Appendix 8 - Terminology

GENERAL CONCEPT
Absolute error
Acceptance tests
Accuracy
Accuracy class
Active energy (WH) meter
Actual value
Admittance
Air gap
Alternating current
Alternating voltage
Ammeter
Amplifier
Amplitude
Analog(ic)
Analog(ic)-digital convertor
Anode
Apparent ...
Arc, arcing
Asynchronous operation
Automatic control
Automatic regulation
Auxiliary circuit
Band of regulation
Bandwidth
Beat
Beat frequency
Calibration
Capacitive load
Capacitive reactance
Capacitor
Cathode
Characteristic impedance
Charge (of capacitors or batteries)
Chart (graph)
Coil
Conductance
Conductivity
Consumer: customer
Control
Control value (controller output)
Controller
Corona effect
Current
Cycle
Damping

Dead band
Dead time
Diagram
Digital
Digital telemetering
Diode
Direct current
Direct voltage
Discharge
Dynamic stability
Earth fault current
Efficiency
Electrical angle (of an alternator)
Electrical Circuit
Electrical field
Electromagnetic induction
Energy
Excite (to), excitation
Fault current
Fault impedance
Feedback
Ferroresonance
Filter
Fossil energy
Frequency
Frequency band
Frequency meter
Gain
Geothermal energy
Harmonic
High frequency
Hour meter
Hydraulic energy
Impedance
Induced voltage (by electric or magnetic induction)
Inductor
Input value
Insensitivity of control (dead band)
Instability
Instantaneous value
Integral controller
Intensity of current
Interference
Linear scale
Losses
<table>
<thead>
<tr>
<th>Term</th>
<th>Term</th>
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<tbody>
<tr>
<td>Low frequency</td>
<td>Resistivity</td>
</tr>
<tr>
<td>Magnetic field</td>
<td>Resonance</td>
</tr>
<tr>
<td>Magnetizing current</td>
<td>Response time</td>
</tr>
<tr>
<td>Magnitude of disturbance</td>
<td>Rotating field</td>
</tr>
<tr>
<td>Mean value (of a periodic quantity)</td>
<td>Saturation</td>
</tr>
<tr>
<td>Measurement</td>
<td>Schematic diagram</td>
</tr>
<tr>
<td>Measurement error</td>
<td>Secondary ...</td>
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<tr>
<td>Measurement transducer</td>
<td>Self excitation</td>
</tr>
<tr>
<td>Modem</td>
<td>Self inductance, self induction</td>
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<tr>
<td>Modulation</td>
<td>Series connection</td>
</tr>
<tr>
<td>Mutual inductance</td>
<td>Shunt</td>
</tr>
<tr>
<td>Noise level</td>
<td>Signal</td>
</tr>
<tr>
<td>Nominal (rated) value, nominal (rated) magnitude</td>
<td>Signal level</td>
</tr>
<tr>
<td>Nominal current</td>
<td>Slip</td>
</tr>
<tr>
<td>Nominal voltage</td>
<td>Solar energy</td>
</tr>
<tr>
<td>Non-linear scale</td>
<td>Stability</td>
</tr>
<tr>
<td>Nuclear energy</td>
<td>Stable</td>
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<tr>
<td>Nuclear fission</td>
<td>Static stability</td>
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<tr>
<td>Operating value</td>
<td>Superconductivity</td>
</tr>
<tr>
<td>Operating voltage, service voltage</td>
<td>Susceptance</td>
</tr>
<tr>
<td>Oscillations</td>
<td>Synchronism</td>
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<tr>
<td>Oscillogram</td>
<td>Terminal</td>
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<tr>
<td>Output value</td>
<td>Terminal voltage</td>
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<tr>
<td>Parallel connection</td>
<td>Test</td>
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<tr>
<td>Period</td>
<td>Three phase current</td>
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<tr>
<td>Permissible load</td>
<td>Threshold value</td>
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<tr>
<td>Phase displacement</td>
<td>Thyristor</td>
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<tr>
<td>Phase opposition</td>
<td>Tidal energy</td>
</tr>
<tr>
<td>Phase sequence</td>
<td>Time constant</td>
</tr>
<tr>
<td>Phase, phase conductor</td>
<td>Transient phenomenon</td>
</tr>
<tr>
<td>Pointer</td>
<td>Transient stability</td>
</tr>
<tr>
<td>Power</td>
<td>Transmitter</td>
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<tr>
<td>Power factor</td>
<td>Turn</td>
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<tr>
<td>Primary ...</td>
<td>Unbalanced load</td>
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<tr>
<td>Proportional controller</td>
<td>Valve</td>
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<tr>
<td>Proportional integral controller</td>
<td>Varimeter</td>
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<tr>
<td>Pumping</td>
<td>Voltage</td>
</tr>
<tr>
<td>Ramp, slope</td>
<td>Voltage Divider</td>
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<tr>
<td>Range of regulation</td>
<td>Voltmeter</td>
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<tr>
<td>Rated thermal current</td>
<td>Wattmeter</td>
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<tr>
<td>Reactive</td>
<td>Wave energy</td>
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<tr>
<td>Reactive energy (VARH) meter</td>
<td>Wind energy</td>
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<tr>
<td>Recovery time</td>
<td>Winding</td>
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<tr>
<td>Reference value</td>
<td>Wiring diagram</td>
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<tr>
<td>Regulation</td>
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<tr>
<td>Relative error</td>
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<tr>
<td>Reliability</td>
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<tr>
<td>Repair</td>
<td></td>
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<tr>
<td>Residual magnetization (remanence)</td>
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<tr>
<td>Resistance (in direct current)</td>
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<tr>
<td><strong>POWER STATIONS</strong></td>
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<tr>
<td>Alternator, generator</td>
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<tr>
<td>Auxiliary (unit; station) transformer</td>
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<tr>
<td>Base load power station</td>
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<tr>
<td>Boiler</td>
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<tr>
<td>Boiling water reactor (BWR)</td>
<td>Voltage regulator</td>
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<tr>
<td>Burner</td>
<td>Wind farm</td>
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<tr>
<td>Condenser</td>
<td></td>
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<tr>
<td>Control equipment, governing equipment</td>
<td></td>
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<tr>
<td>Control rod</td>
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<tr>
<td>Cooling system (for stator; for rotor)</td>
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<tr>
<td>Cooling tower</td>
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<tr>
<td>Cooling water circuit</td>
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<tr>
<td>Dam</td>
<td></td>
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<tr>
<td>Diesel engine</td>
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<tr>
<td>Discharge</td>
<td></td>
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<tr>
<td>Exciter</td>
<td></td>
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<tr>
<td>Fast reactor, breeder reactor</td>
<td></td>
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<tr>
<td>Fuel</td>
<td></td>
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<tr>
<td>- Natural gas</td>
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<td>- Fuel oil</td>
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<tr>
<td>- Coal</td>
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<tr>
<td>- Lignite</td>
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<tr>
<td>- Wastes</td>
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<tr>
<td>Furnace</td>
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<tr>
<td>Gas turbine</td>
<td></td>
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<tr>
<td>Generating set, generating unit</td>
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<tr>
<td>Generator</td>
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<tr>
<td>Generator transformer</td>
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<tr>
<td>Hydro-electric power station</td>
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<tr>
<td>Limiter</td>
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<tr>
<td>Nuclear power station</td>
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<tr>
<td>Overspeed</td>
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<tr>
<td>Overspeed protection device</td>
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<tr>
<td>Peak load power station</td>
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<tr>
<td>Penstock</td>
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<tr>
<td>Pondage power station</td>
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<tr>
<td>Power station with reservoir</td>
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<tr>
<td>Pressurised water reactor (PWR)</td>
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<tr>
<td>Pumped storage station / power plant</td>
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<tr>
<td>Radioactive waste</td>
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<tr>
<td>Reactor (nuclear)</td>
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<td>Reactor core</td>
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<td>Reversible pump-turbine</td>
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<tr>
<td>Reservoir</td>
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<tr>
<td>Run-of-river power station</td>
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<tr>
<td>Speed regulator</td>
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<tr>
<td>Spillway</td>
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<tr>
<td>Steam turbine</td>
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<tr>
<td>Synchronous compensator</td>
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<tr>
<td>Thermal power station</td>
<td></td>
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<tr>
<td>Tidal power station</td>
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<tr>
<td>Turbine</td>
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<tr>
<td>Turbine governor</td>
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<tr>
<td>Turbine shaft</td>
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<tr>
<td>Turbogenerator</td>
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</tbody>
</table>

**TRANSMISSION**

| Angle tower                                     |                                    |
| Auto reclosing relay                            |                                    |
| Auto-transformer                                |                                    |
| Auxiliary services supply                       |                                    |
| Bank of accumulators                            |                                    |
| Bank of capacitors                              |                                    |
| Bay                                             |                                    |
| Breaking capacity, rupturing capacity           |                                    |
| Buchholz relay                                  |                                    |
| Bundle conductors                               |                                    |
| Busbar                                          |                                    |
| Busbar connection                               |                                    |
| Busbar isolator                                 |                                    |
| Busbar section                                  |                                    |
| By-pass isolator (over a circuit breaker)       |                                    |
| Cable armour                                     |                                    |
| Cable sheath                                    |                                    |
| Circuit                                         |                                    |
| Circuit breaker                                 |                                    |
| Closing mechanism                               |                                    |
| Combined instrument transformer                 |                                    |
| Conductor                                       |                                    |
| Conductor failure                               |                                    |
| Conductor joint                                 |                                    |
| Control desk                                    |                                    |
| Control panel                                   |                                    |
| Control room                                    |                                    |
| Coupling bay, bus coupler                       |                                    |
| Current transformer                             |                                    |
| Double-circuit line                             |                                    |
| Earthing switch                                 |                                    |
| Earth wire                                      |                                    |
| FACTS (Flexible Alternating Current Transmission System) |                          |
| Flashover                                       |                                    |
| Immobilization, immobilize (to)                 |                                    |
| Insulator                                       |                                    |
| Insulator string                                |                                    |
| Interlock                                       |                                    |
| Inverter                                        |                                    |
| Insulator                                       |                                    |
| Isolator                                        |                                    |
| Junction box                                    |                                    |
| Line                                            |                                    |
| Line isolator                                   |                                    |
| Line trap                                       |                                    |
Load breaking switch
Locked in close/open position
Metal-clad installation, capsulated installation
Mimic board
Multiple-circuit line
Neutral isolator
Oil-filled cable
On-load tap-changer
Over ... Relay
Overhead line
Phase discrepancy
Position indicator
Push button
Quadruple conductor
Quick break switch
Receiver
Rectifier
Relay
Relay cubicle
Sag
Selector isolator
Separated windings transformer
Short- circuit between phases
Short- circuit to earth
Short-circuit (single- two- three-phase)
Shunt circuit breaker
Shunt compensator
Single conductor
Single-circuit line
Spacer (for bundle conductors)
Span (of an overhead line)
Static compensator
Static convertor
Straight line tower
Substation
Surge arrester, surge strike
Swinging (galloping) of conductor
Switch
Synchronous coupler
Terminal block, terminal box
Terminal tower, tension tower
Three windings transformer
Tower, pylon
Transfer bars
Transformer ratio
Transformer tap
Transformer with off-load tap changing
Transformer with on-load tap changing
Trimming
Triple conductor
Twin conductor
Under frequency relay
Undergrounded link / line
Visual signal
Voltage transformer
Wire
Wiring

SYSTEM OPERATION
Active power flow
Alarm
Attempt to reclose the line
Automatic reclosing, automatic reclosure
Back up protection
Black start capability
Blackout
Busbar protection
Cascading line tripping
Closing (manual or automatic)
Closing instruction
Congestion
Connection of outgoing feeder to busbar
Contingency
Contingency analysis
Continuous operating conditions
Continuous operation
Control instruction
Control, order
Day-ahead (D-1)
Dead-end circuit
Dead-end supply
Defence plan
Device, automatic device
Differencial protection
Directional protection by signal comparison
Direct-wire telephony
Disconnection (of a generating unit)
Dispatcher
Distance protection
Disturbance
Drop in voltage
Duration of non-availability
(on) Duty engineer
Earth fault
Emergency
Energize, apply voltage (to)
Extra high voltage network
Failure, breaker failure
Fault
Fault location
Fault clearance time
Final tripping, definitive tripping
Flow (power flows, loop flows, parallel path flows, unscheduled flows)
Gradual increase of voltage
Grid, network
In service, in operation
Inadvertent operation
Incident
Influence factor
In service, in operation
Interconnected network
Interconnection line, tie-line, cross border line
Intermittent fault
 Interruption of supply
Intraday
Island
Islanding
Isolated network operation
Isolation
Issuing of permit to work (by the person responsible)
Line protection
Load flow calculations
Local control
Loss of voltage
Main protection
Maintenance
Make a ring connection (to)
Manual control
Manual regulation
Maximum capacity
Meshed network
N-1 rule or criterion
Network diagram
Network losses
Network with earthed neutral
Network with isolated neutral
No load operation
Node (electrical)
Non-availability
- For breakdown, outage
- For maintenance
Non-successful reclosing
Notice for planned outage
Notice of completion of work, cancellation of permit to work
Off load
On load
Opening instruction (from protection equipment)
Opening of a ring connection
Operating conditions
Operating test
Outage
Outgoing
Out of operation for maintenance
Out of service
Overcurrent
Overcurrent protection
Over-excitation
Overhaul
Overload
Overload protection
Overvoltage
Parallel (to)
Parallel operation
Peak load
Permanent / remaining fault
Permit to work
Phase angle
Phase sequence indicator
Phase shifter transformer (PST)
Pilot wire protection
Protection against loss of synchronism
Radial network
Radial operation
Reactive power flow
Regional (RCC) or national (NCC) control centre
Release from service or operation (to)
Remote control
Remote supervision, Telemonitoring
Restore to service (to)
Ring connection
Ring network
Ring operation
Risk of failure
SCADA system (Supervisory Control And Data Acquisition)
Security of supply
Separate network
Shift engineer, switching engineer
Short-circuit current
Short-circuit current calculations
Short-circuit power
Short-circuit protection
Single - three-phase reclosing
Stand-by reserve
State estimation
Sticking snow  
Successful reclosing  
Switching  
Switching centre, remote control centre  
Switching instruction  
Switching out, switch (to)  
Synchronise (to), synchronisation  
Synchroscope  
Synchronous operation  
Telemetering, telemasurement (TM)  
Telesignalisation (TS)  
Test voltage  
Transfer protection of a circuit to the coupler breaker (to)  
Transformer protection  
Transient fault  
Transit, powerflow  
Transmission losses  
Transmission System Operator (TSO)  
Tripping  
Under-excitation  
Unintentional deviation, inadvertent deviation  
Voltage collapse  
Voltage drop  
Voltage lack  
Voltage range  
WAMS (Wide inter-Area Measurement System)  
Withdrawal from service  
Working zone

**OFFER-DEMAND BALANCING**
Already Allocated Capacity (AAC)  
Ancillary services  
Area Control Error (ACE)  
Auctions  
Automatic Generation Control (AGC)  
Availability  
Available capacity  
Available Transfer Capacity (ATC)  
Balance perimeter  
Balance responsible entity  
Balancing mecanism  
Billing period  
Billing point  
Breakdown, shutdown  
Check metering  
Cold reserve (stand-by)  
Consumer  
Consumption of electricity  
Contract price  
Control area, control block  
Control Deviation  
Controller (primary, secondary)  
Controlling power range  
Cost of no-load operation  
Cost of start-up  
Countermeasure  
Couple (to)  
Curtailment (factor)  
Demand  
Deviation  
Deviation from synchronous time  
Droop  
Duration of the contract  
Electricity account  
Electricity billing  
Electricity tariff  
Energy reserve  
Error correction  
Error detection  
Exchange deviation  
Exchange power control  
Exchange program / schedule  
Expiration of the contract  
Extension of the contract  
Frequency bias, K-factor  
Frequency control  
Frequency deviation  
Frequency offset (+ / - 0,1 Hz)  
Frequency reduction / drop  
Frequency setpoint  
Gate (of market)  
Hot reserve (stand-by)  
Hydraulic reserve  
Incremental (marginal) cost of generation.  
Load (to)  
Load curve  
Load shedding  
Margin  
Marginal generation  
Matching, cross checking  
Maximum demand  
- Daily  
- Weekly  
- Monthly  
- Annual  
Meter reading  
Meter registration  
Metering
(15) Minute reserve
Net Transfer Capacity (NTC)
Network Power-Frequency characteristic
Off peak load hours
Output power
Peak-load hours
Power deviation
Power reserve
Power-factor meter
Power-Frequency control
Primary control
Purchase
Regulating point, setpoint value
Reserve (primary, secondary, tertiary)
Revision of the contract
Seasonal tariff
Secondary frequency control / load
frequency control
Self-regulation of load
Setting up of actual value
Spinning reserve
Stand- by reserve
Supplier
Tender / offer
Thermal reserve
Time deviation with UTC (Universal Time co-ordinated)
Total Transfer Capacity (TTC)
Transit charge
Transmission Reliability Margin (TRM)
Unload (to)
Load reduction