Water Heating Policy

a. Central water heating for entire building/wing is to be avoided.

b. Solar water heating provision is to be provided for one bathroom in each residential unit of top 5 floors of a multi-storied building having height > 30 m only if required by a regulatory need. Even in such bathrooms, regular water geysers are to be provided & the solar hot water pipe to be connected to inlet of geyser.

c. Thermostatic mixing valve (TMV) should be provided at the outlet of solar system at terrace & to be set at temperature of max. 60deg C.

d. Inlet to the solar system to be provided from terrace domestic booster pump.

e. Multi-layer composite pipe to be used from solar tank to TMV. (Refer Detail-1)

f. If gas is available, unit based central water heating may be considered, with heater installed in kitchen/utility area and horizontal piping within the unit. However, this requires the unit toilets to be located close to the kitchen.

g. The geyser should have inbuilt safety mechanism (e.g. safety valve).

h. Following table to be used for hot water provision across project.

Building Segment	Region	MASTER BEDROOM		BEDROOM		POWDER ROOM	SERVENT ROOM		KITCHEN
		Shower	WB	Shower	WB	WB	Shower	WB	SINK
LUXURY	All	✓	✓	✓	✓	✓	✓	×	✓
HI END	All	✓	✓	✓	✓	✓	✓	×	✓
ASPI	Pune and Bangalore	✓	✓	✓	✓	×	✓	×	✓
ASPI	MMR	✓	×	✓	×	×	✓	×	×
CASA & CROWN	All	✓	×	✓	×	NA	NA	NA	×

i. Below Table to be followed for selection of geyser:

Location	Type of Water Heating Device
Bedroom toilets without bath tub (non-Casa)	25 litre 2 KW Storage geyser

Bedroom toilets without bath tub (Casa)	6 litre 1.5/3 KW Instant geyser (3 L can be considered in case of acute space constraint)
Bedroom toilets with bath tub	35 litre 2 KW Storage geyser
Servant's toilet (including common servant's toilet)	6 litre 1.5kw/3kw power instant geyser (3 L can be considered in case of acute space constraint)
Kitchen sink (luxury & hi end residential only)	Prefer to have Tapping from nearest toilet / Kitchen
Powder toilet	Prefer to have Tapping from nearest toilet / Kitchen

j. In case of boiler type storage geysers, they should always be installed horizontally and should be mounted on the wall on the base of the false ceiling – they cannot be mounted on the underside of the slab unless the manufacturer confirms that they will work effectively when mounted on the underside of the slab. The Heater shall be horizontal type and dia shall be maximum 450 mm and a provision of 500mm clear height shall be done in the false ceiling. Approximate access door size for the heaters will be 600 X 600 mm. The water heaters shall be installed prior to the installation of the false ceiling.

k. In case of instant geysers, they should always be mounted vertically on the wall.

l. For Storage geyser, the Heater manufacturer will supply the flexible hose for connection. This will include both cold and hot water supply connection hoses. The cold water supply hose shall be rated for 10 Bar pressure and Hot water Hose shall be rated for 80 degree C temperature. The length of hose shall be a maximum of 1.0 meter (Actual length as per the design team). Geyser manufacturer to supply 16A 3 pin plug and 6 mm clear pvc tube of 1.5 meter long along with each geyser.

m. It is recommended to use un-insulated CPVC hot water pipes inside toilet.

n. It is extremely important to ensure that the manufacturer of the geyser is reputed and 2nd class manufacturers are not used. As in 2013, following brands are recommended for storage geysers.

   a. AO Smith
   b. Racold (Ariston)
   c. Bradford White
   d. Bajaj

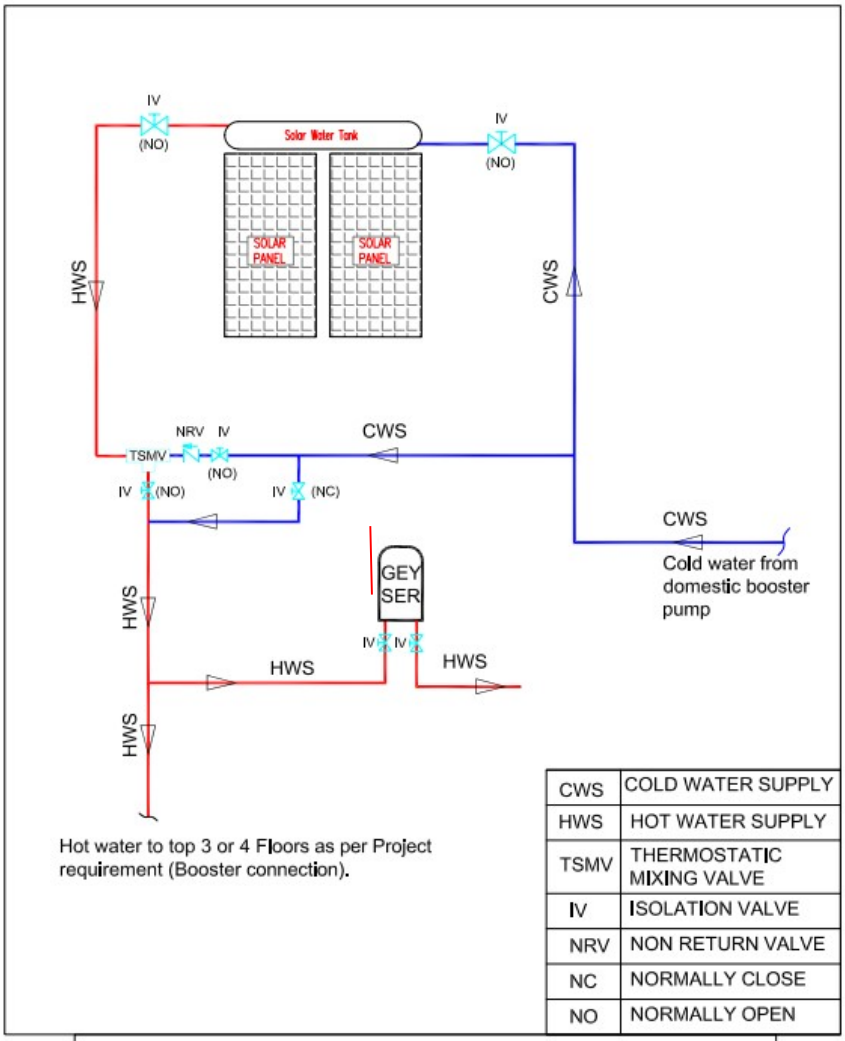
e. Venus

f. Superheat

Any new brand should be introduced only after approval of HOC of Design-MEP team.

No specific recommendations currently for instant geysers, any reputable brand is ok.

o. As far as possible Boilers to be kept in ducts/shafts outside bathrooms with an IP65 rated socket and its switch (preferable with indicator) to be located inside bathroom.



TYPICAL SOLAR HOT WATER SCHEMATIC

DETAIL-1

Note: - This policy update (V8) shall be implemented as per Architectural policy no 122.