Responses from P82 Draft Report Consultation
Consultation issued 21 November 2002

Representations were received from the following parties:

No	Company	File Number	No. BSC Parties Represented	No. Non-Parties Represented
1.	EdF Trading and EdF Generation	P82_DR_001	2	
2.	Chemical Industries Association	P82_DR_002		1
3.	energywatch	P82_DR_003		1
4.	BOC Gasses	P82_DR_004		1
5.	Corus Group	P82_DR_005		1
6.	British Gas Trading	P82_DR_006	5	
7.	Innogy	P82_DR_007	7	
8.	NGC	P82_DR_008	1	
9.	British Energy	P82_DR_009	3	
10.	SEEBOARD	P82_DR_010	1	
11.	Scottish and Southern	P82_DR_011	4	
12.	Gaz de France Energy Supplies	P82_DR_012		1
13.	Energy Intensive Users Group	P82_DR_013		1
14.	Scottish Power	P82_DR_014	3	
15.	LE Group	P82_DR_015	4	
16.	Teeside Power	P82_DR_016	1	
17.	Edison Mission Energy	P82_DR_017	1	

P82_DR_001 – EdF Trading & EdF Generation

On behalf of EdF Trading Ltd and EdF (Generation), please note that we would support the Alternative P82 Modification, despite the lack of clarity of its impact, especially with regards the interaction with BETTA and the Government's initiatives on renewables.

Overall, we still believe that its implementation, through the more accurate allocation of the cost of transmission losses, would result in the more efficient despatch in the short-term, as well as more efficient location of generation and demand in the long-term. Furthermore we consider that the implementation of Alternative P82 would not be too expensive (as would be P75). It should also not unduly penalise individual BM Units and losses will be allocated according to the degree to which individual BM Units give rise to them.

Competition should then also be enhanced overall by the promotion of efficient operation and investment, due to the removal of the cross-subsidy inherent in the current allocation of the losses.

We acknowledge though that there needs to be a smooth transition to the new arrangements, not least because of existing contracts, and therefore support the four year phase in from the implementation date.

With kind regards

Steve Drummond
UK Market Adviser to EdFT

P82_DR_002 – Chemical Industries Association

Thank you for the correspondence on Modification p75 and P82. Further to our response to the panel's consultation, we are pleased that the panel has judged not to recommend either of the modifications. Though we are not against the principle of better cost allocation we, like the panel, are unconvinced that the objectives against which such modifications are made will be better met by either proposal. CIA agrees that the increase in the efficiency of the operation of the Transmission Network and enhancement in competition remain un-proven. We also support the view that the benefits of more cost reflective pricing might well be offset by the additional risk and costs introduced.

We support the panel's judgement on the above modifications that neither should be implemented.

Yours sincerely.
Rob Siddall.
ROBERT SIDDALL
UTILITIES POLICY MANAGER
CHEMICAL INDUSTRIES ASSOCIATION

P82_DR_003 – energywatch

P82 report comments

energywatch fully supports the Panel's recommendation to and rationale for rejecting P82 and P82A as set out in section 5 of the report.

P82_DR_004 – BOC Gasses

Please note the following comments apply to both P75 and P82 reports.

BOC supports the recommendations of the Panel not to proceed with P75 (or alternative) or P82 (or alternative) together with the rationale for the recommendations. Our response to the Modification Group's consultation (shown in the email below) sets out our views on why the proposed Modifications should be rejected.

Best wishes

Hugh Mortimer, Commercial Manger-Utilities, BOC Gases

P82_DR_005 – Corus Group

Please note the following comments apply to both P75 and P82 reports.

Corus very much supports the recommendations of the Panel not to proceed with P75 (or alternative) or P82 (or alternative) together with the rationale for the recommendations. Our response to the Modification Group's consultation sets out our views on why the proposed Modifications should be rejected, so we will not repeat them here as they will be included in annexes to the reports.

I should add that I attended virtually all meetings of the TLFMG and as the only end-consumer there contributed to the debate, particularly on the implications for demand. However, as I was not formally a member of the TLFMG, I was barred from expressing a preference on the group's recommendations to be included in the Assessment Reports. In view of the very narrow majority of the group in favour of the proposed modifications, it is quite likely that, had I been able to express a preference, the outcome may have been different. It might also be worth pointing out that, in contrast with the positions some members of the TLFMG seem to hold, Corus does not have a vested interest in the sense that we would gain or lose materially from the introduction of zonal losses. Any benefits for our plants in the North would be offset by disbenefits for our South Wales works. Apart from believing that the BSC objectives would not be enhanced by these proposals, our objection is that the size of the alleged problem does not justify either the costs involved or the creation of winners and losers. Moreover, whereas it is questionable whether any generation will locate or relocate as a result of zonal losses, we are convinced that no demand would.

P82_DR_006 – British Gas Trading

RE: Modification Proposal P75: Introduction of zonal transmission losses
Modification Proposal P82: Introduction of zonal transmission losses on an average basis
Modification Proposal P105: Introduction of zonal Transmission Losses on a marginal bases without phased implementation

Thank you for the opportunity of responding to the above named consultations. This response is made on behalf of British Gas Trading Ltd, Accord Energy Ltd, Centrica King's Lynn Ltd, Centrica Peterborough Ltd and Regional Power Generators Ltd.

We support changes that would improve the efficiency of the wholesale electricity market and the improved allocation of costs to those that cause them. However, before any change is embarked upon it should be demonstrated that benefits outweigh the costs and that any risks can be satisfactorily managed and are clearly offset by other benefits. In the case of Transmission Losses, the main benefits arise as a result of the targeting of costs on those that cause them and the production of long term signals for siting of generation and demand.

We agree these are appropriate aims and believe a scheme could be devised to achieve these targets. However, we have some concerns relating to the above named proposals and their alternatives which we do not believe have been fully addressed by the work of the Modification Group. We hope that in the following letter we have clearly identified those concerns, albeit some of which fall outside the vires of the BSC, and explained our lack of support for these proposals.

In summary we do not support the introduction of any of the above modifications in their present form.

Long term signals
All of these proposals purport to provide appropriate long term signals that will influence the investment decisions of current and future market participants. We agree this will be true to an extent but are concerned about short term impact on the existing generation and demand who will have a limited ability to respond to any signals.

Furthermore, given the many factors (economic and physical) involved in siting the location of a new factory or power station, the signals provided by any losses scheme will be of minor importance. In the case of some developments, renewables generation for example, the choice of site is limited by the availability of the renewable resource such as wind. In our opinion the efficiency of any losses scheme would be compromised if it were to seek to account for these factors.

Volatility of Signals
The signals provided by the losses schemes are only efficient if they are consistent. We are concerned that the schemes proposed, particularly P75 with half hourly calculation of losses, will be highly volatile. For example, if a power plant trips off the

system it will have a large impact under P75 but this is only a short term incident and it would be inappropriate and inefficient for any investment decisions to be made on the basis of such transient events.

The impact of this volatility is partially mitigated by P72 Alternative and P105 but is still present. A monthly change in losses signals is still too short to provide efficient, stable signals to the market. In our view the annual approach taken by P82 would provide effective, stable and usable signals for market participants. However, it would still suffer from the drawback (that exists with the present zonal use of system charges) that as soon as new plant is located to respond to the signal then the benefit is mitigated. Thus, in effect such 'signals' only work as penalties on plant and demand which has already fixed its location. They can never be 'captured' as a reward!

We are also concerned that the ex post calculation of losses increases the risk to Parties and makes it more difficult to calculate the actual losses a Party would face pre Gate Closure.

Allocation of Costs

Correct allocation of costs to those that cause them should improve the efficiency of the market. We do not believe P75 and P105 will improve efficiency. The volatility in the pricing signals and the marginal approach taken by these proposals will overstate the level of losses recorded and as such will not correctly allocate costs and will penalise existing demand and generation for investment decisions taken prior to these discussions. The point made above over the inability to reward also undermines the apparent fairness of this type of implementation.

Interaction with TNUoS and access

Currently there is locational pricing in transmission charges. We are concerned that the combined impact of these proposals and the transmission charges have not been assessed in any forum.

In addition to the interaction with TNUoS we note that the Transmission Access Standing Group under CUSC is making progress towards the introduction of revised Access arrangements. These are also intended to provide locational signals to NGC and participants. It is our belief that there is a significant risk of confusing and conflicting signals arising from these different elements of the market arrangements.

Government policy

Due to BSC rules, Modification Groups are unable to give due consideration to matters that lie outside the BSC, the Transmission Losses Modification Group have therefore been unable to give any consideration to issues outside the BSC beyond noting their presence. As such there has been no adequate consideration of wider Government policy such as the impact of these proposals on renewable generation and the Government's Kyoto objectives nor BETTA. We perceive this to be a major failing of these proposals and believe that with the introduction of BETTA it will be essential to revisit these arrangements to account for the impact on Scottish generation and demand. We do not believe it is an effective nor efficient way to run a

process and strongly believe any decision on these proposals should be held over until after the implementation of BETTA.

Costs to consumers

We believe there is a considerable risk that under these proposals the financial burden of losses will simply be reallocated without the ability of those affected to respond in a way that makes any material difference to the level of losses, ultimately leading to increased costs to consumers. The proportion of losses that is likely to be reduced by this mechanism is going to be small thus the absolute benefit for the costs involved is highly questionable.

One of the arguments used by the proposers in support of their modification proposals is that the long term cost signals will provide efficient signals for the location of generation and demand. Whilst we accept that there may be some merit in this argument for a limited amount of new build generation we do not believe this will be the case for all demand, particularly domestic load.

Phasing

Should either of these proposals be progressed to implementation we believe phased implementation is the appropriate approach to take. It has been stated that the industry should have been prepared for the introduction of a zonal losses scheme as the intention has been widely publicised by the regulator. Whilst we accept that this has been the case it is only recently that the actual proposed scheme has been detailed and discussed. We therefore believe it is unreasonable to expect all Parties, both old and new, to have developed systems and strategies for mitigating the impact of a losses scheme.

Should you wish to discuss any of the issues further please do not hesitate to contact me in the first instance on 01753 758156.

Yours faithfully

Danielle Lane
Contracts Manager

P82_DR_007 – Innogy

Draft Modification Report
Modification Proposal P82 – Introduction of Zonal Transmission Losses on an Average Basis
Innogy Comments

The following comments are made on behalf of Innogy plc, Npower Limited, Innogy Cogen Trading Limited, Innogy Cogen Limited, Npower Direct Limited, Npower Northern Limited, Npower Yorkshire Limited.

We note that the BSC Panel are recommending that both Modification Proposal P82 (P82) and Alternative Modification P82A (P82A) are rejected by the Authority.

We do not support the Panel's recommendation with respect to P82. We believe that this proposal could better achieve the applicable objectives when compared to the current baseline, particularly in relation to improving efficiency and competition, as well as removing the current cross subsidy in the allocation of losses.

We support the Panel's recommendation with respect to P82A. We believe that this proposal would significantly delay the benefits relating to the removal of cross subsidies available under P82 with consequent effects on efficiency and competition.

P82_DR_008 – NGC

General Comments on Losses Modifications Legal Text

(P82 and P82 Alternative)

1. Section 1.3c) says that a nodal TLF is the rate of change of losses with respect to the change of power flow at that node. This is **misleading**, since it perpetuates the common misconception that a TLF is a one-sided parameter. Because a loadflow must always balance, a TLF describes the rate of change of losses with an injection at one node *and* a balancing extraction at another node (or set of nodes). This is why TLFs can be sensitive to the choice of slack node, since normally it is the slack node that picks up the mismatch. This is sufficiently important that I think the text should be amended here. Suggest

"…with respect to change of power flow at that node, with network balance being maintained by the slack node."

2. Section 2 uses the acronym LFM that needs to be defined.

3. Section 2.2a) says that only heating losses are considered. This usually means I^2R losses rather but iron losses that also cause heating (iron losses considered as being fixed losses). Therefore "heating losses" could be ambiguous. It might be clearer to refer to losses associated with the flow of current in network branches.

4. Section 2.2b)iii) "the sine of the phase angle is equal to the phase angle" – may be clearer to specify:

   *"the sine of the **voltage** phase angle…"*

5. Section 2.2b)iv) "the power flow is equal to the ratio between the difference in the phase angles divided by the reactance." It may be better to say:

*"the power flow **in a branch** is equal to the ~~ratio between the~~ difference in the **voltage** phase angles **across the branch** multiplied by the branch **susceptance**."*

   The branch susceptance (the imaginary part of the branch admittance) is not just the reciprocal of the branch reactance; it is also affected by the branch resistance.

   Does PTI's DC loadflow take this into account? If so, PTI LFM would not match the definition given in the sentence as written.

6. Section 4.6 - Don't understand how TLFs for Scottish transfers would be calculated. Does this section cover for both import and export across the Scottish interconnector?

7. Section 5.1a) – As section 2.2 defines a DC loadflow there is no need for information to be provided for static voltage compensators and shunt reactances. It would be better for 5.1a)ii) to read

"for each such pair of nodes, values of the resistance and reactance between such nodes."

8. Section 5.3 – This puts quiet an onus on the Transmission Company to supply information in an unspecified format. If systems are required to extract the relevant data

into a format that may regularly change, there could be considerable time and expense in updating the systems depending on what format is required.

We supplied data to PTI in an agreed format and I believe that this is the best way to codify the requirement. I would suggest:

"…cooperate so as to ensure that the Network Data provided by the Transmission Company is sufficient for the TLFA to operate the LoadFlow Model. The data will be provided in an electronic form."

Specific P82 Alternative Comment

9. Section 7.5 – Should the BSC year end on 31 March?

P82_DR_009 – British Energy

To: Modification Secretary

From: Rachel Ace

Date: 3 December

British Energy strongly supports the BSC Panel's recommendations as set out in this draft report to the Authority that Modification Proposal P82 and its alternative should not be made.

In reaching this decision the Panel took full account of all the very detailed analysis undertaken by the TLFMG, the modelling results and the consultation responses received and correctly in our view concluded that neither the Proposed Modification nor the Alternative Modification would better facilitate achievement of the Applicable BSC Objectives.

We also agree with the Panel's view that any increase in the efficiency of the operation of the Transmission Network (i.e. Applicable BSC Objective (b)) and enhancement in competition (i.e. Applicable BSC Objective (c)) ascribed to the Proposed Modification were not proven. We believe that the Panel was right to take the view that conclusive evidence that the proposed zonal differentiation would allocate the cost of transmission losses more accurately than the present arrangements had not been presented.

Regards

Rachel Ace

On behalf of

British Energy Power and Energy Trading
British Energy Generation
Eggborough Power Ltd

P82_DR_010 – SEEBOARD

With respect to draft modification report dated 21st November 2002 for proposal P82 (Introduction of Zonal Transmission Losses on an Average Basis). We agree with recommendations within section 1.1 of this report that neither original nor alternative modification should be made.

Dave Morton
SEEBOARD Energy Limited

P82_DR_011 – Scottish and Southern

This response is sent on behalf of Scottish and Southern Energy, Southern Electric, Keadby Generation Ltd and SSE Energy Supply Ltd.

Further to your note of 21st November 2002, and the associated Draft Modification Report for P82, and in accordance with our previous comments on P82, together with our responses to consultations associated with P75 and P105, we agree with the proposed BSC Panel recommendation to the Authority that the Proposed Modification P82 and the Alternative should not be made.

Despite some 6 months of development through the TLFMG, there is as yet no significant cost benefit analysis or justification for P75, P82, their Alternatives or P105. As the BSC Panel rightly point out, any reported benefits remain unproven and are unlikely to outweigh the significant risks. As such we do not believe P75, P82, their Alternatives or P105 would improve efficiency or meet the required BSC Objectives and can not therefore be implemented.

Other specific concerns include the following:

- There is a significant risk that substantial windfall gains and losses would be made by existing parties without any good reason. It is also unlikely that locational signals to either demand or new developing generation such as wind generation would alter their behaviour. Other factors such as location of resource are likely to continue to be of more importance. At best, P75, P82, their Alternatives or P105 will only increase investment uncertainty and impact on the ongoing viability of existing generation and supply.

- As P75, P82, their Alternatives or P105 are likely to significantly impact on the development of renewable projects this will put at risk the ability of the industry to meet the Governments' objectives in this area. It would also be contrary to Ofgem's statutory duty with respect to the environment.

- There is significant turmoil in the market at present. P75, P82, their Alternatives or P105 would add to the complexity of the market and increase risk. We would suggest there are more important issues which need to be address by the industry and Ofgem.

- Consultations are due to take place on BETTA. If BETTA is to be implemented successfully and within the required timescale, we believe it will be essential that no significant reform of NETA; such as those outlined in P75, P82, their Alternatives or P105; is undertaken at this time. Any such reform could jeopardise the success of the BETTA project.

Regards

Garth Graham
Scottish and Southern Energy plc

P82_DR_012 – Gaz de France Energy Supplies

Consultation response on draft final Transmission Losses P75/P82 reports

On behalf of Gaz de France Energy Supply Solutions from Rob Watson, Trading Director

- **BSC Modification Proposal P75 - Introduction of Zonal Transmission Losses**

- **BSC Modification Proposal P82 - Introduction of Zonal Transmission Losses on an Average Basis**

Thank you for the opportunity to comment on the content of the draft P75 and P82 final reports to be submitted to the BSC Panel 12th December 2002. We agree that the draft reports accurately reflect the fact that the BSC panel rejected modifications P75, P82 and their alternates. Gaz de France Energy Supply Solutions fully concurs with the views expressed by the panel in support of rejection of the modifications. We agree with the rationale of the panel for rejection, in particular the lack of proven cost benefit of the proposals, the inability of Demand and Supply to respond to the locational element of each modification and the interaction of the modifications with the proposed April 2004 introduction of BETTA.

P82_DR_013 – Energy Intensive Users Group

Comments below relate to **Modifications P75** & **P82**

EIUG supports the BSC Panel's recommendation not to proceed with these modifications (or alternatives). We note the comments in the draft modification reports that neither could be shown to better facilitate achievement of the BSC objectives, nor had it been demonstrated that they would improve efficiency of the transmission network and/or enhance competition.

In response to the initial consultation, we questioned the need to introduce charging for transmission losses on a zonal basis at all. We argued that either modification would result in windfall winners and losers, but no net benefit for demand as a whole. We expressed the view that the marginal cost approach would be particularly distorting, because it clearly would produce exaggerated signals.
EIUG therefore hopes the Panel's recommendation is accepted, and trusts that the decision not to proceed will not be overturned.

Jeremy Nicholson
Director - Energy Intensive Users Group

P82_DR_014 – Scottish Power

P82 Draft Modification Report Comments

With reference to the above, ScottishPower fully support the Panel's recommendation that neither the Proposed Modification P82 nor the Alternative Modification should be made. We do not believe that the alleged increase in efficiency due to the zonal differentiation of transmission losses would outweigh the implementation costs, which would be imposed on the industry, and the increased costs, which would arise from the increased perception of regulatory risk surrounding the industry. We also do not believe the transfer of value between BSC Parties (and between customers) promotes competition.

Whilst the phasing element of the Alternative Proposal would to a limited extent ameliorate the impact of the change in the method of allocating losses we do not believe that it would be sufficient to outweigh the disbenefits inherent in the Proposal.

We therefore concur with the Panel that the Proposals do not better achieve the Applicable BSC Objectives and should not be made.

I trust that you will find these comments helpful. Nonetheless, should you require further clarification of any of the above, please do not hesitate to contact me.

Yours sincerely,

Man Kwong Liu
Calanais Ltd.
For and on behalf of: - *ScottishPower Energy Trading Ltd.; Scottish Power Generation plc; ScottishPower Energy Retail Ltd.*

P82_DR_015 – LE Group

Please note the following comments in response to the P82 Modification Report on behalf of LE Group (representing London Electricity Plc, Jade Power Generation Ltd, Sutton Bridge Power, West Burton Ltd).

We believe that both P82 and P82 Alternative better facilitate the BSC objectives for several reasons as detailed below.

* The scaled marginal method of calculating Transmission Loss Factors (TLFs), as proposed by P82, is intended to approximately allocate only the variable elements of transmission losses on a zonal basis while the fixed losses are allocated on a uniform basis. Since fixed losses are not related to the pattern of generation or demand, and therefore will not be affected by any locational shift in generation or demand, we do not believe that these losses should be allocated on a zonal basis. This modification proposal aims to achieve accurate recovery of the costs of the variable element of transmission losses in order to send the correct locational signals and would therefore better achieve the applicable BSC Objectives (b) and (c). However, since these locational signals will have no effect on the location of demand we believe that the main benefit of this proposal is in providing an accurate allocation of variable transmission losses.

* Ex-ante calculation of TLFs, as proposed by P82, provides stable cost allocation and locational signals. This approach is efficient in terms of administration and does not result in exposure of participants to short term risks caused by unexpected changes in the pattern of generation and demand on the system over which they have no influence. Consequently we believe that ex-ante calculation of TLFs does better achieve BSC Objectives (c) and (d).

* The use of GSP Group zones for both generation and demand, as proposed by P82, provides a consistent and efficient approach to the calculation methodology and ensures that there are no perverse locational incentives. We believe that this approach does contribute to the achievement of BSC Objectives (c) and (d).

* We believe that any changes to Transmission Loss factors should be phased in over a period of 4 years. This will help to promote effective competition in generation and supply (BSC Objective (c)) by providing protection for existing forward contracts and a smooth transition to the new TLFs. The Alternative Modification Proposal P82 proposed phased implementation and therefore we believe that P82 Alternative better achieves BSC Objective (c). We also believe that as a result of the proposed phased implementation P82 Alternative better achieves the BSC Objectives than P82 Original.

We do have sympathy with the view that locational signals will have little effect on the location of demand, and its impact will be to increase costs

to consumers in the South in a way they cannot influence. We would therefore be sympathetic to a modification which sought only to apply locational losses to generation. Nevertheless, we believe that Modification P82 Alternative does better achieve the BSC Objectives and also that Modification P82 Alternative better achieves the BSC Objectives than the other four possible Zonal Transmission Losses proposals. We believe therefore that P82 Alternative should be approved.

We are concerned regarding the proposed implementation date for these modifications. We do not believe that any zonal Transmission Losses scheme should be implemented before a detailed consideration of the impact of BETTA on Transmission Loss Factors has been undertaken. Furthermore, we believe that there would be significant difficulties in trying to implement both BETTA and Zonal Transmission Losses at the same time. This would require the central systems to be set up to produce GB TLFs from the outset and this could not be achieved while there remains uncertainty about the structure of BETTA. Given the current state of the BETTA development project, it does not seem likely that GB TLFs could be calculated in time for April 2004 implementation and an England and Wales Zonal Transmission Losses scheme under a GB BSC would be detrimental to the achievement of the future GB BSC Objectives. We therefore suggest that Zonal Transmission Loss factors should not be implemented until at least 1 year after the implementation of BETTA.

Best regards

Rupert Judson on behalf of Liz Anderson
LE Group Plc

P82_DR_016 – Teeside Power

Teesside Power Limited concurs with the decision of the BSC Panel with regard to Modification P82, as set out in the Draft Modification Report, November 2002.

On the basis of all the analysis and assessment carried out by the Transmission Loss Factor Modification Group, we agree with the assessment of the Panel that neither the modification itself nor the alternate modification would better facilitate achievement of the Applicable BSC Objectives.

Keith Miller
for and on behalf of Teesside Power Limited

P82_DR_017 – Edison Mission Energy

EME Response to P75 and P82

Edison Mission Energy believes that the principle of a zonal losses scheme should be to allocate losses to those who give rise to them. There are 2 types of losses on the transmission system. Variable losses (heating losses) are due to current flowing in lines and transformer windings and are therefore dependent upon the pattern of generation and demand. Fixed losses include iron losses in transformers and corona losses of lines. These occur if the transformer or line is energised but do not alter as the power flow through the line or transformer alters. Fixed losses are therefore independent of the actual pattern of generation and demand.

As heating losses depend upon the pattern of generation and demand these should be allocated on a locational basis. However, fixed losses do not depend upon the pattern of generation and demand and so should be allocated uniformly.

P75 alternative proposes allocating losses using marginal loss factors. However, if marginal loss factors are applied at each node on the system then twice the actual heating losses on the system are recovered on a locational basis. Clearly the use of marginal loss factors does not result in an allocation of losses to those that give rise to them. This is better achieved by applying a scaling factor of 0.5 to the marginal loss factor, as is the case in P82.

Given the principle of allocating losses described above, EME is opposed to both P75 and P75 alternative. In addition, EME believes that the ex-post nature of P75 introduces unnecessary risks which are impossible to hedge.

EME supports P82 and P82 alternative modifications as these both allocate losses better to those who give rise to them. However, EME does not believe that the addition of phasing better meets BSC objectives than the original modification and therefore prefers P82 to P82 alternative.

Comments on legal text

Annex T-2 section 7

The definition of QMNj would be less ambiguous if 'the magnitude of the value' is replaced with 'is the absolute value'.

The interpretation of this calculation caused some problems in the modelling exercise and so the definition should be as unambiguous as possible.