Materials Discussion

OEMs were present – Thank you

Reviewed last year's discussion results
- Key topics - Water vapor, ash composition, interface roughness

Fatigue/creep
- Requested 2 years in a row by OEMs.
- Began developing a problem statement – more specifics needed.
- Discussed potential activities – modeling and testing. Need to build off of previous work, not repeat it.
- Inputs from OEMs are needed to modify models to accommodate variation in service cycles.
- Inspection methods of interest.
- OEMs would have to specify which type of creep-fatigue interactions to focus on.
- Benefit - understand the basic science, which can be utilized by OEMs to create applied technology.

General Discussion – Enabling tools and pre-competitive science vs. technological solutions.
- Industry does not wish to share their proprietary information.
- Solution development without boundary conditions and field experience is frustrating.
- OEMs can provide boundary conditions (alloy content, ash composition, service temperature, cycle details etc) which can keep Univ. research always relevant to them.
- OEMs reaffirmed that the university research is very useful.
- On-going feedback is key for guiding approaches.
- DOE can continue to work with OEMs to shakedown broad problems into smaller, specific problem sets
- Research that decreases development time is desirable.

Manufacturing becoming more important; UTSR solicitation should address processing related issues with science.

Communication/relationships are important.

DOE action item – Continue assisting transfer of problem specifics to UTSR participants and look for additional feedback mechanisms.