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Dear Cathryn,

**PR13: consultation on electricity for traction charges for control period 5 (CP5)**

Thank you for the opportunity to respond to the above consultation. This letter constitutes the Govia response and also represents the views of London Midland, Southeastern and Southern Train Operating Companies.

Govia is one of the most significant customers of Network Rail for electric traction. Through operation of our Southeastern and Southern franchises, we are the largest customer for DC electric traction. DC electric traction consumed in ESTA U accounts for 40% of all electricity used on the rail network, and Govia uses approximately 70% of this. We also operate extensive AC services in our London Midland franchise and Southern's operation on the West Coast mainline. Though outside the scope of this consultation, Southeastern operate AC services on HS1. We therefore have detailed and extensive knowledge of the charging regime and issues posed by both the DC and AC networks.

We have to date actively contributed to the work of the industry Traction Electricity Steering Group, and have worked closely with Network Rail in undertaking trials to determine levels of network losses. We reconfirm our continued support for this work and our willingness to discuss further the issues raised in this response.

We are supportive of the principles of the proposals, namely encouraging Network Rail to efficiently manage the costs associated with transmission losses and encouraging operators to move towards metered billing so that they pay for what they actually use plus an agreed network loss mark up.. This approach will establish a framework where operators are incentivised to implement energy reduction measures and Network Rail is incentivised to reduce network losses. These will contribute to reducing industry costs and meeting carbon reduction targets. Govia has a strong track record in reducing our energy consumption and carbon emissions, and is committed to further delivering further reductions.

We believe the proposals set out in the consultation document broadly meet their intent in the AC charging areas. We therefore support the proposals and welcome their implementation in CP5 for the AC ESTAs.

We however believe further work and analysis is required before the implementation of a Network Rail share in the volume wash up in the DC charging areas. While we reiterate our support for the overall intent behind the proposals, we believe that there is insufficient information currently available on the impact that this may have on both operators and Network Rail in the DC network.

The volume wash-up in ESTA U is a product of multiple inaccuracies in consumption rates, not just in respect of losses.

ESTA U differs from other charging areas in that the wash up is positive to operators, with significant amounts of the levied charges being returned. This contrasts to the situation in the AC geographical areas where the levels returned from the wash up are significantly smaller, and actually result in a negative charge in at least one area. This has the consequence of creating different incentives through the inclusion of Network Rail in the share of the wash up.

The assumption in the consultation document is that the wash-up arises solely from transmission losses. The (albeit limited) data that is currently available, including the metered trials that have been undertaken, suggests that this assumption is incorrect for ESTA U – i.e. the South DC network. We suggest that the actual levels seen in the current wash up are a reflection of a combination of network system losses and incorrectly modelled consumption rates (which in turn already include an element for system losses). We also believe that the level of error in modelled consumption rate varies between classes of rolling stock.

While we have specific concerns concerning the detail of the application of the proposals in the DC area, we also reaffirm our wider support for the intent behind the proposals. They are appropriate for the AC area because of the availability of calibrated data of network usage and losses and an understanding of what level of actual network loss occurs and is represented in the wash up. This level of data and calibration does not currently exist for the DC network, despite it making up almost 50% of Network Rail's total electricity provision. It is essential that this situation is remedied so that decisions and incentives for the DC area are taken on a fully informed basis.

We suggest that during the Control Period the ORR put in place requirements for Network Rail to work with all the operators to establish accurate data and information on actual consumption and network losses.

The consequence, and thereby the effectiveness of the incentive regime, of Network Rail participation in the wash up is determined by the extent the DSLF is an accurate reflection of the actual level of network losses. It is proposed that Network Rail's share of the wash-up for each ESTA is proportional to the DSLF. In ESTA U Network Rail's proportion is 14.54%. The ESTA U wash-up is typically 15% of consumption which is currently worth about £13.5m per year; this is divided (approximately) equally between the three affected TOCs.

Under the current proposals Network Rail would take 14.54% of the wash-up; this amounts to £1.96m, leading to a reduction in wash-up payments to each TOC of roughly £660k. Network Rail's share of the wash-up will be essentially free money; as we described above the large wash-up is largely a function of inaccurate modelled consumption rates (the level of inaccuracy varying across rolling stock types) and not directly related to the effect of losses. This therefore cannot therefore effectively incentivise Network Rail to manage losses. Put simply: under the proposed arrangement Network Rail will be allowed to retain an over payment in respect of poorly calibrated EC4T consumption rates to no useful effect.

To ensure that Network Rail are incentivised to reduce transmission losses the level of the DSLF needs to be set at or below the actual level of losses.

This highlights the fact that the current incentives for operators to move from modelled to metered charging remains weak as it is difficult to assess the impact this change will have, given inaccuracies and variable losses rates across network and the current high capital costs for meter fitment.

We set out below our comments on the specific questions in the consultation document.

### ***Process for setting the level of transmission losses***

***Question 1 - We would like to know your views on all of the issues raised in this section of our letter. In particular, should we amend the traction electricity rules so that we take the decision on the DSLF as part of an access charges review (i.e. a periodic review or interim review), and remove the industry's ability to propose and vote on the same?***

Govia believes that a change process needs to be retained during the control period. We agree with the principle of setting a DSLF mark up for the whole of CP5 as part of the periodic review process as this provides a level of certainty to operators. However, we have set out our concerns regarding the appropriateness of setting a level for ESTA U given the lack of available and calibrated data for the DC network. This needs to be addressed. A fixed DSLF represents a risk to operators due to the uncertainty about where the level has been set and it could present an opportunity for Network Rail to make a windfall gain if the number has been set too high or they are able to reduce transmission losses significantly during the control period.

This is primarily an issue for the DC network but as has been seen through the PR13 process, following ORR challenges to the previous Network Rail proposals that were not sufficiently substantiated, it is clear that the industry's understanding in this area is rapidly increasing. Therefore, this point applies to both the DC and AC networks.

Therefore, while we acknowledge the concerns from the ORR that the ability for the industry to discuss and amend these subsequently during CP5 using the EC4T metering rules and voting process inserts an uncertainty into the regulatory framework and thus results in cautiousness and franchise risk bid premiums from operators, we believe that a change process needs to be retained during the control period. We support the retention of the current arrangements as the need for formal proposals, voting and a majority (of metered operators plus Network Rail) injects sufficient checks - and balances into the process.

An alternative could be to take the currently proposed DSLF figures as a maximum capped figure, and the ORR introduce a mechanism whereby they could be revised downwards during the control period if it can be demonstrated that the levels have been set too high or as a target for Network Rail to work to reduce transmission losses. This approach would give operators the certainty they need for business planning purposes but also ensures that Network Rail remain incentivised to continue to work to reduce transmission losses.

### ***ORR proposal for charging for losses for metered services***

***Question 2 - We would like to know your views on all of the issues raised in this section of our letter, in particular the questions below:***

***We are minded to set a DSLF by ESTA and establish new ESTAs for new electrified infrastructure, at least for CP5. Do you agree with this policy? Please give reasons for your view. It would be useful if you could cite specific examples why you think this would or would not be appropriate;***

***We propose to change the basis on which transmission losses for metered consumption are charged so that the DSLF is applied to the gross metered consumption, rather than metered consumption net of metered regenerative braking, as it is currently. Do you agree that this will deliver a more cost-reflective basis of charging for transmission losses? Please give reasons for your view; and***

***We propose to accept Network Rail's median estimate of the DSLF, subject to it being levied on gross consumption, but we do not accept Network Rail's assertion that losses would necessarily increase over CP5. Do you agree with our assessment? Please give reasons for your view.***

Govia agrees with the proposal to set DSLF by ESTA and to set up new ESTAs for new electrified routes. Furthermore, a key principle for adjusting existing ESTAs or setting up new ones should be the commercial landscape of the disaggregated railway, not the internal operational or organisational landscape of Network Rail.

We strongly support the separation of any DC consumption from the AC ESTAs. Therefore there should be a separation of DC consumption on southern WCML and southern ECML out from AC consumption. Proposals for additional ESTAs, or for changes to existing ESTA boundaries, should be required to be brought to a recognised cross industry forum by Network Rail to seek their views and endorsement of such proposals before they are instituted. It is not acceptable for Network Rail to unilaterally impose changes to ESTAs.

We agree with the proposal for DSLF to be applied to gross consumption rather than net basis. We believe this would deliver a more cost reflective outcome, subject again to our concerns over the arrangements for the DC network, given the lack of transparent consumption data.

We agree to accept the proposed DSLF figures for CP5 (Network Rail median adjusted for gross consumption) for the AC routes that we operate over and reject Network Rail's unsubstantiated assertion that losses will increase over CP5.

***Exposing Network Rail to, and exempting metered services from, the volume wash-up***

***Question 3 - We would like to know your views on all of the issues raised in this section of our letter, in particular we propose that metered services be exempt from the volume wash-up, even in cases where more than 90% of consumption is metered, this reform would be coupled with Network Rail being exposed to the volume wash-up. We seek your views on this proposal.***

We are supportive of the principle that metered services should be exempt from the wash up and are charged for their actual electric usage plus the DSLF. This approach will provide a real incentive for Network Rail to reduce network losses, providing the DSLF is set conservatively as is stated in the consultation document. The outstanding question is whether the DSLF is set correctly to provide this incentive.

We support the proposal to abolish the requirement to revert back into the wash-up arrangements where more than 90% of consumption is metered (per ESTA). This is currently one of the prime disincentives for operators to move to OTM.

***Question 4 - We would like to know your views on the issues raised in this section of our letter, in particular our proposed formulation for Network Rail to share the volume wash-up. We welcome your suggestions for specific alternative formulations.***

As the proposals stand this will only be effective in AC areas. In these areas there is an incentive for operators to move to OTM. The proposed formula seems to strike the right balance between being reflective of actual manageable losses and not being overly complex. However, this is reliant on the DSLF being set at an appropriate level.

We agree with the concept of Network Rail being exposed to volume wash-up over and above its own consumption where this generates an incentive for Network Rail to reduce transmission losses on AC networks but we strongly oppose this on DC networks as it would result in a windfall to NR and produce no incentive either for Network Rail to reduce transmission losses or for TOCs to move to metering. This should be the case irrespective of whether Network Rail promotes or does not promote on train meters (OTM), although we recognise the work carried out by Network Rail in support of on-train metering to date.

***Question 5 - We also seek your comments on our assessment of risks and the incentive properties of the different options.***

It is essential that accurate verification of line losses are used to set benchmarks, the assessment of risks and incentives can only be considered in this context. We remain of the opinion that for the AC network the ORR proposals are broadly appropriate but the verification issue prevents an accurate assessment of risk for the DC network.

As we have said above, the plans for NR to have a share in the volume wash-up at best form no incentive for NR to reduce transmission losses on the DC network and at worst form a perverse financial incentive for NR to keep operators on modelled rates. While the proposal appears to create an incentive for DC operators to move to modelled consumption in reality this is not the case due to high capital costs of metering and the short-term nature of current franchising.

#### ***Applying an uplift on modelled consumption***

***Question 6 - We would like to know your views on the issues raised in this section of our letter, in particular:***

***Do you agree with our views on PFM and the basis on which it should be charged?***

***What is your view of our suggested method for allocating the volume wash-up?***

***Do you have an alternative formulation that you wish to propose?***

***In all cases, please give reasons for your views and/or proposals.***

The key issue relating to PFM relates to achieving the required level of accuracy so that PFM can be accepted as achieving a comparable outcome as full fleet fitment, while reducing the costs to the industry. Once a PFM fleet has achieved the level of accuracy comparable to a fully metered fleet

then the provisions for their inclusion in the volume wash-up should drop away. Operational, maintenance and customer service considerations would make it almost impossible for operators to treat part metered units differently from non metered units, therefore we believe that PFM does not represent a risk to Network Rail, though clearly a right of audit should remain.

We would highlight the results of the Birmingham's University study which demonstrated that the error is only 0.01 of a standard deviation when 30% of trains are metered, therefore given the significant capital cost associated with meter fitment this would potentially deliver a more cost effective industry solution while achieving the required level of accuracy.

As an initial step we understand the proposal to incentivise partial fleet metering (PFM) through reduced volume wash-up exposure but as we say above, once a PFM fleet has achieved the level of accuracy of a fully metered fleet then these provisions should drop away.

We believe that Network Rail should be continuing to invest in cost-effective techniques for billing metered trains, particularly partially-metered fleets including the use of the energy data collected by the train management systems.

We do not have an alternative formulation to propose at this stage, but would like the issues we have raised above to be addressed.

#### ***Network Rail's own consumption of EC4T***

***Question7 - We would like to know your views on the issues raised in this section of our letter, in particular whether you agree that Network Rail's metered consumption should be treated on an equivalent basis to other metered consumption? What conditions do you think should apply to this? Please give reasons for your views.***

Govia agrees that Network Rail's metered consumption should be treated like all other metered consumption, this includes ensuring the meters meet equivalent accuracy targets and are subject to third party audit on ORR or operator request, are subject to the DSLF factor, the 7 day rule and are exempt from wash up.

We would propose that Network Rail should be obligated to meter any consumption resulting from new, or enhanced network performance initiatives, e.g. points heaters, 3<sup>rd</sup> rail heaters, line-side power factor correction equipment, signalling equipment etc. For multiple instances of notionally similar, but low consumption, the concept of partial fleet metering could be extended to Network Rail by agreement.

Yours sincerely

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Go-Ahead Group