

Laboratory Fact Sheet

1 Institution

Name:



VEIKI-VNL Electric Large
Laboratories Ltd.
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2 Classification

- independent
- accreditation according to IEC 17025
- long-time DG experience (more than 3 years)
- active in standardisation committees

3 Brief historical background

The first formation of VEIKI-VNL Ltd was founded in 1949 with name VILLENKI , Resesarch Institute for Electric Power.VILLENKI becames in 1964 VEIKI Research Institute for Electric Power Reserh, and the testing laboratory becam the Division of Electrical Equipment of the VEIKI. From Division of Electrical Equipment of VEIKI Research Institue for Electric Power Research Co. founded an independent company, the VEIKI-VNL.Ltd in 1996. In the field of testing and developing of electrical equipment, VEIKI.VNL.Ltd is the sucesor of the field the Electric Research Institute for Electric Power. Established in 1949. With more than 50 years experience and 26 people involved in laboratory testing, research, development activities are now the basis for anextensive collaboration with industry. In the last years the VEIKI-VNL Ltd carried out projects in the field of uprating of overhead line, diagnostic of lines and devoloping of conductors.

Mission statement

High quality testing and developing in the field of electric power research. In the accredited laboratories VEIKI-VNL Ltd perform test according to the relevant standard, and issue product certificates. With laboratory facilities, and with

human resources the company can carry out both test and R&D projects with high quality.

4 Institution in brief

- Associations

VEIKI-VNL Ltd is member of the following organisations

- CIGRE, WG 12 B2, Electrical aspect of overhead line conductors and fitting.
- Short Circuit Testing Liaison,
- Low Voltage Agreement (LOVAG),
- IEEE/NPEC Subcommittee on qualification
- IAEA SALTO WG-3
- Hungarian Standardisation Body,
- Hungarian Accreditation Body,
- Hungarian Electrotechnical Association

- Accreditations

VEIKI-VNL Ltd is accredited by the Hungarian Accreditation Body

- Testing laboratory: EN 17025,
- Product Certification Body : EN 45011,

- Number of staff:

VEIKI-VNL Ltd has a staff of about 26, amongst them more than 80% is engineer.

- Main source of funding:

- Commercial activities, tests and product certification.
- R&D projects financed by the Hungarian Government and European Union

5 Brief summary of competences

Institution:	
Description of competence	Yes/no / list
Involvement in standardisation groups/committees	Yes -e.g. CIGRE, STL, IEEE, MSZ (Hungarian Standard)
Certification expertise	Yes, Product Certificats
Area of Scientific expertise	High and MV testing and research High current test and research High power test and research Power system analysis Electrical and mechanical endurance Overhead line conductor test and R&D Live-line diagnostic of overhead line Standardisation and certification
Involvement in consultancy (e.g. for industry and	Yes

	<p>Overhead line tests 50 kA at 60 m 35 kA at 135 m</p> <p>Highest short-circuit current 200 kA</p> <p>Test possibilities Short-circuit tests Tests of making and breaking capability Fuse tests Synthetic tests of circuit breakers Arc withstanding tests</p>
High Voltage Laboratory	<p>Main parameters Single-phase power-frequency voltage 1500 kV DC voltage 200 kV Lightning impulse voltage (1.2/50ms) 4000 kV Switching impulse voltage (250/2500ms) 2400 kV Steep voltage 3200 kV/ms Superimposed voltages 435 kVRMS + 2100 kVpk Faraday cage 60 kV Raining apparatus for rated voltage up to 400 kV Pollution test chamber for salt fog 300 kV clean fog 500 kV Low-temperature chamber -30 °C Heat chamber 120 °C</p> <p>Test possibilities Withstand voltage tests RIV and corona tests Diagnostic tests Leakage current measurements Electrical loss measurements Acoustic measurements Environmental protection tests Mechanical and electromechanical strength tests</p>
High Current Laboratory	<p>Main parameters Continuous test current 10 kA Short-circuit power 100 MVA</p> <p>Test possibilities Temperature-rise test Electrical and mechanical ageing test Measurement of electrical loss on power lines Laboratory diagnostic tests Test of conductors and assemblies</p>
Overhead line test site	<p>Main parameters Overhead line test site 250 m Aeolian vibration test arrangement 60 m Creep test arrangement 8 m</p> <p>Test possibilities Aeolian vibration test Creep test Environmental protection test</p>

	Laboratory diagnostic tests Test of conductors and assemblies Short circuit test on conductors and assemblies
Laboratory for Testing of Equipment for Nuclear Power Plants	<p>Main parameters</p> Cable fire-withstanding test arrangement 1x2x4 m Cable smoke-emission test arrangement 3x3x3 m Steam boiler 25 bar, 250 kg/h Equipment for modelling LOCA conditions <p>Test possibilities</p> Accelerated thermal ageing tests Tests under LOCA conditions Diagnostic tests of nuclear power plant equipment Cable fire-withstanding tests Tests of insulation on cables in fire Cable smoke-emission tests Tests of fire-distinguisher used under live voltage Tests of live-line working equipment

7 Standardisation activities

VEIKI-VNL Ltd. is member of Hungarian Standartisation Body.

VEIKI-VNL Ltd is member of Hungarian Accreditation Body.

The laboratories of VEIKI-VNL Ltd issue test protocols according to IEC, EN and MSZ-EN (Hungarian Standard) standards.

The Product Certification Body of VEIKI-VNL Ltd issues product certificates according to relevant standards of products.

8 Testing activities

Short-circuit, dielectric test and temperature-rise test of high voltage, medium voltage and low voltage equipment.

Tests and R&D of overhead line conductors and overhead line assemblies.

Test of Nuclear Power Plant equipment, aging test of cables and assemblies.

The laboratory of VEIKI-VNL Ltd carry out tests according to relevant standars of products. VEIKI-VNL Ltd issues test protocols according to IEC/ISO 17025 for clients.