AGENDA

NOTICE: Public notice is hereby given that the Box Elder County Redevelopment Agency will hold a Regular Meeting commencing at 5:00 P.M. on Wednesday April 6, 2022 in the Commission Chambers of the Box Elder County Courthouse, 01 South Main Street, Brigham City, Utah.

1. CALL TO ORDER

2. ROLL CALL
   A. Approval of RDA Minutes 02-16-2022

3. AGENDA ITEMS
   A. Conflict of Interest Coal to Fiber Grant-Member Summers

4. ADJOURNMENT

Prepared and posted this 1st day of April, 2022. Mailed to the Box Elder News Journal and the Leader on the 1st of April, 2022. These assigned times may vary depending on the length of discussion, cancellation of scheduled agenda times and agenda alteration. Therefore, the times are estimates of agenda items to be discussed. If you have any interest in any topic you need to be in attendance at 5:00 p.m.

Marla R. Young - County Clerk
Box Elder County

NOTE: Please turn off or silence cell phones and pagers during public meetings. This facility is wheelchair accessible and accessible parking spaces are available. Requests for accommodations or interpretive services must be made three (3) working days prior to this meeting. Please contact the Commission Secretary's office at (435) 734-3347 or FAX (435) 734-2038 for information or assistance.
Purchase Order Number:

University of Utah Cost Reimbursement Subaward Agreement ("Subaward")

Pass-Through Entity ("PTE"): University of Utah
Subrecipient ("Subrecipient"): Box Elder County Redevelopment Agency

Principal Investigator ("PTE PI"): Christopher Johnson
Principal Investigator ("Subrecipient PI"): Jeff Hadfield

PTE Prime Award No.: 220133
Prime Award Date: 7/9/21
Prime Awarding Agency: UT GOVERNORS OFFICE OF ENERGY DEVLPMNT

Project Title: COAL TO CARBON FIBER PROGRAM

Subaward Period of Performance:
Start: 07/01/2021
End: 05/30/2022

Amount Funded This Action: 98,748.00
PTE Subaward No.: 10062298-BOX-01

Estimated Project Period (if incrementally funded):
Start: 07/01/2021
End: 05/30/2022

Incrementally Estimated Total: 98,748.00
PTE Project No.: 53300491

Check all that apply:
Cost Sharing (Attachment 5) [ ]
Carryover (Attachment 2): [x] Automatic [ ] Restricted

Terms and Conditions

1. PTE hereby awards a cost reimbursable subaward, as described above, to Subrecipient. The Statement of Work and Budget for this Subaward are as shown in Attachment 5. In its performance of Subaward work, Subrecipient shall be an independent entity and not an employee or agent of PTE.

2. Subrecipient shall submit invoice not more often than monthly and not less frequently than quarterly for allowable costs incurred. Upon receipt of proper invoices, PTE agrees to process payments in accordance with this Subaward and 2 CFR 200.305. All invoices shall be submitted using Subrecipient's standard invoice, but at a minimum, shall include current and cumulative costs (including cost sharing), Subaward number, and certification, as required in 2 CFR 200.415(a). Invoices that do not reference PTE Subaward number shall be returned to Subrecipient. Invoices and questions concerning invoice receipt and payments shall be directed to the PTE's Financial Contact, shown in Attachment 3A.

3. A final statement of cumulative costs incurred, including cost sharing, marked "FINAL" must be submitted to PTE's Financial Contact, as shown in Attachment 3A, no later than 15 days after Subaward end date. The final statement of costs shall constitute Subrecipient's final financial report.

4. All payments shall be considered provisional and subject to adjustment within the total estimated costs in the event such adjustment is necessary as a result of an adverse audit finding against Subrecipient. PTE reserves the right to reject an invoice, in accordance with 2 CFR 200.305.

5. Matters concerning the technical performance of this Subaward should be directed to the appropriate party’s Principal Investigator, as shown in Attachments 3A and 3B. Technical reports are required as described in Attachment 4, “Reporting Requirements.”

6. Matters concerning the request or negotiation of any changes in the terms, conditions, or amounts cited in this Subaward, and any changes requiring prior approval, should be directed to the appropriate party’s Administrative Contact, as show in Attachments 3A and 3B. All substantive and non-substantive changes made to this Subaward require the written approval of each party’s Authorized Official, as shown in Attachments 3A and 3B.

7. Each party shall be responsible for its negligent acts and omissions and the negligent acts and omissions of its employees, officers, and directors in the performance of their responsibilities under this Subaward.

8. Either party may terminate this Subaward with 30 days written notice to the appropriate party’s Authorized Official, as shown in Attachments 3A and 3B. PTE shall pay Subrecipient for termination costs as allowable under Uniform Guidance, 2 CFR 200, or 45 CFR Part 75 Appendix IX, as applicable.

9. By signing this Subaward, including the attachments hereto which are hereby incorporated by reference, Subrecipient certifies that it will perform the Statement of Work in accordance with the terms of this Subaward, the applicable terms of the PTE Prime Award, including the appropriate Research Terms and Conditions ("RTC’s") of the Prime Awarding Agency, as referenced in Attachment 2. The parties further agree that they intend this Subaward to comply with all applicable federal, state and local law, rules and regulations, including Subrecipient's policies.

By an Authorized Official of PTE:

KRISTIE THOMPSON
12/21/2021
Name: Brent Brown
Title: Director, Office of Sponsored Projects

By an Authorized Official of Subrecipient:

Date

UU Template Feb 2021 (NonFed CR)
Debarment, Suspension, and Other Responsibility Matters (2 CFR 200.213 and 2 CFR 180)
By signing this Subaward, the Subrecipient Authorized Official certifies, to the best of his/her knowledge and belief that neither the Subrecipient nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any federal department or agency, in accordance with 2 CFR 200.213 and 2 CFR 180.

Audit and Access to Records
Subrecipient will maintain books, records, documents, and other evidence relating to the work under this Sub-recipient Agreement in accordance with generally accepted accounting principles as described in Uniform Guidance, 2 CFR 200, to clearly and easily identify expenses under this Subaward separately from other costs of Subrecipient. Accounting records that are supported by documentation must, as a minimum, be adequate to show all costs incurred under this Subaward receipt and use of goods and services acquired under this Subaward, the costs of the work supplied from other sources, and the overall progress of the project. Notwithstanding any other conditions of this Subaward, the books and records of Subrecipient hereunder will be made available upon request, at the Subrecipient’s regular place of business, for audit by personnel authorized by the University of Utah, the State of Utah and/or the Prime Awarding Agency. Additionally, the books and records must be retained for a period of three years following final payment.

The period of access and examination described above, for the records which relate to (a) litigation or settlement of claims arising out of the performance of this Subaward or (b) costs and expenses of this Subaward as to which exception has been taken by any of the organizations named shall continue until such litigation, claims, or exceptions have been disposed of.

The Subrecipient shall require that the language of the certifications above in this Attachment 1 be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

Use of Name
Neither party shall use the other party’s name, trademarks, or other logos in any publicity, advertising, or news release without the prior written approval of an authorized representative of that party. The parties agree that each party may use factual information regarding the existence and purpose of the relationship that is the subject of this Subaward for legitimate business purposes, to satisfy any reporting and funding obligations, or as required by applicable law or regulation without written permission from the other party. In any such statement, the relationship of the parties shall be accurately and appropriately described.

PTE is a governmental entity under the Governmental Immunity Act of Utah, Utah Code §§ 63G-7-101 to -904, as amended (the “Act”). Nothing in the Subaward shall be construed as a waiver by PTE of any protections, rights, or defenses applicable to PTE under the Act, including without limitation, the provisions of section 63G-7-604 regarding limitation of judgments. It is not the intent of PTE to incur by contract any liability for the operations, acts, or omissions of the other Party or any third party and nothing in the Subaward shall be so interpreted or construed.
Section 3, Item A.

PTE is a governmental entity subject to the Government Records Access and Management Act, Utah Code §§ 63G-2-101 to -901, as amended ("GRAMA") and Utah Code §§ 53B-16-301 to -305 as amended. Under GRAMA certain records within PTE’s possession or control, including without limitation, the Subaward, may be subject to public disclosure; and PTE’s confidentiality obligations shall be subject in all respects to compliance with GRAMA. Pursuant to section 63G-2-309 of GRAMA, any confidential information provided to PTE that Subrecipient believes should be protected from disclosure must be accompanied by a written claim of confidentiality and a concise statement of reasons supporting such claim. Notwithstanding any provision to the contrary in the Subaward, PTE may disclose any information or record to the extent required by GRAMA or as otherwise required by law.

Export Control
In the event that a party under this Subaward intends to provide information, equipment or materials restricted under applicable export control law or regulations (including but not limited to Export Administration Regulations and International Traffic in Arms Regulations, to the other party during the course of any activity under this Subaward, the disclosing party must first notify the receiving party of its intention to provide this data at least 30 days in advance of actually providing this information, equipment or materials, and indicate to whom at receiving party the information, equipment or materials is being provided, along with specific reference to the applicable regulatory sections. Receiving party will then determine whether it will accept such information, equipment or materials or decline. In addition, each party’s performance of any activity under this Subaward is subject to compliance with all U.S. export control and Office of Foreign Assets Controls (OFAC) regulations.

Subrecipient agrees to insert the provisions of this section in all subawards entered into by Subrecipient in connection with this Subaward.
General Terms and Conditions

By signing this Subaward, Subrecipient agrees to the following:

1. The Prime Awarding Agency’s grants policy guidance, including addenda in effect as of the beginning date of the period of performance or as amended found at:
   N/A

2. Research Terms and Conditions, including any Prime Awarding Agency’s Specific Requirements found at:
   Attachment A; State of Utah Standard Terms and Conditions on attached NOA

3. Except for the following:
   a. No-cost extensions require the written approval of the PTE. Any requests for a no-cost extension shall be directed to the Administrative Contact shown in Attachment 3A, not less than 30 days prior to the desired effective date of the requested change.
   b. Any payment mechanisms and financial reporting requirements described in the applicable Prime Awarding Agency Terms and Conditions and Agency-Specific Requirements are replaced with Terms and Conditions (1) through (4) of this Subaward; and
   c. Any prior approvals are to be sought from the PTE and not the Prime Awarding Agency.
   d. Title to equipment purchased by Subrecipient with funds provided in whole or in part under this Subaward shall be determined in accordance with the terms and conditions of the Prime Award and all applicable policies of the Prime Awarding Agency. PTE shall retain title to all equipment furnished by PTE or Prime Awarding Agency hereunder.
   e. Prior approval must be sought for a change in Subrecipient PI or change in Key Personnel (defined as listed in the NOA).

4. Treatment of program income: Additive

5. Carryover: Carryover is automatic
   Submit carryover requests to the Administrative Contact identified in Attachment 3A

Special Terms and Conditions:

Copyrights:
Subrecipient grants to PTE an irrevocable, royalty-free, non-transferable, non-exclusive right and license to use, reproduce, make derivative works, display, and perform publicly any copyrights or copyrighted material (including any computer software and its documentation and/or databases) first developed and delivered under this Subaward solely for the purpose of and only to the extent required to meet PTE’s obligations to the Prime Awarding Agency under its Prime Award.

Subrecipient grants to PTE the right to use any written progress reports and deliverables created under this Subaward solely for the purpose of and only to the extent required to meet PTE’s obligations to the Prime Awarding Agency under its Prime Award.

Data Rights:
Subrecipient grants to PTE the right to use data created in the performance of this Subaward solely for the purpose of and only to the extent required to meet PTE’s obligations to the Prime Awarding Agency under its Prime Award.
Data Sharing and Access (Check if applicable):  

Subrecipient agrees to comply with the Prime Awarding Agency's data sharing and access requirements as reflected in the Prime Award (or in the special terms below) and the Data Management/Sharing Plan submitted to the Prime Awarding Agency and provided upon request.

Promoting Objectivity in Research (COI):  
Subrecipient must designate herein which entity's Financial Conflicts of Interest policy (COI) will apply: Subrecipient

If applying its own COI policy, by execution of this Subaward, Subrecipient certifies that its policy complies with the requirements of the relevant Prime Awarding Agency. Subrecipient also certifies that, to the best of its knowledge (1) all financial disclosures have been made related to the activities that may be funded by or through a resulting agreement, and required by its conflict of interest policy; and (2) all identified conflicts of interest have or will have been satisfactorily managed, reduced, or eliminated in accordance with Subrecipient's conflict of interest policy prior to the expenditure of any funds under any resulting agreement.

If applying PTE's COI policy, by execution of this Subaward, Subrecipient certifies it will comply with the requirements of the PTE's COI policy as found at: https://coi.utah.edu, and notify the Administrative Contact identified in Attachment 3A.

Work Involving Human or Vertebrate Animals (Select Applicable Options)  

- Human Subjects  
- Vertebrate Animals  
- No Human or Vertebrate Animals

Subrecipient agrees that any non-exempt human and/or vertebrate animal research protocol conducted under this Subaward shall be reviewed and approved by its Institutional Review Board (IRB) and/or its Institutional Animal Care and Use Committee (IACUC), as applicable and that it will maintain current and duly approved research protocols for all periods of the Subaward involving human and/or vertebrate animal research. Subrecipient certifies that its IRB and/or IACUC are in full compliance with applicable state and federal laws and regulations. The Subrecipient certifies that any submitted IRB/IACUC approvals represents a valid, approved protocol that is entirely consistent with the Project associated with this Subaward. In no event shall Subrecipient invoice or be reimbursed for any human or vertebrate animals related expenses incurred in a period where any applicable IRB/IACUC approval is not properly in place.

IRB: Not Applicable
IACUC: Not Applicable

Human Subjects Data (Select One) Not Applicable

Human Subjects Data will be exchanged under this Subaward (check all that apply):

- From Subrecipient to PTE  
- From PTE to Subrecipient

The PTE will set forth the terms of the exchange of Human Subjects Data in a:

Additional Terms

Order of Precedence.
In the event of any conflict, inconsistency or discrepancy amount, the Agreement and any other documents listed below shall be resolved by giving precedence in the following order:
(a) This Agreement including the Exhibits hereto
(b) Prime Award
(c) Purchase Order issued by PTE. For invoicing purposes PTE will issue a Purchase Order upon execution of this Agreement. The terms and conditions of this Agreement shall supersede and replace all standardized terms and conditions of the Purchase Order.
PTE Information

Entity Name: University of Utah
Legal Address: 201 S. President Circle Rm 408
Salt Lake City, UT 84112-9023
Website: www.osp.utah.edu

PTE Contacts

Central Email: ospawards@osp.utah.edu (reference: Johnson #10062298-BoxElder-01)
Principal Investigator Name: Christopher Johnson
Email: crj@utah.edu Telephone Number: 801-581-8528

Administrative Contact Name: Laurel Duncan
Email: laurel.duncan@osp.utah.edu Telephone Number: 801-581-3006

Financial Contact Name: Accounts Payable
Email: ap@admin.utah.edu Telephone Number: 801-581-6976

Email Invoices? ☐ Yes ☐ No Invoice email (if different):
Authorized Official Name: Brent Brown, Director, Office of Sponsored Projects
Email: ospawards@osp.utah.edu (cc: admin contact) Telephone Number: 801-581-8949

PI Address:

University of Utah
Biomedical Engineering
36 S Wasatch, Rm 3100
Salt Lake City, UT 84112

Administrative Address:

University of Utah
Office of Sponsored Projects
155 S 1452 E, INSCC Building, Rm 350
Salt Lake City, UT 84112-8906

Invoice Address:

University of Utah
Accounts Payable
201 President's Circle, Room 145
Salt Lake City, UT 84112-9003
### Subrecipient Information for FFATA reporting

<table>
<thead>
<tr>
<th>Entity's DUNS Name:</th>
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<tbody>
<tr>
<td>EIN No.:</td>
<td>Institution Type:</td>
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<tr>
<td>DUNS:</td>
<td></td>
</tr>
<tr>
<td>Parent DUNS:</td>
<td></td>
</tr>
<tr>
<td>Place of Performance Address:</td>
<td></td>
</tr>
</tbody>
</table>

### Subrecipient Contacts:

<table>
<thead>
<tr>
<th>Central Email:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Website:</td>
<td></td>
</tr>
<tr>
<td>Principal Investigator Name: Jeff Hadfield</td>
<td></td>
</tr>
<tr>
<td>Email:</td>
<td>Telephone Number:</td>
</tr>
<tr>
<td>Administrative Contact Name:</td>
<td></td>
</tr>
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<td>Email:</td>
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<tr>
<td>Email:</td>
<td>Telephone Number:</td>
</tr>
</tbody>
</table>

| Legal Address:      |  |

| Administrative Address: |  |

| Payment Address:       |  |
Subrecipient agrees to submit the following reports to PTE contacts are identified in Attachment 3A:

Technical Reports:

☐ Monthly technical/progress reports will be submitted to the PTE’s Principal Investigator within ___ days of the end of the month.

☑ Quarterly technical/progress reports will be submitted within 30 days after the end of each project quarter to the PTE’s Principal Investigator.

☐ Annual technical/progress reports will be submitted within ___ days prior to the end of each budget period to the PTE’s Principal Investigator. Such report shall also include a detailed budget for the next Budget Period, updated other support for key personnel, certification of appropriate education in the conduct of human subject research of any new key personnel, and annual IRB or IACUC approval, if applicable.

☑ A Final technical/progress report will be submitted to the PTE’s Principal Investigator within ___ days of the end of the Project Period or after termination of this award, whichever comes first.

☑ Technical/progress reports on the project as may be required by PTE’s Principal Investigator in order for the PTE to satisfy its reporting obligations to the Federal Awarding Agency.

Other Reports:

☑ In accordance with Prime Award, Subrecipient agrees to notify PTE’s Principal Investigator within ___ days after Subrecipient’s inventor discloses invention(s) in writing to Subrecipient’s personnel responsible for patent matters. The Subrecipient will submit a final invention report using Prime Awarding Agency specific forms to the PTE’s Principal Investigator within ___ days of the end of the Project Period to be included as part of the PTE’s final invention report to the Prime Awarding Agency.

☑ A negative report is: Not Required

Other Special Reporting Requirements:

FINAL technical report due to PTE PI by June 1, 2022.

All invoices must reference the Purchase Order number and the subaward number. Invoices should be sent not more often than monthly and not less frequently than quarterly, via email to: ap@admin.utah.edu, or mailed to:

University of Utah - Accounts Payable
201 S. President's Circle, Room 145
Salt Lake City, Utah 84112
Reference: Johnson #10062298-BOX-01
Attachment 5
Statement of Work, Cost Sharing, Indirects & Budget
Non-Federal CR

Statement of Work
☐ Below ☐ Attached, 1 pages

Budget Information

<table>
<thead>
<tr>
<th>Indirect Information</th>
<th>Indirect Cost Rate (IDC)</th>
<th>Applied</th>
<th>%</th>
<th>Cost Sharing</th>
<th>☐ Yes ☐ No</th>
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<tbody>
<tr>
<td>Rate Type: Other (add in blank box)</td>
<td>None</td>
<td></td>
<td></td>
<td>If Yes, include Amount:</td>
<td>$</td>
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</table>

Budget Details
☐ Below ☐ Attached, 1 pages

Budget Totals

- Direct Costs $98,748.00
- Indirect Costs $0.00
- Total Costs $98,748.00

All amounts are in United States Dollars
Box Elder County Statement of Work & Proposed Budget

Statement of Work

Box Elder County (Box Elder) is collaborating with the University of Utah to enhance opportunities related to coal carbon materials innovation and advance materials innovation. Box Elder anchors Utah’s defense and aerospace industry and is home to Northrop Grumman’s Promontory Plant—a national leader in material optimization for defense applications.

Box Elder proposed, under the FY22 funding from the State of Utah, that it create a defense innovation program that focuses on connecting next-generation technologies with defense industry opportunities. Under this program, Box Elder anticipates establishing a physical innovation center to help Utah’s small businesses team with Utah’s larger prime contractors as they advance technology R&D and move towards defense procurement.

Under this subcontract, the County anticipates supporting the project in the following ways:

- Developing the structure of a defense innovation program that supports Utah’s advanced materials industry by networking Utah’s small businesses with larger prime contractors
- Collaborating with Northrup Grumman and other industry participants to accelerate the development of coal carbon material using Utah coal as a primary feedstock
- Provide a forum for the University to collaborate and coordinate with Utah’s defense and aerospace industry on martials innovation and modeling
- Seek to expand the program’s funding resources—and maximize state investment—through further federal funding program

The County understands the importance of a Utah innovation initiative that includes local government, industry, and Utah’s premier research institutions as it seeks to support on of Utah’s most valuable industries.

Furthermore, through this defense materials innovation project, Box Elder anticipates establishing resources (in partnership with local industry participants) that the University can utilize for simulation, testing and capabilities development. Among these resources in the Utah UAS Testing and Training Range in Box Elder County located at Northrop Grumman’s plant near Promontory.

Box Elder also anticipates establishing an adaptative collaboration with the University of Utah to help facilitate large-scale testing and accelerate technology readiness as promising technologies move towards commercialization. Box Elder County appreciates the opportunity to support the State of Utah and the University of Utah as it seeks to maximize the economic impact of this exciting technology.
**Proposed Budget**

<table>
<thead>
<tr>
<th>Task</th>
<th>Deliverable</th>
<th>Total Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop Defense Innovation Structure</td>
<td>Collaborate with the University to include necessary capabilities</td>
<td></td>
</tr>
<tr>
<td>Industry Collaboration &amp; Forum Establishment</td>
<td>Work with the University to identify appropriate local industry participants and establish a forum to accelerate collaboration</td>
<td></td>
</tr>
<tr>
<td>Develop Additional Funding Sources</td>
<td>Seek to develop new funding sources to maximize state investment. Will target EDA and related funding programs.</td>
<td>$98,000.00</td>
</tr>
</tbody>
</table>
Subrecipient agrees the provisions of the Prime Award set forth in Attachment 6 are hereby incorporated by reference into this Subaward. With respect to the clauses below, unless the context of the clause requires otherwise, the term "Contractor" shall mean PTE and Prime Awarding Agency, the term "Contract" shall mean this Subaward and its attachments and the term "Subcontractor" shall mean Subrecipient.

It is intended that the terms and conditions set forth shall apply to Subrecipient in such a manner as is necessary to reflect: (1) the position of the Subrecipient as a subawardee to PTE; (2) to flow-down PTE’s applicable obligations, under its Prime Award with Prime Awarding Agency, to Subrecipient; and (3) to enable PTE to meet its obligations under the Prime Award.
STATE OF UTAH CONTRACT

1. CONTRACTING PARTIES: This contract is between the following agency of the State of Utah:
   Department Name: Governor's Office of Energy Development Agency Code: 061 Division Name: N/A, referred to as the State Entity, and the following Contractor:

   University of Utah Name
   75 S 2000 E Ste 201 Address
   Salt Lake City UT 84112 City State Zip

   Contact Person: Max Sergeev Phone # 801-581-3993 Email: msergeev@sci.utah.edu Vendor # VC0000125063 Commodity Code # 99999

2. GENERAL PURPOSE OF CONTRACT: The general purpose of this contract is to provide: Coal to Carbon Fiber Research, Chris Johnson, PI

3. PROCUREMENT: This contract is entered into as a result of the procurement process on RX# N/A, FY N/A, Bid# N/A, or other method: N/A.

4. CONTRACT PERIOD: Effective Date: 7/1/2021 Termination Date: 6/30/2022 unless terminated early or extended in accordance with the terms and conditions of this contract. Renewal options (if any): none.

5. CONTRACT COSTS: CONTRACTOR will be paid a maximum of $500,000.00 for costs authorized by this contract. Prompt Payment Discount (if any): N/A. Additional information regarding costs: COST REIMBURSABLE.

6. ATTACHMENT A: State of Utah Standard Terms and Conditions for □ Goods or □ Services
   ATTACHMENT B: Scope of Work
   ATTACHMENT C: Budget
   ATTACHMENT D: N/A
   Any conflicts between Attachment A and the other Attachments will be resolved in favor of Attachment A.

7. DOCUMENTS INCORPORATED INTO THIS CONTRACT BY REFERENCE BUT NOT ATTACHED:
   a. All other governmental laws, regulations, or actions applicable to the goods and/or services authorized by this contract.
   b. Utah State Procurement Code, Procurement Rules, and Contractor's response to Bid #_____ dated _____.

8. Each signatory below represents that he or she has the requisite authority to enter into this contract.

   The parties sign and cause this contract to be executed. This contract is not fully executed until the State of Utah Approving Authorities have signed this contract.

   Digitally signed by Todd B. Nilsen
   Date: 2021.07.08 13:43:24
   -06'00'

   Contractor's signature Date

   Assoc. Dir., Sponsored Projects

   Type or Print Name and Title

STATE OF UTAH APPROVING AUTHORITIES

N/A GRANT

 RECEIVED AND PROCESSED
BY DIVISION OF FINANCE 7/12/21

Director, Division of Purchasing Date

Lincoln Clark 801.538.8718 None lincolnc@utah.gov

Agency Contact Person Telephone Number Fax Number Email

(Revision 04 October 2018)
ATTACHMENT A: STATE OF UTAH STANDARD TERMS AND CONDITIONS FOR SERVICES

This is for a contract between Government Entities within the State of Utah for services (including professional services) meaning the furnishing of labor, time, or effort by a contractor. These terms and conditions may only be used when both parties are government entities or political subdivisions as defined in the Utah Government Immunity Act.

1. DEFINITIONS: The following terms shall have the meanings set forth below:

a) "Confidential Information" means information that is deemed as confidential under applicable state and federal laws, including personal information. The State Entity reserves the right to identify, during and after this Purchase Order, additional reasonable types of categories of information that must be kept confidential under federal and state laws.

b) "Contract" means the Contract Signature Page(s), including all referenced attachments and documents incorporated by reference. The term "Contract" may include any purchase orders that result from the parties entering into this Contract.

c) "Contract Signature Page(s)" means the State of Utah cover page(s) that the State Entity and Contractor sign.

d) "Contractor" means the individual or entity delivering the Services identified in this Contract. The term "Contractor" shall include Contractor's agents, officers, employees, and partners.

e) "Services" means the furnishing of labor, time, or effort by Contractor pursuant to this Contract. Services shall include, but not limited to, all of the deliverable(s) that result from Contractor performing the Services pursuant to this Contract. Services include those professional services identified in Section 63G-6a-103 of the Utah Procurement Code.

f) "Proposal" means Contractor's response to the State Entity's Solicitation.

g) "Solicitation" means the documents used by the State Entity to obtain Contractor's Proposal.

h) "State Entity" means the department, division, office, bureau, agency, or other organization identified on the Contract Signature Page(s).

i) "State of Utah" means the State of Utah, in its entirety, including its institutions, agencies, departments, divisions, authorities, instrumentalities, boards, commissions, elected or appointed officers, employees, agents, and authorized volunteers.

j) "Subcontractors" means subcontractors or subconsultants at any tier that are under the direct or indirect control or responsibility of the Contractor, and includes all independent contractors, agents, employees, authorized resellers, or anyone else for whom the Contractor may be liable at any tier, including a person or entity that is, or will be, providing or performing an essential aspect of this Contract, including Contractor's manufacturers, distributors, and suppliers.

2. GOVERNING LAW AND VENUE: This Contract shall be governed by the laws, rules, and regulations of the State of Utah. Any action or proceeding arising from this Contract shall be brought in a court of competent jurisdiction in the State of Utah. Venue shall be in Salt Lake City, in the Third Judicial District Court for Salt Lake County.

3. LAWS AND REGULATIONS: At all times during this Contract, Contractor and all Services performed under this Contract will comply with all applicable federal and state constitutions, laws, rules, codes, orders, and regulations, including applicable licensure and certification requirements.

4. RECORDS ADMINISTRATION: Contractor shall maintain or supervise the maintenance of all records necessary to properly account for Contractor's performance and the payments made by the State Entity to Contractor under this Contract. These records shall be retained by Contractor for at least six (6) years after final payment, or until all audits initiated within the six (6) years have been completed, whichever is later. Contractor agrees to allow, at no additional cost, State of Utah and federal auditors, and State Entity staff, access to all such records.

5. CERTIFY REGISTRATION AND USE OF EMPLOYMENT "STATUS VERIFICATION SYSTEM": INTENTIONALLY DELETED

6. CONFLICT OF INTEREST: INTENTIONALLY DELETED

7. INDEPENDENT CONTRACTOR: Contractor's legal status is that of an independent contractor, and in no manner shall Contractor be deemed an employee or agent of the State Entity or the State of Utah, and therefore is not entitled to any of the benefits associated with such employment. Contractor, as an independent contractor, shall have no authorization, express or implied, to bind the State Entity or the State of Utah to any agreements, settlements, liabilities, or understandings whatsoever, and agrees not to perform any acts as an agent for the State Entity or the State of Utah. Contractor shall remain responsible for all applicable federal, state, and local taxes, and all FICA contributions.

8. INDEMNITY: Both parties to this agreement are governmental entities as defined in the Utah Governmental Immunity Act (Utah Code Ann. 63G-7-101 et. seq.). Nothing in this Contract shall be construed as a waiver by either or both parties of any rights, limits, protections or defenses provided by the Act. Nor shall this Contract be construed, with respect to third parties, as a waiver of any governmental immunity to which a party to this Contract is otherwise entitled. Subject to and consistent
with the Act, each party will be responsible for its own actions or negligence and will defend against any claims brought against it. There are no indemnity obligations between these parties.

9. **EMPLOYMENT PRACTICES:** Contractor agrees to abide by the following employment laws: (i) Title VI and VII of the Civil Rights Act of 1964 (42 U.S.C. 2000e) which prohibits discrimination against any employee or applicant for employment or any applicant or recipient of services, on the basis of race, religion, color, or national origin; (ii) Executive Order No. 11246, as amended, which prohibits discrimination on the basis of sex; (iii) 45 CFR 90 which prohibits discrimination on the basis of age; (iv) Section 504 of the Rehabilitation Act of 1973, as amended, which prohibits discrimination on the basis of disabilities; and (v) Utah's Executive Order, dated December 13, 2006, which prohibits unlawful harassment in the workplace. Contractor further agrees to abide by any other laws, regulations, or orders that prohibit the discrimination of any kind by any of Contractor's employees.

10. **AMENDMENTS:** This Contract may only be amended by the mutual written agreement of the parties, provided that the amendment is within the Scope of Work of this Contract and is within the scope/purpose of the original solicitation for which this Contract was derived. The amendment will be attached and made part of this Contract. Automatic renewals will not apply to this Contract, even if listed elsewhere in this Contract.

11. **DEBARMENT:** Contractor certifies that it is not presently nor has ever been debarred, suspended, or proposed for debarment by any governmental department or agency, whether international, national, state, or local. Contractor must notify the State Entity within thirty (30) days if debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in any contract by any governmental entity during this Contract.

12. **TERMINATION:** Unless otherwise stated in this Contract, this Contract may be terminated, with cause by either party, in advance of the specified expiration date, upon written notice given by the other party. The party in violation will be given ten (10) days after written notification to correct and cease the violations, after which this Contract may be terminated for cause immediately and is subject to the remedies listed below. This Contract may also be terminated without cause (for convenience), in advance of the specified expiration date, by either party, upon sixty (60) days written termination notice being given to the other party. The State Entity and the Contractor may terminate this Contract, in whole or in part, at any time, by mutual agreement in writing. On termination of this Contract, all accounts and payments will be processed according to the financial arrangements set forth herein for approved Services ordered prior to date of termination.

Contractor shall be compensated for the Services properly performed under this Contract up to the effective date of the notice of termination. Contractor agrees that in the event of such termination for cause or without cause, Contractor's sole remedy and monetary recovery from the State Entity or the State of Utah is limited to full payment for all Services properly performed as authorized under this Contract up to the date of termination as well as any reasonable monies owed as a result of Contractor having to terminate other contracts necessarily and appropriately entered into by Contractor pursuant to this Contract.

13. **NONAPPROPRIATION OF FUNDS, REDUCTION OF FUNDS, OR CHANGES IN LAW:** Upon thirty (30) days written notice delivered to the Contractor, this Contract may be terminated in whole or in part at the sole discretion of the State Entity, if the State Entity reasonably determines that: (i) a change in Federal or State legislation or applicable laws materially affects the ability of either party to perform under the terms of this Contract; or (ii) that a change in available funds affects the State Entity's ability to pay under this Contract. A change of available funds as used in this paragraph, includes, but is not limited to, a change in Federal or State funding, whether as a result of a legislative act or by order of the President or the Governor.

If a written notice is delivered under this section, the State Entity will reimburse Contractor for the Services properly ordered until the effective date of said notice. The State Entity will not be liable for any performance, commitments, penalties, or liquidated damages that accrue after the effective date of said written notice.

14. **SUSPENSION OF WORK:** Should circumstances arise which would cause the State Entity to suspend Contractor's responsibilities under this Contract, but not terminate this Contract, this will be done by written notice. Contractor's responsibilities may be reinstated upon advance formal written notice from the State Entity.

15. **SALES TAX EXEMPTION:** The Services under this Contract will be paid for from the State Entity's funds and used in the exercise of the State Entity's essential functions as a State of Utah entity. Upon request, the State Entity will provide Contractor with its sales tax exemption number. It is Contractor's responsibility to request the State Entity's sales tax exemption number. It also is Contractor's sole responsibility to ascertain whether any tax deduction or benefits apply to any aspect of this Contract.

16. **INSURANCE:** INTENTIONALLY DELETED

17. **WORKERS COMPENSATION INSURANCE:** Contractor shall maintain during the term of this Contract, workers' compensation insurance for all its employees as well as any Subcontractor employees related to this Contract. Worker's compensation insurance shall cover full liability under the worker's compensation laws of the jurisdiction in which the service is performed at the statutory limits required by said jurisdiction. Contractor acknowledges that within thirty (30) days of contract award, Contractor must submit proof of certificate of insurance that meets the above requirements.

18. **ADDITIONAL INSURANCE REQUIREMENTS:** INTENTIONALLY DELETED

19. **PUBLIC INFORMATION:** Contractor agrees that this Contract, related purchase orders, related pricing documents, and invoices will be public documents, and may be available for public and private distribution in accordance with the State of Utah's Government Records Access and Management Act (GRAMA). Contractor gives the State Entity and the State of Utah express permission to make copies of this Contract, related sales orders, related pricing documents, and invoices in accordance with GRAMA. Except for sections identified in writing by Contractor and expressly approved by the State of Utah Division of Purchasing and General Services, all of which must be in accordance with GRAMA, Contractor also agrees that
Section 3, Item A.

the Contractor's Proposal to the Solicitation will be a public document, and copies may be given to the public under GRAMA. The State Entity and the State of Utah are not obligated to inform Contractor of any GRAMA requests for disclosure of this Contract, related purchase orders, related pricing documents, or invoices.

20. DELIVERY: All deliveries under this Contract will be F.O.B. destination with all transportation and handling charges paid for by Contractor. Responsibility and liability for loss or damage will remain with Contractor until final inspection and acceptance when responsibility will pass to the State Entity, except as to latent defects or fraud.

21. ACCEPTANCE AND REJECTION: The State Entity shall have thirty (30) days after delivery of the Services to perform an inspection of the Services to determine whether the Services conform to the standards specified in the Solicitation and this Contract prior to acceptance of the Services by the State Entity.

If Contractor delivers nonconforming Services, the State Entity may, at its option and at Contractor's expense: (i) return the Services for a full refund; (ii) require Contractor to promptly correct or reperform the nonconforming Services subject to the terms of this Contract; or (iii) obtain replacement Services from another source, subject to Contractor being responsible for any cover costs.

22. INVOICING: Contractor will submit invoices within thirty (30) days of Contractor's performance of the Services to the State Entity. The contract number shall be listed on all invoices, freight tickets, and correspondence relating to this Contract. The prices paid by the State Entity will be those prices listed in this Contract, unless Contractor offers a prompt payment discount within its Proposal or on its invoice. The State Entity has the right to adjust or return any invoice reflecting incorrect pricing.

23. PAYMENT: Payments will be made within thirty (30) days after a correct invoice is received. All payments to Contractor will be remitted by mail, electronic funds transfer, or the State of Utah's Purchasing Card (major credit card). If payment has not been made after sixty (60) days from the date a correct invoice is received by the State Entity, interest may be added by Contractor as prescribed in the Utah Prompt Payment Act. The acceptance by Contractor of final payment, without a written protest filed with the State Entity within ten (10) business days of receipt of final payment, shall release the State Entity and the State of Utah from all claims and all liability to the Contractor. The State Entity's payment for the Services shall not be deemed an acceptance of the Services and is without prejudice to any and all claims that the State Entity or the State of Utah may have against Contractor.

24. TIME IS OF THE ESSENCE: The Services shall be completed by any applicable deadline stated in this Contract. For all Services, time is of the essence. Contractor shall be liable for all reasonable damages to the State Entity and the State of Utah, and anyone for whom the State of Utah may be liable, as a result of Contractor’s failure to timely perform the Services required under this Contract.

25. CHANGES IN SCOPE: Any changes in the scope of the Services to be performed under this Contract shall be in the form of a written amendment to this Contract, mutually agreed to and signed by both parties, specifying any such changes, fee adjustments, any adjustment in time of performance, or any other significant factors arising from the changes in the scope of Services.

26. PERFORMANCE EVALUATION: The State Entity may conduct a performance evaluation of Contractor's Services, including Contractor's Subcontractors, if any. Results of any evaluation may be made available to the Contractor upon Contractor's request.

27. STANDARD OF CARE: The Services of Contractor and its Subcontractors shall be performed in accordance with the standard of care exercised by licensed members of their respective professions having substantial experience providing similar services which similarities include the type, magnitude, and complexity of the Services that are the subject of this Contract. Contractor shall be liable to the State Entity and the State of Utah for claims, liabilities, additional burdens, penalties, damages, or third party claims (i.e. another Contractor's claim against the State of Utah), to the extent caused by wrongful acts, errors, or omissions that do not meet this standard of care.

28. REVIEWS: The State Entity reserves the right to perform plan checks, plan reviews, other reviews, and/or comment upon the Services of Contractor. Such reviews do not waive the requirement of Contractor to meet all of the terms and conditions of this Contract.

29. ASSIGNMENT: Contractor may not assign, sell, transfer, subcontract or sublet rights, or delegate any right or obligation under this Contract, in whole or in part, without the prior written approval of the State Entity.

30. REMEDIES: Any of the following events will constitute cause for the State Entity to declare Contractor in default of this Contract: (i) Contractor's non-performance of its contractual requirements and obligations under this Contract; or (ii) Contractor's material breach of any term or condition of this Contract. The State Entity may issue a written notice of default providing a ten (10) day period in which Contractor will have an opportunity to cure. Time allowed for cure will not diminish or eliminate Contractor's liability for damages. If the default remains, after Contractor has been provided the opportunity to cure, the State Entity may do one or more of the following: (i) exercise any remedy provided by law or equity; (ii) terminate this Contract; (iii) impose liquidated damages, if liquidated damages are listed in this Contract; (iv) debar/suspend Contractor from receiving future contracts from the State Entity or the State of Utah; or (v) demand a full refund of any payment that the State Entity has made to Contractor under this Contract for Services that do not conform to this Contract.

31. FORCE MAJEURE: Neither party to this Contract will be held responsible for delay or default caused by fire, riot, acts of God, and/or war which is beyond that party's reasonable control. The State Entity may terminate this Contract after determining such delay will prevent successful performance of this Contract.
32. **CONFIDENTIALITY:** If Confidential Information is disclosed to Contractor, Contractor shall: (i) advise its agents, employees, partners, and Subcontractors of the obligations set forth in this Contract; (ii) keep all Confidential Information strictly confidential; and (iii) not disclose any Confidential Information received by it to any third parties. Contractor will promptly notify the State Entity of any potential or actual misuse or misappropriation of Confidential Information.

Contractor shall be responsible for any breach of this duty of confidentiality, including any required remedies and/or notifications under applicable law. Contractor shall indemnify, hold harmless, and defend the State Entity and the State of Utah, including anyone for whom the State Entity or the State of Utah is liable, from claims related to a breach of this duty of confidentiality, including any notification requirements, by Contractor or anyone for whom the Contractor is liable.

Upon termination or expiration of this Contract, Contractor will return all copies of Confidential Information to the State Entity or certify, in writing, that the Confidential Information has been destroyed. This duty of confidentiality shall be ongoing and survive the termination or expiration of this Contract.

33. **PUBLICITY:** Contractor shall submit to the State Entity for written approval all advertising and publicity matters relating to this Contract. It is within the State Entity’s sole discretion whether to provide approval, which must be done in writing.

34. **CONTRACT INFORMATION:** INTENTIONALLY DELETED.

35. **INDEMNIFICATION RELATING TO INTELLECTUAL PROPERTY:** Contractor will indemnify and hold the State Entity and the State of Utah harmless from and against any and all damages, expenses (including reasonable attorneys’ fees), claims, judgments, liabilities, and costs in any action or claim brought against the State Entity or the State of Utah for infringement of a third party’s copyright, trademark, trade secret, or other proprietary right. The parties agree that if there are any limitations of Contractor’s liability such limitations of liability will not apply to this section.

36. **OWNERSHIP IN INTELLECTUAL PROPERTY:** The State Entity and Contractor each recognizes that each has no right, title, interest, proprietary or otherwise in the intellectual property owned or licensed by the other, unless otherwise agreed upon by the parties in writing. All deliverables, documents, records, programs, data, articles, memoranda, and other materials not developed or licensed by Contractor prior to the execution of this Contract, but specifically created or manufactured under this Contract shall be considered work made for hire, and Contractor shall transfer any ownership claim to the State Entity.

37. **WAIVER:** A waiver of any right, power, or privilege shall not be construed as a waiver of any subsequent right, power, or privilege.

38. **ATTORNEY’S FEES:** INTENTIONALLY DELETED

39. **PROCUREMENT ETHICS:** Contractor understands that a person who is interested in any way in the sale of any supplies, services, construction, or insurance to the State of Utah is violating the law if the person gives or offers to give any compensation, gratuity, contribution, loan, reward, or any promise thereof to any person acting as a procurement officer on behalf of the State of Utah, or to any person in any official capacity participates in the procurement of such supplies, services, construction, or insurance, whether it is given for their own use or for the use or benefit of any other person or organization.

40. **DISPUTE RESOLUTION:** INTENTIONALLY DELETED.

41. **ORDER OF PRECEDENCE:** In the event of any conflict in the terms and conditions in this Contract, the order of precedence shall be: (i) this Attachment A; (ii) Contract Signature Page(s); (iii) the State of Utah’s additional terms and conditions, if any; (iv) any other attachment listed on the Contract Signature Page(s); and (v) Contractor’s terms and conditions that are attached to this Contract, if any. Any provision attempting to limit the liability of Contractor or limits the rights of the State Entity or the State of Utah must be in writing and attached to this Contract or it is rendered null and void.

42. **SURVIVAL OF TERMS:** Termination or expiration of this Contract shall not extinguish or prejudice the State Entity’s right to enforce this Contract with respect to any default of this Contract or defect in the Services that has not been cured.

43. **SEVERABILITY:** The invalidity or unenforceability of any provision, term, or condition of this Contract shall not affect the validity or enforceability of any other provision, term, or condition of this Contract, which shall remain in full force and effect.

44. **ENTIRE AGREEMENT:** This Contract constitutes the entire agreement between the parties and supersedes any and all other prior and contemporaneous agreements and understandings between the parties, whether oral or written.

(Revision Date: 12 December 2019)
ATTACHMENT B - SCOPE OF WORK

State of Utah - Coal to Carbon Fiber Program

Chris Johnson (PI), Eric Eddings (Co-PI), Mike Kirby (Co-PI)
University of Utah

July 1, 2021 – June 30, 2022

Broad Goals. The Utah Coal to Carbon Fiber project focuses on turning Utah coals into high-value products such as carbon fiber. This process will utilize both experimental and computational resources. In particular, the University of Utah will perform research and develop processes for the conversion of coal to high value products. We will accomplish this by (1) Performing laboratory-scale research on methods for producing other solid carbon products from coal, (2) Develop new data exploration and visualization capabilities focused on the support of the alternate solid carbon products such as carbon electrodes for large-scale batteries, graphite, graphene, and other materials optimization, and (3) Develop a multi-scale model selection method to optimize materials decision making with digital twins. In addition we will work with Box Elder County associates to develop rural supply chains in support of coal to materials and defense innovation.

The initial FY19 Phase I funding provided by the State of Utah, allowed the University of Utah to perform laboratory work necessary to identify operating conditions that lead to production of high-quality tars from Utah coal, and the conditions for upgrading that tar to mesophase pitch, which has been shown to be an important precursor material for producing high-modulus carbon fiber. However, the laboratory-scale work only produces small quantities of pitch, which makes subsequent production of carbon fiber time-consuming. The proposed multi-scale model selection method and data visualization tools being developed will help optimize the process modifications and product quality for each step of the process.

The cycle for assessing a single set of process operating conditions for each step of tar production, tar upgrading, and carbon fiber spinning, is currently on the order of one month. In order to accelerate the R&D and commercialization efforts, it is necessary to scale-up the tar production and tar upgrading steps, to allow a shorter cycle of converting coal to a final carbon fiber product. In this way, we will identify optimal production conditions needed for commercial production much more quickly. With the knowledge obtained from this earlier work, the team is ready to scale-up production of coal tars to accelerate the timeline for optimizing required conditions for producing carbon fiber from Utah coal.

Expected Outcomes. The team will develop new computational tools and experimental techniques to optimize and scale-up a process for producing high-value products, such as carbon fiber, from Utah coal. New multi-scale models and data visualization techniques will help predict process parameters and coal-specific properties.

Economic Opportunities. During the 2008 recession, Utah’s coal-based, rural economies experienced significant adverse impacts, losing jobs and experiencing a
decrease in overall labor force. Today, these economies continue to recover, and coal mines are hiring. The challenge is a very tight labor market, due to a reduced labor pool. To promote long-term stability for these communities, creating coal solutions through new, innovative technologies can trigger a more robust economic outlook.

The University of Utah’s coal-to-products initiative has great potential to address this need for long-term economic stability in Utah’s coal-producing counties. Due to the University of Utah’s work in coal-to-products, these counties are at the forefront of coal innovation. Moreover, Utah is a recognized national leader in this vital space. Through its collaboration with the State of Utah and OED, the University of Utah is working to disseminate its research findings to Utah’s coal communities and the state’s coal industry.

**Potential applications.** Applications of our research include production of carbon electrodes, which have the potential for wide market applications in Li-ion batteries for electric vehicles, utility-scale power storage (to facilitate solar and wind generation), or other consumer applications. One economic model would be to construct a processing plant near coal mines that could produce pitch for carbon fiber applications, as well as carbon electrodes for use in the manufacture of batteries, with metallurgical coke as an alternative or parallel use for the residual carbon, as needed. There may be other saleable byproducts identified during the course of our R&D efforts that could improve the overall economics of converting coal to products.

**Main Activities.** The University of Utah is engaged in laboratory-scale and computational research to explore the potential for producing carbon fiber from Utah coals. While much preliminary work has been done, the next step towards the development of a commercial process is to scale-up the research efforts to pilot-scale, to allow experimental and computational optimization of the process. Such a developmental effort at pilot-scale is required to reduce the technical and economic risk of building a full-scale production facility using only bench-top laboratory data.

In parallel, we will take advantage of the Scientific Computing and Imaging (SCI) Institute’s application of modeling, visualization, simulation, and data management research to create a prototype process to analyze and assess materials, to inform scientists and decision makers about the potential production of carbon fiber and other products from raw material of different origins.

In addition, we will use results from this work to better position ourselves for future Department of Defense and other federal and industrial funding opportunities.

**Scope of Work for FY2022**

**Task 1** (July 2021 – June 2022) - R&D on Additional Pathways for Producing Solid Carbon Products from Coal
Perform laboratory-scale research on alternate methods for producing mesophase pitch from coal, to increase overall yields for carbon products, relative to pyrolysis. The resulting mesophase pitch can be used to produce not only carbon fiber, but also other high-value carbon products including carbon electrodes for batteries, graphite and graphene.

**Task 2** – (July 2021 – June 2022) – R&D on Visualization and Data Exploration Tools

Develop new data exploration and visualization capabilities focused on the support of the alternate solid carbon products such as carbon electrodes for large-scale batteries, graphite, graphene, and other materials optimization.

**Task 3** – (July 2021 – June 2022) – Multi-scale Model Selection to Optimize Decision Making with Digital Twins

Develop a model selection method will be completed to guide digital twin frameworks to autonomously incorporate system-specific, physics-based or surrogate models for probabilistic predictions. The result is a method to optimize the tradeoff between accuracy through high-fidelity models and the need for in-time predictions to support decision making.

**Task 4** – (July 2021 – June 2022) – Rural Utah Defense Innovation

Develop rural supply chains in support of coal to materials and defense innovation. This task will focus on aligning rural companies to participate in defense supply chains in collaboration with Utah’s large, prime defense contractors.

**Task 5** – (July 2021 – June 2022) – Continued Development of U.S. Federal Funding Sources

Leverage FY22 state appropriation as funding for U.S. Department of Energy and U.S. Department of Defense contracts relating to producing high-value products from coal. Federal program and funding development.

**Deliverables**

June 30, 2022: Final Report:

- Summarizing optimized process conditions for a new coal to pitch conversion technique for use in developing larger-scale demonstration reactors.
- Summarizing new data visualization techniques. Developed software will be made available as open source through the SCI Institute.
- Summarizing the developed model selection methodology and findings. Developed codes will be made available to interested digital twin researchers for inclusion within holistic software frameworks.
- A list of technical publications in peer-reviewed publications and presentations per year recognizing the State of Utah financial support.

- Update efforts to expand Federal funding relating to producing high-value products from coal.
# ATTACHMENT C - BUDGET

## A. Senior Personnel

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th># of Mos.</th>
<th>Hourly Rate</th>
<th>Salary Year 2</th>
<th>Benefits Year 2</th>
<th>Salary Scale-Up Year 2</th>
<th>Benefits Scale-Up Year 2</th>
<th>Salary Cumulative</th>
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<tr>
<td>Christopher Johnson</td>
<td>PI</td>
<td>1.00</td>
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<td>34,567</td>
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<td>Eric Edings</td>
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<td>0</td>
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<tr>
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<td>8,657</td>
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| Total Senior Personnel: | 5 | | | 51,758 | 19,813 | 0 | 71,571 |}

## B. Other Personnel

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<tr>
<th>Position</th>
<th>Hours</th>
<th>Hourly Rate</th>
<th>Salary Year 2</th>
<th>Benefits Year 2</th>
<th>Salary Scale-Up Year 2</th>
<th>Benefits Scale-Up Year 2</th>
<th>Salary Cumulative</th>
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## C. Fringe Benefits

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## D. Equipment (detail by type)

- $5000 or greater (exempt F&A)
- Bench-scale Reactor Rebuild

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<th>0</th>
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<td>Foreign</td>
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## G. Other Direct Costs

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<td>2</td>
<td>Publication Costs</td>
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<td>3</td>
<td>Consultant Services - Jeremiah Riley</td>
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<td>4</td>
<td>Computer Services</td>
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## H. Subtotal Direct Costs

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<th>Code</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Materials and Supplies</td>
<td>133,866</td>
</tr>
<tr>
<td>2</td>
<td>Publication Costs</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Consultant Services - Jeremiah Riley</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Computer Services</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Subcontract(s)</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Other-Tuition</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>ICGRF Facility Recharge Fee</td>
<td>0</td>
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</table>

## I. Indirect Costs (Base)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Rate</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indirect Costs (F&amp;A Rate)</td>
<td>0.100</td>
<td>382,502</td>
</tr>
<tr>
<td>2</td>
<td>Useful Indirect Costs (F&amp;A Rate)</td>
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</table>

## J. Total Direct and Indirect

<table>
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<tr>
<th>Code</th>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total Direct and Indirect</td>
<td>461,750</td>
</tr>
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Section 3, Item A.
Subrecipient Information for FFATA reporting

Entity's DUNS Name: County of Box Elder
EIN No.: 87-6000298 Institution Type: County Government
DUNS: 790903004
Parent DUNS:
Place of Performance Address:
    Bighill/Thatcher, Utah

Subrecipient Contacts:
Central Email: cbennett@boixeldercounty.org
Website: www.boixeldercounty.org
Principal Investigator Name: Jeff Hadfield
    Email: jhadfield@boixeldercounty.org Telephone Number: 435-784-3347
Administrative Contact Name: Chrisce Bennett
    Email: cbennett@boixeldercounty.org
Financial Contact Name: Tom Kotter
    Email: tkotter@boixeldercounty.org Telephone Number: 435-734-3347
Invoice/Payment Email: cbennett@boixeldercounty.org
    Email: ssummers@boixeldercounty.org Telephone Number: 435-734-3347
Authorized Official Name: Stan Summers

Legal Address:
    Box Elder County
    1 S. Main St.
    Brigham City, UT 84302

Administrative Address:
    Box Elder County
    1 S. Main St.
    Brigham City, UT 84302

Payment Address:
    Box Elder County Auditor
    1 S. Main Street
    Brigham City, UT 84302
<table>
<thead>
<tr>
<th><strong>Certificate Of Completion</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Envelope Id: BAED6F80D76C455281EE3C56E4FC1E46</td>
<td>Status: Completed</td>
</tr>
<tr>
<td>Subject: Please DocuSign: 10062298-BOX-01 PE.pdf, 2543_001.pdf</td>
<td></td>
</tr>
<tr>
<td>Source Envelope: Document Pages: 23</td>
<td>Signatures: 1</td>
</tr>
<tr>
<td>Certificate Pages: 1</td>
<td>Initials: 0</td>
</tr>
<tr>
<td>AutoNav: Enabled</td>
<td>Envelope Originator: LAUREL DUNCAN</td>
</tr>
<tr>
<td>Enveloped Stamping: Enabled</td>
<td></td>
</tr>
<tr>
<td>Time Zone: (UTC-08:00) Pacific Time (US &amp; Canada)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Record Tracking</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Status: Original</td>
<td>Holder: LAUREL DUNCAN <a href="mailto:u0206374@utah.edu">u0206374@utah.edu</a></td>
</tr>
<tr>
<td>12/21/2021 1:19:39 PM</td>
<td>Location: DocuSign</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Signer Events</strong></th>
<th><strong>Signature</strong></th>
<th><strong>Timestamp</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>KRISTIE THOMPSON</td>
<td>DocuSigned by: KRISTIE THOMPSON</td>
<td>Sent: 12/21/2021 1:20:59 PM</td>
</tr>
<tr>
<td><a href="mailto:u0283084@utah.edu">u0283084@utah.edu</a></td>
<td>Signature Adoption: Pre-selected Style</td>
<td>Viewed: 12/21/2021 1:53:22 PM</td>
</tr>
<tr>
<td>Associate Director, Grants</td>
<td>Using IP Address: 75.169.43.62</td>
<td>Signed: 12/21/2021 1:53:37 PM</td>
</tr>
<tr>
<td>University of Utah</td>
<td>Security Level: Email, Account Authentication (Optional)</td>
<td></td>
</tr>
</tbody>
</table>

**Electronic Record and Signature Disclosure:** Not Offered via DocuSign

<table>
<thead>
<tr>
<th><strong>In Person Signer Events</strong></th>
<th><strong>Signature</strong></th>
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<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th><strong>Editor Delivery Events</strong></th>
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<tr>
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<table>
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<tr>
<th><strong>Agent Delivery Events</strong></th>
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<table>
<thead>
<tr>
<th><strong>Intermediary Delivery Events</strong></th>
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<table>
<thead>
<tr>
<th><strong>Certified Delivery Events</strong></th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th><strong>Carbon Copy Events</strong></th>
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<tr>
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<table>
<thead>
<tr>
<th><strong>Witness Events</strong></th>
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<th><strong>Timestamp</strong></th>
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<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Notary Events</strong></th>
<th><strong>Signature</strong></th>
<th><strong>Timestamp</strong></th>
</tr>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Envelope Summary Events</strong></th>
<th><strong>Status</strong></th>
<th><strong>Timestamps</strong></th>
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</thead>
<tbody>
<tr>
<td>Envelope Sent</td>
<td>Hashed/Encrypted</td>
<td>12/21/2021 1:20:59 PM</td>
</tr>
<tr>
<td>Certified Delivered</td>
<td>Security Checked</td>
<td>12/21/2021 1:53:22 PM</td>
</tr>
<tr>
<td>Signing Complete</td>
<td>Security Checked</td>
<td>12/21/2021 1:53:37 PM</td>
</tr>
<tr>
<td>Completed</td>
<td>Security Checked</td>
<td>12/21/2021 1:53:37 PM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Payment Events</strong></th>
<th><strong>Status</strong></th>
<th><strong>Timestamps</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>
All agenda items and any back-up material needs to be submitted to the Clerk’s Office by Thursday at 5:00 PM in order to be on the following Wednesday’s Agenda.

You may email back-up: ordinances, resolutions, contracts, agreements, and a brief explanation of your item to: t gibson@box elder county.org

Meeting Date: 04-06-2022
Submitted Date: 04-01-2022
Person and Org Submitting Item:
Time Requested: 2

Contact Information:
Item to be Presented in: Redevelopment Agency Meeting
Subject to be Presented: Conflict of Interest Coal to Fiber Grant-Stan Summers

Reason for Request:

What action have you taken/who have you contacted prior to this:
Enter Text Here

Official Action Requested:

Has the document been approved by the County Attorney?