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Mr James Lindley
Australian Energy Market Operator
Mansfield QLD

By email: james.lindley@aemo.com.au

Dear James,

SECOND STAGE CONSULTATION ON MARKET ANCILLARY SERVICE SPECIFICATION

The National Generators Forum (NGF) appreciates this opportunity to provide a submission to the second stage of this consultation.

We are pleased to note that many of the issues that we raised in response to the first stage have been accepted by AEMO.

There are however some remaining issues that we consider need to be addressed.

Before discussing these issues in detail, we make the following more general observations on MASS:

- The market ancillary services are intended to provide the short-term control of system frequency that the market's 5-minute dispatch cycle cannot provide. In this respect we agree with section 4.1 of the current MASS which, in relation to delayed service, expresses the requirement "to sustain their response until central dispatch can take the generation requirement into account". We wish to emphasise that the proper role of market ancillary services is to do what the dispatch system cannot do, not what through error or omission it fails to do.
- The evaluation of market ancillary service performance should be based solely on meaningful data.
- The role of AEMO in relation to any failure to comply with dispatch targets should be limited to protecting the dispatch process and providing information to the relevant regulator, namely the AER. It should not extend into explicit or implicit findings of liability and imposition of penalties except where explicitly provided for in the Rules.

The second of these points needs further elaboration. The "draft determination and report" proposes the use of a reference trajectory from one dispatch target to a subsequent dispatch target. But while such a trajectory is a feasible mathematical manipulation, it is not meaningful in this context. The NGF acknowledges that the sequence of dispatch targets for a unit under stable conditions often creates the appearance of a logical connection between them. But this is an appearance only and it does not in actual fact represent any meaningful connection between them. It appears that way purely because it relates to a series of similar outcomes of a repeated process if, and only if, the inputs remain similar.

The lack of a meaningful connection between subsequent dispatch targets is simply demonstrated. If the dispatch process were designed to create such relationships, then the prior set of targets would necessarily be an input to each dispatch process. However this it is not the case.

Furthermore, the lack of a meaningful connection between subsequent dispatch targets is not an accidental outcome or a deficiency in the design of the dispatch process. Instead it is a logical consequence of the requirement under the Rules that the dispatch outcome must respect ramp rate limitations. This requirement can be satisfied only by basing dispatch on actual energy values at the start of each dispatch interval and thus disregarding prior dispatch targets.

In measuring market ancillary services, even the appearance of consistency between successive dispatch targets can, in any case, not be relied upon, because the need for these services necessarily involves a disturbance in one or more parameters relevant to dispatch. Hence any apparent relationship between subsequent dispatch targets is necessarily disturbed at any time when service delivery is relevant.

1. The AEMO proposal on accounting for changing dispatch in FCAS delivery

The proposal by AEMO to use a trajectory between subsequent dispatch targets as a basis for the measurement of service delivery fails on each of the issues described above:

- It fails to address the question of whether the dispatch process has reached the point of taking the generation requirement into account without the full service delivery;
- It relies on data which is not meaningful in any practical sense;
- It may disadvantage units which are away from their targets at the time of a disturbance, thus conferring a role on AEMO which properly belongs to AER; and
- Furthermore it disadvantages such units without regard to the reasons for a departure from a dispatch target, which may in some cases be due to behaviour mandated by the market Rules, or due to force majeure circumstances.

For these reasons, the NGF does not accept that the modified proposal is desirable in principle, and is concerned that it involves AEMO in a role which properly belongs to the AER, namely investigation and potentially seeking a penalty in relation to departures from dispatch targets.

In addition, and for the moment setting aside the questions of principle, we believe that the relevant process described in the draft MASS, version 2.02, is wrongly formulated and would lead to absurd results.

2. The NGF proposal on accounting for changing dispatch in FCAS delivery

It appears from the draft determination that the NGF has not succeeded in explaining clearly enough its proposal in relation to terminating the measurement of service delivery based on dispatch outcomes.

The aim of the NGF proposal is to determine, on an objective and clear basis, whether full service delivery is or is not required for supply/ demand balance as determined in dispatch.

We contend that it is not appropriate to measure service delivery against the full enabled quantity if the dispatch process indicates that full service delivery is no longer required and where, as a consequence, compliance by the relevant unit with its dispatch target would lead to a shortfall in measured service delivery.

The NGF appreciates that AEMO will seek to re-establish the enablement of FCAS, even while FCAS delivery related to a prior frequency disturbance continues, and our proposal is not in conflict with this.

We also recognise that it is possible that the measurement period for an enabled service, when activated, may extend into a subsequent dispatch interval in which that service is not enabled. Again, the NGF proposal is not in conflict with the AEMO proposal that measurement be continued in this circumstance.

The enablement of FCAS provides a potential change in a component of supply or demand, to be delivered in certain conditions. Once this change is delivered, the resultant level of supply or consumption becomes part of the input to the following dispatch processes, and is not segregated into components of “energy” and “FCAS”, but is simply an energy starting point for the following dispatch.

If the measured energy level is required in dispatch to be maintained or changed in the direction of service delivery, then it can be said that the need for service delivery may be continuing. But if the dispatch process results in a change from the measured energy level in the direction opposite to service delivery, then it cannot be said that full service deliver is then an ongoing requirement. In this case the measurement of service delivery against the full enabled quantity is clearly not appropriate and the measurement should cease.

The important point here is that only the comparison between actual energy and energy target can provide the necessary indication of whether full service delivery continues to be required. The comparison of prior and current targets is meaningless in this context. (It should be noted that a dispatch outcome that requires maintenance of current energy for a unit, or a change in the direction of service delivery, is not conclusive that service delivery is still required, as the new dispatch level may arise for other reasons. Hence the measurement of FCAS should in any case cease after 10 minutes and not depend solely on dispatch outcomes. However the contrary case, where the dispatch outcome requires a change of output opposite to the direction of service delivery, is conclusive that full service delivery is no longer necessary.)

The NGF submits that on the basis of this fuller description now provided, that AEMO should cease to measure FCAS delivery when the dispatch process indicates that full service delivery is no longer required to achieve that supply/demand balance. This indication can validly arise only from a comparison of initial energy and the resultant energy target, and not from comparison of subsequent energy targets.

3. Improving the performance of delayed services

Section 5.1.2.2 of the draft determination and report raises a number of options in relation to the "conundrum" of mixed supply of service by both proportional and switching controllers.

[These are said to be 5 options, but they are numbered 1 to 4. The entry labelled 3 appears to be two unrelated proposals, and we will refer to these as 3a and 3b.]

In relation to option 3a (change to demand forecasting) we repeat the point made earlier, namely that the function of FCAS should be to deal with issues that the dispatch process cannot deal with, not with issues that dispatch could deal with, but through error or omission fails to deal with. Hence we say that whether or not this choice is made should have no bearing on the definition or measurement of market ancillary services. These should be defined on the basis that the dispatch process is assumed to be as effective as it can be within the inherent limitations of a 5-minute cycle.

Both option 1 and option 4 would require changes to some plant offering market ancillary services, thus imposing a cost on these plants, and hence run the risk that some plant will withdraw from the market. These options thus risk a reduction in competition in these markets and we suggest that this potential disadvantage needs to be carefully considered.

Option 3b (extra regulation service) is consistent with current AEMO practice where the amount of regulation service is not fixed, but is increased under conditions where the management of frequency is considered to be temporarily more onerous. While we do not endorse the uncertainty that results from this current practice, we do not believe that extending it to periods following a serious frequency disturbance would make this current uncertainty much worse.

We agree that option 2 would require a Rule change and hence may be seen as outside the scope of the current consultation.

4. 4. Procedure for allocating frequency settings

AEMO quite rightly raises the issue of technological neutrality in respect to requests for a frequency setting "more remote from 50Hz". However, it then appears quite contradictory for AEMO to allow Market Participants to have their frequency settings reviewed "on technical grounds" (section 5.1.3.3). Service providers are paid due to enablement of service only and therefore receiving a frequency setting "more remote from 50Hz" means that they will deliver less service whilst still being paid the same as someone with a closer setting.

We note that participants that are offering market ancillary services can manage any potential overuse of a service by withdrawal of market offers when overuse appears imminent.

Service providers are registered based on their ability to trigger energy changes, based on excursions from the normal operating frequency band and not on their ability to trigger at "more remote" frequencies. If AEMO wishes to consider providers who can't meet this standard then a Rule change defining a new service to this effect is a more appropriate mechanism than allowing favourable frequency setting reviews on "technical grounds" – a clear breach of the technological neutrality standard under the Rules.

If you have any questions in relation to this submission, please call Ken Secomb on 03 9617 8321.

Yours sincerely

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Executive Director