

Rules governing the Forward Electricity  
Account Trading Platform (PCE), as  
amended after consultation with operators  
and AEEG's Decisions 111/06 and 253/06

Rome

10-11 January 2007

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***AEEG's Decision 111/06: general principles***

## AEEG's Decision 111/06: general principles (1/2)

- In its Decision 111/06 of 13 June 2006, AEEG (electricity & gas regulator) established the general criteria governing the operation of the Forward Electricity Account Trading Platform (PCE), providing among others that:
- ✓ GME shall draft the rules governing the admission of participants to and the operation of the PCE and, after submitting them to operators for consultation, GME shall submit them to the approval of AEEG;
  - ✓ GME shall open one or more electricity accounts (“conti energia”) in the name of participants; on such accounts, GME shall record forward purchase/sale transactions and the withdrawal/injection schedules implementing such transactions.

## AEEG's Decision 111/06: general principles (2/2)

- AEEG's Decision 111/06 of 13 June 2006 established the general criteria governing the operation of the PCE, providing among others that:
- ✓ the recording of forward purchase and sale transactions shall be verified to be consistent with the guarantees that participants have posted in favour of GME (for the transmission capacity fee – CCT) and of Terna (for real-time balancing charges)
  - ✓ the recording of withdrawal/injection schedules shall be consistent with the position resulting from commercial transactions (only IPEX participants that have posted sufficient financial guarantees shall be allowed to deviate from the schedules (the so-called planned deviations)). Otherwise, GME may correct the schedules recorded by participants by increasing or reducing them.

*Draft Rules of the PCE submitted to operators for consultation:  
general principles*

## Draft Rules of the PCE submitted to operators for consultation (1/9)

- On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:
- ✓ A “conto energia” (electricity account) shall be opened in the name of each participant for each type of unit that such participant is entitled to use
    - electricity injection account (CE-IMM): generating units (UP), pumping units (UPMP) only for injection, and neighbouring countries’ virtual generating units (UPV)
    - electricity withdrawal account (CE-PRE): consuming units (UC), pumping units (UPMP) only for withdrawal, and neighbouring countries’ virtual consuming units (UCV)
  - ✓ Each participant is entitled to use
    - the units for which such participant qualifies as Dispatching User
    - the units for which the respective Dispatching User has authorised such participant to trade.Such authorisation shall specify the share  $\alpha$  of utilisation of the power/capacity that the Dispatching User has assigned to the participant so authorised.

## Draft Rules of the PCE submitted to operators for consultation (2/9)

➤ On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:

- ✓ **Terna shall define the step-up margins of generating units, pumping units and neighbouring countries' virtual generating units. The step-down margins of generating units and neighbouring countries' virtual generating units shall be equal to zero**
- ✓ **Terna shall define the step-down margins of neighbouring countries virtual consuming units and of pumping units. Terna may define also the step-down margins of consuming units. Failing such definition, the step-down margin of consuming units shall be deemed to be infinitely large by default. The step-up margin of consuming units/neighbouring countries' virtual consuming units shall be equal to zero.**
- ✓ **For generating units, pumping units and neighbouring countries' virtual generating units, for which the participant qualifies as Dispatching User, shall be equal to:**
  - UP/UPMP/UPV margin defined by Terna x (1 – share  $\alpha$  of utilisation of power/capacity, based on authorisations granted to other participants)
- ✓ **For generating units, pumping units and neighbouring countries' virtual generating units, for which the participant does not qualify as Dispatching User but has been authorised to trade, the step-up margin shall be equal to:**
  - UP/UPMP/UPV margin defined by Terna x share  $\alpha$  of utilisation of power/capacity, based on the authorisation received from the Dispatching User



## Draft Rules of the PCE submitted to operators for consultation (3/9)

- On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:
- ✓ On the electricity injection account, the step-up margin shall be defined as the sum of the step-up margins of generating units, pumping units and neighbouring countries' virtual generating units that the participant is entitled to use (as corrected to account for the shares  $\alpha$  of capacity/power, based on authorisations granted or received, if any). The step-down margin shall be equal to zero.
  - ✓ On the electricity injection account, both purchase and sale transactions may be recorded, provided that the net position is always a net sale that is lower, in absolute value, than the step-up margin of the account.

## Draft Rules of the PCE submitted to operators for consultation (4/9)

➤ On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:

- ✓ On the electricity withdrawal account, the step-down margin shall be defined as the sum of the step-down margins of consuming units, pumping units and neighbouring countries' virtual consuming units that the participant is entitled to use (as corrected to account for the shares  $\alpha$  of power/capacity, based on authorisations granted or received, if any). The step-up margin shall be equal to zero.
- ✓ On the electricity withdrawal account, both purchase and sale transactions may be recorded, provided that the net position is always a net purchase that is lower, in absolute value, than the step-down margin of the account.
- ✓ The sessions for recording transactions shall be open on working days from 15:00 to 20:00.

## 11 Draft Rules of the PCE submitted to operators for consultation (5/9)

➤ On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:

- ✓ On the electricity injection account, participants may record injection schedules in respect of a given unit, provided that their sum does not exceed the step-up margin of such unit, taking into account the shares assigned to or received from other participants under appropriate authorisations (*verification of consistency with the margin of units*)  
→ If this requirement is not met, then GME shall reduce the schedules
  
- ✓ Operators that are not IPEX participants may record injection schedules on the electricity injection account, provided that the sum of all schedules is equal to the absolute value of the net sale (*verification of consistency with the net position of the account*) → If this requirement is not met, then GME shall increase/reduce the schedules

## 12 Draft Rules of the PCE submitted to operators for consultation(6/9)

➤ On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:

✓ Participants that are IPEX participants may record injection schedules on the electricity injection account, provided that:

- the sum of all schedules is lower than or equal to the absolute value of the net sale (*verification of consistency with the net position of the account*) → If this requirement is not met, then GME shall reduce the schedules
- the implicit sale from IPEX (for the so-called “planned deviation” arising when the net sale is, in absolute value, greater than the schedules declared with zero price) is adequately guaranteed towards GME (*verification of sufficiency of financial guarantees towards GME*) → If this requirement is not met, then GME shall impose a zero price on the schedules declared with a price and/or increase the schedules

## 13 Draft Rules of the PCE submitted to operators for consultation(7/9)

➤ On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:

✓ On the electricity withdrawal account, participants may record withdrawal schedules in respect of a given unit, provided that their sum is not greater, in absolute value, than the absolute value of the step-down margin of such unit, taking into account the shares of power/capacity assigned or received to or from other participants based on appropriate authorisations (*verification of consistency with the margin of units*) → If this requirement is not met, then GME shall reduce the schedules

✓ On the electricity withdrawal account, participants that are not IPEX participants may record withdrawal schedules, provided that the sum of all schedules is, in absolute value, equal to the net purchase (*verification of consistency with the net position of the account*) → If this requirement is not met, then GME shall increase/reduce the schedules

## 14 Draft Rules of the PCE submitted to operators for consultation(8/9)

➤ On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:

- ✓ On the electricity withdrawal account, participants that are IPEX participants may record withdrawal schedules even by quoting a price, provided that the sum of all schedules is, in absolute value, lower than or equal to the net purchase (*verification of consistency with the net position of the account*) → If this requirement is not met, then GME shall reduce the schedules

## 15 Draft Rules of the PCE submitted to operators for consultation (9/9)

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➤ On 5 July 2006, GME published the Draft Rules of the PCE, submitting them to operators for consultation. Under the PCE Rules:

- ✓ The PCE guarantee and settlement-of-payment system of the PCE remains separate and distinct from the one of IPEX

*Comments received from operators*



## Comments received from operators (1/4)

During the consultation process (ended on 11 September 2006), operators expressed, among others, the following suggestions:

- The need for **submitting the Technical Rules to a consultation process**, just as it happens for the Rules → *GME accepted this suggestion by submitting the Technical Rule on the estimated transmission capacity fee (CCT) to consultation on 27 October 2006*
- In case of **unavailability of power grid assets** due to events that are beyond the control of participants (e.g. force majeure), the same **participants** should be **relieved of the obligations that they have contracted on the PCE** → *GME cannot accept this suggestion because the payables and receivables arising from the PCE (and from IPEX) pertain to the schedules and not to their implementation. In case of non-compliance with the schedules owing to unavailability of power grid assets, the rules on the settlement of the resulting charges fall under the jurisdiction of AEEG and Terna.*

## Comments received from operators (2/4)

During the consultation process (ended on 11 September 2006), operators expressed, among others, the following suggestions:

- The PCE should **enable** participants **to monitor**, at any time, the status of guarantees towards Terna and GME, the net position of the account, the forwarded schedules and to track all transactions made → *GME took into account this suggestion in designing and implementing the electronic platform of the PCE*
- With regard to the qualified market participant, it is worth clarifying the requirements for acquiring such status → *the status of qualified market participant is recognised by AEEG. This is the reason why GME may not introduce into the Rules any provision governing the procedure for recognition of such status, which falls under the exclusive jurisdiction of AEEG.*

## Comments received from operators (3/4)

During the consultation process (ended on 11 September 2006), operators expressed, among others, the following suggestions:

➤ Where a planned deviation arises on an account held by a non-IPEX participant or an IPEX participant with insufficient financial guarantees, no schedules should be imposed on the units of such participant in order to nullify such deviation. Terna should bear the responsibility for and the costs of the planned deviation towards GME and possibly recoup such costs from the Dispatching Users of the units associated with the account where such deviation has occurred → GME, in consultation with Terna and AEEG, accepted this suggestion.

➤ In accordance with the Rules, units may – under appropriate authorisations - be shared by multiple participants. In this instance, the technical adequacy of the schedules submitted by each participant is verified on the basis of the share of power/capacity held by each participant. This is an inflexible provision, which is hardly consistent with the operating practices adopted by participants → GME accepted this suggestion

## Comments received from operators (4/4)

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During the consultation process (ended on 11 September 2006), operators expressed, among others, the following suggestions:

- The sessions for recording transactions should be open also on holidays → GME accepted this suggestion
  
- The guarantee system of IPEX and of the PCE should be integrated → GME took into account this suggestion
  
- With regard to the transitory provision on imports, all units for import and export should be present on the PCE → GME accepted this suggestion

***AEEG's Decision 253/06: amendments to AEEG's Decision 111/06***

## AEEG's Decision 253/06: amendments to AEEG's Decision 111/06

On 17 November 2006, AEEG published its Decision 253/06, involving the following amendments and additions to its previous Decision 111/06:

- The operationalisation of the PCE was postponed from 1 January to 1 April 2007
- Where a planned deviation arises on an account held by a participant that is not an IPEX participant or a participant that is an IPEX participant but with insufficient financial guarantees towards GME, Terna shall bear the responsibility for and the costs of such deviation and recoup such costs from the Dispatching Users of the units associated with such account
- Terna and GME shall – within a time-limit of 20 days from the date of enforcement of the Decision - communicate the dates of the most significant milestones towards operationalisation of the PCE within 1 April 2007

*Final version of the PCE Rules*

## Final version of the PCE Rules (1/3)

On 1 December 2006, GME submitted the final version of the Rules to the approval of AEEG. With respect to the version published on 5 July 2006, the new version has the following new elements:

- Accepting the comments received from operators and in accordance with AEEG's Decision 253/06, participants that are not IPEX participants and participants that are IPEX participants but with insufficient financial guarantees towards GME shall be allowed to have planned deviations. In both cases, the planned deviation shall be attributed to Terna, which shall recoup the related costs from the Dispatching Users of the units associated with the account where such deviation has occurred. GME may no longer impose schedules on such units.
- Where units are shared – under appropriate authorisations – by multiple participants, the technical adequacy of the schedules submitted by each participant shall be verified only in the Day-Ahead Market (MGP) with respect to the overall margin of the unit. The share of the margin of a given unit that each participant has available shall only be used to compute the margin of the account.



## Final version of the PCE Rules (2/3)

On 1 December 2006, GME submitted the final version of the Rules to the approval of AEEG. With respect to the version published on 5 July 2006, the new version has the following new elements:

- The guarantees required for participation in the PCE were defined: bank guarantees issued by a banking institution having a long-term rating not lower than BBB- of the Standard & Poor and Fitch scales, or BAA3 of the Moody's Investors Service scale
- The guarantee systems of IPEX and PCE were partially integrated. Participants that have already posted a bank guarantee on IPEX may allocate part of such guarantee to the coverage of their transactions on the PCE

## Final version of the PCE Rules (3/3)

On 1 December 2006, GME submitted the final version of the Rules to the approval of AEEG. With respect to the version published on 5 July 2006, the new version has the following new elements:

- The sessions for recording transactions shall be open every day from 15:00 to 20:00
- All units for import and export shall be present on the PCE

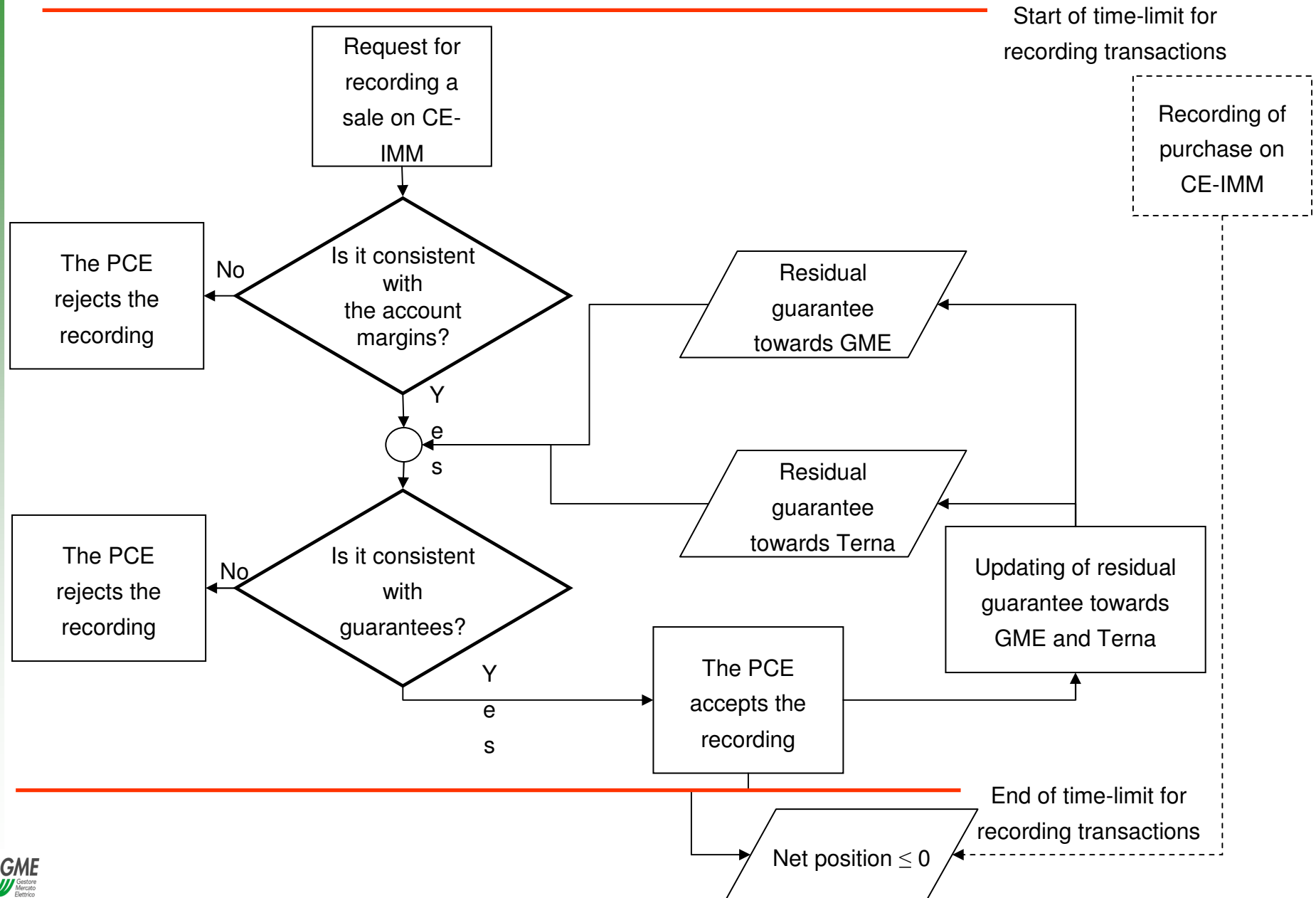
*From the recording of transactions to the recording of schedules:  
verifications made by the PCE*

## Conventions

➤ For transactions on the PCE, the following conventions are used:

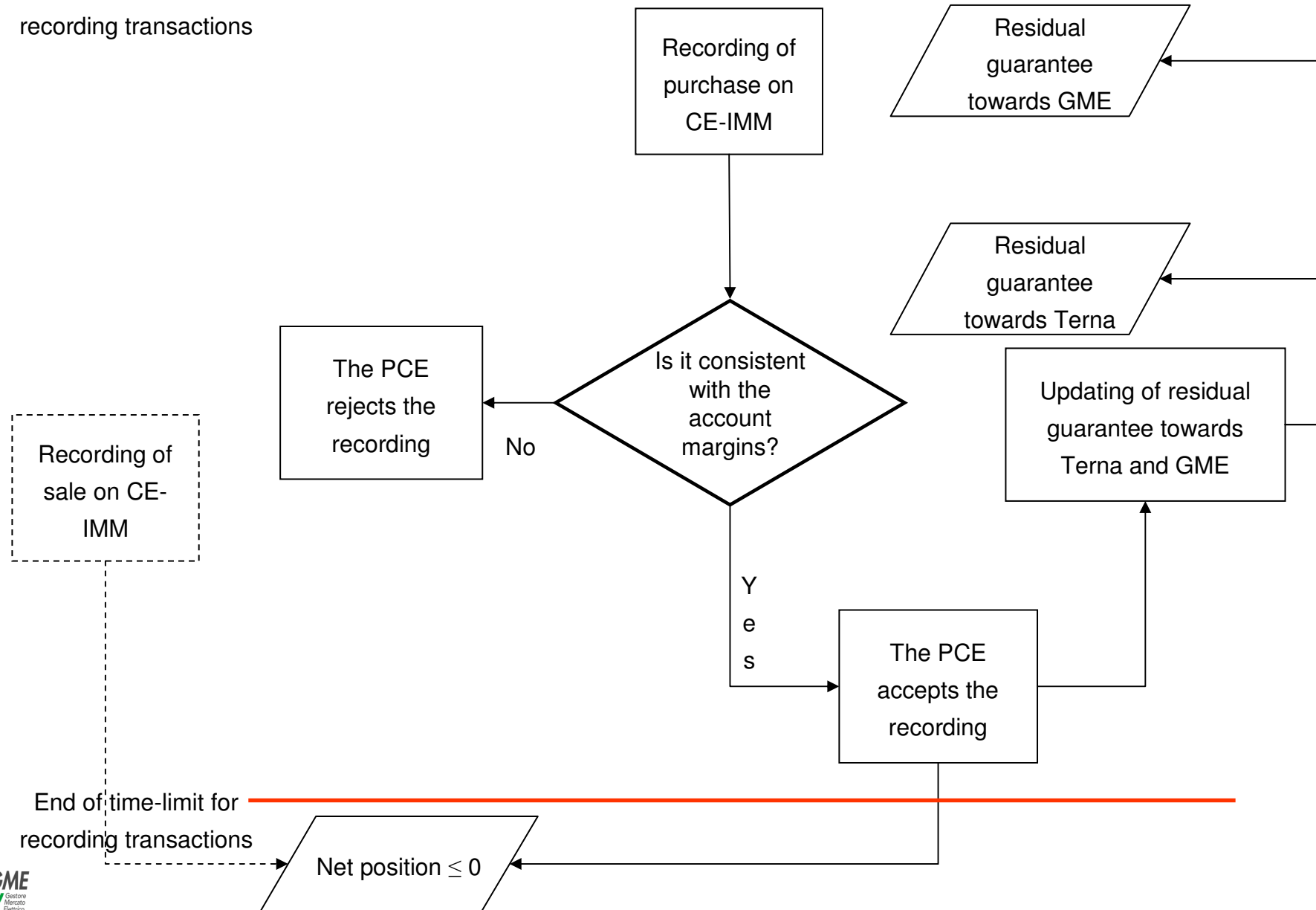
- Step-up margins  $> 0$
- Step-down margins  $< 0$
- Sale transaction  $< 0$
- Purchase transaction  $> 0$
- Injection schedule  $> 0$
- Withdrawal schedule  $< 0$
- $(\text{Sales} + \text{Purchases}) = \text{Net position of the account}$
- For electricity injection schedule:  $\text{Sales} + \text{Purchases} = \text{Net position} \leq 0 \rightarrow \text{Net sale}$
- For electricity withdrawal schedule:  $\text{Sales} + \text{Purchases} = \text{Net position} \geq 0 \rightarrow \text{Net purchase}$
- $\text{Net position} + \text{Schedules recorded on the account} = \text{physical balance of the account}$   
(planned deviation)
- For electricity injection account:  $\text{Net sale} + \text{Injection schedules} = \text{Physical balance} \leq 0 \rightarrow$   
**Purchase from Day-Ahead Market (MGP)**
- For electricity withdrawal account:  $\text{Net purchase} + \text{withdrawal schedules} = \text{Physical balance} \geq 0 \rightarrow \text{Sale to MGP}$

# Flow chart: recording of sale on electricity injection account (CE-IMM)

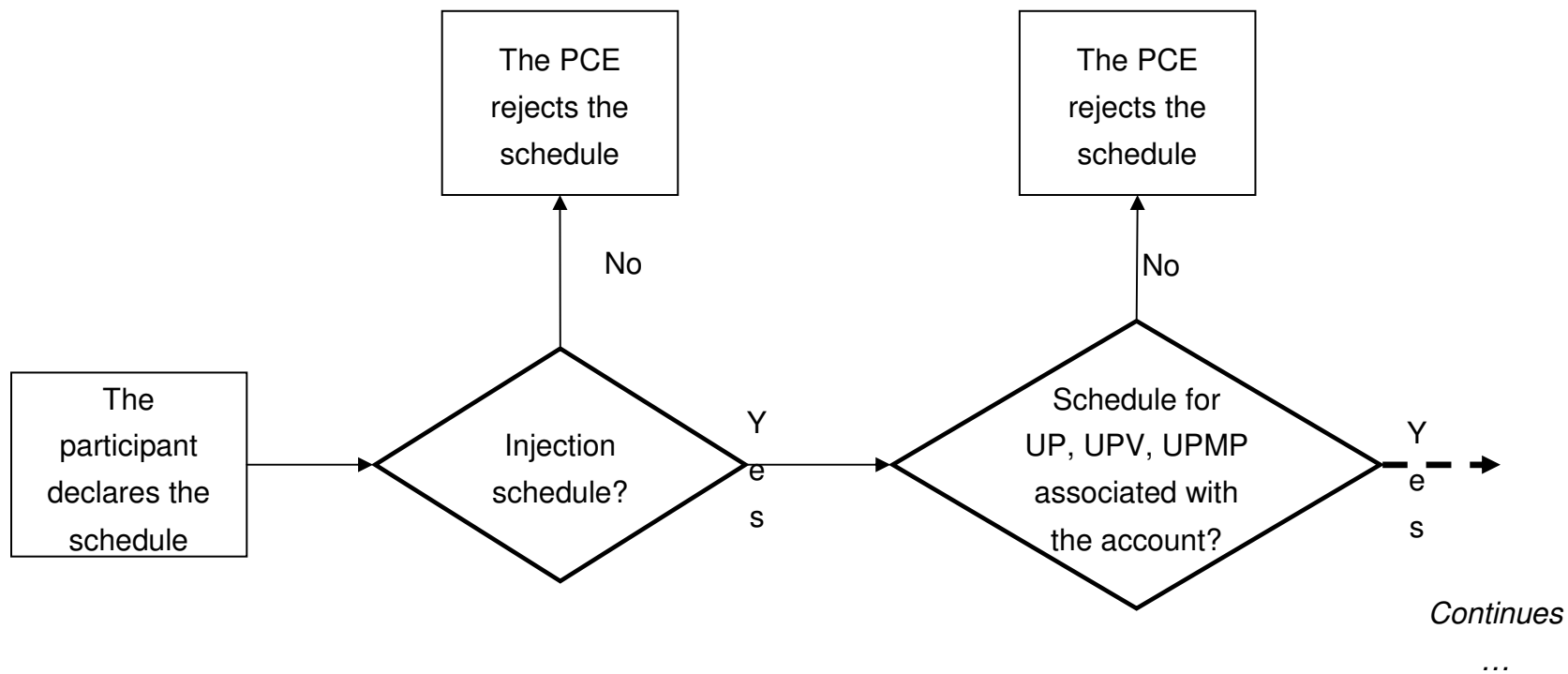


## Flow chart: recording of purchase on CE-IMM

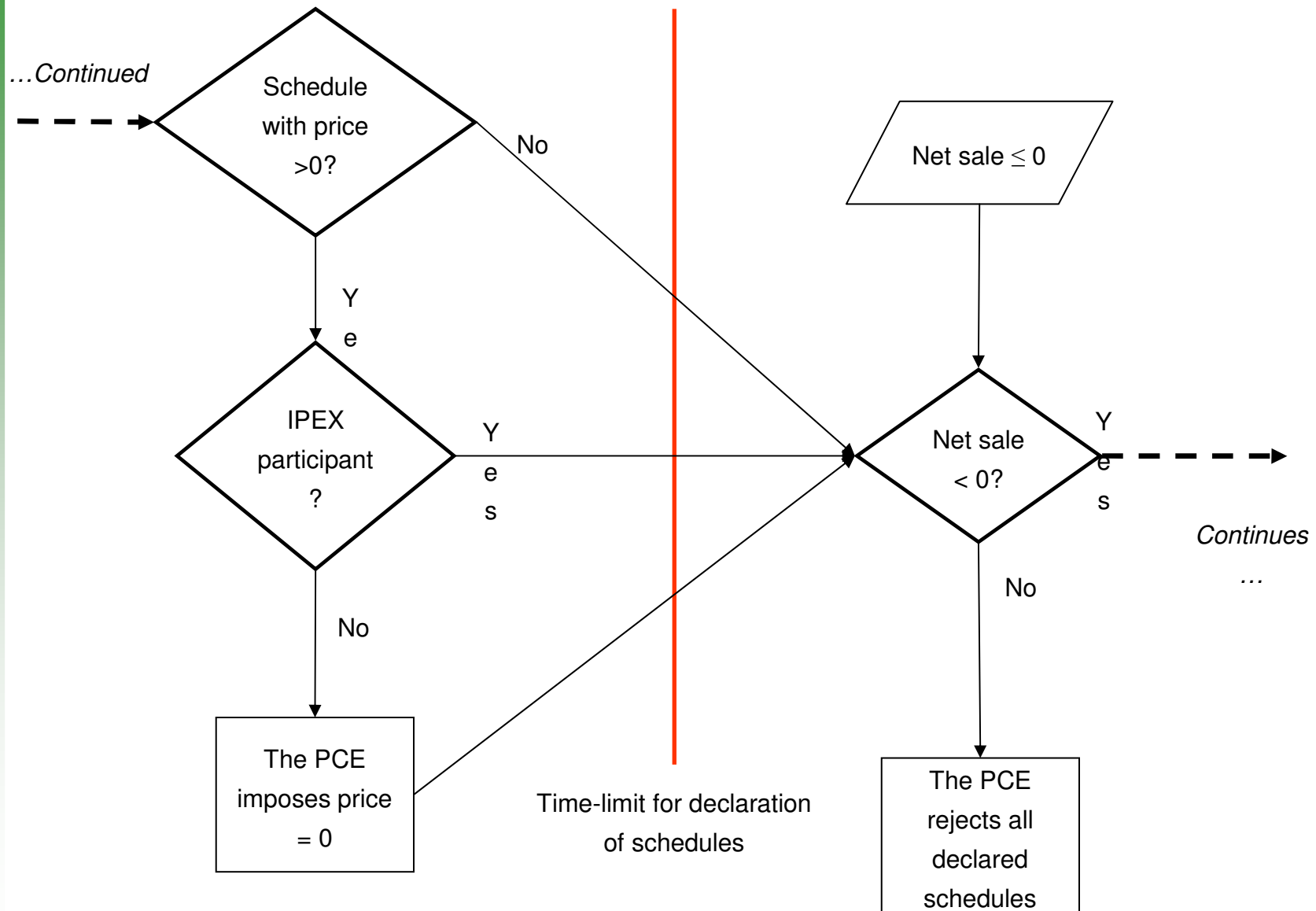
Start of time-limit for recording transactions



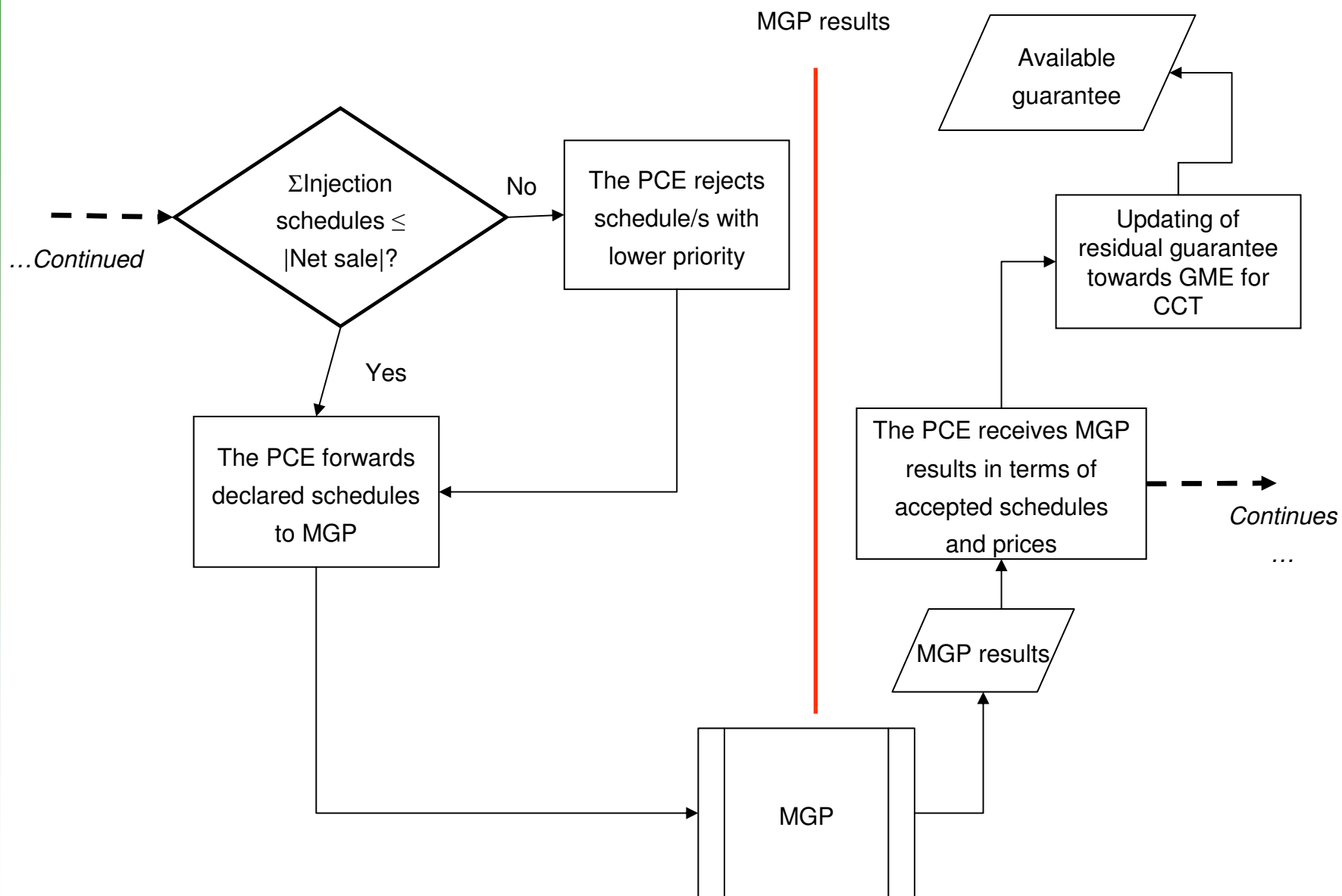
## Flow chart: declaration of schedules on CE-IMM/1



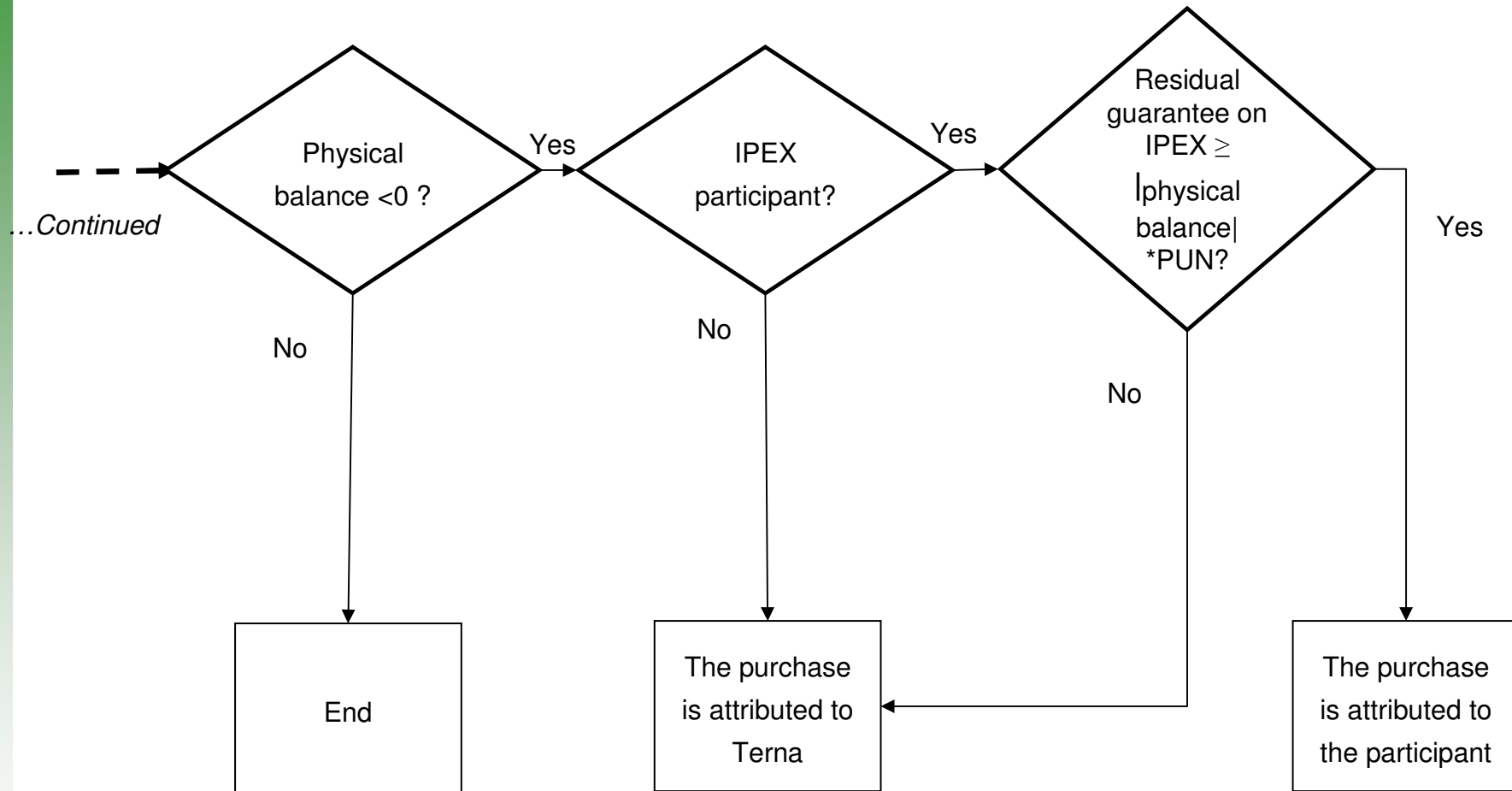
## Flow chart: declaration of schedule on CE-IMM /2



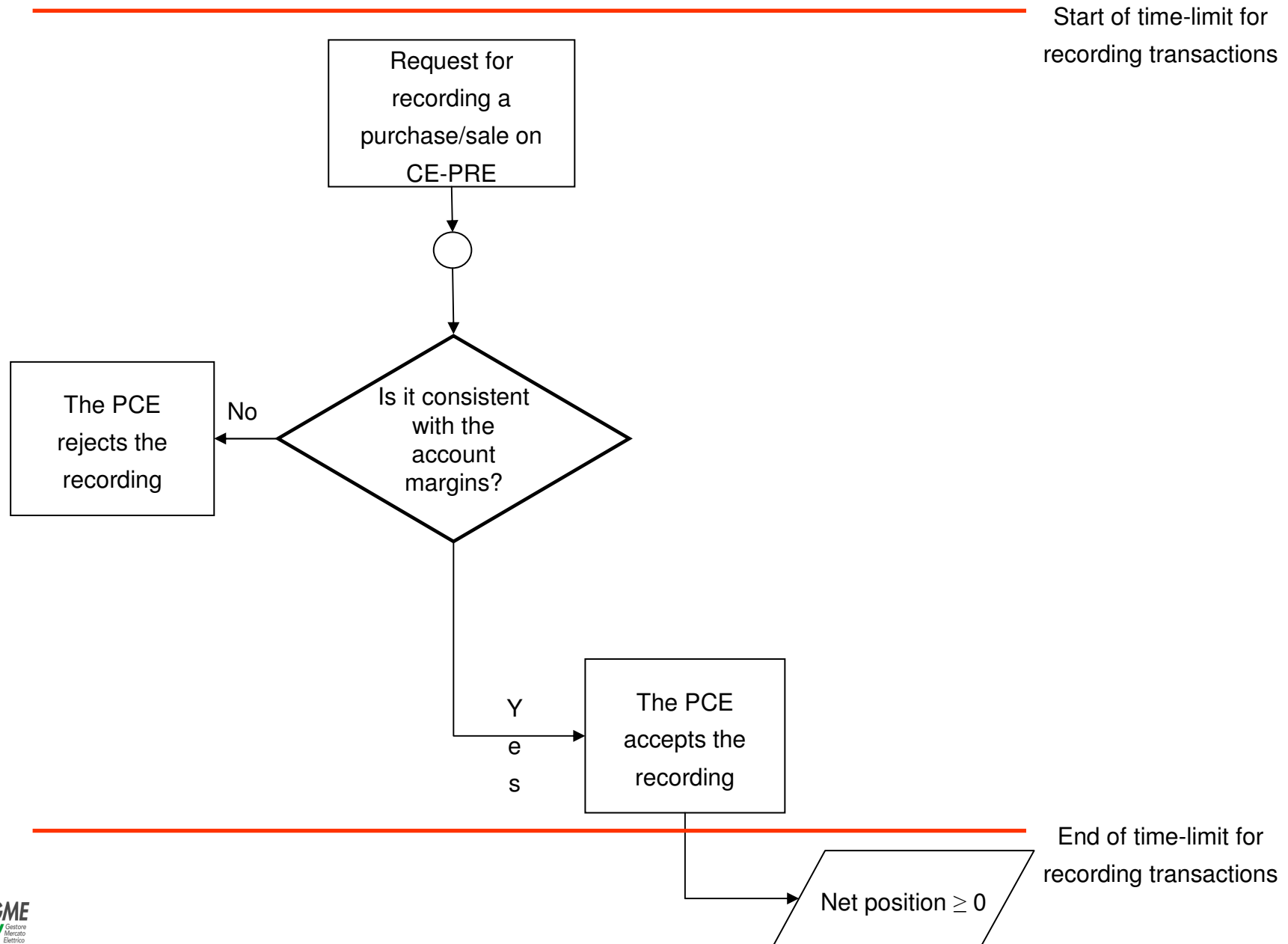




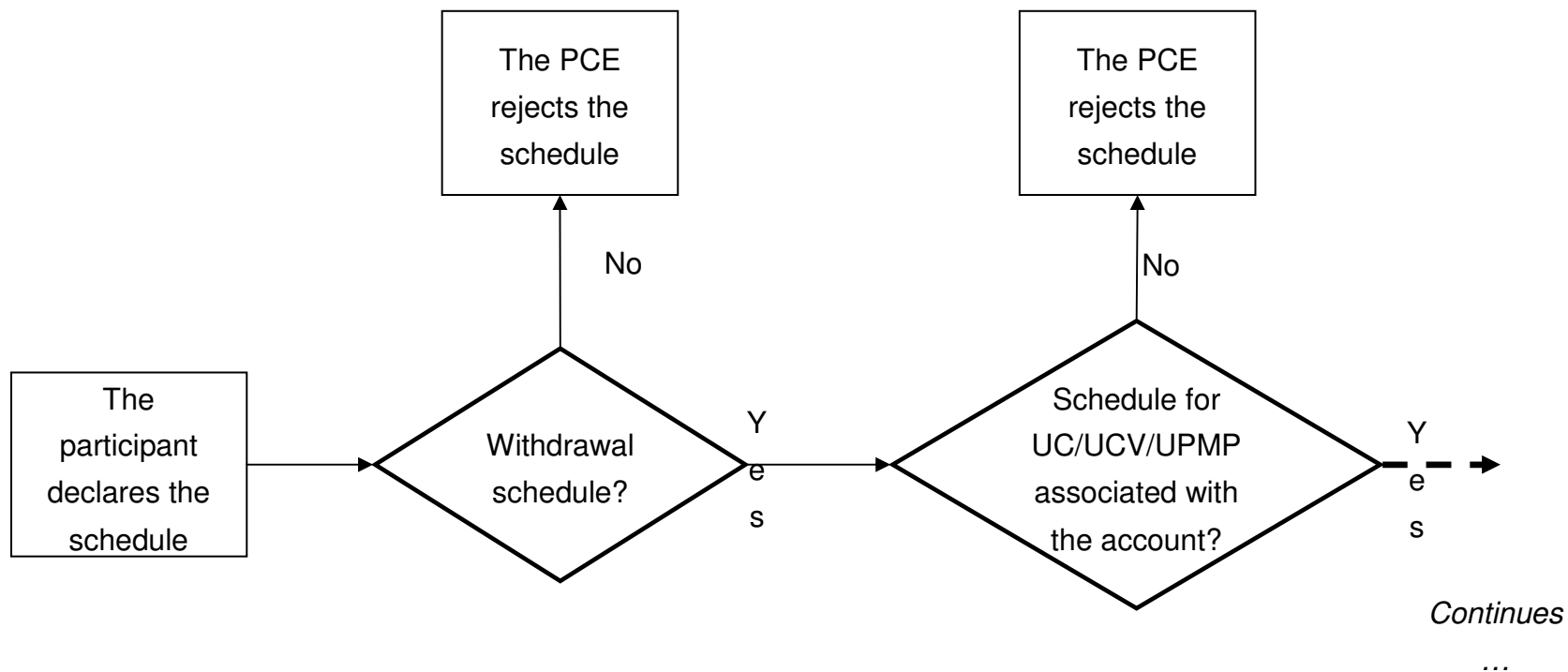
## Flow chart: assignment of physical balance on CE-IMM



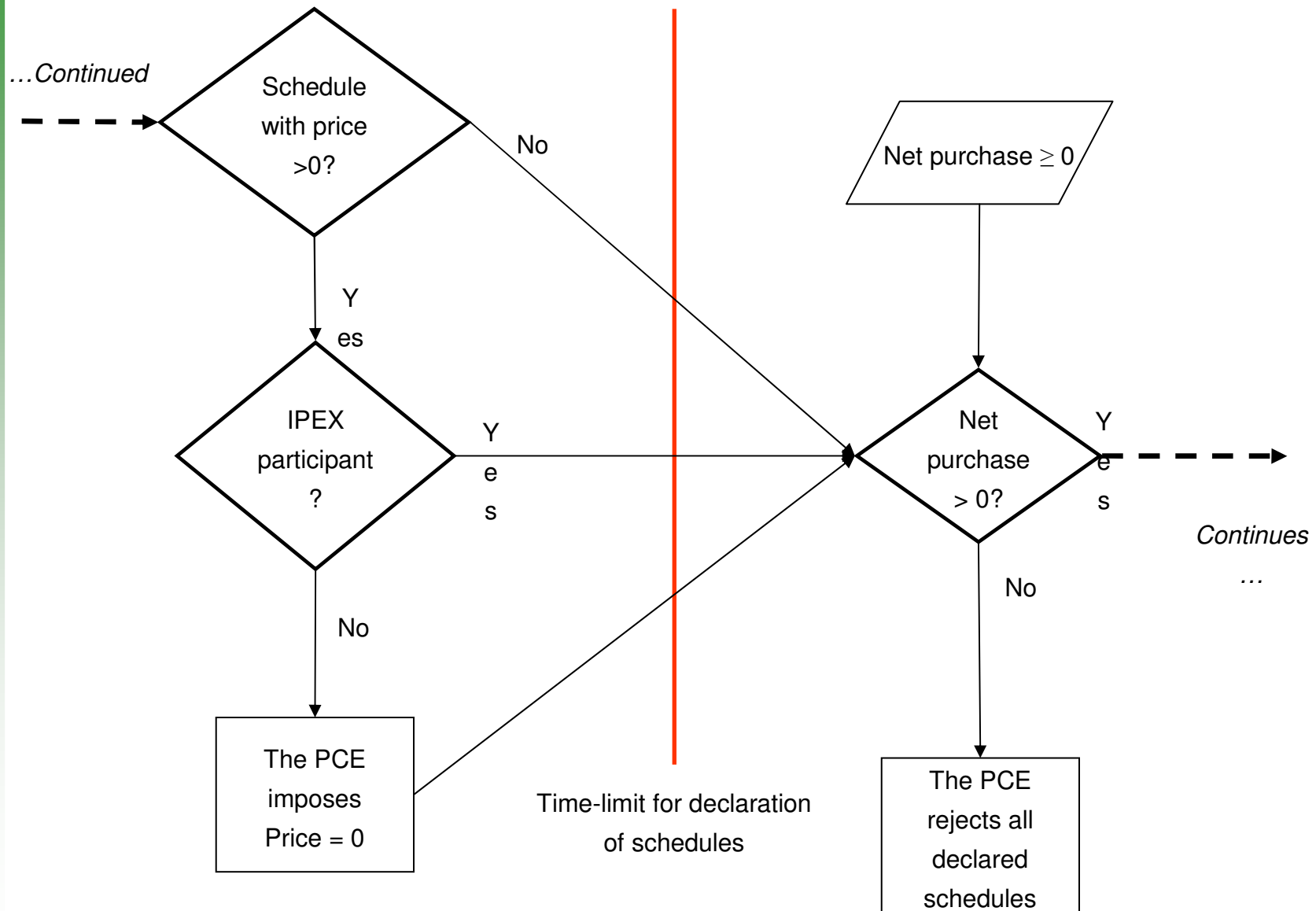
## Flow chart: recording of purchase/sale on electricity withdrawal account (CE-PRE)



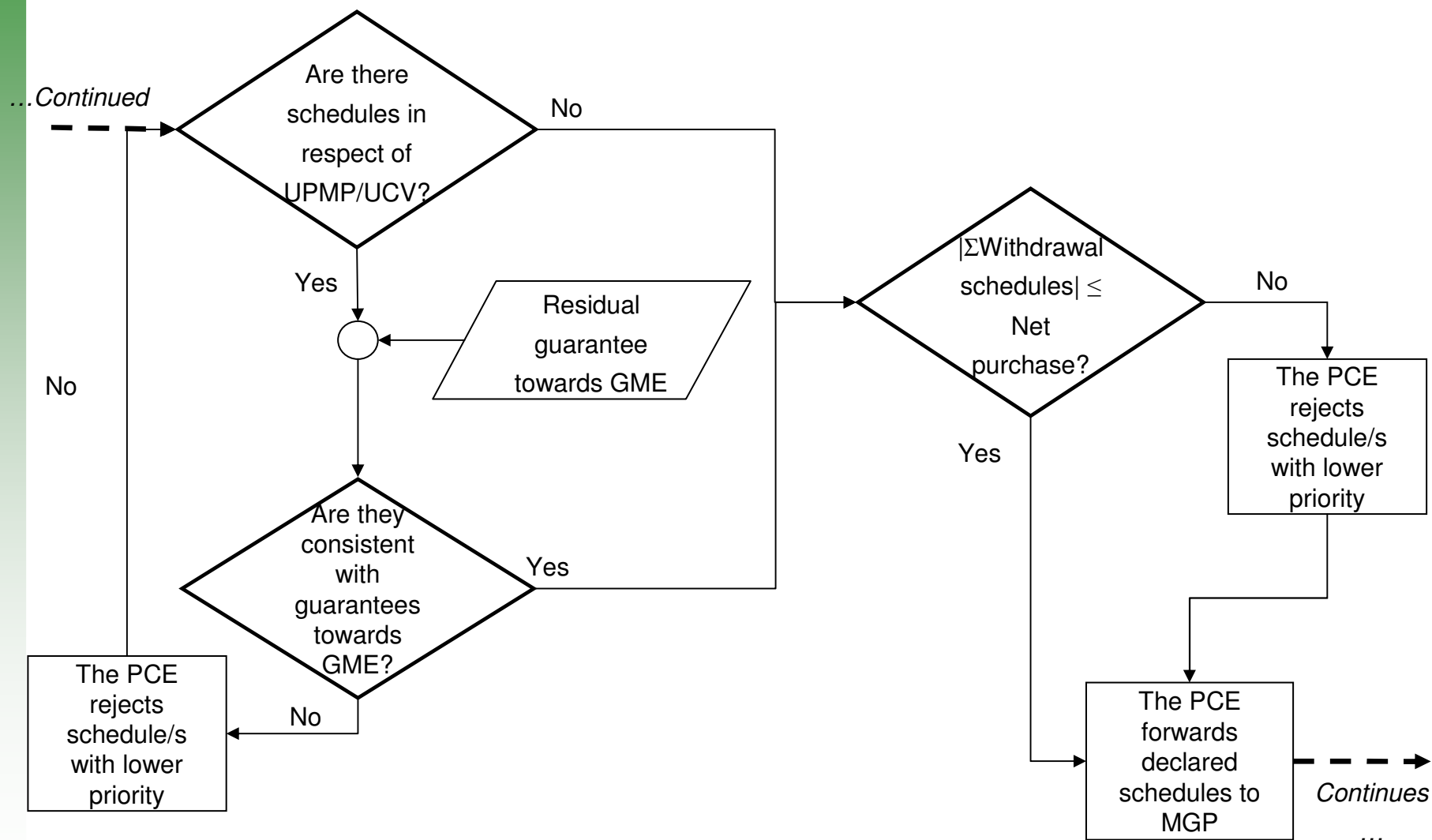
## Flow chart: declaration of schedules on CE-PRE/1

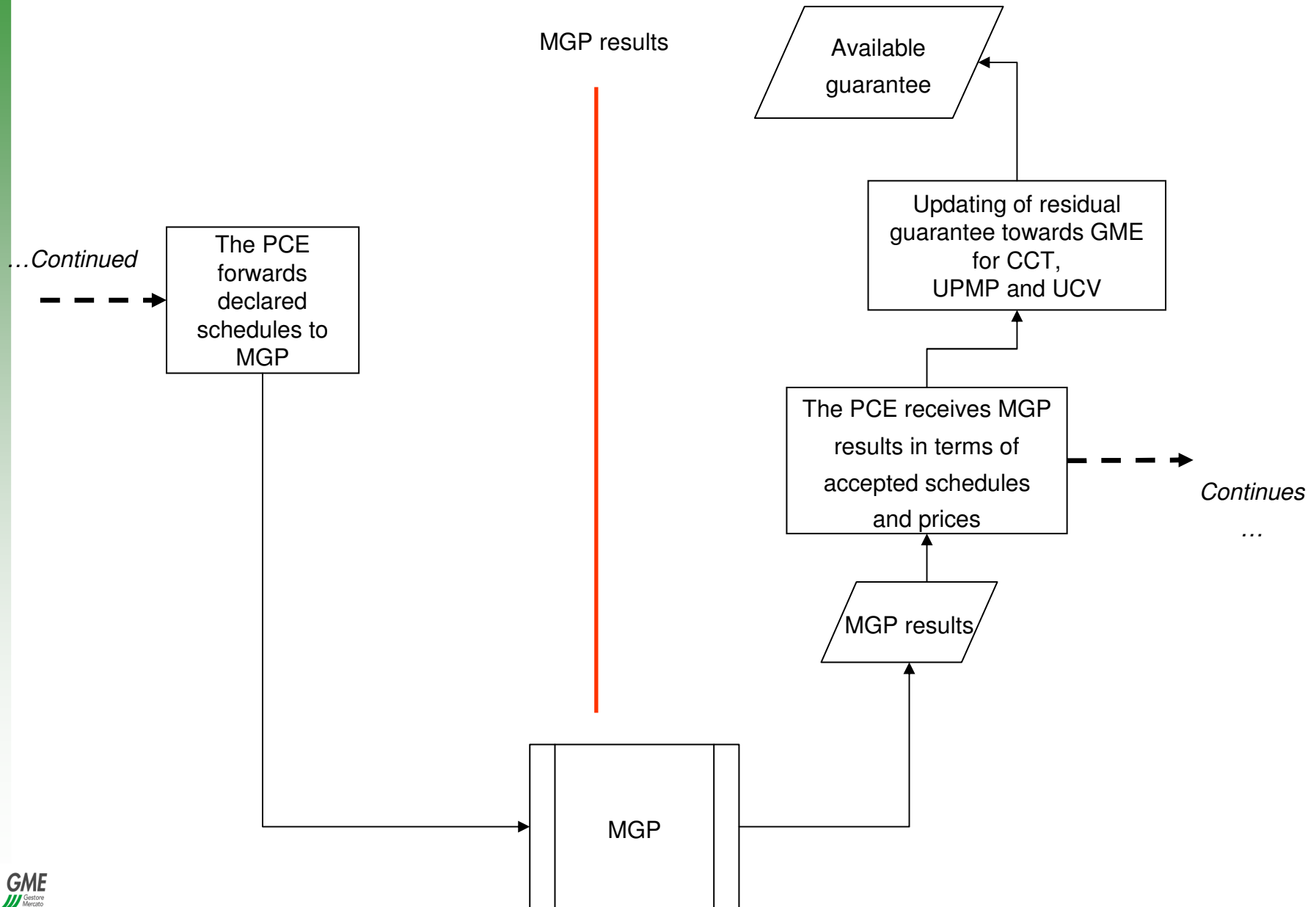


## Flow chart: declaration of schedules on CE-PRE /2

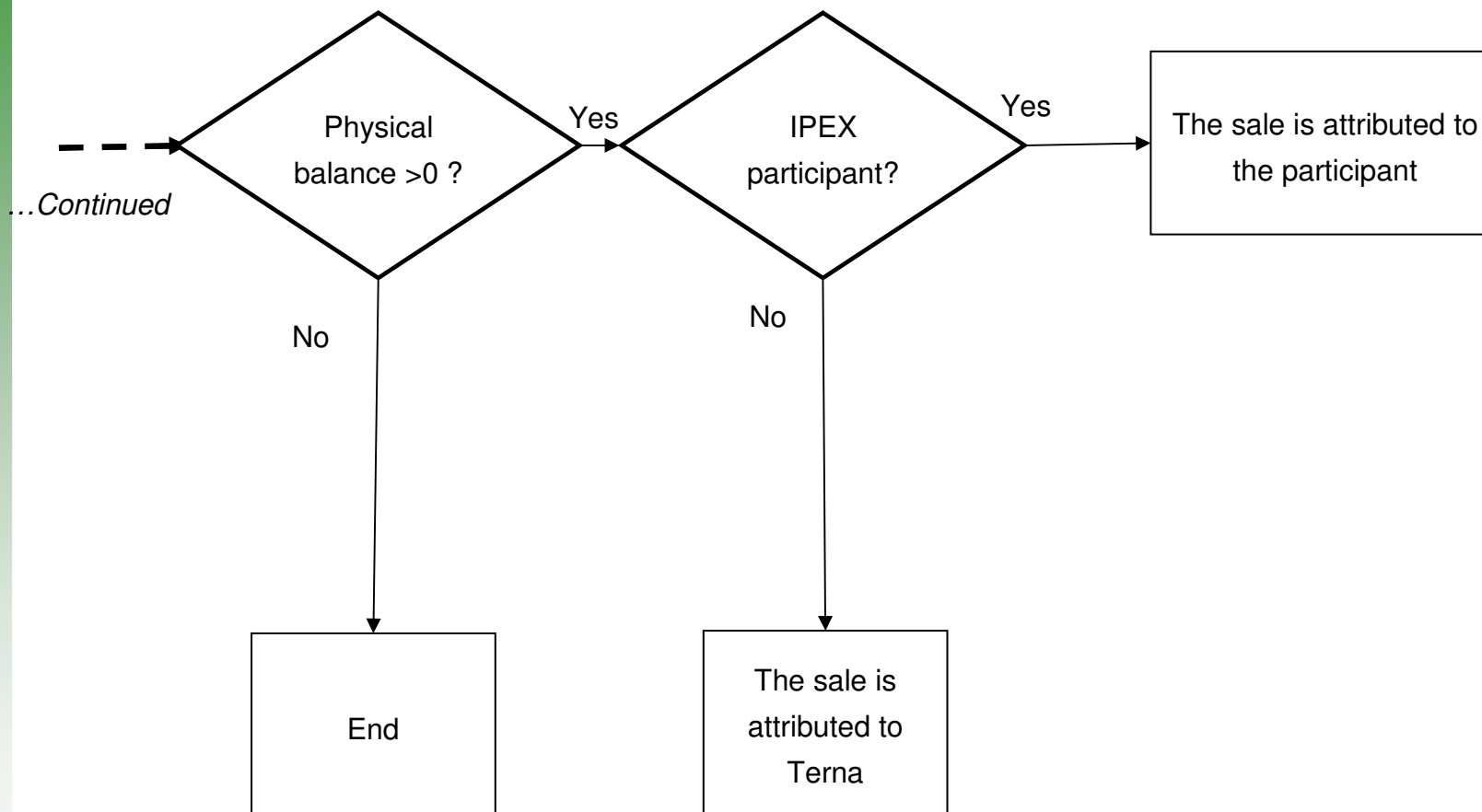


## Flow chart: recording of schedules on CE-PRE





## Flow chart: assignment of physical balance on CE-PRE





41 Technical/financial adequacy verifications

	<b>Electricity Injection Account - CE-IMM</b>	<b>Electricity Withdrawal Account - CE-PRE</b>
Recording of sale	1) $ Net\ sale\ already\ recorded + Technically\ adequate\ sales\ not\ confirmed + Sale\ of\ which\ recording\ is\ requested  \leq Step\text{-}up\ margin\ of\ the\ account$ 2) $[ Net\ sale\ already\ recorded  +  Technically\ adequate\ sales\ not\ confirmed  +  Sale\ of\ which\ recording\ is\ requested ] * CCT_{Sr} \leq Residual\ guarantee\ towards\ GME$ 3) $[ Net\ sale\ already\ recorded  +  Technically\ adequate\ sales\ not\ confirmed  +  Sale\ of\ which\ recording\ is\ requested ] * PSbil_{St} \leq Residual\ guarantee\ towards\ Terna$	$[Net\ purchase\ already\ recorded + Technically\ adequate\ sales\ not\ confirmed + Sale\ of\ which\ recording\ is\ requested] \geq 0$
Recording of purchase	$Net\ sale\ already\ recorded + Technically\ adequate\ purchases\ not\ confirmed + Purchase\ of\ which\ recording\ is\ requested \leq 0$	$Net\ purchase\ already\ recorded + Technically\ adequate\ purchases\ not\ confirmed + Purchase\ of\ which\ recording\ is\ requested \leq  Step\text{-}down\ margin\ of\ the\ account $
Time-limit for declaration of injection schedules	$\Sigma\ Injection\ schedules \leq  Net\ sale $	may not be submitted
Time-limit for declaration of withdrawal schedules	may not be submitted	1) For UPMP and UCV: $ Declared\ schedule  * CCT_{St} \leq Residual\ guarantee\ towards\ GME)$ 2) $ \Sigma\ Withdrawal\ schedules  \leq Net\ purchase$



*Next steps*

In the next few weeks, GME will post on its website **[www.mercatoelettrico.org](http://www.mercatoelettrico.org)**

- a notice specifying the procedure and requirements for registration for tests on the PCE
- a manual with the description and layout of the *.xml* files needed to trade on the PCE
- a guide to the implementation of its *web services*.