

FAQ BHP Tailings Challenge Round 2

1. Do you have any more technical information about the physical and chemical characteristics of the tailings?

On August 5th we updated the technical information providing further details. The scope is limited to working with fresh tailings; the pond is not part of the challenge.

2. What is the amount of sample to be provided for the experimental part?

A 20 Lt sample will be provided to participants selected for the Proof of Concept stage. A larger sample could be requested but this will be evaluated by BHP on a case by case basis.

3. Are the tailings delivered or deliverable in a slurry form/hydraulic transport? Do we need to plan to return the water to the company?

Tailings are delivered in a Slurry form. You could consider returning water to the process and it would be desirable as the operation currently recovers water from the dam and this could help operational continuity. Keep in mind that the objective of the challenge is create a sustainable business that repurposes tailings, to prevent it's deposition.

4. We want to recover water from fresh copper tailings and then reuse it for copper mining or processing.

You could consider returning water to the process and it would be desirable as the operation current recovers water from the dam and this could help operational continuity. Keep in mind that the objective of the challenge is create a sustainable business that repurposes tailings, to prevent it's deposition.

5. What is the volume of delivered tailings to the dam currently (per hour or per 24 hour day)?

50 million tons per year. This refers to the solid portion of the tailings.

6. Are there locals available to employ if required from a nearby village or city (post challenge)?

Local employment is desirable.

7. Is there any preferred or desired end product required specifically?

No, end products are to be defined by participants.

8. Would it be permissible to have more than one submission from an institution?

Yes the organization establishes no limits on the number of proposals an institution can submit or the number of teams they can be a part of. We let teams establish their own internal rules. We ask that if a person is participating in more than one team, they let us know in the submission.

9. If a success is achieved, is land and power available for a scale up on site?

This could be analyzed in a case to case basis. If it is crucial for your proposal you can assume there will be.

10. ¿Where is the concentrator located?

The site of the on-site test is still to be announced. You can make the assumptions that would make your proposal economically feasible.

11. What is the estimated acceptable distance transporting tailings to a reprocessing center? Is the reprocessing expected to be at the mine or at the coast?

The location of the reprocessing center is to be defined by the applicants. There are no previous expectations on this regard, but you should make explicit any assumption regarding where you need to obtain the tailings.

12. Heavy metal contamination like arsenic is one of BHP concerns?

No, but stabilization of hazardous materials should be considered in the proposals.

13. What is the technique/process by which copper tailings are generated?

Tailings are generated from a copper concentration process. See the updated technical information for more details.

14. What minimum volume of tailings to be repurposed to be eligible to participate?

There is no minimum threshold of the volume of tailings to be reprocessed but the more you can reprocess the better.

15. The first presentation of the proposal, should it contain the development of a business model until the implementation of a pilot process?

For the application we request a high-level assessment of your business model, not the cost of the on-site pilot. We are only requesting proposals at a conceptual level.

16. What are the main metals BHP prefers to recover from the copper tailings? What are their concentrations, and states (e.g. compounds, ions or simple substance)?

The objective of the challenge is to repurpose tailings. BHP is not looking to operate the tailings repurposing business. If metal recovery is part of your business plan you should define which metal better serves your business model.

17. Are eligible technologies that do not repurpose tailings into another product but that do diminish considerably their environmental impact?

The objective of the challenge is to repurpose tailings. In this regard, your technology could be part of a broader proposal that includes the repurposing of the tailings.

18. What will be the proceeding with responses longer than the defined limits?

Only the indicated amount of words will be accepted. If a submission has more words, these will not be included at the evaluation

19. Will the challenge evaluate the total mine benefit from a dewatering/re-purposing solution?

The objective of the challenge is to repurpose tailings, to prevent from depositing them and to create a sustainable business that can provide this service. You can find the evaluation criteria in the Terms and Conditions document in www.tailingschallenge.com

20. If there is more than one idea, can one company put these forward? And if so, should they be in one application or a separate application for each idea?

Yes, the proposal can be done with different technologies/ideas to achieve the challenge. If both ideas are complementary, they should be part of a single application. If they represent separate technology development tracks, you can submit two applications.

21. Is there a requirement to sign and NDA with BHP at this stage?

The participants that are selected to the first stage "Proof of concept" must sign an MOU containing an NDA. At the terms & conditions document posted in www.tailingschallenge.com you can find a section related to confidentiality.

22. Do I need to be a legal entity to apply?

Yes, you must be a formal entity to apply. If you apply as a team, the members need only to provide a Letter of Intent to apply. If selected for the proof of concept stage, a formal establishment of the consortium will be required.

23. Can the solution be a combination of the alternatives proposed?

Yes, we will promote alliances among complementary technologies. In addition, if a proposal has not been selected but shows high complementation with other proposals, we will perform the introductions for teams to meet and discuss whether they want to work together.

24. Will the schedule change due to the current COVID scenario?

At this moment we don't expect to change the application dates. The organization is open to review the dates for the proof of concept stage if this is in the best interest for the results of the Challenge.

25. Do I need a local partner?

Partners can be from any country and can be companies, universities or technology centers. We recommend you use the BHP Tailings Challenge Community to find partners.

26. Is it a condition of the challenge to have to work taking the fresh tailings at the exit of the concentration process (or another point)? Or can you propose solutions that involve modifications to the mineral concentration stage?

Changes to the mineral concentration stage are outside the scope of BHP Tailings Challenge.

27. How many sites contribute to produce 50MT of tailings per annum? What is the smallest and largest volume of tailings produced per site (daily)?

The 50 million tons come from a single site. regarding daily volume please refer to the updated technical information at www.tailingschallenge.com

28. If I am missing a capacity in my team it is only necessary to indicate that an expert in such a matter is missing and the community is going to be in charge of making a match or can you suggest it yourself, can it be from the academy or the industry?

Participants are responsible for incorporating the required capabilities as the process moves forward. You are welcome to use the community to identify such capabilities, but the organization or BHP are not responsible for making these matches.

29. What kinds of energy are available on site? Do we need to care much about the energy consumption of our technology?

You can assume electric power and diesel could be available on site

30. What are the selection criteria or KPIs, and for projects that offer similar proposals or with some equivalent processes?

You can find the evaluation criteria in the Terms and Conditions document in www.tailingschallenge.com. At this stage the most relevant variable is to show us you have thought of the overall problem, identify the technologies and capabilities needed (even if not all on your team yet) and let us know what you are planning to transform the tailings into. A detailed business model will only be required later in the process. We want the best ideas.

For similar proposals or equivalent processes, the social value and environmental impacts described in the evaluation may help differentiate them.

31. Can you provide us with the \$/ton for each of these cost centers for a typical Tailings Storage Facility with reference to associated tons deposited?

That information is not available at this point.

32. Can the BHP Challenge funding money be treated as prize money to be used at the technology owners (winners) discretion?

The participants that are selected to the first stage "Proof of concept" must sign an MOU. This document will rule the disbursement of funds. There is flexibility in the use of the funds, but they need to be spent in activities related to the BHP Tailings Challenge.

33. Can individuals, universities or research centers apply? Or is it just for companies?

Individuals, universities and research centers are welcome to apply as long as they are willing and have the capacity to create a spinoff or legal entity to establish a company around repurposing tailings.

34. What is the required development state of the consortia at the moment of application? What is the required documentation to support the formation of a team?

For the application we only request signed letters of interest from the members of a team or consortia.

35. It is understood that solutions that have the greatest possible scope will be favored, generating local employability and producing the least impact and generating waste, is this correct?

Yes, that is part of the criteria. You can find the evaluation criteria in the Terms and Conditions document in www.tailingschallenge.com

36. Should companies that are part of a consortium be part of the challenge community?

Participation in BHP Tailings Community is optional. The objective of the Community is to facilitate knowing potential partners to make the submission more robust by including different capabilities relevant to the solution to the challenge.

37. At what level of development should the logistical solution to this challenge be?

At a conceptual level. You can also make assumptions in this regard. Just let us know what those are.

38. Can relevant technology partners be incorporated into the project after the challenge is awarded?

Teams will be allowed to grow and add capabilities until the end of the Proof of Concept stage. They will have to propose those changes to BHP for approval.

39. Is there any compensation if the challenge is declared void at some stage of the process?

At this point we don't foresee to provide any additional compensation to teams other than the grants already described in the process.

40. How will the intellectual property and confidentiality of the applications be safeguarded?

Confidentiality is stated in Expande's terms and conditions. Those moving to the Proof of Concept must sign an MOU with BHP that will include an NDA.

41. What is the location of the site?

The site has not yet been announced. Participants are allowed to make assumptions that would make their proposal economically feasible. Just be clear on what the assumptions are.

42. What is the scale of the Proof of Concept to be considered valid?

Participants need to evaluate the uncertainty and risk associated to their proposals and propose the tests that are at a scale large enough to significantly reduce that uncertainty and risk and justify move forward for an on-site pilot.