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Technical Knowledge Management in Utilities

B3 – PS2 – Q3

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SC B3 – PS.2 – Q.3

- **QUESTION:** With the retirement of experienced utility engineers around the world, there is a significant knowledge drain on utilities and the industry. What processes or development programs can help companies transfer knowledge to the new work force. Are there any examples that you would like to share?
- **ANSWER:** The utilities should have programs to retain the organizational knowledge in a systematic way. The “*Knowledge Management*” process is a useful tool for that purpose and to expertise transferring from the experienced engineers to the new ones. In addition, programs for integration of the new hired engineers make knowledge and experiences transfer effective and faster.

Technical Knowledge is a Strategic Asset

- Programs to retain the organizational knowledge in a systematic way:
 - Transferring expertise from the experienced engineers to the new ones.
- A Knowledge Management (KM) process may be a useful tool:
 - Capturing, storing, sharing and managing the knowledge and experiences.
- Opportunity to KM: new equipment or systems installation and commissioning;
- Challenges:
 - Transforming the tacit knowledge into explicit knowledge;
 - Defining the adequate amount and what information to be considered.

Group Discussion Meeting



Knowledge Management Implementation Examples

- **Example I** – Last two generating units of Itaipu Power Plant:
 - A lot of information was captured (texts, drawings, photos, videos), classified, and organized for easy access of the technical staff;
 - Coordinated by KM specialists, including IT people, and executed by engineers and expert technicians.
- **Example II** – Integration program for recently hired new engineers at Itaipu Power Plant:
 - Tutored by senior engineers, with support of experienced engineers and technicians;
 - Results: reports and technical presentations... and knowledge transfer!
- **Attention:** *as important as sharing knowledge is creating opportunities to use it.*

Group Discussion Meeting



Key Points

- The approach to sizing and implement the KM is not unique;
- Promoting and encouraging self-development and collaborative learning;
- Providing specific trainings for development of educational skills;
- Having proactive behavior for education, in contrast to the reactive behavior;
- The costs for the KM implementation and continued education are investments.

