

Meeting Date	Location
27 July 2022	Hybrid – Powerlink Offices/Teams meeting

Attendees

Name	Organisation
Bev Hughson	Darach Energy Consulting Services
Chris Hazzard	St Vincent de Paul
Mark Grenning	EUAA
Andrew Broadbent	CS Energy
Albert Tong	AER
Nathaniel Dunnett	Powerlink
Jenny Harris	Powerlink
Gerard Reilly	Powerlink
David Gibbs	Powerlink
Paul Ascione	Powerlink
Roger Smith	Powerlink
Jules Taylor	Powerlink
Paul Reynolds	Powerlink

Meeting Minutes & Actions

Comments (C), questions (Q) and response (R)

Meeting commenced with overview of agenda.

Agenda items:

- Welcome and recap of previous meeting
- Overview of accounting treatment for Built Sections
- Transmission Line Built Section Assets – option considerations
- Questions
- Discuss next meeting – date change
- Actions

Customer Reference Group Accounting Treatment

Powerlink’s accounting treatment for Capital Expenditure is investment on an asset that either extends the useful life of the asset or where the level of investment is greater than 5% - 10% of the asset value.

Where the expenditure doesn’t increase the useful life of the asset but enables the asset to continue to be used is categorised as operating expenditure.

Q. Even if we are spending that money but its not extending the asset life but it's a significant spend, we can categorise that as CAPEX?

R. Yes. It's rare that we get into that category.

Q. With the 5% - 10% how do you choose whether to do the work?

R. It is a judgement call in line with the guidelines.

Q. What is your granularity? Are you treating the entire line as one asset or are you treating the components of the line as different assets? What granularity do you look at when you look at your built section?

R. One of the options that we talk through in the options section – it will include an option that breaks the transmission line down to components as assets.

C. So a built section includes all the towers in that section, all the insulators, all the lines and the land.

Q. Wondering if the longer the built section the more likely expenditure is to be OPEX given your current definition.

R. Typically what we see as insulator replacements are generally at that half-life and will be treated as OPEX. You can have similar work either expensed or capitalised and more often than not the cost threshold is a factor, but it's the point in the life cycle of that asset when you do the work. Further into the lifecycle, work will extend the useful life of an asset and therefore you trigger that capitalisation approach. Generally there's more work to bundle to get that uniform extension of useful life.

C. This discussion seems to be focusing on the 5%-10%, that bit is the exception rather than the rule. The rule is extending the useful life of an asset. We're not actually talking about 1 or 2 years we are talking 20-40 years.

Q. Does that mean the more important factor is the age of the asset rather than the particular built section?

R. Not necessarily age, because age is not a trigger for Powerlink to replace. Age is more a reason for us to go and assess. The trigger for doing work is the condition not the age of the asset but the age is a factor in how you're going to treat those costs.

Q. If age is a trigger for taking a look at the asset, then is the cost of taking a look capitalised or is that OPEX?

R. There is a routine inspection program as part of our maintenance program so that would all come under OPEX.

Q. From a customer point of view, is the price is less if you OPEX or CAPEX? If you CAPEX it the model then provides depreciation and return on asset, if you OPEX it you get all that expense in the year it occurs which to me it seems you bring that expenditure earlier to the customer. It almost seems that you pay more in the longer term if you CAPEX it.

R. I think this will be addressed in the next section of the discussion.

Transmission Line Built Section Options

Review a selection of transmission lines across the network to validate the following Transmission Line Asset Classification Principles:

1. Well defined at start of life and consistent of asset lifecycle (predictable and repeatable).
2. Have regard to transmission industry practice
3. Provides additional customer benefits over the current classification

4. Practical from a general business perspective.

The study included transmission lines examples across north, central and southern regions, inland and coastal, urban and rural and varying environments.

Option 1: Base Case

- A built section (BS) is a section of transmission line that was built/commissioned under a single project, and generally contains structures with identical or very similar characteristics.
- Consistently applied to present asset management approach to all transmission line assets on the network.
- The current, base case model requires bundling of components (structure, conductor, earthwire and insulation) to extend the life of the built section for an agreed period.
- The life extension period is determined by the future needs for the line.
- The classification does not impact what work is required/performed, it simply defines whether the work is CAPEX or OPEX.
- Powerlink current asset base has 2,437 built sections.

Option 2: Environment

- Health indices along Ross Chalumbin line 200+km.
- No consistent environment extremely variable health indices – blue actual and grey projected.
- The Health index for towers only from the latest inspection.
- Springmount to Bayview Heights example changed approach and did separate a single line into two sections with differing environment and the health index (corrosion was very distinctly different).
- Built section by environment option doesn't meet the principles:
 - At commissioning, we don't have a granular knowledge of the microenvironments and there will be inaccuracies compared with later observed corrosion performance.
 - Over the life of the asset environmental conditions can fluctuate due to local development, climate change and vegetation management.
 - Review of built section corrosion indicates that in most cases segregated environments are not clear or practically implemented.

Q. How are you modelling the health index projections for these assets?

R. There's two different modelling that's happening. The blue lines on the graph are actual observations and actual determinations of rust on a tower. What I don't know is what the tower next door is like. The other modelling using the grey line is just doing the straight line interpretation between two known points to say we think the rust might be here. The grey modelling gives us a first pass of what the condition might look like before they go and do the detailed work to figure out what is required.

C. As you go further down the project life-cycle all of the measures would eventually become blue as you do the final assessment which would involve assessment of every tower on the line.

Q. If we were to separate the Ross Chalumbin line into four smaller sections this health index graph would look the same it would just be in four separate sections?

R. Yes that's correct.

Option 3: Fixed length

Define Assets at a fixed length

- More than 80% of built sections are less than 50km in total length
- Majority of built sections are less than 25km long
- Where possible we bundle built sections with similar condition and close locality into a single project to achieve economies of scale
- While reducing long built section lengths (>100kms) may defer Capex expenditure on 9% of built sections, it will increase Opex expenditure on these in the interim period.
- Reinvestment timing based on built section condition however for long built sections a lower % structures need to have Health Index greater than or equal to initiative a project.
- Using South Pine to Woolooga built section as an example separating it into fixed lengths offers no benefit. There is no correlations between length and asset condition.

Q. Any deferral of expenditure after a certain point will be a trade-off with OPEX and CAPEX. Why would reducing long built sections by itself increase the OPEX expenditure over and above if it was all the one length?

R. Reducing the length doesn't result in a deferral.

Q. Is it a case of the longer the built section the more likely it is to be CAPEX than OPEX?

Q. Is there a preference for one or the other from a customer perspective?

R. It depends. CAPEX defers the expense to customers to later as opposed to OPEX which is passed through to customers immediately. You can't give a blanket answer.

C. Other networks with a lower level of asset classification are doing more OPEX and getting fast money because that work is completed and costed straight away.

C. My understanding is if you have a lower disaggregation of assets, you are treating each of those components as individual assets and as you replace these smaller assets, you are extending their life and must treat it as CAPEX which defers the cost to customers. Then you don't have to worry about these other issues because you have an alignment between how you manage the asset which is you inspect at an individual asset level, you asset manage at an individual asset level and your financial account also treats them at the same level. The only time you don't treat individually is when you bundle them together and give to a project manager to manage.

Q. Doesn't that suggest that the narrower the asset definition, the more likely it is to be CAPEX, the wider the definition the more likely it is to be OPEX? So if Powerlink is having a wider definition of asset, then it's more likely to be OPEX which means Powerlink is getting fast money?

R. If you take insulator replacements as an example, It would generally be expensed (OPEX) when it is in the mid-range of the asset life of the built section. But insulator replacements could be treated differently as you approach end of life. In that case the insulator replacement together with the tower refurbishment, together with associated work would extend the useful life of that asset so would be treated as CAPEX.

C. So if you're definition of asset is one tower, then it's much easier to get over the 5% - 10% hurdle so that doing a small bit on one tower that gets into CAPEX. But if you have 100 towers defined as an asset, and you need to do the same work on one of those 100 towers or even 10 of those 100 towers it's going to be OPEX.

C. Regardless of whether designated OPEX or CAPEX we just want to test that the most appropriate decision is being made regardless.

C. I have ultimate faith that you are doing only the work that needs to be done and that it is in line with your accounting practices, my concern is that your definition of built section is influencing your application of the accounting standards, and your current definition of long built section length means it is more likely to OPEX than CAPEX then we have the philosophical problem as

consumers. Should the built section length be shortened to move the balance between fast money and slow money?

C. I think we are getting fixated on the 5% - 10% when it's not the key driver of what we actually do.

Q. So to base our recommendations on the 5% - 10%, which is the exception to the rule, would be less appropriate than looking at other aspects?

R. Yes.

R. I'm not aware of any project that we have done on transmission lines, in the last ten years on transmission lines that has been justified on the bases of the threshold 5% - 10%. The only CAPEX work that we have done on transmission lines in the past ten years has been life extension work. It's at end of life and you are extending its useful life.

Option 4: Function

- Assets defined based on function:
 - Structure (including foundations) ~ 3,000 poles
 - Insulator string (including fittings) ~180,000 strings
 - Conductor span (include fittings) ~ 75,000 conductor spans
 - Earthwire span (include fittings) ~25,000 earthwire spans
 - Land ~ 40,000 hectares over 10,000 route kilometres

- Would result in a large increase in the number of assets for financial purposes
- Would change the division between CAPEX and OPEX.
- Likely to meet Principles 1 and 2, however a detailed analysis of this asset model on a sample of projects to follow to determine:
 - Where it would provide an overall net customer benefit (principle 3)
 - Practicality to implement including from a financial point of view (principle 4)
 - Determine its cost viability and advantages and disadvantages

- Propose continuing this analysis and report back at the next ARR working group meeting.

Q. Would each individual component/asset have its own age profile?

R. Yes each asset would have a commissioning date when it was installed, an age profile and an asset strategy. You'd also then have condition assessments for each.

Q. Would that change the level of assessment conditioning we do at the moment?

R. I wouldn't see that changing to a different model would change our management approach or the way we conduct condition assessments.

Option 5: Accessibility

Assets grouped together based on their ease of access

- This option does not appear to meet Principles, for the following reasons:
 - Accessibility of a given asset is not fixed over its life due to wet weather, vegetation management, access tracks, climate change, landholder relations and outages etc.
 - Difficult at commissioning to define an accessibility when populations fluctuate particularly in regional towns based on economic factors.

- Not aware of any other transmission utilities who use accessibility as a basis
- Powerlink bundle transmission lines projects together where it provides a cost benefit in doing so.
- The built section accessibility factor is already somewhat factored into the current model, with rural lines tending to be longer with greater distances between substations and urban lines at reduced length.
- Traffic light assessment/heat map of each option against the four assessment principles.
- Proposing option four needs further investigation because it meets two of the key principles.

C. A tower on its own or a span on its own has no value it's only a built section that has real value because you transmit electricity across it. It's really the built section that provides value and can be costed based on the value. All of those other components are like sub components they're like saying in a car I want to value the cost of my tyres, the engine and body separately but the value is in the entire car because that's what you use.

Q. Can you please explain given the conversation about fast money and slow money, what your principle three actually means?

R. We wouldn't change our asset classification unless there was some sort of customer benefit.

Q. How are you defining customer benefit in terms of fast money or slow money?

R. That's our next bit of work, sitting down and working out all the things we need to assess against that criteria so I need to sit down with the asset team in terms of CAPEX OPEX trade off.

C. What I'm suggesting is that we have transparency around what the complications are around CAPEX and OPEX and then we can have a discussion about what is significant customer benefit.

R. Yes is it in terms of revenue impact or price impact.

Q. What is the objective this group wants us to achieve out of this exercise? We are happy to investigate further but is there something that is not being captured through that investigation?

R. I think we need to be careful distinguishing two things – there is a better way of running your business and you will get lower TOTEX by doing it that way or are we saying there is a better way of forecasting your revenue requirements because by using these large built section definitions are you overstating your requirements. As a consumer you want to see that this is a good forecast and am I getting value for money. They are two distinct objectives.

C. Is another way of looking at the efficient cost for consumers rather than how the built sections are accounted for? Is a better way of looking at this analysis to ensure consumers are getting an efficient outcome is to look at what is the materiality of that underspend? This explains any potential over forecasting of revenues for which Powerlink is receiving but not spending and then that's the inefficient cost.

R. People look at this in two ways – one is any potential changes we need to make to our asset reinvestment approach, second is how do we better communicate that in a more transparent way with our stakeholders, AER and our customers.

C. I went back to the original letter from Paul to Justin Oliver back in September about the purpose of the review. And base on that letter the proposition for review was that Powerlink's definition of

built section may bias CAPEX too high and hence inefficient. So that's why we've started doing all that work on understanding built sections and we've got all these options under review on how you might define built section length and that's fine but if the end result says that the current way you do things results in the most efficient outcome I'm going to be happy because we've gone through the analysis to prove that's the case. I think we are heading in the right direction.

Q. Are you proposing to only investigate further option 4 or will you be investigating options 2, 3 and 5 also?

R. We are recommending we should look at number 4 but will be guided by your input.

C. With the length option your trigger for things was length dependent – there was a health index value in have lengths shortened over long lines. Whether that's a thing that needs to be considered and investigated.

R. There is a trigger for different lengths of built section. You need to start earlier with longer sections so you finish at the same point and not necessarily at least up front until you've done the extra data from the condition assessments only then can you have confidence in the overall condition of the line.

Actions from meeting

Action	Responsible	Timing
Cancel existing 8 August meeting and reschedule to allow time to finish investigation work.	Powerlink	July 2022
Recirculate the scope	Powerlink	July 2022
Assess timing to finish investigation work and liaise with appropriate areas of the business and email the group	Powerlink	August 2022
Continue with more detailed investigation of option 4 (Function) to report back to the group	Powerlink	September 2022
Schedule alternative August meeting for early September	Powerlink	August 2022
Disseminate overview of investigation findings ahead of September meeting	Powerlink	September 2022