Ref: 20191004MC:CB

4 October 2019

Chris Pattas
General Manager - Distribution
Australian Energy Regulator

By email: repexdevelopment@aer.gov.au

Dear Mr Pattas

**Issues Paper - Review of repex modelling assumptions**

Essential Energy welcomes the opportunity to provide feedback to the Australian Energy Regulator (AER) on the Issues Paper for the review of repex modelling assumptions.

We support the AER's work on engaging with stakeholders so that the industry better understands the repex model, and that the AER has begun working with industry on specific repex modelling assumptions.

We have provided responses to the specific questions posed by the AER in this Issues Paper – see **Attachment 1**.

We would also like to take this opportunity to recommend that the AER look to update the explanatory documentation associated with the Regulatory Information Notice (RIN) tables to reflect changes or clarifications, and to assist in a clear and consistent basis of preparation for responses.

If you have any questions in relation to this submission, please contact Natalie Lindsay, Head of Regulatory Affairs on 02 6589 8419 or natalie.lindsay@essentialenergy.com.au.

Yours sincerely

Chantelle Bramley
**General Manager Strategy, Regulation and Corporate Affairs**

## Answers to specific questions raised in the issues paper

**1. Do you consider that setting defined maximum and minimum expected asset replacement lives would improve the forecasting accuracy of the repex model?**

Essential Energy considers that setting maximum and minimum expected asset replacement lives would improve the forecasting accuracy of the repex model. This is due to varying approaches to asset management, and specifically asset replacement amongst distribution network service providers (DNSPs) indicating different expected lives for similar assets. For example, Essential Energy has historically pushed timber pole assets harder than other DNSPs by setting the replacement trigger point later in the asset life. This has allowed the business to achieve greater value from the poles by consuming more of the asset life. However, this approach is also likely to have increased the expected asset life when analysed using the AER's repex model (in comparison to peers with different approaches to replacement).

Essential Energy believe that using an expected asset life (rather than a calibrated age), with a maximum and minimum value by asset type, would deliver a more accurate forecast of repex requirements.

**2. What do you consider would be the preferred approach to setting maximum and minimum expected asset replacement lives, including supporting engineering and statistical evidence?**

Essential Energy believes that the maximum and minimum expected asset replacement life should be calibrated to the asset type. Using, poles as an example, this would include separate lives for hardwood durability classes and treatment types. Similarly, all steel poles should not be treated equally as there are significant differences, for example between fabricated, round and stobie poles. To assist with setting the initial values, we would suggest a survey of DNSPs be conducted, to ascertain the appropriate type grouping, and the minimum, mean and maximum age for each type. This data, combined and statistically analysed, should provide a reasonable basis for setting the minimum and maximum expected asset replacement lives. This approach should also align to distinct asset management strategies within DNSPs, where these are based on statistically significant differences in asset life.

For example, pole type categories could include:

- Untreated timber
    - Hardwood durability 1
    - Hardwood durability 2
- Treated timber
    - Hardwood durability 1
    - Hardwood durability 2
    - Softwood
- Steel
    - Fabricated galvanised
    - Round galvanised
- Composite
    - Stobie
    - Fibreglass

**3. Is the current approach of addressing these concerns on a case-by-case basis sufficient, as we have done for previous decisions? If not, why not?**

Essential Energy suggests that a consistent approach should be taken, but one where the asset type and historical practice don't disadvantage a utility unnecessarily. For example, our approach to pole replacement results in our average pole age increasing each year, yet this may cause a gradual

increase in functional failures. There may be a time when the replacement rate will need to increase, to account for the increased likelihood of failure and to maintain a reasonable risk exposure.

**4. Do you consider that there are any other elements we need to consider should we limit expected asset replacement lives?**

Consideration should be given to the appropriate risk tolerance and the operating environment of the distributor. Consideration should also be given to failure rates and average age, as if these are increasing then it is reasonable to expect that replacement cost should also trend upwards.

**5. Do you consider that there is a better approach to selecting the calibration period?**

Using the most recent regulatory period to calibrate to makes sense, however the AER should consider the level of investment that the baseline represents. As all networks operate through cycles of replacement that are often based on historic periods of network rollout, the AER should be careful not to model locking in periods that represent peaks and troughs in the asset replacement life cycle.

**6. Are there any issues with the current approach to select the calibration period?**

As per above.

**7. What other issues or factors should we take into account when determining the calibration period?**

As per above.

**8. Is our current approach to forecasting repex for wooden poles clear and appropriate based on the information available? If not, why not?**

The current approach is appropriate if used as an input to determining reasonably efficient spending. If the approach is to use the repex model forecast as a substitute forecast, then the model needs to consider the leading indicators (or at least forward looking forecasts from lagging indicators) of wooden pole health. If the current repex model is used, then the forecast for wooden pole expenditure is always likely to lag the optimal level and risks, potentially creating a 'bow wave of investment'.

**9. What are your views on the appropriate estimation method for wooden pole staking or replacement volumes when the required data is not available?**

Essential Energy suggest that where appropriate data is not available, that the historical reinforcement rate be used where it seems reasonable and roughly consistent with peers. However, consideration should be given to each distributor's individual situation.

To provide some context, the following gives some background to Essential Energy's reinforcement program;

For a number of years, Essential Energy has included a requirement to consider reinforcing a pole (where technically suitable to do so), prior to any decision to replace it. We have continued to focus on this wherever economical. In the past, we have undertaken extensive bulk reinforcements to proactively decrease the likelihood of failure and defer the pole replacement – this shows as a peak in our historical reinforcement rate. It is our understanding that pole reinforcement rates should remain roughly consistent (as a percentage of total pole remedial actions) into the future. In addition, reinforcement costs can vary significantly due to the requirement by some reinforcement contractors, to pre-purchase reinforcing splints. These costs subsequently appear in a single financial year rather than spread over the years in which the reinforcing splints are installed.

**10. Are there any other approaches that could be applied to reasonably forecast repex for wooden pole asset categories?**

Essential Energy suggests that using the expected remaining service life (not necessarily derived from historical replacement) with a smoothed age profile (to remove spikes of asset installation dates) and consideration of failure rates, would assist with a reasonable forecast of repex for timber poles. Utilising asset conditional age would provide an even better outcome.

**11. Do you consider the assumption and rationale underpinning the exclusion of unique assets is clear and appropriate based on the information available?**

The assumptions and rationale could be captured better so all stakeholders are clear on why certain items are or are not included. However, to date the assets that have been excluded appear reasonable.

**12. Are there any other approaches that could be applied to reasonably model excluded asset categories, while incorporating a level of benchmarking?**

Essential Energy consider that utilising functional failure rates could inform forecast requirements for repex expenditure, by comparing failure rates over time. An increasing failure rate could indicate insufficient replacement (and hence replacement expenditure). An alternative would be to define a method for creating an age profile and apply a similar logic to the approach we suggested in question 10 above.

**13. What other repex model issues outside the scope of this review should the AER consider in future repex model reviews or forums?**

Essential Energy would like the AER to consider aligning (or even better merging) the repex (CA 2.2.1) and maintenance (CA 2.8.1/2.8.2) RIN tables to allow for total expenditure (totex) reporting across asset classes, and provide greater consistency with reporting of maintenance operating expenditure. It is Essential Energy's view that the most efficient way to forecast expenditure is from a total cost of asset perspective. This change would assist in moving the industry in that direction.