

OUR ENVIRONMENTAL APPROACH

Our environmental approach is two-fold with a focus on responsible coal mining and advanced coal use.

Responsible Coal Mining

We begin with a deep appreciation and understanding for the land and communities where we operate. Before any mining activity starts, we complete comprehensive baseline studies of local ecosystems and land uses and incorporate our findings into detailed mine plans aimed at reducing potential impacts from our operations.

As safe mining commences, we use industry leading practices to make the most efficient use of natural resources, while minimizing our environmental footprint. This includes a focus on reducing greenhouse gas intensity, conserving water, advancing recycling and waste management programs, and applying contemporaneous land reclamation to lessen surface disturbance.

Our governing principles for all sites are outlined in our [Environmental Policy](#), which applies to employees, contractors, visitors and vendors at all our sites.

Target #1

Reclaim at least one graded acre for each acre of land disturbed due to mining activity.

Advanced Coal Use

Our commitment to the environment does not end with our operations. Society has a growing need for energy and a desire to reduce emissions, and we believe both goals can be achieved — not by moving away from coal — but by embracing technology.

As outlined in our [Statement on Climate Change](#), Peabody recognizes that climate change is occurring and that human activity, including the use of fossil fuels, contributes to greenhouse gas emissions. We also recognize that coal is essential to affordable, reliable energy and will continue to play a significant role in the global energy mix for the foreseeable future. Peabody views technology as vital to advancing global climate change solutions, and the company supports advanced coal technologies to drive continuous improvement toward the ultimate goal of near-zero emissions from coal.

Peabody’s continuing actions to address climate change include funding research and participating in key initiatives in low-emissions projects and partnerships such as those already advancing in the U.S., Australia and China. In addition, we engage with governments, academia, communities and other stakeholders to support constructive dialogue and encourage a true “all of the above” energy strategy that recognizes the benefits and limitations of each fuel to meet society’s growing demand.

North Antelope Rochelle Mine



Land Restoration

Peabody views land restoration as a vital part of the mining life cycle and aims to commence restoration of the landscape as soon as land becomes available, to create a safe, stable and sustainable landform that benefits generations to follow. Reclamation is undertaken on a progressive basis with consultation between the environmental, technical services and production teams. In any given year, land reclamation activities can vary due to production, weather conditions and other unforeseen factors.

In 2018, Peabody continued to advance our restoration activities, reclaiming 1.4 acres of land for every acre disturbed. In total, we restored 5,344 acres of mined land, which now serve as wildlife habitat, rangeland, hardwood forests, prime farmland, pastoral land and wetlands. In addition, the company established 13 miles of high-quality streams and planted 555,445 trees.

Land and Bond Release

Peabody remains focused on restoring the land and providing assurance for future obligations. The company fully accounts for the projected financial impact of our final coal mine reclamation requirements through our asset retirement obligation on our balance sheet in accordance with Generally Accepted Accounting Principles. In addition to funding every dollar of our coal mine restoration, Peabody pays tens of millions of dollars each year to the Abandoned Mine Land (AML) Reclamation Program for the reclamation of lands mined before the U.S. Surface Mining and Control Reclamation Act of 1977. As the largest U.S. coal producer, we contribute more annually to the AML fund than any other coal producer.

In the U.S. and Australia, Peabody provides third-party bonding facilities to meet reclamation liabilities. Reclamation liabilities are calculated based on each mine’s maximum disturbance area for a specified period. Our practice of contemporaneous reclamation supports timely reduction of reclamation liabilities.

Environmental Accomplishments

Peabody’s leading environmental and land reclamation practices have been awarded more than 130 honors since 2000.

In 2018, Peabody was recognized with the Communitas Award for our stewardship of the environment, specifically highlighting our work with the U.S. Fish and Wildlife Service and Indiana Department of Natural Resources to protect the endangered Interior Least Tern bird species and our ongoing reclamation of the Big Creek watershed at our Wild Boar Mine.

During the year, Peabody received three of four U.S. Office of Surface Mining Reclamation and Enforcement (OSMRE) awards.

Our Bear Run Mine in Indiana earned the Good Neighbor Award for successfully working with surrounding landowners and the community while completing mining and reclamation. Recognition was also given for reclamation completed at our former Big Sky Mine in Montana, which features stream channels and wetlands, a sustainable supply of water for livestock and wildlife, and nesting areas for habitat and wildlife.

Also in Indiana, OSMRE honored our Wild Boar Mine for achieving the most exemplary mining and reclamation in the country. Wild Boar was also recognized by the Interstate Mining Compact Commission for reclamation work at the Barren Fork Pit. Reclamation activities extended over 480 acres of land and included the elimination of more than a mile of highwall, the planting of more than 260,000 trees, the restoration of eight streams among the reclaimed forest and the creation of natural habitat for wildlife within the forested areas.

Recognition also extended to our workforce, with Peabody’s Monty Parke, Senior Manager — Reclamation, recognized with the 2018 Vance “Pat” Wiram Award for Innovation in Reclamation Technology by the Indiana Society of Mining and Reclamation. Monty’s contributions include uses of cover crops and fertility management for water quality and safe and efficient methods to reclaim coal refuse sites.



Cattle graze at the former Wilkie Creek Mine where Peabody worked to incorporate local needs into post-mine land use.

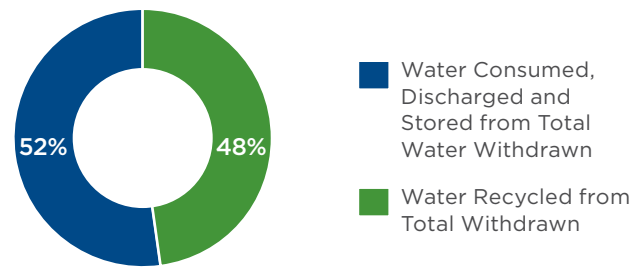
LANDMARK ENVIRONMENTAL ACHIEVEMENT FOR FORMER WILKIE CREEK MINE

In early 2019, Peabody achieved a major environmental milestone at its former Wilkie Creek Mine in Australia with the Department of Environment and Science formally certifying almost 90 hectares of the former mine site as fully rehabilitated. Mining at Wilkie Creek ended in late 2013, and Peabody has rehabilitated 612 hectares of former mined land at the site. The decision recognizes the first section of that area to be certified as safe, stable, self-sustaining and non-polluting.

Peabody understands that mining plays an important, but temporary, role in the life of a region and that the mined land must remain a community and economic asset long after final coal production. As responsible custodians of the land and good neighbors, Peabody implements a progressive rehabilitation approach that starts land rehabilitation well before mine closure. At Wilkie Creek, team members involved in the rehabilitation were not only locals, but also farmers who have worked the land and know what the soil and conditions respond to best.

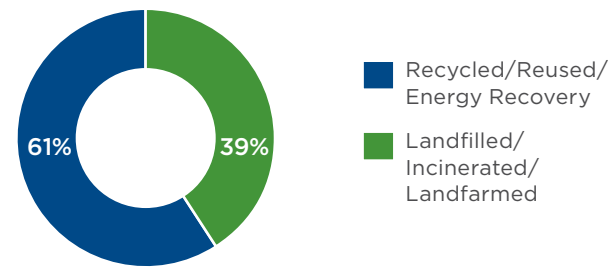
To date, only a few areas within Queensland have been progressively certified.

Percent Water Recycled of Total Withdrawn Globally



*Does not include Middlemount JV or Shoal Creek. CMJV included at 100%.

Recycled/Reused/Energy Recovery vs. Landfilled/Incinerated/Landfarmed



Changes in Water and Waste Reporting

In 2015, Peabody began reporting on six indicators for water and waste in reference to the Global Reporting Initiative (GRI) framework. Since that time, GRI has released new reporting standards for these indicators, which require additional disclosures. We believe it is important to continue to provide metrics on water and waste as core parts of our business, and as such, 2018 data is presented in the same format as prior years. Detailed [water and waste reporting](#) can be found on our website.

Water Use and Management

Coal mining is one of the least water-intensive forms of resource extraction. The U.S. Geological Survey reports that all forms of mining total 1 percent of water withdrawn in the United States compared to agriculture irrigation, which accounts for 37 percent of total withdrawals.²²

Peabody primarily uses water for dust control and coal processing at preparation plants. Water is also used for exploration, coal extraction and land reclamation activities, with minor amounts used for mine location drinking water, showers and equipment maintenance. Water sources for Peabody mines include surface water, such as precipitation and runoff; rivers and streams; ground water; and municipal or purchased water.

At Peabody, we work to conserve, reuse and recycle water whenever possible. Approximately 48 percent of the water withdrawn by our operations in 2018 was recycled and reused. In total in 2018, we recycled and reused 22,794 megaliters of water. Our total water withdrawn in 2018 was 17 percent less than 2017 levels.

We recycle water at our coal preparation plants, truck washes and coal storage areas, and we strive to use

closed loop water circuits at our coal prep plants, with the average plant achieving recycling rates of 73 percent.

Each of our mines aligns its water management strategy with the specific challenges of its region. Our operations in more arid environments focus on conservation, while mines in humid climates routinely manage surplus water from storms or groundwater and mitigate flood risk. In Australia, our operations must manage excess water during wet cycles and plan for water shortages during dry cycles.

All the management and use of water at Peabody mines follows the regulatory frameworks specific to the countries and regions where they are located.

Recycling and Waste Management

Peabody also employs waste management practices that minimize waste products and maximizes recycling and reuse opportunities. In 2018, recycling, reuse and energy recovery programs accounted for 61 percent of the company's waste disposal activities. In total, 15,212,222 kilograms of materials was recycled and reused, or was used for energy recovery.

Where needed, Peabody maintains multiple upstream coal waste impoundments and has additional impoundments in various stages of the reclamation process. Our upstream impoundments contain a mix of coarse and fine coal waste materials, which have a relatively lower flowability as compared to finer materials typically found in non-coal tailings dams. Peabody constructs impoundments to comply with best practices and strict regulatory performance criteria. Peabody has also developed its own rigorous standards that require mandatory risk assessments and inspections by independent third-party experts in addition to annual regulatory inspections.

Pounds of GHG Emitted per Unit Produced

(Includes mine methane emissions)



*Does not include Middlemount JV or Shoal Creek. CMJV included at 100%.

Greenhouse Gas Intensity and Energy Efficiency

In order to extract the fuel needed for energy, we must use energy, and we are committed to doing so in a responsible manner.

We calculate greenhouse gas emissions across all operations in pounds of carbon dioxide equivalent or CO₂e (CO₂, CH₄ and N₂O) per unit of production (raw tons of coal mined and cubic yards of overburden and rehandle). In 2018, Peabody worked with a third-party consultant to re-evaluate the inputs and assumptions used in the calculation of our U.S. greenhouse gas intensity. Based on our evaluation and recommendations from the consultant, we have revised our stated 2017 global CO₂e emissions. As such, global CO₂e emissions will not be comparable to periods prior to 2017. We will continue to re-evaluate our inputs and assumptions based on industry guidelines and best practices.

While Peabody strives to conserve power and reduce greenhouse gas intensity whenever possible through comprehensive mine planning and engineering, sophisticated technologies and leading operational practices, global 2018 CO₂e emissions rose 5 percent from 2017 levels, primarily related to mining activities in Australia, including increased diesel and electricity consumption at certain surface mines. In the U.S., Peabody's CO₂e emissions remained largely flat with the prior year.

Target #2
Conserve energy and reduce greenhouse gas intensity at operations where possible through energy efficiency and other leading practices.



Peabody's Group Executive and Chief Marketing Officer Bryan Galli and Director of Sales and Marketing Dan Appelbaum visit site of Arq Technology in Corbin, Kentucky.

PEABODY PARTNERS TO ADVANCE INNOVATIVE COAL-TO-OIL TECHNOLOGY

In 2018, Peabody entered a new partnership with technology-based startup Arq to advance a process that aims to use coal in oil products. While coal-to-liquids has been demonstrated at scale for decades, Arq's approach is considerably simpler and targeted to be more cost-competitive than conventional technologies.

This partnership represents an opportunity for Peabody to simultaneously improve costs and efficiencies by increasing coal recovery; advance sustainability by reducing our environmental footprint; and expand markets for coal.

The process is in early stages with Arq's first commercial facility in Corbin, Kentucky, currently under construction, and Arq is assessing Peabody sites for the applicability of this innovative technology.²³

Support for Advanced Coal Technology

Beyond responsible coal mining, Peabody emphasizes responsible coal use through advanced technologies. Since early 2000, we have invested more than \$300 million in global partnerships and projects to advance high-efficiency, low-emissions (HELE) and carbon capture, use and storage (CCUS) technologies in the U.S., Australia and China. We also serve in leadership positions and are members of organizations that are focused on technology research, development and deployment, and the appropriate policies to advance these technologies.

Carbon Capture Coalition

Peabody is a participant in the Carbon Capture Coalition, which brings together coal, oil and gas, electric power, ethanol, chemical and energy technology companies, labor unions and national environmental and energy policy organizations in an effort to make CCUS a widely available, cost effective and rapidly scalable technology solution in the U.S. The coalition was a leader in successfully advocating for the 45Q tax credit in the U.S. as pivotal legislation to support global environmental goals. This bipartisan bill aims to reduce costs and barriers to deploy CCUS at scale.

Carbon Capture Leadership Council

Peabody serves on the Carbon Capture Leadership Council, a national effort to catalyze support for carbon capture and elevate it as a priority in the U.S. policy agenda. Council objectives include positioning carbon capture as an essential and equal component of the broader portfolio of low and zero-carbon energy options and encouraging and supporting state officials and stakeholders in efforts to deploy carbon capture and CO₂ pipeline infrastructure projects.

Carbon Utilization Research Council

Peabody serves as co-chair of the Carbon Utilization Research Council (CURC), a coalition of fossil fuel producers, electric utilities, equipment manufacturers, technology innovators, and national associations working to identify ways for the U.S. to use low-cost fossil fuels while meeting societal energy needs and goals.



The Integrated Test Center in Wyoming was honored as Carbon Capture and Storage Pioneer at the Fifth Annual Peabody Global Clean Coal Leadership Awards.

Target #3
Continue support for low-emissions projects and partnerships.

COAL21 Fund

Peabody is a founding member and current board chair of Australia's A\$1 billion COAL21 Fund, an industry effort to pursue a collection of low-carbon technologies. To date, Peabody has committed more than A\$30 million to the COAL21 Fund, which has directed more than A\$300 million to demonstration projects covering CO₂ capture, geological storage and methane emissions abatement at operating underground coal mines.²⁴

Consortium for Clean Coal Utilization

Peabody is a founding member and board member of the Consortium for Clean Coal Utilization (CCCU), which is a cutting-edge research program focused on advanced coal utilization and carbon capture technologies at the prestigious Washington University in St. Louis. Peabody has renewed its funding commitment to the CCCU through 2021.

Global Carbon Capture and Storage Institute

Peabody is a founding member of the Global Carbon Capture and Storage Institute (GCCSI), which was launched in Australia and now serves as an internationally recognized advocate for CCS. GCCSI aims to provide relevant information on the status of CCS and other practical policy advice regarding CCS to government and other key stakeholders.

National Carbon Capture Center

Peabody is a co-funding partner of the National Carbon Capture Center. Since its creation by the U.S. Department of Energy's Office of Fossil Energy in 2009, the center has established itself as a world-class, neutral research facility, focused on accelerating the development and commercialization of next-generation carbon capture technologies by giving technology developers engineering support and a power plant host at which they can test their technologies.

Peabody Global Clean Coal Awards

Peabody believes in recognizing the good work being done by others to advance coal technologies. Now in its fifth year, the Peabody Global Clean Coal Leadership Awards highlighted outstanding examples of leadership and innovation among coal-fueled generating plants and projects, with honorees represented from the U.S., China and India.

Peabody named top performers in the categories of high-efficiency low-emissions leadership and innovation; high-efficiency and sustainability leadership and innovation; and carbon capture and storage pioneer. The award honorees included:

- **Huaibei Shenergy Power Generation Co. Ltd** — Honored for High-Efficiency, Low-Emissions Leadership and Innovation. The 1,350-megawatt

ultra-supercritical coal-fueled generation unit is currently under construction in China and is expected to be among the most efficient coal-fueled generating plants in the world. Plant commissioning is targeted in 2020.

- **Nabha Power Limited, a wholly owned subsidiary of Larsen & Toubro** — Recognized for High-Efficiency and Sustainability Leadership and Innovation. The 1,400-megawatt power plant in Rajpura, Punjab, achieved the best heat rate and auxiliary power consumption in India's 660-megawatt class for FY 2017 — 2018 and has 100 percent dry fly ash utilization and zero liquid discharge.
- **Wyoming Integrated Test Center** — Named Carbon Capture and Storage Pioneer. The test center is one of the few research and testing facilities at an operating coal-fueled generating plant and offers space for researchers to test CCUS technologies using 20 megawatts of coal-based flue gas. Additional research looks at taking carbon emissions from flue gas and turning it into a marketable commodity.

The 2018 recipients reinforced the major environmental benefits that can be achieved using today's advanced coal-fueled generation technologies as well as the tremendous possibilities for technology in the future.