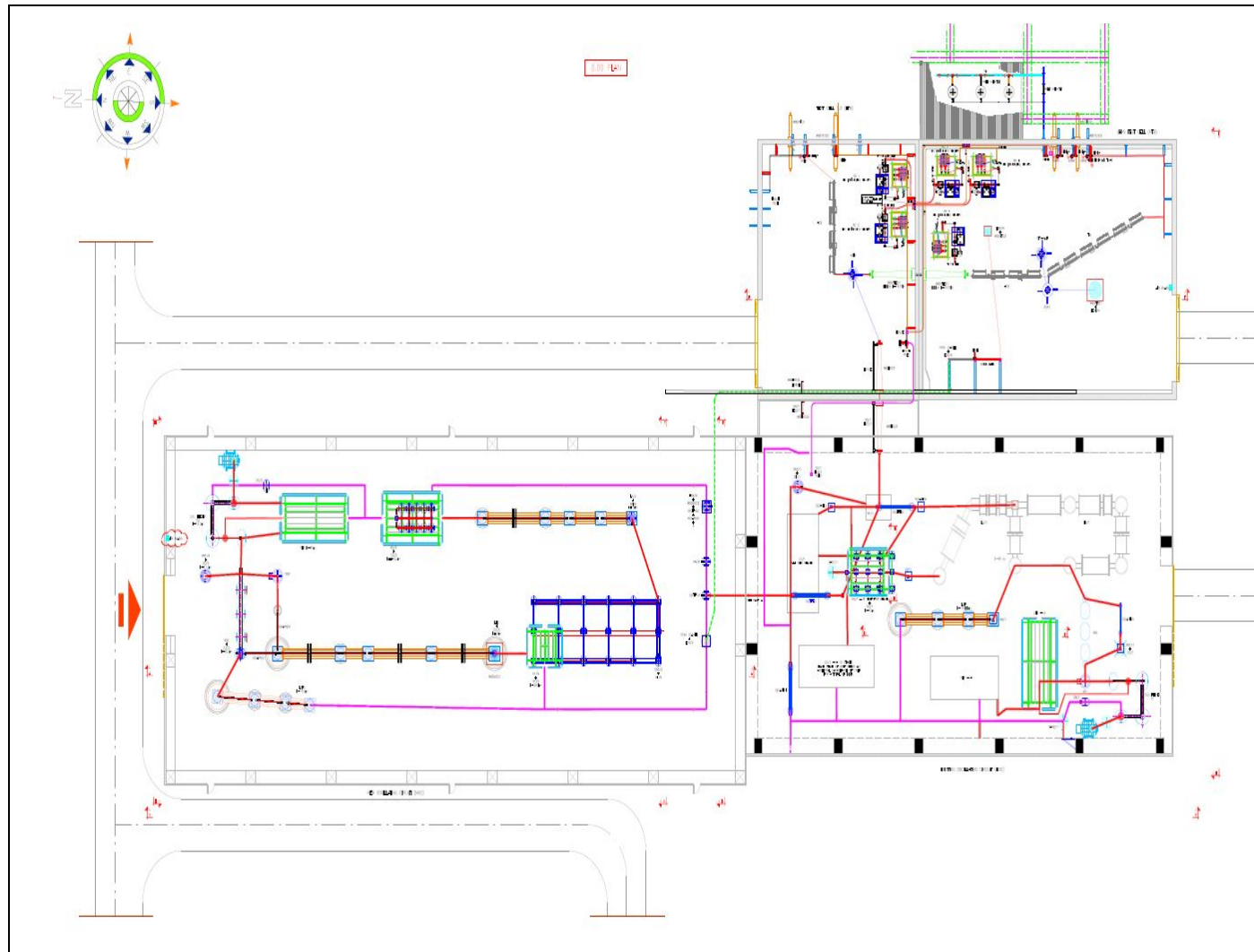


CPRI, Bangalore, India	Augmentation of High Power Test Facilities in Bangalore High Power Laboratory	2017 in progress	*
Testing Facilities and maximum ratings of equipment to be tested			
<ul style="list-style-type: none"> ● The Synthetic Test Facility has been upgraded to perform short-circuit tests on circuit-breakers up to 362 kV, 80 kA 3-phase and 1200 kV, 80 kA 1-phase. ● The Transformer Short-circuit Test Facility has been upgraded to perform short-circuit withstand tests on Power Transformers up to 315 MVA rated power, 420 kV class, 3-phase and up to 105 MVA rated power, 765 kV class, 1-phase. ● The new Temperature rise Laboratory has been upgraded to perform tests on equipment with rated current up to 40 kA. 			
Tasks performed			
<u>Synthetic Test Facility</u> <ul style="list-style-type: none"> ● Analysis of the proposed testing schemes, ● Proposed solutions to upgrade the existing oscillating circuit, ● Preliminary Evaluation of the Involved Investment, ● Calculation of the stresses for the selected testing equipment, ● Technical Specification of: <ul style="list-style-type: none"> ○ the circuits for the TRV control in the current circuit, ○ New oscillating circuit (main spark gaps, Capacitor banks, HVDC charging voltage system, capacitors for the control of the TRV time delay, Reactor banks, Resistor banks, Discharge resistors, Protection resistance and Potential resistor), ○ Upgrading of the existing oscillating circuit (Capacitor, Reactor and Resistor banks), ○ Neutral reactor bank, ○ Reignition circuits, ○ Auxiliary circuit-breakers and fast making device, ○ Short-Line fault circuits. 		<u>Transformer Short-circuit Test Facility</u> <ul style="list-style-type: none"> ● Basic design criteria, ● Analysis of alternative solutions for short-circuit testing on Power Transformers, ● Preliminary Evaluation of the Involved Investment. ● Technical specification of: <ul style="list-style-type: none"> ○ Short Circuit Generators, ○ Short-circuit Laboratory Transformers, ○ Current Limiting Reactors Banks and Peak Current Control Resistors, ○ Parallel Reactors. <u>Temperature Rise Laboratory</u> <ul style="list-style-type: none"> ● Basic design of the test facilities and main ratings of testing equipment, ● Technical specification of: <ul style="list-style-type: none"> ○ Static Frequency Converter, ○ Step-up and Step-down Transformers, ○ Capacitor and Resistor Banks, ○ Heating Transformers and relevant testing circuits. 	



* as CESI partner