Why Digitalization of Utilities?

- Predictability in management of electrical networks
- Reduction of operational expenses
- Make decision making process more informed
- Improve customer service experience and self-service
- Survive resulting competition because of Distributed Energy Resources dependent changing pricing scenario
- Increase operational efficiency and reduce energy theft

Conservative estimates supported by analysis of real-life cases suggest that digital optimization can boost profitability by 20 to 30 percent.  

Benefits of a Digitalized Regulator

- Effective mechanism for consumer grievances handling and ensuring regulatory compliance, dispute settlement with the help of e-Court
- Misplacement and mis-filing of documents is prevented
- Lower human resource requirement and related expenses
- Greater understanding of the application process for the applicant
- Faster service delivery and increased transparency
- Efficiency in space, cost and resource in comparison to traditional filing
- Motivation for the Utilities to embrace the digital – “Leading by Example”
Digital Regulator to Regulate Digital Electricity Utilities

**Rationale**
- Digital Utilities must be regulated by a capable and “digital” regulator
- Utilities’ shift towards the digital impacts the consumer, and thus, is of concern to the regulator

**Features**
- In Nepal, large number of generation licensees exist, whose regulation is made difficult by paper-based system
- The sector has gained a certain level of maturity in the absence of a digitalized regulator
- To scrutinize, manage and archive the volume of petitions
- To ascertain that the sector is educated about the role of regulator

**Challenges**
- Digital operation of systems
- A web-based regulatory information management system
- E-Court/grievance handling mechanism
- Digital strategy and IT roadmap
- E-Hearings
- Communication strategies

**Solutions**
<table>
<thead>
<tr>
<th>Activities</th>
<th>Regulator’s Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDC shares live generation data of power plants</td>
<td>Good Governance</td>
</tr>
<tr>
<td>Power producer uses SCADA to monitor power plant generation process</td>
<td></td>
</tr>
<tr>
<td>Nepal Electricity Authority (DISCOM) installs smart meters</td>
<td></td>
</tr>
<tr>
<td>Automation of Grid substations</td>
<td>Least-cost Planning/ Economic</td>
</tr>
<tr>
<td>Central Data Storage and Online Monitoring System in Substations</td>
<td>and Technical Regulation</td>
</tr>
<tr>
<td>Establishment of Distribution Command and Control Center and Data Center</td>
<td></td>
</tr>
<tr>
<td>Implementation of AMR (Automatic Meter Reading) and ERP</td>
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<tr>
<td>Online conference/meeting for connection of all power houses and branch</td>
<td>Enhancement of Organizational</td>
</tr>
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<td>offices of DISCOM via intranet system</td>
<td>Capacity and Governance</td>
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<td>Various software applications for account inventory system, payroll,</td>
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<td>pension, asset management, consumption analysis system, etc.</td>
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<td>Scheduled interruption and shutdown notice dissipation via Website and</td>
<td>Consumer Rights Protection</td>
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<td>e media</td>
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<tr>
<td>Online Bill Payment System through M-Power Billing and digital banking</td>
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<tr>
<td>system</td>
<td></td>
</tr>
<tr>
<td>Digital Strategy and Implementation Road Map of ERC and DISCOM</td>
<td>Transparency and cost saving</td>
</tr>
<tr>
<td>Regulatory Information Management System</td>
<td>Effective Dispute Resolution</td>
</tr>
<tr>
<td>Dispute Resolution through e-Court</td>
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</tr>
</tbody>
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Digitalization of Electricity Sector - ERC’s Perspective

- Continuation towards establishment of necessary digital infrastructure
- Develop web platforms for enhancing consumer service and experience
- Development of necessary regulatory instruments and principles
- Enable Utilities to rethink the business model by keeping consumers in the center
- Rethink the organizational structure and human resource management
- Focus on resilience and cybersecurity of the digital infrastructure
- Allow appropriate time for transition and avoid shock
- Control tendency to overinvest by utilities

Perceive digitalization as means and not the goal
Digitalization: ERC’s Success Story During COVID

- Organized public hearing through e-platform
- Calculation of Retail Tariff at ERC’s Website
- Dedicated web portal for Retail Tariff Petition
- Remotely celebrated Second Annual Day of ERC
Thank you very much for listening to me!

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