



Electricity distributors companies,  
generators, suppliers, customer  
groups and other interested parties

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*Promoting choice and value for  
all gas and electricity customers*

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Date: 14<sup>th</sup> January 2011

Dear Colleague,

### **Open letter consultation on the regulatory asset lives for electricity distribution assets**

In October 2010, we published our RIIO framework decision document. This established the principle that regulatory asset lives should reflect the expected economic life of the related network assets<sup>1</sup>. This principle will apply for the next electricity distribution price control from April 2015.

We also said we would adopt appropriate transition arrangements, where the adoption of a new approach to depreciation in a single step would cause excessive disruption to capital markets and/or raise concerns about financeability. During the next price control review (RIIO-ED1) it will be for network companies to highlight and demonstrate any issues this decision has on their financeability and to suggest appropriate transitional arrangements in their business plans.

We are in the process of establishing economic asset lives for gas and electricity transmission networks and for the gas distribution network as part of the RIIO-T1 and GD1 price controls. As part of this same work we are also looking at the economic asset lives of the electricity distribution assets.

In December 2010, we set out our proposals, for consultation, on the appropriate economic asset lives for transmission and gas distribution and also for electricity distribution<sup>2</sup>. We also published a report prepared by our consultants, a consortium led by Cambridge Economic Policy Associates (CEPA), that considered the asset lives of the electricity distribution network alongside the asset lives of the other sectors.<sup>3</sup>

In recognition of the importance of this issue, and the benefit from providing clarity on this issue as early as possible, we are instigating this six week stand alone consultation on electricity distribution asset lives. The Authority may decide to take a decision on this issue

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<sup>1</sup> <http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/Decision%20doc.pdf>

<sup>2</sup> <http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/T1%20and%20GD1%20finance.pdf>

<sup>3</sup> The Economic Lives of the Energy Network Assets – A Report for Ofgem. Cambridge Economic Policy Associates (CEPA), Sinclair Knights Merz (SKM) and GL Noble Denton. December 2010.

<http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/CEPA%20Econ%20Lives.pdf>

in March 2011, along with its decision on asset lives for transmission and gas distribution assets as part of the associated price control reviews.

This letter sets out briefly the following with further detail included in the December consultation and the consultants report:

- the current regulatory asset lives for electricity distribution assets;
- our initial assessment of the average economic asset lives for the network and the most appropriate depreciation profiles to be used; and,
- a discussion of transitional arrangements

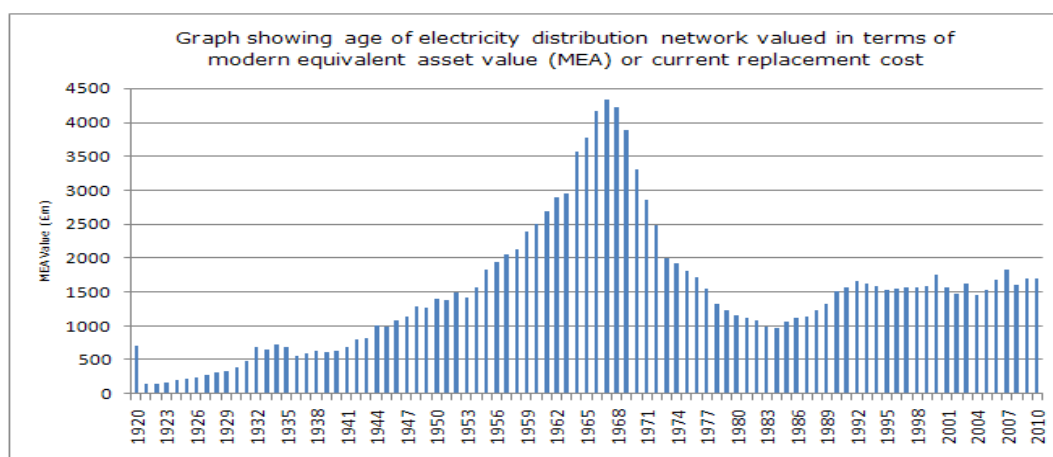
### Current regulatory asset lives

The current regulatory treatment for electricity distribution assets is as follows:

- All post-vesting (post privatisation) assets have a regulatory asset life of 20 years and are depreciated on a straight line basis.
- There is also a supplementary depreciation allowance associated with a 15 year smoothing adjustment we introduced once electricity distribution network owners (DNOs) pre-vesting assets became fully depreciated.

We will consider these smoothing arrangement as part of the transitional arrangements.

In the context of the current regulatory lives, it is worth noting the current age of the existing network. The peak of electrification activity in the UK was undertaken in the 1950s and 1960s and many of these assets are still in use today, implying these assets have already been in use for over 50 years. The weighted average age<sup>4</sup> of the existing networks is over 39 years.



Source: CEPA

### Approach to assessing the average economic asset lives

In order to assess the economic lives of the distribution assets, we first consider the technical lives<sup>5</sup> of the assets. The economic life of an asset<sup>6</sup> may be shorter than that of

<sup>4</sup> The weighted average has been calculated by reference to the Modern Equivalent Asset (MEA) value or replacement value from CEPA's report.

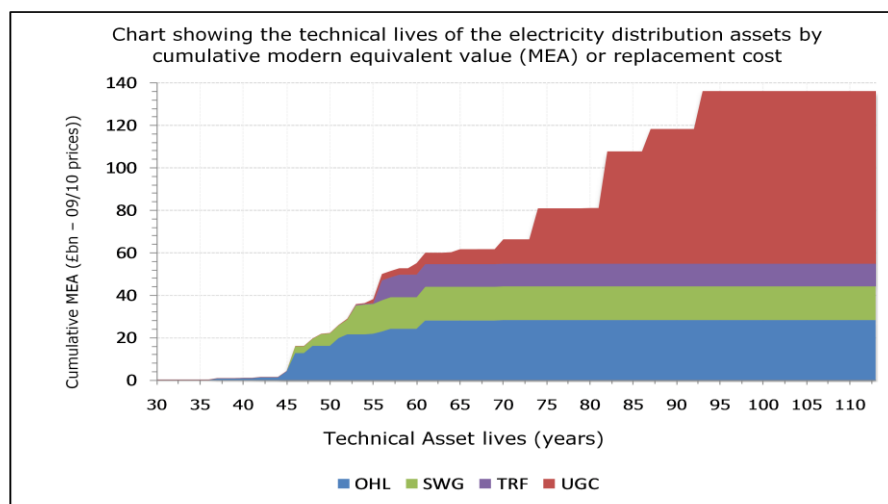
<sup>5</sup> Engineers base the technical life of an asset on an assessment of the number of years of use they expect they will derive from that asset. This will be a factor of an asset's design life, its wearing out through use and the policy of its maintenance, including safety considerations.

<sup>6</sup> The economic life of an asset is the number of years over which the asset is useable. It determines the period over which depreciation is charged.

its technical life dependent on the anticipated future use of the distribution network and technological change. Our consultants report<sup>2</sup> examines these aspects and the results are summarised below.

### **Technical asset lives**

CEPA has analysed the technical asset life of the electricity distribution network over the main components of the distribution network, overhead lines (OHL), Switchgear (SWG), Transformers (TRF) and Underground cables (UGC).<sup>7</sup> The total electricity distribution network has a Modern Equivalent Asset (MEA) value or replacement cost of around £136bn.<sup>8</sup> CEPA's work gives a weighted average technical asset life range of between 60-75 years.



Source: CEPA

### **Economic asset lives**

CEPA elected to use Ofgem's Project Discovery<sup>9</sup> to provide the scenario framework for its analysis to explore the differing drivers on the use of the energy network (including the electricity distribution network) over the period to 2050. CEPA extended the four scenarios to 2050 and cross-checked them with other published scenarios. In addition, they drew upon our Long Term Electricity Network Scenarios.

CEPA's scenarios highlight significant increases in annual demand (particularly peak demand) for electricity through to 2050. This is driven by the UK's target of 80 per cent reduction in greenhouse gas emissions by 2050.

They also highlight that there are some uncertainties which might impact the outcomes of the scenarios. These could either increase or decrease the economic lives of assets. The uncertainties include the impact from technological changes with the move to a smarter grid, increases in raw material prices and policy decisions by government effecting the speed of change.

<sup>7</sup> Annex G to CEPA's report

<sup>8</sup>This compares with around £37bn for the electricity transmission network, £55bn for the gas distribution network and £6.2bn for the gas transmission network.

<sup>9</sup> Project Discovery - Energy Market Scenarios, Oct 2009 Ref 122/09

[http://www.ofgem.gov.uk/Markets/WhIMkts/Discovery/Documents1/Discovery\\_Scenarios\\_ConDoc\\_FINAL.pdf](http://www.ofgem.gov.uk/Markets/WhIMkts/Discovery/Documents1/Discovery_Scenarios_ConDoc_FINAL.pdf)

CEPA suggest that given these uncertainties a conservative approach to economic asset lives would seem to be appropriate. They propose economic asset lives that are significantly below the average technical lives and recommend a range of 45-55 years.

### **Accounting asset lives**

Network operators currently use an expected useful economic life for their network assets as part of their depreciation accounting policy disclosed in their statutory and regulatory accounts. The table below shows that the proposed asset lives are not out of line with the DNOs own accounting asset lives.

| <b>Electricity Distribution Network</b>              | <b>Asset Type</b>                    | <b>Accounting useful economic life (years)</b> |
|--|--------------------------------------|--|
| CE Northern Electric DL and Yorkshire Electricity DL | Distribution system assets           | 45   |
|  | Information technology               | up to 10                                       |
| Central Networks East and Central Networks West      | Distribution network assets          | 40-70  |
| EDFE EPN, EDFE LPN and EDFE SPN                      | Overhead and Underground lines       | 45-60  |
|  | Other network plant and buildings    | 20-60  |
| Electricity North West                               | Infrastructure assets                | 5-80   |
| SP Distribution and SP Manweb                        | Distribution plant                   | 30-40  |
|  | Towers, lines and underground cables | 40-60  |
| SSE Hydro  | Distribution Assets                  | 10-40  |
| SSE Southern   | Distribution Assets                  | 10-80  |
| WPD S Wales and WPD S West                           | Overhead lines and poles             | 45   |
|  | Underground Cables                   | 60   |
|  | Transformers and switchgear          | 45   |
|  | towers and substations               | up to 55                                       |

Source: Extracted from respective regulatory accounts for year ended 31 March 2010

### **Other regulatory practices**

We have also considered other regulatory assets lives which are used for other electricity distribution networks.<sup>10</sup> In Australia, 35 to 51 years is used as a range for distribution assets and 45 years is used in Ireland for its distribution network.

### **Our proposals**

Our consultants' report<sup>2</sup> has demonstrated that technical asset lives are certainly considerably longer than the current regulatory electricity asset lives of 20 years. It is also clear from the scenario analysis which CEPA performed that under all future scenarios the use of the electricity networks, including peak demand is expected to increase.

Projecting forward, the mix of electricity assets is likely to change. This could mean greater volumes of short-life technology assets for monitoring and controlling the network. However, this is unlikely to make a material difference to average technical asset lives. This may be balanced with a greater proportion of long lived underground cables as existing infrastructure is replaced.

Recognising the uncertainties that still exist over how the electricity network will develop into the future our view is that average economic asset lives for electricity distribution should be between 45 and 55 years. We also propose to retain the current straight-line depreciation profile. We invite views on these proposals.

<sup>10</sup> Figure 2.7 from our December consultation

## Transitional arrangements

We are committed to ensuring that efficient network companies will continue to be able to finance their activities (which are subject of obligations on them)<sup>11</sup>. Where it is clear that the adoption of a new approach to depreciation in a single step would cause excessive disruption to capital markets and/or raise concerns about financeability, we will agree appropriate transition arrangements with the companies concerned.

Some network companies have suggested that any changes to asset lives should only affect new investment. They argue that we would be adversely affecting the legitimate expectation of investors. We are not convinced by this argument as we have signalled for some time that the 20-year regulatory asset life was subject to review.

In our final proposals for DPCR4 in 2004, we said that "In the longer term, it would be reasonable to expect the price control treatment of long-lived assets to more closely approximate to their useful technical or economic lives....it seems unlikely that 20 year lives would be optimal<sup>12</sup>". While we do not think legitimate expectations require us to apply the new depreciation policy only to assets installed from the next price control period, we do recognise that applying longer asset lives to new assets only is a possible transitional arrangement.

As we set out in RIIO<sup>13</sup>, our preference is to manage the transition over one price control period of eight years. This period, combined with the extensive period of consultation preceding it, should provide a sufficient time to allow companies to adapt their financing approach and to avoid any financeability concerns. Nonetheless, our prime consideration in deciding on the length of transition is the need to ensure companies are financeable and we will consider longer transition periods if companies provide sufficient evidence that it is not possible to make the transition within one price control period.

The actual transitional arrangements will be considered in detail during RIIO-ED1 based on the business plans and other evidence submitted by each DNO.

## Views invited

We would welcome views on any of the issues set out in this letter but particularly in relation to our suggested range for economic asset lives for electricity distribution assets and our suggested depreciation profile.

We would welcome responses to this letter by **25<sup>th</sup> February 2010**. Unless clearly marked as confidential, responses will be published on our website. Please email responses and expressions of interest to [peter.trafford@ofgem.gov.uk](mailto:peter.trafford@ofgem.gov.uk)

Yours faithfully,



Rachel Fletcher  
**Partner, Distribution**

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<sup>11</sup> Ofgem's duty has not changed as a result of RIIO.

<sup>12</sup> Electricity Distribution Price control Review: Final Proposals, November 2004 Ofgem. Paragraph 8.13

<sup>13</sup> <http://www.ofgem.gov.uk/Networks/rpix20/ConsultDocs/Documents1/RIIO%20handbook.pdf>. Paragraph 12.35