

Commercial Testing of Major Lab Equipment USPCASE

S No	Labs	Test Description	Revised Rates
1	AEMS Lab	Scanning Electron Microscopy with Energy Dispersive X-ray Spectroscopy (SEM-EDX)	5,000.00
2		X-ray Diffraction (XRD)	2,500.00
3		Simultaneous Thermogravimetry and Differential Thermal Analyses (TG-DTA)	5,000.00
4		FTIR Spectrometer	1,800.00
5		BET LP Sorption Analyzer	7,000.00
6		Thermal Dilatometer	4,000.00
7		Solar Simulator with IV Measurements	2,500.00
8		Laser Particle Size Analyzer	2,000.00
9		UV-Vis-NIR Spectrophotometer	3,000.00
10		Atomic Force Microscopy (AFM)	8,000.00
11		LCR meter	2,000.00
12		Hall Effect Measurement System	2,000.00
13		Microhardness Tester	5,000.00
14		Electrochemical Work Station	4,000.00
15		Electronic Load Analyzer	3,000.00
16		Thin film spectrometer	2,000.00
17		PH - meter	1,000.00
18		Optical microscopy	2,000.00
19		Raman Spectrometer	2,500.00
20		*Magnetron Sputtering	12,000.00
21		*E-Beam Evaporation	15,000.00
22		*Thermal Evaporation	6,000.00
23		*Advanced Thermal Evaporation	10,000.00
24		*Carbon Coating	6,000.00
25		*Chemical Vapor Deposition	12,000.00
26		Spin Coating	1,000.00
27		Dip Coating	2,000.00
28		Electro Spinner	5,000.00
29		Electroplating	2,000.00

30		Ultrasonic Spray	3,000.00
31		Ball Milling / Roll Milling	4,000.00
32		Grinding and Polishing	5,000.00
33		Hydraulic Press	1,500.00
34		Plasma cleaning	2,000.00
35		Centrifuge	2,000.00
36		Salt Spray	10,000.00
37		Spray Dryer	5,000.00
38		**Tube Furnace	8,000.00
39		Muffle Furnace	5,000.00
40	Thermal Spray Facility	Sand Blasting	2,000.00
41		**Atmospheric Plasma Spray	7,000.00
42		**High Velocity oxy Fuel Spray	7,000.00
43		**Powder Combustion Spray	7,000.00
44		**Wire arc spray	7,000.00
45	Biofuel Lab	High Performance Liquid Chromatography	7,500.00
46		Polymerase Chain Reaction (PCR)	6,500.00
47		Total Organic & Inorganic Carbon Analyzer	12,000.00
48		Flash Point Tester	1,500.00
49		Gas Chromatography	6,000.00
50		Soxhlet Extractor	3,500.00
51		Rotatry Evaporator	3,500.00
52	Smart Grid Lab	Protection Relay Development System	10,000.00
53		Power Measurement System	3,000.00
54		NI Phasor Measurement Unit Development System	6,000.00
55		FPGA Based Rapid Control Prototyping	4,000.00
56		Transient & Frequency Measurement Setup	5,000.00
57		Power Quality Analyzer	6,000.00
58		Programmable Electronic Load, High Voltage	10,000.00
59		Smart Grid Automation along with SCADA & DCS	5,000.00
60		Environmental Chamber	5,000.00
61		Battery Simulator	4,500.00
62		High Voltage Probs	3,000.00
63	Differential Probs	5,000.00	

64		High Voltage Power Supply	1,000.00
65		D-Space	8,000.00
66		Power Amplifier	10,000.00
67	Energy Storage	Electrochemical Work Station	4,000.00
68		High Pressure Gas Sorption Analyzer	15,000.00
69		Four Probe	600.00
70		Coin Cell Fabrication	6,000.00
71		Battery Testing System	4,000.00
72	Fossil Fuel Lab	CHN-S Elemental Analyzer	7,500.00
73		Ash Fusion	7,500.00
74		Reactor / Pyrolyzer	14,000.00
75	Solar Energy Lab	QES Response Measurement System	8,000.00
76		Photoluminescence Spectroscopy	6,000.00
77		Indoor IV Tester for PV	3,000.00
78		Spin Coating in the glovebox (3-hour session)	2,000.00
79		Spin Coating (3-hour session)	1,000.00
80		Contact Angle Measuring System	2,000.00
81	Thermal Lab	Gas Chromatography Mass Spectrometry	12,000.00
82		High Speed Camera	4,000.00
83		Bomb Calorimeter	5,000.00
84		Viscometer	3,000.00
85		Combined Smoke & Gas Emission Analyzer	2,500.00
86		Thermal Imaging Camera	1,500.00
87		Ultra-sonicator	1,000.00
88		Multipurpose Water DO/Ph/ Electrical Conductivity	650.00
89		Particle Image Velocimetry	15,000.00
90		Computer Controlled Combustion Test Facility	4,500.00
91		Fuel Atomization Facility	2,500.00
92		Ultrasonic Thickness Gauge	1,000.00
93		Thermal Conductivity Tester	10,000.00
94		Differential Scanning Calorimetry	12,000.00
95		PV Module Visual Inspection	1,000.00
96		Maximum Power determination	7,000.00
97		Insulation Test	7,000.00

98	Technology Centre	Measurement of temperature Coefficient	6,000.00	
99		Measurement of NMOT	21,000.00	
100		Performance at STC and NMOT	8,000.00	
101		Performance at Low Irradiance	9,000.00	
102		Outdoor Exposure Test	26,000.00	
103		Hot-Spot Endurance Test	30,000.00	
104		Wet Leakage Current Test	8,000.00	
105		Static Mechanical Load Test	15,000.00	
106		Hail Impact Test	32,000.00	
107		Stabalization	31,000.00	
108		Electroluminescence Imaging Test	4,000.00	
109		HV Lab	0<Cable Size<50 mm2	8,000.00
110			50<Cable Size<100 mm2	11,000.00
111	Above 100 mm2		16,000.00	
112	0<Cable Size<50 mm2		11,000.00	
113	50<Cable Size<100 mm2		16,000.00	
114	Above 100 mm2		24,000.00	
115	0<Cable Size<50 mm2		14,500.00	
116	50<Cable Size<100 mm2		21,000.00	
117	Above 100 mm2		31,000.00	
118	11 kV Insulator string		9,500.00	
119	AC voltage withstand test for transformer (Up to		14,500.00	
120	AC voltage withstand test for transformer (Up to		16,000.00	
121	DC voltage withstand test for transformer (Up to		17,500.00	
122	DC voltage withstand test for transformer (Up to		21,000.00	
123	AC flashover voltage test for transformer (Up to		16,000.00	
124	AC flashover voltage test for transformer (Up to		17,500.00	
125	DC flashover voltage test for transformer (Up to		19,000.00	
126	DC flashover voltage test for transformer (Up to		22,500.00	
127	Transformer Panel		48,000.00	
128	Bus Couple Panel		75,000.00	
129	HT Panel	75,000.00		
130	Bulk Material Panel	75,000.00		
131	Motor (up to 25 kW)	32,000.00		

132	Energy Meter (Single Phase)	24,000.00
133	Energy Meter (Three Phase)	96,000.00
134	Termination Kit	22,500.00
135	Circuit Breaker (0-60 A)	8,000.00
136	Earth Tester	9,500.00
137	CT & PT	10,000.00
138	Silicon Sheet / Insulating Paper	5,000.00
139	Insulating liquid Tester	9,000.00

*An additional amount of 3000/- to 10000/- will be charged in case the applicant does not provide source / target material

**An additional amount of 5000/- to 15000/- will be charged in case the applicant does not provide Powder, Gas, Wire

Note: The Quoted price for all portable items is for use within USPCAS-E premises Payment should be made via Bank Draft / Pay order on behalf of Beneficiary "CES RECURRING FUND"

NUST FTN/NTN 90137043

For Contact:

AEMS Lab - 05190855279 & 05190855361

Thermal Spray Facility 05190855278 Thermal Energy Lab 05190855291 Smart Grid Lab 05190855292 Fossil Fuel Lab 05190855254

Bio Fuel Lab 0519085359 Technology Center 051-90855362 Energy Conversion Lab 05190855341

Energy Storage Lab 05190855290