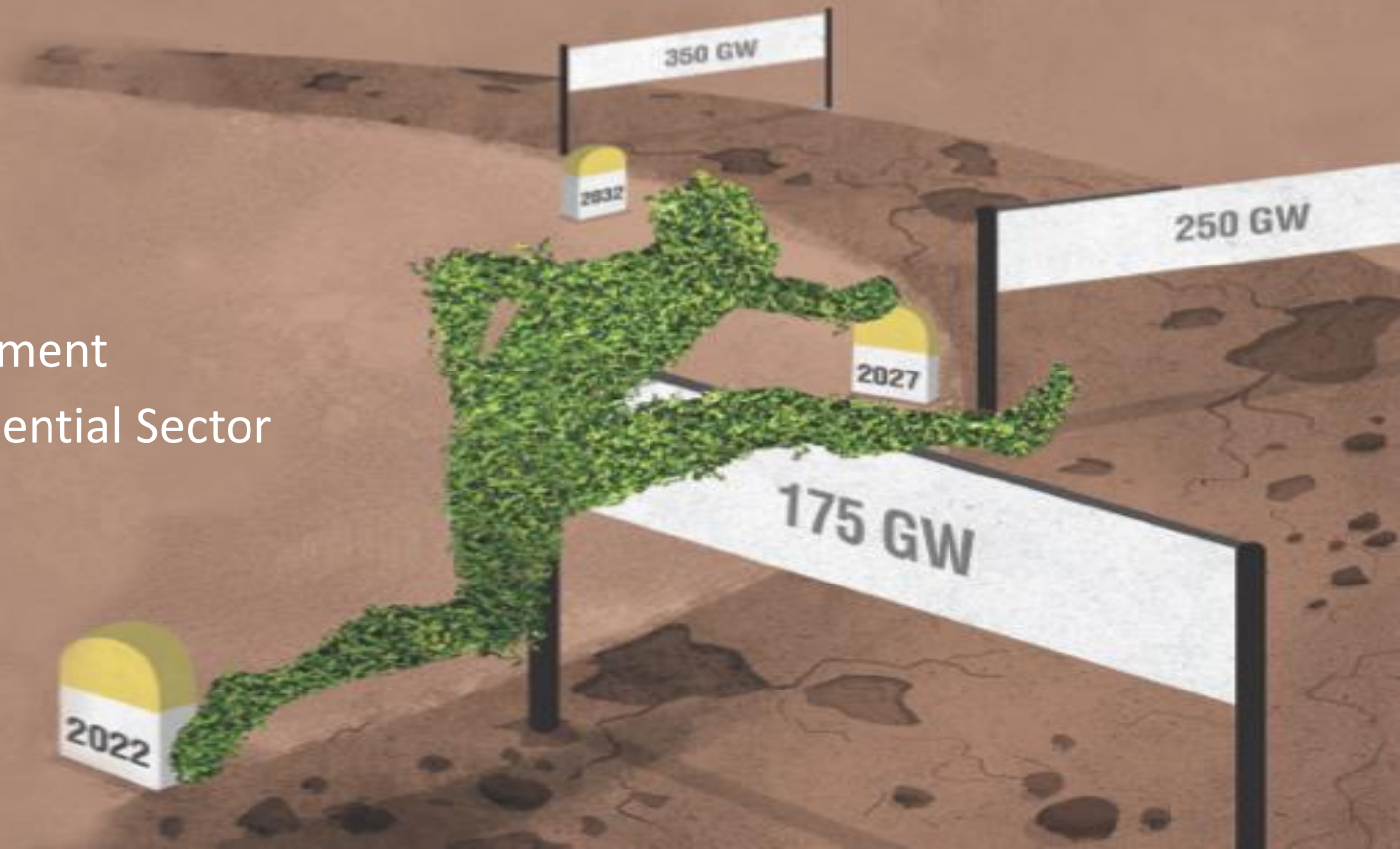


The Way Forward for SRT in Gurugram

Benefits, Challenges and Action plan

Mandvi Singh, Centre for Science and Environment
Debunking Myths: Solar Rooftop for the Residential Sector
Anya Gurgaon | June 5, 2019



SRT Benefits & Potential for Gurugram



Strong economic benefits

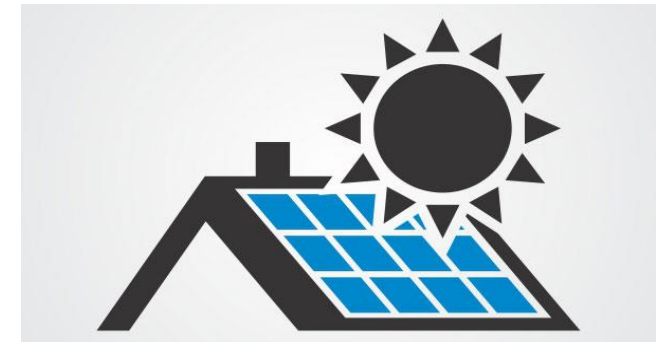
- 2 kW SRT system can save < Rs 22,000 on annual electricity bills at current tariffs
- Payback of 4-4.5 yrs with subsidy, 6-7 years without subsidy

Direct environmental benefits

- Reduced dependence on DG - over 50,000 liter diesel used for an hour of power cut
- CSE study: 3-4 hrs of DG operations, avg. PM2.5 and PM10 increased by 30% and 50-100%

Huge untapped potential:

- Gurugram's Master Plan, 2014 targets 155 MUs of RE generation – ~100 MW of SRT only 6% of Gurugram's peak load of 1,700 MW
- CSE estimates the SRT can safely help meet 15-20% of the city's total load (+200 MW by 2022)



Consumer Challenges

- Perceived technology & vendor risk
- Reluctance to use valuable rooftop space
- Limited knowledge of government programmes/ subsidies
- Fear of bureaucratic hassle
- Doubts regarding efficient implementation of net metering

Reluctance

Lack of low-cost funding

- Banks and FIs not keen to lend for SRT on a standalone basis, unlikely to extend loan to RWAs
- RESCOs unwilling to serve residential consumers due to higher risks - unknown credit profile, difficulty in repossession, limited debt financing

Issues with implementation agencies

- **HAREDA's Gurugram office** - Limited staff and resources; lack of capacity to engage in strategic activities and monitor progress
- **DHBVNL** - Reluctance to support/promote SRT; Missing systems/processes for effective net metering implementation; Inadequate workforce and limited technical capacity
- **Other nodal agencies**
 - Some state agencies (eg. HSIIDC) have not incorporated mandatory SRT provisions
 - T&CP and MCG have incorporated clause of additional FAR for new buildings with SRT – no implementation
- **Governance issues** –
 - Serious lapse in communication of mandate
 - Lack of co-ordination among departments and agencies
 - Monitoring and penalty mechanism non-existent

How can the district govt support SRT?

City government must lead from the front – DC office must coordinate with implementing agencies (MCG, HUDA/TCP, DHBVNL, HSIIDC) to:

- Set goals for Gurugram based on Haryana RE goals and Gurugram's master plan (20% of load possible)
 - Ensure that targets/HAREDA orders are incorporated in guidelines/bylaws/ orders of relevant agencies/departments and shared with targeted consumers
 - An online portal should be created to monitor and report progress, track consumer grievances - at least quarterly, consolidated from various agencies by HAREDA
 - Design an effective awareness building program (eg. solar *mela*, ad campaign etc.) with public or CSR funding, with help from local civil society.
-
- State govt should back SRT target/mandate with incentives and penalties - existing provision of disconnection too harsh and impractical

Action plan – implementing agencies

- Build HAREDA's capacity to process applications, coordinate, build awareness, and track progress - crucial for increased ambition.
- DHBVNL's top management needs to be on board to aggressively push SRT –
 - Smoothing of net-metering process—approval of application, purchase and connections and removal of billing glitches are urgently needed. Training of relevant staff
 - Management should establish timelines (less than 30 days to approve and install net meter) and monitor actual performance.
 - SRISTI scheme incentivizes discoms for promoting solar and partly compensates for potential revenue loss. (States like Kerala, Andhra are implementing discom-driven models)
 - Support development of the RESCO business, especially for residential sector.
- T&CP Department must devise ways to implement the FAR incentive for new residential complexes - tricky to administer.