

Table 3.2

[as amended from version presented in APP-045]

The Influence of Project Phasing on the Technical Scope of the EIA (Scenario 1: 1700 MW project constructed in one phase; Scenario 2: phased development)

Topic	Consideration of Phasing	Additional Column: Explanation of why this is the worst case	Additional Column: Consideration of how the impact would vary in Scenario 2 i.e. Construction of Second Train and Operation of First Train
Contaminated land, water resources and flood risk - construction	Scenario 1 construction is worst case. No change from scoping.	Topic impacts relate to land-take and construction disturbance. Scenario 1 represents the largest extent of land-take in one tranche and therefore the worst case.	Not applicable. Any contamination and flood risk issues relevant to the development platform would be managed for the site as a whole irrespective of the staged construction of the turbines.
Contaminated land, water resources and flood risk - operation	Scenario 1 is worst case. No change from scoping.	See above.	N/A
Air quality - construction	Scenario 1 construction is worst case. No change from scoping.	The construction of two trains over a bigger portion of the site would result in a greater potential for dust to be generated.	<p>Section 7.4.8 of Chapter 7 (Air Quality) states that “<i>In the event of a phased development, the operating CCGT installed in the first phase will also be a sensitive receptor to dust impacts from construction of the second phase, as CCGTs are susceptible to damage from dust ingestion, and filters may become clogged. On this basis, best practice mitigation will need to be adopted. Dust, PM10 and PM2.5 mitigation measures from the following guidance document for ‘High Risk’ sites will be adopted: IAQM (2014) Guidance on the assessment of dust from demolition and construction. With the use of best practice it should be feasible to minimise dust, PM10 and PM2.5 emissions to the extent that impacts are negligible</i>”.</p> <p>The power plant would not be constructed without dust mitigation in place, and a comprehensive Construction Environment Plan will be developed prior to commencing construction. Best practice for management of dust emissions will be put in place for all construction activities, whether the trains are constructed together, or phased.</p>

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Air quality - operation	Scenario 1 is worst case. No change from scoping.	Operation of two trains would generate greater emissions than the operation of one train.	N/A
Noise - construction	Scenario 1 is worst case but some consideration may need to be given to Scenario 2 in terms of cumulative effects of 850 MW operation plus construction impacts. Very minor change from scoping.	Section 8.9 of Chapter 8 (Noise and Vibration) explains that “noise levels have been estimated based on a worst-case plant assemblage with a sound power that reflects the likely noise levels based on the combination of equipment. At this stage it is not known if the construction phase/phases during Scenario 1 or 2 above will have different noise levels. However, by taking the worst-case likely noise levels a robust worst case is assessed. This can be assumed to occur during any construction period under either Scenario 1 or Scenario 2”. Additionally, Scenario 1 (i.e. the complete 1,700 MWe development built in a single phase of construction) results in larger volumes of traffic than Scenario 2 and is therefore worst case for construction traffic noise.	F1.3 Annex F2, states that “Although the phasing envisaged under Scenario 2 will result in one 850 MWe plant having been built and five years after commercial operation construction commencing on the second 850 MWe plant, operational noise and construction noise are assessed in different ways, and it is not appropriate to combine the construction and operational noise levels. Therefore, the combination of operation noise and construction noise has not been included in this assessment”. Traffic during operation has been scoped out of the noise assessment on the basis that major changes in traffic noise are unlikely. Scenario 1 represents the worst case for construction traffic noise. Section 8.4.2 of Chapter 8 (Noise) states: “The modelling predicts an increase in noise levels of less than 1 dB(A) on any road link which is used by construction traffic. Since this is below the criterion of 3 dB(A) no significant effect is predicted”. It can therefore be deduced that scenario 2 would also lead to no significant effect. These are the effects prior to mitigation. The residual effect would also be not be significant.
Noise - operation	Scenario 1 is worst case. No change from scoping.	A worst case in terms of operational noise is that both trains are operating (effectively Scenario 1) and this has been adopted in the assessment.	N/A
Ecology - construction	Scenario 1 construction is worst case. No change from scoping.	Scenario 1 represents the largest extent of land take in one tranche and therefore the worst case in terms of receptors in and surrounding the project site. It also represents the worst case air quality impacts on off-site areas of nature conservation value.	Not applicable. The Project Site has no ecological interest of note and is allocated for industrial development. There are no sensitive ecological receptors within the Project site that could be affected by operation of the first turbine, whilst the second is under construction (and the site would be checked to confirm this before construction of the second train). No significant direct effects were predicted (pre-mitigation) in Scenario 1 (paragraph 9.82 of Chapter 9 Ecology) and the same would be true for Scenario 2.

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Ecology - operation	Scenario 1 is worst case. No change from scoping.	Air quality impacts would be worse for the operation of two trains compared to one.	Scenario 1 was assessed to result in no likely significant effects (pre-mitigation) on qualifying interest features of European Sites from the project alone or in-combination with other projects. The lower emissions resulting from the operation of one turbine and construction of the second would be lower and also not significant.
Habitats Regulations Assessment - operation	Scenario 1 is worst case. No change from scoping.	See above.	See above.
Landscape and Visual - construction	Scenario 1 construction is worst case but some consideration may need to be given to Scenario 2 in regards to visual effects of building one 850 MW plant next to an operating 850 MW plant. Very minor change from scoping.	In the event of a phased development, Scenario 1 is considered to be worst case on the basis of the larger scale of construction activity (greater footprint and plant assemblage). Under Scenario 2 the overall duration of construction would be longer (i.e. spread over two phases); however, each phase would be less intense than for Scenario 1.	Table 11.6 states that the effect on VP8, the closest viewpoint to the site, would be not significant during construction of Scenario 1 and Minor during operation. It is reasonable to assume that the impact of Scenario 2 on construction workers and those working in the operational part of the site would be the same. The assessment of views from the wider area would be unlikely to change significantly under Scenario 2. These are the effects pre-mitigation and the residual effects
Landscape and Visual - operation	Scenario 1 is worst case. No change from scoping.	Scenario 1 is the worst case on the basis of the ultimate scale of the finished development in comparison to Scenario 2	N/A
Cultural heritage (setting effect on cultural heritage assets only) - operation	As for landscape and visual above	In the event of a phased development, Scenario 1 is considered to be worst case on the basis of the larger scale of construction activity (greater footprint and plant assemblage). Under Scenario 2 the overall duration of construction would be longer (i.e. spread over two phases); however, each phase would be less intense than for Scenario 1. Scenario 1 is the worst case on the basis of the ultimate scale of the finished development in comparison to Scenario 2.	The concurrent construction of the second train and operation of the first is not relevant to the cultural heritage setting assessment. Section 12.4.5 of Chapter 12 states that <i>"The significance of construction effects on the settings of heritage assets will always be less than the operational effects (since the magnitude of change is always less) and so are not considered further"</i> . No significant effects were identified on the setting of heritage assets once Scenario 1 is operational (pre-mitigation and residual) and therefore it can be deduced that scenario 2 would also lead to no significant effect.
Traffic and Transport - construction	It is likely that Scenario 1 would constitute worst case but with traffic effects occurring against	Scenario 1 construction impacts represent a worst case for construction starting in year 1; Scenario 2 Phase One construction impacts are therefore not separately assessed because the effects are reduced and the same	Chapter 14 (Traffic and Transport) considers four scenarios: <ul style="list-style-type: none"> o Scenario One - construction (peak impact will occur in 2021); o Scenario One - operation - (year of opening is 2023);

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	backgrounds separated by up to five years effects could be different and so both scenarios require assessment. Minor change from scoping.	mitigation would be applied and thus is more than sufficient.	<ul style="list-style-type: none"> o Scenario Two – first CCGT operational, construction of second CCGT (peak impact will occur in 2029); and o Scenario Two - first and second CCGTs operational (second CCGT year of opening is 2031). <p>It concludes that the construction phase for Scenario 1 results in the greatest level of trip generation overall, therefore the traffic impact from Scenario 1 only was assessed further. Section 10.133 relates to the worst case, Scenario 1 construction and section 10.139 relates to the worst case Scenario 1 operational impact. In both cases the results demonstrate that averaged across the day, the Project will have a negligible impact in terms of construction traffic (<30% increase in traffic and HGVs) and therefore will result in no significant pre-mitigation or residual effects. Scenario 2 would also therefore lead to no significant effect.</p>
Traffic and Transport - operation	Scenario 1 is worst case. No change from scoping.	This represents the maximum number of operational traffic movements and is therefore worst case.	N/A
Socio-economic characteristics - construction	There is not actually a worst (or best) case as they are slightly different and so both scenarios require assessment. Minor change from scoping.	<p>Two scenarios assessed:</p> <ul style="list-style-type: none"> o Scenario 1 – One 39 month construction period with a construction workforce peak of 945 and an operational workforce of approximately 60 skilled staff. o Scenario 2 – Two 39 month construction periods, with a construction workforce peak of 630 and an operational workforce of approximately 40 during stage one of the development and an additional 20 staff during stage two, approximately 60 skilled staff in total. 	Table 13.13 in Chapter 13 (Socio-Economics) details the Scenario 2 impacts in comparison to Scenario 1. The significance of residual effects identified is the same for both Scenarios.
Socio-economic characteristics - operation	There will be effectively no difference. No change from scoping.	The number of jobs created will be almost the same for operation of one or two trains.	N/A
[New row] Human health - construction and	The human health chapter draws upon the findings of the socio-economic, traffic,	See above.	See above.

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operation	noise, air quality and visual assessments. See above for phasing assumptions for these disciplines.		
[New row] Major Accidents – construction and operation	There will be effectively no difference.	No specific consideration of phasing was made within Chapter 15 Major Accidents. The risks and hazards are the same irrespective of the phasing.	Construction workers building the second train would be subject to the same risks identified in Table 15.3 and also the risks identified in Table 15.4 from the operation of the first train. The construction and operational risks could potentially occur concurrently, but since they are different risks, there is no difference in their assessment.