

GO COMPETITION CHALLENGE 2: ADDITIONAL FAQ 2020/05/26

The following are preliminary answers. We are still developing the rules and formulation for Challenge 2 of the GO Competition and these FAQ responses are subject to change. Please refer to the official rules and formulation documents once they are released.

1. How will the model/formulation for Challenge 2 differ from Challenge 1?

The Challenge 2 formulation will expand upon the Challenge 1 formulation. Challenge 2 will now additionally consider: discrete transformer tap settings, switchable shunts, phase shifting transformers, price-responsive demand, generator ramp rates, limited “fast-start” unit commitment, and topology optimization (transmission switching). Challenge 2 will consider post-contingency response on a different timescale than the Challenge 1 approach. Challenge 2 may place additional expectations on the competitors to perform a more detailed analysis as part of the Code2 model.

2. How will Challenge 2’s divisions differ from Challenge 1?

Similar to Challenge 1, Challenge 2 will have multiple divisions. These divisions will feature short and long time limits and will target certain potential use cases and/or new model features unique to Challenge 2. Unlike Challenge 1, we will no longer consider performance profile scoring -- the scoring method will be the same for all of Challenge 2’s divisions.

3. How will the time limits in Challenge 2 compare to Challenge 1?

Similar to Challenge 1, there will be a split between the “Code1” and “Code2” algorithms. Code1 will primarily handle the base case with some consideration of contingency response and Code2 will focus only on the contingency response. Code1 and Code2 will each be timed separately. The Code1 time limit will be specified by each division -- We will include divisions with short time limits (5-10 minutes) and divisions with longer time limits. For Code2, there will be a dynamic time limit based on the dataset/problem dimensions rather than the division.

4. How will the hardware/platform change from Challenge 1?

There are no current plans to change the hardware that was available to all teams by the end of Challenge 1. We will no longer support Matlab software on the GO Competition platform.

5. How many trials will Challenge 2 include? Will participation in the trial events affect the final ranking?

Similar to Challenge 1, Challenge 2 will include two formal trials with leaderboards and one final event. Only performance in the final event will impact the final ranking. Based on group performance, ARPA-E may add an additional, optional trial to provide more development time and support to the competitor teams.

6. Will the rules document change for Challenge 2?

Yes, we will release an updated rules document for Challenge 2.

7. Will the Challenge 2 rules maintain the same confidentiality/proprietary information conditions as in Challenge 1?

There is no plan to change these aspects of the rules document for Challenge 2. Please refer to the new rules document once it is available.

8. What is the expected amount for and what form will the Challenge 2 prizes take?

With some minor exceptions (which will be maintained from the Challenge 1 rules document), the Challenge 2 prizes will be cash awards rather than grant awards. Challenge 2 will award prizes to the only the highest ranking teams. The prizes will be valued based on a scale by rank (i.e. 1st

place will receive a larger prize than 4th place). There will likely be fewer prizes overall, but the amounts of some of these prizes will be greater than the prizes from Challenge 1.