

Breakout Questions: Day 2 - Group B – Advanced Manufacturing

- ▶ What are the manufacturing challenges of ultrahigh temperature materials?
 - Discuss in relation to manufacturing of turbine blades
 - Discuss in relation to manufacturing of nuclear reactor structural component
- ▶ How does AM processes control microstructure?
- ▶ To what extent do the current capabilities of advanced manufacturing platforms/machines allow for tailoring of as-fabricated material microstructure to achieve equivalent/improvement to cast/forged components?
- ▶ What are the other Near-Net Shape (NNS) processes we should consider besides AM?
- ▶ How does concurrent development alloys and manufacturing processes help the program?
- ▶ How long should Phase I be?
 - How long will one material optimization iteration, ending in a characterized coupon, take? How long will each of the elements (computational optimization, feedstock optimization, and fabrication optimization) take?