Single Electricity Market

DEMAND SIDE UNITS IN THE
SINGLE ELECTRICITY MARKET

Document History

Version	Date	Author	Comment
1.0	December 2009	SEMO	Initial Version
2.0	July 2010	SEMO	Correction of error in the calculation of capacity payments and charges

Other Reference Documentation

Reference	Link
TSC v7.0	http://www.sem-o.com/MarketDevelopment/Pages/MarketRules.aspx

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1 INTRODUCTION

1.1 PURPOSE OF THIS PAPER

This paper discusses the treatment of Demand Side Units (DSU) in the Single Electricity Market; in particular, it addresses the treatment in respect of Supplier Units. The paper has been prepared by SEMO, following a Working Group regarding the treatment of DSUs.

This paper specifically addresses why a DSU can only operate in SEM when served by a Trading Site Supplier Unit (TSSU). The reasons for this are discussed in this paper.

1.2 BACKGROUND TO DEMAND SIDE UNITS

The SEM is a gross mandatory pool, which means that all energy produced or consumed (subject to some de minimis exclusions) must be physically traded through SEM. Energy is traded via:

- Generator Units (those producing energy for trade via the SEM); or
- Supplier Units (those purchasing energy from the SEM, representing consumers of energy).

A Demand Side Unit is a special type of Generator Unit, which means that it is considered to be "producing" energy for the SEM. In simple terms, this is achieved through a reduction in the energy consumed at a demand site or sites, with the DSU being paid for the reduction in demand delivered. As defined in the Code, a DSU:

"means one or more Demand Sites which comply individually or collectively as appropriate with the criteria set out in paragraph 5.151 and is so registered by a Participant. A Demand Side Unit is classified as a Generator Unit under the Code".

2   RULES GOVERNING DEMAND SIDE UNITS

Demand Side Units are a Special Unit type in SEM, with specific rules applying to DSUs being set out in paragraphs 5.148 to 5.167 of the TSC. However, as is stated in paragraph 5.1:

*"Special Units are subject to the specific rules set out in this Section 5. These specific rules are **in addition to, or, where appropriate, in replacement of, the rules set out elsewhere in the Code and, in particular, in Section 4**".*

The emphasis added above is to highlight that all the rules that apply to Generator Units in section 4 of the TSC apply to DSUs subject to those rules being superseded by section 5 rules. Paragraph 5.152 states:

"For each Demand Side Unit, a Party (or Applicant as applicable) shall register as part of a single Trading Site in accordance with the provisions set out in paragraphs 2.60 to 2.64:

> *1.   the Demand Side Unit;*
>
> *2.   a single Supplier Unit which is a Trading Site Supplier Unit, with which the Demand Reduction is associated;*
>
> *3.   a Netting Generator Unit; and*
>
> *4.   no other Unit."*

This is illustrated below:
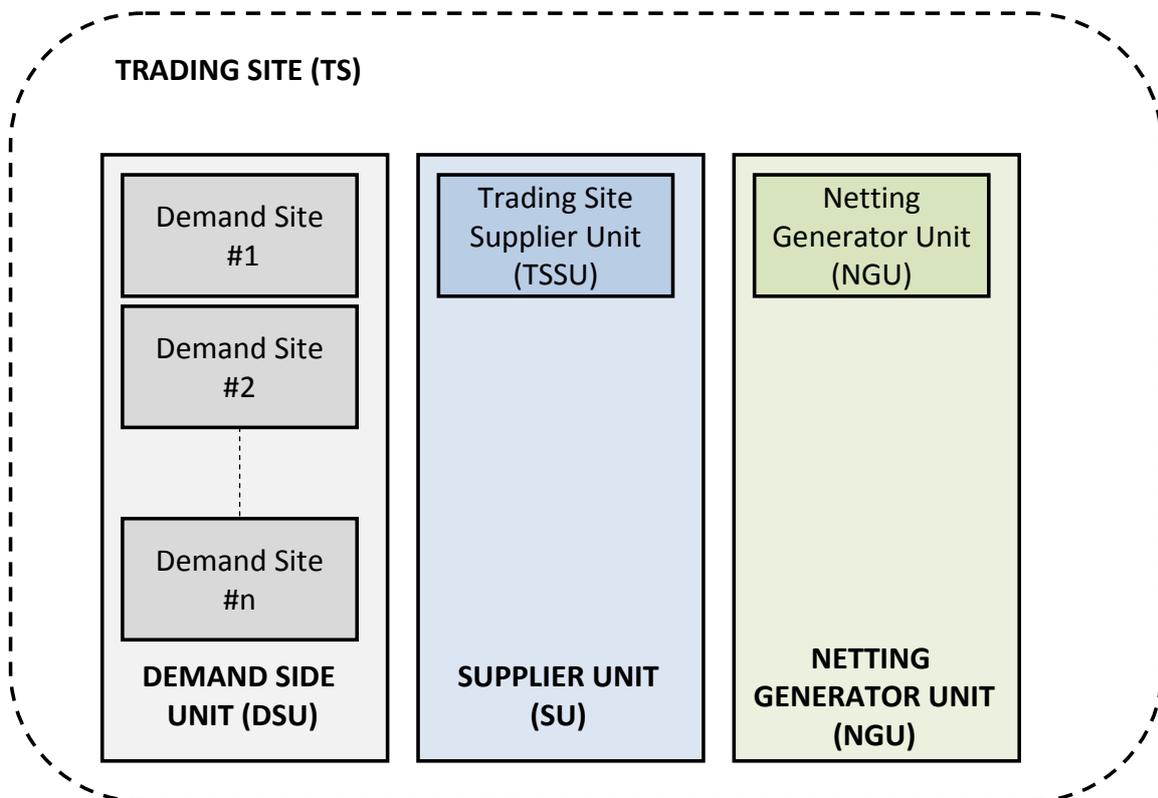
The terms used here are explained further in sections 2.1 to 2.4.

2.1 TRADING SITES (TS)

All Generator Units must be registered as part of a Trading Site. A Trading Site refers to one or more Generator Units and either a Trading Site Supplier Unit or an Associated Supplier Unit. There are two types of Trading Site:

2.1.1 TRADING SITE WITH ASSOCIATED SUPPLIER UNIT (ASU)

The first type of Trading Site incorporates an ASU, which is used to settle any Demand for that Trading Site. The ASU can be registered by another Participant and can include Demand for other Trading Sites. Generation and Demand linked to the Units within this type of Trading Site are settled on a gross basis (i.e. Generation and Demand are treated separately in settlement). The intention behind these arrangements is to ensure that if a Trading Site is importing, it is settled as Demand (within the ASU) rather than as Generation.

2.1.2 TRADING SITE WITH TRADING SITE SUPPLIER UNIT (TSSU)

The second type of Trading Site incorporates a TSSU, which is used to settle the Demand for the Trading Site only. Generation and Demand linked to the Units within this type of Trading Site are settled on a net basis (i.e. Generation and Demand are netted for settlement). The intention behind these arrangements is to facilitate net settlement at qualifying Trading Sites where there is both Generation and Demand.

2.2 DEMAND SIDE UNIT (DSU)

A Demand Site (or a number of Demand Sites provided that those Demand Sites comprise one single Supplier Unit and that those Demand Sites are within the same Currency Zone) may register a DSU if it has the ability to deliver a Demand Reduction exceeding 4MW in response to Dispatch Instructions in accordance with the relevant Grid Code. A DSU is always classed as Predictable Price Maker Generator Unit.

2.3 SUPPLIER UNIT (SU)

A collection of Demand Sites (and, potentially, generators which are below the de-minimis limit and which are not classed as Generator Units) for which metered consumption (which can be positive or negative) is aggregated. The following specific variations of Supplier Units are highlighted in the TSC:

- Error Supplier Unit - each jurisdiction has an Error Supplier Unit for which loss adjusted net demand in that jurisdiction, allowing for net transfers between jurisdictions, is calculated.
- TSSU - a Supplier Unit that contains only the Demand within a Trading Site and is settled on a net basis against the Generator Units on that Trading Site.
- ASU - a Supplier Unit that is recorded to a Trading Site but may also contain Demand outside that Trading Site and has its Demand settled on a gross basis with the Generator Unit(s) on that Trading Site.

2.4 NETTING GENERATOR UNIT (NGU)

A Netting Generator Unit must be registered by the Market Operator as part of each Trading Site (see Section 2.5 for more details regarding Trading Sites). A Netting Generator Unit is a notional Generator Unit registered to facilitate settlement of a Trading Site. Netting Generator Units do not physically exist, have no meter associated with them and are treated as Autonomous Generator Units for most purposes.

3   OPTIONS FOR A DEMAND SITE

A Demand Site (not a DSU) may opt to:

- register a TSSU and purchase their Demand directly from SEM; or
- nominate an ASU who purchases their Demand from SEM on their behalf.

The registration of an ASU is the most common approach for Trading Sites with Demand but no Generation, as the obligations and risks associated with participation in the wholesale market are associated with the ASU and not with the Demand Site itself. Commonly, a Demand Site and the registrant of the corresponding ASU would enter an arrangement outside the SEM regarding payments from the Demand Site to the ASU.

However, if a Demand Site wishes to trade some or all of this Demand in the SEM as a DSU (i.e. offering to reduce its Demand at a defined price) it must purchase this Demand from the SEM via a TSSU. As Trading Sites with a TSSU are settled on a net basis, the effect in settlement is that the Demand Site will only pay for its Metered Demand.

The main additional benefit of registering as a DSU in the SEM is that Capacity Payments will be paid for the Demand made available for reduction to the SEM.

Section 4, 5 and 6 provide some worked examples of some options for Demand Sites / DSUs:

- Section 4: Case 0 - Demand Site with an ASU and no DSU (i.e. no reduction in Demand offered to the SEM).
- Section 5: Case 1 - Trading Site with an ASU and a DSU (i.e. reduction in Demand offered to the SEM via DSU). This is a hypothetical case, as this is currently not permitted under the TSC.
- Section 6: Case 2 - Trading Site with a TSSU and a DSU (i.e. reduction in Demand offered to the SEM).

These cases illustrate the differences that would result from having an ASU instead of a TSSU serving the Demand at a Trading Site where there is a DSU and the issues that may arise as a result.

4 CASE 0: DEMAND SITE WITH AN ASU AND NO DSU

A Demand Site is registered to a Trading Site with a single Unit that is an ASU. The Trading Site contracts to purchase its Demand from the ASU. The ASU may supply a number of other Trading Sites. The contract between the Trading Site and the ASU is at a tariff that is based on a forecast of the System Marginal Price (Forecast SMP), a forecast of the Capacity Payment Demand Price (Forecast CPDP), Imperfections & Other Charges and the Cost of the ASU service. The payment from the Trading Site to the ASU is assumed to be as follows:

Trading Site to ASU

Metered Demand x Forecast SMP	**…energy**
+ Metered Demand x Forecast CPDP	**…capacity charge**
+ Metered Demand x Imperfections & other charges	**…imperfections**
+ Metered Demand x cost of ASU service	**…admin and risk**

The ASU pays for the Demand to the SEM and retains the cost of the ASU service as received from the Trading Site.

4.1 EXAMPLE 0A:

In example 0A, there is a 5MWh Demand on the Trading Site (served by an ASU).

Table 1 : Trading Site with Demand but no Generation

Input Data	Example 0A
Forecast SMP (€/MWh)	70
Actual SMP (€/MWh)	70
Forecast CPDP (€/MWh)	14
Actual CPDP (€/MWh)	14
Imperfections and other charges (€/MWh)	4
Cost of ASU service (€/MWh)	2
Metered Demand (MWh)	5

Payment - Trading Site to ASU	
Metered Demand x Forecast SMP	350
Metered Demand x Forecast CPDP	70
Metered Demand x Imperfections & other charges	20
Metered Demand x cost of ASU service	10
Total (€)	**450**

Payment - ASU to SEM	
Metered Demand x Actual SMP	350
Metered Demand x Actual CPDP	70
Metered Demand x Imperfections & other charges	20
Total (€)	**440**

Net ASU Revenue	
Trading Site Payment to ASU	450
- ASU Payment to SEM	-440
Total (€)	**10**

- **The Trading Site pays ASU €450, based on the agreed tariff.**
- The ASU pays SEM €440.
- The ASU retains €10 for providing the ASU service to Trading Site.

4.2   EXAMPLE 0B:

In example 0B, there is no Demand associated with the Trading Site (i.e. no energy consumed on the associated Demand Site).

Table 2 : Trading Site with Zero Demand and no Generation

Input Data	Example 0B
Forecast SMP (€/MWh)	70
Actual SMP (€/MWh)	70
Forecast CPDP (€/MWh)	14
Actual CPDP (€/MWh)	14
Imperfections and other charges (€/MWh)	4
cost of ASU service (€/MWh)	2
Metered Demand (MWh)	0

Payment - Trading Site to ASU	
Metered Demand x Forecast SMP	0
Metered Demand x Forecast CPDP	0
Metered Demand x Imperfections & other charges	0
Metered Demand x cost of ASU service	0
Total (€)	**0**

Payment - ASU to SEM	
Metered Demand x Actual SMP	0
Metered Demand x Actual CPDP	0
Metered Demand x Imperfections & other charges	0
Total (€)	**0**

Net ASU Revenue	
Trading Site Payment to ASU	0
- ASU Payment to SEM	0
Total (€)	**0**

- **The Trading Site pays nothing to ASU, as no energy has been consumed.**
- The ASU pays nothing to SEM, as no energy is purchased from the SEM.

5   CASE 1: TRADING SITE WITH AN ASU AND A DSU

N.B. – This arrangement is not possible under the Code but is included here for illustrative purposes. Currently, only TSSUs are permitted with DSUs.

A Demand Site is registered to a Trading Site with a DSU and an ASU. The Trading Site contracts to purchase its Demand from the ASU, which may supply a number of Trading Sites. The contract between the Trading Site and the ASU is at a tariff that is based on Forecast SMP and Forecast CPDP. The Trading Site may offer to reduce demand (via the DSU) by submitting commercial offers to the SEM and may be scheduled to reduce if selected by the relevant MSP Software Run or as dispatched by the relevant System Operator.

Trading Site to ASU

The contract between the Trading Site and the ASU is at a tariff that is based on Forecast SMP, Forecast CPDP, Imperfections & Other Charges and the Cost of the ASU service. The payment from the Trading Site to the ASU is assumed to be as follows:

Initial Demand x Forecast SMP	**…energy**
+ Initial Demand x Forecast CPDP	**…capacity charge**
+ Initial Demand x Imperfections & other charges	**…imperfections**
+ Initial Demand x Cost of ASU service	**…admin and risk**

N.B. – This payment is based on the Initial Demand i.e. the Demand prior to any reduction. The Trading Site is buying this Initial Demand from the ASU and then selling it back to SEM in the form of reduced Demand through the DSU.

Payments from SEM

The Trading Site would be paid from the SEM for its Demand Reduction as follows:

Demand Reduction x Actual SMP	**…energy**
+ Available Reduction x Actual CPGP	**…capacity payment**

Payments to SEM

The ASU pays for the Initial Demand from the SEM as follows:

Initial Demand x Actual SMP	**…energy**
+ Initial Demand x Actual CPDP	**…capacity charge**
+ Initial Demand x Imperfections & other charges	**…imperfections**

5.1 EXAMPLE 1A:

In example 1A, there is a 5MWh Demand on the Trading Site. The Trading Site has a DSU registered, offering to reduce Demand by 5MWh, but is not scheduled to reduce its Demand.

Table 3 : Trading Site with Demand and a DSU (no demand reduction)

Input Data	Example 1A
Forecast SMP (€/MWh)	70
Actual SMP (€/MWh)	70
Forecast CPDP (€/MWh)	14
Actual CPDP (€/MWh)	14
Actual CPGP (€/MWh)	7
Imperfections and other charges (€/MWh)	4
Cost of ASU service (€/MWh)	2
Initial Demand (MWh)	5
Metered Demand (MWh)	5
Available Reduction (MWh)	5
Demand Reduction (MWh)	0

Payment - Trading Site to ASU	
Initial Demand x Forecast SMP	350
+ Initial Demand x Forecast CPDP	70
+ Initial Demand x Imperfections & other charges	20
+ Initial Demand x cost of ASU service	10
Total (€)	**450**

Payment - SEM to Trading Site (DSU Revenue)	
Demand reduction x Actual SMP	0
+ Available reduction x Actual CPGP	35
Total (€)	**35**

Payment - ASU to SEM	
Initial Demand x Actual SMP	350
+ Initial Demand x Actual CPDP	70
+ Initial Demand x Imperfections & other charges	20
Total (€)	**440**

Net Trading Site Revenue	
DSU Revenue from SEM	35
- Trading Site payment to ASU	-450
Total (€)	**-415**

Net ASU Revenue	
Trading Site Payment to ASU	450
- ASU Payment to SEM	440
Total (€)	**10**

- The Trading Site pays ASU €450 for its Initial Demand, based on the agreed tariff.
- The DSU receives €35 in Capacity Payments.
- **The Net Trading Site Revenue is -€415. This is a reduction on Case 0A.**
- The ASU pays SEM €440 for the Initial Demand.
- The ASU retains €10 for providing the ASU service to Trading Site.

5.2 EXAMPLE 1B:

In example 1B, there is a 5MWh Demand on the Trading Site. The Trading Site has a DSU registered, offering to reduce Demand by 5MWh and is required to reduce its Demand by 5MWh.

Table 4 : Trading Site with Demand and a DSU (demand reduced)

Input Data	Example 1B
Forecast SMP (€/MWh)	70
Actual SMP (€/MWh)	70
Forecast CPDP (€/MWh)	14
Actual CPDP (€/MWh)	14
Actual CPGP (€/MWh)	7
Imperfections and other charges (€/MWh)	4
Cost of ASU service (€/MWh)	2
Initial Demand (MWh)	5
Metered Demand (MWh)	0
Available Reduction (MWh)	5
Demand Reduction (MWh)	5

Payment - Trading Site to ASU	
Initial Demand x Forecast SMP	350
+ Initial Demand x Forecast CPDP	70
+ Initial Demand x Imperfections & other charges	20
+ Initial Demand x Cost of ASU service	10
Total (€)	**450**

Payment - SEM to Trading Site (DSU Revenue)	
Demand Reduction x Actual SMP	350
+ Available Reduction x Actual CPGP	35
Total (€)	**385**

Payment - ASU to SEM	
Initial Demand x Actual SMP	350
Initial Demand x Actual CPDP	70
Initial Demand x Imperfections & other charges	20
Total (€)	**440**

Net Trading Site Revenue	
DSU Revenue from SEM	385
- Trading Site Payment to ASU	-450
Total (€)	**-65**

Net ASU Revenue	
Trading Site Payment to ASU	450
- ASU payment to SEM	-440
Total (€)	**10**

- The Trading Site pays ASU €450 for its Initial Demand, based on the agreed tariff.
- The DSU receives €385 in Energy and Capacity Payments.
- **The Net Trading Site Revenue is -€65 for not using any Demand.**
- The ASU pays SEM €440 for the Initial Demand.
- The ASU retains €10 for providing the ASU service to Trading Site.

5.3   EXAMPLE 1C:

In Example 1C, the Forecast and Actual SMPs differ by €13/MWh. The Trading Site has a DSU registered, offering to reduce Demand by 5MWh and is required to reduce its Demand by 5MWh.

Table 5 : Trading Site with Demand and a DSU (demand reduced, ASU forecast error)

Input Data	Example 1C
Forecast SMP (€/MWh)	70
Actual SMP (€/MWh)	83
Forecast CPDP (€/MWh)	14
Actual CPDP (€/MWh)	14
Actual CPGP (€/MWh)	7
Imperfections and other charges (€/MWh)	4
Cost of ASU service (€/MWh)	2
Initial Demand (MWh)	5
Metered Demand (MWh)	0
Available Reduction (MWh)	5
Demand Reduction (MWh)	5

Payment - Trading Site to ASU	
Initial Demand x Forecast SMP	350
+ Initial Demand x (Forecast CPDP)	70
+ Initial Demand x (Imperfections & other charges)	20
+ Initial Demand x (cost of ASU service)	10
Total (€)	**450**

Payment - SEM to Trading Site (DSU Revenue)	
Demand Reduction x (Actual SMP)	415
+ Available Reduction x (Actual CPGP)	35
Total (€)	**450**

Payment - ASU to SEM	
Initial Demand x (Actual SMP)	415
+ Initial Demand x (Actual CPDP)	70
+ Initial Demand x (Imperfections & other charges)	20
Total (€)	**505**

Net Trading Site Revenue	
DSU Revenue from SEM	450
- Trading Site Payment to ASU	-450
Total (€)	**0**

Net ASU Revenue	
Trading Site Payment to ASU	450
- ASU payment to SEM	-505
Total (€)	**-55**

- The Trading Site pays ASU €450 for its Initial Demand, based on the agreed tariff
- The DSU receives €450 in Energy and Capacity Payments, due to higher SMP
- The Net Trading Site Revenue is €0 for not using any Demand
- The ASU pays SEM €505 for the Initial Demand, due to higher SMP
- **The Net ASU Revenue is -€55 due forecast error between Forecast SMP and Actual SMP.**

6   CASE 2: TRADING SITE WITH A TSSU AND A DSU

A Demand Site is registered to a Trading Site with a DSU and a TSSU. As registrant of the TSSU, the Trading Site is purchasing its Demand directly from the SEM. The Trading Site may offer to reduce demand (via the DSU) by submitting commercial offers to the SEM and may be scheduled to reduce if selected by the relevant MSP Software Run or as dispatched by the relevant System Operator. In cases where a Trading Site has a DSU and a TSSU, the Trading Site is settled for its net Demand. In addition, the DSU is paid for the capacity it makes available for reduction (Available Reduction).

Payments to SEM

The Demand costs paid to the SEM with respect to the TSSU are on a net basis (i.e. based on its Metered Demand after any Demand Reduction):

Metered Demand x Actual SMP	**…energy**
+ Metered Demand x Actual CPDP	**…capacity charge**
+ Metered Demand x Imperfections & other charges	**…imperfections**

Payments from SEM

As the TSSU is settled net of any Demand Reduction, the DSU receives only Capacity Payments for its Available Reduction:

Available Reduction x Actual CPGP	**…capacity payment**

Internal Costs

The Trading Site would also incur some costs for having a TSSU as follows:

Cost of TSSU	**…admin and risk**

6.1 EXAMPLE 2A:

In example 2A, there is a 5MWh Demand on the Trading Site. The Trading Site has a DSU registered, offering to reduce Demand by 5MWh and is not scheduled to reduce its Demand.

Table 6 : Trading Site with TSSU and a DSU (demand not reduced)

Input Data	Example 2A
Forecast SMP (€/MWh)	n/a
Actual SMP (€/MWh)	70
Forecast CPDP (€/MWh)	n/a
Actual CPDP (€/MWh)	14
Actual CPGP (€/MWh)	7
Imperfections and other charges (€/MWh)	4
Cost of TSSU service (€)	10
Initial Demand (MWh)	5
Metered Demand (MWh)	5
Available Reduction (MWh)	5
Demand Reduction (MWh)	0

Payment - TSSU to SEM	
Metered Demand x (Actual SMP)	350
+ Metered Demand x (Actual CPDP)	70
+ Metered Demand x (Imperfections & other charges)	20
Total (€)	**440**

Payment - SEM to Trading Site (DSU Revenue)	
Available Reduction x (Actual CPGP)	35
Total (€)	**35**

Net Trading Site Revenue	
DSU revenue from SEM	35
- TSSU Payment to SEM	-440
- Cost of TSSU	-10
Total (€)	**-415**

- The Trading Site pays €440 to SEM for the Demand related to the TSSU.
- The DSU receives €35 in Capacity Payments.
- The internal cost of managing TSSU is €10.
- **The Net Trading Site Revenue is -€415. This is a reduction on Case 0A (same as Case 1A).**

6.2 EXAMPLE 2B:

In example 2B, there is a 5MWh Demand on the Trading Site. The Trading Site has a DSU registered, offering to reduce Demand by 5MWh and is required to reduce its Demand to zero.

Table 7 : Trading Site with TSSU and a DSU (demand reduced)

Input Data	Example 2B
Forecast SMP (€/MWh)	n/a
Actual SMP (€/MWh)	70
Forecast CPDP (€/MWh)	n/a
Actual CPDP (€/MWh)	14
Actual CPGP (€/MWh)	7
Imperfections and other charges (€/MWh)	4
Cost of TSSU service (€)	10
Initial Demand (MWh)	5
Metered Demand (MWh)	0
Available Reduction (MWh)	5
Demand Reduction (MWh)	5

TSSU Payment to SEM (Trading Site to SEM)	
Metered Demand x (Actual SMP)	0
+ Metered Demand x (Actual CPDP)	0
+ Metered Demand x (Imperfections & other charges)	0
Total Trading Site Payment to ASU	**0**

DSU revenue from SEM (SEM to Trading Site)	
Available Reduction x (actual CPGP)	35
Total (€)	**35**

Net Trading Site payment (Trading Site)	
DSU revenue from SEM	35
- TSSU Payment to SEM	0
- Cost of TSSU	-10
Total (€)	**25**

- The Trading Site pays €0 to SEM for the Demand related to the TSSU.
- The DSU receives €35 in Capacity Payments.
- The internal cost of managing TSSU is €10.
- **The Net Trading Site Revenue is €25. This is in contrast to the losses in Cases 1B and 1C.**

7   CONCLUSIONS

The current SEM rules state that a DSU must register a TSSU. Registration as a Supplier Unit in the SEM imposes certain obligations (e.g. credit cover requirements) and risks (e.g. price risk). In normal circumstances, a Demand Site would purchase their electricity from an ASU through the retail market, with the Demand Site entering into arrangements outside of SEM to manage its electricity costs. The advantage being that any Supplier Unit obligations or risks with respect to the SEM fall with the ASU. When registering a DSU with a TSSU (as required by the Code), the Participant must take on all obligations and risks with respect to the Demand Sites that are included in the DSU.

7.1   TRADING SITES WITH AN ASU

The Trading and Settlement Code does not allow Trading Sites containing DSUs to register an ASU.

A Trading Site with an ASU is settled on a gross basis (i.e. total "Generation" and total Demand separately). If a Trading Site with a DSU were to purchase its energy from an ASU, it would essentially be buying energy in the retail market and selling it back to the wholesale market via the DSU. Cases 1B and 1C in this paper demonstrate that this is inherently inefficient and potentially problematic for both the DSU and the ASU.

As Demand and Generation for Trading Sites with ASUs are settled on a gross basis, Demand is charged as if it had not reduced and the DSU is paid for its Generation (i.e. the Demand reduction). As a result, the Trading Site pays Capacity Charges, which are higher than the Capacity Payments, and also has to pay Imperfections Charges. This can be seen in Case 1B.

If the DSU offers Demand into SEM for reduction at the ASU tariff price plus any potential shortfall and the DSU were scheduled in SEM, SMP would then reflect not only the Forecast SMP but also the cost of the ASUs service and any DSU shortfall. This may result, in the short term, in the DSU not making a loss but would result in an erosion of the ASUs margin through the SMP being raised by the cost of the ASU's service and any expected DSU shortfall. The ASU would have to raise their tariff to reflect this expected increase resulting in loop that would continually raise the SMP. This is can be seen in example 1C.

7.2   TRADING SITES WITH A TSSU

For Trading Sites with TSSUs, settlement is on a net basis. As a result, reduction in Demand, through the DSU reduces all charges associated with that Demand (i.e. to zero if the Demand reduces to zero). In addition, the DSU continues to be paid Capacity Payments for the available Demand reduction. This benefit can be seen in Case 2B. This outcome is in contrast to the losses experienced by the Trading Site and the ASU in Cases 1B and 1C respectively.

Having a Trading Site with a DSU and TSSU brings with it added responsibilities of managing a Supplier Unit in SEM. However, there also a number of benefits:

- The Demand for the site is purchased directly from the wholesale market and thus avoids having to pay the ASU service costs and any risk premia that may be present in retail tariffs.

- The Code does not restrict Parties from entering arrangements outside of SEM in order to manage their obligations and risks e.g. a TSSU would be able to avail of both Directed Contracts and Non-Directed Contracts with Generators.

- The Trading Site can also use the DSU to manage its costs in the SEM.