



POWERFUL SERVICES. SUSTAINABLE SOLUTIONS.



 $\mathbf{N} = \mathbf{I}$ ith more than 30 years of experience, Charah® Solutions core business is centered on coal ash byproduct management, the beneficial recycling of ash products, and environmental remediation and compliance.

Utilities and independent power producers count on us to deliver innovative sustainable solutions to complex environmental issues for the betterment of the planet and the communities in which we operate. As an industry leader in quality and safety, our portfolio of services reflects our strong



commitment to reduce greenhouse gas emissions for a sustainable future. When you put Charah Solutions on the job, you get a market leader in providing results and innovative solutions.

With our comprehensive range of power generation expertise, Charah Solutions is the industry partner of choice providing services which include Remediation and Compliance Services, Byproduct Sales, Fossil Services, and Environmental Risk Transfer (ERT) Services. Our sustainability efforts conserve virgin resources and water, reduce greenhouse gases, and decrease landfill disposal, all while providing essential recycled-products that contribute to the growth of our economy and land remediation.

CHARAH SOLUTIONS DELIVERS A HIGHER LEVEL OF SERVICE



Our experience working in a wide variety of utility locations and applications, and complying with a diverse set of environmental regulations, has allowed us to earn the know-how to provide many business advantages. With project locations from coastto-coast and proven results for numerous beneficial use

applications, we have the dedicated staff, the equipment and the experience to raise your customer satisfaction to a whole new level.

CHARAH SOLUTIONS FULL



1		s	
	a de la		
and a start			

ASH/GYPSUM POND MANAGEMENT

For ash and gypsum pond management, we know that utilities need the benefit of a customized approach that fits your operation. These service offerings cover all aspects of new and existing active pond management, including closure by

removal, cap-in-place, and design and construction of new ponds. Charah Solutions provides the proven experience and expertise to handle every regulatory, engineering and technical issue.

LANDFILL CONSTRUCTION & MANAGEMENT

Based on three decades of experience, Charah Solutions completes all aspects of the landfill development, management, construction and closure from start to finish, including:

- Site studies, design and permitting
- Construction, certification and closure
- Inspection and reporting
- Quality assurance/quality control
- and documentation
- Engineered fills (Offsite)

	& Compliance /ices		oduct iles	
Ash/Gypsum Pond Management	Landfill Construction & Management	SCMs Sales & Marketing	International Raw Materials Sales & Services	CCR Landfill Operations
 ENVIRONMENTAL MANAGEMENT DESIGN CONSTRUCTION EXCAVATION CLOSURE BY REMOVAL CAP IN PLACE POND CONVERSIONS ENVIRODITCH[®] 	 ENVIRONMENTAL MANAGEMENT SITE STUDIES DESIGN PERMITTING CONSTRUCTION CERTIFICATION CLOSURE ENGINEERED FILLS (OFFSITE) 	 FLY ASH SALES ENVIROSOURCE[™] ASH BENEFICIATION MULTIPOZZ[™] POZZOLAN BOTTOM ASH SALES GYPSUM SALES IGCC SLAG SALES IGCC SLAG SALES TERMINAL OPERATIONS KILN FEED PRODUCT SALES DELIVERY LOCISTICS 	 INDUSTRIAL RAW MATERIALS CEMENT MANUFACTURING MA- TERIALS TRANSPORTATION & LOGISTICS MANAGEMENT INVENTORY MANAGEMENT MATERIALS HANDLING 	 FLY ASH DISPOSAL BOTTOM ASH DISPOSAL FGD GYPSUM DISPOSAL FSS/POZATEC DISPOSAL FBC ASH DISPOSAL
		LOGISTICS		

SCMs SALES AND MARKETING

Charah Solutions' vast knowledge of SCMs helps us to identify the best ways to improve each utility's long-term position in the market. With deep expertise in marketing SCMs to concrete

MULTI SOURCE

producers, our dedicated byproduct sales and marketing team keeps your fly ash sales moving in the right direction. Our broad lineup of available materials, includes high-quality Class C and Class F fly ash, bottom ash, gypsum, IGCC slag and MultiPozz™pozzolan. All are sold and efficiently distributed through our MultiSource® materials network which includes over 40 nationwide locations with international sourcing and distribution as well as a national network of barge, rail and truck services for quick and reliable supply across the country

ENVIROSOURCE[™] FLY ASH BENEFICIATION

Effective fly ash marketing is all about the strength of your process, your technology and your network. With our proprietary EnviroSource (formerly MP618®) fly ash beneficiation technology, we offer a cost-effective thermal beneficiation solution that is versatile and scalable to reduce carbon, ammonia, mercury and other contaminants in wet or dry fly ash. This process makes formerly unusable fly ash stored in ponds or landfills immediately marketable, reducing the need for landfills, ponds, or other disposal methods.

Fossil Services

Utility Support **Services**

- AL
- LIMESTONE GRINDING
- SILO O&M
- ASH TRANSPORTATION
- FGD AND WWTS O&M
- LEACHATE DISPOSAL
- OTR HAULING
- **DBO PROJECTS**
- COAL HANDLING

Environmental **Risk Transfer**

Environmental Risk Transfer

- **INSURED RISK** TRANSFER
- DECOMMISSION ASSETS
- SITE REMEDIATION
- SCMS SALES & MARKETING
- SITE REDEVELOPMENT



INTERNATIONAL RAW MATERIALS SALES AND SERVICES

Whether its industrial raw materials for production use or quality cement manufacturing materials, Charah Solutions has the global network, the broad materials lineup and the technical expertise to source and ship exactly what you need, where you need it. We provide the complete package – a broad portfolio of materials, backed by strong sales and technical support, efficient inventory management, customized options and door-to-door logistics covering every point on the globe.



CCR LANDFILL OPERATIONS

For CCR management and landfill operation needs, Charah Solutions provides many integrated services, including fly ash disposal, bottom ash disposal, FGD gypsum disposal, FSS/Pozatec disposal, FBC ash disposal and more. Annually, we effectively landfill millions of tons of CCRs incorporating a broad spectrum of combustion products.

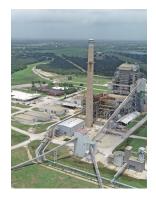
UTILITY SUPPORT SERVICES

Our strong lineup of utility support services include limestone grinding and supply, Silo O&M, ash



transportation, FGD and WWTS 0&M, leachate disposal management, OTR transportation and logistics,design-buildoperate (DBO) projects, coal handling, and more.

ENVIRONMENTAL RISK TRANSFER



With our unparalleled utility expertise, Charah Solutions can also remove the liabilities and headaches associated with your Environmental Risk Transfer projects, providing one-stop service for your entire portfolio. Utilities who need to retire and

decommission their older, non-profitable assets while maximizing value need to talk to us first. We have the financial resources to support the transaction, the skill to effectively manage the environmental risk and the expert team ready to safely remediate and redevelop your site, provide due diligence and substantially lower your asset retirement cost model.

READY TO RESPOND

Step up to superior service and sustainable solutions. For more information, contact us today at sales@charah.com or call 1-877-314-7724. Or visit charah.com.



PROJECT LOCATIONS

TOLL-FREE: 877-314-7724 PHONE: 502-245-1353 WEBSITE: charah.com Charah Solutions, Inc. 12601 Plantside Drive Louisville, KY 40299

