



ECONOMIC IMPACT ANALYSIS OF SCENARIO OPTIONS SEPTEMBER 2011

PORTSFUTURE PROCESS AND PRODUCT

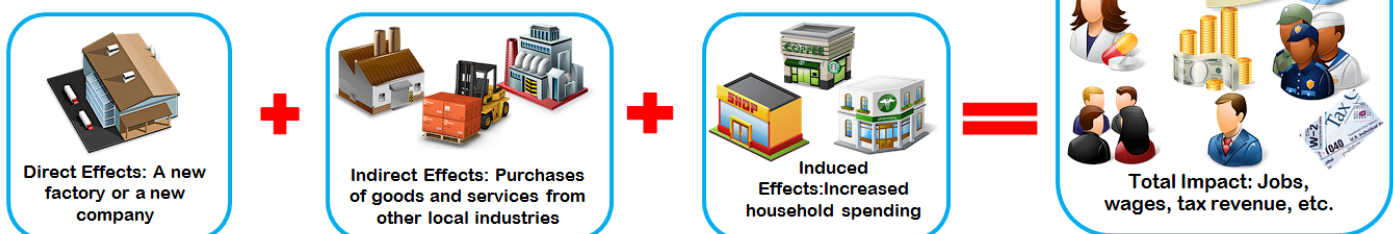
Ohio University's PORTSfuture project has engaged hundreds of community members from Pike, Jackson, Ross, and Scioto counties in developing possible future use scenarios for the site of the U.S. Department of Energy's former gaseous diffusion plant at Piketon, Ohio. We have summarized these ideas and invite you to complete a brief on-line survey to indicate your preferences. The web-site, <http://www.portsfuture.com>, provides summary information on the scenarios, their potential economic impact on surrounding communities, and a voting ballot. Please review and choose up to three scenarios that you support. Your time is valuable and this survey can be completed in 10-12 minutes. Your answers are confidential.

A report will be written that describes all scenarios developed by community members and includes public preferences. The report will be submitted to the U.S. Department of Energy, Office of Environmental Management, Portsmouth/Paducah Project office for their consideration as they make clean-up and risk reduction decisions about the site.

WHAT IS ECONOMIC IMPACT?

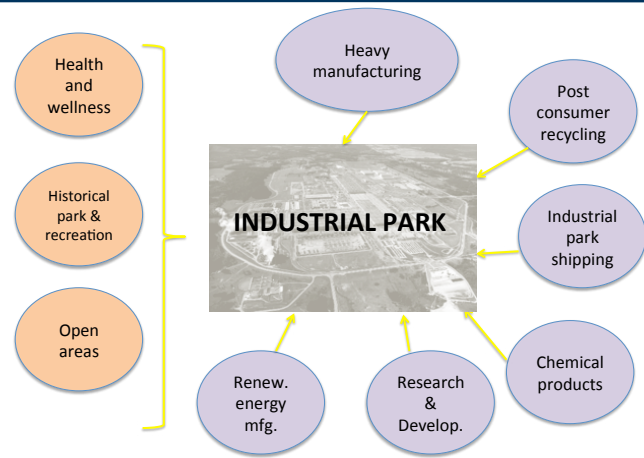
Under a site license from MIG, Inc (Formerly Minnesota IMPLAN Group, Inc.) Ohio University employed a database and modeling system known as IMPLAN® to construct economic impact consequences of potential future uses of the PORTS facility in Piketon, Ohio on the combined local economies of Jackson, Pike, Ross, and Scioto counties.

IMPLAN models the ripple effect of a change in one industry/activity through extremely detailed social accounting matrices and multiplier models of local economies. To estimate the total impact of each alternative, our IMPLAN model takes as the starting point the direct effect – for example, how many jobs would be created if this alternative is implemented? These direct effects are calculated on the basis of an extensive review of publicly available data from a variety of sources including, but not restricted to, the U.S. Census Bureau, the U.S. Department of Energy, etc. Once these direct effects are finalized, we estimate the indirect and induced effects. As shown in the graphic, the total impact of an activity is thus just the sum of direct, indirect, and induced effects.



SCENARIO DESCRIPTION

- Multiple use option
- Strive to develop “supply chain” manufacturing operations
- Steel forging turbines -manufacture and operate turbines to generate power
- Post-consumer recycling-plastics, glass, other materials
- General manufacturing
 - Auto parts, plane parts
- Industrial park shipping facility
- Chemical production for industrial use
- Pharmaceutical manufacturing plant
 - Drug research and development
 - Manufacturing distribution
 - Center for Disease Control Satellite Office
- Research and Development
 - Medical research
 - Communicable disease research
 - Radioisotope research for medical use
 - Renewables and biomass
- Comprehensive industrial energy
 - Nuclear
- Renewable energy manufacturing
 - Solar panels, solar shingles, wind, turbine, batteries
- Health and wellness facilities on site
- Historical park, preserve, and recreational amenities
 - Museum and cultural center-Southern Ohio Educational Enrichment Center



- Earthwork restoration
- Recreational park
- Nature center and visitor's center
- Green areas reserved for future use

JUSTIFICATION

- Utilize existing infrastructure including river, rail, road
- Recycles existing materials and buildings for reuse
- Allows for future planning and expansion
- Job creation potential
- Research and development will yield educational benefits
- Can operate within the environmental conditions of the site
- Compliments existing operations at the site
- Economic market conditions

ECONOMIC IMPACT OF INDUSTRIAL PARK SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	725	\$ 45,307,858	\$ 107,795,606
Indirect Effect	290	\$ 11,410,263	\$ 19,073,109
Induced Effect	260	\$ 8,993,692	\$ 15,278,305
Total Effect	1,275	\$ 65,711,809	\$ 142,147,020

FINDINGS

- The direct impact of the Industrial Park on employment in the four county region is 725 jobs with a total labor income of \$45,307,858.
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$107,795,606
- The combined total effect was 1,275 jobs and \$142,147,020 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

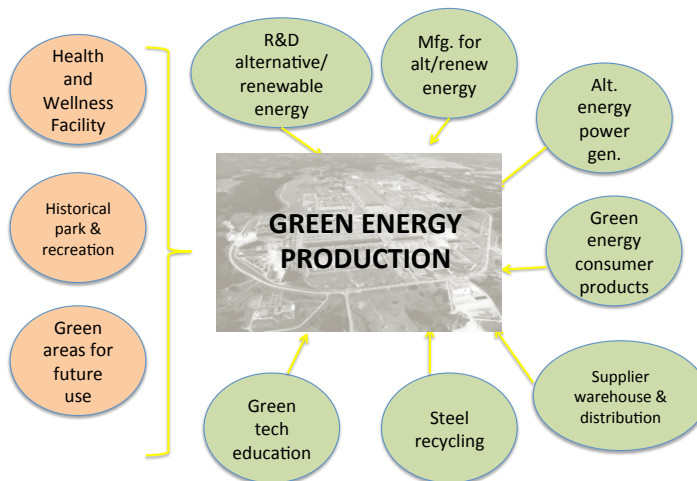
Economic structures and relationships change over time and so the indirect and induced effects that are quantified during one year may decrease or increase over the period of the analysis. It is also possible that as a new activity starts, another activity disappears (for example, a factory opens but another closes) so that jobs are not “created” but just shifted from one industry to another. Finally, the indirect and induced effects depend directly on the magnitude of the direct effects, and so any fluctuations or errors in the data for the direct effects will be reflected in the total effects as well. In our analysis we have tried to be conservative and provided the lowest estimate of the anticipated direct job and salary impacts.

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

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SCENARIO DESCRIPTION

- Multiple use option
- Research and development
 - Alternative energy
 - Renewable harvest of resources such as switchgrass
 - Biomass sustainability
 - Woodland utilization and development
 - Recycling
- Manufacturing may include:
 - Wind turbines
 - Solar panels
 - Batteries
 - Recycling
- Generation
 - Wind
 - Solar
 - Nuclear
 - Fossil and baseload
- Consumer products
 - Home energy (e.g. wind and solar)
 - Electrical vehicles
- Transportation Hub
 - Air, rail, and truck
- Supplier warehousing and distribution
- Steel recycling from the site
- Green Technology Education (K-16) Center
- Wildlife buffer
- Aquaculture
- Tourism



- Health and wellness facilities on site
- Historical park, preserve, and recreational amenities
- Green areas reserved for future use

JUSTIFICATION

- Create productive and abundant, new energy sources
- Recycles existing materials and buildings for reuse
- Allows for future planning and expansion
- Job creation potential
- Potential economic stability for the future
- Training for students and workforce
- Revenue from energy grid
- Make U.S. competitive globally
- Access to highways
- Compliments existing operations at the site

ECONOMIC IMPACT OF GREEN ENERGY PRODUCTION SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	861	\$ 49,688,233	\$ 112,861,666
Indirect Effect	294	\$ 11,664,830	\$ 19,418,857
Induced Effect	283	\$ 9,790,353	\$ 16,635,901
Total Effect	1,438	\$ 71,143,413	\$ 148,916,427

FINDINGS

- The direct impact of the Green Energy Production on employment in the four county region is 861 jobs with a total labor income \$49,688,233
- The direct value added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$112,861,666
- The combined total effect was 1,438 jobs \$148,916,427 in value added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

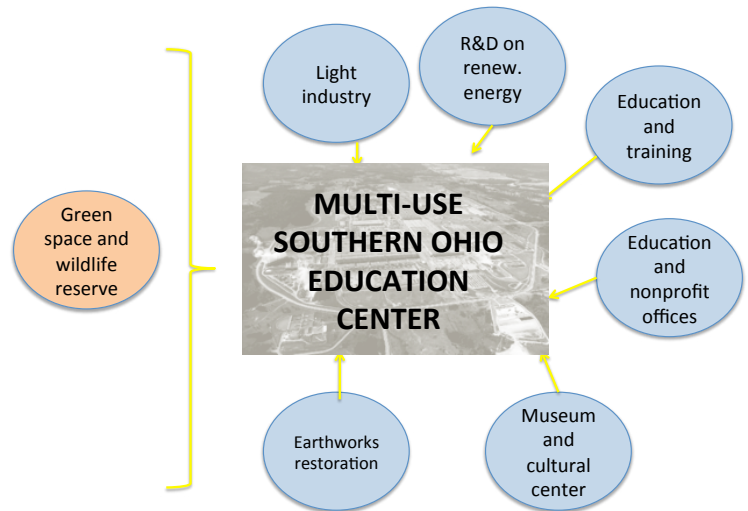
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SCENARIO DESCRIPTION

- Multiple use option
- Light industry
- Research and development
 - Federal renewable energy
- Education and training
- Green space, recreation, and wildlife reserve
 - Appended to Wayne National Forest
- Educational and nonprofit office space
- Museum and cultural center-Southern Ohio Educational Enrichment Center
- Earthwork restoration
- Industrial/Nature Center/Recreational Park with a Visitor Center



JUSTIFICATION

- Preservation of local forest area
- Clean jobs for the community
- Educational opportunities for the community
- Potential for job creation
- Site has historical significance
- Regional resource for education and training for the four counties

ECONOMIC IMPACT OF MULTI-USE SOUTHERN OHIO EDUCATION CENTER SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	275	\$ 10,192,722	\$ 13,003,190
Indirect Effect	34	\$ 1,285,316	\$ 2,447,947
Induced Effect	53	\$ 1,845,119	\$ 3,136,310
Total Effect	362	\$ 13,323,153	\$ 18,587,448

FINDINGS

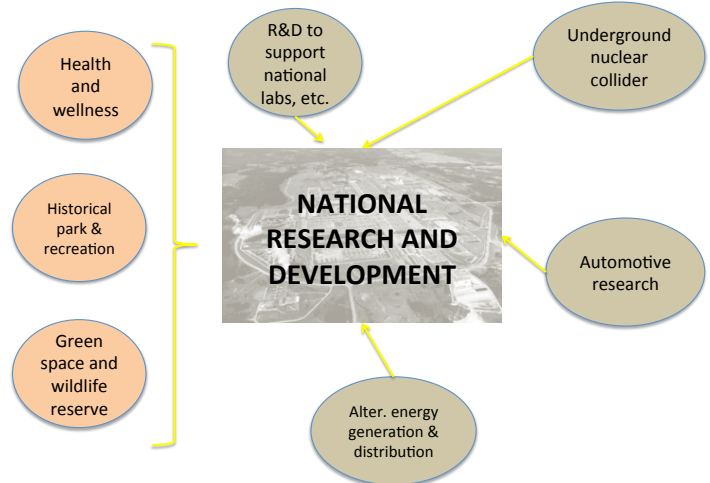
- The direct impact of the Multi-use Southern Ohio Education Center on employment in the four county region is 275 jobs with a total labor income of \$10,192,722
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$13,003,190
- The combined total effect was 362 jobs and \$18,587,448 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

Economic structures and relationships change over time and so the indirect and induced effects that are quantified during one year may decrease or increase over the period of the analysis. It is also possible that as a new activity starts, another activity disappears (for example, a factory opens but another closes) so that jobs are not "created" but just shifted from one industry to another. Finally, the indirect and induced effects depend directly on the magnitude of the direct effects, and so any fluctuations or errors in the data for the direct effects will be reflected in the total effects as well. In our analysis we have tried to be conservative and provided the lowest estimate of the anticipated direct job and salary impacts.

SCENARIO DESCRIPTION

- Multiple use option
- Energy research
 - Support national labs
 - Testing prototypes
 - Homeland security research
 - American Centrifuge Plant research and manufacturing support
 - Underground nuclear collider
 - Automotive research
 - Electric vehicles batteries
 - Hydrogen
 - Vehicle operations and controls
 - Surface recreation for vehicles
- Alternative energy
 - Solar panels placed on disposal cells at site
 - Solar shingles
 - Energy generation, distribution, and material processing
- Health and wellness facilities on site



- Historical park, preserve, and recreational amenities
- Green areas reserved for future use

JUSTIFICATION

- Recycles existing materials and buildings for reuse
- Allows for future planning and expansion
- Job creation potential

ECONOMIC IMPACT OF NATIONAL RESEARCH AND DEVELOPMENT SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	1,537	\$ 71,614,560	\$ 86,306,799
Indirect Effect	156	\$ 5,561,206	\$ 11,059,105
Induced Effect	362	\$ 12,493,516	\$ 21,243,082
Total Effect	2,055	\$ 89,669,280	\$ 118,608,985

FINDINGS

- The direct impact of the National Research and Development on employment in the four county region is 1,537 jobs with a total labor income of \$71,614,560
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$86,306,799
- The combined total effect was 2,055 jobs and \$118,608,985 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

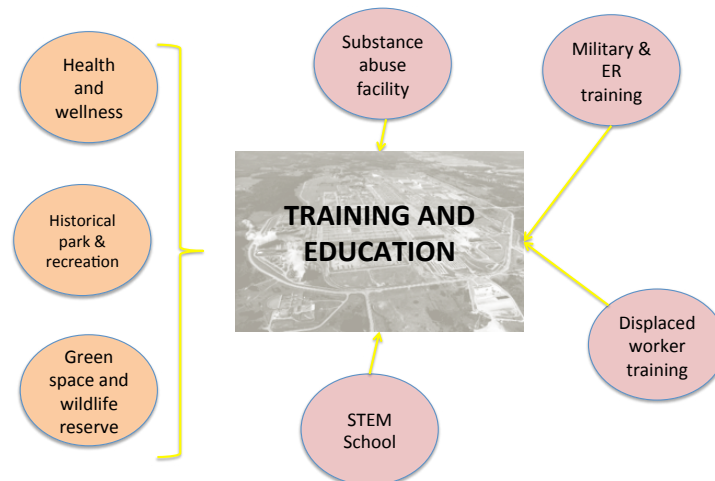
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SCENARIO DESCRIPTION

- Multiple use option
- Substance abuse/treatment facility
- Military training
- Homeland security/emergency response training
- Displaced worker training
- Science, Technology, Engineering, and Math (STEM) School
- Health and wellness facility
- Historic park/preservation/recreation
- Green areas for future development



JUSTIFICATION

- Recycle and reuse materials and buildings to the greatest extent possible
- Keep money in the community
- National Guard expansion unique to Southern Ohio
- Residential and outpatient treatment can partner with local hospitals and higher learning
- Improve health and wellness for workers at the site and the community
- Clean jobs for the community
- Educational opportunities for the community
- Potential for job creation

ECONOMIC IMPACT OF TRAINING AND EDUCATION SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	213	\$ 3,931,250	\$ 4,469,954
Indirect Effect	12	\$ 486,090	\$ 1,119,072
Induced Effect	20	\$ 700,246	\$ 1,189,640
Total Effect	245	\$ 5,117,584	\$ 6,778,666

FINDINGS

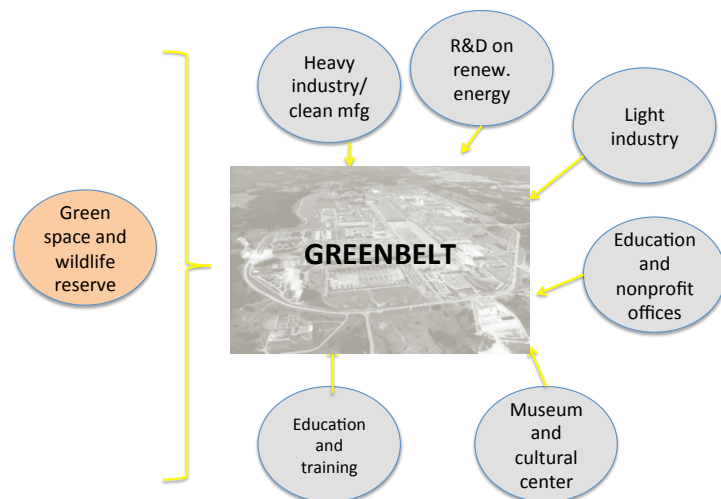
- The direct impact of the Training and Education on employment in the four county region is 213 jobs with a total labor income of \$3,931,250
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$4,469,954
- The combined total effect was 245 jobs and \$6,778,666 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

Economic structures and relationships change over time and so the indirect and induced effects that are quantified during one year may decrease or increase over the period of the analysis. It is also possible that as a new activity starts, another activity disappears (for example, a factory opens but another closes) so that jobs are not “created” but just shifted from one industry to another. Finally, the indirect and induced effects depend directly on the magnitude of the direct effects, and so any fluctuations or errors in the data for the direct effects will be reflected in the total effects as well. In our analysis we have tried to be conservative and provided the lowest estimate of the anticipated direct job and salary impacts.

SCENARIO DESCRIPTION

- Multiple use option
- Heavy industry/clean manufacturing for example:
 - Post-consumer recycling
 - Solar cell and solar panel manufacturing
 - Wind turbine manufacturing
- Light industry
- Research and development
 - Federal renewable energy
- Education and training
- Wildlife reserve
 - Creation of a new State Park
- Educational and nonprofit office space
- Museum complex may include natural history, living history, cultural center, logging museum, conservatory, arboretum, canal town recreation, local artists
- Earthwork restoration and ecotourism
 - Archeological park



JUSTIFICATION

- Preservation of local forest area
- Clean jobs for the community
- Educational opportunities for the community
- Potential for job creation
- Site has historical significance

ECONOMIC IMPACT OF GREENBELT SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	884	\$ 39,738,974	\$ 49,071,546
Indirect Effect	107	\$ 3,954,834	\$ 7,630,362
Induced Effect	204	\$ 7,054,094	\$ 11,992,756
Total Effect	1,195	\$ 50,747,899	\$ 68,694,663

FINDINGS

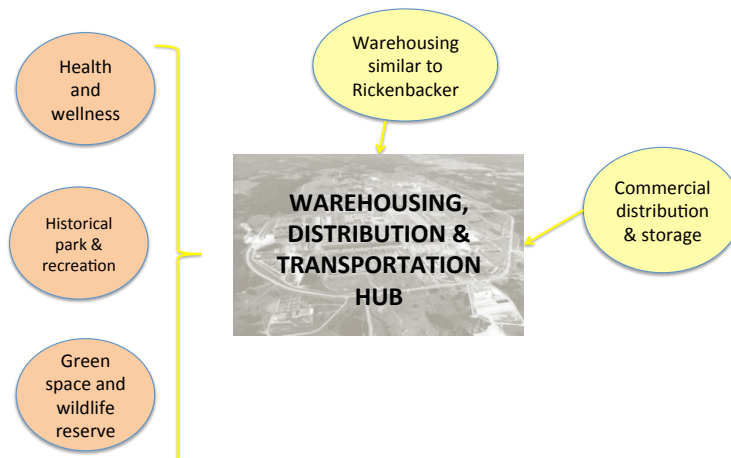
- The direct impact of the Greenbelt on employment in the four county region is 884 people with a total labor income of \$39,738,974
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$49,071,546
- The combined total effect was 1,195 jobs and \$68,694,663 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

Economic structures and relationships change over time and so the indirect and induced effects that are quantified during one year may decrease or increase over the period of the analysis. It is also possible that as a new activity starts, another activity disappears (for example, a factory opens but another closes) so that jobs are not “created” but just shifted from one industry to another. Finally, the indirect and induced effects depend directly on the magnitude of the direct effects, and so any fluctuations or errors in the data for the direct effects will be reflected in the total effects as well. In our analysis we have tried to be conservative and provided the lowest estimate of the anticipated direct job and salary impacts.

SCENARIO DESCRIPTION

- Multiple use option
- Warehousing and cargo park similar to Rickenbacker
- Commercial distribution and storage
- Health and wellness facilities on site
- Historical park, preserve, and recreational amenities
- Green areas reserved for future use



JUSTIFICATION

- Recycles existing materials and buildings for reuse
- Allows for future planning and expansion
- Job creation potential

ECONOMIC IMPACT OF WAREHOUSING, DISTRIBUTION, & TRANSPORTATION HUB SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	512	\$ 23,483,473	\$ 33,091,997
Indirect Effect	123	\$ 5,136,504	\$ 8,560,923
Induced Effect	136	\$ 4,678,471	\$ 7,956,770
Total Effect	771	\$ 33,298,446	\$ 49,609,691

FINDINGS

- The direct impact of the Warehousing, Distribution, and Transportation Hub on employment in the four county region is 512 jobs with a total labor income of \$23,483,473
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$33,091,997
- The combined total effect was 771 jobs and \$49,609,691 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

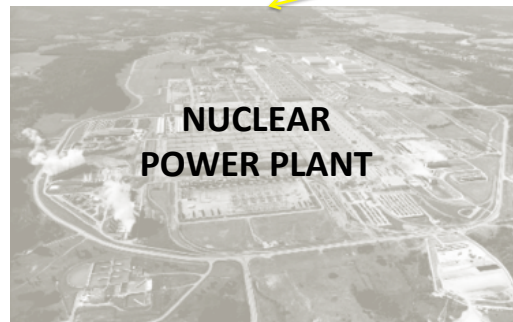
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SCENARIO DESCRIPTION

- Single use option
- Power generation facility

JUSTIFICATION

- Uses existing materials and infrastructure
- Environmental conditions of the site
- Existing operations at the site
- Economic markets conditions
- Cost for clean up
- Job creation potential



ECONOMIC IMPACT OF NUCLEAR POWER PLANT SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	400	\$ 35,291,101	\$ 118,940,111
Indirect Effect	237	\$ 9,266,799	\$ 14,692,464
Induced Effect	203	\$ 7,022,867	\$ 11,928,017
Total Effect	840	\$ 51,580,766	\$ 145,560,592

FINDINGS

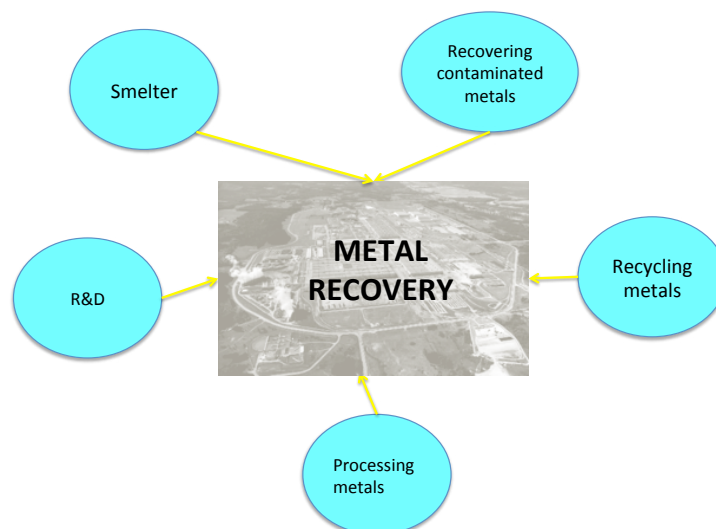
- The direct impact of the Nuclear Power Plant on employment in the four county region is 400 jobs with a total labor income of \$35,291,101
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$118,940,111
- The combined total effect was 840 jobs and \$145,560,592 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

Economic structures and relationships change over time and so the indirect and induced effects that are quantified during one year may decrease or increase over the period of the analysis. It is also possible that as a new activity starts, another activity disappears (for example, a factory opens but another closes) so that jobs are not “created” but just shifted from one industry to another. Finally, the indirect and induced effects depend directly on the magnitude of the direct effects, and so any fluctuations or errors in the data for the direct effects will be reflected in the total effects as well. In our analysis we have tried to be conservative and provided the lowest estimate of the anticipated direct job and salary impacts.

SCENARIO DESCRIPTION

- Multiple use option
- Recovering contaminated metals-U.S. Strategic Metal Revitalization Complex
 - Process for storage
 - Recycle for reuse
- Recycling contaminated metals
- Research and development
 - Metal processing such as melter/smelter
 - Smelter to create steel ingots (using steel from the process buildings on site) for future industrial use



JUSTIFICATION

- Recycles existing materials for reuse in the nuclear industry
- Job creation potential

ECONOMIC IMPACT OF METAL RECOVERY SCENARIO

Impact Type	Annual Employment	Annual Labor Income	Annual Value Added
Direct Effect	760	\$ 35,971,458	\$ 43,526,126
Indirect Effect	81	\$ 2,933,491	\$ 5,783,594
Induced Effect	182	\$ 6,296,482	\$ 10,705,939
Total Effect	1,023	\$ 45,201,431	\$ 60,015,660

FINDINGS

- The direct impact of the Metal Recovery on employment in the four county region is 760 jobs with a total labor income of \$35,971,458
- The direct value-added, which in addition to labor income includes indirect business taxes and corporate profits is equal to \$43,526,126
- The combined total effect was 1,023 jobs and \$60,015,660 in value-added. These numbers represent a cumulative impact across all sectors of the local economy.

CONSTRAINTS OF IMPLAN MODELING

Economic structures and relationships change over time and so the indirect and induced effects that are quantified during one year may decrease or increase over the period of the analysis. It is also possible that as a new activity starts, another activity disappears (for example, a factory opens but another closes) so that jobs are not “created” but just shifted from one industry to another. Finally, the indirect and induced effects depend directly on the magnitude of the direct effects, and so any fluctuations or errors in the data for the direct effects will be reflected in the total effects as well. In our analysis we have tried to be conservative and provided the lowest estimate of the anticipated direct job and salary impacts.