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FOUNDED EIO AT BEHEST OF STATE OF OHIO TO WORK WITH OHIO'S ENERGY INTENSIVE INDUSTRIAL SECTOR.
WORKED AT VARIOUS DEFENSE CONTRACTORS AFTER A CAREER IN ACQUISITIONS AT NASA AND U.S. AIRFORCE.

RECEIVED AN R&D 100 AWARD WITH ORNL, TESTIFIED BEFORE CONGRESS FOR SUPPLY CHAIN ISSUES,
HOLD A U.S. PATENT, AUTHORED AND CO-AUTHORED NUMEROUS PUBLICATIONS

EIO IS A 20 YEAR OLD:

- NON PROFIT 501(C) 3 CORP
- FACILITATE TECHNOLOGY DEVELOPMENT LEADING TO ENERGY EFFICIENCIES
- FOCUS ON OHIO'S POWER GENERATION & ENERGY INTENSIVE INDUSTRIES
- FOSTER COLLABORATIONS
 - FEDERAL
 - STATE
 - UNIVERSITY
 - NATIONAL LABORATORIES
 - PRIVATE INDUSTRY

- 2017 DATA SHOW 57% OF OHIO'S ELECTRICITY GENERATION FROM COAL
- OHIO'S ENERGY INTENSIVE USER INDUSTRIES INCLUDE GLASS MAKING, FOUNDRIES, FORGES, STEEL MILLS.
- THE ENERGY INDUSTRY HAS IDENTIFIED THESE INDUSTRIES AS CRITICAL FOR BUILDING NEW OR RETROFITTING EXISTING PLANTS
- ESTABLISHED FIRST BASELOAD ENERGY SUPPLIER CATALOG FOR OHIO AND DID SIMILAR WORK FOR PITTSBURGH REGIONAL ALLIANCE

CURRENT PROJECTS:

A-USC Materials Programs

EIO is the Prime Recipient and Principal Investigator for consortiums of U.S. Boiler and Turbine OEM's to develop materials and manufacturing technologies to implement Advanced UltraSuperCritical (HELE) power systems:

- PRESENTLY WORKING ON THE AUSC COMTEST MANUFACTURING TECHNOLOGY DEVELOPMENT PROJECT THAT BUILDS UPON A 15-YEAR EFFORT SUPPORTED BY THE U.S. DEPARTMENT OF ENERGY, OHIO COAL DEVELOPMENT OFFICE, AND INDUSTRY PARTICIPANTS TO INCLUDE EPRI, BABCOCK & WILCOX, ALSTOM, RILEY POWER, FOSTER WHEELER, GE, AND SIEMENS WITH AN UTILITY ADVISORY PARTICIPATION
 - BOILER MATERIALS FOR ADVANCED ULTRA-SUPERCRITICAL COAL POWER PLANT
 - DOE CONTRACT: DE-FG26-01NT41175
 - OCDO GRANT: CDO-D-05-02(A)
 - MATERIALS FOR ADVANCED ULTRA-SUPERCRITICAL STEAM TURBINES
 - DOE CONTRACT: DE-FE0000234
 - OCDO GRANT: CDO-D-05-02(B)

SEED IDEAS FOR DISCUSSION

HOW DOE CAN BETTER USE THE SUITE OF ADVANCED MANUFACTURING APPROACHES

- EXPAND THE UNDERSTANDING FOR USE OF POWDER METALLURGY AS AN ALTERNATE MANUFACTURING OPTION FOR HIGH NICKEL ALLOYS
- CONTINUE WORK NETL/EIO BEGAN FOR USING ADDITIVE MANUFACTURING TO BUILD “CANS” NEEDED FOR PRODUCTION OF POWDER METALLURGY (AM/PM)
(NEEDED FOR REPLACEMENT COMPONENTS WHERE TOOLING IS “LOST”)
- CONTINUE WORK ON COMPUTER SOLIDIFICATION MODELLING FOR CASTING HIGH NICKEL REACTIVE ALLOYS TO INCREASE YIELD RATIO'S

