Private sector participation in FSSM
Opportunities and challenges of bidding and contracting

TIDE Technocrats Private Limited
Bengaluru
February 27-28

National Workshop on
Non-Networked Sanitation Systems for India

Mussoorie
What's happening!

What should happen
FSTPs Visits

- LOCATION: PHULERA, RAJASTHAN
  - CAPACITY: 20 KLD

- LOCATION: BHUBANESWAR, ODISHA
  - CAPACITY: 15 KLD

- LOCATION: PURI, ODISHA
  - CAPACITY: 50 KLD

- LOCATION: WARANGAL, TELANGANA
  - CAPACITY: 15 KLD

- LOCATION: JABALPUR, NADIHYA PRADESH
  - CAPACITY: 50 KLD

- LOCATION: DEVANAHALLI, BANGALORE
  - CAPACITY: 4 KLD

- LOCATION: TEKAL, ANDHRA PRADESH
  - CAPACITY: 40 KLD
Comparative chart of CapEx and OpEx
Costing Analysis for Completeness of treatment – CapEx / KLD

CapEx/KLD (Rs. In lakhs)

- Partial Treatment
- Complete Treatment

- Jabalpur: 1
- Devanahalli: 12
- Puri: 1
- Leh: 4
- Tenali: 1
- Phulera: 12
- Bhubaneswar: 2
- Warangal: 7
Costing Analysis for Completeness of treatment – OpEx per KLD
Total LCC across FSTPs
Problem Statement / Market Opportunity?

- >4000 urban towns and cities in India
- >75% do not have access to sanitation treatment
- FSM Policy rolled out in 2017 during FSM4 in Chennai, India
Unrestricted growth?

- > 250 treatment plants tendered out / setup since 2017 in India
- Another 150+ expected this year
- The schemes from the Government
Our study

- Focused on understanding the features and trends of the tender calls called by ULBs or State Governments
- Cost and Technology analysis of treatment parameters
Parameters evaluated

- Tender type
- Eligibility Criteria
- Technology for treatment and/or Output parameters
- Size of the Treatment plant
- Capital Expenditure for setup and time for setup
- Operations and Maintenance Cost and duration
Findings – Tender Type (PPP)

Build and Operate
- Pre-specified Technology
- Detailed Engineering and Bill of Quantities available
- Build and Operate
- Collection & Transportation may be included

Design and Development
- Open Technology with Process Outputs Defined
- Detailed Engineering to be done
- Design, Build and Operate
- Collection & Transportation may be included
Financial Eligibility
Findings – Size of the treatment plant

- 5 to 25 KL: 64%
- 25 to 50 KL: 29%
- 50 to 75 KL: 4%
- > 75 KL: 3%
Findings – Cost per KLD - Capex

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Findings – Operations and Maintenance Cost/KL/Annum

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Challenges in the Study

- Unless you are a bidder or a consultant to the respective state government, access to this information is difficult to obtain.
Assumptions in the Study

- Population estimates in the study were based on census data and not actual ULB data.

- GST assumed at 18% but varies from 12% (civil) to 28% (electro).

- Some population sizes and household information were calculated based on regional averages.

- OpEx where included in project cost, have been separated based on similar projects.
Key takeaways

- Varied Regional Behaviour and Existing Knowledge Application
- SPCB / CPCB / WHO norms for system outputs
- Insufficient knowledge leads to frequent re-tendering and possible manipulation by businesses once Govt gets desperate
- Faster clearances / approvals leads to faster implementation
Key takeaways

- An immediate need to prepare a Procurement Policy with focus on:
  - Technical qualification criteria
  - Financial qualification criteria
  - Start-ups and innovations
- Capacity building and training to the engineering staff
- State-wide FSM Policy, with city-specific strategic guidelines (or CSP)
- Work towards reducing trust deficit towards private sector
- Scale up via PPP contracts designed as Public – Private as partners
Thank you