

7 AFFORDABLE AND CLEAN ENERGY

Gham Power

GSMA Mobile for Development Utilities Seed Grant 2015–16

Finding a replicable model for mobile-enabled micro-grids with Ncell in **Nepal**

USE OF MOBILE

Mobile Payments
Mobile Money

M2M connectivity

USE OF MNO'S ASSETS

Mobile Infrastructure

Two micro-grids with combined capacity of **37.6 kW** improved energy access for two rural villages and provided energy to two telecom towers, improving access to mobile network for **31 VDCs** (Village Development Committees) in Nepal. Mobile money was used for bill payment and smart meters were deployed to monitor individual consumption.

900 people benefitted from clean, reliable energy and improved connectivity.

PROJECT OUTCOMES

32% increase in mobile internet usage reported.

32% increase in fridge ownership reported. This was predominately driven by small hotels, which saw positive impact on business after adding an appliance.

44% increase in smartphone ownership reported.

KEY PROJECT LESSONS

Reliable service can help drive consumption of energy and telecom services.

Having a telecom tower as an anchor load is valuable for the micro-grid business model, but local businesses have the greatest impact on micro-grid capacity utilisation and profitability.

Use of technology, such as M2M connectivity and mobile money, can help to improve the operational efficiency of micro-grids.