

UNIVESIDAD DEL VALLE, Cali, Colombia	Feasibility Study of MV Power Testing Laboratory in Colombia	2014-2015
Testing Facilities and maximum ratings of equipment to be tested		
<ul style="list-style-type: none"> ● MV Test Bays for: <ul style="list-style-type: none"> ○ short-time current withstand tests and internal arc tests on MV Switchgear and Controlgear with rated voltage up to 36 kV and short-circuit current up to 20 kA, ○ short circuit withstand tests on Distribution Transformers up to 20 MVA rated power, 36 kV (3-phase), ● LV Test Bay for short-time current withstand tests on MV and LV Switchgear and Controlgear Assemblies with rated voltage up to 1000 V and short-circuit current up to 50 kA. 		
Tasks performed:		
<ul style="list-style-type: none"> ● Laboratory Configuration and preliminary calculation of circuit parameters, ● Multi line diagram, ● Laboratory capabilities in connection with the supply by 115 kV HV Network; only the capabilities in internal arc tests of MV Switchgear and Controlgear Assemblies are not compliant with the requirement and limited to 6,3 kA at 36 kV and 12,5 kA at 17,5 kV due to low available short-circuit power of 200 MVA from HV Network, ● Basic ratings of HV/MV and MV/LV Short-circuit Laboratory Transformers banks operating at 60 Hz, ● Testing Facilities description, ● List of the main testing equipment and relevant main ratings, ● Preliminary layout including Test Facilities and ancillary areas and services, ● Budgetary involved investment estimation, ● Preliminary schedule of the Laboratory establishment. 		

1. HV Power Supply
2. MV Power Feeder
3. MV Power Transformer test bay
4. MV Power Transformer Outdoor test area
5. MV Internal Arc test bay
6. LV Power Feeder
7. LV test bay
8. Warehouse and AD Hall
9. Warehouse and Workshop
10. Utilities station
11. Elevator
12. Control room
13. Entrance, stairwell and lift
14. Client room
15. Meeting rooms
16. Management offices
17. Laboratory Staff offices
18. Canteen
19. Dressing room
20. WC
21. Underground oil tank
22. HV/MV Transformer Bank
23. TRC System

