Advanced Gas Turbines:
Strengthening U.S. Leadership in Energy & Manufacturing

American Society of Mechanical Engineers &
Consortium for Advanced Production and Engineering of
Gas Turbines and Rotating Machinery

September 28, 2016
Agenda

• Introduction & Objectives
  • Mike Aller, Consortium for Advanced Production and Engineering of Gas Turbines and Rotating Machinery (CAPE)

• Turbine Fundamentals & U.S. Gas Turbine Industry Overview
  • Dr. Tim Lieuwen, PhD, Georgia Tech & ASME

• U.S. Turbine Manufacturing: Opportunities & Challenges
  • Aviation Gas Turbine Engines – Dr. Tom Prete, PhD, Pratt & Whitney
    • Power Generation and Industrial Applications - Ken Hall, PE, Siemens Energy

• R&D Investments and Workforce Training Opportunities
  • Dr. Karen Thole, PhD, Penn State

• Questions & Answers
Why are Advanced Gas Turbines Important?

• “Apex Technology” at the convergence of aviation, aerospace & power generation

• Critical to U.S. Economic Security
  • Primary type of Aviation Propulsion
  • Job Creation
  • Manufacturing & Exports

• Critical to U.S. National Security
  • Affordable & Effective Mission Capability – Air, Land, Sea & Space
  • Maximize Resources for Operational Needs: Reduce Installation Energy Costs

• Critical to U.S. Energy Security & Clean Energy Goals
  • Largest Share of Electric Power Generation
  • US Natural Gas sourced from and supporting production in North America
  • Significant Role as Backstop for Renewable Generation Sources
Advanced Gas Turbines: Strategic Dual-Use Technology