Ohio University (OU) Voinovich School of Leadership and Public Affairs
US Department of Energy Office of Environmental Management (DOE EM) Financial Assistance Grant

Collaborative Efforts to Inform DOE EM Cleanup, End State Configuration and Accelerated Property Transfer at the PORTS facility in Piketon, Ohio

Site Repurposing Continuation and Ongoing Technical Assistance, Public Outreach, Education, and Engagement for Property Transfer and Future Use

Grant Year April 1, 2016 – March 31, 2017

Combined Activities Report

Stephanie Howe
Ohio University (OU) Voinovich School of Leadership and Public Affairs

The PORTSfuture project is funded by a grant from the U.S. Department of Energy Office of Environmental Management Portsmouth/Paducah Project Office

PORTSFUTURE
IMAGINING THE OPPORTUNITIES, GATHERING YOUR IDEAS
THE FACILITY AT PIKETON, OHIO

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Purpose and approach

The Site Repurposing Continuation and Ongoing Technical Assistance, Public Outreach, Education, and Engagement for Property Transfer and Future Use activities serve the DOE EM cleanup mission in several ways. These activities expand data utilization with site stakeholders at PORTS and in the region to enhance information-based decision making when determining viable future-use options for the site and site assets, so that cost savings/cost avoidance may be realized by DOE as cleanup efforts continue. These tasks contributed to the end-state configuration for the site and may expedite property transfer for reindustrialization, thus supporting DOE's efforts to reduce the EM footprint at PORTS. Additionally, grant activities support the site reindustrialization efforts being led by the local community reuse organization, the Southern Ohio Diversification Initiative (SODI).

Ohio University's role in the site repurposing and ongoing outreach activities is to serve the public interest by acting as an independent, credentialed broker of data and other information; by convening, facilitating, and assisting collaborative partners and interested parties with information sharing and partnership building; and, along with collaborators, by employing data-driven decision processes to ensure efficacious planning for site future-use endeavors. These efforts are responsive to the stated future-use preferences of the public-at-large in the four county region near the site as identified during various DOE and Ohio University public engagement efforts.

All site repurposing and ongoing outreach activities were carried out in the form of a collaborative effort among Ohio University (OU), DOE, the local community reuse organization known as the Southern Ohio Diversification Initiative (SODI), site contractors, and national experts. As the activities were carried out, progress updates and/or conversations were held with stakeholders such as the Site Specific Advisory Board (SSAB), local, state, and federal elected officials; county, regional, and state-level economic development professionals; private sector interests; and national experts.

The work is part of the Ohio University PORTSfuture grant that focuses activities in the areas of public engagement, training, outreach, and STEM education; ecology, hydrology, site environment field work; and economic modeling/economic impact analysis. All grant activities create public value and serve the public interest in one or more of the following ways: informing site cleanup and future use planning; facilitating the transfer of property; leveraging public assets of the PORTS site and the region to create regional economic stability; and providing regional STEM education opportunities related to the site.

Background

The U.S. Department of Energy's former Portsmouth Gaseous Diffusion Plant (PORTS) near Piketon, Ohio has been an important economic player in the Pike, Scioto, Ross, and Jackson County region for many decades. This fact has impacted the region's socio-economic profile. As the decommissioning and decontamination process continues at the PORTS site, it is expected that this transition period will lead to further changes in the region's socio-economic profile including the creation of socio-economic stressors as well as growth opportunities. The extent to which decision-makers can minimize transitional stress and maximize the economic prospects for the region hinges greatly upon the cleanup and transfer of the PORTS site and site assets for other economic use.

Leveraging foundational public engagement activities

Site repurposing continuation and Ongoing Technical Assistance, Public Outreach, Education, and Engagement for Property Transfer and Future Use activities build upon site repurposing and outreach activities conducted with 3161 funding during 2013-2015 and also build upon findings from Ohio University's original DOE grant work under the public outreach task completed in 2011. Under the outreach task, Ohio University conducted a 15 month, broad-based, grass-roots, public participation process in Pike, Scioto, Ross, and Jackson Counties to identify the community's future-use preferences for PORTS. Community participants in outreach activities included residents, economic development entities, environmental groups, nonprofits, businesses, governmental interests, and many other stakeholders in the four counties near the PORTS reservation.

To inform the design of the outreach project, OU conducted qualitative research which included interviewing key site stakeholders, conducting four focus groups for the public-at-large, and administering a regional telephone survey in order to gain information about residents' opinions on major problems facing local communities, their awareness/knowledge of the site and current cleanup efforts, and their preferences for possible site future uses. Results from this qualitative research were used to design Community Visioning Teams which further broadened opportunities for public involvement at a more in-depth and focused level. Future-use scenarios were developed by community participants in County Visioning Teams and voted on by the public-at-large at numerous public events and online. County Visioning Teams were provided summary findings from the qualitative research, data on the site and site assets, cleanup plans, and reports that detailed environmental conditions on the site. Throughout the visioning process, participants reviewed and discussed the data and used this input in creating their future use scenarios. To view the full outreach report please visit:
http://www.portsfuture.com/Default.aspx

Public voting on future use preferences occurred online and in-person at public events in the region from July 15, 2011-September 30, 2011. A total of 1,141 people voted on the nine scenarios. Each person could select 1-3 scenarios as preferred options for future use consideration for PORTS. Results of the multiple choice voting, with the top four scenarios highlighted in red font, are as follows:

Scenario Name	Total Votes
Nuclear power plant	**495**
Green energy production	**475**
Industrial park	**421**
National research and development	**418**
Warehousing, distribution, and transportation hub	179
Training and education facility	160
Metal recovery facility	152
Multi-use southern Ohio education center	143
Greenbelt	131

Scenario preferences obtained through the public voting activities were reported to site stakeholders and the final outreach task report was submitted to the U.S. Department of Energy, Office of Environmental Management, Portsmouth/Paducah Project Office, DOE PORTS site officials, and the PORTS-SSAB for their consideration in informing cleanup and risk reduction decisions about the site. These results served to inform all site repurposing activities.

Site repurposing activities evolution and current focus

2013-2015

Staff from OU, SODI, DOE and relevant site contractors met regularly and engaged in activities to achieve the collaborative goals of informing DOE EM cleanup, end-state configuration and accelerated property transfer at PORTS. Efforts focused on identifying viable options for best leveraging the site and site assets and identifying related industrial sectors that could be approached as future tenants of a reindustrialized PORTS reservation. The Energy Sector was vetted in-depth and the potential to attract energy-related businesses to locate at the site appears to be favorable. Due to southern Ohio's long-standing ties to energy industries, the ability to develop/strengthen an energy cluster in the region will be enhanced with the site cleanup, transfer, and reuse. During 2014, the President and CEO of the International Economic Development Council (IEDC) met with the collaborative group to discuss strategies for site reindustrialization in the top three identified potential future use sectors which include energy, advance manufacturing, and transportation/logistics. The IEDC President continues to provide expert input and guidance to grant activities throughout the year as requested and in person two times per year.

In order to gather meaningful input from energy industry leaders and state and regional economic development professionals, a regional energy sector roundtable was held in May of 2014 to further inform site reuse planning in this area. The roundtable discussion focused on identifying opportunities to develop energy sector businesses at the PORTS site in the form of Public-Private Partnerships (P3s). Ohio University designed the roundtable concept in conjunction with IEDC and other national experts and in consultation with several energy industry leaders who were interviewed by telephone. This information resulted in a concept paper that guided the materials developed for the session, the participant recruitment, and the facilitation design for the roundtable.

The roundtable was well-attended and included representation from private industry, economic development, government, national level consultants, PORTS-SSAB, DOE, SODI, and site contractors. Following the Energy Sector Roundtable, the key insights regarding most feasible energy industries to pursue included: bio-chemicals (polymers, plastics, other); waste recycling/waste transformation (waste heat, municipal waste, anaerobic digestion, methane combustion, other); energy creation, energy storage and micro-grids; biofuels/bio-products; and coal alternatives (clean coal, coal to liquids, RD&D, other) with an emphasis on employing an 'E3 approach' of harmonizing utilization of environmental resources to develop energy and provide economic benefit to the region.

During the winter of 2014/2015, Mike Zimmer Esquire-Attorney, international energy business development expert, and Ohio University Voinovich School and Russ College of Engineering and Technology Executive in Residence, authored an industry profile paper that discussed top energy sector industries viable for siting at PORTS. In February of 2016, Dr. Benjamin Cross P.E., Principal of NuSynergy Energy LLC, Ohio University Voinovich School Executive in Residence and formerly Senior Advisor for the Clean Energy Directorate at the Savannah River National Laboratory, authored a white paper on establishing an Appalachian Regional Energy Cluster. This white paper provides an overview of business (industry) clusters and discusses why the establishment of an Appalachian Regional Energy Cluster is considered to be a prerequisite for enhancing the viability of locating an Integrated Energy

System (IES) complex at the U.S. Department of Energy PORTS site. These papers served to guide grant activities in 2016.

2016-present

Current site repurposing activities were informed by and build upon the previous efforts cited above. At the request of the local community reuse organization, the Southern Ohio Diversification Initiative (SODI), OU site repurposing activities are focused on supporting the development of an Integrated Energy System (IES) complex/closed-loop, advanced manufacturing complex at PORTS and aligns with insights garnered throughout previous site repurposing grant work. An IES complex will attract and expand industries in the region, leverage coal and shale resources in additive manufacturing applications, create jobs, and grow the southern Ohio economy.

This strategy includes employing a multi-disciplinary cluster approach for regional development utilizing the PORTS campus as one element of a regional economic diversification strategy. This approach is being employed based on the notion that clusters develop across a geographic area and businesses provide synergy across/among each other which enhances cluster growth. This cluster approach was consistent with stated public preferences for site reuse cited above. The DOE PORTS site is widely viewed as a major regional asset that can greatly enhance efforts to develop several regional clusters in the areas of energy, advanced manufacturing, and transportation/logistics, and thus enhance the economic viability of the region.

OU site repurposing activities include collaborating with SODI and other stakeholders on: master planning, site readiness and property transfer activities; data analysis; GIS; industry discovery and networking; collaborations/partnership building; project resource acquisition for SODI; and developing linkages to applicable Ohio University researchers and tech commercialization entities. Ongoing Technical Assistance, Public Outreach, Education, and Engagement for Property Transfer and Future Use activities include developing: property request guidelines; a property transfer plan; a phased-implementation schedule; a proposal protocol for property transfer requests; and providing entrepreneurship outreach to community members in the four county region.

These activities will support the diversification of the regional economy by imagining possibilities beyond the immediate and existing economic realities in southern Ohio to identify what is needed to best prepare the PORTS site to attract 21st century industries with enduring missions. This will provide residents in the region access to 21st century job prospects, enhanced wages and an overall improved quality of life. Site reindustrialization will spur regional cluster and supply chain-related growth throughout the impacted counties, further advancing economic healing by growing both large and small business opportunities in southern Ohio and beyond. Current OU grant activities are depicted in Figure 1 below.

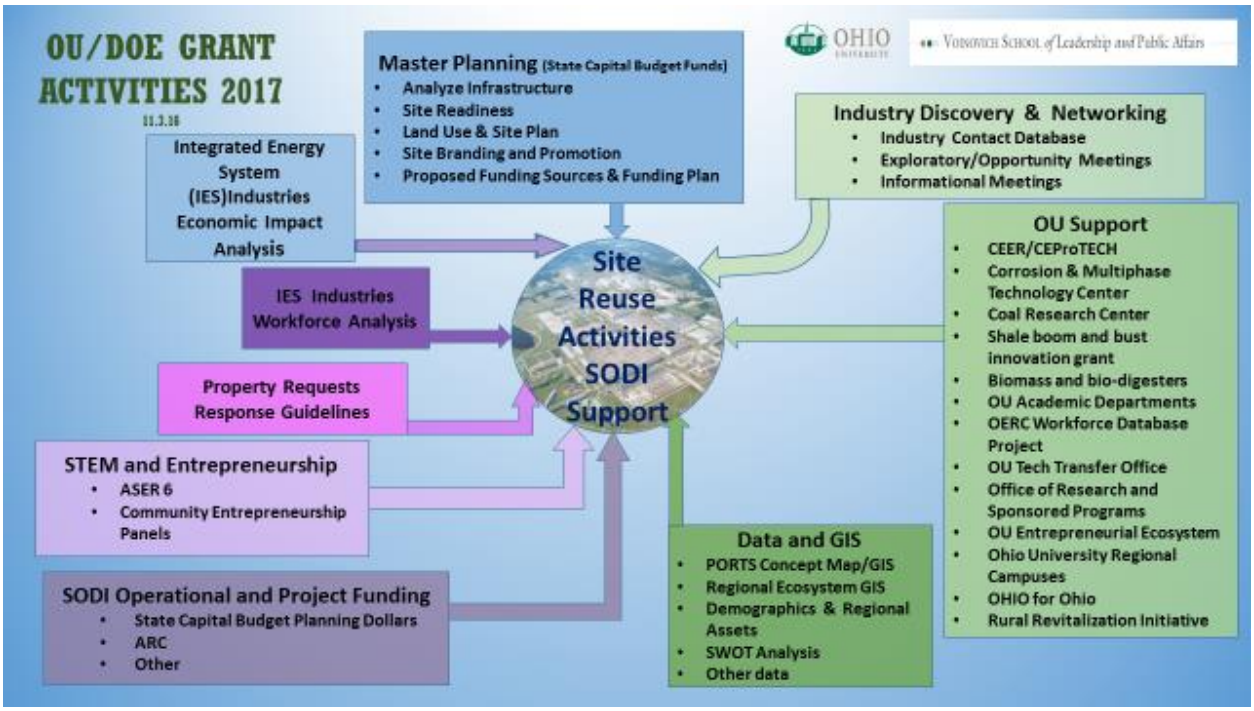


Figure 1-OU current grant activities

Integrated Energy System (IES) complex

The Southern Ohio Diversification Initiative is pursuing the development of an Integrated Energy System (IES) complex at PORTS in order to fully leverage the unique infrastructure and other assets of the site for new economic growth opportunities.

The technical definition of an IES is: two or more energy resources utilized as inputs to two or more physically coupled subsystems to produce one or more energy commodities as outputs. A simpler definition is: multiple energy resources combined together to produce one or more energy related products. An IES embodies a synergistic integration of an "all-of-the-above" energy strategy.

The key aspects of an IES are collocating, combining, interconnecting and/or networking of energy producers and energy users and utilizing waste outputs from one industrial process as an input or feedstock into a different industrial process. In an IES, the "whole" is worth more than the "sum of the parts", value is the driver, and desired value propositions such as high efficiency, high reliability, low emissions, low/acceptable production costs, and creation of more permanent, higher quality jobs can be achieved. An IES results in industrial symbiosis as depicted in Figure 2 below.

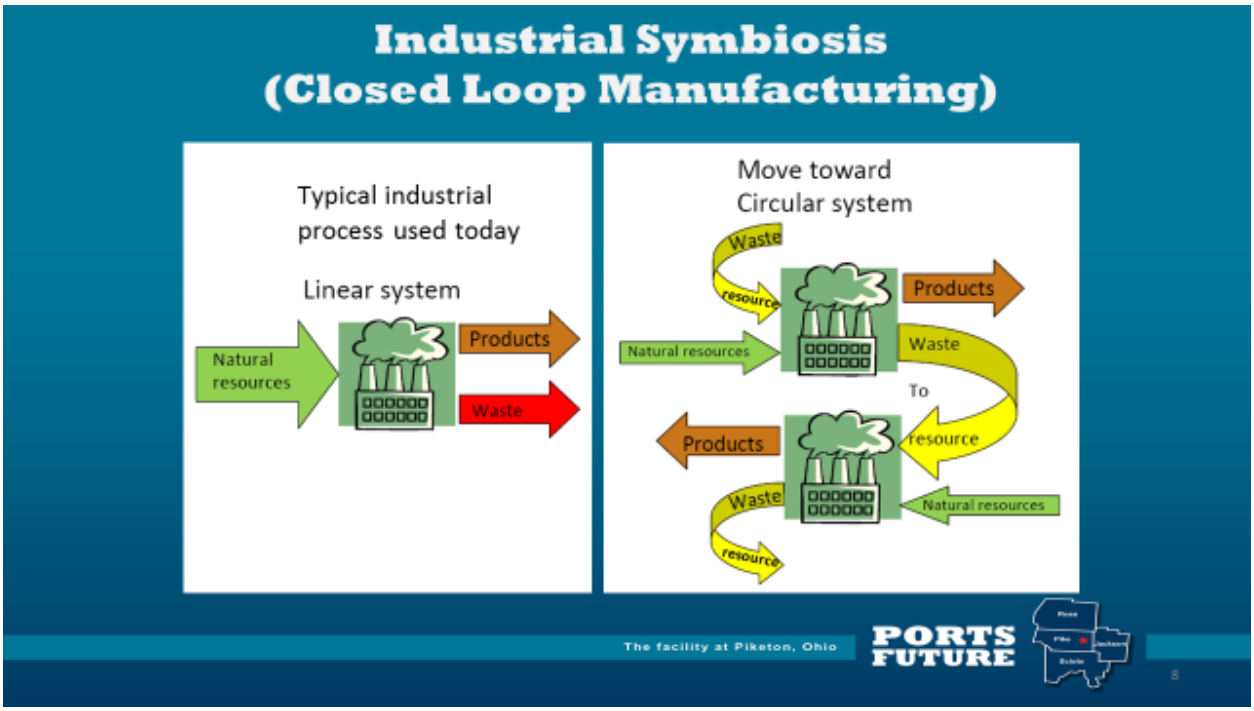


Figure 2-Industrial symbiosis depiction

IES complexes integrate high temperature heat with industrial technologies to: produce electricity; supply predictable, low cost energy; power industrial processes such as carbon conversion (e.g. coal to liquids) and chemical production; and produce hydrogen for transportation fuels, polymers, plastics, fertilizer, and the hydrogen fuel cell market. Creating an IES at the PORTS facility will: serve and expand existing markets; create new markets; establish new applications for value-added manufacturing with the region's coal and natural gas assets; utilize hydrogen across components of the process plant; develop flexible processes to accommodate market shifts; and utilize residual heat to drive low temperature processes such as water purification (e.g. distillation, osmosis) and enzymatic processes (e.g. fermentation, anaerobic digestion).

The Piketon IES Project is expected to develop in a series of phases:

- Pilot plant and demonstration activities
- Near-term (3 to 5 years): deployment of initial energy sources and process plant needed by industries to meet their market conditions and the regulatory environment
- Mid-term (5 to 15 years); transition and prepare for the potential addition of nuclear and other energy sources and process plants to accommodate changing economic and regulatory environments
- Long-term (15+ years): integration and optimization of energy sources and industrial process plant industries for changing economic and regulatory environments

A graphical depiction of the Integrated Energy System concept follows in Figure 3 below. To view the Integrated Energy System complex technical concept diagrams, see Appendix 1.

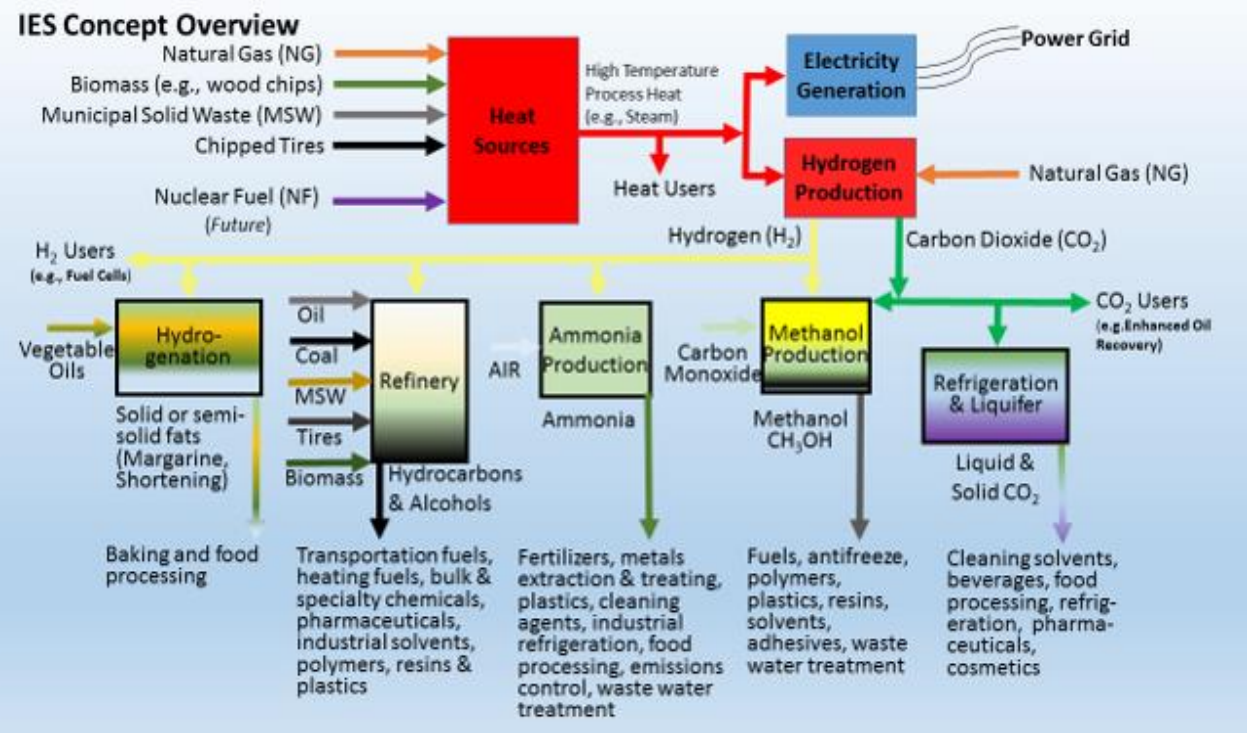


Figure 3-Integrated Energy System Concept Overview graphic

Regional cluster development will occur with the growth of natural spin-offs from the core IES complex to be located at the former PORTS facility as various industries can realize more effective production costs when tied into an IES. Industries that are high hazard, high security, high investment, and/or require extremely high temperature process heat can be located within the secure area of the IES complex at the PORTS facility which is bounded by Perimeter Road. Other industries can tie into the IES complex to access heat, electricity, hydrogen, and other production outputs via transportation networks (e.g. roads, rail, and pipelines). A depiction of the potential for regional cluster development with an IES complex follows in Figure 4 below.

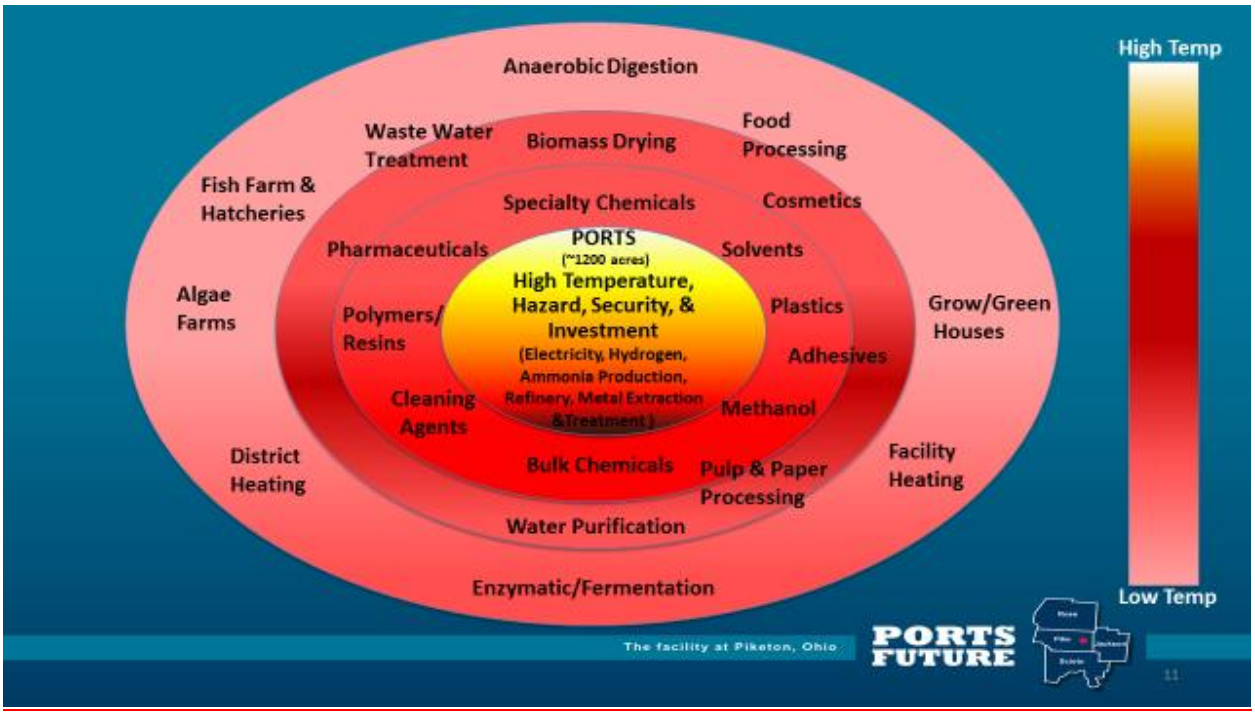


Figure 4- Potential for regional cluster development with an IES complex

Reindustrialization of the PORTS site into an IES complex would serve as an exemplary example of converting a national liability to a national asset, resulting in much-needed regional economic development. This effort is an extraordinary opportunity to demonstrate what can and should be done with former DOE Defense Nuclear Sites or other brownfield sites. The IES complex will provide enduring and non-exportable jobs focused on optimizing efficiency of energy production and energy utilization in a sustainable and environmentally responsible manner. Sustainability, recycling and the efficient use of the region's natural attributes/resources and its man-made industrial infrastructure are key drivers. Repurposing of coal assets to make new and innovative products is essential. Using coal and shale assets in additive manufacturing, and diversifying the regional economy will revitalize the region.

Activities to advance the IES complex will further SODI's mission to diversify the regional economy by imagining possibilities beyond the immediate and existing economic realities in southern Ohio to identify what is needed to best prepare the site to attract 21st century industries with enduring missions. Site reindustrialization will spur regional cluster and supply chain-related growth throughout the impacted counties and multi-state region, further advancing economic healing by growing both large and small business opportunities in southern Ohio and beyond.

Citizens will have access to an increased number of high-quality, higher-than-average paying jobs. The region's entire economy will benefit from the site reindustrialization in the form of direct economic impacts (i.e. worker wages), indirect economic impacts (i.e. commerce and business revenue), and induced economic impacts (i.e. purchasing of good and services that will generate state and local tax revenue). It is impossible to overstate the impact that site reindustrialization will have on the region's economy as there have been no large-scale industry start-ups or expansions to replace the DOE former plant operations. A multitude of IES complex benefits are shown below in Figure 5-IES Impact.

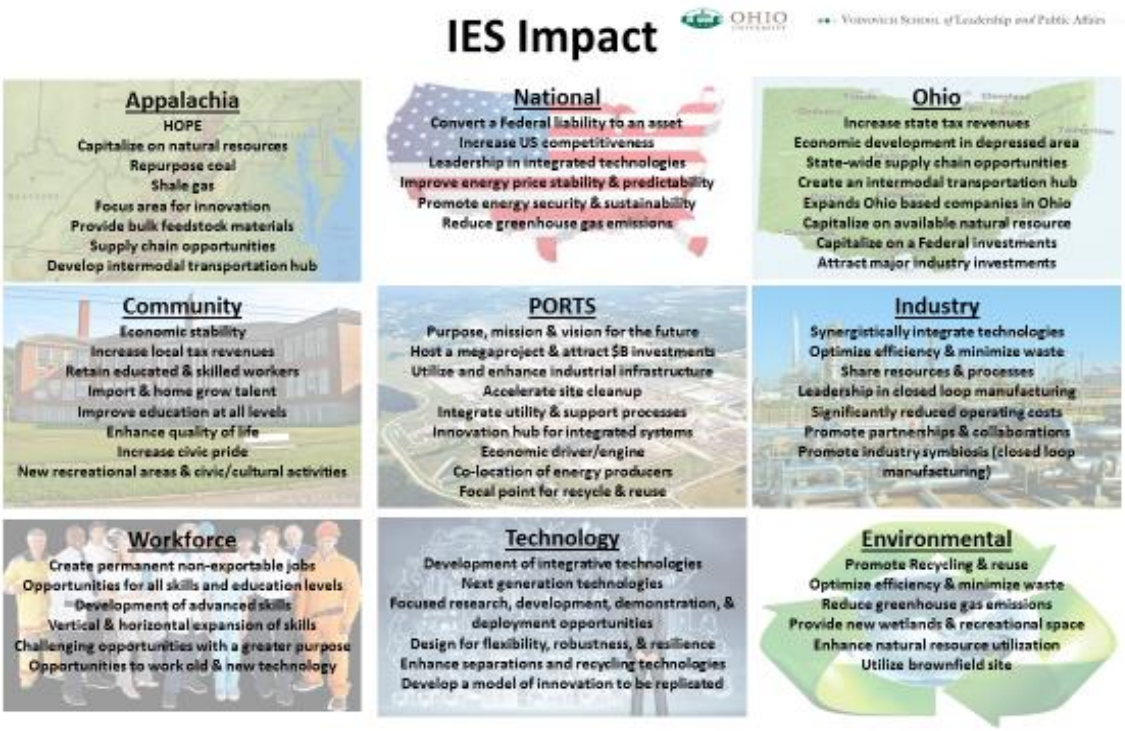
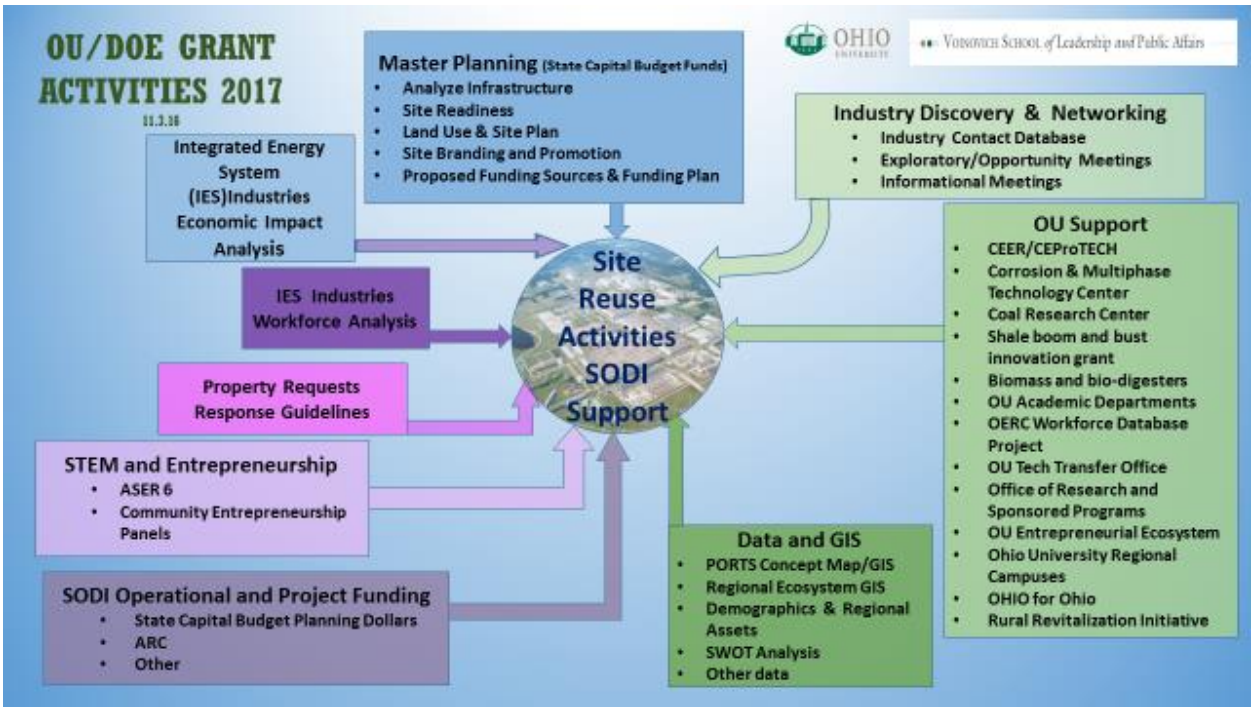


Figure 5-IES Impact

OU grant activities compliment SODI's ongoing collaboration with the Next Generation Nuclear Plant (NGNP) Industry Alliance. SODI and NGNP are exploring an international public-private partnership focused on identifying and piloting a versatile next generation nuclear power technology at the PORTS site. The next generation nuclear reactor could serve as the long-term source of high temperature heat to power the IES complex at PORTS. This new technology would be attractive to energy-intensive heat and power-using industrial end-users who are seeking zero carbon, environmentally friendly energy sources in their production processes. SODI and the NGNP Industry Alliance are partnering with the members of the European Union (EU) based Nuclear Cogeneration Industrial Initiative (NC2I) on a trans-Atlantic effort for piloting next generation nuclear technology. Such an initiative will need the buy-in and backing of both US and EU select government officials and industry leaders in order to develop a committed partnership. Key concerns that must be addressed include mitigating the immense up-front cost to construct the reactors both here in the US and in the EU and resolving regulatory issues associated with the design and federal licensing of this new reactor technology so that it can be constructed and operated as a part of the IES complex at the PORTS site. SODI and the NGNP plan to continue to working closely with potential key collaborators in industry, government, the U.S. Department of Energy and others with the goal of effectively fostering this partnership.

Summary of current and ongoing grant activities for Site Repurposing Continuation and Ongoing Technical Assistance, Public Outreach, Education, and Engagement for Property Transfer and Future Use

Brief narratives for each activity-area displayed follow the graphic below.



Master Planning Activities (State Capital Budget funds)

The community reuse organization, SODI, operates within a limited budget and has limited staffing capacity to carry out their various functions. In consultation with SODI, Ohio University has leveraged a portion of our DOE grant funds to secure $250,000 in State of Ohio Capital Budget planning dollars to enhance SODI's site reindustrialization efforts.

State Capital Budget funds will support planning for site readiness activities to prepare parcels to be made available and undergo approval processes for reindustrialization including: beginning to identify industry types that would be a good fit for the facility and ensure that the site can meet those industries' minimum siting criteria; analyzing the utility infrastructure in relation to industry attraction and determining minimum standards, identifying weaknesses and proposing funding sources to strengthen utility infrastructure; ensuring all basic geological, environmental, and other related site characterization studies are completed or identify gaps and studies that need to be completed to prepare the site for redevelopment; designing a frame work to ensure the site will meet the minimum validation by an external site selection agent; and assembling this information so that SODI can respond to and alleviate concerns of prospect companies which will be crucial to attracting industries to the site. Additionally, the project will focus on identifying workforce skill and strengths and educational levels in a one-hour radius of Piketon, Ohio. This work will be carried out collaboratively among OU, SODI, and external consultants.

See Appendix 3 for description of activities and deliverables. Due dates to be discussed with collaborators at an upcoming roll out meeting, date yet to be determined

Integrated Energy System (IES) Industries Economic Impact Analysis

Ohio University will analyze the direct, indirect, and induced economic impact of potential core industries associated with an IES complex on the four-county labor market closest to the facility (Pike, Scioto, Jackson, and Ross counties). This economic impact analysis report will serve to inform site reindustrialization, local economic development planning efforts and workforce development strategies and will serve to inform the IES complex business case. This information can be used to seek support and/or resources from industry, government and the community in support of the development of an IES complex.
Deliverables will include brief summary one-page documents that can stand alone and be compiled as part of a larger summary document.

Draft electronic version of report in PDF format-target date-March 31, 2017
Final electronic version of report in PDF format-target date-May 31, 2017

Integrated Energy System (IES) Industries Workforce Analysis

Ohio University will analyze the workforce skills and experience that will be needed by industries associated with an IES complex. This workforce analysis report will serve as a basis for local planning efforts and workforce development strategies to adequately prepare the local labor market (Pike, Scioto, Ross, and Jackson counties) for future jobs related to a functioning IES complex and will serve to inform the IES complex business case. This information can be used to seek support from industry, government, the community, and education providers to secure resources for developing programs for workforce development. Deliverables will include brief summary one-page documents that can stand alone and be compiled as part of a larger summary document.

Draft electronic version of report in PDF format-target date-March 31, 2017
Final electronic version of report in PDF format-target date-May 31, 2017

Ongoing Technical Assistance, Public Outreach, Education, and Engagement for Property Transfer and Future Use: property transfer, STEM, and entrepreneurship activities

Property Requests Response Guidelines

At the request of site stakeholders, Ohio University will develop in collaboration with SODI tools/templates for requests for property. This includes SODI requests to DOE for property and includes private sector request to SODI for property. OU will: assist SODI in developing a property transfer plan, phased-implementation schedule, and a proposal protocol for property transfer requests; identify areas on the site that are not good candidates for building (and remove them from consideration in the property transfer proposal process); define steps for the transfer process and identify documentation needed for each involved party; establish criteria for reviewing proposals and business plans that are submitted for consideration; develop a process for making requests that may include creating GIS maps for areas that are 'build-able' based on the needs of the requester; and develop metrics and standards for assessing/monitoring proposals and performance. Deliverables and due dates will be jointly determined by Ohio University and SODI.

ASER 6

ASER 6 (funded under separate task)-Ohio University is working with the chemistry teacher and ~50 students at Piketon High School who are producing the sixth Annual Site Environmental Report Student Summary, that will provide information to the public about the US Department of Energy's progress on cleanup work at PORTS. Students receive: SME seminars on site history, site cleanup and other environmental engineering topics; participate in a site tour; and participate in an applied field learning experience during the timeframe of August 2016-April 2017 to inform their writing of the ASER summary document. The final report and video will be completed by August 31, 2017.

Community Entrepreneurship Panels

At the request of site stakeholders, Ohio University will collaborate with regional economic development entities and/or other community leaders to complete a series of community entrepreneurship panel discussions in Pike, Jackson, Ross and Scioto counties. Local business owners will provide information and engage in discussions with community members to assist small business owners and aspiring entrepreneurs desiring to start a small business. Some of these start-ups may align with future use opportunities or be related to the ongoing D&D of the DOE Reservation.
See sample event flyer in Appendix 4. Target event dates include:

- Ross County event- collaborate with Ohio University Chillicothe Campus-Week of February 27th with time and location to be determined.
- Scioto County event-collaborate with Shawnee State- March 13th from 6PM-8PM at Shawnee State University.
- Jackson County event-collaborate with Mayor of Jackson, Ohio and the Jackson County Economic Development Office-Week of March 20 with time and location to be determined.
- Pike County event-collaborate with the Appalachian Regional Commission Local Development District known as the Ohio Valley Regional Development Commission (OVRDC)-Late March or early April with time and location to be determined.

College Student Business Pitch Competition

At the request of site stakeholders, Ohio University will collaborate with regional higher education institutions to conduct an inter-institutional pitch competition for college students in counties surrounding the site. Collaborators include Ohio University-Chillicothe, Shawnee State University, and University of Rio Grande.

Students will participate in an academic exercise to innovate business ideas using some (or all) of the resources available at the reservation including land, buildings, personnel and expertise. Students will be engaged by OU via seminar discussions and periodic pitch reviews through 'GoToMeeting' online sessions. Students will engage in an intra-institution round of pitch competitions, and a final round of competition between institutional finalists. Dates and locations of pitch competitions to be determined and will commence fall semester of 2017.

SODI Operational and Project Funding

At the request of SODI, Ohio University is assisting SODI with securing additional funding to support site reindustrialization efforts.

State Capital Budget funds $250K

See reference above in 'master planning activities' and in Appendix 3.

Appalachian Regional Commission (ARC) POWER grant dollars

At the request of SODI, OU assisted in the submission of an ARC POWER regional workforce development initiative. The State of Ohio Capital Budget planning dollars will be leveraged as match to the POWER grant proposal. ARC states the purpose of the POWER grants as "…a multi-agency initiative that targets federal resources to help communities and regions that have been affected by job losses in coal mining, coal power plant operations, and coal-related supply chain industries due to the changing economics of America's energy production". The IES complex includes a focus on additive manufacturing/clean coal technologies for alternative uses of our regional coal assets and thus directly addresses the POWER grant mandate. OU collaborated with a SODI grant writer to develop the $1,565,840 workforce development program proposal for southern Ohio, that aligns with DOE EM's

workforce development program entitled “Preparing the Next Generation Workforce for the Energy and Environmental Technology Industry” or “NEXT-GEN”. This grant was submitted by the Southern Ohio Diversification Initiative (SODI) in collaboration with United Steel Workers (USW) Local 1-689 who committed $315,840 in match funds and Ohio University/Voinovich School who committed $250,000 in match funds. The grant is currently under review at the time of this writing.

Data and GIS

As stated earlier, the purpose of the two tasks summarized in this report is to serve the DOE EM cleanup mission by expanding data utilization with site stakeholders at PORTS and in the region to enhance information-based decision making when determining viable future-use options for the site and site assets, so that cost savings/cost avoidance may be realized by DOE as cleanup efforts continue.
Data and GIS created under previous grant activities will be maintained. New data and GIS products are being developed under the current grant.

- Maintaining previously developed data dashboards. Collection of quantitative and qualitative data to employ in SODI’s site reindustrialization strategy resulted in the creation of a prototypical web-based data dashboard for interactive data analysis related to site repurposing task activities. The data dashboard visually displays relevant regional demographics of workforce-aged residents useful for future site use decision-making. It allows users to quickly access data on the four county region for various datasets including:
  - Population - Total population and percent change in population over time.
  - Demographics - The breakdown of total population by age groups and educational attainment.
  - Detailed Demographics - The distribution of educational attainment by specific age categories.
  - Student Enrollment - Student enrollment by sector and admission area.
  - Migration - In-migration, out-migration, and net migration flows for the four county region.
  - Employment by Industry - Total employment by industry sector in the four county region.
  - Employment by Occupation - Total employment by major occupational categories in the four county region.
  - This dashboard can be viewed at: http://app.voinovichschool.ohio.edu/datateam/portsdata/

- Maintaining previously developed regional asset maps. These asset maps visually display relevant regional assets useful for future site use decision-making such as highways, hazmat routes, rail, airports, navigable waterways, accredited education institutions, and metro centers and population that can be reached within various drive times from the site. These maps can be viewed at: http://app.voinovichschool.ohio.edu/datateam/portsmap/

- Developing a PORTS concept map which is an interactive site map with various layers including site infrastructure, topography, limitations, parcel transfers, and other information to be used in site planning efforts. This is a GIS database for creating a land use, site master planning tool that enables the user to display various layers such as topography, site infrastructure assets, wetlands, landfills, and other features in relation to developable parcels. This GIS tool will assist in assessing suitability to industry siting criteria and with other activities related to planning for reindustrialization. This interactive GIS database can be viewed at: http://ohiou.maps.arcgis.com/apps/webappviewer/index.html?id=fe14a57f8ccb48d4875cbfbeb17e0271
  Deliverables;
  - Interactive GIS database site map
  - Useable now and will continue to be augmented as needed/as appropriate.

- Development of a Regional Ecosystem Map depicting industry parks, developable land and airports in the four county area currently under development and can be viewed at: http://ohiou.maps.arcgis.com/apps/webappviewer/index.html?id=9e371f5385334e908023dde3a1a16ba7
  Deliverables;
  - Interactive GIS database regional ecosystem map
  - Useable now and will continue to be augmented as needed/as appropriate

- Development of the Integrated Energy System (IES) Concept diagram that depicts input/output processes and related industries shown in Figure 3 above.

- Development of the IES engineering technical concept diagrams that depict the mechanical and chemical engineering components of an IES complex are shown in Appendix 1 below.

- Creation of an industry contact database currently under development. This database will identify initial anchor, complimentary, and support industries for developing an Integrated Energy System complex at PORTS. Relationships would need to be established with the entities to drive the development of the IES complex.
  Deliverables:
  - Contact database organized by industry category
  - Useable now and will continue to be augmented as needed/as appropriate.

- As requested, Ohio University will produce other data needed to support efforts to accurately portray the site and site assets for property transfer and site reuse with deliverables to be determined.

OU PORTSfuture previous tasks, data, and reports that inform site repurposing efforts include:

- Habitat Mapping of the Land and Vicinity of the United State Department of Energy (DOE) Portsmouth Gaseous Diffusion Plant (PORTS) Pike County, Ohio-Under this 2-year task, OU compiled a fully georeferenced database from DOE, State, and public sources; completed a data gap analysis of the georeferenced data; and created a detailed land cover map of the PORTS site, including a 1-mile buffer around the site. Report available at: http://www.portsfuture.com/HabitatandLandUse.aspx

- Wetland and Primary Headwater Streams Mitigation Conceptual Design Plan-The task resulted in the preparation of a mitigation conceptual design plan, including a wetland mitigation bank proposal, which could be used by PORTS to compensate for potential unavoidable losses to waters of the United States (Clean Water Act Section 404 jurisdictional wetlands and headwater streams as regulated by Ohio EPA). This task applied to only the approximately 3,000 acres of federally-owned lands outside of the central high security zone and to such other proximate lands that may be identified as potential locations for headwater stream mitigation. Wetland mitigation analysis and planning was limited to federal lands outside the central high security area. Report available at: http://www.portsfuture.com/HabitatandLandUse.aspx

Ohio University Support

These entities are listed above in the current grant activities graphic with others support possibilities to be determined as grant work progresses. These entities have offered interest in supporting/assisting SODI's reindustrialization efforts, with activities to be determined as appropriate.

- **Center for Electrochemical Engineering Research (CEER) and OU's National Science Foundation (NSF) Center for Electrochemical Processes and Technology (CEPro TECH)**- The Centers' collaborate with industry and government partners and focus on providing out of the box solutions to the problems encountered by chemical and electrochemical industries. Dedicated to research and education in electrochemistry and to local, regional, national, and international economic growth.
  Source: https://www.ohio.edu/engineering/ceer/mission.cfm

- **Coal Research Center**- one of the nation's leading academic energy research organizations developing innovative and responsible engineering solutions to issues surrounding domestic energy sources. From clean coal technology to alternative biofuels development, the energy research supports the long-term viability of both our energy resources and our natural environment.
  Source: https://www.ohio.edu/engineering/ohio-coal/index.cfm

- **Institute for Corrosion and Multi-Phase Technology**- research new ways to address the corrosion of pipelines in partnership with a global gas and oil industry alliance. Pipelines will be a key infrastructure component for an IES complex.

- **Shale boom and bust innovation grant**-A team of OU engineers and policy experts was recently awarded $1.3 million from the competitive OU Innovation Strategy program to explore ways to keep more jobs and revenue from the energy industry in Appalachia and prepare the workforce and communities for life after the shale boom. Project activities include in part, improved extraction/separation technologies, new tools to reduce pipeline corrosion and leakage, remote sensing technologies, wealth retention and economic development strategies for the region and supply chain analyses. The three-year project supports existing/new research at OU and the opportunity to leverage the activities with new partners.

- **Biomass and bio-digesters**- researcher based at the Voinovich School who is exploring opportunities for bioenergy development that will simultaneously enhance ecosystem services.

- Related OU academic departments- economics, public administration/public policy, etc…

- **Ohio Education Resource Center (OERC)** –the Voinovich School is a collaborator on the Ohio Department of Higher Education, Office of Workforce Transformation and the Ohio Department Job and Family Services team that is analyzing state workforce and education data to demonstrate supply and demand. This workforce database will inform higher education institutions on how graduates are faring in the workforce and the database will provide employers with information about Ohio's supply of trained and educated workers.

- **Office of Research and Sponsored Programs**- the Vice President for Research and Creative Activity and Dean of the Graduate College at Ohio University and the Director of OU Industry Partnerships participated in a tour of the site, met with SODI and DOE to learn more about the site reindustrialization effort, and committed to providing support to the effort when possible.

- **OU Entrepreneurial Ecosystem** (Small Business Development Center, Procurement Technical Assistance Center, TechGROWTH Ohio, OU Innovation Center, and OU Tech Transfer Office)-

provide expert entrepreneurial education, business assistance, and capital resources in support of small business development, procuring government contracts, and venture development in Appalachian Ohio.

- **OHIO for Ohio**-Ohio University is committed to educating students, improving communities and impacting the local, regional and statewide economies through six OU campuses and two OU regional centers around the State. OU has recognized the PORTS site reindustrialization initiative as an important priority for regional economic development in southern Ohio and numerous OU officials are providing input and offering insights to the activities of the OU DOE grant.

- **Rural Revitalization Initiative**-as Ohio University develops and pursues a comprehensive rural strategy, the PORTS site reindustrialization initiative will be included as an important priority for regional economic development in southern Ohio.

National experts and thought leaders

Ohio University leverages and incorporates University resources and relationships by engaging well-respected national experts and thought leaders in our grant activities. These august individuals provide valuable guidance and feedback to our work and raise the visibility of efforts to repurpose the facility. The following serve in an ongoing and/or in-depth consultative capacity to our site repurposing and ongoing technical assistance, public outreach, education, and engagement for property transfer and future use grant activities:

- Mike Zimmer Esquire-Attorney/International Energy Business Development expert and Ohio University Voinovich School and Russ College of Engineering and Technology Executive in Residence.

- Dr. Benjamin Cross P.E.-Founder of NuSynergy Energy LLC and Ohio University Voinovich School Executive in Residence, formerly with Savannah River National Laboratory.

- Jeff Finkle-President and CEO of the International Economic Development Council (IEDC) and Ohio University Voinovich School Appalachian New Economy Partnership Fellow.

- Dr. Mark Weinberg-Dean of the Voinovich School of Leadership and Public Affairs at Ohio University

- Stephen Golding-Senior Vice President for Strategic Initiatives at Ohio University.

- Dr. Joe Shields-Vice President for Research and Creative Activity and Dean of the Graduate College at Ohio University.

- Dr. Kevin King-Director of Industry Partnerships at Ohio University.

- Dr. Greg Browning-President of Capital Partners. Former Ohio University Board of Trustee. Former Director of the Ohio Office of Budget and Management and former Senior Policy Advisor to Governor George V. Voinovich.

- David Pidwell P.E.- Member of Ohio University Board of Trustees, Ohio University Foundation Trustee and Russ College of Engineering and Technology Board of Visitors.

- Richard Dickerson P.E.- Ohio University Foundation Trustee and Ohio University Russ College of Engineering and Technology Board of Visitors.

Additionally, through DOE's grant relationship with Ohio University, the former PORTS DOE Site Director, Dr. Vince Adams, became a member of the Ohio University Voinovich School Strategic Partners Group. This group of State of Ohio and national-level leaders from a variety of substantive areas is assembled biannually. Members are invited to join the Partners Group based on their substantive focus, professional expertise/credentials, and on their collaborations with the Voinovich School focused on solving problems in the region, the State of Ohio, and beyond.

The Partners Group is a critically valuable network for DOE PORTS to leverage as cleanup and property transfer efforts move forward because many of the partners' professional pursuits intersect with DOE EM cleanup and property transfer efforts. This group's structure and function is currently being reconstituted and the roll-out of revisions to membership and the focus of the group is still pending. See Appendix 2, Voinovich School Partners Group Organized by Vocational Focus, for a full listing of 2015 members.

Industry Discovery and Networking

Ohio University participates in (at times with SODI and DOE) exploratory/opportunity meetings/informational meetings on an ongoing basis to identify entities/resources that could contribute to moving the IES complex initiative forward. Some of the entities/organizations that have been engaged include:

Shale Crescent USA

Shale Crescent USA's website states, "The mission of the Shale Crescent U.S.A. economic development initiative is to encourage business growth in the Mid-Ohio Valley based upon low natural gas prices that allow manufacturers to operate more efficiently while producing products more economically with access to water and half the population of the United States and Canada. Shale Crescent USA is made up of business leaders, regional economic development partners, non-profit and non- governmental agencies, area Chambers of Commerce, utilities, financial and educational organizations throughout Ohio, West Virginia and the Mid-Ohio Valley." Source: http://shalecrescentusa.com/about-shale-crescent-usa.html

The OU Office of Research invited the Voinovich School and the Russ College of Engineering and Technology to meet with Shale Crescent USA to discuss synergistic opportunities between OU initiatives and their efforts to create value-added manufacturing opportunities in southern Ohio with shale resources. This would expand industry, create jobs, and retain the shale wealth in Ohio. Synergies exist as shale gas would be a key feedstock for a variety of industries that would be a part of an IES complex and Shale Crescent USA will continue to be a resource for the IES complex effort as it develops.

Endless Sky L3C

Endless Sky L3C mission is to advance innovative and sustainable food production and they describe their focus as developing "…. new paradigms in growing, processing and marketing healthy food based on locally grown and processed crops, from human-scale prosperous farms that grow sustainably 12 months a year, while reducing the agricultural footprint and reducing pollution, energy use, and waste, all while making a positive contribution to the environment. 'GrowHouses' will also produce cut flowers and be growers of plants for nutraceuticals, bio-chemicals & pharmaceuticals". Source: Endless Sky L3C fact sheet.

OU, SODI and DOE hosted a site tour and met with this business to discuss synergistic opportunities between an IES complex and their sustainable food production efforts. Endless Sky utilizes grow houses that could be powered by process heat generated by an IES complex. Grow houses could be cited outside

of the PORTS reservation and serve to create jobs in the region and grow fresh food for the southern Ohio region especially for local grocers, hospitals, nursing homes, schools, and restaurants. Synergies exist and contact with Endless Sky will continue to as the IES complex effort develops.

NextGen

NextGen partners with Endless Sky on the waste/power/biochemical side of Endless Sky's projects. NextGen is "… a green power development company, formed by project finance professionals with deep experience in major Asian and American markets. Headquartered in Singapore, NextGen's current projects include greenfield project development, with initial projects in Singapore and feasibility studies in Thailand and Indonesia. Their primary focus is low emissions waste–to–energy and biomass power projects." Source: Endless Sky L3C fact sheet.

Conference call discussions were held to discuss possible synergies between the IES complex effort and NextGen's focus on green power development and waste/power/biochemical processes. Synergies exist and contact with NextGen will continue with them as the IES complex effort develops.

Hecate Energy

OU, SODI and DOE hosted a site tour and met with this business to discuss synergistic opportunities between an IES complex and their sustainable energy production efforts. Hecate Energy is currently pursuing a large solar farming and solar panel manufacturing initiative that would be cited in the Pike/Scioto/Lawrence Counties region. Synergies exist with their efforts and contact with Hecate Energy will continue as the IES complex effort develops.

Ohio Manufacturers' Association (OMA)

The Ohio Manufacturers' Association is a member organization comprised of a vast array of industries. OMA focuses on protecting and growing Ohio manufacturing endeavors throughout the State of Ohio. Ohio University was invited to present an overview of the DOE grant project to the Ohio Manufacturers' Association Energy Committee and to discuss the IES complex's closed-loop manufacturing concept. Members were very supportive of the IES complex concept because closed-loop manufacturing would greatly help industries in driving down the costs of manufacturing as well as ensuring a reliable and affordable source of energy for their production processes. Synergies exist and contact with OMA will continue as the IES complex effort develops.

Summary and next steps

Ohio University is honored to remain a part of, and to continue to add value to, the DOE, SODI, and site contractor collaborative efforts on informing end-state configuration to support viable site repurposing, ultimately resulting in reducing the EM footprint at PORTS. The activities executed under the *Site Repurposing Continuation and Ongoing Technical Assistance, Public Outreach, Education, and Engagement for Property Transfer and Future Use* activities created public value and served the public interest by informing site cleanup and future use planning while being mindful of leveraging the existing public assets of the PORTS site and the region to create regional economic stability.

The activities and information cited in this report serve to advance SODI's goal to develop an Integrated Energy System (IES) complex at the site. It is important to stress that these activities were carried out in a manner that was responsive to the stated future-use preferences of the public-at-large in the four county region near the site as identified during various DOE and Ohio University public engagement efforts and with the involvement of numerous site stakeholders including SODI; Site Specific Advisory Board (SSAB); community-at-large; local, state, and federal elected officials; county, regional, and state level economic development officials; private sector interests; and national experts.

Ohio University remains committed to building on the momentum gained to continue these vital activities with DOE, SODI, the SSAB, and site contractors. DOE, SODI and OU have identified the following areas in which Ohio University can continue to add value. Proposed future activities include:

- Continuing to carry out work depicted in the OU Current Grant Activities graphic shown earlier in this report in Figure 1.

- Continue to identify IES complex industries and related industry needs to support expansion in the region and/or at the PORTS site. Conduct targeted industry site infrastructure analysis to inform sequencing for D&D including conducting a comparison of current site conditions versus conditions needed to support commercial use in specific targeted industry sectors to inform DOE decisions on property transfer.

- Viable clusters for future development that have been identified included energy, advanced manufacturing, and transportation/logistics. Convene roundtables focused on developing Public Private Partnerships for Advanced Manufacturing and Transportation/Logistics Sectors.

- Identify siting requirements such as utilities and other assets to be left in place resulting in cost avoidance for DOE. Utilize GIS to display information when appropriate.

- Create reuse attributes index to identify/summarize recreational, green space and conservation attributes. Create index/matrix of infrastructure requirements for targeted industries (e.g. water, gas, electric, security, other). This could serve to identify assets to preserve rather than demolish, resulting in the potential for DOE cost avoidance in this effort. Incorporate the management of site ecological assets/natural capital assets management as appropriate.

- Conduct analysis of transportation networks of presumed industrial users' demands on road, rail and barge. This assessment will inform an aspect of NEPA analysis regarding how transportation and how the proposed action – site reuse – would impact transportation networks.

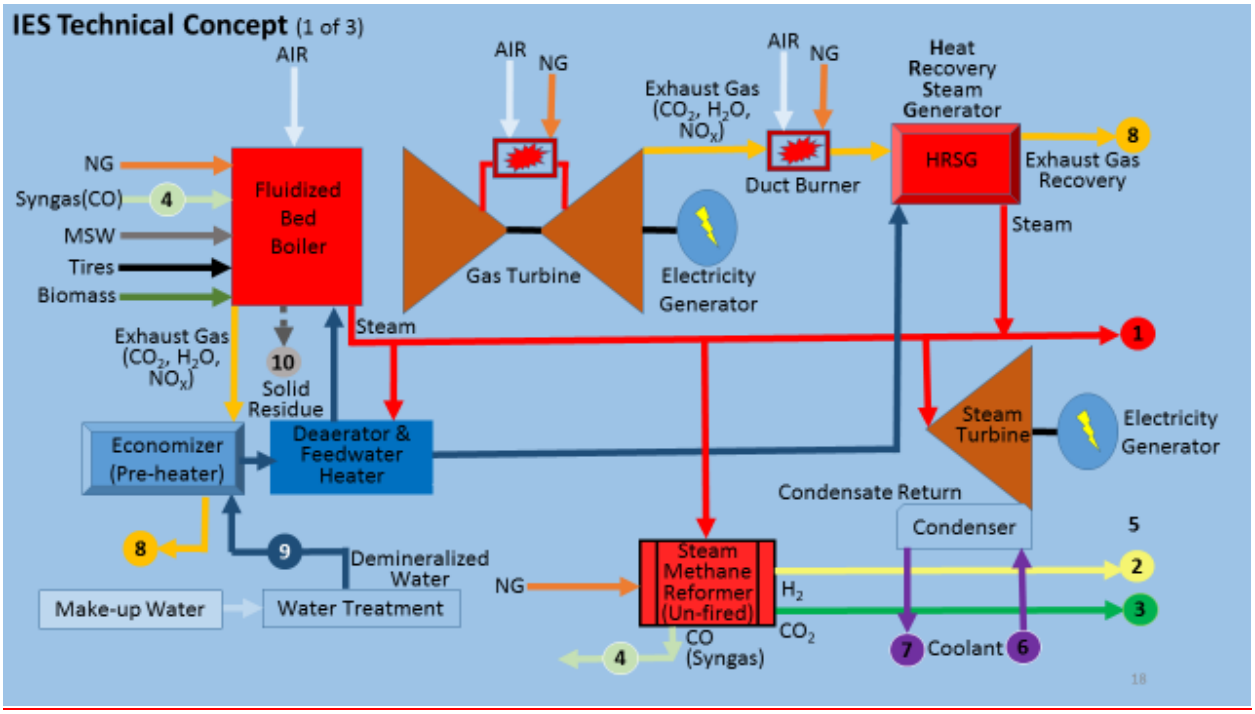
- Develop and assist with the execution of a site repurposing implementation plan as requested/as appropriate and incorporate Federal Programs as appropriate.

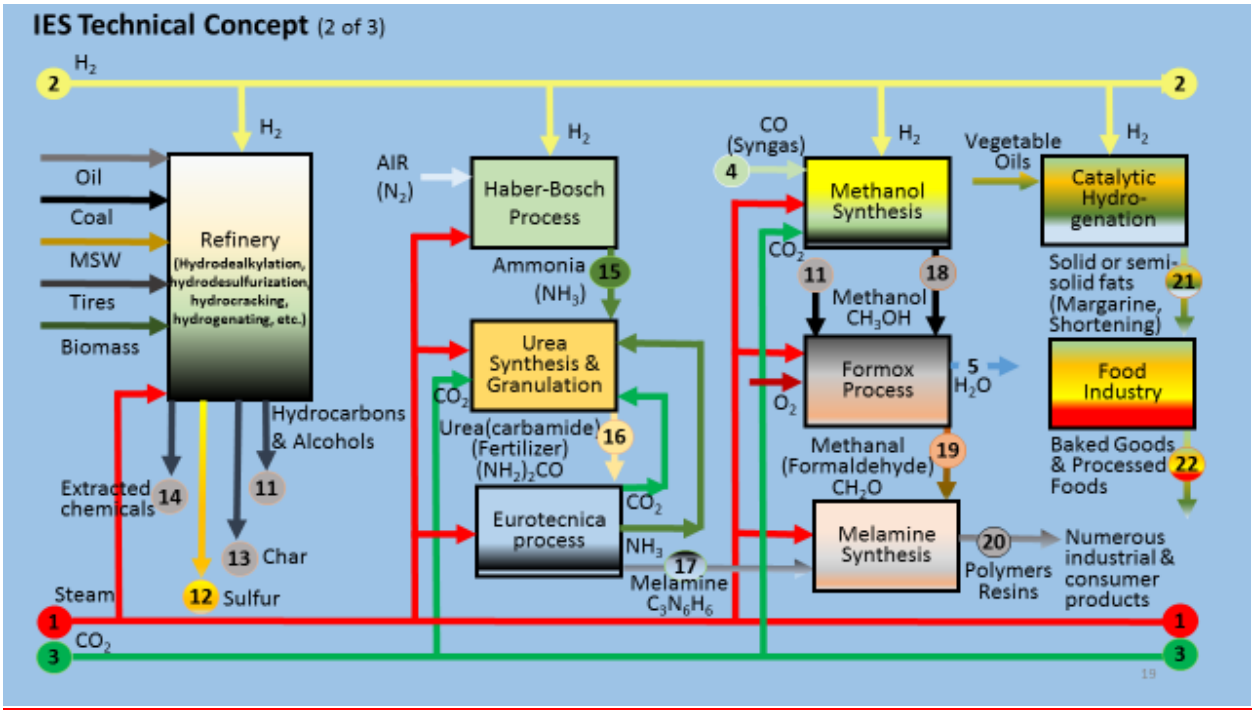
- Produce data needed to support these efforts (e.g. this may include maintaining existing data dashboards, creating profiles of regional economies and/or other data to be determined).
- Continue to identify and engage external and/or private sector resources that could be interested in utilizing site assets for future business development and job creation in the region.

- Continue to inform and update key regional and political stakeholders on activities and progress.

- Leverage other funding opportunities where possible and especially pursue opportunities to bring private sector dollars and/or public private sector partnerships to the PORTS site,
    - This includes building upon current initiatives with entities such as:
        - commercial partners interested in exploring bio-energy opportunities at the site
        - university partners interested in conducting RD & D in advanced energy/renewable energy endeavors at the site, and
        - technology commercialization experts, private sector venture capitalists and pre-seed fund resources interested in investing in Southern Ohio companies.
- Other activities to be defined.

Appendix 1 Integrated Energy System (IES) Technical Concept





Appendix 2

Ohio University
Voinovich School Strategic Partners Group
Contact List

Highlighted names indicate membership modification is pending

The Honorable George V. Voinovich, *U.S. Senator, deceased*

David Wilhelm, *Founder and Partner, Woodland Ventures*

Mark Weinberg, *Founding Dean, The Voinovich School of Leadership and Public Affairs*

Eric Burkland, President, *Ohio Manufacturers' Association*

Craig Butler, *Director, Ohio Environmental Protection Agency*

Vince Adams, *Site Director, Portsmouth, U.S. Department of Energy*

Cara Dingus Brook, *President and CEO, The Foundation for Appalachian Ohio*

Greg Browning, *President, Capital Partners*

Norm Chagnon, *Deputy Chief of Technology and Innovation Division, Ohio Development Services Agency*

Bill Dingus, *Executive Director, Lawrence Economic Development Corporation & Greater Lawrence County Area Chamber of Commerce*

Matt Evans, *President of External Relations, Boich Companies*

Jeff Finkle, *President/CEO, International Economic Development Council*

Mary Anne Flournoy, *Sugar Bush Foundation*

Joe Flynn, *Vice President, Community Development, WesBanco*

Lisa Hamler-Fugitt, *Executive Director, Ohio Association of Second Harvest Foodbanks*

Joe Hamrock, *Executive VP and Group CEO, NiSource Gas Distribution*

James R. Klein, *Chief Executive Officer, Finance Fund – pushed out so not clear on role?*

Neill Lane, *CEO, Stirling Ultracold*

Jim Mahoney, *Executive Director, Battelle for Kids (retiring)*

Ben McCament, *Natural Resource Administrator III, Acid Mine Drainage and Forfeiture Programs, Ohio Department of Natural Resources, Division of Mineral Resource Management*

Dana McDaniel, *City Manager, City of Dublin*

John Molinaro, *President and CEO, Appalachian Partnership for Economic Growth*

Laurel McFarland, *Executive Director, National Association of Schools of Public Affairs and Administration*

Tracy Plouck, *Director, Ohio Department of Mental Health and Addiction Services*

Heather Reed, *Chief, Bureau of Community Health Services and Patient-Centered Primary Care, Ohio Department of Health – she changed agencies and we have not replaced anyone from ODOH*

Michael Smith, *Dean, The University of North Carolina Chapel Hill School of Government*

Gayle Channing Tenenbaum, *Channing & Associates*

Larry Triplet, *Muskingum County Business Incubator*

Pablo Vegas, *President, AEP Ohio – he moved on to NiSource and we had already been working to involve Selwyn Dias, VP for Distribution Operations*

Tony Wells, *President, The Tony R. Wells Foundation*

Reggie Wilkinson, *former President and CEO, Ohio College Access Network - retired and now President, Connecting the Dots, LLC*

Ohio University Leadership

Dr. Roderick McDavis, *President – leaving February, 2017*

Dr. Pam Benoit, *Executive Vice President and Provost*

Stephen Golding, *Senior Vice President for Strategic Initiatives*

Joe Shields, *Vice President for Research and Dean of the Graduate College*

Hugh Sherman, *Dean, College of Business*

Eric Burchard, *Director, Government Relations*

Appendix 3

State of Ohio Capital Budget Community Project-Planning Fund Activities

Project Name: Ohio University Voinovich School of Leadership and Public Affairs Planning Support for SODI Reindustrialization of the US Department of Energy PORTS Facility

The purpose of this project is to engage in efficacious planning for site reindustrialization in order to best prepare the site for reindustrialization resulting in business growth and job creation for the region. The planning activities strive to help ensure that the site can be "certified" and ready for redevelopment and Ohio University will likely engage external consultants to ensure site-selection industry standards are achieved.

Ensuring the availability of developable real estate for a new industrial facility is a critical requirement for successfully launching a new site selection project. SODI must be able to be both reactive and proactive in seeking end-users to the site and be able to immediately and comprehensively respond to any prospective investment requests. The funding would support SODI in preparing for site reindustrialization and in extending SODI's reach under an integrated energy system strategy to develop economic clusters in southern Ohio, founded initially on advanced energy, advanced manufacturing and transportation and logistics sectors**.** Planning activities will identify what is needed to further modernize the infrastructure of PORTS to add new technologies which will enhance the reindustrialization potential and lead to the creation of non-exportable jobs in southern Ohio and beyond.

State Capital Budget funds will support planning for site readiness activities to prepare parcels to be made available and undergo approval processes for reindustrialization including:

Analyze Infrastructure

- Analyzing the utility infrastructure in relation to industry attraction and determining minimum standards
- Identifying infrastructure weaknesses and proposing funding sources to strengthen utility and support infrastructure

Deliverables

- Infrastructure analysis summary

Site Readiness

- Existing conditions assessments and discovery
- Beginning to identify industry types that would be a good fit for the facility and ensure that the site can meet those industries' minimum siting criteria
- Ensuring all basic geological, environmental, and other related site characterization studies are completed
- Identify gaps in site characterization and studies that need to be completed to prepare the site for redevelopment
- Designing a frame work to ensure the site will meet the minimum validation by an external site selection agent

Deliverables

- Gap analysis for site characterization and identify studies that need to be completed to prepare the site for redevelopment
- Framework to ensure the site will meet the minimum validation by an external site selection agent
- Existing conditions assessments and discovery

Land Use and Site Plan

- Creating a viable land use plan, site plan, and related materials to enhance SODI's ability to comprehensively respond to prospective investment requests from industries
    - Assisting in selecting an outside planner who can assist with site layout.
    - Supportive services to the outside planner as needed/as requested
    - Create a list of minimum utility requirements and determine if the site can support requirements
    - Provide names of companies and their key contacts that would benefit from locating at the site
- Assembling this information so that SODI can respond to and alleviate concerns of prospect companies which will be crucial to attracting industries to the site
- Identifying workforce skill and strengths and educational levels in a one-hour radius of Piketon, Ohio

Deliverables

- Land use plan and site plan
    - Assisting in selecting an outside planner who can assist with site layout
    - Supportive services to the outside planner as needed/as requested
    - Create a list of minimum utility requirements and determine if the site can support requirements
    - Provide names of companies and their key contacts that would benefit from locating at the site
- Workforce skills summary

Site Branding and Promotion

- Long Term Marketing:
    - Facilitate a small committee for naming and branding of site.
    - Develop an ongoing marketing plan which would include:
        1. Assist a web designer with creating an up to date and user friendly website;
        2. Assist in the design and creation of marketing pamphlets;
        3. Develop outreach strategy to traditional local, state and national news outlets as well as online and industrial media groups;
        4. Develop a grass roots marketing campaign that would include testimonials and human interest stories;
        5. Develop an outlet to provide regular update to stakeholders and prospects.
    - Working closely with the OU/SODI team, develop and execute an outreach plan so local leaders can begin to proactively market the site to regional and national site selector.

- Identify and promote the site to targeted companies and organizations.
- Support the OU/SODI team in responding to prospective investment requests or questionnaires.

Deliverables

- Marketing plan including branding, draft website content creation, and draft marketing materials
- Outreach plan to market site to site selectors and prospective companies
- Updated SODI website

Proposed Funding Sources and Funding Plan

- Develop and Execute Funding Plan:
  - Develop and execute additional State funding initiatives.
  - Support in the development and guide a multiple source Federal funding strategy.
  - Explore and leverage other possible funding sources from private and public entities, as necessary.

Deliverables

- Summary report of funding sources and funding plan recommended strategies to pursue

Appendix 4

PORTSFUTURE

IMAGINING THE OPPORTUNITIES, GATHERING YOUR IDEAS
THE FACILITY AT PIKETON, OHIO

ENTREPRENEURSHIP ROUNDTABLE

To learn about resources available to start or grow your business
and to network with business assistance providers

Monday, March 13, 2017
6:00 p.m. – 8:00 p.m.

Refreshments provided

Shawnee State University
Morris University Center
Sodexo Ballroom
940 Second Street
Portsmouth Ohio 45662

CLICK HERE TO REGISTER
by March 6, 2017

PANELISTS

Greg Merril, CEO of Yost Labs, one of the fastest growing tech companies in Ohio. Greg is an entrepreneurial leader with 25 years of experience developing award winning medical and consumer electronic products. He has served as founding CEO for three VC-backed fast growth technology-based companies.

Dale King and Renee Wallace of Doc Spartan, a veteran-owned company based in Portsmouth. They produce all natural products for skin and beards, and every order is handmade, labeled and shipped out by their small team. Dale and Renee will appear on ABC's Shark Tank on Friday, February 10, at 9 p.m.

Alex Russell, a senior computer engineering technology major at Shawnee State University, helped to start LiTS, an IT services company, and he now works there full-time while finishing his degree at Shawnee State University in computer engineering technology.

Questions? Angela Duduit, 740.351.3322,
aduduit@shawnee.edu

THIS EVENT IS FREE AND OPEN TO THE PUBLIC

OHIO UNIVERSITY 1804
Voinovich School of Leadership and Public Affairs

Shawnee State University

JEDISO The Joint Economic Development Initiative of Southern Ohio

OVRDC

The Ohio State University South Centers

JCEDB

The PORTSfuture project is funded by a grant from the U.S. Department of Energy Office of Environmental Management Portsmouth/Paducah Project Office