

# Paris Session 2022



## Intelligent IT solutions in power industry

D2 Information Systems & Telecommunication

PS1

1.6: Which of the following ways of implementing intelligent IT solutions is more effective for the power industry: creating internal R&D departments at energy utilities, working with outsourcing IT-companies and research institutions, working with international IT “giants” providing solutions for the power industry? What is the industry experience?

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# Need for specialised IT solution : Power Industry

- Rapid evolution of foundational digital technologies
- Essential elements of digital technology: computing power, data storage, bandwidth utilization, cost-performance
- Technology is developing at a historically unprecedented rate : experts in the power business frequently lack the necessary skills to keep up with IT advancements
- Power sector utilities requires infrastructure with back up control center either on dedicated hardware or on cloud.
- Availability of system is very crucial and needs special attention.
- Exponential growth in IT interaction, cyber security is also point of concern.
- Difficult task for a small power utility to have a separate team for its Security Operation Center (SOC) for its infrastructure : cloud-based SOC, optimize the cost and resources as well.

Group Discussion Meeting

# Internal R&D departments at energy utilities for IT solution

- Advancement of technology : R&D is essential for the power sector's growth and long-term profitability.
- R&D is mostly done to improve the level of technology today.
- Goal of basic research : provide new information, enable successful commercial implementations of cutting-edge technologies.
- R&D is an expensive, dangerous endeavor with unpredictable results.
- Costs frequently incurred years before a business can see returns or other advantages
- Power Sector companies are unwilling to invest in the R&D area
- Challenging for utilities to justify the cost of entire in-house research facilities
- Companies utilize the fund to have new contract instead of going for R&D.
- Internal R&D divisions inside the power sectors to produce IT products would not be wise.
- Own internal resources to create the customized software application on small scale.
  - It aids in completing the product in the shortest amount of time.

Group Discussion Meeting

## Outsourced: IT-companies, including international IT giants and research institutions

- Businesses have given up on managing their IT operations and focusing more on their core business.
- Significantly reduced IT expenses and removes the growing difficulty of hiring individuals with the required skill
- The vast depth and breadth of experience an outsourced partner has.
- It essential has a basic awareness of contemporary technologies.
- They also have a solid understanding of technologies to meet market demands.
- Reliability : Follow the schedules as the project develops and make note of any delays, mistakes, or departures from the initial requirements.
- In such case estimated cost plays a vital role for participations. Generally, international IT companies bid in the project with higher margin than that of the domestic IT bidder

Group Discussion Meeting