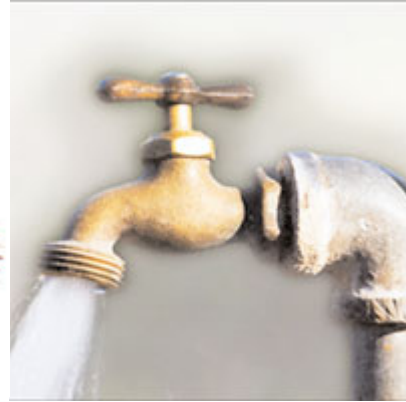


Round the clock water supply - “are we ready?”

It is always good to have



Instead of



But the question is “are we ready?”

World is moving fast towards 24 X 7 water supply system. All developing countries are running on the same path, and are necessary also. Our neighboring country Srilanka, African countries like Ghana and others are also not lagging the race, than why should we?

But the question is, are we ready to implement the same? The answer is “YES” with strong technical and financial capabilities and “NO” for Operation and maintenance.

Let us discuss the issue by getting into the existing reality of our distribution system and its maintenance procedure. And look to the strength and weakness we possess for implementation of the new 24 X 7 water supply system.

A) The strong positive capabilities leads to optimum CAPEX (Capital expenditure)



- 1) **Strong technical ability:** The most positive ability we are possessing is our strong technical ability to develop the best suitable distribution network. We are empowered enough to prepare the network design of pipeline, pumping stations with all necessary components considering our best possible calculated population forecast. We do consider the area density and area wise likely development looking to the past data available. The design is very near to perfect and can deliver best output to the system. Engineers with their experience and

knowledge are able to do this in-house in almost all departments responsible for this issue.

- 2) **Best of the best material availability:** we have all material manufacturers available with us to manufacture the most efficient, durable and qualitative material indigenously. Advantage of this capacity is to have these all required quality materials at affordable prices and reduce the capital cost of the project.



supply system.

- 3) **Financial ability:** The country like India, we have enough funding available for such kind of projects by state and central government. Adding value to this all external funding agencies viz. World Bank, Asian Development Bank and many others are on their toes to fund these projects. Therefore funding will not be a hurdle in the way of 24 x 7 water



B) Weak in operation and maintenance leads to excess OPEX and scheme in deleterious condition

Sustainability of the project is fully depending on optimization of Operational expenditure (OPEX). Moreover all the projects only are sustainable if it has having acceptability and readiness for use as designed and desire.

To know where we are please look into the condition of our running water supply system.

The questions to be asked in these regards are:

- 1) Are they producing the exactly required qualitative and quantitative water for which they designed for?
- 2) Have we enough manpower and machineries (T & P) to do the O & M of the existing system at their maximum possible efficiency and minimum OPEX?
- 3) Are they having water losses within permissible limit throughout the system?
- 4) Are the agencies engaged for these works really taking it seriously and performing well?
- 5) Are the customers satisfied?
- 6) Are they utilize the energy only as designed and required?
- 7) Are the material procured at implementation stage really last for the duration designed and procured for? Pipes, Pump – motors, treatment units etc.



(there are many more to list but for make the article more effective important ones are listed down)

Can we able to identify a scheme for which we can have “YES” as the answer for all above questions? Mostly the answer is no including this question and therefore it is the reason for all our schemes are in deleterious condition. In this situation we are talking about “*Par-excellence in preventive maintenance of distribution system- a prerequisite to a round the clock water supply*”

Recommendations:

If we really walk forward in the path of 24 X 7 water supplies we need to improve in the all above. Please look into the sub themes of today’s seminar. They are the answers and remedies to the above problems. And they are;

- Metering and water audit in relation to the 24 X7 water supply
- Importance of SCADA in round the clock water supply
- Role of automation in 24x7 water supply system
- Leak detection and control as relevant to 24X7 water supply system
- Impact of 24X7 W S on other relevant issues

We need to put efforts to improve the condition by not only maintaining the scheme assets properly but by adopting preventive maintenance of the same. Because we all know “stich in time saves nine”.

We need to wake up from 'taken for granted' situation for heavy losses of water at every stage of the water supply system, to make the system more and more efficient and earn more revenue to make it sustainable. Metering is the solution to audit the system from production end to supply end. Use of latest leak detection techniques and preventive maintenance of the distribution network will add value to this and guide us for reduction in water loss.

We need to adopt full automation with the use of SCADA like technologies and make the system energy saving. This includes not only pumping machineries but also the metering and billing.

A proven proverb "where there is a will there is a way" and always comes true.

In the cities of Hubli, Belgaum and Gulbarga in the state of Karnataka, the private operator increased water supply from once every 2–15 days for 1–2 hours, to 24 hours per day for 180,000 people (12% of the population of the 3 cities) within 2 years (2006–2008). This was achieved by carefully selecting and ring-fencing demonstration zones (one in each city), renovating the distribution network, installing meters, introducing a well-functioning commercial system, and effective grass-roots social intermediation by an NGO, all without increasing the amount of bulk water supplied. The project, known by its acronym as KUWASIP (Karnataka Urban Water Sector Improvement Project), was supported by a US\$39.5 million loan from the World Bank. It constitutes a milestone for India, where no large city so far has achieved continuous water supply. The project is expected to be scaled-up to cover the entire area of the three cities. (courtesy : WIKIPEDIA)

Therefore nothing is non-achievable as it is proven in India by engineers like us, than why not we? It is always late than never. Let us decide to jump into the race of 24 X 7 water supplies and win it.

Apology: Sometimes it is advisable to criticize the reality and learn from that, how to improve. You may find this approach as 'negative' but worldwide accepted for improvement and development.

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