



## CASE STUDY

# Solar energy project manager in India tracks data from the field with Google Cloud's AppSheet

From his office in Mumbai, Munjal Savla keeps tabs on work bringing solar water pumps to remote farms with AppSheet

### About: Ravindra Energy Limited, Karnataka, India

Mechanical engineer Munjal Savla started his career in the fast lane. Literally. He won victories as a racing driver for Volkswagen Motorsport. He also worked as an automotive industry writer and sales data analyst, and a senior performance driving instructor for Jaguar Land Rover India. After a few years, he shifted to pursue a new calling—solar energy.

Since 2019, Munjal has been a project manager for [Ravindra Energy Limited](http://www.ravindraenergy.com/), which brings accessible, sustainable solar energy systems to remote areas that need electricity. He reflects on one of his more challenging projects bringing solar power to remote small farms.



Ravindra Energy Limited

Karnataka, India

<http://www.ravindraenergy.com/>

“Getting electricity to small farms far away from the city of Mumbai is very difficult, because you have to pull the electricity lines really far,” Munjal explains. “There is no electricity connection to [power] the water source inside the farms. Many of these farmers are poor. So the government created a program to subsidize the installation of solar-powered irrigation pumps for smaller farms in remote areas. We are one of the agencies implementing this project.”

With engineers and technicians spread out across the state of Maharashtra, Munjal struggled to find a mobile solution to keep the multi-faceted project on track.

### **The challenge: Dispatches from the field**

Munjal was charged with managing field activities and keeping the energy company’s client—the electrical company—well informed.

“Mobile networks are pretty well established in and around the areas where we operate,” Munjal recalls. But the networks were only as good as the mobile solutions available to help manage such a complex, large-scale project. “We faced challenges because our guys were all over the state,” he says.

Munjal coordinated with regional managers, who in turn worked with contractors to install solar-powered water pumps in remote farm locations. Activities needed to be logged. Equipment needed to be tracked. Bills needed to be submitted and payments collected. Munjal received information from field workers sporadically via instant messaging—a method that wasn’t consistent or reliable, and didn’t scale.

“It would all get jumbled up,” he says. “It was a big problem [for me] sitting in Mumbai, trying to manage this project, and understand exactly what is going on in the field.” He began to brainstorm more efficient ways to collect and record information from a mobile workforce operating in remote locations.

“We needed something mobile,” Munjal shares. “We couldn’t use computers or Excel because these guys are traveling [and] it’s difficult for them. They can just pick up a phone. That is where we [realized]: OK, we need an app.”

### **Choosing AppSheet: Tracking data off the grid**

Munjal took to the Internet to find a solution that wouldn’t require a complete system overhaul. “I searched on ‘easy app development,’” he recalls. “I thought, OK, I need an app that could directly edit our database Excel files on Microsoft OneDrive. That’s where I came across [Google Cloud’s AppSheet](#), because that is one of its use cases.”

The ease of use of AppSheet's no-code platform intrigued Munjal. Though he learned some Python coding skills while in graduate school, he admits, "I'm not the IT guy on the team. In fact, we don't have an IT person on this project." AppSheet's no-code platform was a fast and flexible solution to Munjal's data management challenges for his remote field project.

He reflects on what became an easy decision to choose AppSheet.

"Creating an app [with code] was out of the question," he remembers. "I did not have the time to create a front end or UI and understand the tools or a new [programming] language." And hiring a developer to customize off-the-shelf apps, he says, "just becomes slow and expensive." He chose AppSheet for its simplicity and power to enable developers to push no-code apps into service quickly. "AppSheet works really well because I did not have to [create] a front end, which was done by AppSheet itself. For the kind of data we want to show, it works really well."

His AppSheet-powered app integrated easily with the energy company's data management system. "We are running off Excel rather than having a SQL database, which would be ideal," Munjal says. "These kinds of challenges are very common across developing phases of a project or system. In that sense, AppSheet works very well because it directly integrates into the tools we use, rather than our having to migrate our database [to a different platform]. That is the key."

Munjal also liked that AppSheet can function offline—a huge plus for field workers in remote areas where connectivity can be spotty. This offline capability is made possible because information needed to run the app is stored locally on the mobile device. Field workers can use the app to log the specific water pump installed at each farm location, and update the database when connectivity becomes available. And he can manage the remote field work at farms throughout the state from his office in Mumbai.

### **The results: Connecting people and data**

Munjal rolled out his AppSheet-powered app for Ravindra Energy's field workers in February 2020. "The guys in the field input data coming into an Excel file on OneDrive, which then integrates with our other systems," he explains. "That data directly shows up in my database," providing the real-time information he needs to keep the solar water pumps project flowing. "The data is always crystal clear. There is no confusion about what is done or what is not done."

His AppSheet-powered app was easy for people in the field to use. He says, "Once they understood the [app's] benefits, I don't think they could function without it now."

When new issues crop up in the field or the home office, Munjal can quickly adapt his AppSheet-powered app to handle any changes. “That’s where AppSheet works out really well, because I can iterate [a new solution] very quickly,” he says. “I can think of something and within a half an hour, I can iterate it. That is a very powerful tool to have.”

He also likes that AppSheet works across devices, giving workers the flexibility to work wherever they need to. “They not only use our AppSheet app on their phones when they’re traveling, they use the web interface as well, whenever they are on their laptops.”

Going forward, Munjal sees many opportunities for the energy and construction industries to take greater advantage of no-code apps built with Google Cloud’s AppSheet. “The whole of our industry has not moved to digital, like our clients,” Munjal says. Yet, there’s a world of opportunity for citizen developers like him to use AppSheet’s no-code platform to improve how their businesses operate.

“Creating apps is not my main job,” Munjal asserts, “so AppSheet was very useful.”

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*—Munjal Savla, Ravindra Energy Limited, Project Manager*

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#### About Google Cloud’s AppSheet

Our data-driven, no-code development platform empowers everyone to build apps and transform their workplace. We hope you’ve enjoyed reading this story and that you’re ready to become an app creator, too. Sign up for free to start building apps with your data. [Sign up](#)

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