REQUEST FOR PROPOSALS (RFP)

RFP Number: DEV-ENERGY #13-01

The Ohio Department of Development, Office of Energy is requesting proposals for:

Ohio Coal Demonstration and Pilot Program

- Request For Proposal (RFP) Released – August 3, 2012
- First Day Proposals Accepted – August 13, 2012
- Last Day Proposals Accepted – March 1, 2013, or upon commitment of all available funds for the FY 2013 program year, whichever occurs first.

Submit Proposals to:

Ohio Department of Development
Office of Energy
77 South High Street
P.O. Box 1001
Columbus, OH 43216-1001
Attn: *Ohio Coal Demonstration and Pilot RFP*

This RFP consists of six (6) sections totaling eighteen (18) consecutively numbered pages and seven (7) attachments, totaling fifty-two (52) pages. Please verify that you have a complete copy.

Ohio | Department of Development

SECTION I. OVERVIEW

The Ohio Department of Development (ODOD), to be known as Development Services Agency from and after September 28, 2012 is issuing this Request for Proposals (RFP) to interested and qualified parties to submit project proposals focused on the clean use of Ohio coals. Cleaner, economical, and ultimately greater use of Ohio coal and/or its combustion products must be major results of the project. Funds awarded through this RFP will be for projects located and/or work conducted in Ohio that use Ohio-mined coal. The Coal Research and Development Fund (Ohio Revised Code 1555.15) is overseen by the ODOD and provides financial support in accordance with state statute (ORC 1551 and 1555). The ODOD is assisted by the Coal Technical Advisory Committee (CTAC), which is comprised of members who serve in the public and private sectors that have a role or interest in the use, conversion, or study of Ohio coal. Current members are listed in Attachment 5 and will be updated if applicable. The Ohio Coal Development Office (OCDO) was created in 1984 to assist the Ohio coal industry respond to regulations enacted in the 1960s and 1970s. The ODOD continues to support coal research, development, and deployment on project-based solutions for new and emerging regulations/challenges facing Ohio's coal industry, while also funding emerging processes/demonstrations that will help ensure Ohio's coal resources are used effectively, efficiently, and in an environmentally acceptable manner in the 21st century.

A. Clean coal related technologies targeted under this solicitation

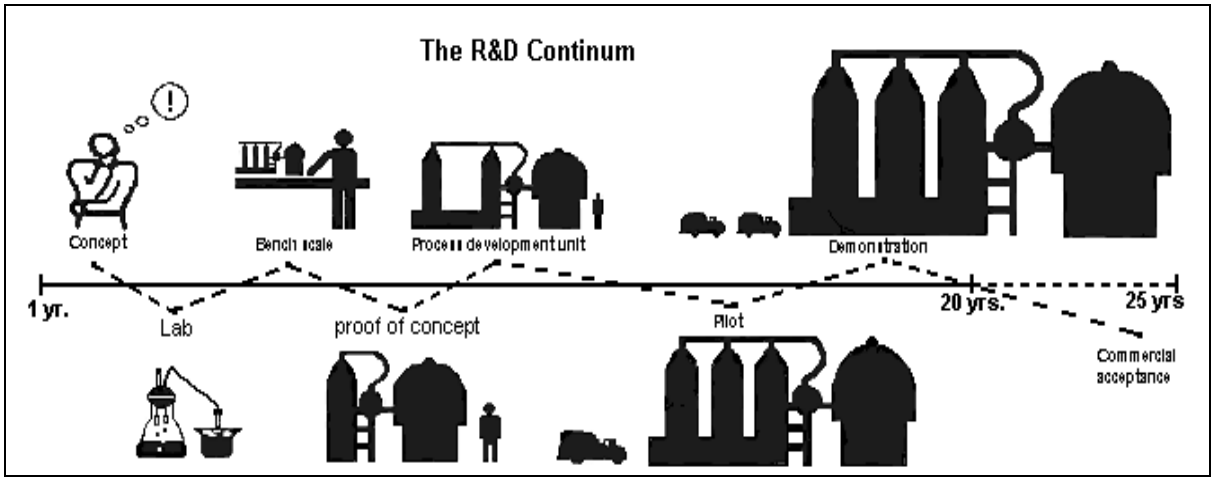
1. Improved retrofit technologies applicable to existing coal-fired generating units: to increase generating efficiency in order to significantly reduce carbon dioxide emissions; to reduce emissions of conventional pollutants, including hazardous air pollutants (HAPs); and to develop methods for capture and sequestration of carbon dioxide;
2. Coal technologies capable of cost-effectively supplying the energy needs of Ohio's industrial complex;
3. Development/deployment of advanced coal-based power and fuel producing systems (e.g., integrated gasification combined cycle, oxy-combustion systems, ultra-supercritical systems, chemical looping systems, etc.);
4. Cost effective carbon dioxide capture and sequestration through improving capture technology and development of carbon dioxide transport mechanisms;
5. Economic and effective mercury capture technologies;
6. Improved technologies/processes that enable the more efficient conversion of Ohio coal to a chemical feedstock, liquid, or gas;
7. Byproduct utilization: High volume fly ash and flue gas desulfurization byproduct utilization in mine remediation/reclamation, captured CO_2 from coal combustion or a chemical reaction for Enhanced Oil Recovery (EOR); and
8. Other projects certified by the ODOD Director as mission critical.

B. Eligibility

ODOD may only award funds to projects that qualify as "coal research and development" as defined in the Ohio Revised Code (1551 and 1555) and the Ohio Constitution (Section 15, Article VIII). The Ohio Revised Code includes in its definitions up to three installations within Ohio of a specific technology, if such installation is necessary or appropriate to demonstrate commercial acceptability.

Persons (individuals and businesses) doing business in Ohio or educational or scientific institutions located in Ohio are eligible to receive grants from ODOD. Persons not presently doing business in Ohio are also eligible if the grants will be used to establish new businesses in Ohio. In all cases, funds received from ODOD must be used to construct pilot plant or demonstration facilities in Ohio, cover operating costs of such facilities in Ohio, and for support of project staff based in Ohio. Project activities conducted out of Ohio by project participates may be used as cost share.

C. Definition of Project "Scale"
ODOD can fund projects at all levels along the research and development continuum, including lab-based research and bench tests; larger proof of concept and process development unit work; pilot-scale projects; demonstration and first-of-a-kind commercial deployment. Projects under this solicitation should be categorized as full-scale, first-of-a-kind deployment, demonstration-scale, pilot-scale, process development unit or proof-of-concept-scale. Pilot-scale facilities generally are approximately one-tenth of a typical commercial size. Work to be performed in larger-scale projects should build upon and extend the development of processes or technologies that have already been demonstrated in proof-of-concept or pilot-scale facilities. ODOD reserves the right to re-categorize proposals, if it deems necessary.



D. Review Process
ODOD will conduct technical reviews by its staff and its proposal review team, which is composed of independent, experienced coal professionals under contract to ODOD.

The comments of the technical reviewers will be compiled and sent to Proposers and to ODOD's Coal Technical Advisory Committee approximately two weeks before the CTAC meeting. Following this, Proposers who comply with the Specific Proposal Requirements (defined later in this solicitation) may be invited to make a short presentation before the CTAC at a date and time to be determined. Subsequently, the CTAC will determine which proposals it recommends for funding and present those recommendations to the ODOD Director. The ODOD will make any grant awards contingent upon the successful conclusion of grant agreement negotiations.

ODOD may find it necessary to seek additional information from a Proposer to aid in the review. However, once a proposal is submitted, do not send supplements to it, unless asked. Proposals are mailed to reviewers shortly after receipt, and unexpected supplements to the proposals cannot be accommodated. **Be certain that the proposal is complete and correct before submission**.

SECTION II. AWARD INFORMATION

A. Estimated Funding
Approximately $17 million in ODOD funding is expected to be available under this RFP.

B. Maximum Award Size
The maximum ODOD contribution for an individual project awarded funding under this RFP:

- $5 million for demonstration to full-scale projects
- $2.5 million for pilot-scale projects
- $250,000 for proof-of-concept-scale projects

C. Cost Share
Proposers are expected to contribute a reasonable amount of cash and/or in-kind funding. ODOD's contribution and maximum cost share toward a project will generally be based on the anticipated risk and scale of the project. As a guide, in recent years, ODOD award limits have been:

- Up to one-third of the total project cost of demonstration and full-scale projects;
- Up to one-half of the total project cost of pilot-scale projects; and
- Up to two-thirds of the total project cost of proof-of-concept-scale projects.

A commitment letter must be provided for each Cost Share provider and Collaborator identified in budget. Commitment letters may not be more than two (2) pages. Commitment letters must adhere to the Cost Share Guidelines outlined in Attachment 3, and:

- Be submitted on the letterhead of the Collaborator;
- Include the name of the Lead Applicant, the title of the Proposal;
- Briefly state the nature of the collaboration;
- State the duration of the collaboration;
- State the resources, other than Cost Share, the Collaborator is committing to the proposed Project;
- State how the proposed Project will contribute to the strategy of the Collaborator;
- State the specific amount of the commitment that matches the Cost Share amount on the corresponding Budget;
- State the source of the commitment;
- State when the committed resources will be available to the Lead Applicant; and
- Be dated and signed by a representative of the Collaborator with the authority to make the Cost Share commitment.

Other letters are allowed but only if they come from a committed end-user who has a commercial interest in, and can anticipate commercial benefit from, the results of the proposed Project. These other letters must describe the anticipated benefit and what advice and support the committed end-user will be providing in the way of market opportunities, knowledge of competing technologies, technological and/or commercial hurdles for the proposed Project, and parallel and supportive research efforts. Letters from committed end-users may not be more than two (2) pages and may not include appendices or attachments. General support letters are not allowed. Any such letters submitted will be removed from the Proposal and not transmitted to the external evaluation team.

D. Expected Number of Awards
ODOD expects to make approximately nineteen (19) awards under this RFP.

E. Period of Performance
It is anticipated that projects will be awarded for a period of twelve (12) to twenty-four (24) months.

SECTION III. APPLICATION INSTRUCTIONS

A total of four (4) full and complete copies, plus one electronic copy (as an Adobe Acrobat or MS Word file) of each competitive project proposal must be received by the **Ohio Department of Development, Office of Energy, 77 South High Street, P.O. Box 1001, Columbus, Ohio 43216-1001.** Proposals **may not** be submitted by fax or email. All proposals submitted to the agency shall become the property of ODOD. All costs of preparing and submitting proposals in response to this RFP are solely the responsibility of the applicant. ODOD shall not contribute, in any way, to the cost of the preparation and delivery of the proposal.

- Submit separate Proposals for each proposed Project.
- Proposals must be submitted in the following manner:
  - One original paper copy marked as —"Original", three additional paper copies marked "Copy" and one CD containing an, unlocked PDF, or word file of the Proposal to:

Ohio Department of Development
Office of Energy
Attention: Ohio Coal Demonstration and Pilot RFP
77 South High Street
P.O. Box 1001
Columbus, Ohio 43216-1001

- Proposals must be received at the location specified above before the last day proposals are accepted.
- Proposals may not be submitted by fax or email.
- Proposals are to be submitted on 8.5 x 11-inch paper.
- Margins must not be less than ¾ of an inch on all sides.
- Font must be 11 point or larger with no more than six (6) lines per inch.
- All pages must be numbered consecutively using the format —Page [#] of [total number of pages] (*e.g.,* Page 2 of 25).
- The Proposal title and Lead Applicant name must appear at the bottom of each page.
- Proposals should not include color figures that cannot be understood when photocopied in black and white.
- Proposals must be stapled once in the upper left hand corner and must not be bound.
- Proposals must include the required proposal summary sheet and application (Attachment 1), the project budget summary (Attachment 2), all forms and respond to all questions found in Attachment 6.

Applicants are advised there will be no opportunity to correct mistakes or deficiencies in proposals after the submission deadline. Further, incomplete proposals will not be scored. It is the applicant's responsibility to ensure timely submission of a complete proposal. ODOD is under no obligation to consider a proposal which is received after the deadline, that is incomplete, or that is submitted after the RFP has closed. Late proposals will not be scored. No supplementary or revised materials will be considered after the scheduled date for submission unless specifically requested by ODOD.

All information submitted in response to this RFP shall be public information unless a statutory exception exists which would exclude the information from being released to the public. All proposals submitted will become the property of ODOD and any information submitted in response to this RFP will not be returned to the applicant.

The ODOD will not release any portion of a proposal or copies a proposal until the execution of the grant agreement occurs.

ODOD reserves the right to:

- Accept or reject any and all proposals if the State of Ohio determines that it is in its best interest to do so;
- Reissue the RFP requesting new proposals from qualified parties;
- Waive or modify minor irregularities in proposals received;
- Negotiate with applicants, within the requirements of the RFP, to best serve the interests of the State of Ohio;
- Require the submission of modifications or additions to proposals as a condition of further participation in the selection process;
- Fund any proposal in full or in part; and
- Adjust the dates for whatever reason it deems appropriate.

If, during the review process, ODOD determines that it is necessary to make further distinctions between certain applicants, it may request certain selected applicants to make a presentation to certain staff and reviewers.

Communication: Prospective applicants may make inquiries or seek clarifications regarding this RFP any time after the RFP is released, but they must be received fourteen (14) days before the last day proposals are accepted (subject to change). To make an inquiry, prospective applicants must submit written questions to the ODOD email address or ODOD fax number indicated below:

Email: EnergyRFP@development.ohio.gov
Subject: Ohio Coal Demonstration and Pilot RFP
Fax: (614) 466-1864

ODOD accepts no responsibility for faxes or emails that are not delivered. The prospective applicant who submitted the inquiry will not receive an email response to the question directly. The questions and answers will be posted on the ODOD website at: http://www.development.ohio.gov/Energy/Incentives/OhioCoalDevelomentOffice.htm.

ODOD reserves the right to edit questions for brevity and clarity and to consolidate the same general question if received from more than one individual.

The State will try to respond to inquiries within seven (7) business days.

No other form of communication is acceptable. This includes: no Lead Applicant, Collaborator, or others acting on their behalf contacting any CTAC member, ODOD's external evaluators for this RFP's Proposals, and/or ODOD staff during the Proposal Period regarding this RFP (other than through the approved inquiry process identified above). The Proposal Period is considered to be the date of release for this RFP through the date of the ODOD award. Current Lead Applicants responding to this RFP are expected to limit their contact to those ODOD staff with whom they ordinarily interact regarding the administration of Coal office programs and grants. Lead Applicants, Collaborators and others acting on their behalf are to avoid direct contact with CTAC members or other OCDO staff during the Proposal Period, other than that which might occur at regularly scheduled meetings.

If a Lead Applicant, Collaborator and/or others acting on their behalf makes prohibited contact Development in its discretion may subject the Applicant/Proposal to elimination from the RFP process.

A. Alignment with Other Ohio Programs

If selected for funding, the Proposers will be required to explore and report on existing, planned, or possible relationships with other research and development programs sponsored by the State of Ohio (Attachment 7, Exhibit H). If any of these other programs are pertinent to the successful Proposer's area of research and development, the grantee must pursue contact, funding, technical, and/or other assistance from these programs.

B. Causes for Rejection
Only projects that meet all the requirements of the Program as stated herein will be considered for assistance. Due to the competitiveness of the Program, not all eligible projects will receive awards. The State of Ohio reserves the right to reject any and all proposals – without incurring liability of any kind – any or all proposals submitted pursuant to this solicitation. Incomplete proposals will be automatically rejected without review. Other specific causes for rejection without additional review include, but may not be limited to:

1. Project is not a coal research and development project (as required by the Ohio Constitution);
2. Project does not benefit Ohio coal;
3. Project does not use Ohio coal;
4. Project is not located within Ohio;
5. Applicant is ineligible for ODOD funding;
6. The applicant failed to meet all requirements of a previous loan or grant agreement from ODOD or other agency of the State of Ohio;
7. The applicant owes outstanding taxes or other debt to the State of Ohio;
8. The applicant is not financially strong enough to sustain the project;
9. The applicant's team does not have the technical capability to sustain the project;
10. The project budget is inadequate or incomplete;
11. The statement of work is inadequate or incomplete;
12. The proposal represents a duplication of effort previously completed or currently underway by another organization (work must not duplicate efforts previously sponsored by U.S. EPA, U.S. DOE, Electric Power Research Institute, or others);
13. The proposal is for a commercially guaranteed, "off-the-shelf" technology for its normal, usual use (however, application of an existing technology in a new, unique, improved manner may be considered);
14. The proposal does not contain all required application documents; or
15. Any major exceptions to conditions of the grant award that cannot be resolved quickly.

C. Proprietary and Trade Secret Information
Any information submitted with the proposal, which the applicant feels is a trade secret as that term is defined in ORC § 1331.61 must be conspicuously designated as such and shall be treated accordingly, if the information is determined to be a trade secret under the laws of the State of Ohio.

ODOD has the authority and responsibility to protect and keep confidential trade secrets and other proprietary information. In the event that the materials or data submitted are deemed to consist of trade secrets or other proprietary information, as defined by the Ohio Revised Code, Sect. 1333.61 and as set forth in Ohio Revised Code, Sect. 1555.01, then only those portions of the document can be kept confidential by ODOD.

It is sole responsibility of the Proposer to conspicuously mark such items as a trade secret. Attach a summary sheet in your proposal that lists each page that includes trade secret information and the number of occurrences of trade secret information on that page.

A proposal may be submitted with certain sections labeled as confidential. However, only that information that is deemed to be trade secret under the Ohio Revised Code shall be required to be kept confidential. Entire proposals or entire pages so labeled shall not be deemed as proprietary and confidential. The public abstract must not contain any trade secret information. Proprietary, business confidential information should not be submitted on-line as ODOD cannot, and does not provide, confidentiality for any material transmitted via email. It should be submitted in hard copy and an electronic copy on a CD with the confidential information clearly marked.

SECTION IV. PROPOSAL FORMAT AND CONTENT

This section describes the basic requirements for proposals submitted to ODOD. If a proposal is written according to the requirements of another funding agency, it is not necessary to adhere to the ODOD format, as long as the information below is included. However, if the format below is not used, the Proposer must include a matrix to describe where the following information may be found. Even if a different format is used, Attachments 1, 2, and 6 must be included in the submittal to ODOD.

The proposal must not exceed 30 pages. ODOD proposals must include the following four sections. Evaluators will only review the first 30 pages of the proposal.

I. Summary Information [recommend ≥ 4 pages]
II. Technical Proposal [recommend ≥ 13 pages]
III. Management and Budget Discussion [recommend ≥ 7 pages]
IV. Marketability Discussion [recommend ≥ 6 pages]

Specific requirements for these sections are set forth below. The proposal must be typed, paginated, contain a table of contents, and attachments as discussed below. A successful proposal will adhere closely to these requirements.

Appendixes to the proposal are to be utilized to validate information within the proposal and should not be utilized as an extension for information required to be addressed in the proposal. Information submitted in the appendices or in forms required in Attachment 1, 2 and 6 will not count toward the 30-page limit of the proposal.

All proposals shall become the property of the state and will not be returned.

A. Summary Information Section

This section of the proposal must include two elements.

1. Proposal Summary. The summary sheet is enclosed as Attachment 1 of this solicitation must be completed and included as the first page of the proposal. Instructions for completing the summary sheet are included in Attachment 1. Someone authorized to legally bind the Proposer must sign Attachment 1. An original signature, not a stamp, is required.

2. Public Abstract. Immediately following the summary sheet, a public abstract of approximately 500 words must be included. The abstract must contain the project objective, the specific technology/technique to be studied, a description of the project (including the size and location), the type(s) and tonnage per year of Ohio coal to be used, the sponsoring organization(s), the project duration, the total cost and the anticipated contributions of each project participant. This abstract may be released to the public in whole or in part at any time. It is therefore required that the abstract contains no trade secret data or confidential business information.

B. Technical Proposal Section

This section **must** include the following.

1. Project Objective. The **specific technical objective(s)** of the proposed project, its expected results and overall benefits to Ohio coal, to the environment, to the user and/or ratepayer, and to the state-of-the-art, must be clearly and logically detailed. The **relevance to one of the clean coal related technologies targeted under this solicitation** and the potential for increased use/markets for Ohio coal (in tons per year) because of this process or technology **must** be discussed.

2. Technical Readiness Discussion. A detailed discussion of the readiness of the technology or techniques for implementation, demonstration or scale-up must include, as appropriate, a thorough

discussion of technical achievements and environmental performance to date. Prior applicable work must be summarized, with information on the size, the conditions of operation, and duration of testing. Summarized, but sufficiently detailed data and test results from such work must be included (failure to include hard data from such prior work will seriously jeopardize a proposal's chances for selection). This discussion must also identify all of the significant process/equipment items which have not operated previously at the proposed scale and operating conditions.

3. Technical Approach. The proposal must contain a full description of the technology or technique(s) and the proposed project. At a minimum, the detailed technical discussion **must** contain:

a. Process flow diagrams;
b. Energy and mass balances;
c. Equipment layout schematics;
d. General and unique design specifications;
e. A detailed description of quality assurance/quality control procedures to be followed in the project;
f. A detailed description of the monitoring and sampling procedures to be followed; and
g. A discussion of procedures for establishing baseline data, where appropriate.

The proposal must include a discussion of the unresolved technical, economic and environmental factors that are proposed for investigation in this project, and the target goals this project anticipates answering. This must include a discussion of the wastes or products generated by the process, and their disposal or reuse. The identified specific technical risks inherent in the project must be described, along with a discussion of the specific evaluation criteria for determining their resolution.

Finally, this section must include a discussion, where appropriate, of the scale-up required in order to move to a larger-sized application. The market commercialization significance of data (technical performance, environmental and economic) obtained in this project should be discussed.

4. Statement of Work. A detailed statement of work is critical to a successful review of a proposal. This is a logically sequenced, detailed step-by-step presentation of the project phases and their work tasks, including major milestones that are necessary in order to successfully complete the work. It is also the basis for negotiations of a legal agreement, should the proposal be accepted for funding. Thorough, complete statements of work will hasten the legal agreement process and therefore the project's start date.

For each of the phases, the following must be specified:

a. The quantified goal and objective(s) and the general nature of the work to be performed, including the location and the responsible party (ies);
b. The sequence and timeline (Gantt) chart showing the tasks, phases and significant milestones, by month. (Describe these as "Month 1," "Month 2," not "November," "December.") The timeline/Gantt chart should show all work tasks and all reporting deliverables, including a draft final report due 60 days prior to the Project Completion Date, and a revised final report by the Project Completion Date;
c. A detailed description of the major tasks which comprise the phase, and, where applicable, a description of the diagnostic and data collection equipment and techniques which are part of the task. Test matrices should be included where appropriate;
d. A discussion of the evaluation parameters that are proposed for assessing the results and success of the work in the phase;
e. A description of the deliverables and accomplishments resulting from the completion of the phase;
f. The estimated cost of the phase; and

g. A list of major equipment items to be purchased, the estimated cost of each piece, and a justification for each piece.

C. Management and Budget Section
This section of the proposal must include the following elements:

1. Project Participants. All institutional and corporate participants in the proposed project must be identified. For each, the institution or company name, address, contact person, telephone number and email address must be specified. The role and extent of participation of each party, both technical and financial, including all co-sponsors and major sub-contractors must be described. For each co-sponsor, documentation of contributions (financial, personnel, equipment, etc.) must be included, along with a letter-of-intent signed by an authorized official validating such contributions.

2. Project Personnel. The proposal must include for the prime sponsor and each of the co-sponsors, key project personnel, their general duties and responsibilities, and their qualifications relative to this project (e.g., résumé or *curriculum vitae*). Extensive C.V.s are discouraged.

3. Project Management Experience and Capability. The experience (including results) of the prime sponsor with projects involving similar or related technologies or techniques, and other projects of similar complexity and scale must be described. This should include relevant experience in the development of commercial technologies preceded by pilot or demonstration plant work. Proposers must describe the capability of their organization to manage a project or technology of the scale and complexity proposed technically, fiscally and financially, as well as to ultimately market it commercially.

4. Detailed Project Budget. All Proposers and project participants are expected to provide significant cost-sharing in the project. The budget discussion must describe the type and amount of participation of the prime sponsor and each co-sponsor. To the extent that in-kind contributions (such as existing equipment) are included, the source, percentage of use in the project, date of acquisition, original cost, present value and depreciation status must be included. Zero value must be ascribed to fully amortized or expensed facilities and equipment.

A full, detailed project budget must be included with the proposal. It must show the total project budget, the prime sponsor's (awardee) budget, each co-sponsor's budget, and the proposed ODOD budget. The summary format shown in Attachment 2 must be used, although additional pages providing further detail to aid in review and understanding of the budget are encouraged. The budget must be prepared in line-item (e.g., personnel, overhead, equipment, supplies, etc.) detail. ODOD will not reimburse a fee or a profit, nor will it reimburse any costs incurred due to lobbying or proposal preparation. Overhead and general/administrative charge rates will be carefully scrutinized and should be kept to a minimum.

Proposers must also submit an ODOD Cash Drawdown projection by quarter. ODOD requires this of all its projects in order to have sufficient cash on hand to support its full census of projects and so that the state can better manage its overall bond debt. Invoices are paid on a cost reimbursable basis, so cash projections must closely integrate with the project time line and overall project budget, including cost share.

5. Financial History. If the prime sponsor is other than an institution of higher learning, certified financial statements for the past two years must be included as an appendix. Financial statements for the past two years must also be included for each major contributor to the project as an appendix, also, if other than an institute of higher learning.

6. Audit. A copy of the latest audit for each major participant must be included as an attachment to the proposal as an appendix.

7. Litigation. Please describe any material litigation to which your company is currently a party regarding coal or any type of coal technology. In addition, please describe any material litigation that your company has been involved in over the last three (3) years regarding coal or coal technology (Attachment 6 Questions). Finally, please provide (as an appendix) a list and describe litigation brought or threatened against your company by existing or former clients over the past five (5) years regarding coal or coal technology.

8. Affirmation. Please affirm that this proposal does not represent a duplication of effort as described in Section III. B. 12, on page number 7.

D. Marketability Section
This final section of the proposal must include the following.

1. Environmental, Health and Safety Aspects. This section must contain a discussion of the anticipated environmental benefits of the proposed project, including a comparative risk assessment with currently available technology. This comprehensive discussion should address not only the pilot or demonstration project, but also subsequent commercial applications. The following topics should be included in the discussion.

a. Identification of hazardous or toxic gaseous, liquid or solid substances integral to the process, and the safeguards proposed for their containment and ultimate disposal.
b. The compatibility of the proposed process with existing and anticipated environmental laws and rules.
c. Identification of all process products, their classification with respect to environmental and health and safety rules, and methods proposed for their disposition.
d. Compatibility of the technology/technique with other emission control technologies and the anticipated emission reduction performance when combined with such technologies.

2. Technology/Process Economics. The anticipated cost of the commercial application of the technology or process must be estimated, in dollars per ton of pollutant reduced at the source (power plant or other end producer/user). Product or reuse credits and energy efficiency improvement credits, where applicable, should be specifically identified. The calculated costs should be compared to competing existing or emerging technologies. Also, where appropriate, the levelized busbar cost (mills/kilowatt-hour) must be estimated. All cost-estimation assumptions and procedures must be clearly detailed.

3. Market Application, Penetration, and Ohio Applicability. The proposal must include a quantified discussion of the proposed technology's marketability and commercialization, particularly in Ohio; explain how the technology's application will benefit the Ohio coal industry, and how it will affect the continued and increased use of Ohio coal on an estimated tonnage per year basis. Items to be discussed include the following:

a. Description of competing technologies and fuels that will be displaced by the proposed technology, including cost comparisons of the technologies.
b. Potential total market geographic distribution of the market, with particular emphasis on Ohio. Specific attention should be given to Ohio's end users, and to existing Ohio sources using high-sulfur Ohio coal, identifying equipment types amenable for retrofit or repower applications with this technology.
c. Expected technology characteristics that will facilitate commercial plant construction, such as use of shop fabrication, modular construction, siting flexibility, etc.

d. Projected penetration of the proposed technology into the market described above, including a time-phased estimate in terms of relative penetration (percent) and absolute penetration (e.g., tons of Ohio coal per year, MW_e generated per year, etc.).
e. Discussion of how the Clean Air Act (as amended) and other federal and state air quality rules and regulations will affect the commercial adoption of the technology.
f. Types of Ohio coal that can be commercially utilized by this technology and the potential increase in the use of Ohio coal in tons per year.
g. Characterization of the energy or clean fuel product (if applicable).
h. Amount and characteristics of products and by-products, and how they will affect the marketability of the technology.
i. Discussion of the participant's marketing plan for the technology.

4. On-going Commitment to Ohio Coal Use. The proposal must include a description of the long-term commitment to Ohio coal at the host site, including estimated life of the unit and anticipated annual tonnage of Ohio coal to be used.

SECTION V. CRITERIA FOR SELECTION (not ranked in ordered)

A. Technical

- Clarity of Objective(s). The proposal has clearly stated objectives; the objectives are well defined and realistic and will advance the state-of-the-art; the objectives are likely to be achieved in a cost-effective manner.
- Technical merit. Proposal thoroughly and clearly discusses significant technical issues and/or risks/opportunities associated or anticipated with this technology or process; a thorough background discussion is provided describing the technology's development to date; the project will build upon and not duplicate prior work; the level of proposed scale-up is appropriate and not over-reaching. Sufficient technical support is provided to substantiate a high probability of success; the technology is not "off-the-shelf" or commercially guaranteed for the particular application for which it is proposed;
- Statement of Work. The proposal contains a very clear, detailed, logically sequenced statement of work with specific performance targets or ranges and identified QA/QC methods; the project will be completed in a reasonable time frame.
- Environmental performance. The project identifies significant environmental issues associated with its commercial use; the technology is superior in environmental performance to competing technologies; valid performance claims are presented; the technology will meet or exceed requirements of the Clean Air Act and other appropriate laws and regulations; the technology addresses a current or anticipated environmental issue; related issues such as by-products, parasitic power use and associated ancillary costs are addressed; the project identifies and includes any necessary permitting and provides sufficient time in project for same.

B. Financial/Experience

- Reasonableness of budget. The budget is reasonable for the tasks proposed and the Proposer is financial stable and has sufficient depth of resources to support the project. The project cost and relative investment by the State of Ohio is commensurate with the risk undertaken by the state. The Proposer and co-sponsors bear an appropriate share of the risk.
- Cost-share. Proposer itself bears a significant portion of the project's total cost, with cash and, where appropriate, in-kind contributions and the ratio of ODOD funds to private and other public contributions (cash and in-kind) is not excessive and is within limits set elsewhere in this document.
- Technical and management competence. Project sponsor(s) and key personnel have relevant experience and depth and possess the capability both corporately and in personnel knowledge/ability to ensure the project is properly managed (technically and financially), engineered, constructed, operated, documented and reported within budget. The project team has sufficient technical, managerial and marketing capabilities and skills to undertake a project of this magnitude. The company has enough depth of personnel, funding, and resources to handle a project of this scale, especially if unforeseen problems arise.

C. Marketability

- Applicability to Ohio. This project/technology is applicable to Ohio coal-consuming facilities or is a technology/process likely to be used in Ohio using Ohio coal as a fuel or feedstock; there is likelihood of near-term adoption in the marketplace for demonstration and pilot projects; there is likelihood of long-term adoption in the marketplace for proof-of-concept projects.

- Cost-effectiveness. Application of the technology is likely to meet or exceed environmental requirements as established by current and expected law and regulation at an economically competitive cost compared to currently available and/or emerging technologies. The Proposer identifies the cost or credit associated with byproduct disposal or sale. The

Proposer demonstrates a clear understanding of the economic issues that must be addressed in the technical development.

- Business/Marketing Plan. Given the level of development (i.e., proof-of-concept, pilot, demonstration, etc.) of the technology, an appropriate business/marketing plan is presented. The Proposer demonstrates knowledge of the: 1) Ohio and the overall market (including constraints), 2) how their project will advantage Ohio coal, and 3) how to penetrate the market. Clear steps/plans are presented to commercialize the technology. The Proposer has experience in commercialization of new technologies and presents evidence of same.
- Use of Ohio coal. The technology will maintain or increase the use of Ohio coal.

Ohio Coal Development Office – Ohio Coal Demonstration and Pilot Program
Proposal Evaluation Sheet

This evaluation sheet is for use by the Ohio Coal Demonstration and Pilot Program RFP Project Review Team.

A total of **100 points** is available when ranking each submitted proposal, allocated according to the following:

Each section of scoring is based on a scale of 0 to 5, where 0=unacceptable, 3=average, and 5=excellent. For the total score, the weighting factors for each of the individual sections are combined out of a total of 100 points.

		Score		Weighting Factor		Weighted Score	Maximum Score
Technical (40 Points)							
1.	Clarity and specificity of objective(s)		x	1.5	=		7.5
2.	Technical merit		x	3.0	=		15
3.	Statement of Work		x	1.5	=		7.5
4.	Addressing of environmental issues		x	2.0	=		10
Financial/Experience (35 Points)							
5.	Reasonableness of the budget		x	2.0	=		10
6.	Cost-share		x	2.0	=		10
7.	Technical and management competence		x	3.0	=		15
Marketability (25 Points)							
8.	Applicability to Ohio coal/likelihood of market		x	2.0	=		10
9.	Identification of issues/cost effectiveness		x	1.0	=		5
10.	Marketing plan		x	1.0	=		5
11.	Use of Ohio coal		x	1.0	=		5
Weighted Total Score							**100**

SECTION VI. FUNDING AGREEMENT REQUIREMENTS

Basic requirements of a grant agreement from ODOD include, but are not limited to the following:

A. Royalty/Payment Agreement

Before a grant agreement for a pilot or demonstration-scale project can be executed, it is necessary to negotiate a royalty/payment agreement. Through such agreement, the State of Ohio, through the ODOD will be paid, over an extended period of time, a commercially reasonable portion of gross revenues, including but not limited to those revenues derived from the sales of equipment, services or patents, equipment leases or a portion of royalties and licensing fees. Such payment is in recognition of the risk the State of Ohio takes in granting research and development funding and is used to help defray principal and interest payments of Ohio's coal research and development bonds.

B. Award Deliverables

1. Status reports, describing technical progress, must be prepared quarterly according to a prescribed format and received by ODOD no later than five calendar days after each calendar quarter in which the Proposer receives the assistance award funded in whole or in part by ODOD.
2. Financial reports, in a standard ODOD format, must be submitted summarizing the project financial status, including actual expenditures to date, and grantee cost share. These may be submitted with periodic invoices or as part of the quarterly project status reports. Invoices must be submitted no more or less frequently than quarterly. All invoices must bear sufficient documentation to validate both charges to the grant and the total cost share expended.
3. Milestone plans and reports may be required for ODOD approval prior to initiating work for particular phases of a project. These must also conform to a specified format.
4. Administrative reports, indicating project employment and cost projections, must be submitted semi-annually.
5. An end-of-year project abstract must be submitted annually.
6. A comprehensive draft final report and revised final report, including all elements of standard ODOD final reports, is due upon completion of the project, and is subject to review and comment prior to acceptance.
7. Note carefully: failure to meet certain reporting deadlines and the final negotiated ODOD cash draw down schedule may result in penalties to the project.

C. General Terms and Conditions for Project Awards

1. Grant agreements, must be construed, interpreted and the rights of parties determined in accordance with laws of the State of Ohio.
2. All information, data, materials, patents, copyrights and royalties developed under grant awards belong to the State of Ohio unless negotiated otherwise in the applicable agreement.
3. The State's "Buy Ohio Policy" requires that competitive grant and contract solicitations by State of Ohio agencies provide preference for Ohio-based Proposers and for work that will be done within Ohio. This shall carry through the grant to any bid for work and/or services made by the grantee.
4. Expenses for travel, including lodging and meals, will be reimbursed at rates not higher than those prescribed by the Director of Ohio's Office of Budget and Management. In no event will international travel be eligible for reimbursement. If "travel expenses" as defined in Ohio Administrative Code Section 126-1-02, are a cost of the Project eligible for reimbursement with Grant Funds, Grantee shall be reimbursed for those permissible travel expenses in amounts in accordance with Ohio Administrative Code 126-1-02, as updated from time to time (the "Expense Rule") and Grantee agrees that it shall not be reimbursed and Grantor shall not pay any items that are deemed to be "non-reimbursable travel expenses" under the Expense Rule, whether by the Grantee or Grantor or their respective employees or agents.

5. The awardee must agree to comply with all federal, state and local laws and regulations in the conduct of work performed on the project, and be responsible for obtaining any and all permits required to install and operate the project.
6. The awardee must not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, disability, or age and shall take affirmative action to ensure that applicants are employed and that employees are treated during such employment without regard to race, sex, national origin, disability or age. The grantee must have an affirmative action program and must so state in the proposal.
7. The awardee must perform the project in the manner set forth in its statement of work, and for not more than the amount set forth in the proposal.
8. No pre-award, proposal preparation or grant negotiation costs are eligible for reimbursement under ODOD grants. No expenses for lobbying before or during the agreement period are eligible for reimbursement with state of Ohio funds.
9. If the host site is a state-owned facility and the project will involve construction, then the awardee shall bid the construction work in accordance with Ohio Department of Administrative Services procedures.
10. An awardee may be subject to a financial audit by the State of Ohio only as it pertains to the project for which it received ODOD funds.

D. Grant Agreement Procedure

ODOD projects are overseen in accordance with the terms and conditions of a grant agreement, which is entered into after project approval by the ODOD.

ODOD's standard grant agreement template is included as part of this RFP (Attachment 7). Also included are all of the Exhibits that are attached to a final Agreement ("Agreement") and become as legally binding as the Agreement itself. Most notable among the Exhibits is the Exhibit C, "Royalty/Payment Agreement." Any Proposer is advised to review all of these documents prior to preparing a proposal to ODOD.

> **By submitting a proposal to ODOD, the Proposer agrees to accept the terms and conditions contained in ODOD's grant agreement template and all of its attached exhibits, unless requests for specific exceptions are made in its proposal to ODOD.**

Please note: ODOD understands that the grant agreement template is a model and it may be necessary to make modifications to meet the needs of individual projects. By identifying possible changes in the template early, ODOD hopes to significantly shorten the grant negotiation process. Resolving requested exceptions before any action by ODOD will allow final negotiations to focus on substantive work statement and budget issues. If you choose to request exceptions, please remember that ODOD will consider them with an eye toward balancing the needs of the project and the stewardship responsibilities of ODOD for its public funds.

A special word about Exhibit C, "Royalty/Payment Agreement:" In recognition of the risk taken by the State of Ohio in entering into research, development and deployment projects, the Ohio Revised Code authorizes the ODOD Director to include royalty or repayment agreements as a condition of ODOD support. ODOD recognizes that determining the amount of this payment can be complicated. If you choose to request an exception in this area, please present a clear business case supporting your alternative language. This will not only help ODOD evaluate your request; it will build a valuable database that improves the state's ability to craft equitable royalty/repayment agreements in the future.

E. Requests for Exceptions to the Grant Agreement
If a Proposer has no exceptions to the Grant Agreement, then a separate sheet must be included in the proposal that bears the statement, "This Proposer has no exceptions to the ODOD grant agreement and its attached Exhibits, including the Royalty/Payment Agreement."

> Exceptions (including **minor** alterations, additions or deletions) **must** include an explanation of why the exception is being sought and the effect it would have on the Proposer's ability to perform the project. The exception must also provide suggested alternative language. Any requests for exceptions must identify the Section and Paragraph of the Grant Agreement or the Royalty/Payment Agreement, or the Exhibit by its letter.

Exceptions deemed by ODOD to be major will be reviewed by ODOD legal counsel before any technical review commences. A diligent and quick attempt will be made to resolve any differences. If, after advice of legal counsel, resolution is not possible, ODOD reserves the right to reject the proposal without further review.

Exceptions deemed by ODOD to be minor will not delay technical review and will be addressed during that review process.

All exception issues (major or minor) must be resolved before any proposal is presented to a meeting of the ODOD. After thorough discussion with the Proposer, ODOD will identify in writing exceptions that have been accepted, modified or rejected. If the Proposer wishes to continue, the proposal will proceed through the usual review and approval process.

F. Host Sites
The proposal must contain a letter from an appropriate authority of the potential host site, stating that if this proposal is selected for funding, then the entity authorizes this unit/station as the host site. This letter should also note the estimated in-kind contribution the host site entity will be making to the project. Specifically, this does not include the value of the facility, but rather any labor costs, maintenance costs, etc., that are anticipated to be paid by the host site over the course of the pilot or demonstration's operations.

G. ODOD Funding Limitations
Awards are dependent upon the issuance of General Obligation bonds by the State of Ohio. ODOD can only make awards when the Treasurer, State of Ohio has deposited sufficient monies in the Coal Research and Development Fund from those general obligation bond proceeds.

Monies expended or costs incurred prior to ODOD award - including the proposal preparation and grant negotiation costs - shall not be charged to ODOD nor count toward the proposer/co-sponsor cost share. In no event shall ODOD reimburse any lobbying costs.

H. Obligations to the State; Compliance with Laws
Grantees will be required to certify that they do not owe: (1) any delinquent taxes to the state or a political subdivision of the state; (2) any moneys to the state or a state agency for the administration or enforcement of any environmental laws of the state; and (3) any other moneys to the state, a state agency or a political subdivision of the state that are past due, whether the amounts owed are being contested in a court of law or not (Attachment 6 Questions).

Grant Agreements will require Grantees to comply with all applicable federal, state, and local laws in the performance of the Project. Grantees must accept full responsibility for payments of all unemployment compensation, insurance premiums, workers' compensation premiums, all income tax deductions, social security deductions, and any and all other taxes or payroll deductions required for all employees engaged by Grantees on the performance of the work authorized by the Grant Agreements.

Indicate the scale of the project:	
Full-scale	
Demonstration-scale	
Pilot-scale	
Proof-of-Concept-scale	

ODOD ID #
_____-PF-_____
(Leave blank)

Proposal Summary

1.	**Project Title**					
2.	**Prime Sponsoring Entity**					
	Address					
	City/State/Zip					
	Authorized Signature		**Title**			
	Co-sponsoring Entity					
	Address					
	City/State/Zip					
	Authorized Signature		**Title**			
3.	**Primary Contact Person**		**Title**		**Email address**	
	Phone		**Fax**			
	Alternate Contact Person		**Title**		**Email address**	
	Phone		**Fax**			
4.	**Project Location**					
	Prime Sponsoring Entity Location					
5.	**Proposed Start Date**		**Duration**	months		
6.	**Does the proposal contain proprietary or trade secret information?**		**Yes**, proprietary or trade secret information contained on these pages			
7.	**Type(s) of Ohio coal to be used**		Sulfur & ash cont.			
8.	**Technology to be used**					
9.	**Primary application(s) of the technology**					
10.	**Project Size (indicate units of measure)**					

11. Budget Summary

	Contributor	Dollar Contribution	Percentage of Total
	ODOD *		0.00%
Prime Sponsor **			0.00%
Co-sponsor #1 **			0.00%
Co-sponsor #2 **			0.00%
Co-sponsor #3 **			0.00%
Co-sponsor # 4 **			0.00%
Total Project Cost		$0.00	0.00%

*Be sure funding request meets ODOD Funding Limitations Section requirements.
**Identify by name each participant.

12. Cost by Phase (use only those lines which are necessary)

	Dollar Amount	Percentage
Phase I		0.00%
Phase II		0.00%
Phase III		0.00%
Phase IV		0.00%
Phase V		0.00%
Phase VI		0.00%
Phase VII		0.00%

13. Cost-share Breakout

	Name	Cash	In-kind	Total
Prime Sponsor				$0.00
Co-sponsor #1				$0.00
Co-sponsor #2				$0.00
Co-sponsor #3				$0.00
Co-sponsor #4				$0.00

PROPOSAL SUMMARY
INSTRUCTIONS

Fully complete Sections 1 through 13 of the **two-page Proposal Summary; do not leave any blank** sections. If a line is not applicable to your project, enter "N/A" on that line.

ODOD ID #. Leave blank. This will be completed by ODOD.

Indicate the scale of this proposed project by checking the appropriate box.

Indicate the type of ODOD assistance sought.

1. **Project Title:** Self-explanatory.

2. **Prime Sponsoring Entity:** This is the entity with which ODOD will enter into legal agreement and to which funds will be granted should the project be selected. It will be the entity responsible for insuring the project is conducted fully, efficiently, and in a timely manner. The prime sponsoring agency must be located in or doing business in the State of Ohio. An authorized agent of the prime-sponsoring agency must endorse the project's submittal by signing the first copy of this attachment (the remaining copies may bear photocopy of the signature).

   Co-Sponsoring Entity: The prime-sponsoring agency may have one or more entities supporting, participating, or contributing to the project. They should be identified and that entity's endorsement of its participation verified by the original signature of an authorized agent on the first copy of this attachment (the remaining copies may bear a photo of the signature).

3. **Primary Contact Person:** List the name, title, telephone, fax number, and email address of a person ODOD may contact should it have any questions about the project/proposal. All correspondence will be addressed to this individual.

   Alternate Contact Person: List an alternate contact should the primary contact be unavailable.

4. **Project Location:** Identify the city, county, and state in which the project will be performed.

   Prime Sponsoring Entity Location: Identify the city, county, and state in which the prime-sponsoring entity is located.

5. **Proposed Start Date:** List the project's proposed start date.

   Project Duration: List the number of months it is expected to take to complete the project, including completion and submittal of a draft final report, which will be reviewed, and a subsequent revised Final Report, pursuant to the review.

6. **Proprietary Information:** State whether or not proposal contains proprietary or trade secret information. If it does, identify the pages where such information is contained (those pages must also be clearly marked to pinpoint the proprietary or trade secret information).

7. **Ohio Coals:** Identify the type(s) of Ohio coals to be used in the project. Example: Pittsburgh #8. Include the approximate sulfur and ash content of the coals to be used.

8. **Technology to be Used:** Give a brief description of the technology or technologies to be incorporated.

9. **Application(s):** Describe the primary application of the technology.

10. **Project Size:** Identify the size of the project in common, clearly understood terms. For a post-combustion process, for example, the size may be in MW_e of capacity or in ACFM; for by-products projects, size may be in terms of the tons of by-product handled per day; for air toxics projects, the size may be in terms of the capacity of the unit or flue gas cleanup device tested.

11. **Budget Summary:** Enter dollar amount requested of ODOD, and the percentage of the total project cost that amount represents.

    Enter the amount the prime sponsor is going to contribute; this amount may represent cash or in-kind contribution, or a combination thereof. Enter the prime sponsor's percentage of cost share.

    Enter the amount a co-sponsor is going to contribute, either in cash, in-kind services, or a combination thereof. If there is more than one co-sponsor, add their contributions together and enter it on this line. Enter the co-sponsor's percentage of cost share.

    Add the amounts from ODOD, prime sponsor, and co-sponsor(s), and enter the sum for total project cost. Add the percentages of the same three entities to be sure they total 100 percent.

12. **Cost by Phase**: Give the total project cost breakdown by project phase.

13. **Cost-share Breakout**: Enter the name of the Prime Sponsor and each Co-sponsor. Denote the amount of cash and in-kind contribution each is pledging toward the project. The Total column for each must equal the amounts entered into the Dollar Contribution column in number 11, Budget Summary.

Attachment 2

Project Budget Summary[1]

Categories	Phase 1	Phase 2	Phase 3	Phase 4	Total
Total Personnel	$0.00	$0.00	$0.00	$0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00
Total Fringe	$0.00	$0.00	$0.00	$0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[3]					$0.00
Participant 2[2]					$0.00
Total Equipment	$0.00	$0.00	$0.00	$0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00
Total Supplies	$0.00	$0.00	$0.00	$0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00
Total Contractual	$0.00	$0.00	$0.00	$0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00
Total Travel	$0.00	$0.00	$0.00	$0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00
Total Other	$0.00	$0.00	$0.00	$0.00	$0.00
OCDO					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00
Total Indirect Costs	$0.00	$0.00	$0.00	$0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00
Total Project Cost	$0.00	$0.00	$0.00	0.00	$0.00
ODOD					$0.00
Prime Entity					$0.00
Participant 1[2]					$0.00
Participant 2[2]					$0.00

[1] Add pages as necessary to fully disclose the budget.
[2] All participants must be identified by name.

Attachment 3

Cost Share Guidelines

Grantee will adhere to the Cost Share requirements set forth in this Attachment governing the identification and use of resources other than Grant Funds for eligible expenses of the Project. The Cost Share amount may be provided in cash or in kind. Cash and in-kind contributions to the Cost Share amount may be as follows:

A. Cash contributions counted against the Cost Share amount includes eligible expenses of the Project (1) incurred to perform activities in direct support of the Project during the Project Period; (2) charged to resources of Grantee or of a subgrantee or subcontractor engaged by Grantee on the Project, and (3) documented in Grant Accounts or in the Grant-related financial books and records of the subgrantee or subcontractor, as the context requires. Cash contributions to the Cost Share Amount include resources other than Grant Funds provided by a third party to Grantee, a subgrantee or subcontractor, or to a parent organization specifically for the use or support of Grantee, a subgrantee or a subcontractor, which are actually used to perform Project activities.

B. In-kind contributions to the Cost Share amount include the value of goods and/or services which are an eligible expense of the Project (1) supplied by Grantee, a subgrantee, subcontractor or other third party during the Project Period, (2) received by Grantee, a subgrantee or subcontractor during the specific period to which the cost sharing or matching requirement applies and used by Grantee, a subgrantee or subcontractor to perform activities in direct support of the Project, but (3) which are not separately accounted for by Grantee in the Grant Accounts or by a subgrantee or subcontractor in its respective Grant-related financial books and records.

General Conditions and Restrictions:

A. Contributions to the Cost Share amount must be for eligible expenses consistent with the scope of work and must be accessible to verification and audit.

B. Contributions to the Cost Share amount must provide direct support for the Project. Expenditures that provide coincidental benefits to or support for the Project may not be counted against the Cost Share amount. All resources counted against the Cost Share Amount must be necessary and reasonable considering the Project objectives and the activities to be performed as part of the Project.

C. Contributions, whether cash or in-kind, may not be counted against the Cost Share amount if the same resources are used to satisfy the cost share requirement of any other funding program.

D. Contributions of financial support, both cash and in-kind, included as part of the Project's Cost Share amount must be made between the Effective Date of the Grant Agreement and the Project Completion Date.

E. Grantee may request Grantor approval of financial support for the Project that does not meet the cost share requirements set forth above. Any such request shall be made by Grantee in writing, and such financial support may be counted against the Cost Share amount only if and to the extent approved by Grantor in writing prior to the contribution of such financial support. Grantor may give or withhold approval within its discretion.

F. Value of Contributed Goods and Services.

1.) Services are contributed to a Project (*i.e.*, donated services) when an individual employed by the contributor of the donated services works to perform Project activities without charge to Grantee, a subgrantee, or subcontractor. The value of donated services

will be an amount equal to the individual's regular rate of pay from the contributor of the individual's services, including fringe benefits up to 30 percent of base pay, for the period of time during which the individual performs Project activities *provided that* the individual whose services are contributed performs functions for Grantee, a subgrantee, or subcontractor equivalent to the services for which the individual is compensated by the contributor.

2.) The value of supplies and materials contributed to the Project will be an amount equal to the fair market value of such supplies and materials at the time they are contributed to Grantee, a subgrantee, or subcontractor. Grantee shall provide documentation supporting its determination of the fair market value of such supplies and materials.

3.) In-kind contributions may include use of equipment and/or space (facilities) which are necessary and reasonable for the Project. The value of the use of equipment and/or space (facilities) will be an amount equal to its fair rental value of the equipment and/or space at the time it is contributed to Grantee, a subgrantee, or subcontractor. Grantee shall provide documentation supporting its determination of the fair rental value of such equipment and/or space (facilities).

4.) In-kind contributions may include transfer of ownership to equipment, buildings, and/or land which are necessary and reasonable for the Project. The value of any such equipment, buildings, and/or land will be an amount equal to its respective fair market value at the time the equipment, buildings, and/or land is contributed to Grantee, a subgrantee, or subcontractor. Grantee shall provide documentation supporting its determination of the fair market value of such equipment, buildings and/or land.

G. Documentation of all contributions to the Cost Share amount must identify the source of the contribution and its address, state the value of the contribution (whether made in cash or in-kind), and provide as to any in-kind contribution a reasonably detailed description of the method of valuation of such contribution.

H. Grantee shall maintain in its records related to the Project documentation sufficient to verify all Project costs and contributions claimed as part of the Cost Share amount, including the supporting documentation for valuation of in-kind contributions. Cost share documentation will be subject to inspection and audit as provided in the Grant Agreement.

I. Certification of Cost Share:

1.) The method and frequency of reporting contributions to the Cost Share amount, whether made in cash or in-kind is the same as financial reporting for the Grant Funds.

2.) Grantee must identify cash and in-kind contributions to the Cost Share amount in its financial reports to Grantor.

3.) Grantee shall maintain during the Project Period an itemized list of in-kind contributions to the Cost Share amount. Grantee shall make such list available to Grantor for review upon request.

J. Modification of Cost Share Guidelines: Grantor may revise the Cost Share Guidelines from time to time. Any changes to the Cost Share Guidelines shall be effective upon delivery of written notice to Grantee and shall apply prospectively.

Attachment 4

Useful References

Websites that provide information coal and on coal combustion products are listed below. (This is not intended to be an exhaustive listing.)

U.S. Department of Energy
http://www.doe.gov

U.S. DOE National Energy Technology Laboratory
http://www.netl.doe.gov/

Electric Power Research Institute
http://www.epri.com/

Coal Utilization Research Council
http://www.coal.org/

U.S. DOE Energy Information Administration – coal site
http://www.eia.gov/coal/

CCP Ohio
http://ccpohio.eng.ohio-state.edu/

American Coal Ash Association
http://www.acaa-usa.org/

World Coal Association
http://www.worldcoal.org/

International Energy Agency Coal Research
http://www.iea-coal.org.uk/

Ohio Coal Association
http://www.ohiocoal.com

National Mining Association
http://www.nma.org

American Coal Council
http://www.americancoalcouncil.org

Attachment 5

List of Current Coal Technical Advisory Committee Members

NAME	ORGANIZATION	REPRESENTING
Joseph Shields	Ohio University	University R&D
Alternate: Shane Gilkey	Ohio University	University R&D
Michael Carey	Ohio Coal Association	Coal production companies
Alternate: Melanie Schott	Ohio Coal Association	Coal production companies
Babe Erdos	United Mine Workers of America	United Mine Workers of America
Representative Al Landis	Ohio House of Representatives	Ohio House Majority
Alternate: Tim Maly	Ohio House of Representatives	Ohio House Majority
Vacant		Ohio House Minority
Commissioner Lynn Slaby	Public Utilities Commission of Ohio	PUCO
Alternate: James Dunn	Public Utilities Commission of Ohio	PUCO
Scott Nally	Ohio EPA	EPA, Ex Officio
Bob Hodanbosi	Ohio EPA	EPA, Ex Officio
Senator Troy Balderson	Ohio Senate	Ohio Senate Majority
Alternate: Alexander Lapso	Ohio Senate	Ohio Senate Majority
James J. Reuther	Battelle	Non-university R&D
Alternate: Rick Givens	Battelle	Non-university R&D
John M. McManus	American Electric Power Company	Utilities
Nolan Moser	Ohio Environmental Council	Environmental
Alternate: Trent Dougherty	Ohio Environmental Council	Environmental
Senator Joe Schiavoni	Ohio Senate	Ohio Senate Minority
Alternate: Ryan Monell	Ohio Senate	Ohio Senate Minority
Vacant		Manufacturers that use Ohio Coal

As of: 8/17/2012

Attachment 6

Required Forms and Questions

All documents below are required**. Please make sure to complete, sign, and submit or attach the following forms individually to your application.**

- Vendor Form
- W-9
- Direct Deposit Form
- Tax Release
- EPA Form
- Ohio Bureau of Workers' Compensation (BWC) Certificate - (attach a copy of your BWC certificate in PDF format)

Please answer the following questions. False answers may result in the State withdrawing any and all offers of financial assistance.

FINANCIAL LIABILITY
ODOD will not give financial assistance of any type to an applicant or company with outstanding financial obligations to the State or to an Ohio community or with outstanding environmental issues. The status of each applicant will be verified with the Ohio Department of Taxation and with the Ohio Environmental Protection Agency. Does the applicant and property owner (if different from applicant):

1. Owe any delinquent taxes to the State, any state agency, or a political subdivision of the State?
Yes:☐ No:☐ If Yes, explain:

2. Owe any monies to the State or to a state agency for the administration or enforcement of the environmental laws of the State?
Yes:☐ No:☐ If Yes, explain:

3. Owe any past-due monies to the State, a state agency, or a political subdivision of the State?
Yes:☐ No:☐ If Yes, explain:

4. Have any existing tax liens by the state of or a political subdivision of the State?
Yes:☐ No:☐ If Yes, explain:

5. Have a state loan on which it has defaulted?
Yes:☐ No:☐ If Yes, explain:

PRIOR LEGAL ACTIONS
Have the applicant (or user), related companies, or any of their respective officers:

1. Been convicted of a felony?
Yes:☐ No:☐ If Yes, explain:

2. Been convicted of or enjoined from any violation of state or federal securities law?
Yes:☐ No:☐ If Yes, explain:

3. Been a party to any consent order or entry with respect to an alleged state or federal securities law violation?
Yes:☐ No:☐ If Yes, explain:

4. Been a defendant in a civil or criminal action?
Yes:☐ No:☐ If Yes, explain:

VENDOR INFORMATION FORM

All parts of the form must be completed by the vendor. Incomplete forms will be returned. The information must be legible. Ensure this is the latest version of the form at www.ohiosharedservices.ohio.gov.

SECTION 1 – PLEASE SPECIFY TYPE OF ACTION

☐ NEW **(W-9 OR W-8ECI FORM ATTACHED)** ☐ CHANGE OF CONTACT PERSON/INFORMATON

☐ ADDITIONAL ADDRESS – (**A COPY OF AN INVOICE OR A LETTER INCLUDING THE ADDRESS IS REQUIRED)**

☐ CHANGE OF ADDRESS – (**PLEASE PROVIDE OLD ADDRESS BELOW OR ATTACH LETTER)**

ADDRESS TO BE REPLACED:

☐ CHANGE OF TIN **(W-9 & LETTER OF CLARIFICATION OF CHANGE, WHICH INCLUDES NEW & OLD TIN IS REQUIRED)**

☐ CHANGE OF NAME **(W-9 & LETTER OF CLARIFICATION OF CHANGE, MUST INCLUDES NEW & OLD NAME IS REQUIRED)**

☐ CHANGE OF PAY TERMS ☐ CHANGE OF PO DISPATCH METHOD ☐ OTHER_____

SECTION 2 – PLEASE PROVIDE VENDOR INFORMATION

LEGAL BUSINESS OR INDIVIDUAL NAME: (MUST MATCH W-9 OR W-8ECI FORM)

BUSINESS NAME, TRADE NAME, DOING BUSINESS AS: (IF DIFFERENT THAN ABOVE)

FEDERAL EMPLOYER ID (EIN) OR SOCIAL SECURITY NUMBER (SSN):

SECTION 3 – PLEASE PROVIDE COMPLETE ADDRESS

ADDRESS:		COUNTY:
CITY:	STATE:	ZIP CODE:

SECTION 4 – ADDITIONAL ADDRESS (IF MORE THAN 2 ADDRESSES, PLEASE INCLUDE A SEPARATE SHEET)

ADDRESS:		COUNTY:
CITY:	STATE:	ZIP CODE:

SECTION 5 – CONTACT INFORMATION & PERSON TO RECEIVE PURCHASE ORDER		
NAME:		
WEBSITE:		
PHONE:	FAX:	EMAIL:
PREFERRED METHOD OF BEING CONTACTED: (CHECK ONE)	☐ PHONE	☐ EMAIL

SECTION 6 – INDIVIDUAL TO RECEIVE EMAIL NOTICE OF BID EVENTS - A USER ID & PASSWORD WILL BE SENT TO THE EMAIL ADDRESS BELOW	
NAME:	
EMAIL:	PHONE:
TO ADD AN ADDITITIONAL OR REPLACE A STRATEGIC SOURCING CONTACT PERSON ☐ ADDITIONAL CONTACT PERSON ☐ REPLACE CONTACT PERSON **(WILL BE MARKED INACTIVE)**	
NAME:	
EMAIL:	PHONE:

SECTION 7 – PAYMENT TERMS (PLEASE CHECK ONE – IF NONE IS SELECTED THEN NET 30 WILL APPLY)				
☐ 2/10 NET 30	☐ NET 30	☐ NET 45	☐ NET 60	☐ NET 90

SECTION 8 – PURCHASE ORDER DISTRIBUTION – OTHER THAN USPS MAIL
EMAIL **OR** FAX:

SECTION 9 – PLEASE SIGN & DATE	
PRINT NAME:	
SIGNATURE: (DIGITAL SIGNATURES NOT ACCEPTED AT THIS TIME)	DATE:

SECTION 10 – STATE OF OHIO AGENCY CONTACT PERSON (AGENCY RECEIVING PAYMENTS FROM)
AGENCY CONTACT NAME/EMAIL/PHONE:

COMMENTS:

Note: This document contains sensitive information. Sending via non-secure channels, including e-mail and fax can be a potential security risk.

SUBMIT FORM TO:

Mail: Ohio Shared Services
Attn: Vendor Maintenance
P.O. Box 182880 Cols., OH 43218-2880
Email: vendor@ohio.gov
Fax: 1 (614) 485-1052

QUESTIONS? PLEASE CONTACT:

Phone: 1 (877) OHIO - SS1 (1-877-644-6771)
1 (614) 338-4781
Website: www.ohiosharedservices.ohio.gov/
Email: vendor@ohio.gov

Form **W-9**
(Rev. December 2011)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See **Specific Instructions** on page 2.

Name (as shown on your income tax return)

Business name/disregarded entity name, if different from above

Check appropriate box for federal tax classification:
☐ Individual/sole proprietor ☐ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate

☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶

☐ Other (see instructions) ▶

☐ Exempt payee

Address (number, street, and apt. or suite no.)

Requester's name and address (optional)

City, state, and ZIP code

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on the "Name" line to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
☐☐☐ – ☐☐ – ☐☐☐☐

Employer identification number
☐☐ – ☐☐☐☐☐☐☐

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here **Signature of U.S. person ▶** **Date ▶**

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,
- The U.S. grantor or other owner of a grantor trust and not the trust, and
- The U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person, do not use Form W-9. Instead, use the appropriate Form W-8 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity not subject to backup withholding, give the requester the appropriate completed Form W-8.

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS a percentage of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See the instructions below and the separate Instructions for the Requester of Form W-9.

Also see *Special rules for partnerships* on page 1.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account, for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Name

If you are an individual, you must generally enter the name shown on your income tax return. However, if you have changed your last name, for instance, due to marriage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

Sole proprietor. Enter your individual name as shown on your income tax return on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name/disregarded entity name" line.

Partnership, C Corporation, or S Corporation. Enter the entity's name on the "Name" line and any business, trade, or "doing business as (DBA) name" on the "Business name/disregarded entity name" line.

Disregarded entity. Enter the owner's name on the "Name" line. The name of the entity entered on the "Name" line should never be a disregarded entity. The name on the "Name" line must be the name shown on the income tax return on which the income will be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a domestic owner, the domestic owner's name is required to be provided on the "Name" line. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on the "Business name/disregarded entity name" line. If the owner of the disregarded entity is a foreign person, you must complete an appropriate Form W-8.

Note. Check the appropriate box for the federal tax classification of the person whose name is entered on the "Name" line (Individual/sole proprietor, Partnership, C Corporation, S Corporation, Trust/estate).

Limited Liability Company (LLC). If the person identified on the "Name" line is an LLC, check the "Limited liability company" box only and enter the appropriate code for the tax classification in the space provided. If you are an LLC that is treated as a partnership for federal tax purposes, enter "P" for partnership. If you are an LLC that has filed a Form 8832 or a Form 2553 to be taxed as a corporation, enter "C" for C corporation or "S" for S corporation. If you are an LLC that is disregarded as an entity separate from its owner under Regulation section 301.7701-3 (except for employment and excise tax), do not check the LLC box unless the owner of the LLC (required to be identified on the "Name" line) is another LLC that is not disregarded for federal tax purposes. If the LLC is disregarded as an entity separate from its owner, enter the appropriate tax classification of the owner identified on the "Name" line.

Other entities. Enter your business name as shown on required federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name/ disregarded entity name" line.

Exempt Payee

If you are exempt from backup withholding, enter your name as described above and check the appropriate box for your status, then check the "Exempt payee" box in the line following the "Business name/ disregarded entity name," sign and date the form.

Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends.

Note. If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding.

The following payees are exempt from backup withholding:

1. An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2),

2. The United States or any of its agencies or instrumentalities,

3. A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities,

4. A foreign government or any of its political subdivisions, agencies, or instrumentalities, or

5. An international organization or any of its agencies or instrumentalities.

Other payees that may be exempt from backup withholding include:

6. A corporation,

7. A foreign central bank of issue,

8. A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States,

9. A futures commission merchant registered with the Commodity Futures Trading Commission,

10. A real estate investment trust,

11. An entity registered at all times during the tax year under the Investment Company Act of 1940,

12. A common trust fund operated by a bank under section 584(a),

13. A financial institution,

14. A middleman known in the investment community as a nominee or custodian, or

15. A trust exempt from tax under section 664 or described in section 4947.

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 15.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 9
Broker transactions	Exempt payees 1 through 5 and 7 through 13. Also, C corporations.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 5
Payments over $600 required to be reported and direct sales over $5,000 [1]	Generally, exempt payees 1 through 7 [2]

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney, and payments for services paid by a federal executive agency.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on page 2), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local Social Security Administration office or get this form online at *www.ssa.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: *A disregarded domestic entity that has a foreign owner must use the appropriate Form W-8.*

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, below, and items 4 and 5 on page 4 indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on the "Name" line must sign. Exempt payees, see *Exempt Payee* on page 3.

Signature requirements. Complete the certification as indicated in items 1 through 3, below, and items 4 and 5 on page 4.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account [1]
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor [2]
4. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee [1]
b. So-called trust account that is not a legal or valid trust under state law	The actual owner [1]
5. Sole proprietorship or disregarded entity owned by an individual	The owner [3]
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulation section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity [4]
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulation section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or "DBA" name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 1.

***Note.** Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, social security number (SSN), or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov.* You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: *spam@uce.gov* or contact them at *www.ftc.gov/idtheft* or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

AGREEMENT, SIGN, & DATE - DIGITAL SIGNATURES ARE NOT ACCEPTED AT THIS TIME

Ohio Shared Services
Service First
a division of OBM

AUTHORIZATION AGREEMENT FOR DIRECT DEPOSIT OF EFT PAYMENTS

All parts of the form must be completed by the vendor. Incomplete forms will be returned. The information must be legible. Ensure this is the latest version of the form at www.ohiosharedservices.ohio.gov.

SECTION 1

TYPE OF TRANSACTION: ☐ ADD ☐ CHANGE/UPDATE ☐ INACTIVATE

NAME OF COMPANY OR INDIVIDUAL

ADDRESS

CITY	STATE	ZIP

PHONE	EMAIL

FEDERAL EMPLOYER ID (EIN) OR SOCIAL SECURITY NUMBER (SSN)

CHECK ALL THAT APPLY

☐ RSC - PCA ☐ ODJFS PROVIDER (PROVIDER ID NUMBER REQUIRED)

☐ LOTTERY WINNER ☐ DODD PROVIDER (PROVIDER ID NUMBER REQUIRED)

☐ ALL OTHER: _____

SECTION 2 – NEW FINANCIAL INFORMATION

NEW FINANCIAL INSTITUTION NAME	PHONE

TYPE OF ACCOUNT ☐ CHECKING ☐ SAVINGS

NEW ACCOUNT NUMBER

NEW TRANSIT ROUTING/ABA NUMBER

SECTION 3 – OLD/PRIOR FINANCIAL INFORMATION - MUST BE PROVIDED TO CHANGE/UPDATE ACCOUNT

OLD/PRIOR FINANCIAL INSTITUTION NAME	PHONE

OLD/PRIOR ACCOUNT NUMBER

OLD TRANSIT ROUTING/ABA NUMBER

- Account changes must be reported to Ohio Shared Services thirty (**30**) **days prior to the effective date**.
- All EFT accounts are tied to an address in our system, a form is required for each address (if needed).

ATTENTION ODJFS PROVIDERS: It is the **provider's responsibility** to keep ODJFS **AND** Ohio Shared Services informed of any changes in order to receive important information regarding benefits and to remain qualified for payments. Information provided must match the information on file with Medicaid or your form will be returned. If you are uncertain, please contact Provider Enrollment at (800) 686-1516 or verify/ update the information in the MITS Medicaid Web Portal located at https://ssopro.mits.odjfs.state.oh.us/prosecure/authtam/login?HOSTNAME=ssopro.mits.odjfs.state.oh.us.

- **The entity listed hereby authorizes the Ohio Office of Budget and Management (OBM) to initiate credit entries to its account in the financial institution identified above. Additionally, this form provides OBM the authority to debit any erroneous credit or transfers to the account in the amount of the transfer.**
- **This authority is to remain in effect until revoked by us in writing to Ohio Shared Services, a division of OBM.**

☐ **I have attached a copy of a current voided check or included a bank letter.**

☐ **ODJFS PROVIDERS – I have ensured the Name, Address, TIN, & Provider Number matches the information in the MITS Medicaid Web Portal.**

☐ **Preferred method of being contacted: (check one)** **PHONE** ☐ **EMAIL** ☐

PRINT NAME	
SIGNATURE (DIGITAL SIGNATURE NOT ACCEPTED AT THIS TIME)	DATE

Attach a voided check here using tape or include a bank letter signed by a bank representative.

NOTE:

- The bank letter must include the Name on the Account, Routing Number, Account Number and Type of Account. This letter must be typed, not handwritten, on bank letterhead, and signed by a bank representative. Exceptions will be made for Prepaid Cards.
- All information on the current voided check must be imprinted; this includes the name, address, account and routing numbers. No information can be handwritten.
- We are unable to accept starter checks, deposit slips, or bank statements.
- The name and address on the form and the check/bank letter must match the information in our current vendor records &/or MITS.

Please note: **This record is subject to public records requests under the laws of the State of Ohio. If you are a business entity that provides a social security number in place of a Federal Tax ID number, you are waiving any expectation of privacy and this record may be subject to disclosure.**

SUBMIT FORM TO:	**QUESTIONS? PLEASE CONTACT:**
Mail: Ohio Shared Services Attn: Vendor Maintenance P.O. Box 182880 Cols., OH 43218-2880	**Phone:** 1 (877) OHIO - SS1 (1-877-644-6771) 1 (614) 338-4781
E-mail: vendor@ohio.gov	**Website:** www.ohiosharedservices.ohio.gov
Fax: 1 (614) 485-1052	**E-mail:** vendor@ohio.gov

INSTRUCTIONS FOR COMPLETING THE AUTHORIZATION AGREEMENT FOR DIRECT DEPOSIT OF EFT PAYMENTS

SECTION 1

- Place a check mark to indicate the type of transaction.
- Enter the complete name and address of the company or individual participating in the EFT program. Enter your phone number & email address. When your email address is provided, you will receive an automated email notification stating your banking information has been added or updated in our system.
- Enter your Employer Identification Number or your Social Security Number (required).
- Please enter your OAKS Vendor Id Number (if known).
- Check all that applies. If you are an ODJFS or DODD provider please check mark to indicate & add Provider Id Number or please specify, if you are a RSC-PCA, Lottery Winner, or All Other.

SECTION 2 (New Information)

- Please enter the new name and phone number of the financial institution authorized to conduct transactions, as it should be updated in our system**.**
- Please place a check mark to indicate the type of account to which funds are to be deposited.
- Enter the Account Number to which the EFT Transactions are to be deposited.
- Enter the financial institution's Transit Routing/ABA number in the spaces provided. This is a nine digit number that is shown on your check or bank letter.

SECTION 3 (Old/Prior Information) Required if a CHANGE/UPDATE

- Please enter the name and phone number of the previous financial institution authorized to conduct your transaction. This should be the last EFT account information that was submitted to the state and is currently in our system.
- Enter the OLD/Prior Account Number to which the EFT Transactions were deposited.
- Enter the OLD/Prior financial institution's Transit Routing/ABA number in the spaces provided.

SECTION 4

- Please read all of the information listed in Section 4. Read & check mark the boxes to verify you have acknowledged the information. Then print your name, sign your name, and provide the date.
- Please attach a current voided check or bank letter (required).

NOTE: The bank letter must be on bank letterhead and signed by a bank representative. It must include the name on the account, type of account, routing number, & account number. Exceptions will be made for Prepaid Cards.

AUTHORIZATION TO RELEASE TAX INFORMATION
OHIO DEPARTMENT OF DEVELOPMENT AND JOBSOHIO

I, _____, (printed name of taxpayer) hereby authorize the Ohio Department of Taxation and any of its agents and/or employees to release my tax records to the Ohio Department of Development ("Agency") and/or JobsOhio. I understand that these records may be used by the Agency and/or JobsOhio to ensure my taxpayer compliance with all tax laws and to verify the information reported to the Agency and/or JobsOhio for various purposes relating to evaluation of potential tax credits, grant awards, or loan issuances. Except as authorized by this waiver, the Agency and/or JobsOhio must maintain the confidentiality of the information received pursuant to O.R.C. 1347.15(H) with respect to this waiver.

I certify under penalties of perjury that I am the taxpayer identified below or an agent authorized to certify on its behalf.

Company Name:_____

Name and Title Of Authorized Agent (printed):_____

Signature Of Authorized Agent:_____

Date:_____

Company Address:_____
_____
_____

Company Telephone Number:_____

Social Security Number (if an individual): _____

Federal Employer Identification Number: _____

Ohio Charter Number: _____

Ohio Franchise Tax Identification Number: _____

Commercial Activity Tax Account Number: _____

Ohio Employer Withholding Account Number: _____

Ohio Vendor's License Number: _____

Ohio Consumer's Use Tax Account Number: _____

Ohio Direct Pay Permit Number: _____

If there are multiple Project Addresses, please list all of them.

EPA INFORMATION

COMPANY NAME: _____

PROJECT ADDRESS: _____

P.O. BOX: _____

CITY: _____

STATE: _____

ZIP: _____

County: _____

FTI #: _____

If there are multiple Project Addresses, please list all of them.

EPA INFORMATION

COMPANY NAME: _____

PROJECT ADDRESS: _____

P.O. BOX: _____

CITY: _____

STATE: _____

ZIP: _____

County: _____

FTI #: _____

OHIO COAL RESEARCH AND DEVELOPMENT GRANT AGREEMENT

Grantee:					Grant Control No.:		
Address:							
City:				State:		Zip:	
Contact:		Email:			Phone:		
Project City:			**Effective Date**:				
Project County:			**Project Completion Date**:				
Job Creation Goal and Investment							
Jobs to be Created:	**N/A**	Jobs to be Retained:	**N/A**	Funds Leveraged	$		

This Grant Agreement (the "Agreement") is made and entered into by and between the **State of Ohio, Development Services Agency**, ("**Grantor**") and **Grantee** to set forth the terms and conditions upon which Grantor will provide financial assistance to Grantee, and Grantee will use the financial assistance to undertake, the Ohio Coal Research and Development project further described in the Project Application Form (the "**Application**") submitted by Grantee to the Grantor (the "**Project**"). This Agreement includes Grantee's Application, which is not attached but is incorporated by this reference, and the "Scope of Work" attached hereto as Exhibit A.

1. Project Funding.

(a) State Grant. Grantor has determined that Grantee's Application and the activities included therein meets the requirements of a coal research and development project pursuant to Ohio Revised Code ("**ORC**") Chapter 1555. Grantor hereby grants to Grantee funds in the lesser of _____ and No/100 Dollars ($) or _____ percent (__%) of the total cost of the Project (the "**Grant Funds**") to be used for the sole and express purpose of undertaking and completing the Project. Grantee shall undertake and complete the Project substantially as described in Exhibit A. Grantee may not use the Grant Funds for any purpose other than completion of the Project.

(b) Availability of Other Funds. It is a condition to the award of Grant Funds that Grantee provides additional funds from other non-Grantor sources to pay Project costs in excess of the Grant Funds. Grantee represents and warrants to Grantor that Grantee has obtained such additional funds or that Grantee has a binding commitment for such additional funds and, with the exercise of reasonable diligence, will have obtained such additional funds no later than the time such funds will be required to pay Project costs as and when such costs are incurred and payable. No Grant Funds will be disbursed to reimburse Project costs unless and until Grantee documents to Grantor that the Project costs have been incurred and that related costs have been paid.

(c) Tax Consequences. Grantee acknowledges that the Grant Funds may be subject to taxation. Grantee is solely responsible for any taxes that may be assess on the Grant Funds by any taxing authority.

2. Payment of Grant Funds.

(a) Disbursement. Subject to the retainage outlined in Section 2(f), Grantor shall disburse the Grant Funds to Grantee on a reimbursement basis in proportion to the Cost Share ratio as provided in the Application. Grantee shall submit to Grantor, for review and approval, requests for reimbursement detailing expenditures which have then been incurred by Grantee in accordance with the Project budget

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included in Exhibit A, subject to the allowance provided in subsection (i) and (ii) below. Grantee shall submit reimbursement requests on forms provided by Grantor from time to time. Grantor shall be the sole judge of the adequacy of reimbursement requests. All expenses to be reimbursed with Grant Funds shall be supported by contracts, invoices, vouchers, paid receipts and other documentation as appropriate to evidence the costs incurred by Grantee to perform the work described in Exhibit A. Grantee shall submit to Grantor, such documentation necessary to substantiate a reimbursement request.

(i) Subject to paragraph (ii) below, Grantee shall have discretion to reallocate an amount not greater than ten percent (10%) of the Grant Funds, in the aggregate, among budget line items otherwise funded in whole or in part with Grant Funds, and any such reallocation shall be considered by Grantor to be consistent with the Project budget. In the event Grantee makes a budget alteration as permitted by this paragraph, Grantee shall submit with its request for reimbursement a revised Project budget reflecting the alteration. Any changes to the Project budget beyond the scope of this paragraph, including, without limitation, alterations that add budget line items or total, cumulatively with prior alterations, more than ten percent (10%) of the Grant Funds may be effected only by amendment of this Agreement as provided in Section 16 (e).

(ii) If actual allowable indirect costs are less than those budgeted and funded under this Agreement, Grantee may use the difference to pay additional allowable direct costs incurred prior to the Project Completion Date. If at the completion of the Project the Grantee's share of total allowable costs (*i.e.*, direct and indirect), is less than the total costs reimbursed, Grantee must refund the difference. Grantee is expected to manage its indirect costs. Grantor will not amend an award to Grantee solely to provide additional funds for changes in indirect cost rates. Grantor recognizes that the inability to obtain full reimbursement for indirect costs means Grantee must absorb any underrecovery. Such underrecovery may be allocated as part of Grantee's required cost sharing, if any.

(b) Permissible Expenses. Reimbursement of travel expenses is limited to certain transportation and lodging expenses. If "travel expenses," as defined in Ohio Administrative Code Section 126-1-02, are a cost of the Project eligible for reimbursement with Grant Funds, Grantee shall be reimbursed for those permissible travel expenses in amounts in accordance with the Ohio Administrative Code Section 126-1-02, as updated from time to time (the "Expense Rule") and Grantee agrees that it shall not be reimbursed and Grantor shall not pay any items that are deemed to be "non-reimbursable travel expenses" under the Expense Rule, whether purchased by the Grantee or Grantor or their respective employees or agents. Unless expressly authorized under Exhibit A, any travel expenses will not be costs eligible for reimbursement with Grant Funds subject to this Section (2)(a). Invoices. Grantee must submit quarterly invoices to Grantor. Grantor shall disburse Grant Funds, in accordance with Section 2(a) of this Agreement, to Grantee contingent upon the following conditions:

(i) Grantee will invoice Grantor by fully completing and submitting to Grantor the Request for Payment, which is attached hereto as Exhibit B. Each invoice must include documentation of expenditures which total the amount requested by the invoice. Each invoice will also set forth Grantee's cost share expended to date and must have documentation verifying Grantee's cost.

(ii) Grantee shall also generate and attach the Form B-1 to the invoice and a Request for Payment. This is the Grantee's estimated vs. Actual Grantor Quarterly Cash Draw. It is included in Exhibit B. Form B-1 must show in graph form, annotated with numbers, the estimated quarterly cash draw from the Grantor projected over the life of the project and the actual cash draw through the date of the current invoice. Grantor requires this in order to have sufficient

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cash on hand to support its full census of projects and so that the State can better manage its overall bond debt.

(iii) With the first Request for Payment, Grantee must also include the signed addendum attached hereto in Exhibit D and the signed Royalty/Payment Agreement attached hereto in Exhibit C for each subcontractor involved in the Project as required in Section 5(d) of this Agreement.

(iv) Grantee must timely file all required reported prior to the approval and payment of an invoice. Failure to submit timely reports may result in the withholding of Grant Funds and subject to penalty under Section 8 (j) of this Agreement.

(c) Final Payment. A final payment in the amount of _____ and No/100 Dollars ($___.00), representing ten (10) percent of the total amount of this grant, will be contingent upon approval by Grantor of an acceptable Final Report and all other Project Work Tasks and Deliverables set forth in Application as performed or submitted by Grantee.

3. Grant Funds Not Expended. If the Grant Funds are not expended by Grantee in accordance with the terms and conditions of this Agreement or within the time period set forth in this Agreement, the award of the Grant Funds shall cease and Grantor shall have no further obligation to disburse the Grant Funds. Grantor shall also have no obligation to disburse any amount of the Grant Funds that exceeds the eligible costs of the Project actually incurred by Grantee. If Grant Funds have been paid to Grantee and Grantor determines that Grantee has not performed in accordance with the terms and conditions of this Agreement, Grantee shall return such improperly expended Grant Funds within thirty (30) days after demand by Grantor. In the event that Grantee does not submit any requests for reimbursement by the Grant Expiration Date (as such date may be extended as provided in Section 4) and/or the Project is affirmatively abandoned by Grantee, this Agreement shall be null and void without any further action by the parties and neither party shall have any obligation under this Agreement.

4. Agreement Deadlines and Term.

(a) Project Completion. Grantee shall complete the Project not later than the Project Completion Date set forth on the first page of this Agreement. If Grantee anticipates that the Project will not be completed by the Project Completion Date, Grantee must request an extension of time to complete the Project at least sixty (60) days before the scheduled Project Completion Date. It will be within the sole discretion of Grantor to grant or deny such extension of time.

(b) Term of Agreement. This Agreement shall be in effect from the Effective Date set forth on the first page of this Agreement through the first quarterly reporting date which is at least one (1) year after the Project Completion Date (the "**Expiration Date**"), unless it is terminated earlier as provided in Section 12 (collectively, the "**Term**"). Grantee acknowledges that the Term may extend beyond the Expiration Date for purposes of reporting by Grantee and monitoring by Grantor of the results of the award of Grant Funds if a royalty agreement is in place that extends beyond this timeframe, and that Grantee's obligation to file any delinquent reports survive the expiration or earlier termination of this Agreement.

5. Project Performance.

(a) Basis for Grant Award. Grantor has approved an award of financial assistance to Grantee to induce Grantee to undertake and complete the Project with the goal of discovery of new technologies, equipment, processes or the demonstration or application of existing technologies, equipment or processes

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to enable the conversion or use of Ohio coal as a fuel or chemical feedstock in an environmentally acceptable manner thereby enhancing the marketability and fostering the use of Ohio's vast reserves of coal; to assist in the financing of coal research and development and coal research and development projects or facilities for persons doing business in Ohio and educational and scientific institutions located in Ohio; to create or preserve jobs an employment opportunities or improve the economic welfare of the people of Ohio; or to assist and cooperate with such persons and educational and scientific institutions in conducting coal research and development to achieve the objectives of the Ohio Coal Development Office (OCDO). Accordingly, Grantee's performance obligations under this section are essential terms of this Agreement.

(b) Maintenance and Safekeeping. Grantee shall provide for the security and safekeeping of all items obtained through this grant, and shall insure that the facility or project be maintained and kept in good condition and repair and in accordance with Ohio law and local ordinances where applicable.

(c) Royalty. Subject to Grantor's satisfaction that the agreement and payments referred to in this Section, will not cause the interest on the Coal Research and Development Bonds to become subject to federal income taxation, Grantor shall require Grantee to pay a reasonable royalty or portion of the income or profits arising out of the developments, discoveries, inventions, or improvements, including patents or copyrights which result in whole or in part from coal research and development projects conducted under this Agreement as authorized under ORC 1555.03(D). Alternatively, the Grantee may buy out this royalty obligation by reimbursing to the Grantor a sum three times the Grant Agreement amount as set forth in Section 1(a) above. Any such royalties or payments will be pursuant to the "Royalty/Payment Agreement" between Grantor and Grantee, which is attached hereto as Exhibit C.

(d) Subcontractors. At Grantee's election, Grantee may subcontract portions of work or activities under the Agreement. However, Grantee shall provide copies of any executed subcontracts of Grantee which pertain to this Project. All subcontracts of Grantee shall be bound by the terms of this Agreement and the Grantee shall cause the terms of this Agreement to be incorporated by reference into all subcontracts. All Subcontractors under this Agreement are required to sign the Grant Agreement Addendum attached hereto as Exhibit D and a "Royalty/Payment Agreement" attached hereto as Exhibit C. In any event, Grantee will be solely responsible for performance of work and activities set forth herein.

(e) Ohio Coal Provision. Grantor's funds shall be used to test only Ohio coal and the products remaining from their use or to otherwise advantage Ohio coal. Any testing on non-Ohio coal for comparison purposes may be done with the project cost share funds.

6. Technology and Job Creation Goal.

(a) Technology or Materials. If the award of Grant Funds is based on a commitment to use innovative technology or materials, Grantee shall use the technology or materials described in the Application.

(b) Commercialization. Grantee must use its best efforts to commercialize and market its clean coal technology systems or process to increase the environmentally sound, cost-effective use of Ohio coals. Grantee may use an affiliate to meet this obligation. The technology, system or process shall be deemed to be commercially viable upon the installation, or manufacture and sale, lease or licensing by Grantee, its successors, assignees, lessees, or licensees, anywhere in the world, of a system or process, or generation of any revenue, which is substantially based upon information developed in the course of the work performed under this Agreement.

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(c) Energy Performance. If the award of Grant Funds is based on a commitment, to yield the energy benefits, the Grantee shall achieve the energy benefits described in the Application. Grantee shall report information necessary for Grantor to evaluate the Project against the Energy Commitment during Measurement Period. Failure of the Project to achieve the Energy Commitment shall not be a breach of this Agreement provided that the Project is completed in accordance with the Application.

(d) Job Creation Goal. While the primary focus of the award is the discovery of new technologies, equipment, processes or the demonstration or application of existing technologies, equipment or processes to enable the conversion or use of Ohio coal as a fuel or chemical feedstock in an environmentally acceptable manner thereby enhancing the marketability and fostering the use of Ohio's vast reserves of coal, as described in the Application, one of the secondary goals is the creation of jobs as a result of the award. Grantees are required to report any job creation or retention in their final project report.

(e) Notice of Change. If Grantee intends to sell or otherwise transfer its interests in the Project, or sell or transfer any equipment for which the purchase price was reimbursed in whole or in part with Grant Funds prior to the Expiration Date, Grantee shall give Grantor written notice of such intended action at least five (5) business days prior to implementation unless Grantee is expressly prohibited by applicable law from giving such notice. If prior notice is prohibited by law, Grantee shall notify Grantor in the most expeditious manner possible at the time such intended actions are implemented. Vacancies created by resignation or other termination of employment of individual employees shall not require notice under this Section 6 (e) if Grantee anticipates filling such vacancies within a reasonable time and in the ordinary course of its business.

(f) Remedy. If Grantee fails to satisfy its obligations under this Section 6 during the Term, Grantor may require Grantee to pay to Grantor, as liquidated damages for such breach, an amount equal to the amount of the Grant Funds disbursed to Grantee under this Agreement. Grantor may, based on Grantor's assessment of market conditions and such mitigating factors regarding Grantee and its operation of the Project as Grantor deems relevant, waive all or a portion of the liquidated damages amount. Grantee shall pay any damages claimed within thirty (30) days after written demand by Grantor. If Grantee fails to undertake the Project in accordance with paragraph (b) of this Section 12, Grantor may reduce or cancel the award as Grantor determines appropriate considering the nature and extent of deviations from the Application.

7. Non-Discrimination.

(a) Minority Hiring Goal. Grantee shall make a good faith effort to employ minority persons in the completion of the Project in the same percentage as the average percentage of minority persons who reside in the county in which the Project is located and any contiguous Ohio counties.

(b) Equal Employment Opportunity. Grantee shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, disability, age, military status or ancestry. Grantee shall ensure that applicants for employment are considered for employment, and that employees are treated during employment, without regard to their race, religion, color, sex, national origin, disability, age, military status or ancestry. Grantee will incorporate the requirements of this paragraph in all of its contracts for any of the work undertaken on the Project (other than subcontracts for standard commercial supplies or raw materials), and Grantee will require all of its contractors for any part of such work to incorporate such requirements in all subcontracts for such work.

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8. Reporting.

(a) Quarterly Status Reports. Quarterly Status Reports must be submitted by Grantee to Grantor no later than five calendar days after each calendar quarter. Quarterly Status Reports must be prepared pursuant to Grantor's **"**Status Report Format**,"** which is attached hereto as Exhibit E. Quarterly Status Reports must be accompanied by color photographs of the project, as appropriate. Whenever a Milestone Report, described below, and a Quarterly Status Report are due during the same Quarterly, the Milestone Report may supplant the Quarterly Status Report.

(b) Job Performance Reports. If Grantee has committed to create and/or retain jobs in connection with this Agreement, Grantee shall submit to Grantor an Annual Employment Verification Report in the format required by Grantor from time to time (the "**Annual Report**"). Each Annual Report shall provide information for the applicable reporting period detailing the progress of the Project, the number of employees first hired by Grantee at the Project site on or after the Effective Date and the number of employees first employed by Grantee prior to the Effective Date and retained by Grantee at the Project site on or after the Effective Date. Annual Reports shall be submitted by Grantee for each year (or part of a year) during which this Agreement is in effect, and each Annual Report shall be received by Grantor no later than March 1 following the year covered by such Annual Report. In addition, Grantee shall provide to Grantor such additional information and reports as Grantor may reasonably from time to time require to evaluate Grantee's performance and the effectiveness of the award.

(c) Project Completion. Grantee shall notify Grantor promptly in writing when the Project is completed. Thereafter, Grantor shall review the completed Project. Notice of Project completion and Grantor review shall be conditions to disbursement of the Grant Funds. Grantee must submit to Grantor a comprehensive draft of the Final Project Report no less than sixty (60) days prior to the Project Completion Date. The Final Report shall be prepared pursuant to Grantor's "Final Report Format Guidelines" which are attached hereto as Exhibit F. Upon review, Grantor may accept the draft as submitted or may return comments to the Grantee within thirty (30) days in order to correct any errors, modify the report for greater clarification, or provide greater description of the project and its results. Should the Final Report need modification, supplementation ore further explanation after Grantor has reviewed it, Grantee must modify, correct, supplement, or explain such questioned portions of the Final Report and submit it to the Grantor prior to the Project Completion Date. Grantee shall submit to Grantor copies of the comprehensive Final Report as follows: two bound copies, one loose-lead single sided copy; one copy on CD in Adobe, portable document format (pdf).

(d) Alternative Funding Sources. The Grantee is encouraged to explore existing, planned, or possible relationships with other research and development programs, including those sponsored by the State of Ohio and listed in Exhibit G, attached hereto and titled "Ohio Research & Development Alignment Programs." If any additional funding may be obtained from any of these programs, the Grantee is encouraged pursue funding, technical and/or other assistance from these programs. The Grantee must review these programs and determine whether or not the Grantee is eligible for additional assistance from any of these programs. If any additional assistance is pursued or received, Grantee will inform Grantor in writing of such assistance through its Quarterly Status Reports to the Grantor. If such assistance is not pursued, the Grantee shall explain through its Quarterly Status Report to the Grantor why such available funding sources were not sought.

(e) Annual Project Abstract. Upon execution of this Agreement and each succeeding December 31 under this Agreement, Grantee will complete a brief Annual Project Abstract of the Project for inclusion on Grantor's internet web page for general public distribution. The Annual Project Abstract shall be prepared in the manner displayed in the Annual Project Abstract Format, which is attached hereto as Exhibit H. It is expressly understood that the Annual Project Abstract will not replace or supplant any

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other required report. In the event Grantee sells, assigns, leaves or otherwise transfers the rights to the technology or process resulting from the Project to a third party, Grantee will be responsible for insuring that this reporting requirement becomes a part of the subsequent agreement between Grantee and the third party.

(f) Project Employment Data Sheet. Grantee shall complete the Project Employment Data Sheet, which is attached hereto as Exhibit I upon the execution of this Agreement and include in the Final Project Report.

(g) Project Meetings. Grantee shall provide Grantor reasonable advance notice of any Project review or Project management meetings and permit Grantor's participation by attendance or conference call when possible. To the extent possible, Grantee shall schedule such meetings in Ohio.

(h) Signature and Costs. Grantee (if Grantee is an individual) or the chief executive officer, chief financial officer, or other officer of Grantee authorized to sign tax returns on behalf of Grantee (if Grantee is an entity) shall certify by his or her signature of each report required by this Section 8 that the information reported by Grantee is true, complete and correct.

(i) Remedy. Quarterly Status Reports and Annual Project Abstracts are essential for Grantor's effective administration of this grant and its financial incentive programs, generally. If Grantee fails to submit any required report and such breach continues uncured for more than thirty (30) days, Grantor may recover, and Grantee shall pay, as liquidated damages for the breach, an amount equal to $500 for each month or part of a month that the report is past due.

9. Records Maintenance and Access.

(a) Maintenance of Records. Grantee shall establish and maintain for at least three (3) years after the Expiration Date or any earlier termination date its records regarding this Agreement, the Grant Funds and the Project, including, but not limited to, financial reports, job creation and retention statistics, and all other information pertaining to Grantee's performance of its obligations under this Agreement. If any audit, dispute or litigation is then pending, however, Grantee shall maintain such records as may be relevant to such matter until it is finally resolved.

(b) Inspection and Copying. At any time during normal business hours and upon not less than twenty-four (24) hours prior written notice, Grantee shall make available to Grantor, its agents or other appropriate State agencies or officials all books and records regarding this Agreement, the Grant Funds and the Project which are in the possession or control of Grantee, including, but not limited to, records evidencing employment at the Project site. Grantor, its agents and other appropriate State agencies and officials may review, audit and make copies of such books and records, and any such inspection of books and records will be undertaken in such a manner as not to interfere unreasonably with the normal business operations of Grantee. Grantee shall, at its own cost and expense, segregate records to be made available for inspection pursuant to this Section 9(b) from Grantee's other records of operation.

(c) Accounting Format. All moneys paid to Grantee under the terms of this Agreement and any interest earned by Grantee thereon must be deposited in a separate account upon the books and records of Grantee. Grantee must keep all records in a manner that is consistent with generally accepted accounting principles. The documentation in support of each action in the accounting records shall be filed in such a manner that it can be made readily available. All disbursements from the account established pursuant to this section 9(c) shall be for obligations incurred in the performance of this Agreement after the Project Starting Date, and shall be supported by contracts, invoices, vouchers, and other data, as appropriate,

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evidencing such disbursements. Grantor will review and consider accepting federal audits in lieu of requiring a state audit where applicable.

10 Publicity.

(a) Use of Name. Neither Party may use the name of the other in any form of advertising or promotion or otherwise without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed. All press statements and other publicity proposed to be given by one party mentioning the other or referring to this Agreement or any materials, ideas or performance data developed under this Agreement shall be first reviewed by the other party before release. Such materials will be provided, reviews performed and comments made in a timely manner.

(b) Acknowledgements. All written materials, including all reports, papers, published articles, promotional pieces, newsletters, press releases and other printed materials referencing this project and its work shall credit Grantor's participation in the project by name as "Ohio Development Service Agency."

(c) Technical Forums. For all projects, Grantee agrees to make presentations in various technical forums sponsored by the Grantor or similar entities, such as federal agencies or credible conference organizers. For those larger projects involving construction of a significant apparatus, Grantee and Grantor shall conduct a technology transfer open house to help promote the awareness and adoption of the technology, unless it is mutually determined that such an open house will not meet the intended goal.

11. Adherence to State and Federal Laws and Regulations.

(a) General. Grantee shall comply with all applicable federal, state, and local laws in the performance of Grantee's obligations under this Agreement, the completion of the Project and the operation of the Project as long as Grantee has any obligation to Grantor under this Agreement. Without limiting the generality of such obligation, Grantee shall pay or cause to be paid all unemployment compensation, insurance premiums, workers' compensation premiums, income tax withholding, social security withhold, and any and all other taxes or payroll deductions required for all employees engaged by Grantee in connection with the Project, and Grantee shall comply with all applicable environmental, zoning, planning and building laws and regulations.

(b) Ethics. In accordance with Executive Order 2011-03K, Grantee, by its signature on this document, certifies: (1) it has reviewed and understands Executive Order 2011-03K, (2) has reviewed and understands the Ohio ethics and conflict of interest laws including, without limitation, Ohio Revised Code §§ 102.01 *et seq*., §§ 2921.01, 2921.42, 2921.421 and 2921.43, and §§ 3517.13(I) and (J), and (3) will take no action inconsistent with those laws and the order, as any of them may be amended or supplemented from time to time. Grantee understands that failure to comply with the Ohio ethics and conflict of interest laws, is in itself, grounds for termination of this Agreement and the grant funds made pursuant to this Agreement and may result in the loss of other contracts or grants with the State of Ohio.

(c) Conflict of Interest. No personnel of Grantee, contractor of Grantee or personnel of any such contractor, and no public official who exercises any functions or responsibilities in connection with the review or approval of any work completed under this Agreement, shall, prior to the completion of such work, voluntarily or involuntarily acquire any personal interest, direct or indirect, which is incompatible or in conflict with the discharge or fulfillment of his or her functions or responsibilities with respect to the completion of the work contemplated under this Agreement. Grantee shall immediately disclose in writing to Grantor any such person who prior to or after execution of this Agreement, acquires any personal interest involuntarily or voluntarily. Grantee shall cause any such person who, prior to or after

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the execution of this Agreement, acquires any personal interest, involuntarily or voluntarily, shall immediately disclose his interest to Grantor in writing. Thereafter, such person shall not participate in any action affecting the work under this Agreement unless Grantor determines that, in light of the personal interest disclosed, his or her participation in any such action would not be contrary to the public interest.

(d) Outstanding Liabilities. Grantee represents and warrants to Grantor that Grantee does not owe: (1) any delinquent taxes to the State of Ohio or a political subdivision of the State of Ohio; (2) any moneys to the State of Ohio or a state agency for the administration or enforcement of any environmental laws of the State of Ohio; and (3) any other moneys to the State of Ohio, a state agency or a political subdivision of the State of Ohio that are past due, whether or not the amounts owed are being contested in a court of law.

(e) Falsification of Information. Grantee represents and warrants to Grantor that Grantee has made no false statements to Grantor or any of its employees or agents in the process of obtaining the award of Grant Funds. Grantee acknowledges that any person who knowingly makes a false statement to obtain an award of financial assistance may be required under Ohio Revised Code § 9.66(C) to repay such financial assistance and shall ineligible for any future economic development assistance from the State of Ohio, any state agency or a political subdivision. In addition, any person who provides a false statement to secure economic development assistance may be guilty of falsification, a misdemeanor of the first degree, pursuant to Ohio Revised Code § 2921.13(F)(1).

(f) Declaration Regarding Material Assistance/Non-assistance to a Terrorist Organization. If applicable, Grantee must certify compliance with Ohio Revised Code § 2909.33.

(g) Prevailing Wage. [Reserved, but not applicable to this Agreement.]

(h) Public Records. Grantee acknowledges that this Agreement and other records in the possession or control of Grantee regarding the Project are public records under Ohio Revised Code § 149.43 and are open to public inspection unless a legal exemption applies. Grantee's non-public financial information provided in connection with the application for and award of Grant Funds made pursuant to this Agreement is exempt from disclosure under a specific exception to the public records law set forth in Section 4928.62(D) of the Ohio Revised Code. Grantee's non-public trade secrets or other proprietary information provided in connection with the application for and award of Grant Funds made pursuant to this Agreement is exempt from disclosure under a specific exception to the public records law set forth in Section 1551.35 and 1555.17 of the Ohio Revised Code. The parties acknowledge that it is Grantee's sole responsibility to conspicuously mark those passages, diagrams, formulas, and other intellectual property, that it deems to be trade secret as defined in ORC Section 1333.61 on any and all materials it submits to Grantor.

12. Default and Remedies.

(a) Default. Grantee shall be in default of this Agreement if Grantee fails to perform any of its obligations under this Agreement and such failure to perform continues uncured for more than thirty (30) days after written notice (a "Default Notice") from Grantor. During the thirty-day cure period, Grantee shall incur only those obligations or expenditures pre-approved by Grantor that are necessary to enable Grantee to continue its operations and achieve compliance with the terms and conditions of this Agreement. Grantee shall also be in default of this Agreement if Grantee is in default of any other agreement between Grantor and/or the Director of Grantor and Grantee and such default continues beyond any applicable period of cure or grace.

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(b) Remedies. Following a default by Grantee, Grantor may exercise one or more of the following remedies:

(i) Discontinue Disbursements. If the Grant Funds have not been fully disbursed, Grantor may terminate any and all of Grantor's obligations under this Agreement, including the obligation to make further disbursements of Grant Funds.

(ii) Demand Repayment of Grant Funds or Liquidated Damages. Under the circumstances described in Section 3 of this Agreement, demand repayment of Grant Funds improperly expended and under the circumstances described in Sections 6, 8 and 11 of this Agreement, demand liquidated damages as provided in Sections 6(f), 8(j), respectively. Grantee shall not be required to refund Grant Funds or pay liquidated damages in an amount that exceeds the Grant Funds awarded.

(iii) Other Legal Remedies. Pursue any other legal or equitable remedies Grantor may have under this Agreement or applicable law.

(c) Property Ownership. All items purchased by Grantee are and will remain the property of Grantee, except in the event that Grantee does not faithfully perform all the terms and conditions of this Agreement. In the event Grantee does not faithfully perform all the terms and conditions of this Agreement, Grantee will reimburse Grantor a sum of money in the same proportion as Grantor's actual cost-share in the project, computed on the value of the items kept by Grantee, or, if such items are disposed of, the sum of money due to Grantor shall be computed on the basis of revenues derived from the disposition of any items (such as but not limited to property and equipment) acquired after the Project Start Date.

(d) Remedies Cumulative. No remedy provided to Grantor under this agreement or otherwise by law or in equity is exclusive of any other available remedy. No delay or omission by Grantor in exercising any right or power accruing upon any default shall impair any such right or power or be construed as a waiver, and each such right or power may be exercised from time to time as often as may be deemed by Grantor to be expedient.

(e) Early Termination. Grantor may also terminate this Agreement if Grantee (i) defaults under another Agreement between the Grantor and/or the Tax Credit Authority and Grantee, (ii) admits Grantee's inability to pay its debts as such debts become due, (iii) Grantee commences a voluntary bankruptcy, (iv) an involuntary bankruptcy action occurs against Grantee which remains undismissed or unstayed for sixty (60) days, (v) Grantee fails to meet the minimum funding requirements under the Employee Retirement Income Security Act or other such employee benefits plan, or (vi) Grantor has reason to believe Grantee has ceased operations associated with the Project. The events permitting early termination by Grantor shall be considered a default by Grantee and subject to the remedies available under paragraph (b) of this Section 12.

(f) Effects of Termination. Within sixty (60) days after termination of this Agreement following any default, Grantee shall provide Grantor with a final report setting forth the total expenditure of the Grant Funds by Grantee and the status of the Project at the time of termination. The final report shall be signed and certified in the same manner as the reports required by Section 8 of this Agreement. This reporting obligation shall survive the termination of the Agreement.

(g) Proportional Reduction. Upon determination by Grantor that Grantee has failed to comply with the investment and cost share requirements set forth in the Application, Grantor may proportionally reduce the amount of grant funds due Grantee and require a refund of the amount of Grant Funds which exceed the proportion attributable to the level of performance achieved.

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(h) Grantor's Expenses. Grantee shall reimburse Grantor for all expenses, including, without limitation, reasonable attorneys' fees, in connection with the enforcement of this Agreement.

13. Indemnification.

Grantee shall indemnify and hold harmless Grantor, the State of Ohio and their officials, employees and agents from any and all liability, loss, claim, damage, cost and expense arising from or related to this Agreement, including, without limitation, any failure of any representation or warranty of Grantee to be correct in all respects and any performance or non-performance by Grantee, its directors, officers, employees, agents or affiliates of any obligations or activities under this Agreement or in furtherance of the Project. Grantee shall bear all costs associated with the defense of Grantor, the State of Ohio and their officials, employees and agents against any claim for which Grantee may be liable under this Section 13.

14. Certification of Funds.

None of the rights, duties and obligations of the parties under this Agreement shall be binding on either party until all statutory provisions of the Ohio Revised Code including, without limitation, Section 126.07, have been complied with, and until such time as all funds have been made available and are forthcoming from the appropriate state agencies.

15. Notice.

Grantee must designate a Project Manager, who must be an employee of Grantee or an employee of its affiliate, and who will oversee the conduct of the Project activities at Grantee's offices or the Project site, and will be the primary person responsible for reporting in a timely manner to Grantor. At Grantee's election, Grantee may also designate an Administration Manager, who will be an employee of Grantee, and who will oversee administrative matters such as invoicing. The Grantor shall also designate a Project Manager and a Fiscal Manager, who shall be the persons to whom the Grantee's Project Manager submits reports and shall be responsible for monitoring the Project's progress. Any notice or report required or permitted to be given under this Agreement shall be deemed to have been sufficiently given for all purposes if mailed by first class certified or registered mail or sent by commercial delivery to the following addresses of the parties or to such other address as either party may hereafter furnish by written notice to the other party.

If to Grantor:

Ohio Development Services Agency
77 South High Street, 26th Floor
P.O. Box 1001
Columbus, Ohio 43216-1001
ATTN: Office of Energy

With a copy to the Chief Legal Counsel of the Ohio Development Services Agency

If to Grantee:

To the attention of the Grantee at the address identified on the first page of this Agreement.

16. Miscellaneous.

(a) Governing Law. This Agreement shall be governed by the laws of the State of Ohio as to all matters including, but not limited to, its validity, construction, effect and performance.

(b) Forum and Venue. Grantee irrevocably submits to the non-exclusive jurisdiction of any federal or state court sitting in Columbus, Ohio, in any action or proceeding arising out of or related to this

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Agreement, Grantee agrees that all claims in respect of such action or proceeding may be heard and determined in any such court, and Grantee irrevocably waives any objection it may now or hereafter have as to the venue of any such action or proceeding brought in such court or that such court is an inconvenient forum. Nothing in this Agreement shall limit the right of Grantor to bring any action or proceedings against Grantee in the courts of any other jurisdiction. Any actions or proceedings by Grantee against Grantor or the State of Ohio involving, directly or indirectly, any matter in any way arising out of or related to this Agreement shall be brought only in a court in Columbus, Ohio.

(c) Entire Agreement. This Agreement, including its exhibits and documents incorporated into it by reference, constitutes the entire agreement and understanding of the parties with respect to its subject matter. Any prior written or verbal agreement, understanding or representation between the parties or any of their respective officers, agents, or employees is superseded and no such prior agreement, understanding or representation shall be deemed to affect or modify any of the terms or conditions of this Agreement.

(d) Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions of this Agreement.

(e) Amendments. Subject to the permitted budget revisions under Section 2(a) of this Agreement, this Agreement may not be amended or modified except upon such terms as both parties may agree in a writing executed by authorized representatives of each party.

(f) Forbearance Not a Waiver. No act of forbearance or failure to insist on the prompt performance by Grantee of its obligations under this Agreement, either express or implied, shall be construed as a waiver by Grantor of any of its rights under this Agreement or applicable law.

(g) Ohio Based Services. Grantee agrees that, using its best efforts to the fullest extent possible, it will procure and use Ohio-based services, equipment and supplies and will report on same in its Quarterly Status Reports.

(h) Pronouns. The use of any gender pronoun shall be deemed to include the other gender, and the use of any singular noun or verb shall be deemed to include the plural, and vice versa, whenever the context so requires.

(i) Headings. Section headings contained in this Agreement are inserted for convenience only and shall not be used in construing this Agreement.

(j) Assignment. Neither this Agreement nor any rights, duties, or obligations of Grantee pursuant to this Agreement shall be assigned by Grantee without the prior express written consent of Grantor, which shall not be unreasonably withheld. Any purported assignment not made in accordance with this paragraph shall be void.

(k) Liability. Nothing stated in this Agreement shall be construed to create a joint venture, partnership, or agency as between the parties hereto; nor constitute a commitment or guarantee on the part of either party to discharge, assume or bear any responsibility, guarantee or liability for acts or omissions of any other person or entity, except where expressly set forth under the Ohio Revised Code or Federal Law; nor its officers, employees or agents of any party hereto. Neither is any party hereto authorized to

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transact any business or undertake any agreement, contract, representation or warranty in the name of or on behalf of the other.

(l) Binding Effect. Each and all of the terms and conditions of this Agreement shall extend to and bind and inure to the benefit of Grantee, its successors and permitted assigns.

(m) Survival. Any provision of this Agreement which, by its nature, is intended to survive the expiration or other termination of this Agreement, including, without limitation, any indemnification obligation, shall so survive and shall benefit the parties and their respective successors and permitted assigns.

(n) Grantor's Authorized Representative. Grantor's Authorized Representative shall be the Director of the Ohio Development Services Agency (the "Director"), or such individual authorized by the Director in writing.

Signature: Each of the parties has caused this Grant Agreement to be executed by its authorized representatives as of the dates set forth below their respective signatures effective as of the Effective Date:

Grantee:	**Grantor:**
	State of Ohio **Development Services Agency**
	Christiane Schmenk Director Ohio Development Services Agency
By:_____	By:_____
Printed Name:_____	Printed Name: _____
Title:_____	Title: _____
Date:_____	Date:_____

Attachments:

Exhibit A:	Scope of Work, Milestone Plan/Gantt Chart, Budget
Exhibit B:	Request of Payment, Form B-1
Exhibit C:	Royalty Payment/Agreement
Exhibit D:	Addendum to the Ohio Coal Research and Development Grant Agreement
Exhibit E:	Project Quarterly Status Report Format
Exhibit F:	Final Report Format
Exhibit G:	Ohio Research and Development Alignment Programs
Exhibit H:	Project Employment Data

EXHIBIT A

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1. <u>Scope of Work</u>
Provide a detailed scope of work for the project.

2. <u>Milestone Plan/Gantt Chart</u>
Provide a milestone plan/Gantt chart that incorporates all reporting deliverables as well as the work activities of the project. Present timeline starting with "Month 1, Month 2," etc. Do not list calendar months. A milestone narrative of the plan shall also include the following information:

A. A **detailed description of each of the tasks** to be performed during the phase. The task descriptions shall be accompanied by documentation, as appropriate, of equipment or material needs, test procedures, analytical procedures, evaluation parameters, design specifications, etc;

B. A **statement of the timeline for each of the tasks;**

C. A concise but thorough **description of the objective** to be met by the proposed work in the phase and expected outcomes;

D. List expected decisions that will be needed from Grantor – based upon the accomplishments completed in this phase. Present arguments for and against continuation of the project; and

E. Where applicable, a brief description and discussion of how and why there is a need for revision of the Scope of Work to be accomplished in the remaining phases of the project.

3. <u>Budget</u>
Include both Grantor funds and cost share funds, displayed as discrete contributions to the Project listed by budget category.

NOTE: This page is meant as a checklist/tool for individuals preparing these materials that will comprise <u>Exhibit A</u>. It is not and will not become a part of the Grant Agreement

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EXHIBIT B TO GRANT AGREEMENT

Request For Payment

Grantee Name: _____ **Request Number:** _____
Grant Number: _____ **Request Date:** _____
Grantee Contact: _____ **Grant Start Date:** _____
Title: _____ **Grant End Date:** _____
Phone Number: _____ **Final Request:** ☐ **(Is this your final request? If so, mark "X")**

A. Budget Categories	B. Grant Award	C. Previous Grant Expenditures From:_____ To: _____	D. Current Grant Expenditures From:_____ To: _____	E. Grant Balance	F. Non-Grantor Funds Expended	G. Total Project Cost
				$0.00		$0.00
				$0.00		$0.00
				$0.00		$0.00
				$0.00		$0.00
				$0.00		$0.00
				$0.00		$0.00
				$0.00		$0.00
				$0.00		$0.00
TOTAL:	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

***All Requests For Payment Must Include Supporting Documentation For All Expenditures**

FINANCIAL STATEMENT	
1. Total Grant Award:	$0.00
2. Previous Grant Expenditures:	$0.00
3. Current Grant Expenditures	$0.00
4. Grant Balance Remaining:	$0.00

GRANTEE CERTIFICATION:
I hereby certify that the above amounts are true and accurate to the best of my knowledge and that all expenditures are solely for the purpose set forth in the agreement.

Date: _____
Signature: _____
Name: _____
Title: _____

PLEASE RETURN TO:
Ohio Development Services Agency
Office of Energy
77 South High Street, 26th Floor
Columbus, Ohio 43215

FOR STATE USE ONLY

FISCAL APPROVAL
An encumbrance is hereby certified to merit payment in accordance with conditions of the Agreement.

Printed Name: _____
Signature: _____
Date: _____

MONITOR APPROVAL
Performance of Grantee to date is hereby certified to merit payment and all reports and supporting documentation have been submitted in accordance with conditions of the Agreement.

Printed Name: _____
Signature: _____
Date: _____

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Form B-1 Estimated vs. Actual OCDO Quarterly Cash Draw			
Request #	Invoice Quarter	Estimated Cost	Actual Cost
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
Total		$0.00	$0.00

Document the estimated monthly cash draw from the Grantor projected over the life of the project and the actual cash drawn through the date of the current invoice. Must show in graph form, annotated with numbers.

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EXHIBIT C

ROYALTY/PAYMENT AGREEMENT

This Royalty/Payment Agreement (the "Agreement") is entered between the State of Ohio, Development Services Agency ("Grantor"), 77 South High Street, 29th Floor, P.O. Box 1001, Columbus, Ohio 43216-1001 and _____("Company"), located at _____, telephone.

BACKGROUND INFORMATION

A. Grantor and the Company have entered into a Grant Agreement identified as Grant Agreement No. _____, entitled _____ ("Grant Agreement") which will provide or has provided support to the development of new Technologies, Equipment and/or Processes as defined below. This Royalty/Payment Agreement (Payment Agreement) is entered into as a result of the requirements set forth in Section 5(c) of the Grant Agreement.

B. This Royalty/Payment Agreement is subject to the Grantor's satisfaction that royalty or other payments to the Grantor will not cause the interest on the Coal Research and Development Bonds to become subject to federal income taxation.

C. In accordance with the terms of the Grant Agreement, the Company has agreed to make payments and/or to contract with its subcontractors to make payments as agreed upon and set forth in this Payment Agreement in the event that the Company and/or any of its Subcontractors to the Grant Agreement commercialize or otherwise generate revenue from the Demonstration Technology, Equipment and/or Process which were developed as the result of the assistance provided by Grantor during the term of the Grant Agreement.

D. It is understood by the parties that the Company will execute a similar Payment Agreement with any subcontractor or subcontractors to the Grant Agreement and such royalties/payments that are derived from the subcontractors shall be paid directly to the Grantor. Further, where appropriate, the term "Company" shall also apply to subcontractors under the Grant Agreement and this Agreement.

E. The parties to this Agreement desire to set forth the terms of all royalties and payments in this Agreement.

STATEMENT OF THE AGREEMENT

In consideration of the covenants herein set forth, the parties hereby agree as follows:

1. Definitions. For the purposes of this Payment Agreement, the following terms shall have the prescribed meanings:

Demonstration Technology, Equipment, and/or Process: Each and every new technology, equipment, invention, process and/or unique modification/alteration that results from research and work occurring under and/or by reason of the Grant Agreement as well as any and all new materials and/or processes developed by research and work occurring under and/or by reason of the Grant Agreement, whether patented or not. (*If applicable to this project* - At present, this includes the following patents that may or will be affected by activities occurring by reason of the Grant Agreement: Nos.

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_____.) It is specifically understood and agreed that any future application or applications for new patent or patents that in any manner utilize research and work occurring under and/or by reason of the Grant Agreement are included in this definition.

Gross Revenues: This term includes, but is not limited to, any and all financial amounts and the value of goods and services whether received directly or indirectly by the Company or a subsidiary of the Company or an entity in which the Company has an interest as the result of or by reason of the sale, lease or licensing of Demonstration Technology, Equipment, and/or Process, in whatever form or use, and applications wherein Demonstration Technology, Equipment, and/or Process are used, designed, leased, sold, licensed, furnished, installed or exported by the Company, pursuant to or under rights owned by the Company now or in the future.

2. Term of this Agreement. This Agreement shall become effective on the effective date of the Grant Agreement. This Agreement shall survive the term of the Grant Agreement and shall be effective for the longer of a period of twenty (20) years or for the life of any patent obtained for any Demonstration Technology, Equipment and/or Process, including any patent extensions, resulting directly from the assistance provided by the Grant Agreement.

3. Royalty/Payment Obligation. The parties hereto acknowledge that, in exchange for the Grantor assuming part of the financial risk in the development of Demonstration Technology, Equipment, and Process under the Grant Agreement, the Company and/or its subcontractors shall pay the Grantor royalties and payments as calculated in Section 4 of this Payment Agreement. For each and every Demonstration Technology, Equipment, and/or Process developed under the Grant Agreement, whether patented or not that generates gross revenues in any manner, the amount of the Company's and/or its subcontractor's obligation shall be calculated upon gross revenues as heretofore defined.

4. Amount of Royalty/Payment Obligation. The Company shall pay the Grantor an amount equal to:

Five percent (5%) of the Gross Revenues generated from the sale or lease of any and all equipment or items manufactured, fabricated or assembled directly incorporating or employing, the licensing and/or use in whatever form of Demonstration Technology, Equipment, and/or Process;

Alternatively, the Company may buy out this royalty obligation by reimbursing to the Grantor a sum three (3.0) times the Grant Agreement amount set forth in Section 1(a) of the Grant Agreement.

5. Ownership of Other Technology. It is understood that the Company and subcontractors to the Company are the sole owners of their respective existing background technology, patents, disclosures, trade secrets, drawings, computer programs, design standards, and process technology. The Grantor shall have no rights of any kind in reference to any technology developed prior to or outside the term of the Grant Agreement. However, the Grantor shall have rights to subsequent technology developments that are substantially based upon the work that occurred under the Grant Agreement.

6. Schedule of Payments. The Company shall make, and contract with each of its subcontractors to make, annual payments to the Grantor in the amounts as calculated under the terms of paragraph 4 of this Payment Agreement. Payment for any given year is due on March 31st of the following year. Payments shall be in the form of a check made payable to: "State of Ohio Coal R&D Bond Debt Service."

7. Annual Reporting Requirements. The Company shall submit, and contract with each of its subcontractors to submit, a written report, not later than March 31st of each year, directly to the Grantor, or its successor, which shall pertain to and cover the previous one year period and shall include the following:

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A. Both the total dollar amount charged for and actually received for any and all sales and/or leases of equipment and items manufactured, fabricated or assembled as a result of commercialization of each and every Demonstration Technology, Equipment, and/or Process developed under the Grant Agreement;

B. Quantities and descriptions of the equipment and/or items sold and/or leased;

C. Both the total dollar amount charged and actually received in the form of fees for the licensing and/or use, in whatever form, of each and every Demonstration Technology, Equipment, and/or Process developed under the Grant Agreement.

D. Quantities and/or descriptions of transactions under which fees referred to in subparagraph C above occurred. The actual cost of expenses to file and maintain a patent on the Demonstration Technology, Equipment and/or Process during the year.

E. The amount being remitted to the Grantor.

If no such activity occurred during the annual period, the Company/Subcontractor shall submit a report so stating. After the first ten (10) years, if the Company/subcontractor has had no gross revenues for a consecutive three (3) year period of time, the Company/Subcontractor may cease its annual reporting to the Grantor. If, however, after that period of time the Company/Subcontractor receives revenues, the payment and reporting requirements shall resume.

8. Failure to Submit Annual Reports. If the Company fails to submit the required Annual Report required in Section 7 of this Agreement and such breach continues uncured for more than thirty (30) days, Grantor may recover, and Grantee shall pay, as liquidated damages for the breach, an amount equal to $500 for each month or part of a month that the report is past due.

9. Final Report. At the completion of the twenty (20) year term or the applicable period as defined in paragraph 2 of this Payment Agreement, a comprehensive final summary report from the Company/Subcontractor shall be submitted to the Grantor listing each year's activities and total payments, including those years where no activity or payment took place (this may be in the form of a descriptive cover letter and spread sheet).

9. Records, Access, and Maintenance. The Company shall establish and maintain, and contract with each of its subcontractors to establish and maintain, for at least five (5) years from the termination of its subcontract, such records as are required by the Grantor, including but not limited to, financial reports, and all other relevant information. The records required by the Grantor with respect to any questioned cost, audit disallowances, litigation or dispute between the Grantor and the Company or its subcontractors shall be maintained for the time needed for the resolution of said question. In the event of early termination of this Payment Agreement and/or of any given subcontract, or if for any other reason the Grantor shall require a review of the records related to the Demonstration Technology, Equipment and/or Process, Company shall, at its own cost and expense, segregate all such records related to the project from its other records of operation, and Company agrees that it shall contract with each of its subcontractors to do so as well.

10. Audits and Inspections. At anytime during normal business hours and upon written notice and as often as the Grantor may deem necessary, Company shall make available to the Grantor (or its designee) for examination by appropriate state agencies or officials all of its records with respect to matters covered by this Payment Agreement and shall permit the Grantor or its agents to audit, examine and make excerpts or transcripts from such records. Further, Company agrees that it shall contract with each of its

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subcontractors to do so as well.

11. Liability. Neither party shall be liable to the other for any indirect, incidental, special or consequential damages arising from any cause whatsoever, including, without limitation, lost profits, loss of use of capital or revenue, loss of use of equipment, cost of replacement equipment, or damages suffered by customers of the Company whether such liability is based upon or arises under contract, tort, negligence, strict liability, extra contractual liability, or otherwise.

12. Miscellaneous.

A. Governing Law. This Payment Agreement shall be governed by the laws of the State of Ohio as to all matters, including but not limited to matters of validity, construction, effect and performance.

B. Forum and Venue. All actions regarding this Agreement shall be forumed and venued in a court of competent subject matter jurisdiction, in Franklin County, Ohio.

C. Entire Agreement. This Payment Agreement constitutes the complete understanding of the parties and merges and supersedes any and all other discussions, agreements and understandings, either oral or written, between the parties with respect to the subject matter hereof.

D. Severability. Whenever possible, each provision of this Payment Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions of this Agreement.

E. Notices. All notices, consents, demands, requests and other communications which may or are required to be given hereunder shall be in writing and shall be deemed duly given if personally delivered or sent by United States mail, registered or certified, return receipt requested, postage prepaid, to the addresses set forth hereunder or to such other address as the other party hereto may designate in written notice transmitted in accordance with this provision.

1). In case of the Grantor, to:

Ohio Development Services Agency
Office of Energy
77 South High Street, 26th Floor
P.O. Box 1001
Columbus, OH 43216-1001

With copy to Chief Legal Counsel

2). In case of Company, to:

F. Amendments or Modifications. Either party may at any time during the term of this Payment Agreement request amendments or modifications. Requests for amendment or modification of this Payment Agreement shall be in writing and shall specify the requested changes and the justification of such changes. The parties shall review the request for modification in terms of the regulations and goals relating to the Payment Agreement. Should the parties consent to modification of the Payment Agreement, then an amendment shall be drawn, approved, and executed in the same manner as the original agreement.

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G. Pronouns. The use of any gender pronoun shall be deemed to include all the other genders, and the use of any singular noun or verb shall be deemed to include the plural, and vice versa, whenever the context so requires.

H. Headings. Section headings contained in this Payment Agreement are inserted for convenience only and shall not be deemed to be a part of this Agreement.

I. Assignment. Neither this Payment Agreement nor any rights, duties, or obligations described herein shall be assigned or subcontracted by Company without the prior express written consent of the Grantor.

This Payment Agreement is entered into by the parties hereto this _____day of _____, 2012__.

COMPANY	State of Ohio **Development Services Agency**
_____	_____
Name:	Christiane Schmenk
Title:	Director Ohio Development Service Agency

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EXHIBIT D

ADDENDUM TO OHIO COAL RESEARCH AND DEVELOPMENT GRANT AGREEMENT

This Addendum to the Ohio Coal Research and Development Grant Agreement (the "Addendum") is entered into as of _____, 2012, by and between [Grantee] (the "Grantee") and _____ (the "Subcontractor").

Background Information

A. The Grantee entered into a Ohio Coal Research and Development Grant Agreement with the State of Ohio, Development Services Agency (the "Department"), effective _____with Grant Control Number _____(the "Grant Agreement").

B. As a condition of the Grant Agreement, all subcontractors of Grantee, involved in the Project and performing work or activities under the Agreement, are required to be bound by the terms of this Grant Agreement and the Grantee is required to cause the terms of this Agreement to be incorporated by reference into all subcontracts.

Provisions

In consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. The Subcontractor will be bound by the terms and conditions of the Agreement between Grantee and the Department.

The parties have executed this Addendum as of the day and year set forth above.

GRANTEE:	SUBCONTRACTOR:
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

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EXHIBIT E

OCDO PROJECT QUARTERLY STATUS REPORT FORMAT

On the Grantee's letterhead, provide the following information on the first page of the report:

1. Project Title
2. Grant Agreement Number
3. Author(s) of the Report
4. Telephone Number of Author(s)
5. Email Address of Author(s)
6. Status Report Number
7. Reporting Period (start date and end date)

The body of the report shall briefly but thoroughly discuss the following items:

I. Describe the **work performed and results obtained during** the reporting period. Provide your best estimate of the **percentage of the project which has been completed** through the period. In the narrative, make reference to applicable sections of the Statement of Work and/or the Milestone Plan/Gantt Chart from the Grantee's application, as well as Section III of your previous Status Report. Include highlights of the noteworthy results and pertinent test or design data, along with a discussion of the extent to which the data meet expectations. Also include a discussion of how the results affect the overall project, and how the results may have changed from those which were anticipated.

II. Cite any **problems or circumstances** (e.g., equipment malfunctions, delivery delays, unanticipated expenditure, etc.) which have or will impede or accelerate timely progress and anticipated results or result in failure to meet project completion date. Indicate whether there are any **anticipated problems with the project budget,** and in particular, **with Grantor's portion of the project budget,** as set forth in the Grant Agreement. Include a description of each problem along with a discussion of how the problem was or will be handled. State whether or not such problems will impede the timely progress and anticipated results of the project.

III. Outline the **work to be performed** over the next Reporting Period. Include, as appropriate, supporting information such as planned or anticipated meetings with cosponsors, subcontractors or project advisory groups, planned test matrices, etc.

IV. Describe any pursuit or receipt of funding for the project from any Ohio Research and Development Programs, or any federal Research and Development Programs. If funding was available, but not pursued, please explain why these available funds were not pursued.

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EXHIBIT F

OCDO FINAL REPORT FORMAT

Final Report -- Project Final Reports are very important documents. They must be stand alone pieces that completely detail the project from start to finish, something someone with no prior knowledge of the effort can pick up and completely follow. Further, they must be written in grammatically correct English. Additionally, to further OCDO's technology transfer efforts, these reports (with the exception of any proprietary/trade secret data) are routinely submitted to the National Technical Information Service and other places for addition to libraries and computerized data bases. These papers bear not only the OCDO's, your organization's and your name, but are indicative of the quality of work OCDO and your organization support and the caliber of work you produce.

Trade Secrets The Grantee must fully describe all aspects of the project such that they can be followed and verified by the Grantor. However, be assured that the Grantor is prohibited from disclosing any information that is deemed to be a trade secret as defined in Ohio Revised Code Section 1333.61. It is the Grantee's sole responsibility to identify and CONSPICUOUSLY MARK on each page those phrases, equations, diagrams or other data that the Grantee has determined to be a trade secret. Wholesale marking of a document as "Confidential" is not applicable; the report must be redacted line by line on only ONE copy of the total number of copies of the Final Report due to the Grantor. Alternatively, trade secret information may be incorporated into an appendix to the Final Report, which must also be marked "trade secret."

The following shall be construed by the Grantor as the minimum information required in the Final Report. The Grantee should include any additional information deemed pertinent to fully and thoroughly report on the project.

<u>Cover</u>

The cover of the document shall bear the:

A. Project title;
B. Name, address, and telephone number of the Grantee;
C. Name and title of the Project Manager;
D. Term, "Final Report;"
E. Grant Agreement Number;
F. Statement, "This project was funded in part by the Ohio Development Services Agency;"
G. Date of the document's submission to the Ohio Coal Development Office;
H. Period of Performance;
I. Statement, "This report [does/does not] contain Trade Secret/Proprietary Information."

At the Grantee's discretion, the cover of the document may also bear the names of:

J. Significant other employees or project investigators of the Grantee which the Grantee wishes to credit;
K. Other contributing project co-sponsors.

<u>Disclaimer</u>

Grantee shall include a disclaimer immediately after the cover page, which shall read as follows.

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For projects with multiple co-sponsors, all co-sponsors may be included in the disclaimer:

"DISCLAIMER

This report was prepared by (Grantee) with support in part by a grant from the Ohio Development Services Agency. Neither the State of Ohio nor any of its agencies, nor any person acting on behalf of the State:

1. Make any warranty or representation, express or implied, with respect to the accuracy, completeness, or usefulness of the information contained in this report, or that the use of any information, apparatus, method, or process disclosed in this report may not infringe privately-owned rights; or

2. Assume any liabilities with respect to the use of, or for damages resulting from the use of, any information, apparatus, method or process disclosed in this report.

Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring; nor do the views and opinions of authors expressed herein necessarily state or reflect those of the State of Ohio or its agencies.

NOTICE TO JOURNALISTS AND PUBLISHERS: Please feel free to quote and borrow from this report, however, please include a statement noting: "Funding for this project was provided, in part, through the Ohio Development Services Agency."

Report Abstract

A summary paragraph that describes the impact of the project on Ohio coal use.

Table of Contents

The Final Report shall include a table of contents, including major section headings, illustrations, tables, charts, any addenda, appendices and supporting documentation, and identifying their location by page number.

Executive Summary

The Executive Summary shall:

A. Summarize the project results;
B. Specifically state whether the project proceeded as anticipated or achieved expected results;
C. Describe the implications of the project's results on the near future commercialization of the technology or process and estimate the timetable for same;
D. Identify the cost of this technology or process in terms of dollars per ton of sulfur dioxide, nitrogen oxide, and/or other pollutants removed, and dollars per ton of coal;
E. Describe the wastes and byproducts generated by the process, methods for their disposal or reuse, and estimated waste disposal costs on a dollar per ton of sulfur dioxide and nitrogen oxides or other emissions removed, and on a per ton of coal basis;
F. Estimate/quantify the effects of this project on Ohio coal use and/or by-products reuse;
G. Briefly describe anticipated next steps following this project, including technical and commercial/marketing, including identification of who potentially would participate in taking such steps.

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Full Report

The Full Report shall include, at a minimum, the following information:

Introduction

A. A "problem statement," including the general background or concern(s) which led to the project and proposal;
B. The overall objective of the Grantee's total program, and the specific objective(s) of the work performed under this grant (i.e., a brief discussion of what was expected to be learned, accomplished or proven, technical and economic targets to be achieved in this project);
C. A brief discussion of the involvement and contributions of other co-sponsors.

Technical Discussion

D. A description of the technology or process;
E. If applicable, a description of the plant/work site setup and how this project fits into it;
F. The approach taken to meet the project objectives;
G. A detailed description of the actual procedures used or work performed to obtain project results;
H. A description of any problems or breakthroughs encountered during the course of the project;
I. Detailed project results and analysis of same in comparison to the project's original target performance goals, including a discussion of the implications of these results;
J. A description of all waste and byproducts, including their chemical components, generated by the process, an estimate of the quantity of same, and a description of the relationships between material input (sulfur in coal, ash in coal, sorbent, etc.) and the material outputs using a material balance or similar method;
K. A discussion of the options for costs, handling, disposal, or reuse of the wastes and byproducts;
L. Documentation/calculations/assumptions used to determine A through G in the Executive Summary.

Marketing/Commercialization Discussion

M. Describe who/what the market is for this project's technology/process, extent of the opportunities for application, and the anticipated marketing/commercialization program;
N. Discuss the potential market for use of the byproducts from technology/process;
O. Characterize how the project's results will affect the speed with which the marketplace will incorporate the technology/process;
P. Calculate the effects of these results on near-term increased use of Ohio coal, include estimated tonnages and timetables;
Q. Compare with similar competing technologies or processes the costs of sulfur dioxide, mercury nitrogen oxides, and other criteria pollutants removed, or--for coal cleaning processes--the costs of sulfur, mercury, ash, or other criteria pollutant removal, both in dollars per ton of coal and dollars per ton of pollutant removed;
R. Describe immediate next steps, both technical and marketing;
S. Develop/describe a marketing plan of action for this technology.

Final Budget Summation

T. A table noting the total project budget by major category and contributions of all co-sponsors, including Grantee;
U. A table detailing by line items the expenditure of Grantor funds on this specific project.

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Appendices

Appendices shall be included, as appropriate, containing technical, analytical and test data, equipment/material specifications, technical drawings, and/or other information the Grantee deems necessary to fully describe the project and to verify the project's results.

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EXHIBIT G

OHIO RESEARCH AND DEVELOPMENT ALIGNMENT PROGRAMS

Research Challenge
Dr. Harry Andrist
Director of Research & Graduate Programs
Ohio Board of Regents
30 E. Broad Street, 36th Floor
Columbus, Ohio 43215
Ph: 614-752-9539
Fax: 614-466-5866
handrist@regents.state.oh.us
http://www.ohiohighered.org/board

Ohio Agriculture Research & Development Center
Dr. Steve Slack
Director
Ohio State University
1680 Madison Avenue, 209 Research Services Bldg
Wooster, Ohio 44691
Ph: 330-263-3701
Fax: 330-263-3688
oardc@osu.edu
http://www.oardc.ohio-state.edu

Wright State Research Institute
Ryan Fendley
Director
Wright State University
405F Russ Engineering Center, 3640 Colonel Glenn
Dayton, Ohio 45435
Ph: 937-775-5032
Fax: 937-775-7364
ryan.fendly@wright.edu
http://www.cs.wright.edu

Ohio Supercomputer Center
Steve Gordon, Ashok Krishnamurthy
Interim Co-Executive Directors
Ohio State University
1224 Kinnear Road
Columbus, Ohio 43212
Ph: 614-292-4132, 614-688-6082
Fax: 614-688-3184
sgordon@osc.edu; ashok@osc.edu
http://www.osc.edu

Ohio Aerospace Institute
Michael L. Heil
President and CEO
Wright Point 2 – Suite 308, 5100 Springfield Pike
Dayton, Ohio 45431
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Fax: 440-962-3004
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www.oai.org

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Director
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Thomas Edison Program - Incubators
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Director
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Fax: 330- 746-6863
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Ohio Coal Development Office
Chad Smith
Deputy Chief
77 South High Street
Columbus, Ohio 43216-1001
Ph: 614-466-8611
Fax: 614-466-1864
Chad.Smith@development.ohio.gov
http://www.development.ohio.gov/energy/

Ohio Third Frontier
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Deputy Chief
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Thomas Edison Program - Centers
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Edison Materials Technology Center
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Fax: 937-259-1303
fsvet@emtec.org
http://www.emtec.org

Updated: 12/21/2011

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EXHIBIT H

OHIO COAL DEVELOPMENT OFFICE
ANNUAL PROJECT ABSTRACT
AS OF DECEMBER 201__

1. PROJECT SPONSOR:
(entity name/mailing address)

2. PROJECT MANAGER/TITLE:

3. GRANT NO.

4. PHONE:
EMAIL:

5. PROJECT TITLE:

6. PROJECT TERM FROM: **TO:**

7. PROJECT UPDATE _____ --OR-- **FINAL REPORT _____**

8. BUDGET:

CO-SPONSOR'S NAME	**COST-SHARE**
_____	$_____
_____	$_____
_____	$_____
_____	$_____
_____	$_____
TOTAL PROJECT VALUE:	$_____

ABSTRACT

9. OVERVIEW OF PROJECT & OBJECTIVES:

10. WORK TO DATE & CONCLUSIONS:

11. PLANS FOR COMING YEAR:

12. HIGHLIGHTS/ACCOMPLISHMENTS:

13. ARTICLES/PRESENTATIONS:

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EXHIBIT I

OHIO COAL DEVELOPMENT OFFICE
PROJECT EMPLOYMENT DATA

Grantee _____

Project Name _____

_____

Grant Agreement No. _____ Term: From _____

To _____

1. Total number of employees working on this project _____

2. Total number of minorities (American Indian, Eskimo, Aleut, Asian/Pacific, Black, Hispanic) ____

3. Total number of male employees
   a. American Indian, Eskimo, Aleut ___
   b. Asian/Pacific ___
   c. Black ___
   d. Hispanic ___
   e. Other ___

4. Total number of female employees
   a. American Indian, Eskimo, Aleut ___
   b. Asian/Pacific ___
   c. Black ___
   d. Hispanic ___
   e. Other ___

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