

11-TTAG-003

Company Name	PC Turnkey, Inc.
NAICS	333994
Address	306 Black Oak Avenue
City	Springdale
State	AR
ZIP	72764
County	Washington
Number of Employees	5
Year Established	1992
Company Web Site	PC Turnkey Technology Solutions
Contact Person	Dan Krotzer
Title	Chief Technologist
Phone	479-751-4114
Email Address	dank@pcturnkey.com
Fax	479-935-9133
Secondary Contact Name	Pat Hale
Secondary Contact Title	Administrative Assistant
Secondary Contact Phone	479-751-4114
Secondary Contact Email	pathale@pcturnkey.com
Resource Provider	EquityNet, LLC
RP Address	21 W. Mountain St., Suite 123
RP City	Fayetteville
RP State	AR
RP ZIP	72701-6064
RP County	Washington
RP Project Contact	R. R. (Ron) Goforth

RP Title	Senior Vice President
RP Phone	479-442-3638
RP Email	rgoforth@equitynet.com
RP Fax	479-444-0089
Project Area	Environmental Sciences - 6 - Energy and Renewable Resources
Project Area Brief Description	As per instructions this is a SBIR/STTR applicant and the appropriate Federal Agency is U.S. Department of Agriculture
Federal Agency	U.S. Department of Agriculture
Project Title	11-TTAG-003 - Development of a distributable, economical and environmentally sustainable process for energy recovery and biobased co-products from non-food cellulosic waste streams.
Competitive Challenges	To promote the use of biofuels and non-food biobased products by developing new or improved technologies that will lead to the increased production of energy and co-products from agricultural and forest materials. This research will lead to new opportunities to diversify agriculture and enhance agriculture's role as a reliable supplier of energy and materials to industry.
Specific Problem	New and improved technology for the economically and environmentally sustainable production and conversion of agricultural cellulosic and non-cellulosic biomass energy crops and residues into recoverable energy, non-ethanol biofuels and co-products. Target the development of thermochemical processes for advanced biofuel production, and co-products from the advanced biofuel production stream that will optimize the economic feasibility of the process. The innovative technologies will minimize adverse environmental impacts during conversion; the reduction of energy use and water use; and reduction of harmful byproducts or waste streams. The technology, by design, will have carbon reduction benefits.
Solution	Because supporting continuing R&D and efforts directed toward commercializing new technologies are both complex and expensive, it is important that research, development, and commercialization plans for the technologies selected are well-conceived and executed. The Resource Provider brings substantial experience to bear on this issue as it will be incorporated into the SBIR grant application. The primary technologies of interest incorporate a superior pyrolytic gasification process for the production of "syngas" from (waste) cellulosic materials with biochar as a valuable co-product. The recovery of value from waste streams or under-utilized cellulosic materials, is expected to increase substantially during the next decade.

	Adoption of proposed technology could become a significant beneficiary of such demands.
Implementation Plan	The proposed SBIR supported project will focus of proof-of-concept (largely by small prototype and demonstration unit operations and testing) with a focus on methods and materials used in the production of syngas and biochar from cellulosic feedstock, as well as verification of the technical feasibility of the proposed process development. Mass and energy balance studies will be initiated for purposes of process optimization, scaling and in support or a Phase II project proposal. Continuing awareness of the current status of the technology will be accompanied by a broad identification and summary research on state of the art in competing and parallel biomass conversion technologies.
Maintenance Plan	Presuming success in a Phase II, demonstrations in multiple applications will be used to encourage additional investor interest. Associations with potential users, e.g., agricultural Coops, will be promoted. A determination of the best options with regard to build/buy and direct sales vs. distribution systems will be explored in depth in parallel to the later stages of the Phase II work.
Step 1	The preparation of the Phase I SBIR will be an intense effort to produce a well-conceived and convincing application in the limited time available to meet the Agency submission deadline. It is anticipated that the planning work will be both done jointly and iteratively with the Resource Provider. Document creation editing and preparation will be done in parallel.
Step 1 Time	70.00
Step 1 Budget	\$5,000
Step 2	
Step 2 Time	0.00
Step 2 Budget	\$0
Step 3	
Step 3 Time	0.00
Step 3 Budget	\$0
Increased Sales	\$0
Retained Sales	\$0
CS Inventory	\$0
CS Labor	\$0

CS Materials	\$0
CS Other	\$0
II Plant	\$0
II IS	\$0
II Workforce	\$50,000
II Research	\$100,000
II Other	\$0
AUI	\$0
SOI	\$0
Job Retention	0
Job Creation	0
YN 90Days	Yes
YN Affiliation	No
YN Agreement	Yes
YN Total Project Price	Yes
Explain Total Project Price	
YN Cash Match Agreement	Yes
Copied	No
TTAG ID	11-TTAG-003
Signature Panel - RP AR Name	EquityNet, LLC
Signature Panel - RP AR Email	rgoforth@equitynet.com
Signature Panel - Enterprise AR Name	PC Turnkey, Inc.
Enterprise - Email	dank@pcturnkey.com
Signature Panel - Enterprise AR Email	dank@pcturnkey.com
Include in Batch	Yes
Batch Number	NA

Application Status	Pending
Organization	ASTA
BatchTest	Processed
Batch Date	
Set Batch Number	
Lvl4	No
Application Description	7-Agriculture, Food & Environmental Sciences
SBIR-STTR	Yes