The Problem

- Today, measurement of accurate water consumption in Building Societies is not a scientific system in India
- Due to the lack of suitable and economical infrastructure, water is paid for based on the size of the occupancy instead of actual consumption
- This leads to an unfair system of charging
The solution

- Smart Metering Units
- Smart Meters have a built-in sensor that notes and shares the consumption data with a Central Monitoring device
- Such a Meter is attached to each inlet
- Every milestone completed (10 ltrs), information is recorded by the Central Monitoring device and stored in the Cloud
- Consumption Data is available Real Time for Users and Society Managers
- At the end of each cycle, consumption data is shown in the form of a Report
- Managers bill tenants according to the prevailing rate
- Water Bills are now calculated based on consumption
Solution Details

**Pulse Water Meters** from Anand Asahi (1/2", Multi-jet) - Rs. 2,000 per Meter

**Building Monitor**: Rooftop/Liftroom unit that connects to upto 254 Smart Meters and saves data in the Cloud Server. Rs.30,000 + UPS

**Cloud Server**: Rs. 50/meter/month

**Pulse Meter Tracker:**

**OPTION 1**
- Single Pulse Meter Tracker - Rs.6,000/unit
- 1 unit is connected to each pulse water meter and located alongside
- Upto 30 such units can be connected to a common Cable running from the rooftop unit (single cable with 5 wires: 3 for data and 2 for power)
- Installation takes 6 to 8 weeks

**OPTION 2**
- Multiplexed Pulse Meter Tracker - Rs.36,000/unit
- 1 unit can monitor upto 12 pulse water meters and can be located upto 90m away
- Runs independent cable with 2 wires for each pulse meter
- Installation takes 4 to 6 weeks
Pulse Meter + Tracker

Option 1

Option 2
Building Monitor

- + UPS
- + Internet Dongle
Hourly Consumption Report

Water Meter readings 401 : 04/01/16

Total Consumption = 588.2 L
Average Hourly Consumption Report

Average daily consumption = 545.54 L
Total Consumption by Date Report

Water Meter readings-401 jan usage

Total Consumption = 2727.7 L
Benefits of Smart Metering System

- Saves all metering data centrally and provides usage information and reports to all the Occupants and Building Management in Real Time
- Since Meters are fitted by Society/Builder's plumbers at each home inlet, maintenance is easy
- Hidden Leakages and Wastages can be detected in plumbing based on daily data analysis
- Small investment results in major Cost savings for occupants
- WorldofArya team is available for support 24/7
Sample Project Costing

- An apartment complex of **50 Homes with 3 inlets each**
- **Option 2** is implemented
- **Set up costs** are as follows:
  - 50x3 = 150 meters
  - 150xRs.5,000 = **Rs.7,50,000** (Rs. 2000 for the meter +
    1 Multiplexed pulse meter monitor at Rs.36,000/12 = Rs. 3,000.
    Rs. 2,000+ Rs. 3,000 = Rs. 5,000)
  - **Building Monitor**: **Rs. 30,000**
  - Wires and Pipes at actuals
- **Total cost** of Metering System is **Rs. 7,80,000** + wires and pipes + UPS + Installation + Taxes
- **Set up cost**: **Rs.15,600 approx per Home**
- **Running Cost**: Cloud - **Rs.7,500 pm** + **Internet Data** Charges for the Building Monitor
Contact: Jahnavi R
+91 9964202395
jahnavi@worldofarya.net