Scope of Work

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I. SCOPE OF SOLICITATION

Clemson is seeking to establish a new contract for service and maintenance for the emergency generators on Campus. This will be a one year contract with the option to renew for an additional four years.

II. INSTRUCTIONS TO OFFERORS

Regardless of specific requirements below or in this document, Offerors are required to submit their proposal electronically through the Clemson University online bidding system. To do so you must login (registering first) at https://sciquest.ionwave.net/prod/default.aspx?company=clemson, and follow specific instructions for this solicitation. You should register several days in advance of the bid closing date so you can be approved and login in time to submit a response.

1. INFORMATION FOR OFFERORS TO SUBMIT - In addition to information requested elsewhere in this solicitation, Offerors should submit the following information for purposes of evaluation:

   Offeror shall include items required in this bid to include:

   a. A completed version of the Appendix file.

   b. A list of equipment available for rent in case of emergency including kilowatt.

2. The successful Offeror shall provide satisfactory evidence of all required insurance coverage and licenses PRIOR TO PERFORMANCE

3. Be sure to see the Event Activities in the online bidding system for details on deadlines for questions. There is no site visit scheduled, however if you feel you must see the equipment in

order to submit an accurate bid, please let the buyer know via email at apatton@clemson.edu prior to March 26th @ 1:00 PM EST and one can be arranged.

III. SCOPE OF WORK / SPECIFICATIONS

A. The following services will be performed once every 12 months:

1. Check overall appearance for leaks, loose wires, loose mountings, etc… Check coolant level, test for amount of protection, adjust to proper specification, and record on inspection sheet. Pressure test cooling system for leaks. Check all coolant hoses, clamps, and drive belts for deterioration; adjust and replace as necessary.
2. Check water pump bearings for excessive play and fan blade for cracks and vibration. Check engine heater operation and adjust if necessary.
3. Clean and service batteries, battery cable terminals and holders, checks specific gravity and record, and test batteries with load tester. Check battery charger and adjust to proper specifications. Check alternator on units so equipped.
4. Service all engines, changing oil, oil filters, fuel filters, air filters, and lubricate all linkages as needed.
5. Check fuel pressure on LP gas engines and record pressure.
6. Check all engine governor adjustments and set to specifications. Check all starter disconnect circuits and all engine safety shutdown equipment.
7. Check fuel day tank, float valves, switches, relays, pump and motor for proper operation. Check main fuel tank for contamination and report if tank is contaminated. Check main fuel tank lines, and return lines condition.
8. Lubricate generator bearings on units with serviceable bearings with approved grease, clean and inspect generator brushes, brush holders, slip rings, windings, diodes, and associated equipment. Check generator alignment with laser alignment or dial indicator gauges
9. Clean and service generator controller and components. Check voltage and frequency, and adjust voltage regulator to specifications.
   Check phase sensing relays and overrun timers, and transfer switches, and operate generator under full building emergency load when possible to check current draw, voltage regulator and engine governor adjustments and adjust to specifications.
10. Annual Load Bank Test per NFPA 110 section 7.13.4.3.1 A load shall be applied after the transfer switch for not less than 30% of the nameplate KW rating for the first 30 minutes, not less than 50% of the nameplate data for the next 30 minutes, not less than 75% for the next hour for a total of two hour test. Exhaust stack temperature readings will be monitored during the entire test. Engines shall be operated “off-load” for 5 to 10 minutes, after the engine has been either exercised “loaded” or operated under normal application guidelines. After each inspection Clemson University will be furnished a written report to be filed in a hard-bound maintenance log. Any abnormal condition found will be noted and further service recommendation will be made to assure that it is operating dependability. This will only apply to Annual Contract for load bank Testing of Emergency Generators indicated.

B. Provide telephone number for 24 hour service. Service must be available 24 hours per day, seven days a week. Most parts must be available from contractor's stock. Should it be necessary, a wide range of rental generators must be available from contractor?

C. After each inspection Clemson University will be furnished a written report to be filed in a hard-bound maintenance log. Any abnormal condition found will be noted and further service recommendation to assure operating dependability will be made.

D. Priority service will apply to the contract, with service 24 hours a day. Any additional labor and parts for supplementary service will be invoiced separately in accordance with rates herein. All invoices are to be itemized by generator with quantity, part #, part description, and price of each part. All routine parts required to complete the scope of work below should be included in the annual maintenance pricing per unit. Any freight/shipping charges must be included in pricing as well.

E. The successful offeror will provide Clemson University a minimum of three days notice for access to equipment. If there is a conflict which would prohibit access to equipment (buildings in used for meetings, concert, etc….) a reschedule date will be established.

F. The contractor agrees to correct, by repair or replacement at no additional cost, any defects in material or workmanship installed under this contract which may develop under normal use within 90 days from installation.

G. Clemson University reserves the right to add additional generators to this contract if the need arises. Pricing for any additions will be negotiable between Clemson University and the contractor prior to generators being added.

H. The following list of generator specific requirements applies as indicated:

1. **Linvil Rich Lab (E.S.E), Godly Snell (Animal Research), and Daniel Hall Generators:**
   a) Must use John Deere Torq-gard Supreme Plus-50 motor oil. API CE/CD and John Deere oil filters, and fuel filters. Leave one extra gallon of oil at each generator site.
2. **BRC, Fike, TIWET Generator and CEF Generators:**
   a) Must use Caterpillar Diesel Oil #3E9713, SAE 15W40, API CF-4, CE, and Caterpillar oil, fuel, and air filters. Leave five extra gallons of oil at generator site.
3. **Flour Daniel Engineering Building Generator #1 (Cummins):**
   a) Must use Cummins Premium Blue motor oil SAE 15W-40 diesel oil and Cummins air, oil and water filters. Leave four extra gallons of oil at generator site.

I. Certified Generator Technicians Certificate Required. Technicians must be able to perform basic to high level troubleshooting on the commercial power supply side, transfer switches, control software and related control hardware. Contractor shall have factory trained and certified Paralleling and Switchgear Technician within the company.

J. Vendor is to ensure proper disposal of all liquid – i.e. oils, gas, diesel and filters. Along these lines, vendor should also adhere to University spill prevention and control plans and note any spill containment and cleanups that occur in the furnished report

K. Successful vendor must arrive on campus one (1) hour after call for emergency / call-back service.

L. Must have local Sales rep to call on Clemson University.

M. Must have Service and Parts availability 24 hours a day.

N. Must have Load Bank Equipment within company

O. Failure to Perform: The University reserves the right to engage the services of a Generator consultant at any time during the life of the contract for the purpose of evaluating services received. The Consultant's decision as to Contractor's responsibility in fulfilling his contract obligation shall be final, with approval from the University. However, the Consultant cannot recommend that anything be added to the generator contract, at a cost to the contractor, which was not present when contract was awarded. If the Contractor fails to make immediate correction to generators as directed by the Consultant through the University, any or all contracts held by the Contractor may be canceled.

P. Warranty: The Contractor shall guarantee all work required during the contract period for the duration of the contract. Should Clemson University determine during the contract period that any required work has been performed improperly or not performed at all, the Contractor shall, after mailing of written notification by the University, correct said difficulty within fourteen (14) days. Failure to correct the defect within fourteen (14) days will be construed a default of the contract.

The Contractor also warrants to the University that all parts furnished under this specification will be new, of good quality and workmanship, and agrees to replace promptly any part or parts which by reason of defective materials or workmanship shall fail under normal use, free of negligence or accident during the contract period, and any extensions thereof. Such replacement shall be free of any charge to the University.

Q. Environmental Protection: Contractor shall endeavor to reduce generation of waste materials, to minimize risks to the environment, customers, the general public and its employees, and to comply with all federal and state environmental laws and regulations. Material Safety Data Sheet (MSDS) Manuals are available for review upon request.

IV. TERMS AND CONDITIONS – SPECIAL

AWARD CRITERIA:

Award will be evaluated on the lowest total bid for Items 1 and 2 of the bidding schedule. Items 3, 4, and 5 will be used for informational purposes to establish billing rates for all service requests not included under the annual service scope (estimated 150 hrs. per year total).

Please enter pricing in the attached Appendix file and attach the completed version of it with your submittal.

If additional generators are purchased and/or need to be added to this list, they may be added under this contract if both Clemson and the vendor agree on a cost

V. APPENDICES TO SCOPE OF WORK

A – Generator Listing for Facilities Annual Maintenance
B – Generator Listing for Units that may require service but are NOT covered under this initial maintenance contract (this is being supplied for informational purposes only)
C – Pricing Breakdown

*Please note – Appendix A-C are combined in ONE file in the attachments section.

VI. BIDDING SCHEDULE

See Appendix C

INSTRUCTIONS:
This spreadsheet has all of the Appendices complied in a single file for your convenience. Please go through each tab (Appendix A, Appendix B, and Appendix C) and enter pricing where indicated.

Total pricing for Appendix A will automatically pull into Appendix C - Pricing Breakdown for you. You must manually enter pricing for items 3-6 in the tab for Appendix C. The total cost in the yellow highlighted cell is the price you need to enter into the online bidding system. This is the price that will be used for evaluation.

You are required to enter additional pricing on the Pricing Breakdown for Items 3-6 as indicated. Please note, the number of hours on Item 3 are estimated and the hours for Items 4-6 are unknown. There is NO guarantee on any amount of hours for these items. Items 4-6 are for informational purposes only to establish billing rates; these hours are not part of the annual service, but rather are for service requests that are needed but not included in the annual service pricing.

Every bid submittal should have a completed version of this entire file along with the online bid submittal.

APPENDIX A : Generator Listing

Item #	Building Name	Make	Model #	Killowat Sizing	Fuel Tank Capacity	Annual Cost for Maintenance	Annual Cost for Load Banking
1	BRC	Caterpillar	3412	800 kw	1400 gallons	$ -	$ -
2	Fike	Caterpillar	3406	300 kw	1000 gallons	$ -	$ -
3	Redfern	Kohler	30REOZJB-QS1	30 kw	125 gallons	$ -	
4	LJC	Kohler	600ROZD4	600 kw	660 gallons	$ -	$ -
5	Lehotsky	Cummins	DSKAB-7615197	15 kw	125 gallons	$ -	
6	Barre	Cummins	DSKAB-1614193	15 kw	80 gallon s	$ -	
7	Godley Snell	Kohler	1SUROZJ81	180 kw	550 gallons	$ -	$ -
8	McAdams	(caterpillar)	97A 03333 S	20 kw	55 gallons	$ -	
9	P&A animal	Cummins	7.5JB FL	7.5 kw	propane	$ -	
10	P&A computer	Kohler	150REOZJB	150 kw	312 gallons	$ -	$ -
11	Life Science	Cummins	DFEK-8280909	500 kw	830 gallons	$ -	$ -
12	Cooper	Spectrum	40DS60	40 kw	140 gallons	$ -	
13	ASC	Cummins	DSFAA-7519859	35 kw	80 gallons	$ -	
14	Rhodes Annex	Cummins	DQDAA-7179376	300 kw	500 gallons	$ -	$ -
15	Freeman	Kohler	30 REOZJB	30 kw	60 gallons	$ -	
16	Flour Daniel	Kohler	45RZ82	45 kw	propane	$ -	
17	Flour Daniel	Kohler	135RZ72	125 kw	propane	$ -	$ -
18	Sirrine	Kohler	30REOZJB	30 kw	60 gallons	$ -	
19	Hunter	Cummins	DSKBA-6969805	20 kw	80 gallons	$ -	
20	Hendrix	Kohler	80ROZJ	80 kw	165 gallons	$ -	
21	Dillard	Kohler	25ROZJ	25 kw	50 gallons	$ -	
22	Tillman	Cummins	DSKAB-7448829	15 kw	135 gallons	$ -	
23	Jordan 1st	Kohler	30REOZJB	30 kw	60 gallons	$ -	
24	Jordan Dock	Cummins	250DQDAA	250 KW	300 gallons	$ -	
25	Jordan 4th	Kohler	35RZG	35 kw	propane	$ -	
26	Daniel	Kohler	40ROZJ	40 kw	50 gallons	$ -	
27	Fire Station	Kohler	60REOZJB	60 kw	250 gallons	$ -	
28	Lee	Kohler	15REOD	15 kw	40 gallons	$ -	
29	police (911)	Cummins	GGFD-5909018	35 kw	propane	$ -	
30	police (new)	Cummins	DSKAB-1211671			$ -	
31	Edwards	Kohler	30REOZJB	30 kw	60 gallons	$ -	
32	Sikes	Cummins	DGGD-7615184	35 kw	145 gallons	$ -	
33	Brackett	Cummins	DSGAE-1212821	200 kw	380 gallons	$ -	$ -
34	Presidents House	Cummins	GGPC-5225106	40 kw	Natural gas	$ -	
35	Central Energy	Caterpillar	3406	300 kw	700 gallons	$ -	$ -
36	Rust	Kohler	300ROZD71	300 kw	4000 gallons	$ -	$ -
37	Rich	Kohler	125ROZJ71	125 kw	250 gallons	$ -	$ -
38	AMRL	Generac	433RSL4021	300 kw	693 gallons	$ -	$ -
39	Tiwet	Caterpillar	3412	600 kw	1400 gallons	$ -	$ -
40	Duke Innovation	Cummins	DFEK-6069166	500 kw	850 gallons	$ -	$ -
					Totals	$ -	$ -
					Total Cost for Appendix A		$ -

APPENDIX B: Generator Listing for call out

These are in addition to generators in annual maintenance contract. There is no pricing required at this point - this is for to be used for informational purposes.

Item	Building Name	Building #	Dept #	Barcode #	Make	Model	Engine	Output	Hertz	Phase	Volts	Cooling	Fuel	Tank
1	Aquaculture Lab	1160	5906	ELEC-00801	Dayton	4W166	2 Cyl.	8 Kw	60	1	120/240	Air Cooled	NG	#
2	Bottoms (Catfish Pond)	#	CB	ELEC-01161	Katolight	D80FD24	6 Cyl.	80 Kw	60	3	120/240	Radiator	Diesel	50
3	Bottoms (New Greenhouse)	#	CB	ELEC-01002	Onan	40DGATE	6CYL	28Kw	60	3	120/208	Radiator	Diesel	50
4	Bottoms (Shrimp Pond)	#	CB	ELEC-01162	ONAN	40DGAE	6 Cyl.	28KW	60	3	120/208	Radiator	Diesel	50
5	Lamaster Dairy	6141	CB	ELEC-01109	Cummins	6AT: 4-G1	6 Cyl.	28 Kw	60	3	120/208	Radiator	Diesel	15
6	Poultry PEC Building	233	CB	ELEC-01110	Cummins	6AT3-G1	6 Cyl.	28 KW	60	3	120/208	Radiator	Diesel	15
7	Landscape Greenhouse		5907	ELEC-	Generac	44562	2 Cyl.	12 Kw	60	1	120/208	Air Cooled	LP Gas	LP Gas

APPENDIX C: Pricing Breakdown

Item	Description	Quantity	Unit of Measure	Unit Price	Extended Total Price
1	Annual cost for Maintenance and Load Banking from Appendix A	Total from Appendix A			$ -
2	Holiday/weekend/overtime call outs	150	Hour	$ -	$ -
3	Normal call out rate	1	Hour	$ -	$ -
4	After hour and emergency call out rate	1	Hour	$ -	$ -
5	Holiday/ weekend/overtime call out rate	1	Hour	$ -	$ -
			Total for Evaluation		$ -
			Total for Informational purposes		$ -

Enter the yellow highlighted cell in the online bidding schedule; this wil be the rates used for evaluation purposes as outlined in the SOW.

Be sure to complete and attach this entire file along with your bid submittal.

Building	Make		Model	Serial Number	Size	Fuel Tank
BRC	Caterpillar		3412	2WJ06072	800 kw	1400 gallons
Fike	Caterpillar		3406	1DZ04405	300 kw	1000 gallons
Redfern	Kohler		30REOZJB-QS1	O768037	30 kw	125 gallons
LJC	Kohler		600ROZD4	O726958	600 kw	660 gallons
Lehotsky	Cummins		DSKAB-7615197	C090235189	15 kw	125 gallons
Barre	Cummins		DSKAB-1614193	C090235190	15 kw	80 gallon s
Godley Snell	Kohler		1SUROZJ81	356906	180 kw	550 gallons
McAdams	(caterpillar)		97A 03333 S	2035509	20 kw	55 gallons
P&A animal	Cummins		7.5JB FL	G930514128	7.5 kw	propane
P&A comput	Kohler		150REOZJB	O781750	150 kw	312 gallons
Life Science	Cummins		DFEK-8280909	J110263479	500 kw	830 gallons
Cooper	Spectrum		40DS60	371746	40 kw	140 gallons
ASC	Cummins		DSFAA-7519859	G110234186	35 kw	80 gallons
Rhodes Anne	Cummins		DQDAA-7179376	G08193279	300 kw	500 gallons
Freeman	Kohler		30 REOZJB	2086647	30 kw	60 gallons
Flour Daniel	Kohler		45RZ82	355792	45 kw	propane
Flour Daniel	Kohler		135RZ72	355914	125 kw	propane
Sirrine	Kohler		30REOZJB	2086648	30 kw	60 gallons
Hunter	Cummins		DSKBA-6969805	D110207781	20 kw	80 gallons
Hendrix	Kohler		80ROZJ	610187	80 kw	165 gallons
Dillard	Kohler		25ROZJ	O633732	25 kw	50 gallons
Tillman	Cummins		DSKAB-7448829	G110228776	15 kw	135 gallons
Jordan 1st	Kohler		30REOZJB	208646	30 kw	60 gallons
Jordan Dock	Cummins		250DQDAA	L120436014	250 KW	300 gallons
Jordan 4th	Kohler		35RZG	O717406	35 kw	propane
Daniel	Kohler		40ROZJ	398180	40 kw	50 gallons
Fire Station	Kohler		60REOZJB	O762243	60 kw	250 gallons
Lee	Kohler		15REOD	2089318	15 kw	40 gallons
police (911)	Cummins		GGFD-5909018	H070092665	35 kw	propane
police (new)	Cummins		DSKAB-1211671	H120382652		
Edwards	Kohler		30REOZJB	2086645	30 kw	60 gallons
Sikes	Cummins		DGGD-7615184	B090234354	35 kw	145 gallons
Brackett	Cummins		DSGAE-1212821	L120394397	200 kw	380 gallons
Presidents H	Cummins		GGPC-5225106	H100148648	40 kw	Natural gas
Central Ener	Caterpillar		3406	4ZR05466	300 kw	700 gallons
Rust	Kohler		300ROZD71	286630	300 kw	4000 gallons
Rich	Kohler		125ROZJ71	273656	125 kw	250 gallons
AMRL	Generac		433RSL4021	LM-244097-1203	300 kw	693 gallons
Tiwet	Caterpillar		3412	81Z10439	600 kw	1400 gallons

Item #	Building	Make	Engine Make	Engine #	Genset Model #	Genset Serial #	Size	Fuel Cap.
1	AMRL	Generac	GENERAC	0A8829	433RSL4021	LM-244097-1203	300 kw	693 gallons
2	Aquaculture	Dayton	DAYTON	303775	4W166	O938899	7.5 kw	nat gas
3	ASC	Cummins	CUMMINS	QSB5-G3 NR3	DSFAA-7519859	G110234186	35 kw	80 gallons
4	Barre Hall	Cummins	KUBOTA	D1703M	DSKAB-1614193	C090235190	15 kw	80 gallon s
5	Brackett Hall	Cummins	CUMMINS	QSB7-G5 NR3	DSGAE-1212821	L120394397	200 kw	380 gallons
6	BRC	Caterpillar	CATERPILLAR	3412	7E-1091	2WJ06072	800 kw	1400 gallons
7	Central Energy	Caterpillar	CATERPILLAR	3406	SR4B	9CR01762	300 kw	700 gallons
8	COOPER LIBRARY	Spectrum	PERKINS	4.236	40DS60	371746	40 kw	140 gallons
9	Daniel Hall	Kohler	JOHN DEERE	4039D	40ROZJ	398180	40 kw	50 gallons
10	Dillard	Kohler	JOHN DEERE	4039D	25ROZJ	O633732	25 kw	50 gallons
11	Duke Innovation	Cummins	CUMMINS	79447053	DFEK-6069166	K100169679	500 kw	850 gallons
12	Earle Hall	CUMMINS	KUBOTA	V3300	DSKCA-1213539	J120398663	25 Kw	80 gallons
13	Edwards Hall	Kohler	JOHN DEERE	PE10031	30REOZJB	2086645	30 kw	60 gallons
14	FIKE RECREATION	Caterpillar	CATERPILLAR	3406	SR4B	9CR02798	300 kw	1000 gallons
15	Fire Station	Kohler	JOHN DEERE	4045TF150	60REOZJB	762243	60 kw	250 gallons
16	Flour Daniel # 1	Kohler	FORD	CSG-6491-6005-F	45RZ82	355792	45 kw	propane
17	Flour Daniel # 2	Kohler	CUMMINS	6855	135RZ72	355914	125 kw	propane
18	Freeman Hall	Kohler	JOHN DEERE	3029TF150	30 REOZJB	2086647	30 kw	60 gallons
19	Godley Snell	Kohler	JOHN DEERE	6081AF001	1SUROZJ81	356906	180 kw	550 gallons
20	Hendrix	Kohler	JOHN DEERE	6059T	80ROZJ	610187	80 kw	165 gallons
21	Hunter Hall	Cummins	KUBOTA	V2203-M-BG-ET02	DSKBA-6969805	D110207781	20 kw	80 gallons
22	Jordan Hall Outside	CUMMINS	CUMMINS	QSL9-G7	DQDAA-1217087	L120436014	250 kw	300 gallons
23	Jordan Hall 1st	Kohler	JOHN DEERE	3029TF150	30REOZJB	208646	30 kw	60 gallons
24	Jordan Hall 4th	Kohler	GM	VORTEC 4.3L	35RZG	O717406	35 kw	propane
25	Kinard Hall	Magnetek	Denso	128000-7750	40DWI	609594020	35 kw	200 gallons
26	Lamaster	Cummins	CUMMINS	6AT344G1/50193F	40DGAE	G920476521	40 kw	25 gallons
27	Landscape	Generac	GENERAC	OE6219	OO44562	3868255	15 kw	propane
28	Lee Hall	Kohler	YANMAR	37NV84T-G	15REOD	2089318	15 kw	40 gallons
29	Lehotsky	Cummins	KUBOTA	D1703M	DSKAB-7615197	C090235189	15 kw	125 gallons
30	Life Science	Cummins	CUMMINS	QSX15-G9	DFEK-8280909	J110263479	500 kw	830 gallons
31	LITTLEJOHN COLISEUM	Kohler	DETROIT DIESEL	12V-92TA	600ROZD4	O726958	600 kw	660 gallons
32	McAdams	OLYMPIAN	GENERAC	24DN	97A 03333 S	2035509	20 kw	55 gallons
33	P&A animal	Cummins	DAYTON	303787	7.5JB FL	G930514128	7.5 kw	propane
34	P&A computer	Kohler	JOHN DEERE	PE6068H319101	150REOZJB	O781750	160 kw	312 gallons
35	police (911)	Cummins	FORD	ESG-642	GGFD-5909018	H070092665	35 kw	propane
36	police (new)	Cummins	KUBOTA	CJ2369	DSKAB-1211671	H120382652	25 kw	125 gallons
37	Presidents House	Cummins	Power solutions	36000033	GGPC-5225106	H100148648	40 kw	Natural gas
38	Redfern	Kohler	JOHN DEERE	RE3029T297554	30REOZJB-QS1	O768037	30 kw	125 gallons
39	Rhodes Annex	Cummins	CUMMINS	46911631	DQDAA-7179376	G08193279	300 kw	500 gallons
40	Rich	Kohler	JOHN DEERE	RG607T148175	125ROZJ71	273656	125 kw	250 gallons
41	Rust	Kohler	DETROIT DIESEL	8922365-A28	300ROZD71	286630	300 kw	4000 gallons
42	Sikes	Onan	CUMMINS	68091183	DGGD-7615184	B090234354	35 kw	145 gallons
43	Sirrine	Kohler	JOHN DEERE	PE3029T546449	30REOZJB	2086648	30 kw	60 gallons
44	Tillman	Cummins	KUBOTA	BJ2457	DSKAB-7448829	G110228776	15 kw	135 gallons
45	Tiwet	Caterpillar	CATERPILLAR	3412	3412	81Z10439	600 kw	1400 gallons