

CASE STUDY

Majan Electricity sparks productivity with ProntoForms

BUSINESS GOALS

- Uncover the causes of electricity losses
- Quickly collect accurate meter readings
- Significantly reduce data entry

RESULTS

- Accurate, in-depth meter readings discovered root causes of electricity losses
- 70% reduction in data entry personnel

The Challenge

Poor field data collection isn't just an inconvenience. It doesn't just stall productivity. It can also lead to loss of customer revenue.

Majan Electricity Company is a utility servicing 200,000 residential and commercial customers in northern Oman. The company was losing a significant portion of the electricity it was buying from generators and selling to its customers.

"A normal distribution system like ours would have electric losses between seven to eight per cent, maximum 10 per cent. In 2014, our overall losses were 14 per cent, and during summer 2015, our losses were somewhere near 20 per cent," says Jonathan Wilks, Advisor of Regulatory Affairs.

MJEC's Board of Directors mandated that Wilks' department be brought in to discover why Majan was experiencing such heavy losses. The government regulators were also concerned at the high losses and were considering regulatory penalties.

"We were facing a situation where we might lose our license."

Wilks' team determined that the causes may have had to do with poor meter readings at customer locations, performed by company contractors.

Majan also faced problems on the administrative side. In a similar losses reduction inspection, 34,000 printed pages of inspection data flooded into the office for manual data entry and analysis. "Data entry was a nightmare," says Wilks. Not only did it take a long time to enter all the data into the system, if meter data was missing from the paper forms, field workers had to return to sites to recapture the information. Due to paper-based processes, MJEC lost many man-hours on redundant field readings and could not leverage valuable revenue-earning data.

The Solution

Wilks turned to ProntoForms, a sophisticated mobile solution that empowers organizations of all sizes to rapidly collect accurate and media-rich field data. Wilks looked into another mobile forms vendor, but decided that ProntoForms was far more cost-effective. "ProntoForms included an unlimited number of form submissions at a set price, which made it very cost-effective for us," says Wilks.

To uncover the performance shortfalls of the company's contractors, Wilks had Majan employees follow contractors on their routes, using mobile devices to capture the same meter data they were capturing. The objective was to get a more complete picture of what caused the losses.

The Benefits

ProntoForms helped reveal that of the 34,000 meters that Majan has to visit every two weeks, about 1,800 were tampered with by customers for purposes of theft; 1,300 could not be accessed as they were behind locked doors; and 400 were damaged. Also, Majan discovered that some of the meter readers were manipulating the readings to benefit the customers. All these problems were contributing to the substantial losses the company was experiencing.

It was ProntoForms' rich data capture features that helped Majan uncover the full story. Field workers can provide in-depth details about the meters via comments and photo capture - information that Majan's contractors hadn't been recording.

The old paper-based process required contractors to manually jot down meter readings, a process vulnerable to frequent entry errors. If even a single digit is off, the reading is useless. With the new system, if a form includes a wrong reading, Majan can simply pull up a photo of the meter and rectify the mistake rather than drive back to the meter.

ProntoForms has also improved the efficiency of operations back at the office. Before going mobile, Majan had up to 20 employees doing data entry tasks, but after deploying the ProntoForms solution, only six people were required - freeing up a significant amount of internal resources. Within a month's time, Majan processed all its meter readings using the ProntoForms solution.

"Rather than spending our time on data entry, we now spend our time on data analysis."

Wilks plans to expand ProntoForms to other regions within Majan's service territory. He is also looking to harness the solution for different use cases, such as safety and equipment inspections and meter replacement. "There's a lot of different forms we can use it for."