The NETL Regional Workforce Initiative (RWFI)

is a platform for engagement and collaboration with key stakeholders who are critical for the deployment of U.S. DOE and NETL Energy and Advanced Manufacturing technological research investments and breakthroughs. The RWFI works to catalyze these investments into enduring economic development and workforce/job opportunities for the Appalachian region and the nation.

The Appalachian region:

- Is a historically critical region for energy production in the U.S. with a significant amount of energy and manufacturing related jobs in the region.
- Is an area that has been adversely affected by changes in energy extraction and related manufacturing activity and as such has historically struggled with enduring economic workforce development opportunities.
- Will continue to be a strategically important area for fossil, oil, and natural gas energy extraction as well as related technologies in advanced manufacturing, artificial intelligence, supercomputing, and carbon capture technologies.
- Is uniquely primed for enduring economic growth powered by advancements in NETL research and innovations in energy and advanced manufacturing technologies.

To date, NETL RWFI has engaged with over 800 regional and national individual stakeholders from more than 400 institutions and organizations across academic, industrial, governmental, and non-governmental organizations. The NETL RWFI engages primarily through participation in regional stakeholder meetings (including hosting periodic stakeholder meetings with NETL staff and researchers), a monthly RWFI E-note, the NETL RWFI Website, and a bi-monthly NETL RWFI Webinar series which has seen over 1,100 registrants since its inception. More than 280 individuals subscribe to the NETL Regional Workforce E-Note, a monthly email-based communication that provides regional stakeholders information about upcoming grant opportunities related to energy and advanced manufacturing innovation, workforce and economic development topics, and other resources.
Beyond establishing a broad regional network of stakeholders, key outcomes from the NETL RWFI include the establishment of strategic regional partnerships focused on energy and advanced manufacturing research commercialization, innovation and deployment, and economic development and workforce. This includes collaborative efforts with the Appalachian Regional Commission (ARC) — participating in and sharing subject matter expertise at ARC funded regional meetings and conferences, hosting a meeting with NETL and ARC federal co-chair, working together to identify funding opportunities for regional stakeholders and future collaborative efforts (for example, hosting a pilot workshop focused on entrepreneurship in energy and manufacturing with regional community colleges, including historically black colleges and universities and other minority serving institutions in the region). It was through conversations with the ARC and ARC stakeholders in the region that the NETL RWFI Workforce Workplan was developed. This is a component included in some NETL funding opportunities wherein the technology is at a late-stage technology readiness level or near eventual commercialization that allows the observation of an awardee’s workforce development plans with the intention to affirmatively match technology development needs with future workforce development opportunities, information potentially sharable to regional educational and workforce development efforts in the Appalachian region and the nation. This low-effort activity could have high-importance outcomes, as one of the most consistent issues common around advanced technology is having a sufficiently trained workforce for the new advances in energy and manufacturing technologies. This is a critical component of the deployment of DOE- and NETL-funded commercialized technologies, as well as increasing opportunities for job and workforce growth fueled by those technological advances. Additionally, in 2020, through collaborative efforts with NETL RWFI, ARC, and NETL came together to create the Advanced Welding Workforce Initiative, a partnership to invest approximately $1 million in education and training for advanced technical workers in Appalachia.

NETL RWFI also maintains strategic partnerships with The Tri-State Energy and Advanced Manufacturing (TEAM) Consortium formerly known as Shale Net. TEAM has 19 higher education institutions, 14 workforce boards, 12 economic development entities, 12 private industry entities (some of which are networks with hundreds of members) and 8 other “intermediary” entities across the tristate region. Rounding out the key regional stakeholders list of NETL RWFI strategic partners is the Appalachian Regional Manufacturing Initiatives Workforce and Education groups (made up of the National Network for Manufacturing Innovation members — America Makes, Advanced Robotics Manufacturing, Rapid Advancement in Process Intensification Deployment, and the Institute for Advanced Composites Manufacturing Innovation) and the Appalachian regional network of Manufacturing Extension Partnerships. Together, these strategic partners represent a significant portion of the federal and non-federal regional efforts and facilitators focused on energy and manufacturing workforce and economic development. Thus, the NETL RWFI’s focus is to unleash the benefit of the DOE and NETL’s focus and federal investments in energy and advanced manufacturing technologies to the economic benefit of the region and the Nation with strategic partnerships that are consistent, measurable, and substantive, with a focus on outcomes-oriented activities that align with the goals and mission of DOE, and NETL.

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