



HEALTH IMPACT ASSESSMENT OF THE SHAWNEE FOSSIL PLANT

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Background

How does a community shaped by and reliant on coal and heavy industry, face new changes in energy trends?

- **The Shawnee Fossil Steam Plant**
 - ▣ Owned and operated by the Tennessee Valley Authority (TVA)
 - ▣ Located near the industrial community of Paducah, Kentucky
 - ▣ 56-year-old coal fired plant, requires upgrades
 - ▣ Employs over 250 workers
 - ▣ Historic supplier of energy to nearby retiring uranium enrichment facility

Screening

TVA must retrofit the Shawnee plant in order to meet new EPA SO₂ standards.

- Community relies on the plant for industrial jobs.
- Coal plants are a primary source of pollution in Kentucky and throughout the Ohio River valley.
- TVA determines the future of its operations on its Integrated Resource Plan (IRP), balancing costs of various energy sources with upcoming regulations.

Scoping

1. How will health be impacted by Dry Sorbent Injection Technology or other retrofit technologies necessary to reduce address air and water emissions?

- ❑ Air emissions and health
- ❑ Water quality and health
- ❑ Employment and health



Scoping

2. What are the healthiest energy options available for Shawnee given TVA's energy portfolio options?

What is the current status of health in the region surrounding Shawnee?

How might it be impacted by the Shawnee Plant's operations?

How is health affected by the TVA's IRP?



Scoping

3. How might health be impacted if the Shawnee plant retires?

- Unemployment may lead to other health issues including those associated with access to nutrition, housing, and reduced in-lieu-of-tax income for schools and roads.

Improvements in air and water quality may reduce certain environmentally-based diseases.



Assessment

Community input and engagement is a critical component of the HIA, and will strengthen the long-term impact of the project.



- One on one interviews
- Local economic analysis on impact of plant closure on community.

Recommendations

The HIA results and recommendations have several target audiences and decision makers.

- The Shawnee Fossil Plant managers regarding health issues related to air and water quality.
- TVA Board of Directors regarding healthiest energy options.
- Local community leaders around need for employment.
- State and federal leaders and community groups to serve as a model for other coal plant transitions.

Monitoring

The full impact of the HIA depends on follow-through from KEF and other project leaders, local health agency partners and community members.

- Establish plan with local stakeholders to:
 - ▣ Maintain communication with TVA via board meetings and company liaison
 - ▣ Meet with local business and community leaders to build health values into future economic development.

Thanks to:



- Purchase District Health Department
- HIA Steering Committee members
- Local elected officials, representatives from local labor unions, faith leaders, parents, environmental and conservation groups and many more
- KEF Interns and Board Members
- Jimmy Dills and Michelle Rushing with Georgia Health Policy Center
- Katie Hirono and others at The Pew Charitable Trusts and the Robert Wood Johnson Foundation

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