabo že dodeljenih čezmejnih zmogljivosti. |

| ROLES | | | |
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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Market Information Aggregator | Market Information Aggregator, A party that provides market related information that has been compiled from the figures supplied by different actors in the market. This information may also be published or distributed for general use.<br><br>***Note:***<br>The Market Information Aggregator may receive information from any market participant that is relevant for publication or distribution. | ETSOVista, Borzen d.o.o., AGEN-RS, (tudi ELES d.o.o., SODO d.o.o.) | Agregator informacij o trgu<br><br>Vloga je bila prvotno predvidena za potrebe platforme ETSOVista. Uporaba vloge s strani več udeležencev bi bila možna, če bi model na nacionalnem nivoju razširili s specializacijami te vloge za potrebe posameznih akterjev.<br><br>http://www.entsoe.net/default.aspx |
| Market Operator | The unique power exchange of trades for the actual delivery of energy that receives the bids from the Balance Responsible Parties that have a contract to bid. The Market Operator determines the market energy price for the Market Balance Area after applying technical constraints from the System Operator. It may also establish the price for the reconciliation within a Metering Grid Area. | Borzen d.o.o. | Organizator trga<br><br>Oseba, ki izvaja naloge gospodarske javne službe, ki za uporabnike s področja trga z električno energijo, izvaja storitve določene z energetskim zakonom in obsega naslednje naloge:<br>– izdajanje Pravil za delovanje organiziranega trga z električno enerigjo,<br>– upravljanje bilančne sheme organiziranega trga z električno energijo;<br>– evidentiranje pogodb o članstvu v bilančni shemi, odprtih pogodb in zaprtih pogodb;<br>– izvajanje izravnalnega trga z električno energijo;<br>– izvajanje bilančnega obračuna;<br>– izvajanje dejavnosti Centra za podpore;<br>– zbiranje in objava podatkov za zagotavljanje preglednosti delovanja organiziranega trga z električno energijo in<br>– izvajanje obračuna in finančne poravnave poslov, povezanih z nalogami iz prejšnjih alinej |
| Meter Administrator | A party responsible for keeping a database of meters. | SODO d.o.o./ Izvajalci nalog SODO, | Administrator registra merilne opreme |

| ROLES | | | |
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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| | | ELES d.o.o. | |
| Meter Operator | A party responsible for installing, maintaining, testing, certifying and decommissioning physical meters. | SODO d.o.o./ Izvajalci nalog SODO (?), ELES d.o.o. | Upravljavec merilne opreme<br><br>Subjekt ki skrbi za namestitev, priklop, certificiranje, popravilo, testiranje merilnih naprav. |
| Metered Data Collector | A party responsible for meter reading and quality control of the reading. | SODO d.o.o. ELES d.o.o. | Odgovorni za odbiranje merilne opreme<br><br>Subjekt odgovoren za odčitavanje meritev in zagotavljanje kakovosti odčitkov. |
| Metered Data Responsible | A party responsible for the establishment and validation of metered data based on the collected data received from the Metered Data Collector. The party is responsible for the history of metered data for a Metering Point. | SODO d.o.o, ELES d.o.o. | Odgovorni za merilne podatke<br><br>Subjekt ki je odgovoren za vzpostavitev in ovrednotenje oz. validacijo merilnih podatkov, ki jih je zagotovil Metered data collector. Subjekt je odgovoren za hranjenje zgodovine meritev za posamezne merilne točke. |
| Metered Data Aggregator | A party responsible for the establishment and qualification of metered data from the Metered Data Responsible. This data is aggregated according to a defined set of market rules. | SODO d.o.o. ELES d.o.o. | Agregator merilnih podatkov<br><br>Subjekt ki je odgovoren za vzpostavitev in kvalifikacijo merilnih podatkov, ki mu jih zagotovi odgovorni za merilne podatke. Ti podatki so zbrani v skladu s pravili trga EE. |
| Metering Point Administrator | A party responsible for registering the parties linked to the metering points in a Metering Grid Area. He is also responsible for maintaining the Metering Point technical specifications. He is responsible for creating and terminating metering points. | SODO d.o.o., Izvajalci nalog SODO (?), ELES d.o.o. | Administrator merilnega mesta<br><br>Subjekt je odgovoren za registracijo novih subjektov (fizičnih, pravnih), ki so povezani s posamezno merilno točko v Metering Grid Area. Odgovoren je tudi za vzdrževanje tehnične specifikacije merilnih mest. Odgovoren je tudi za vzpostavitev in ukinitev merilnih mest. |

| ROLES | | | |
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| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| MOL Responsible | Responsible for the management of the available tenders for all Acquiring System Operators to establish the order of the reserve capacity that can be activated. | N/A | |
| Nomination Validator | Has the responsibility of ensuring that all capacity nominated is within the allowed limits and confirming all valid nominations to all involved parties. He informs the Interconnection Trade Responsible of the maximum nominated capacity allowed. Depending on market rules for a given interconnection the corresponding System Operators may appoint one Nomination Validator. | ELES d.o.o. | Validator nominacij ČPZ<br><br>Je odgovoren za preverjanje pravilnosti nominiranih čezmejnih kapacitet. Preverja če je pravilen nosilec kapacitete, ročnost, smer in količine. Obvešča Interconnection Trade Responsible o pravilnosti najave ČPZ. Glede na pravila trga za določeno mednarodno povezavo lahko Sistemski operater določi enega Nomination Validatorja. |
| Party Connected to the Grid | A party that contracts for the right to consume or produce electricity at an Accounting Point. | Pravna ali fizična oseba priključena na omrežje | Uporabnik omrežja<br>Pravna ali fizična oseba, ki ima s sistemskim operaterjem sklenjeno pogodbo o dostopu do omrežja. |
| Producer | A party that produces electricity.<br><br>***Additional information:***<br>This is a type of Party Connected to the Grid. | Poslovni subjekt v vlogi proizvajalca | Proizvajalec<br><br>Oseba, ki proizvaja električno energijo. To je oseba, ki je nosilec PPM, na katerem se proizvaja električna energija in ki oddaja električno energijo v omrežje. Vso energijo, ki jo odda v omrežje, mora odkupiti dobavitelj električne energije, kateremu bilančno pripada, preko odprte pogodbe.<br><br>Na prenosnem omrežju ima lahko PPM tudi več dobaviteljev, ki odkupujejo v naprej določen delež proizvedene elektrike.<br><br>Ista oseba, ki je lastnik elektrarne, lahko nastopa tudi kot član bilančne sheme (BS ali BPS) . V tem primeru ima lahko navidezno odprto pogodbo sam s sabo (lastna oskrba) in vso energijo sam proda naprej po zaprti pogodbi ali svojim odjemalcem. |

| ROLES | | | |
|---|---|---|---|
| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Production Responsible Party | A party who can be brought to rights, legally and financially, for any imbalance between energy nominated and produced for all associated Accounting Points.<br><br>***Additional information:***<br>This is a type of Balance Responsible Party. | Poslovni subjekt v vlogi OBS | Odgovorna oseba za bilančno odstopanje proizvodnje<br><br>Specializacija vloge Odgovorni za odstopanja za potrebe upravljanja z odstopanji proizvajalcev.<br><br>To so OBS ali OBPS; v praksi se ne ločuje po vrsti (odjem/proizvodnja). |
| Reconciliation Accountable | A party that is financially accountable for the reconciled volume of energy products for a profiled Accounting Point. | Dobavitelj (OBS/OBPS) | Upravičenec za poračun<br><br>Nadomestni diagrami – odstopanja od izmerjene , poračuni; nemerjeni odjem |
| Reconciliation Responsible | A party that is responsible for reconciling, within a Metering Grid Area, the volumes used in the imbalance settlement process for profiled Accounting Points and the actual metered quantities.<br><br>Note:<br><br>The Reconciliation Responsible may delegate the invoicing responsibility to a more generic role such as a Billing Agent. | SODO d.o.o., Izvajalci nalog SODO (?) | |
| Reserve Allocator | Informs the market of reserve requirements, receives tenders against the requirements and in compliance with the prequalification criteria, determines what tenders meet requirements and assigns tenders. | ELES d.o.o. | Obvešča trg o potrebnih rezervah in sprejema ter daje ponudbe oz. javne razpise. Odloča o tem katere ponudbe izpolnjujejo razpisnim zahtevam in katere ne. |

| ROLES | | | |
|---|---|---|---|
| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| Resource Provider | A role that manages a resource object and provides the schedules for it | Upravljavci proizvodnih objektov ali večjih odjemalcev | |
| Scheduling Coordinator | A party that is responsible for the schedule information and its exchange on behalf of a Balance Responsible Party.<br><br>For example in the Polish market a Scheduling Coordinator is responsible for information interchange for scheduling and settlement. | Poslovni subjekt v vlogi OBS | |
| System Operator | A party that is responsible for a stable power system operation (including the organisation of physical balance) through a transmission grid in a geographical area. The System Operator will also determine and be responsible for cross border capacity and exchanges. If necessary he may reduce allocated capacity to ensure operational stability.<br><br>Transmission as mentioned above means "the transport of electricity on the extra high or high voltage network with a view to its delivery to final customers or to distributors. Operation of transmission includes as well the tasks of system operation concerning its management of energy flows, relibability of the system and availability of all necessary system services." (definition taken from the ENTSO-E RGCE Operation handbook Glossary). | ELES d.o.o. | Sistemski operater prenosnega omrežja (SOPO)<br><br>Pravna oseba, ki vodi obratovanje EES in usklajuje njegovo delovanje s sosednjimi sistemi v okviru SONPO in OpHB.<br><br>SOPO je odgovoren za vodenje in stabilno delovanje EES (vključno z izravnavo odstopanj v sistemu). Upravlja tudi z ČPZ in preverja pravilnost prijave čezmejne izmenjave EE. Če je ogrožena stabilnost delovanja EES lahko reducira ČPZ.<br><br>Vodenje prenosnega sistema zavzema funkcije obratovanja vključno z upravljanjem pretokov EE, zanesljivostjo obratovanja in upravljanjem s sistemskimi rezervami. Njegovo delovanje in način vodenja prenosnega omrežja električne energije je opredeljeno v »Sistemskih obratovalnih navodilih za prenosno omrežje električne energije«. |

| ROLES | | | |
|---|---|---|---|
| **ROLE NAME** | **DESCRIPTION** | **Nosilec vloge** | **Opombe** |
| | ***Note:*** additional obligations may be imposed through local market rules. | | |
| Trade Responsible Party | A party who can be brought to rights, legally and financially, for any imbalance between enegry nominated and consumed for all associated Accounting Points.<br><br>***Note:***<br>A power exchange without any privileged responsibilities acts as a Trade Responsible Party.<br><br>***Additional information:***<br>This is a type of Balance Responsible Party. | | Glede na ETSO model, v Sloveniji nimamo teh relacij, kjer bi poleg Production Responsible in Consumption Responsible ločevali še na Trade Responsible Party. |
| Transmission Capacity Allocator | Manages the allocation of transmission capacity for an Allocated Capacity Area.<br><br>***For explicit auctions:***<br>The Transmission Capacity Allocator manages, on behalf of the System Operators, the allocation of available transmission capacity for an Allocated capacity Area. He offers the available transmission capacity to the market, allocates the available transmission capacity to individual Capacity Traders and calculates the billing amount of already allocated capacities to the Capacity Traders. | Common Auction Office (CAO) - CASC EU, ELES | Avkcijska pisarna<br><br>**Dodeljevanje dolgoročnih in kratkoročnih čezmejnih prenosne kapacitet.**<br><br>Dodeljevanje dolgoročnih in kratkoročnih ČPZ na SI-AT in SI-HR meji izvaja CAO (http://www.central-ao.com/)po pooblastilu SOPO. ČPZ znotraj dneva pa za omenjeni meji dodeljuje SOPO.<br>Dodeljevanje dolgoročnih in kratkoročnih ČPZ ter ČPZ znotraj dneva na SI-IT meji izvaja CASC (http://www.casc.eu/)po pooblastilu SOPO. |

## 7.2 Domene

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| Accounting Point | A commercial entity for which there is balance responsibility where the energy volumes (consumption and generation) are computed for the related business processes and where a balance supplier change can take place.<br><br>**Additional information:**<br>May be defined in a contract. | Obračunsko mesto/Obračunska točka<br><br>Je merilna točka za namene obračuna.<br><br>Accounting point kot specializacija Metering Point (glej model vlog!) nastopa vedno v obračunskih procesih (npr. bilančni obračun) in je zanjo določena bilančna odgovornost.<br>Obračunska točka je lahko hkrati obstoječa merilna točka (ima enak identifikator, gre za isto entiteto), lahko pa je novo dodeljena obračunska merilna točka (s svojim enoličnim identifikatorjem), ki uporabi in obdela podatke več obstoječih merilnih točk (oziroma posredno registrov, ki so že povezani z drugimi obstoječimi merilnimi točkami).<br><br>Z smiselno uporabo AC in MP v sistemu razlikujemo med merilnimi mesti za katere poteka bilančni obračun (AP) in generične za katere nujno bilančna pripadnost ni zagotovljena (MP). AP torej ni agregat več obstoječih MP temveč nov specializiran MP. Lahko pa seveda govorimo o posredni agregaciji merjenih vrednosti različnih obstoječih MP v novo AP, če je to npr. potrebno za proces obračuna: v praksi bi to pomenilo, da nov AP povežemo z vrednostmi registrov, ki jih že odbiramo z več različnimi obstoječimi MP in na ravni nove AP implementiramo agregacijo količin iz registrov.<br><br>V informacijskem sistemu se AP in MP ločujeta le v naboru lastnosti. AP ima vse lastnosti MP in še dodatne, ki so potrebne za obračunske procese (bilančna pripadnost ipd.).<br><br>*Primeri uporabe:*<br><br>SOPO uporabljajo AP pri preračunu izgub v omrežju direktno na mejo. Če ne preračunava AP na mejo med dvema SOPO je AP enak neki obstoječi merilni |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| | | točki, ki je v naprej določena. Uporablja se tudi kadar ima SOPO za nek namen na razpolago več meritev in se te med seboj malenkostno razlikujejo: takrat se dogovori, katera meritev je končna oz "prava". Le tej se nato reče AP in se v nadaljevanju uporablja v procesu obračuna (recimo nenamernih odstopanj).<br><br>Dodatna pojasnila:<br><br>Na fizični števec, ki ima več registrov je lahko vezanih eno ali več merilnih mest (MM; ebIX: Metering Point), ki se enoumno identificirajo s svojo številko merilnega mesta (ŠMM). ŠMM je identifikator,MM kjer se merijo produkti (npr. energija - po tipu je lahko to prevzeta, oddana, združena (neto=oddana-prejeta) ali izmenjana; ebIX: glej ENUM "MeteringPointTypeCode"). V Informacijskem sistemu (IS) tore ŠMM identificira entiteto MM, ki vsebuje podatke o merjenih produktih - ti so lahko delovna, jalova (ki se lahko loči še na kapacitivno, induktivno; ebIX: glej ENUM "EnergyProductIdentifier"). MM nastopa v modelu vlog torej kot virtualna entiteta, števec (ebIX: Meter) pa je fizična entiteta (v modelu vlog nastopa še ena fizična entiteta, to je register (Register)). Entiteta MM v IS je vsebnik za meritve količin produktov, agregiranih iz enega ali več registrov istega ali različnih števcev. Enemu števcu je lahko dodeljenih več MM.<br><br>Podatki meritev za posamezno MM za katera se ugotavlja bilančno odstopanje (ebIX: AccountingPoint) se izmenjujejo med udeleženci (SODO(EDP)/dobavitelji – Borzen) za potrebe bilančnega obračuna. Identifikator takega "obračunskega" merilnega mesta (OMM; ebIX: AccountingPoint) imenujmo številka obračunskega merilnega mesta (ŠOMM). OMM je obenem vedno tudi MM (ŠOMM == ŠMM), obratna relacija _vedno_ ne velja.<br>OMM je lahko agregacija enega ali več obstoječih MM izključno na ravni podatkov, nikakor pa ne agregacija samih obstoječih MM (saj relacija med MM in OMM ni kompozicija temveč dedovanje).<br>MM, ki je obenem v vlogi OMM nastopa torej v sistemu bilančnega obračuna in v drugih procesih izmenjave podatkov med udeleženci na trgu ter zagotavlja enoumno obdelavo v procesu bilančnega obračuna,, ki potejka izven IS sistemskega operaterja. Za MM, ki niso hkrati OMM pa zunanjih pravil ni. Bilančno odstopanje se mora ugotavljati vedno na enak način in sicer tako, da se obdelajo količinski podatki o prevzeti/oddani energiji, ki jih referenciramo z uporabo identifikatorja ŠOMM. |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| | | Prevzemno predajno mesto (PPM, kot ga definirajo pravila za delovanje trga) ima lahko več MM in eno samo OMM, za katero se zagotavlja bilančna pripadnost. Ker po pravilih velja, da je PPM samo pod eno bilančno pripadnostjo (velja za distribucijo) se torej PPM lahko identificira z ŠOMM. Če teče energija v obeh smereh govorimo običajno o dveh dodeljenih PPM (OMM), ki sta lahko pri istem ali različnih dobaviteljih.<br>Za nek določen ŠOMM je v nekem trenutku odgovoren izključno en sam odgovorni bilančne (pod)skupine (ebIX: Balance Responsible Party).<br>ŠOMM se lahko pojavlja v okviru različnih agregacij (ebIX: Balance Group), ob pogoju, da je zagotovljeno, da je v nekem obračunskem obdobju zanj odgovoren izključno en sam odgovorni bilančne (pod)skupine (ebIX: vloga Balance Responsible Party)..<br><br>Pri obdelavi podatkov vezanih na določeno ŠOMM kjerkoli v IS (pri kateremkoli udeležencu - npr. za potrebe bilančnega obračuna) ne smemo način obdelave pogojevati z vlogo OMM (npr. zaradi specifike priključevanja, kakšno namen ima določen MM v neki shemi priključevanja po SONDO), kateremu pripada ta ŠOMM. Torej vsak OMM se na podlagi svojega ŠOMM na trgu obravnava enako, k bilančni skupini se akontirajo vse količine zabeležene na OMM. |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| Allocated Capacity Area | A market area where the transmission capacity between the Balance Areas is given to the Balance Responsible Parties according to rules carried out by a Transmission Capacity Allocator. Trade between balance areas is carried out on a bilateral or unilateral basis.<br><br>***Additional information:***<br>This is a type of Market Area. Note : Example are also France-Spain (Pyrenees) and Portugal-Spain. | V našem primeru je to celotno območje RS.<br><br>. |
| Balance Group | A collection of Metering Points for imbalance settlement<br><br>***Note:***<br>Equivalent to "Balance Group" (Bilanzgruppe) in the Austrian market or (Bilanzkreis) in the German market<br><br>German definition: It is composed of a various number of metering points within a Market Balance Area.<br><br>***Additional information:***<br>This is a type of Functional group. | Bilančna skupina<br><br>Bilančna skupina se ustanovi na podlagi bilančne pogodbe za namene dobave izravnalne energije, poslovanja odgovornega bilančne skupine na organiziranem trgu z ureditvijo bilančne odgovornosti, obvladovanja in upravljanja s tveganji odstopanj odgovornega bilančne skupine in hierarhično nižjih članov bilančne skupine. |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| Capacity Market Area | A market area where the transmission capacity between the Market Balance Areas is given to the Balance Responsible Parties in a price based process separated from trading carried out by a Transmission Capacity Allocator.<br><br>Trade between Market Balance Areas is carried out on a bilateral or unilateral basis.<br><br>***For example***<br>The auctioning system between TenneT and RWE Net.<br><br>***Additional information:***<br>This is a type of Market Area | Trg ČPZ (čezmejne prenosne zmogljivosti) - avkcije<br><br>Trg z čezmejnimi prenosnimi zmogljivostmi, kjer avkcijska pisarna dodeljuje ČPZ BRPjem, ITR oz TRP.<br><br>Na SI-IT meji poznamo implicitno dodeljevanje ČPZ v obliki Market Couplinga, kjer zakupi BRP hkrati z energijo tudi ČPZ. |
| Certificate Area | A Certificate Market Area where a common set of rules relative to taxes and pricing for defined types of energy production are applied.<br><br>***Additional information:***<br>This is a type of Market Area. | Trg s PoI<br><br>AGEN-RS (izdajatelj PoI za bilateralni trg s potrdili) in BORZEN (skrbnik baze): razširitev modela vlog (nacionalna specifika) |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| Common Capacity Area | A Market Area where the available transmission capacity between the Market Balance Areas is given to the Balance Responsible Parties based on their bidding to the Market Operator.<br><br>Trade between Market Balance Areas is carried out through the Market Operator.<br><br>Additional information:<br>This is a type of Market Area. | Primer: Market-coupling ; SI-IT<br><br>Dajansko gre za posamezno mejo med dvema Market Balance Areas, kjer je način dodeljevanja ČPZ organiziran z implicitno avkcijo .<br>Dodeljevanje kapacitet izvede energetska borza. V SLO je primer takšnega dodeljevanje kapacitet na SI-IT meji, kjer se izvaja Market coupling. |
| Control Area | The composition of one or more Market Balance Areas under the same technical load frequency control responsibility<br><br>Note:<br><br>In some cases there may be some Metering Points that belong to a Market Balance Area that is not a part of the Control Area. However these do not impact the general definition, for example, a village in one country connected to the grid of another. | Regulacijsko območje<br><br>Primer:. Slovenija<br><br>Ker je SLO EES majhen napram ostalim EU se zadeve poenostavi. Območje sestavljeno iz enega ali več območij „Market Balance Area“, za katere se uporablja ista tehnična merila in isto sekundarno regulacijo. |
| Control Block | The composition of one or more Control Areas, working together to ensure the load frequency control on behalf of RGCE. | Regulacijski blok<br><br>Primer: Slovenija, Hrvaška, BIH<br><br>Območje regulacijskega bloka je sestavljeno iz več manjših kontrolnih območij, ki so medsebojno povezana z namenom zagotoviti boljšo regulacijo. |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| Control Entity | A geographic area consisting of one or more Metering Grid Areas with an energy delivery responsibility. Each area is synchronously connected to another area. In most cases such areas have a load frequency responsibility and therefore may have to report to a higher level control entity. | Kontrolna entiteta<br><br>CA == CE |
| Coordination Center Zone | The composition of a number of Control Blocks under the responsibility of the same Coordination Center Operator. | Cona koordinacijskega centra<br><br>Območje koordinacijskega centra je sestavljeno iz več regulacijskih blokov, ki so medsebojno povezani in so združeni pod enim koordinacijskim centrom. |
| Functional Group | A collection of Metering Points for consumption and generation within a Market Balance Area. | Funkcionalna skupina |
| ITC | The Inter TSO Compensation (ITC) market is composed of a group of System Operators that accept a common set of rules for the invoicing of energy flows over the border.<br><br>***Additional information:***<br>This is a type of Market Area. | Področje ITC mehanizma |
| Local Market Area | A Market Area where there is no transmission capacity restrictions between the Market Balance Areas.<br><br>***Additional information:***<br>This is a type of Market Area. | Notranji trg |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| Market Area | An area made up of several Market Balance Areas interconnected through AC or DC links. Trade is allowed between different Market Balance Areas with common market rules for trading across the interconnection. | Področje zadevnega trga<br><br>Skupni EU trg/regisjki trg … |
| Market Balance Area | A geographic area consisting of one or more Metering Grid Areas with common market rules for which the settlement responsible party carries out a balance settlement and which has the same price for imbalance.<br><br>A Market Balance Area may also be defined due to bottlenecks. | |
| Meter | A physical device containing one or more registers. | Merilna naprava |
| Metering Grid Area | A Metering Grid Area is a physical area where consumption, production and exchange can be metered. It is delimited by the placement of meters for period measurement for input to, and withdrawal from the area. It can be used to establish the sum of consumption and production with no period measurement and network losses. | Področje omrežja, kjer potekajo meritve<br><br>Gre za omrežno območje, tako kot je SODO razdeljen na 5 območij, pa tudi ZGK, sem spada tudi prenosno omrežje |
| Metering point | A point where energy products are measured or computed.<br><br>***Additional information:***<br>May be used for different purposes such as settlement, invoicing, planning and statistics. | Merilno mesto/Merilna točka<br><br>Generična virtualizacija lokacije, kjer se izvaja meritev produktov energije ali se določa porabljena ali proizvedena električna energija.<br><br>Metering Point se uporabljajo za evidentiranje porabljene ali proizvedene energije,<br><br>Lahko predstavlja tiste točke merjenja za katero se ne izvaja bilančni obračun npr:<br>- na ravni inter-TSO |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| | | - na nacionalni ravni (merilna mesta na meji med distribucijo in prenosom), ,<br>- pri določenih merilnih mestih uporabljenih pri priključevanju razpršene proizvodnje<br>ali tiste merilne točke, za katere se bilančni obračun izvaja – v tem primeru je specializirano v AccountingPoint! |
| National Area | A area covered by a single set of national electricity arrangements established at government level.<br><br>This is not necessarily the same as the geographical boundaries of a nation.<br><br>***Additional information:***<br>This is a type of Market Area | |
| Register | A physical or logical counter measuring energy products. | Register v merilni napravi<br><br>Lokalna podatkovna baza merilnih podatkov v števcu (VT, MT, delovna, jalova moč, poraba, prekinitve itd.). |
| Reserve Object | A resource technically pre-qualified using a uniform set of standards to supply reserve capabilities to a System Operator associated with one or more Metering Points and tele-measuring devices.<br><br>***Additional information:***<br>This is a type of Resource Object | Resursna rezerva<br><br>Proizvodni objekt ali odjemalec, ki je zmožen zagotavljati rezervo (TE Brestanica, TALUM) |

| DOMAINS | | |
|---|---|---|
| **DOMAIN NAME** | **DESCRIPTION** | **Notes** |
| Resource Object | A resource that can either produce or consume energy and that is reported in a schedule.<br><br>***Additional information:***<br>This is a type of Functional Group | Resursni objekt<br><br>Proizvodni objekt ali odjemalec |
| RGCE Interconnected Group | The composition of a number of coordination center zones, operating under RGCE rules, where the exchange and compensation programmes within the zone must sum up to zero. | UCTE/ENTSOE (RG-Continental Europe) |

# 8 IDENTIFICIRANI PROBLEMI V MODELU VLOG

## 8.1 Domena “Balance Group”

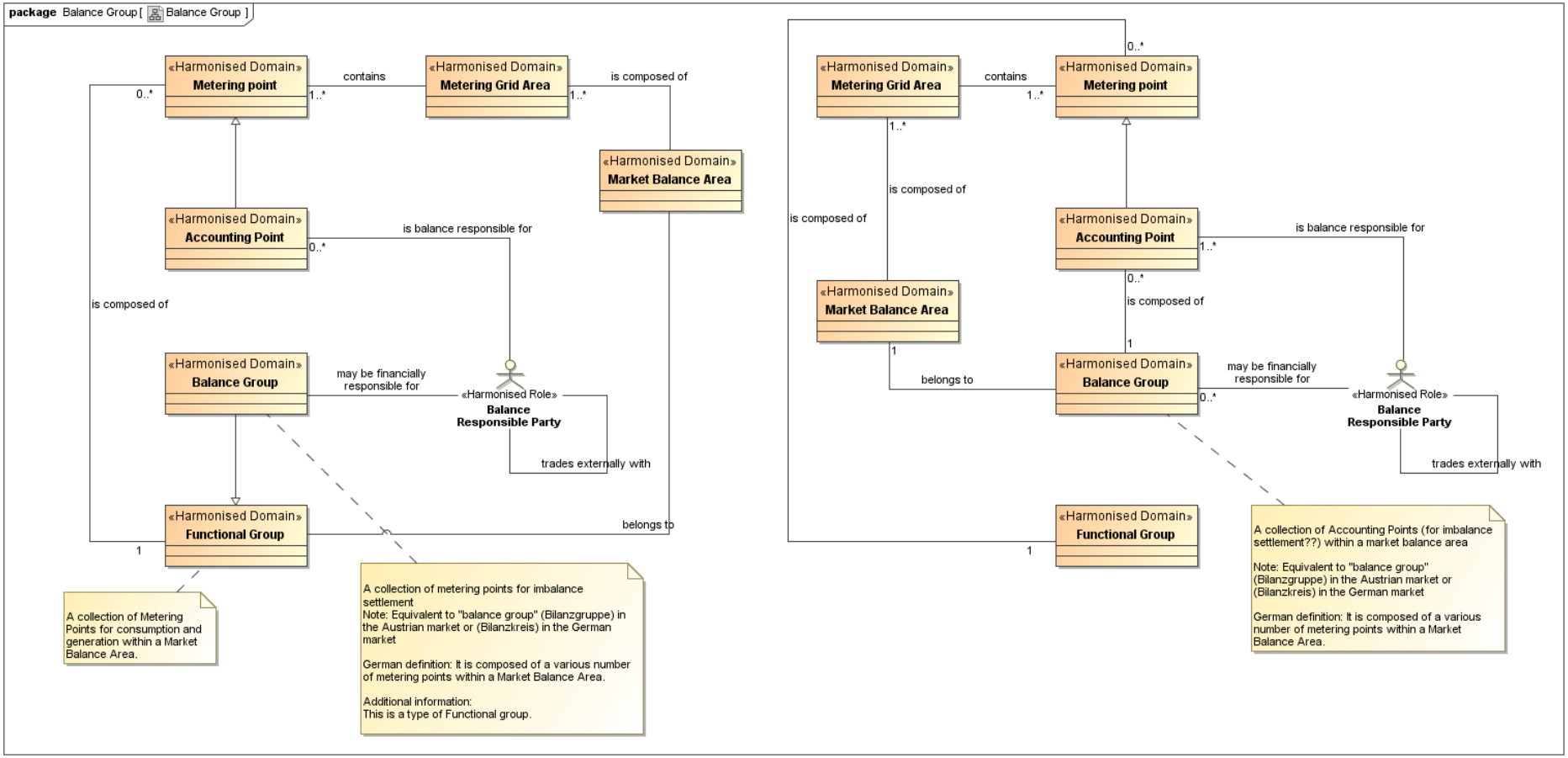
V sedanjem modelu Balance Group deduje od Functional Group, ki je sestavljena iz Metering Points.

**Problem:**

- Ali ne bi morala biti Balance Group sestavljena z Accounting Points na katero bi lahko povezali z ustrezno relacijo Balance Responsible Party namesto, da je sestavljena iz Metering Points kamor ni možno polinkat Balance Responsible Party?
- Ali lahko Balance Group sploh vsebuje Metering Points za kater ni specifirana bilančna odgovornost?

**Rešitev:**

- Če predpostavimo, da bi Balance Group morala biti sestavljena iz Accounting Points je verjetno najboljša rešitev problema  opustitev predpostavke, da je Balance Group še vedno neka vrsta Functional Group.
- Potrebni popravki:
    - povežemo  Balance Group na Accounting Point (“is composed of 0..*”) in
    - na Market Balance Area (“belongs to 1”),
    - opustimo dedovanje iz Functional Group in
    - ohranimo asociacijo med Functional Group in Metering Point (“is composed of 0..*”).


package Balance Group [ Balance Group ]
«Harmonised Domain»
Metering point
contains
«Harmonised Domain»
Metering Grid Area
is composed of
«Harmonised Domain»
Market Balance Area
«Harmonised Domain»
Accounting Point
is balance responsible for
is composed of
«Harmonised Domain»
Balance Group
may be financially responsible for
«Harmonised Role»
Balance Responsible Party
trades externally with
«Harmonised Domain»
Functional Group
belongs to
A collection of Metering Points for consumption and generation within a Market Balance Area.
A collection of metering points for imbalance settlement
Note: Equivalent to "balance group" (Bilanzgruppe) in the Austrian market or (Bilanzkreis) in the German market
German definition: It is composed of a various number of metering points within a Market Balance Area.
Additional information:
This is a type of Functional group.
«Harmonised Domain»
Metering Grid Area
contains
«Harmonised Domain»
Metering point
is composed of
«Harmonised Domain»
Market Balance Area
«Harmonised Domain»
Accounting Point
is balance responsible for
is composed of
«Harmonised Domain»
Balance Group
belongs to
may be financially responsible for
«Harmonised Role»
Balance Responsible Party
trades externally with
«Harmonised Domain»
Functional Group
A collection of Accounting Points (for imbalance settlement??) within a market balance area
Note: Equivalent to "balance group" (Bilanzgruppe) in the Austrian market or (Bilanzkreis) in the German market
German definition: It is composed of a various number of metering points within a Market Balance Area.

## 8.2 Vloga “Grid Acces Provider”

V zvezi z Metering-/Accounting Points bi želeli dodati vlogi Grid Access Provider odgovornost za naročilo in izdajo identifikatorjev.

**Problem:**

Besedilo:

*A party responsible for providing access to the grid through an Accounting Point (?) and its use for energy consumption or production to the Party Connected to the Grid. The Grid Access Provider issues the Accounting (?) Point Identification.*

*Opomba: “Accounting Point” v tem besedilu bi moral v bistvu biti “Metering Point”, (glej obrazložitve v nadaljevanju).*

*Sedaj imamo asociacijo med* Grid Access Provider in Accounting Point. Menimo, da bi morala namesto tega obstajati asociacija med Grid Access Provider in Metering Point.

Iz tega izhaja problem I zdajo identifikatorjev za AP s strani Grid Access Provider. Če predpostavimo, da imajo tudi MP identifikatorje , kdo potetakem izdaja slednje?

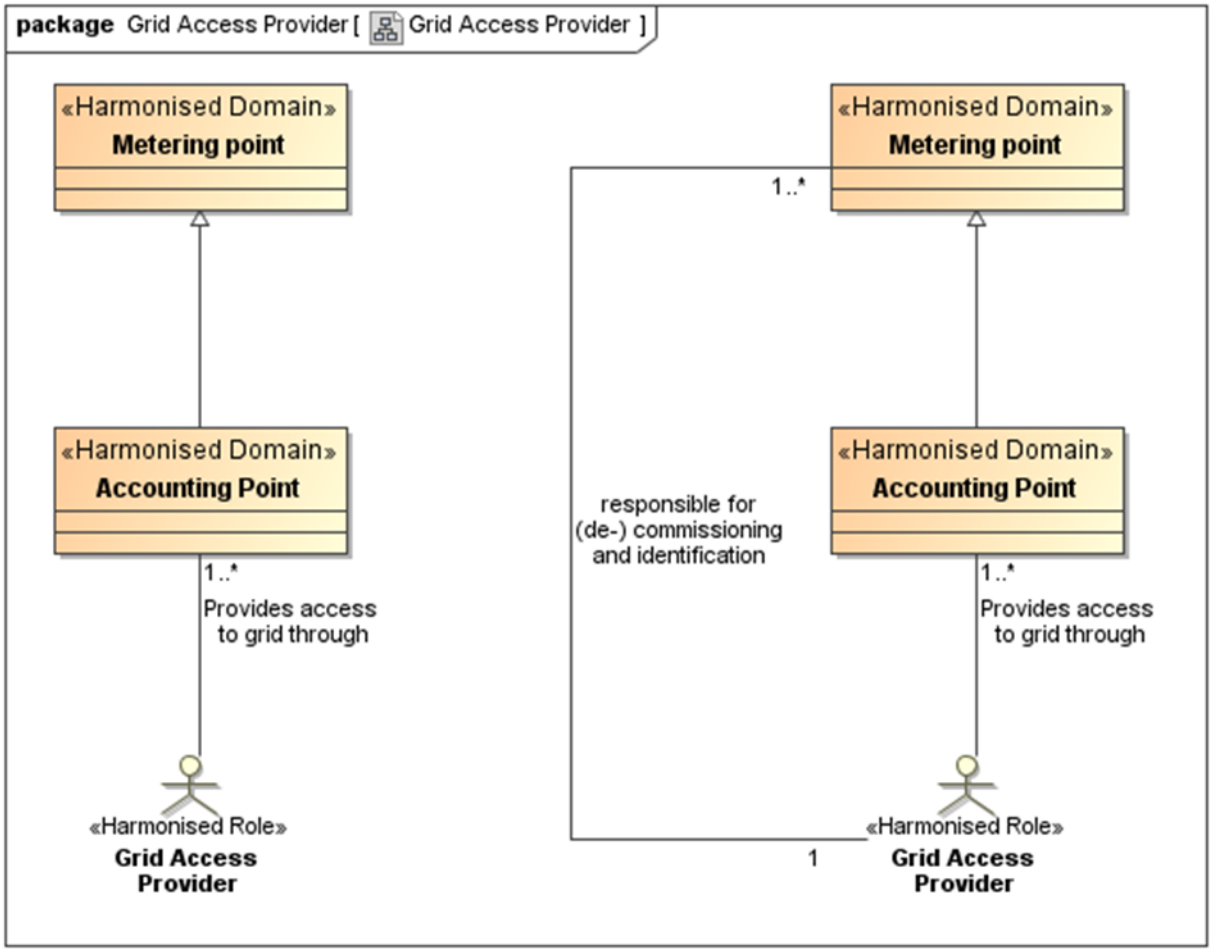
**Rešitev:**

1). dodamo novo asociacijo med Grid Access Provider in Metering Point z besedilom: “responsible for (de-) commissioning and identification”

2). Ta relacija je potem dedovana s strani Accounting Point.

Potem lahko ohranimo dostop omejen le na Accounting Point (ob predpostavki, da MP ne omogoča dostopa do omrežja)

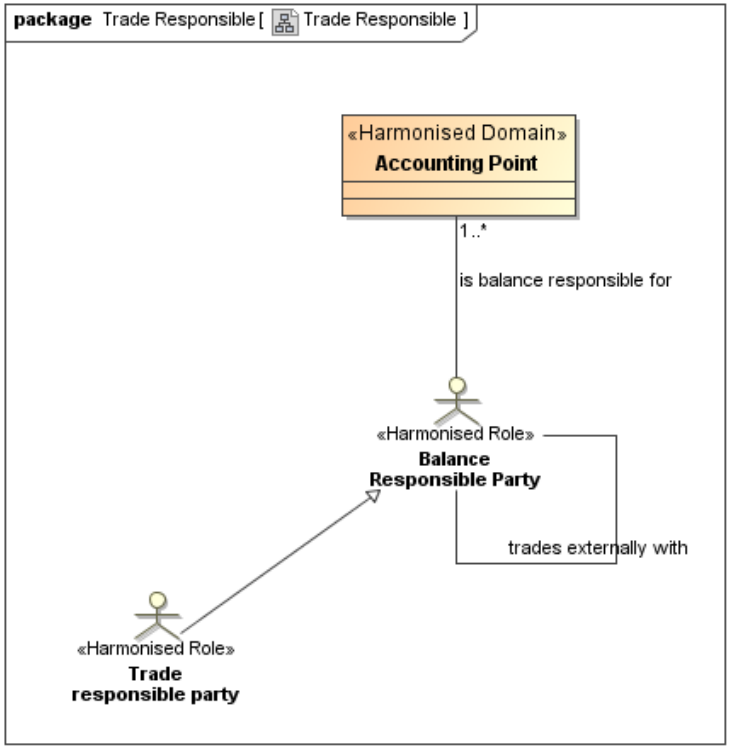
Če dodamo asociacijo potem mora predlagano besedilo biti spremememnejno: izdaja MP identifikacijo namesto AP identifikacijo.


package Grid Access Provider [ Grid Access Provider ]
«Harmonised Domain»
Metering point
«Harmonised Domain»
Accounting Point
1..*
Provides access to grid through
«Harmonised Role»
Grid Access Provider
1..*
responsible for (de-) commissioning and identification
1
«Harmonised Domain»
Metering point
«Harmonised Domain»
Accounting Point
1..*
Provides access to grid through
«Harmonised Role»
Grid Access Provider

## 8.3 Vloga “Trade Responsible party”

Trade Responsible Party (TRP) je sedaj v modelu vlog specificiran kot specializiran tip vloge Balance Responsible Party (pomeni: TRP deduje lastnosti od BRP). BRP je trenutno povezan z Accounting Point (AP) in posledično TRP prav tako. TRP je bil dodan v model vlog, ker smo potrebovali trgovca z bilančno odgovornostjo, toda brez povezave do AP.

Predpostavljamo torej, da je sedanja predstavitev TRP kot specializacije BRP napaka, ki jo je treba odpraviti!



# Priloga 1- Pogosta vprašanja

## 1 - [PRILOGA 1]. EBIX PROCESI

### A. “Imbalance settlement and Reconciliation”

**<!PeT>:**

The process of yearly recalculation of load has only monthly measurements and we recalculate imbalance settlement in order to finalize the results. During the year we make estimations about the consumption that has no hourly data and we use that data to calculate imbalance settlement. At the end of the year we recalculate the overall yearly consumption based on monthly data, and redistribute the energy and imbalances of the suppliers. For this purpose we have to receive aggregated data from DSOs.

**ebIX:**

From the way you describe the Slovenian system we conclude that the ebIX® model supports this process.

In all participating countries the process is similar. Some minor differences to be found in the use of profiles (be it synthetic or analytic) and who is responsible for the reconciliation part of the overall settlement (be it the balance responsible party (BRP) similar to imbalance settlement or be it the balance supplier (BS). For this reason we have introduced to the Role Model the Reconciliation Accountable (BA) from whom inherits either the Balance Responsible or the Balance Supplier).

In broad lines all processes run like:

1. BRP submits schedules to the SO. The schedules contain planned volumes for both continuously read non-profiled metering points (MP’s) and profiled MP’s, which are read only once per period (month or year);
2. During the day of operation the continuously read MP’s are metered;

3. After the day of operation the SO submits the day's results to the imbalance settlement responsible (ISR). The ISR is mostly (but not always) another department within the TSO.
4. After the day of operation metered data are validated and aggregated. And submitted to the ISR and the BRP's. These data show the differences for the continuously read MP's exactly; for the profiled MP's the difference is established in aggregate terms per area. The difference in percentage is the correction factor that will be used for the profiled MP's to assign the planned volume multiplied by this correction factor to the BRP's in imbalance settlement. These corrected volumes will the basis for the next step: reconciliation.
5. Validation of metered data per MP is done by the metered data responsible (MRP); aggregation is done by the metered data aggregator (MDA) per metering grid area (MGA). In liberalized metering markets the MDR can be an independent metering company. Otherwise it is normally a department within the DSO. The MDA is in most countries a department within the DSO.
6. In between the imbalance settlement process will be finalized and financially settled. But that is for your questions out of scope.
7. Over the year the profiled MP's will be one by one metered. When metered, these metered data will be input for the (monthly) reconciliation process. Metered data will be compared with the corrected volumes resulting from the preparations for imbalance settlement. These differences are aggregated per area and will result in shifting each month volumes from one BA to another BA. These shifts result then also monthly in financial consequences.
8. In principle in a year all profiled MP's will have been metered and then that period will not have to be part of the reconciliation process anymore. Practically speaking in most countries it takes 16-20 months to close reconciliation.

**<!PeT>:**

You mentioned a monthly reconciliation of the values for profiled MPs. We have a yearly reconciliation. Does the model allow different time intervals? And, is the reconciliation done at the level of MPs, when the metering is done for the exact MP, or once per BRP as in our case (once per the chosen month (year in our case))?

**ebIX:**

Answer to first question: We will check this, but in my recollection we have specified this per period and have specified some codes for different types of period. But if it appears we have not done this so yet, we will have to change this. I see no problem here.

Answer to second question: I think the way one does this, does not have to have effect on the way it is exchanged. And ebIX® models are in principle limited to exchange specifications. I will tell you why. In any case the reconciliation process has to start at the level of the individual MP: this has been metered and because of this one can establish the difference between planned volume multiplied by correction factor and the actual metered data. There is no other way. In the next step of course these differences can be aggregated per RA and exchanged. Or can be

exchanged per individual MP, but I don't know of an example where it is done this way. As far as I know all countries shift aggregated differences from one RA to another.

# 2 - [PRILOGA 1]. EBIX DOMENE

## B. "Balance Group"

**<!PeT>:**

We have already discussed this issue at the workshop in Maribor in March 2010. However my question still remains if the Slovenian model of Groups and Subgroups fits into the harmonized model. It is mainly the question of whether the Slovene "balance subgroup" is also covered by the domain "Balance Group".

In our market, both roles, "balance responsible parties" (BRPs in Slovenia called BalanceGroups) and "balance responsible sub-party" (BRSPs; in Slovenia called Balance SubGroups) are played by suppliers. Trading contracts and operating schedules of both are reported to the Market Operator (MO). And at the end the MO receives aggregated realized consumption/production of all suppliers (BRPs and BRSPs) from the DSO. MO then calculates imbalances for all Balance Groups (BGs) and Balance SubGroups (BSGs). BRPs pay to the MO for all imbalances (of BGs) including the imbalances of their hierarchically inferior groups (BSGs). BRSPs pay to the superior BRP for all imbalances including the imbalances of their hierarchically inferior BRSPs (BSGs) etc.

This means that both BRPs and BRSPs are Balance Suppliers from the model. It is also true that both BRPs and BRSPs can trade externally with each other. Furthermore BRSPs can have their own hierarchically lower members, also called BRSPs with the same rights. That means that all the active members of the market have the same rights, but not the same obligations. Only BRPs conclude an agreement with the MO (balancing agreement) and therefore only BRPs are financially responsible for the BG (as in the model).

As far as we understand, the domain Balance Group in is needed for the purpose of data exchange (aggregation of MPs), where DSOs send data aggregated per BG. In our case DSO aggregates per supplier. Is the role model sufficient for our model of groups?

**ebIX:**

It is important to keep in mind that in the Role Model the Balance Group is a set of Metering Points (MP). These might be MP's that have one Balance Supplier in common, but still these are just MP's and do not reflect a responsibility.

The role Market Operator in the Role Model basically establishes market prices (for imbalance). I get the impression that you confuse the roles for the System Operator and for the Imbalance Settlement Responsible with the Market Operator. The System Operator is the recipient for the schedules from the Balance Responsible Party; the Imbalance Settlement Responsible establishes the imbalance volumes (confronting the scheduled volumes (received from the System Operator and possibly after correction by the SO for operations like calling regulating and reserve power) and metered data for the day of operation). The resulting imbalance volumes finally are financially settled (volume x price = amount) by the Billing Agent.

So when I compare your description with the Role Model, the conclusion seems obvious that your Balance Group is basically the Balance Responsible Party in the Role Model (the basic feature of the Balance Responsible in the Role Model is its financial accountability fro imbalances). And following this reasoning your Balance Subgroup could be the Balance Group in the Role Model (in this case a set of MP's that have a Balance Supplier in common) or with other words your Balance Group is a Balance Responsible Party and your Balance Subgroup is a Balance Group from the Role Model (sharing the same Balance Supplier). Since a Balance Group (from the Role Model) is a set of MP's it cannot trade (MP's do not do anything).

Of course you can make whatever hierarchy in Balance Groups (from the Role Model), but why would you do that? It makes life unnecessary complicated for the rest of the sector. Since this Balance Group is just a set of MP's you will have to keep this "list of MP's" up to date constantly and over all involved parties. Therefore you keep exchanging updates for these lists while all parties have already master data for the MP's from which everybody can derive who is balance responsible for these MP's.

In terms of the Role Model: the Balance Responsible Party concludes an agreement with the Imbalance Settlement Responsible. And that deal covers all MP's for which the BRP assumes responsibility therefore including also the MP's that this BRP would like to identify as a Balance Group (for whatever reason). (Note: keep in mind that in theory a MP may belong to several BG's according to the Role Model).

The Balance Group in the Role Model is basically a relict from an outdated German market model. But has as such caused confusion in many other markets with links to the German market. The BG (from the Role Model) as it is may be used to exchange aggregated data under one ID and this looks simple. But it requires the constant alignment between parties of the meaning of this ID (which MP's belong to it today) and is in

real life therefore a constant source of mismatches. Therefore all ebIX models for the exchange of aggregated data allow for the exchange without using a Balance Group.

We will leave it to you to see whether this interpretation of the Role Model fits your market model. We think it does, but it may take some time to get used to it. And it may depend in the end on what kind of responsibility you thought to grant to what you call a Balance Subgroup. Because if we can agree on the fact that this BSG in your market model is a Balance Group in the Role Model it cannot have any responsibility since it is a set of Metering Points only. Responsibility is limited to what you call Balance Group but what is in the Role Model the Balance Responsible Party (we think).

**<!PeT>:**

We came to a conclusion that if we simplified the data exchange for the imbalance settlement, where we (MO) receive only aggregated data per balance groups, we could probably take the harmonised model as it is.

Would you be so kind and help us solve the next questions that remained:

1. If we decide to continue to request data from DSOs aggregated per supplier, which use case could we use? Is in this case the only difference only in the type of ID while using the same use case? If we aggregate per balance group then ID of BGs and if we aggregate per balance supplier, the ID of the balance suppliers?
2. If we would still like to receive the realized data per balance supplier for the purpose of market transparency or market abuse monitoring, does the role Market Information aggregator correspond to that information flow?
3. Trader (Trade Responsible Party (TRP)) in Slovene balance scheme can be organized in so called “Balance Sub-Group Responsible” role, so it doesn’t play the role Balance Responsible Party (BRP) (not financially responsible to Market Operator (MO)). In the Role model, TRP is specialization of BRP and therefore a role that is always balance responsible to Market Operator. When modeling the data exchange, considering current implementation of balance scheme in Slovenia, we face therefore a problem, since we cannot use the harmonized role TRP. Slovene version of “TRP” role is therefore missing in the model. The long-term solution would be, to change the balance scheme in a way, that TRP is always balance responsible (it may take some time :-)). For current implementation of the balance scheme we need to model the data exchange in such way that it’ll comprise all necessary transactions – the question is, whether the recording of the firm contracts as a process is actually a part of harmonized role model or not. If it is, then, which ebIX project comprises this process and what roles are involved in data exchange.

**ebIX:**

1. Where aggregated data is defined in the ebIX models it is aggregated data per Metering Grid Area per Balance Group or per Balance Responsible (and/or per Balance Supplier)
2. When this regards the imbalance: in the market model I would specify that either the Imbalance Settlement Responsible provides this data to the Balance Supplier (this is the not so consistent solution, because then we assume that the Imbalance Settlement Responsible knows the Balance Supplier for a MP which is not its code business) or that the Balance Responsible Party is required to handover this information after reception from the Imbalance Responsible to the Balance Supplier (which is the more consistent solution since these parties know each other, have a contract and it is likely that the Balance Responsible Party knows the BalanceSupplier for a MP).
3. Maybe it is not in line with the present market model, but it is the proper solution in line with the Role Model. I have indicated in my previous reply that in the Role Model the Balance Group is just a set of MP's. And that the Balance Group in your market model is most likely to coincide with the Balance Responsible Party in the Role Model. And that subsequently the Balance Subgroup in your market model will coincide with the Balance Group in the Role Model.

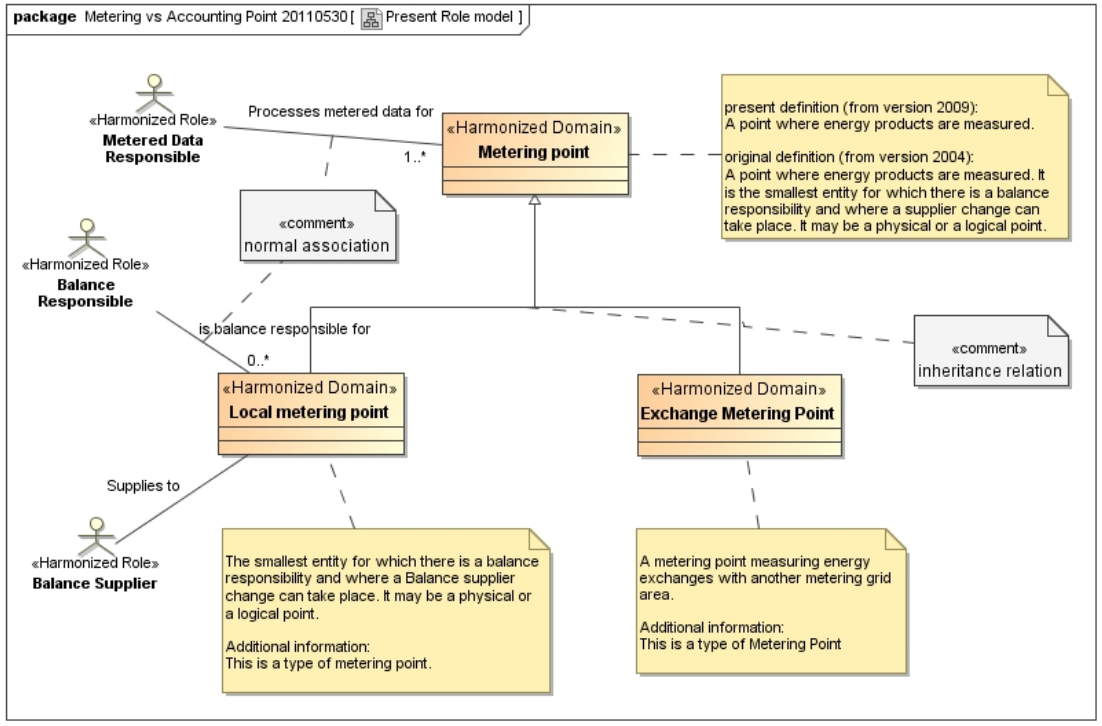
What exactly is the sector responsibility of the trader in your market model? It is not responsible for imbalances according to your text. So imbalance settlement can be done without it. And so can reconciliation I assume (since it is hard to imagine that one is needed for the second step but is not involved at all in the first step of settlement). So maybe the trader is registered at the exchange, but can only trade within the balance responsibility of the Balance Responsible Party (your Balance Group)? If so, why do I (= energy sector) have to know it? I already know its boss. Let that be enough, since it cannot do anything without its bosses responsibility.

# Priloga 2- Evolucija modela vlog

## 1 - [PRILOGA 2]. INTRODUCTION OF ACCOUNTING POINT

### A. Metering Point in Present Harmonized Role Model

The present Harmonized Role Model specifies a Metering Point as reflected in the picture below.



This is basically the way the Metering Point has been specified since the first version of the role model. There have been slight changes in the textual definitions back and forth over time, but despite these changes the core of the definitions was left intact.

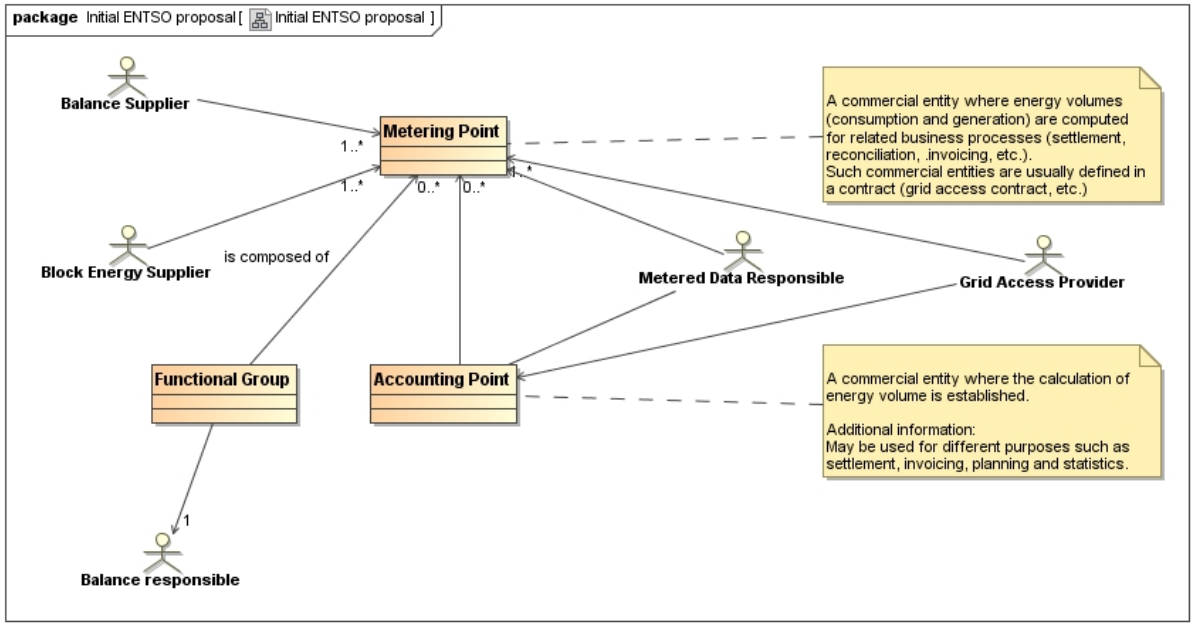
The core of the definitions being:

- The Metering Point specifies what Local metering point and Exchange Metering Point have in common. The text is in the role model reflected by associating the Metered Data Responsible to the Metering Point with cardinality 1.
- For the Local metering point the additional characteristic is, that it is the smallest entity for balance responsibility and for change of balance supplier. This text is in the role model reflected by associating the Balance Responsible Party and the Balance Supplier to the Local metering point; the latter without cardinality.
- For the Exchange Metering Point the additional characteristic is that it links Metering Grid Areas. The text is in the role model reflected by associating the Exchange Metering Point to the Metering Grid Area with cardinality 2 for the grid area.

## B. Initial proposal for the introduction of the Accounting Point

ENTSO-E states, that after the creation of ENTSO-E the domain of responsibility has changed. And that this will have to be reviewed before the next release of the Role Model. As a consequence ENTSO-E has proposed a change for the core of the ebIX®-EFET-ENTSO Harmonized Role Model: the Metering Point.

The main change in this initial proposal is the introduction of an Accounting Point next to the Metering Point as it had been already defined.




ENTSO-E explanation to this proposal:

Actions taken and agreed :
1. suppressed relationship between ISR and Accounting point
2. suppressed relationship BRP and accounting point
3. only physical things in this diagram are meter and register
4. functional group is not the same as accounting point
5. UCTE need an accounting point as well as a number of TSOs (Elia, RTE, PSEO,...).
6. needed for ETSO ESP but need queried by Tennet and German TSOs
7. Metering point id assigned by the Grid access provider
8. Agree that consumption/production metering points can be deprecated
9. added "where the calculation of" to accounting point definition

Open questions:
10. Open question how to relate the balance supplier to the accounting point
11. Question outstanding: change accounting point to accounting entity?
12. open question accounting point is issued by who???
13. query need for local and exchange metering point?
14; Want to reexamine the relationsdhips in context of the global picture?
15. Review the relations between metering point,meter and register?

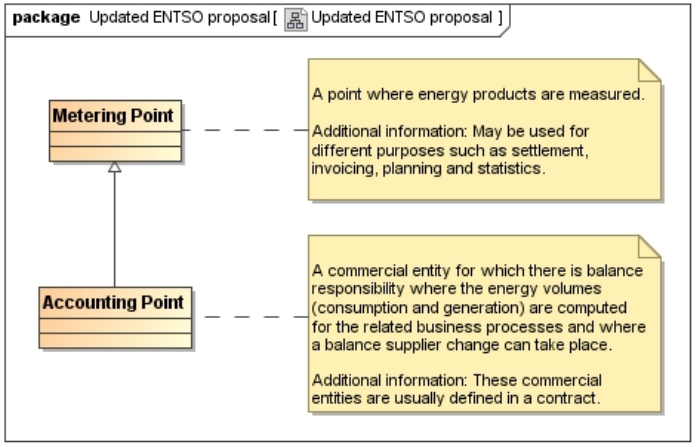
## C. ebIX® response to the initial proposal for the introduction of the Accounting Point

For ebIX® this proposal was not acceptable. Main reason being, that the proposal implied the introduction of a second “point” in the role model. This would double the issued number of ID’s and double the efforts to maintain master data. For the retail part of the energy market with millions of “points” this is not acceptable, because there is in the retail part of the market no need for this additional “point”.

Another issue in this initial proposal regards the associations and their cardinalities. Especially the associations between Balance Responsible Party, Functional Group and Metering Point need to be reviewed, since the ones in the proposal do not reflect the actual business requirements. This issue is however not touched in the next paragraphs.

## D. Updated ENTSO proposal after a first round of discussion

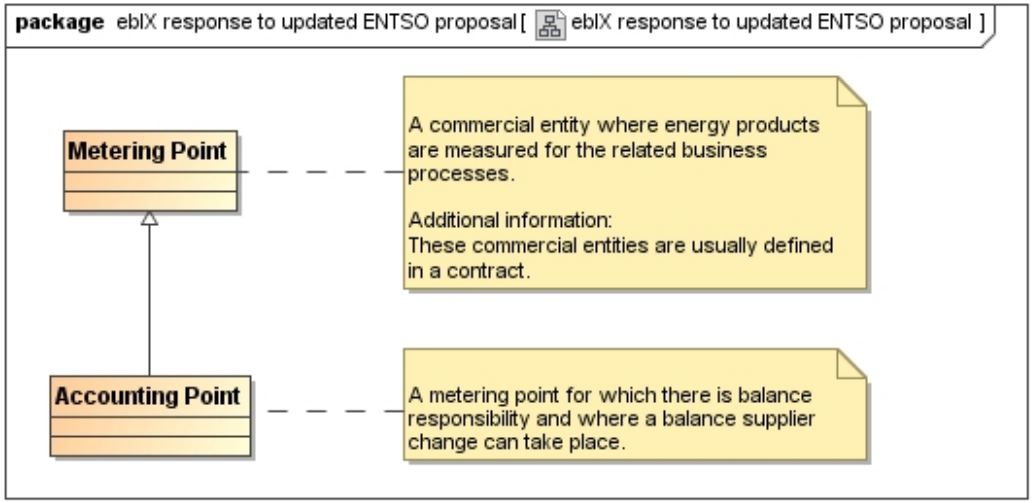
In response to the ebIX® response, ENTSO-E has reviewed their initial proposal. The resulting update is shown below (with a focus on the Metering and Accounting Point only).



## E. ebIX® response to the updated proposal for the introduction of the Accounting Point

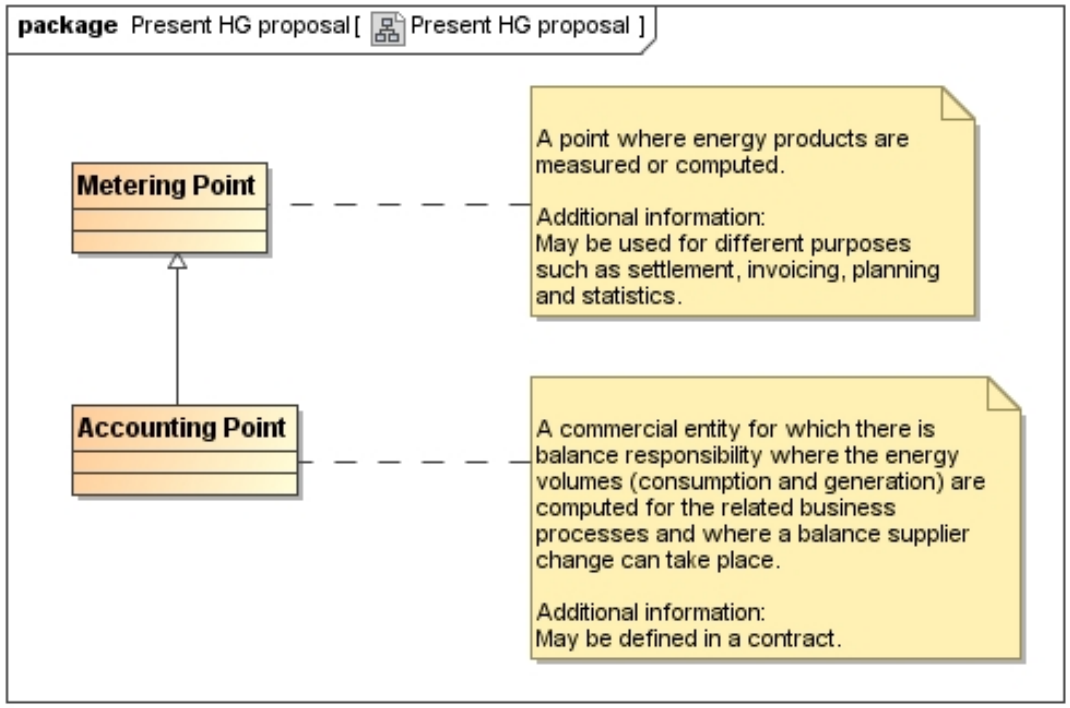
For ebIX® the structure of this updated proposal was acceptable. The deprecation of the Exchange Metering Point was not the preferred solution for ebIX®, but was acceptable, since the essence of the Exchange Metering Point is now reflected in the Metering Point.

ebIX® did however propose improved and simplified definitions:




## F. Resulting present proposal for the introduction of the Accounting Point

In a recent ebIX-EFET-ENTSO Harmonization Group meeting both the updated ENTSO-E proposal and the ebIX® response to this have been discussed. As can be derived from the result as it is shown below, not much of the ebIX® response was acceptable for ENTSO-E.




Where in the previous versions the term “commercial entity” could be regarded as acceptable for ebIX® since it stressed its administrative nature (in contrast to a physical point), now it could be interpreted as a contrast between a (maybe physical) Metering Point and a commercial nature for the Accounting Point. Since the Accounting Point is mainly the responsibility of the regulated distribution system operator (DSO), ebIX® would like to assure that these DSO’s (and their regulators) can agree to these new definitions before making up its mind with regard to these proposed changes.

**Note:** apart from the definition issue, the issue regarding Functional Group - as mentioned in paragraph C - still remains to be solved.