Energy
Infrastructure
Investments

# Directlink Joint Venture

Directlink
Revised Revenue Proposal

Attachment 6.1

Marsh – Update to Estimation of Insurance Premiums and Quantification of Self-Insurance Costs

Effective
July 2015 to June 2020

January 2015

MARSH

# DIRECTLINK
# ADDENDUM IN RESPONSE TO AER DRAFT DECISION DATED NOVEMBER 2014

## Insurance

In response to the AER's draft decision dated November 2014 we have reviewed our initial premium estimates and have made the following amendments:

### Industrial Special Risks

#### *Revised Premiums*

| Policy Year | Projection Year | Rate | Base premium | Terrorism | FSL | Stamp Duty | Total |
|---|---|---|---|---|---|---|---|
| 2014/2015 | 1 | 0.200% | $ 589,680 | $ 12,034 | $ 120,945 | $ 71,543 | $ 794,202 |
| 2015/2016 | 2 | 0.190% | $ 560,196 | $ 11,433 | $ 114,897 | $ 67,966 | $ 754,492 |
| 2016/2017 | 3 | 0.181% | $ 532,186 | $ 10,861 | $ 109,152 | $ 64,568 | $ 716,767 |
| 2017/2018 | 4 | 0.181% | $ 532,186 | $ 10,861 | $ 109,152 | $ 64,568 | $ 716,767 |
| 2018/2019 | 5 | 0.181% | $ 532,186 | $ 10,861 | $ 109,152 | $ 64,568 | $ 716,767 |
| 2019/2020 | 6 | 0.167% | $ 492,272 | $ 10,046 | $ 100,966 | $ 59,725 | $ 663,010 |

| Policy Year | % Change due to Opex/Capex | % Change due to Market |
|---|---|---|
| 2014/2015 | 0.00% | -10.00% |
| 2015/2016 | -2.50% | -2.50% |
| 2016/2017 | -2.50% | -2.50% |
| 2017/2018 | -2.50% | 2.50% |
| 2018/2019 | -2.50% | 2.50% |
| 2019/2020 | -2.50% | -5.00% |

#### *Comments*

- The 2014 premium is based on two years post fire and reflects a 10% reduction from the 2013 year which had a rate of 0.22%. In our opinion, the claims experience of Directlink has had a material impact on the premium rating. However, we believe the impact of the major fire loss will dissipate over the forthcoming period subject no further significant losses.
- In conjunction with the above, the proposed Capex and operational changes will enable a consistent reduction in rate to be achieved over the five year period. Combined with

changes to insurance market conditions we expect to see the rate reduce to approximately 0.167%. This is different from our original submission where we understood the risk improvements (key of which is the fire suppression system) would not be implemented until 2019 and as such applied all the % change due to Opex/Capex at that point. We now understand the dates of this have changed with improvements being progressively implemented from 2015. Therefore we are reflecting these progressive risk improvements with respective rate reductions over the five year period.

- The premiums provided by Marsh are based on the assumption that each asset is placed on a standalone basis. This ensures that the insurance costs of each respective asset are not affected by the claims history of another.
- All coverage, limits and retentions are as per our original report.

## Combined General Liability

### *Revised Premiums*

| Policy Year | Projection Year | Base premium | Stamp Duty | Total |
|---|---|---|---|---|
| 2014/2015 | 1 | $ 157,500 | $ 15,750 | $ 173,250 |
| 2015/2016 | 2 | $ 161,438 | $ 16,144 | $ 177,582 |
| 2016/2017 | 3 | $ 157,500 | $ 15,750 | $ 173,250 |
| 2017/2018 | 4 | $ 153,563 | $ 15,356 | $ 168,919 |
| 2018/2019 | 5 | $ 157,500 | $ 15,750 | $ 173,250 |
| 2019/2020 | 6 | $ 161,438 | $ 16,144 | $ 177,582 |

| Policy Year | % Change due to Market |
|---|---|
| 2014/2015 | 5% |
| 2015/2016 | 2.5% |
| 2016/2017 | -2.5% |
| 2017/2018 | -2.5% |
| 2018/2019 | 2.5% |
| 2019/2020 | 2.5% |

### *Comments*

- Revised premiums above are based on standalone $300m limit of liability for Directlink (note previous report provided costs based on $650m limit)
- Liability exposure for electricity assets in general is higher than pipeline type assets and accordingly Directlink and Murraylink will attract a higher premium than other EII assets and they will also require a higher policy limit.

## Self-Insurance

Marsh followed a rigorous process as part of this risk quantification exercise in identifying and analysing the full spectrum of risks that APA is exposed to, specifically relating to Directlink under prescribed services. Details of this process have been documented as part of the Marsh insurance and self-insurance report. Subsequent to this, risks that were designated to be most efficiently dealt with through self-insurance were broken down into five groupings. Description and detailed calculation of the self-insurance allowance has been included in section six of the original Marsh submission. For ease of reference and further clarity, we have summarised them as follows:

### 1. Working losses:

This is intended to cover any insured losses under the property programme that are not related to catastrophic failures, fires or extreme natural catastrophe events. Over the historical 8 years to date (refer to Appendix B), there has been 3 losses in total, one of which is the catastrophic fire at Mullumbimby which we have designated as "major property loss" and included in the next paragraph. In terms of self-insurance, the remaining two losses are insured, thus liable for the insurance deductible amount only (as per FM Global (insurer) wording, we have taken the $250k named location, property damage only deductible). Both of these losses occurred pre the 2012 fire, and to the extent that the AER's view is that the risk should be at a pre-fire level we think it is not unreasonable to assume these may again happen in the future. We are not aware of any under-deductible working losses, thus have not included any in the allowance.

The proposed self-insurance allowance is $62.5k, the product of frequency (1 in 4 years) and severity ($250k).

Our self-insurance estimates do not specific pre-capex or post-capex as they are applied to any insured loss, as long as it is above the deductible.

### 2. Major property loss:

Under this designation, we have considered three scenarios based on a risk engineering report by Marsh Risk Consulting. These loss scenarios are considered credible significant loss events with their severity estimated as either Maximum Foreseeable Loss (MFL) or Normal Loss Expectancy (NLE), in the form of either catastrophic fire / explosion, equipment failure, power transformer loss, or any combination of all three. Given the catastrophic nature of the Mullumbimby fire, we consider this event to be considered as part of this risk grouping. In terms of self-insurance, as these refer to more significant insured events, they are likely liable for property damage plus time element. As per FM Global wording, if both deductibles are triggered under one event, the sum of the two $1.25m apply, i.e. $250k for property damage plus $1m for time element. The time element relates to business interruption, in APA's case, as highlighted in detailed description in section six of our report, it would most likely arise out of expediting costs or increased cost of working. In terms of frequency, our original submission has assumed them to be 1 in 25 year events. However in light of the comments in the AER draft decision attachment 7 and PSC engineering report highlighted, it is not unreasonable to assume, albeit conservatively and potentially prematurely, the proposed capex and opex spends in future forecast years, to improve the “design and operation of the Directlink asset”…..”to at least pre-fire levels”. The PSC report has estimated pre-fire risk likelihood to be 1 in 42 years. Marsh would thus like to revise the frequency assigned to this designation, from 1 in 25 years to 1 in 42 years.

The revised proposed self-insurance allowance is $29.8k, the product of frequency (1 in 42 years) and severity ($1.25m), down from $50k from our original submission.

## 3. Decontamination event

We have separately identified loss scenario where costs could potentially exceed the sub-limit under FM policy. This has been described as ‘property damage results in the discharge of containment. Such events may include the failure of a reactor or transformer that results in the discharge of oil’ and detailed in our original submission. The severity of the containment costs following a decontamination event is assumed to be $0.75m, which is made up of $0.25m property damage only deductible, plus $0.5m uninsured costs beyond the $0.1m FM policy sub-limit.

The proposed self-insurance allowance is $15k, the product of frequency (1 in 50 years) and severity ($0.75m).

## 4. Catastrophic property loss

Other catastrophic property loss scenarios have also been considered, namely occurrence of natural catastrophes such as flood at convertor station, earthquake, wind, aircraft damage to powerlines or non-physical damage to computer systems such as SCADA system. Such events are deemed to be more remote, thus we have attached a frequency of 1 in 100 years (natural catastrophes), again using the risk engineering report and third party sources such as Munich Re Hazard model, and 1 in 200 years (damage to computer systems), but are assumed to be insured under FM wording. All scenarios outlined here, if insured, attract $1m in deductible amounts.

The proposed self-insurance allowance is $15k, the summation of $10k for natural catastrophes (1 in 100 years multiplied with $1m deductible) and $5k for non-physical damage (1 in 200 years multiplied with $1m deductible).

## 5. Liability event

Similarly, we have considered loss scenarios where Directlink is liable for costs resulting from third property damage or injury, i.e. a ‘liability event’. These are assumed to be as likely as the natural catastrophes thus 1 in 100 years and attract a $0.1m insurance deductible.

The proposed self-insurance allowance is $1k, the product of frequency (1 in 100 years) and severity ($0.1m).

We would also like to reiterate the above costs refer to expected annual cost of future losses only, and are exclusive of any transfer pricing margins, i.e. cost of capital or settlement expenses. The revised table 6.1 based on the above five a designation is enclosed as follows:

**Table 6.1 - original submission**

| Period | Working Losses | Major Property Loss | Decontamination Event | Catastrophic Property Loss* | Liability Event | Total |
|---|---|---|---|---|---|---|
| **2015-16** | 62,500 | 50,000 | 15,000 | 15,000 | 1,000 | **143,500** |
| **2016-17** | 62,500 | 50,000 | 15,000 | 15,000 | 1,000 | **143,500** |
| **2017-18** | 62,500 | 50,000 | 15,000 | 15,000 | 1,000 | **143,500** |
| **2018-19** | 62,500 | 50,000 | 15,000 | 15,000 | 1,000 | **143,500** |
| **2019-20** | 62,500 | 50,000 | 15,000 | 15,000 | 1,000 | **143,500** |
| **Total** | **312,500** | **250,000** | **75,000** | **75,000** | **5,000** | **717,500** |

*note 'catastrophic property loss', was incorrectly quoted in table 6.1 as $10k in the original submission.

**Table 6.1 - revised submission**

| Period | Working Losses | Major Property Loss | Decontamination Event | Catastrophic Property Loss | Liability Event | Total |
|---|---|---|---|---|---|---|
| **2015-16** | 62,500 | 29,762 | 15,000 | 15,000 | 1,000 | **123,262** |
| **2016-17** | 62,500 | 29,762 | 15,000 | 15,000 | 1,000 | **123,262** |
| **2017-18** | 62,500 | 29,762 | 15,000 | 15,000 | 1,000 | **123,262** |
| **2018-19** | 62,500 | 29,762 | 15,000 | 15,000 | 1,000 | **123,262** |
| **2019-20** | 62,500 | 29,762 | 15,000 | 15,000 | 1,000 | **123,262** |
| **Total** | **312,500** | **148,810** | **75,000** | **75,000** | **5,000** | **616,310** |