

# Norwich to Tilbury

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# Rule 17 - Historic Environment

Section	Question	Updated Applicant's Response
<b>Methodology</b>		
1	<p>The ExA's first written questions (ExQ1) HE 1.8 [PD-014] concerned the weighting to be given to harm to multiple assets. The ExA notes your answer stating that it is not appropriate or lawful to add up less than substantial harms to multiple heritage assets incrementally, but how do you suggest less than substantial harm is dealt with given the need to give considerable weight to each incidence of heritage harm?</p>	<p>Statute, the NPPF and NPS EN-1 requires a consideration of the impact of a proposal on the significance of each heritage asset. This is an asset-by-asset assessment of loss of significance. The question must be asked as to whether a proposal causes harm to the significance of each asset and if so requires a quantification of that harm. Harm for each asset is either less than substantial harm or substantial harm or total loss of significance. Substantial harm is a high test.</p> <p>The harm to each asset is then judged against the "fasciculus" of heritage tests in the NPS EN-1 from paragraph 5.9.22 onwards. Paragraph 5.9.29 of the NPS EN-1 provides that substantial harm to or loss of grade II listed buildings or registered parks and gardens should be exceptional and paragraph 5.9.30 set out that for assets of the highest significance substantial harm should be wholly exceptional. Paragraph 5.9.32 provides that less than substantial harm to the significance of designated heritage assets should be weighed against the public benefits of the proposal.</p> <p>The NPPF provides the same tests, and these have been carefully considered by the Courts.</p> <p>In undertaking this heritage balance asset-by-asset, the decision maker must have in mind the provisions of EN-1 (2024) to the effect that at paragraph 4.2.16 "the Secretary of State will take as the starting point for decision-making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs... which requires a clear outweighing of harm, exceptionality or very special circumstances" and in particular at paragraph 4.2.17 that CNP infrastructure will meet the test necessary even to outweigh substantial harm to or loss of significance of heritage assets.</p>

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		<p>In the case of Norwich to Tilbury, there is no assessment that identifies substantial harm or loss of significance to any designated heritage asset by the Applicant or any statutory consultee.</p> <p>The fact that there are multiple impacts to heritage assets through change to their settings along the 180km route is acknowledged and reflects the length of the nationally important infrastructure. Given the nature of the overhead transmission such multiple impacts as a result of change to setting are inevitable if the clearly established need for this CNP infrastructure with the strong EN-5 presumption that overhead transmission is to be preferred (save in National Landscapes) is to be met.</p> <p>There is no evidence that the “density” of heritage assets and thus the total number of assets whose settings are inevitably affected in the circumstances of this case is any greater than for any other comparable nationally important overhead line. The Design Development Reports (2023 [APP-358], 2024 [APP-359], and 2025 [APP-122]) illustrate the careful measures taken to seek to mitigate the overall impact on setting and significance wherever possible and also to avoid transferred effects.</p> <p>There is in this case no allegation of a particular “whole line” coherence or group value or significance of the multiple assets affected. The totality of heritage significance is not experienced or understood in any meaningful way. The issue of specific group value in particular circumstances is acknowledged and is dealt with under a later answer to a separate question.</p> <p>The fact that there are multiple heritage impacts is of course a material consideration but does not shift the primary position required of the decision maker to consider in the first instance the acceptability of the impact on the significance of each asset, asset-by-asset as set out above, in accordance with the policy and legal tests applicable to heritage assets. If all the harms to significance are considered in this way, then the totality of significance lost can and should be accounted for in the overall determination of the Application in accordance with section 104 of the 2008 Act and Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010.</p> <p>If in each case the decision maker finds that for each asset the public benefit outweighs the harm to the asset, then the decisionmaker can turn to the fact that there are multiple impacts and ask itself whether that multiplicity of harms and the</p>

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		<p>sum of the significance lost creates a separate and greater loss of heritage significance than the individual harms already considered asset-by-asset.</p> <p>Then it must identify what that loss of significance is and whether as part of the heritage and/or planning balance that harm (if identifiable) is outweighed by the public benefit of the CNP infrastructure proposal as a whole and in particular the starting point that CNP infrastructure can justify even substantial harm to designated heritage assets.</p> <p>There is no such harm or anything close to it in the circumstances of this Project either asset by asset or overall.</p> <p>The number of assets impacted <b>in and of itself</b> is not a material impact of weight-that simply reflects the scale of the Project and the strong presumption in favour of overhead line transmission. The issue to be considered by the decision maker in the determination is the loss of significance occasioned asset by asset and overall.</p>
2	<p>In your answer to ExQ1 HE 1.7 [PD-014], it is inferred that the differences between lower and mid less than substantial harm depends to a large extent on screening. Screening can be transitional and change with time, therefore how may this affect assessments on levels of harm?</p>	<p>It is acknowledged and recognised that the setting of a heritage asset is not fixed and can change over time, following the definition in the NPPF glossary and 'The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)' (Historic England, 2017). The methodology used for this assessment was tailored for this Project and is therefore expressed in terms of the most likely significant effects for a development largely comprised of overhead line. It is correct that the explanation of lower and mid less than substantial harm refers to screening but in both cases the scale of change within an asset's setting is generally the main part of the consideration of which degree of less than substantial harm is assessed.</p> <p>The assessment has assumed a worst-case winter season scenario in terms of screening by existing vegetation, which recognises that deciduous vegetation would provide less screening in winter than summer. While every effort was made to provide winter historic environment visualisations in 7.12 Visualisations [APP-349] and [APP-350] some of the viewpoint photography was taken later in the spring of 2025. This was due to various factors including the need to request land access and the agreement of the viewpoint locations with relevant stakeholders.</p>

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		<p>The use of structural landscaping (existing or proposed) is a recognised form of mitigation or avoidance of harm in heritage cases. Of course, screening by vegetation can alter over time but the likelihood of changes to structural landscaping is a matter of judgment and in the present case no screening referred to is considered likely to be transitional in the sense that it will become less effective over time. Indeed, in almost all cases the screening nature of the landscaping is likely to be enhanced with time. Importantly the use of screen planting where relevant and appropriate is seen as valuable in heritage terms by EN-1 (2025) 5.9.27.</p>
3	<p>The Historic England Good Practice Advice note 3, 'The Setting of Heritage Assets', states that although views of or from an asset will play an important part in assessment, the way in which we experience an asset in its setting is also influenced by other environmental factors and also by our understanding of the historic relationship between places. Within Environmental Statement (ES) Appendix 11.2 [AS-070], the assessment of construction effects considers noise, dust, vibration as well as visual impacts whereas the assessments for operation and maintenance focus almost entirely on intervisibility and views and take little account of deeper historic relationships, and therefore the wider experience of the asset that may be affected. What is your justification for this?</p>	<p>The Applicant agrees that the setting of a heritage asset is not purely a visual consideration, and where relevant this has informed the assessment. For the construction phase, there will be non visual impacts as inferred by the question, but in terms of historic significance these impacts will be temporary and unlikely to significantly impact heritage value. In the operation phase assessment for many heritage assets the principle change in setting that would occur is due to the visual presence of the overhead line within their settings. As the operational alignment would not introduce other factors such as noise, movement, change in land use or create physical barriers to movement in the landscape, the main and in many cases the only way in which the setting would be altered is through visibility of the overhead line, from an asset itself or while moving through its setting. The assessment has been undertaken following the guidance in 'The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)' (Historic England, 2017), including the non-exhaustive checklists on page 11 and 13.</p>
4	<p>ES appendix 11.1 [APP-209] provides detail on historic character and historic landscape characterisation, but several interested parties have pointed out that the</p>	<p>The group value of heritage assets has been considered. The Applicant has considered groups of listed structures where the assessment (including consultation responses and listing descriptions) determined that heritage assets were related or had group value. These instances have been identified in 6.11.A1 Environmental</p>

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	<p>assessments have not appreciated this historic relationship. For example, the buildings in a group have been treated as three separate listed buildings, whereas the site's importance is greater than the sum of its parts.</p> <p>In response to ExQ1 HE 1.8 [REP3-074] you allude to your approach in your example of Raydon Hall where you state that while the interrelationships between the various assets in the group were deemed to be a prominent factor in determining that the shared setting of the assets made a considerable contribution to both the individual assets as well as the group, the conclusion of the assessment was not given greater weight because of the group dynamic. This appears to disregard the statement that a site may be more important than the sum of its parts.</p> <p>Can you explain how you approached the assessment of groups of listed structures that will help the ExA understand how you have applied the Historic England guidance on the assessment of setting?</p>	<p>Statement Appendix 11.1 - Historic Environment Baseline Report [APP-209] and referred to as having group value and/or the assessment has specified instances where individual listed structures inform the significance of one another. The assessment has done this in the context of how the setting of these identified groups of listed structures inform their own and each other's significance. For example, the assessment has considered functional and physical relationships between individual and groups of listed structures and how these relationships contribute to the significance of the listed structures. Setting has been assessed utilising the guidance set out in Steps 1 to 5 (excluding the final element of Step 5, monitor outcomes, as this is not yet possible) of 'The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)' (Historic England, 2017) and outlined in the Project methodology in Annex C of 6.11.A1 Environmental Statement Appendix 11.1 - Historic Environment Baseline Report [APP-209].</p>
5	<p>With reference to vibration effects, ExQ1 HE1.11 [REP3-074] is noted, however listed buildings often have softer mortar, simple or no footings and poor cross bracing, resulting in a higher susceptibility to vibration.</p>	<p>The vibration magnitudes shown in the Table in responses to EXQ1 HE.11 [REP3-074] relate to the human response to vibration, not the structural impact. Humans are more sensitive to vibration than structures and the impact magnitude thresholds are an order or magnitude lower than those for even a non-zero risk of structural damage. For reference, the thresholds for human response to vibration, as detailed in Tables 14.6 and 14.7 of <b>6.14 Environmental Statement Chapter 14 - Noise and Vibration [APP-256]</b> are:</p>

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	<p>The table indicates 33 out of nearly 650 listed buildings are deemed to be subject to a greater than negligible magnitude of impact from vibration without mitigation, with only 3 buildings considered to be subject to a large impact.</p> <p>Commitment H07 in the outline code of construction practice (CoCP) [REP3-025] states that commitment NV04 will be applied in relation to any designated historic buildings with potential to be impacted by construction vibration. How will this commitment be applied across the proposed development if only 3 structures have been assessed as having the potential to be impacted by construction vibration?</p>	<ul style="list-style-type: none"> <li>• &lt;0.3 mm/s peak particle velocity (PPV): Negligible (Not significant)</li> <li>• 0.3 to 1.0 mm/s PPV: Small (Not significant)</li> <li>• 1.0 to 10 mm/s PPV: Medium (Significant)</li> <li>• <math>\geq 10</math> mm/s PPV: Large (Significant)</li> </ul> <p>Based on the above values, a vibration level <math>\geq 1.0</math> mm/s PPV was deemed to be significant for <u>human receptors</u>, which includes habited listed buildings.</p> <p>With regards to potential structural damage, it was not considered appropriate to assess this based on a magnitude scale. Rather a fixed threshold for potential non-zero risk was used based on guidance from BS 5228-2:2009+A1:2014 <i>Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration</i> (BS 5228-2), which states that the probability of damage tends towards zero at 12.5 mm/s PPV (i.e. there either is a risk of damage, however small, or there isn't). Exceedance of this threshold therefore simply identified where there was a risk of damage (however small); not that damage would occur. BS 5228-2 goes on to suggest that a lower value may be appropriate where the preliminary survey reveals existing significant defects (such as defects which are a result of settlement) of a structural nature, the amount of reduction being judged on the severity of such defects, but that important buildings which are difficult to repair might require special consideration on a case-by-case basis. However, a building of historical value should not (unless it is structurally unsound) be assumed to be more sensitive.</p> <p>The threshold for a non-zero risk of damage therefore broadly aligns with a large magnitude impact on people within buildings.</p> <p>Five locations have been identified for the Project where there is a potential non-zero risk of structural damage, one of which is a listed building:</p> <ul style="list-style-type: none"> <li>• Little Bromley War Memorial (1493299) (noting that Little Bromley War Memorial is mistakenly identified twice in the Table in responses to EXQ1 HE 1.11 [REP3-074]).</li> </ul> <p>In this case, the risk of damage is due to potential vibratory compaction (which is a standard road construction technique that would have already been employed during road construction, repairs, and resurfacing of Bentley Road, separate to the</p>

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		<p>Project) and the risk can be avoided via simple mitigation measures, such as 'dead rolling', without the vibrating element.</p> <p>In the table provided in response to ExQ1 HE 1.11 [REP3-074] a second listed building is identified as experiencing a large magnitude of impact without mitigation:</p> <ul style="list-style-type: none"> <li>• Pair of Cottages Approximately 10 Metres South of The Fox and Hounds Public House (1111418)</li> </ul> <p>This listed building is located adjacent to The Haywain, Bentley Road, and it is possible that the name of the public house has changed since the cottages were designated as a listed building, hence the discrepancy in the name. As set out in response to ExQ1 HE 1.41 the listed building is located approximately 7 m from proposed works. This is beyond the 2 m threshold distance within which there is a potential non-zero risk of damage from vibratory compaction during highway works. The Haywain (the adjacent non-listed property that has been identified as at risk of vibration damage) is located within approximately 1 m of the works location and is therefore identified as having a greater than zero risk and is therefore highlighted. The listed building was included in the table due to its proximity to The Haywain. With regards to the specific question, a number of commitments in <b>7.2 Code of Construction Practice [REP3-025]</b> relate to the prevention of potential damage to buildings and structures, included those that are listed, as follows:</p> <ul style="list-style-type: none"> <li>• Commitments NV01 and NV02 requires the contractor to identify and employ best practicable means (BPM) to reduce the effects of construction noise and vibration</li> <li>• NV05 requires the contractor to conduct detailed noise and vibration assessments, and identify and set out control measures, including site specific BPM, in a Noise and Vibration Management Plan.</li> <li>• NV03 makes provision for works to be undertaken through Section 61 agreements for prior consent under the Control of Pollution Act 1974, though consultation with the local planning authority, where construction noise or vibration may cause a significant adverse effect (this would include potential damage to buildings and structures)</li> </ul>

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		<ul style="list-style-type: none"> <li>NV04 relates specifically to potential damage from construction vibration and requires pre- and post-work condition surveys to be undertaken, and the rectification of any damage (cosmetic or otherwise) deemed to be caused by the works.</li> <li>NV06, NV07, NV13, NV16, NV17, NV18, NV20, and NV23 are good practice measures relating to construction vibration.</li> </ul>
6	<p>Various relevant representations raise concerns that various heritage structures have the potential to be affected by vibration. How will these be covered under NV04, and what determines if a building or structure is “deemed particularly sensitive to vibration” and what would the “lower level” be?</p>	<p>As noted above in response to Question 5, a fixed threshold for potential non-zero risk was used based on guidance from BS 5228-2, which states that the probability of damage tends towards zero at 12.5 mm/s PPV.</p> <p>BS 5228-2 goes on to state that this value may be reduced where a preliminary survey reveals existing <u>significant</u> defects of a structural nature. Additionally, it states that important buildings which are difficult to repair might require special consideration on a case-by-case basis, but that a building of historical value should not (unless it is structurally unsound) be assumed to be more sensitive.</p> <p>Guidance from BS ISO 4866:2010 <i>Mechanical vibration and shock - Vibration of fixed structures - Guidelines for the measurement of vibrations and evaluation of their effects on structures</i> (BS ISO 4866) may be used to categorise buildings and structures particularly sensitive to vibration.</p> <p>BS ISO 4866 does not proscribe specific vibration thresholds, but rather indicates that thresholds should take account of factors such as building type and condition, frequency content, and duration of exposure. It also recognises that damage criteria are inherently probabilistic, requiring limits to be set to achieve an appropriate level of confidence in avoiding adverse effects.</p> <p>A conservative, precautionary threshold for buildings or structures that are particularly susceptible to damage due to their current condition would be 5 mm/s PPV. However, this would be reviewed on a case-by-case basis by the contractor as part of their detailed assessment, as per commitment NV05 of <b>7.2 Code of Construction Practice [REP3-025]</b>.</p>
<p><b>General issues, including limits of deviation and approach to non-designated heritage assets (NDHA)</b></p>		

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7	<p>Your answer to ExQ1 HE1.10 [REP3-074] states that as the assessment of whether change within the limits of deviation (LoD) would alter the conclusions of the historic environment assessment considered the reasonable worst case scenario and concluded either less than substantial harm or no harm to designated heritage assets, there is no requirement to further reduce the LoD. However, restricting the LoD in areas within the setting of heritage assets could only be beneficial. What is the benefit of leaving the LoD in the majority of cases as it is?</p>	<p>The LoD are an essential element of flexibility required to ensure the deliverability of the Project in response to factors not reasonably or proportionately able to be confirmed pre-consent. It is of course the case that the consequence of the LoD is that in the example of the lateral LoD, a pylon could typically be around 30m closer or 30m further away (crossarm width and conductor swing restrict any further lateral movement) from a heritage asset located to the side of the alignment. The assessment has assessed this potential change, and whilst it is noted that any move closer to an asset would not be preferred, a movement of this scale is unlikely to significantly alter the change in the setting of the heritage asset and therefore the level of harm (or magnitude of impact and significance of effect) would not increase. There are exceptions, and where these have been identified the LoD have been restricted in their scale or direction of movement, such as for pylons TB136 and TB137 between Great Waltham and Little Waltham or the aspirational commitment for TB245 to move further from Wyfields Farmhouse (1337057).</p>
8	<p>ExQ1 HE1.39 [PD-014], asked all Essex local authorities to provide further evidence relating to protected lanes and whether they should be considered NDHA. Numerous local authorities responded positively to this question, outlining the lanes that were considered Protected Lanes, and the policy background that supports their consideration as NDHA.</p> <p>Commitment H06 in the outline CoCP [REP3-025] provides for pre-commencement survey work to be carried out on the lanes identified, and for construction activities to be limited and monitored, including reinstatement of any disturbed features. Whilst several lanes have been identified in ES Appendix 11.1 [AS-070] it could be said that these have</p>	<p>Protected lanes have been assessed using the same methodology as other NDHAs. They are described and their value assessed in 6.11.A1 Environmental Statement Appendix 11.1 - Historic Environment Baseline Report [APP-209], under a separate subheading within the historic landscape section for each Project section. Within that document they are shown on Figure A11.1.4. Following the methodology for assessment of NDHAs some of the protected lanes were included in detailed impact assessment in 6.11.A2 Environmental Statement Appendix 11.2 - Historic Environment Assessment Tables [AS-070]. EN-1 makes it clear that the ExA assessment of heritage impact should be proportionate to the circumstances of the case which include the potential for the benefits of CNP to outweigh even substantial harm to designated heritage assets.</p> <p>The Applicant has reviewed the responses from the Essex local authorities and can confirm that all but one of the protected lanes identified in the responses is included in the historic environment baseline and assessment (as set out in 8.4.10 Applicant's Comments on Responses to ExQ1 (submitted at Deadline 4)). The exception is Wick Lane in Tendring, which is shown on figures A11.1.4 – Historic Environment - Historic Landscape Characterisation and Protected Lanes [APP-209] and 6.11.F3 Environmental Statement Figure 11.3 - Non-Designated Heritage</p>

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	<p>not been properly assessed in the NDHA sections of this report and this does therefore not constitute assessment as required by NPS-EN1 paragraph 5.9.9, or a balanced judgement as required by paragraph 5.9.33.</p> <p>Comment further on your assessment of protected lanes, and why these have not been assessed in line with other NDHAs?</p>	<p>Assets Assessed in the ES Chapter [AS-081]. We have provided the text in relation to Wick Lane that is now included in 8.4.10 Applicant's Comments on Responses to ExQ1 (submitted at Deadline 4). Overall, the Applicant has provided and the ExA has before it more than sufficient evidence proportionately to judge the acceptability of the Project in EN-1 terms on the protected lanes.</p>

### Mitigation

9	<p>How can it be demonstrated that avoidance, as the primary tool of mitigation hierarchy, has been applied when there are still a considerable number of outstanding concerns from local authorities and other interested parties regarding the historic environment? These concerns relate principally to the impacts of the proposed development on the setting of important heritage assets, and are not restricted to visual impacts.</p>	<p>Heritage is an important factor which was considered carefully in the routing decisions of the CNP Project. But as in all of these cases and as recognised by EN-1 there are many other interests of acknowledged importance at play when considering routing overall and there is an inevitable need to balance such impacts. The various Design Development Reports (2023 [APP-358], 2024 [APP-359], and 2025 [APP-122]) have set out numerous examples where the presence of and effects on heritage assets have led to changes in the route and siting of the Project infrastructure. However, there are many such assets and in practical terms complete avoidance is not possible without typically leading to transfer of the effects from one asset to other heritage assets or are simply not possible for engineering reasons. It is also the case that a balance must be struck with how such changes to avoid heritage assets impact might lead to change in other effects such as ecology, socio-economics, landscape effects or residential amenity.</p> <p>For example, all reasonable alternatives for the crossing of the Waveney valley require a route alignment close to another grade I listed church. The original corridor and graduated swathe passes the Grade I Church of St Mary the Virgin (1032741) at Wortham, a more western alternative passes the Grade I Church of St John the Baptist (1373587) at Bressingham, an eastern alternative passes close to the Grade I Church of St Andrew at Frenze (1050244) with the Project itself passing close to the Grade I Church of St Remigius (1050237) at Roydon. Routeing close to the latter was selected, in part, because the effects on some designated heritage</p>
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		<p>assets were assessed to be lower for this route than on the other routes. However, the decision was balanced by consideration of other factors, both engineering and environmental. There was a preference from a historic environment perspective for the eastern alternative, but this was not feasible for engineering reasons.</p> <p>Undergrounding was considered but was found to be inconsistent with ecological interests and fundamentally at odds with the WaLor fully funded ecology and landscape enhancement scheme. T pylons were considered but for reasons set out in a required note from the ExA would not be appropriate from an engineering (multiplicity of angle pylons), visual or heritage setting point of view.</p> <p>Other examples include at the Wid Valley where the potential for effects on the Grade I listed Ingatestone Hall (1187315) and its associated listed buildings and the Grade I listed Church of St Giles (1208238), Mountnessing, led to a change away from the original corridor and graduated swathe. In this case extensive urban areas meant there were no alternatives away from the Wid Valley, but a route to the east was taken forwards. This passes close to the Grade II* Church of St Mary (1208238) at Buttsbury, but in an arrangement (alignment and pylon position) that reduces the effects to this heritage asset to the extent possible. Although the Applicant acknowledges that this alignment would still result in a significant effect and mid less than substantial harm to this designated asset.</p> <p>The Applicant agrees that the setting of a heritage asset is not purely a visual consideration, and where relevant this has informed the assessment. For the operation phase assessment for many heritage assets the principle change in setting that would occur is due to the visual presence of the overhead line within their settings. As the operational alignment would not introduce other factors such as noise, movement or change in land use, the way in which the setting would be altered is through visibility of the overhead line, from an asset itself or while moving through its setting. The setting assessment has been undertaken following the guidance in 'The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition)' (Historic England, 2017).</p>

National Grid plc  
National Grid House,  
Warwick Technology Park,  
Gallows Hill, Warwick.  
CV34 6DA United Kingdom

Registered in England and Wales  
No. 4031152  
[nationalgrid.com](http://nationalgrid.com)