

# Case study

## Remote monitoring



### Energy production systems – surface water

Customer:



Objective:

#### Monitoring of surface water levels

Fortum Service manage operation and maintenance of the group's plants for distribution and production of electrical power and this also incorporates the monitoring of surface water levels in lakes and dams. Fortum use Mitec battery-powered GSM-measuring stations SatelLite60 for measuring. Data is collected using Mitec's measuring server program Monitor that then automatically delivers information via Internet to Fortum Generation's central monitoring centre.



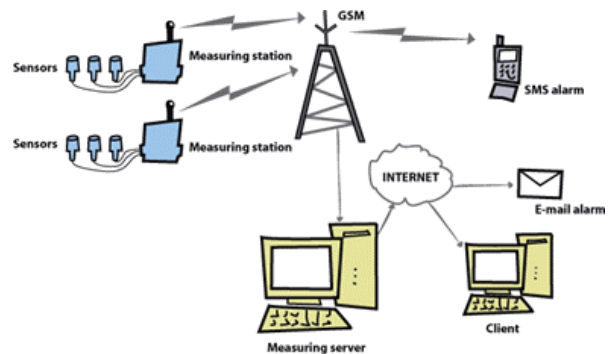
Solution:

- Mitec battery-powered GSM measuring stations log and monitor water levels.
- Fortum national control centre use Mitec Monitor server as front-end system.

Advantages:

- Early warnings of flooding risks
- Documentation for quality system.
- Improved knowledge of systems.
- Solar cells and wind generators not needed.
- Low maintenance costs

By using the battery powered Mitec system there is no need for solar cells and wind-generators. The solution becomes very cost effective with low investment costs, less installation and maintenance.



System overview

### Products

<b>Measuring station:</b>	SatelLite60 in stainless steel enclosure, 4-20mA inputs for level sensor and battery voltage.
<b>Communication:</b>	GSM dual band 900/1800.
<b>Power supply:</b>	12V alkaline battery pack with 6-month durability. ISO14025 environmental declaration.
<b>Sensors:</b>	4-20mA standard level sensors from Druck, Keller or MJK.
<b>Data acquisition:</b>	Customer managed server in national control centre with Mitec Monitor software.
<b>Information distribution:</b>	Internally via LAN and intranet.



SatelLite60-SS



Level sensor

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