CMP402 Workgroup 12: Rationale for Proposed Solution and Workgroup Report Analysis

ESO

Rationale for Proposed Solution

Rationale for Proposed Solution

Overarching view

- It is important to balance incentivising Offshore Coordination, protecting developers from significant and unrealistic liabilities and the risk put on end consumers.
- With the proposed solution, although cost recovery is a consideration, there is a strong emphasis on incentivising the development of offshore generation in a coordinated way.
- Therefore driving the appropriate behaviours is key, whilst building on the principals we have in the methodology today.

Background to liability percentages

- CMP192 considered Wider works benefited both the Transmission and Demand side, therefore a 50/50 split was originally considered between developers and consumers in terms of liabilities.
- There was also an appreciation that if a developer terminated their project, a Global Asset Refuse Factor (GARF) could be considered to represent the potential for reusing components of the asset.
- Therefore a split of 33/67 (developer/customer) was deemed more reflective prior to Final Investment Decision (FID).
- However as project development progresses and nears completion, the GARF would reduce as components of the asset become more tailored to a specific project, so post the trigger date, the value moves to 67/33 (developer/customer) to reflect this.
- Additionally post FID, the developer will have the financial backing for the project, and considered to be in a better position to secure larger liabilities.

Rationale for Proposed Solution

Rationale for Liability Percentages

- It is firstly important to consider the principles we have in place in the methodology today and utilising this as a platform to build on.
- Therefore for CMP402, a 33% liability is proposed to apply to the later project (Later User) pre trigger date and 67% post trigger date.
- So, although the consumer is responsible for a large proportion of the liability initially, this is negated to an extent by the possibility of the assets being re-used by another project, should the Later User decide to terminate.
- This risk to consumers could be further minimised if the initial project submitted a new application under the Early Stage Assessment (ESA) to re-asses the AI and non AI values.
- Through the Workgroup process we have identified that the 33% liability value for the later project prior to the trigger date would result in significant liabilities therefore the solution has been further developed to consider fixed liabilities prior to the trigger date.

Background for fixed liabilities

- CUSC section 15 part 3.9 outlines that if a construction agreement is terminated or the TEC is reduced before the trigger date, the liabilities would be the lower of:
    - (a) a sum equivalent to the Cancellation Charge (and if not known an estimate of this) which would apply in the Financial Year which is 3 Financial Years prior to the Financial Year in which the Charging Date occurs; **or**
    - the liabilities would vary according to the financial years from the date of the construction agreement to the trigger date as follows:
        - up to the end of the first Financial Year (i.e. t =1), a Pre Trigger Amount of (£1/kW)
        - Where t = 2, a Pre Trigger Amount of (£2/kW)
        - Where t ≥ 3 up to Trigger Date, a Pre Trigger Amount = (£3/kW)

Rationale for Proposed Solution

Rationale for fixed liabilities

- Again if we build on the principles outlined in CUSC, we can scale these fixed liabilities appropriately and apply them to the offshore assets for AI.
- Therefore the following liabilities are proposed for offshore assets under CMP402:
    - the liabilities would vary according to the financial years from the date of the construction agreement to the trigger date as follows:
        - up to the end of the first Financial Year (i.e. t =1), a Pre Trigger Amount of (**£2/kWh**)
        - Where t = 2, a Pre Trigger Amount of (**£4/kWh**)
        - Where t ≥ 3 up to Trigger Date, a Pre Trigger Amount = (**£6/kWh**)
- The scaling from £2,4,6/kWh helps reflect the relative size and costs of offshore assets compared to onshore assets.
- Looking at the typical range of liabilities that radial offshore projects have today, applying the above principles would help to address the balance of AI costs and more importantly enable the liabilities for non radial offshore projects to fall within a similar range.
- This would effectively help strike the right balance between incentivising Offshore Coordination, protecting developers from significant and unrealistic liabilities and the risk put on end consumers.

Rationale for Proposed Solution

Benefits of the overall solution

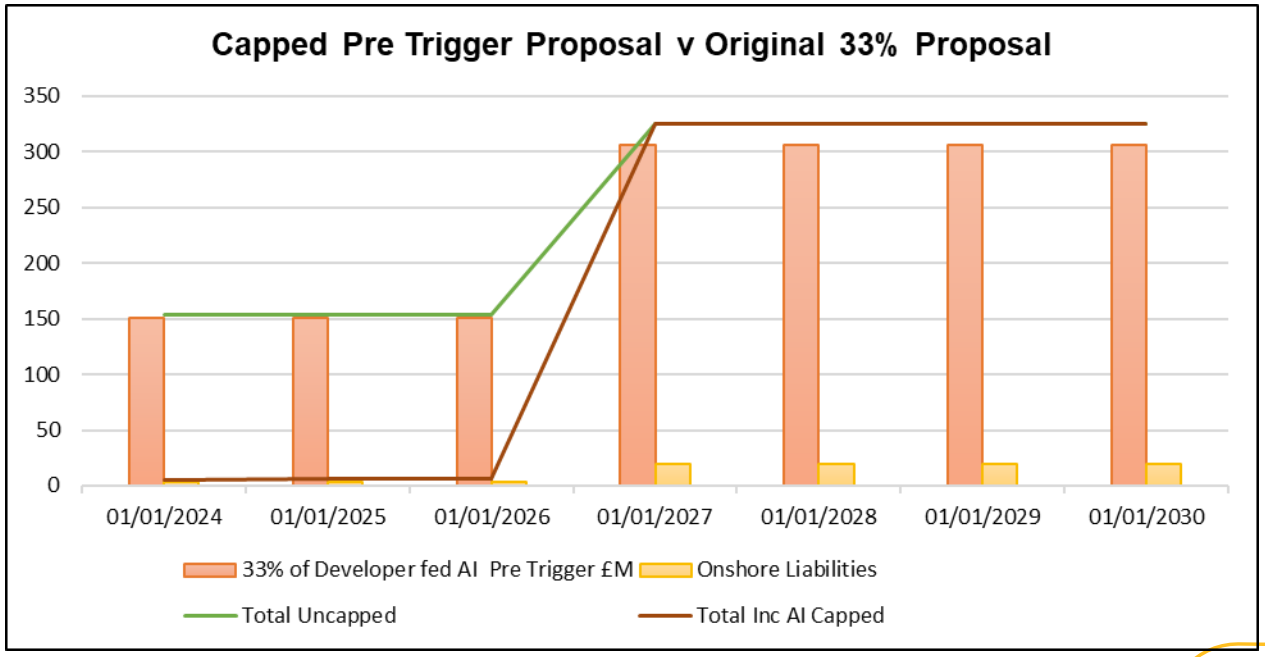
- Builds on the principles we have in the CUSC methodology today in terms of liability percentages pre trigger date and fixed liabilities post trigger date.
- Enables consistency in approach across the CUSC section 15 methodology.
- Considering the range of typical liabilities today, the proposed solution will help the offshore generators to fall within a similar range.
- This in in turn should drive the right behaviours, encourage investment and offshore coordination.
- Fairly simple approach to implement.
- Provides certainty to developers on liabilities pre trigger date, helping with FID.
- Future proofs the methodology for future projects with Anticipatory Investment.

Workgroup Report Analysis

Comparison of Onshore Radial v AI Liabilities (500MW)

- The example below is based on a Later Users project which is 500MW. The design used is a 1GW HVAC costing in the region of £915m.
- This assumes a 50/50 split for the AI cost from the overall cost of the project, therefore the AI cost is £457m.
- The table and the graph illustrate how the Later Users liabilities have now changed as a result of the Capping of AI liabilities up until the Trigger Date.
- For completeness, this also takes into consideration the onshore liabilities which the Later User will also possibly be liable for based on example values.

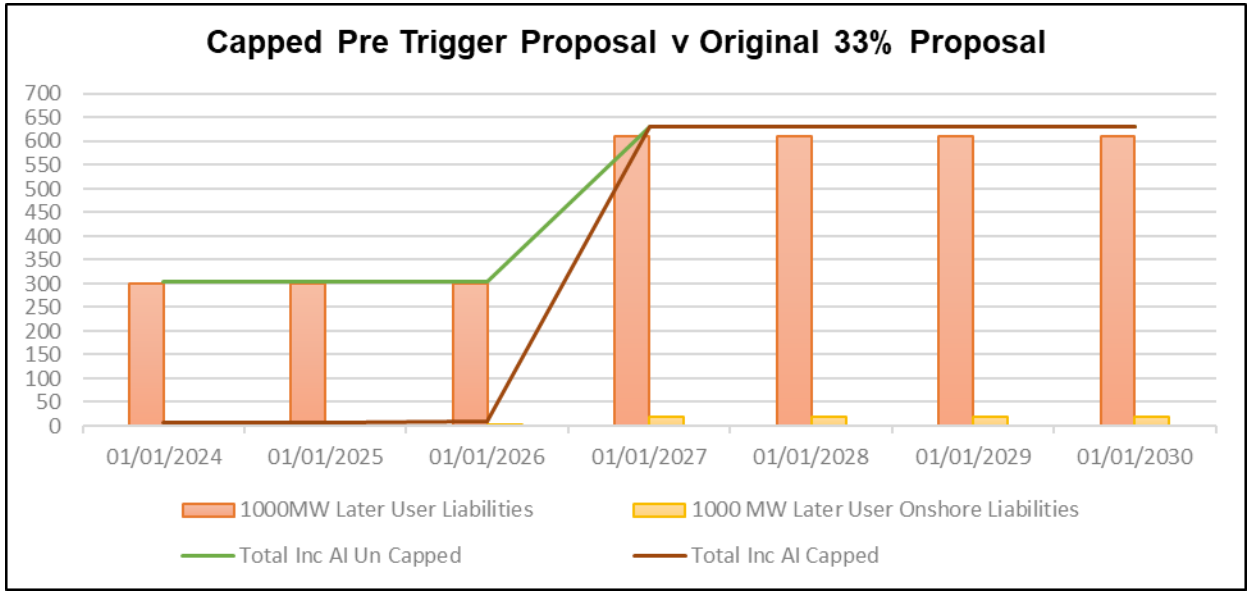
Date	33% of Developer fed AI Pre Trigger £M	Onshore Liabilities £M	Total Uncapped £M	Total Inc AI Capped £M
01/04/2024	151	3.8	154	4.8
01/04/2025	151	3.8	154	5.8
01/04/2026	151	3.8	154	6.8
01/04/2027	306	19	325	325
01/04/2028	306	19	325	325
01/04/2029	306	19	325	325
01/04/2030	306	19	325	325



Comparison of Onshore Radial v AI Liabilities (1000MW)

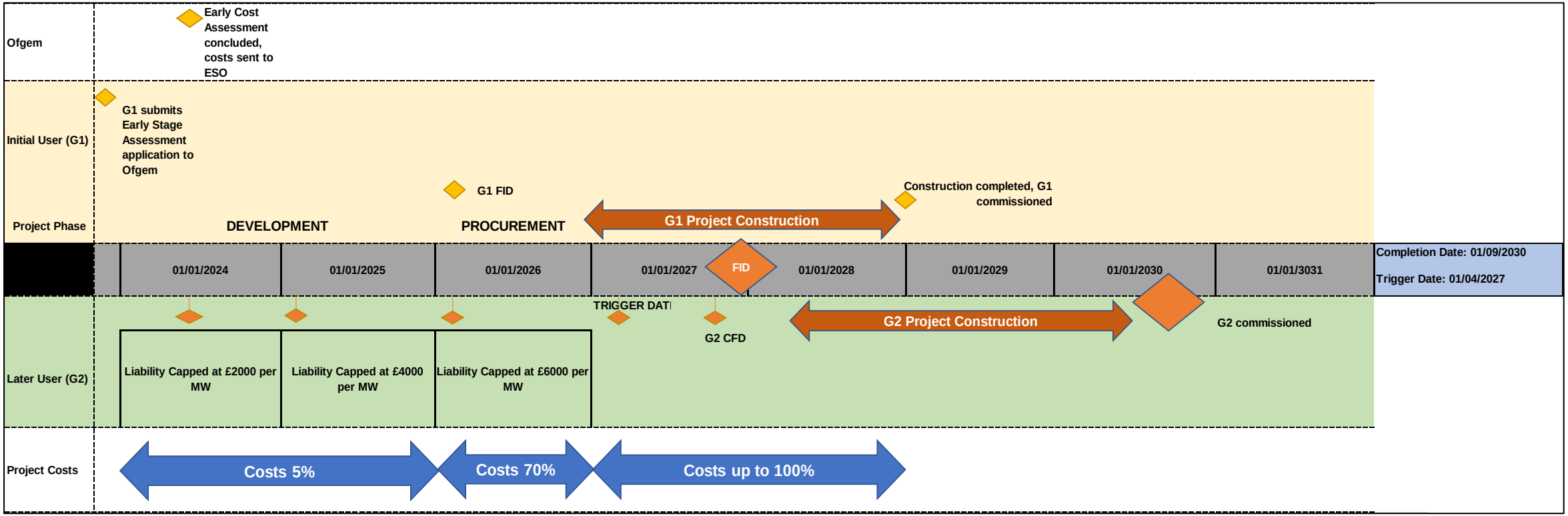
- The example below is based on a Later Users project which is 1000MW. The design used is a 2GW HVDC costing in the region of £1826m.
- This assumes a 50/50 split for the AI cost from the overall cost of the project. Therefore the AI cost is £913m.
- The table and the graph illustrate how the Later Users liabilities have now changed as a result of the Capping of AI liabilities up until the Trigger Date.
- For completeness, this also takes into consideration the onshore liabilities which the Later User will also possibly be liable for based on example values.

Date	1000MW Later User Liabilities £M	1000 MW Later User Onshore Liabilities £M	Total Inc AI Un Capped £M	Total Inc AI Capped £M
01/04/2024	301	3.8	304.8	5.8
01/04/2025	301	3.8	304.8	7.8
01/04/2026	301	3.8	304.8	9.8
01/04/2027	611	19	630	630
01/04/2028	611	19	630	630
01/04/2029	611	19	630	630
01/04/2030	611	19	630	630



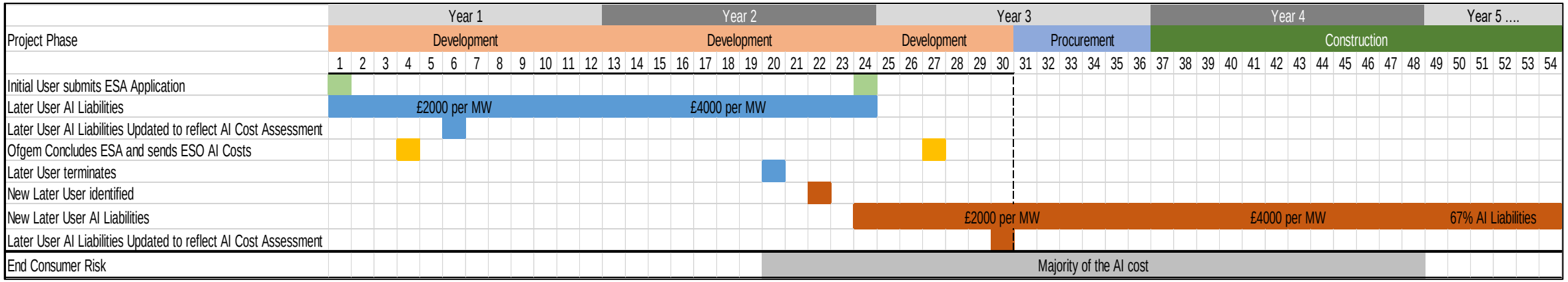
Typical Offshore costs in accordance to Offshore Coordination

The below demonstrates where a majority of the costs are in accordance to the Initial User's project cycle:



Proposed new options for Pre - FID

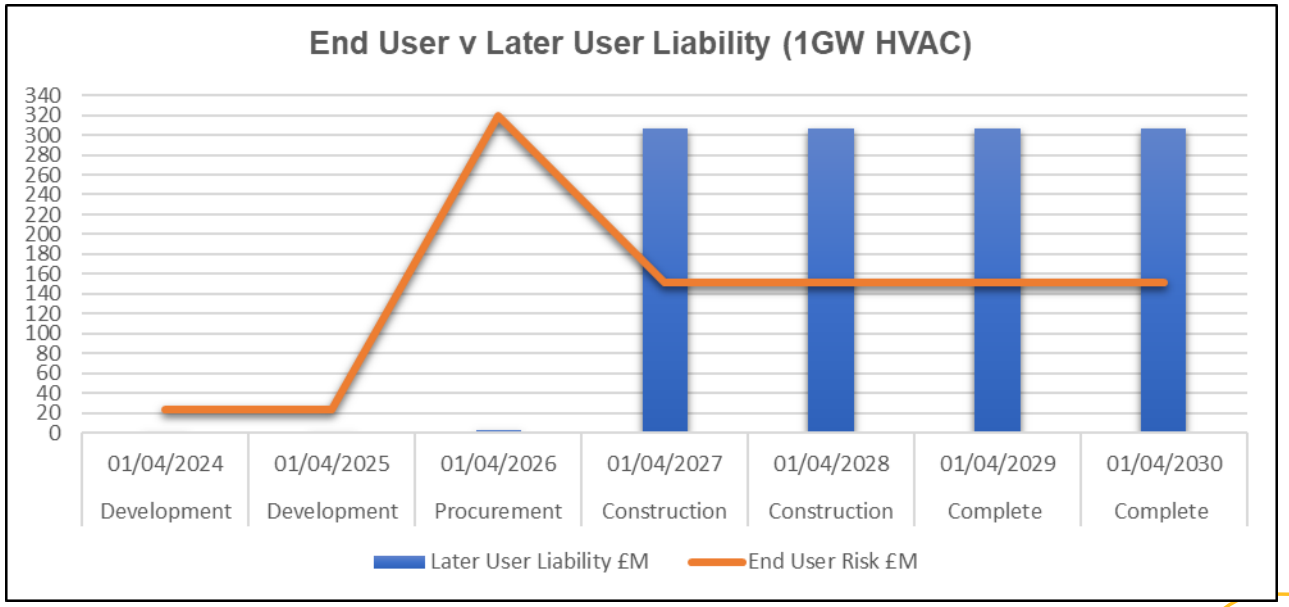
- The below demonstrates the scenario where the majority of the risk sits on the End User in terms of the AI costs. The original Later User terminates its project in year 2, with the Initial User still within the development phase.
- A new Later User is identified which warrants a new ESA application to Ofgem. On conclusion of the new ESA, the new Later User AI liabilities commence on £2000 per MW.
- The new Later User does not reach Trigger Date until Month 49 which is when its AI liabilities increase to 67% at which point, the End User is liable for 33%.



End User Risk v AI Liabilities (500MW)

- Using the timeline from the previous slide, the below graph shows the potential cost to the end consumer based (end user) on CMP402 proposals.
- Where costs significantly rise based on the scenario used in earlier slides, the Later User will face larger liabilities.
- Note, the greatest risk to the end consumer in terms of costs could be where the Initial User has placed orders for assets which will be before the Later User hits the Trigger Date.
- The assumption is that should the Initial User have reached this milestone, if the Later User reduces TEC and or Terminates, this would be too late for a change to the design.
- Later User liability is 500 x 2,4,6 per MW and does not include the Onshore liabilities for this scenario.

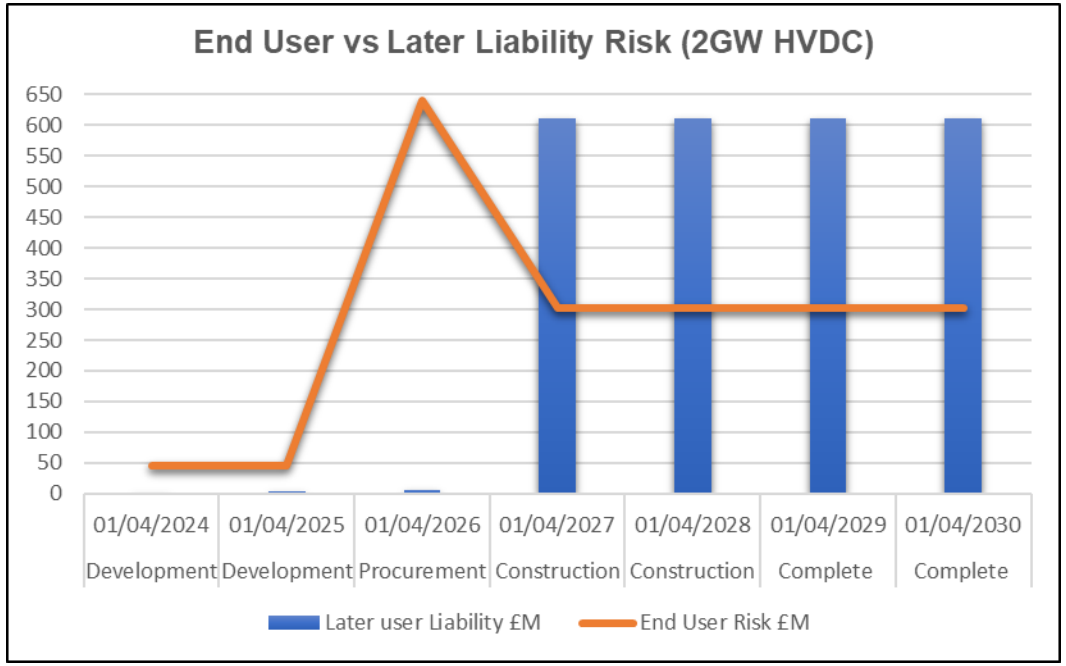
Phase	Date	Later User Liability £M	End User Risk £M
Development	01/04/2024	1	23
Development	01/04/2025	2	23
Procurement	01/04/2026	3	320
Construction	01/04/2027	306	151
Construction	01/04/2028	306	151
Complete	01/04/2029	306	151
Complete	01/04/2030	306	151



End User Risk v AI Liabilities (1000MW)

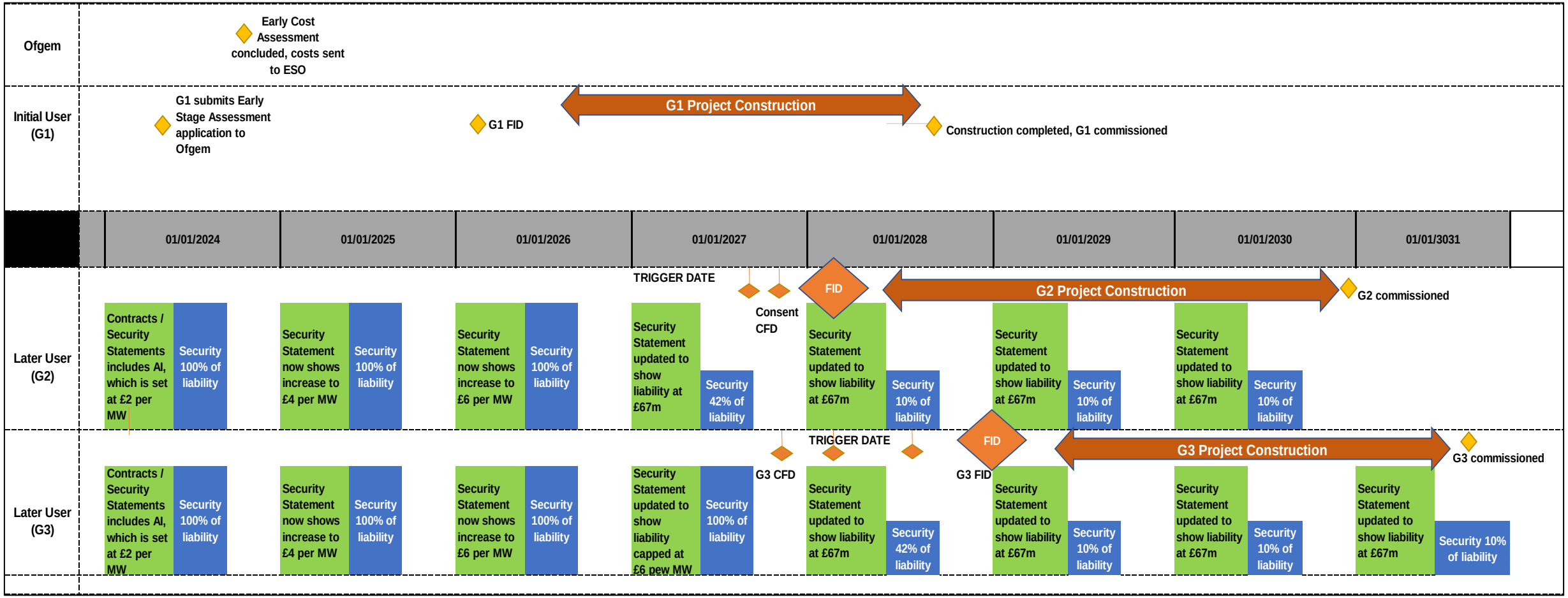
- Using the same timeline as slide 11 and the same assumptions in terms of Initial User and Later User timelines, this scenario is based on a 2GW HVDC design where the costs are significantly more overall.
- Later User liability is 500 x 2,4,6 per MW and does not include the Onshore liabilities for this scenario.

Phase	Date	Later user Liability £M	End User Risk £M
Development	01/04/2024	2	45
Development	01/04/2025	4	45
Procurement	01/04/2026	6	639
Construction	01/04/2027	611	302
Construction	01/04/2028	611	302
Complete	01/04/2029	611	302
Complete	01/04/2030	611	302



High level proposal where more than 1 Later User

- The below timeline highlights how liabilities and securities apply where there is more than 1 Later User.
- Note that Trigger Dates are different based on different Completion Dates.



Two Later Users (400MW and 600MW) with a 2GW HVDC Design

- The example below is based on two Later Users projects which total 1000MW on a 40/60 split. The design used is a 2GW HVDC circuit costing in the region of £915m.
- End Consumer risk is high where both Later Users have capped liabilities. This risk decreases as the Later Users reaches the Trigger Date. This assumes that both Later Users are on similar timelines.
- The table and the graph illustrate how the Later Users liabilities have now changed as a result of the Capping of AI liabilities up until the Trigger Date.
- For completeness, this also takes into consideration the onshore liabilities which the Later User will also possibly be liable for based on example values.

Date	Later User 1 (400 MW)	Later User 2 (600MW)	End Consumer
01/04/2024	0.8	1.2	45
01/04/2025	1.6	2.4	45
01/04/2026	2.4	3.6	639
01/04/2027	245	367	301
01/04/2028	245	367	301
01/04/2029	245	367	301
01/04/2030	245	367	301