

# AEEE Hospital Energy Survey Questionnaire

Defining strategies and effecting energy efficiency interventions for climate-smart hospitals in India is contingent on the availability of granular end-use energy data. In order to design these interventions and assess their energy savings potential, it is imperative to accurately characterise the energy use in hospitals at the national and state level across different hospital typologies. However, there is a serious lack of reliable end-use energy data from either government sources, past surveys, or market research reports. Alliance for an Energy Efficient Economy (AEEE) and the Centre for Chronic Disease Control (CCDC) aimed to close this data gap by launching India's first-ever national hospital energy survey in 2022 using this master Questionnaire and versions thereof.

The creator of this Questionnaire was a team from AEEE, comprising Akash Goenka, Sangeeta Mathew, Sandeep Kachhawa, Simrat Kaur, Meghaa Gangahar, and Gaurav Nemade, including Satish Kumar. The AEEE team is grateful to the CCDC project team comprising Poornima Prabhakaran, Sanya Prakash, Rajita Kurup, Indumathi Arunan, Ishika Jharia, and Sunila Dixit for providing guidance, input, and feedback throughout the Questionnaire development process. Other Questionnaire reviewers included Arjun Gupta, Ashish Rakheja, Dale Sartor, Deepak Tewari, Jatin Pandya, Prasad Vaidya, Peter Rumsey, Saket Saraff, Sandeep Dahiya, and Vivek Gilani.

All materials, reports, notes, and other documents, and data compiled through the use of this Questionnaire, whether in full or in part or any of its derivatives should acknowledge AEEE for creating this Questionnaire by including the following citation:

Alliance for an Energy Efficient Economy (AEEE). 2022. "AEEE Hospital Energy Survey Questionnaire".



Instructions for questionnaire respondents:

- Please provide responses that are cumulative across (1) buildings in which medical services are provided, and (2) buildings in which support services such as laundry, pantry, data centres, etc., are provided. Exclude staff quarters and hostels, and buildings dedicated to teaching in medical colleges.
- 2. Please provide responses related to business metrics and energy consumption for the Financial Year 2019-20 i.e. April 2019 to March 2020, unless otherwise asked.
- 3. Please restrict your responses to fully operational facilities, appliances, and equipment. Exclude defunct, redundant, and standby facilities, appliances, and equipment.
- 4. Please provide a scanned copy of your monthly electricity bill for any 1 month from April 2019 to March 2020.

#### Section A: Facility identity

This section covers hospital identifiers, which will be strictly protected by the project team per the data privacy terms. NO data regarding individual patients, doctors, hospital staff, etc., will be collected – only the contact information (i.e., name, designation, email ID, and phone number) of the questionnaire respondent will be asked.

A.1 Facility name

A.2 Facility type (Single-select from options)

- Public sub-centre
- Public PHC
- O Public HWC-SC or HWC-PHC
- O Public CHC
- O Public SDH
- O Public DH
- Public medical college
- Private single speciality
- Private multi speciality or super speciality
- Private medical college

A.3 State/UT (Single-select from options)

- O Assam
- O Bihar
- O Chhattisgarh
- Delhi
- Gujarat
- Haryana
- O Himachal Pradesh
- O Jharkhand
- O Karnataka
- O Kerala
- Madhya Pradesh
- Maharashtra
- O Odisha
- Punjab
- O Rajasthan
- Tamil Nadu
- Uttar Pradesh
- O Uttarakhand
- West Bengal

# A.4 District

## A.5 Pincode

A.6 Address

A.7 Respondent's name

A.8 Respondent's designation

A.9 Respondent's phone number

A.10 Respondent's email ID

A.11 Climate zone (Single-select from options)

- Cold
  - O Composite
  - $\circ \quad \ \ {\rm Hot \ and \ dry}$
  - Temperate
  - Warm and humid

#### Section B: Business information

This section covers available facilities and basic business metrics to enable benchmarking the energy performance of comparable hospitals.

B.1 General and super speciality departments (Multi-select from options)

- □ General medicine
- □ General surgery
- OBGYN
- Paediatrics
- Emergency
- AnaesthesiaOphthalmolog
- Ophthalmology
- Otorhinolaryngology (ENT)
- Orthopaedics
- □ Radiology
- $\hfill\square$   $\hfill Psychiatry and clinical psychology$
- □ Geriatric services
- □ Dentistry
- $\hfill\square$  Dermatology and venereology
- Laboratory and pathology
- Microbiology
- Physiotherapy
- □ Cardiology
- $\hfill\square$  Cardio-thoracic and vascular surgery
- □ Gastro-enterology / Surgical gastro-enterology
- Plastic surgery
- Nephrology
- Urology
- Neurology
- Neurosurgery
- Oncology (medical, surgical, radiation)
- Endocrinology
- □ Paediatric surgery (NICU & PICU)
- □ Rheumatology
- □ Hepatobiliary surgery
- □ Haematology
- Bariatric surgery
- $\Box$  Audiology and speech therapy
- □ Head & neck surgery
- Sleep medicine
- □ Transplant surgeries
- PulmonologyGenetics
- Genetics
- □ Clinical nutrition and dietetics
- □ None

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	B.2 Annual number of inpatients discharged	B.3 Average length of inpatient stay
FY2019-20		
FY2020-21		

B.4 Annual number of outpatient consultations

<u>Explanatory Note</u>: Outpatients receive outpatient/ambulatory care without hospitalisation. Many surgeries and treatments are provided on an outpatient basis.

B.5 Annual number of operations/surgeries performed [Not applicable: Public sub-centre]

B.6 Total number of beds considering male, female, OBG-related, post-op ward, emergency ward, daycare, and other general ward beds (excluding ICU beds)

FY 19-20:

FY 20-21:

0: 1:

B.7 Total number of ICU beds of all types

[Not applicable: Public sub-centre]

Explanatory Note: Please include all types of ICUs that may be present in a hospital including medical ICU, surgical ICU (for post-surgery recovery), neuro ICU, cardio ICU, neonatal ICU, pediatric ICU, eye-related ICU, etc. FY 19-20:

FY 20-21:

B.8 Energy costs as a share of hospital's total expenditure

[Not applicable: Public sub-centre, Public PHC, Public HWC-SC or HWC-PHC, Public CHC, Public SDH, Public DH, Public Medical College] <u>Explanatory Note</u>: This is the ratio of hospital's total energy related expenditure (including electricity bills, diesel, all other fuels, and operations & maintenance) with hospital's overall total expenditure (including medical, administrative, energy related, etc.) AEEE Hospital Energy Survey Questionnaire B.9 Cooking and laundry (Multi-select from options)

- □ Cooking onsite
- □ Cooking outsourced
- Laundry onsite
- □ Laundry outsourced
- □ None

B.10 Total number of OTs in the hospital

[Not applicable: Public sub-centre] <u>Explanatory Note</u>: Type A includes OTs for neurosciences, orthopaedics (joint replacement), cardiothoracic and transplant surgery (renal, liver, heart, etc.).

B.11 Policy to reduce the hospital's greenhouse gas (GHG) emissions under the Environment, Social and Governance (ESG) framework (Single-select)

- Yes, defined and published
- Yes, in draft phase
- Intend to, but not in draft phase
- 0 **No**

 $\square$ 

B.12 Actions taken for energy conservation/efficiency in the past 5 years (Multi-select)

- Hospital-wide energy audit
- □ Investments in energy conservation/efficiency

B.13 Amount invested in energy conservation/efficiency in the past 5 years (Single-select)

[Ask if: Response to B.15 is Investments in energy conservation/efficiency] ○ ₹<25 lacs

₹ 25-50 lacs

None

- ₹ 50 lacs 1 crore
- ₹1-3 crores
- ₹ 3-5 crores
- ₹ >5 crores

## Section C: Building characteristics

This section covers basic building design and construction characteristics, which will be used to benchmark the energy performance of comparable hospitals.

C.1 Number of individual building blocks in the hospital campus <u>Explanatory Note</u>: This should include (1) buildings in which medical services are provided (2) buildings in which support services such as laundry, pantry, data centres, etc., are provided. Exclude staff quarters and hostels, and buildings dedicated to teaching in medical colleges.

[depending on	C.2 Total gross floor area	C.3 Green	C.4 Passive cooling measures used to reduce the
response to C.1]	Explanatory Note: Total gross floor area is the super built-up	building	demand for mechanical cooling
	area between the outside surface of the exterior walls of the	certification	(Multi select from options)
	building. This includes all areas inside the building including	(Multi select	
	supporting areas.	from options)	A. Double-glazed windows to reduce heat gain
	Include: lobbies, common areas, meeting rooms, break		B. Fixed external shading, e.g. chhajja, vertical fins.
	rooms, restrooms, elevator shafts, stairwells, mechanical	A. IGBC	C. Movable external shading, e.g. louvers, roller
	equipment areas, basements, storage rooms.	B. GRIHA	shutter.
	Exclude: Exterior spaces, patios, exterior loading docks,	C. LEED	D. Building insulation
	driveways, covered walkways, outdoor play courts (tennis,	D. BEE star	E. External wall treatment to reduce heat gain
	basketball, etc.), all parking areas, the interstitial plenum	E. None	F. Cool roof
	space between floors (which house pipes and ventilation),		G. Green roof
	crawl spaces		H. Other
	square feet (ft <sup>2</sup> )		I. None
Building 1			
Building 2			
Building 3			



# Section D: Building-level energy use

This section covers building/hospital level consumption of electricity and non-electricity energy. It also includes information on Upgraded Power Supply (UPS) and Building Management System (BMS) or Enterprise Energy Management (EEM) systems

	D.1 Annual grid- connected electricity consumption	bm (BMS) or Enterpri D.2 Annual electricity consumption from onsite diesel generator	D.3 Annual diesel consumption from onsite diesel generator (DG) sets	D.4 Annual natural gas consumption <u>Explanatory Note</u> : Used for steam or hot water generators (boilers), cooking	D.5 Annual fuel/furnace oil consumption <u>Explanatory</u> <u>Note</u> : Used for steam or hot water generators (boilers)	D.6 Annual firewood or charcoal consumption for space heating, hot water or steam generation <u>Explanatory Note</u> : Include other forms of biomass such as wood pellets, waste wood, etc. used for heating purpose.	D.7 Annual LPG consumption [Ask if response to 14 is: Cooking onsite] <u>Explanatory</u> <u>Note</u> : LPG: Liquefied petroleum gas
	hour (kWh)	(kWh)	kilo litre (kl)	cubic meter (m3)	kilo litre (kl)	kilogram (kg)	kilogram (kg)
Apr-19							
May-19							
Jun-19							
Jul-19							
Aug-19							
Sep-19							
Oct-19							
Nov-19							
Dec-19							
Jan-20							
Feb-20							
Mar-20							
FY2019-20							
Apr-20							
May-20							
Jun-20							
Jul-20							
Aug-20							
Sep-20							
Oct-20							
Nov-20							
Dec-20							
Jan-21							
Feb-21							
Mar-21							
FY2020-21							

D.8 BMS or EEM (Single-select from options)

[Not applicable: Public sub-centre, Public PHC, Public HWC-SC or HWC-PHC]

Explanatory Note: BMS: Building Management System; EEM: Enterprise Energy Management

- Installed and functional
- Installed but not used
- No BMS or EEM

D.9 Annual end-use system electricity consumption (in kWh)

	FY19-20 (kWh)	FY20-21 (kWh)
Lighting		
HVAC		
Medical use refrigeration		
Steam and hot water		
Water supply pumping		

## Section E: Onsite solar PV

This section captures the characteristics of onsite solar PV system used to support hospital energy needs.

E.1 Onsite solar PV to support hospital energy needs (Single select from options)

Explanatory Note: PV: Photovoltaic

Off-grid with storage

- Off-grid without storage
- Grid-connected net-metered
- Grid-connected gross-metered
- o None

E.2 Peak capacity [in kilowatt peak (kWp)

E.3 Annual energy consumed from onsite solar PV [in kilowatt hour (kWh)] [Skip if: response to E.1 "Onsite solar PV" is "None"]

Apr-19	Apr-20	
May-19	May-20	
Jun-19	Jun-20	
Jul-19	Jul-20	
Aug-19	Aug-20	
Sep-19	Sep-20	
Oct-19	Oct-20	
Nov-19	Nov-20	
Dec-19	Dec-20	
Jan-20	Jan-21	
Feb-20	Feb-21	
Mar-20	Mar-21	
FY2019-20	FY 2020-21	



## Section F: Lighting

This section covers ambient lighting of interior spaces. It does NOT cover special lighting used for medical procedures, and lighting of exterior spaces such as basements, driveways, and parking lots.

F.1 Share of LED lights as percentage of overall hospital lighting (Singleselect from options)

- 0% 0
- >20% to 40% 0
- >40% to 60% 0
- >60% to 80% 0
- >80% to 100% 0

F.2 Type of automatic lighting controls used (Multi-select from options)

- Occupancy sensor
- Daylight sensor
- Time clock
- Astronomical sensor
  - None

#### Section G: Heating, ventilation, and air conditioning (HVAC)

This section covers air-conditioning and fresh air ventilation, air circulation fans, air filtration/purification, medical/server equipment cooling, and space heating.

#### **DX** Characteristics

Explanatory Note: \* Furnish the details for each operational/working equipment for the types present in the hospital. Exclude the stand-by equipment.

\* Example: A facility may have 10 numbers of Window ACs, out of which 5 are 1 TR and 5 are 1.5 TR. The total operational cooling capacity for Window type of DX units is (5X1 + 5X1.5), i.e. "12.5 TR". If 7 out of these 10 Window ACs are rated 3 star or more, then percentage Window AC type DX units that are 3-5 star BEE star labelled is 70%, i.e. "60% to 80%". Similarly details of Split AC, VRF AC, Heat Pump, Cassette AC, Packaged or Ductable AC, Portable or Floor Standing Tower AC, and CRAC, should be entered one by one whichever is present.

\* Heat Pump are capable of providing both space cooling and space heatina

\* CRAC: Computer Room Air Conditioning

#### Chiller characteristics

Explanatory Note: (1) Furnish the details for each operational/working equipment. Exclude the stand-by equipment.

(2) Select the type of chillers from the drop-down menu and enter the details for each chiller one by one. In case two (or more) chillers have exactly the same characteristics in terms of cooling capacity, technology, rated COP, and type of refrigerant, please repeat the entries for each chiller in different rows. (3) VFD: Variable Frequency Drive

[Ask if: response to G.1	G.5 Type of Chillers	G.6 Cooling capacity	G.7 Technology of	G.8 Rated efficiency	G.9 Type of refrigerant
"Type of HVAC system" is		of individual chillers	individual chillers	of individual chillers	for individual chillers
"Chilled Water"]					
	A. Water-Cooled	tonnes of	Single select from	Coefficient of	Single select from options
	Centrifugal Chiller	refrigeration (TR)	options	Performance (COP)	
	B. Water-Cooled				A. R22
	Screw Chiller C. Water-Cooled		A. VFD B. Constant Speed		B. R123 C. R134a
	Scroll Chiller		B. Constant Speed		D. R410A
	D. Water-Cooled				E. R407C
	<b>Reciprocating Chiller</b>				F. R513A
	E. Air-Cooled Screw				G. R514A
	Chiller				H. R1233ZD(E)
	F. Air-Cooled Scroll Chiller				I. other
	G. Air-Cooled				
	Reciprocating Chiller				
Chiller 1					
Chiller 2					
Chiller 3					
Chiller 4					
Chiller 5					
Chiller 6					
Chiller 7					
Chiller 8					
Chiller 9					
Chiller 10					

G.1 Type of HVAC system installed (Multi select from options) Explanatory Note: DX: Direct Expansion

- $\square$ DX
- $\square$ Chilled Water
- None

G.2 Total air-conditioned area [in square feet (ft<sup>2</sup>) [Ask if: Response to G.1 "Type of HVAC system" is "DX" or "Chilled Water"]

Building 1	
Building 2	
Building 3	
[depending on response to C.1]	

[Ask if: response to G.1 "Type of	G.3 Total operational cooling	G.4 Percentage DX units of each type that are 3-5-star BEE star labelled	
HVAC	capacity for	Single select from options	
system" is	each type of	A. 0%	
"DX"]	DX units	B. >0% to 20%	
		C. >20% to 40%	
	tonnes of	D. >40% to 60%	
	refrigeration	E. >60% to 80%	
	(TR)	F. >80% to 100%	
Window AC			
Split AC			
VRF AC			
Heat Pump			
Cassette AC			
Packaged or			
Ductable AC			
Portable or			
Floor			
Standing			
Tower AC			
CRAC			



G.10 Typical number of operational ceiling fans for air circulation

G.11 Type and number of electric space heaters

<u>Explanatory Note</u>: Number of units should be filled against the types present in the hospital.

Standard Radiant Room Heater (heating capacity < 1000 W)	
Standard Radiant Room Heater (heating capacity 1000 W to 2000 W)	
Standard Radiant Room Heater (heating capacity > 2000 W)	
Radiant Room Heater with Fan Forced Circulation (heating capacity < 1000 W)	
Radiant Room Heater with Fan Forced Circulation (heating capacity 1000 W to 2000 W)	
Radiant Room Heater with Fan Forced Circulation (heating capacity < 1000 W)	
Radiant Room Heater with Fan Forced Circulation (heating capacity 1000 W to 2000 W)	
Radiant Room Heater with Fan Forced Circulation (heating capacity > 2000 W)	
Oil Filled Radiator Room Heater (heating capacity 1000 W to 2000 W)	
Oil Filled Radiator Room Heater (heating capacity > 2000 W)	

G. 12 Prevalence of wood or biomass fired space heating (Single select from options)

[Ask if: response to A11 is "Cold"]

- o Yes
- 0 **No**

G.13 Centralised space heating system (Single select from options)

- o Yes
- 0 **No**

G.14 Number of months in year space heating is required

G.15 Energy saving measures practised in the design and operation of Heating, Ventilation, and Air Conditioning (HVAC) systems (Multi select from options)

- □ Setting the temperature setpoints in non-critical areas at 24-25°C or even higher
- □ Scheduled checks for refrigerant gas pressure to detect leakages
- Periodic energy auditing
- □ VFD on chilled water pumps or AHU fans
- □ Use of premium efficiency (IE3 class) or high efficiency (IE2 or EFF1 class) motors for plant auxiliaries
- □ Adiabatic pad air-cooled chiller
- □ Water side economizer (free cooling coil)
- □ Heat or enthalpy recovery wheels
- □ Auto tube cleaning system in chiller to keep check on condenser fouling factors
- Other

□ None

G.16 Indoor air quality improvement measures practised (Multi select from options)

Explanatory Note: IAQ: Indoor Air Quality

- $\hfill\square$  Demand Controlled Ventilation based on CO2 monitoring
- Demand Controlled Ventilation based on overall IAQ
  - monitoring
- Standalone air purifiersOther

□ None

G.17 Upgrades and/or changes in the air conditioning and ventilation system in the wake of COVID-19 (Multi select from options)

- □ Installation of standalone air purifiers
- Demand Controlled Ventilation based on CO2 monitoring
- Ultraviolet Germicidal Irradiation (UVGI) for air disinfection
- □ Increase in air changes per hour

Increase in an changes per hour
Other
None

G.18 Policy to procure BEE star labelled and/or ECBC compliant equipment (Multi select from options)

- Voluntary company policy
- □ Government mandate
- None

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Section H: Medical use refrigeration This section covers refrigeration for storing drugs, vaccines, blood, ice packs, and other medical products, and morgues/mortuaries.

H.1 Type and number of refrigeration units

<u>Explanatory Note:</u> \* Number of units should be filled against the types present in the hospital.

\* For Mortuary Cabinet, please specify the number of units in terms of number of bodies.

\* The indicative capacity figures mentioned in parenthesis is the gross capacity of the units in Litres and NOT the net storage capacity of the vaccines (or other products) that could be stored. The net storage capacity will obviously be smaller than the gross storage capacity.

Normal Domestic Type Refrigerators	
4±1°C Blood Bank Refrigerators	
2°C to 8°C Medical or Ice Lined Refrigerators (ILRs) - Small (~100 Litre)	
2°C to 8°C Medical or Ice Lined Refrigerators (ILRs) - Large (~300 Litre)	
-15°C to -25°C Deep Freezer - Small (~100 Litre)	
-15°C to -25°C Deep Freezer - Large (~300 Litre)	
2°C to 8°C and -10°C to -25°C Combined Refrigerator & Freezer	
-40°C Low Temperature Freezer	
-86°C Ultra Low Temperature Freezer	
Solar Direct Drive (SDD) Refrigerator (~100 Litre)	
Solar PV With Battery (SWB) Refrigerator (~270 Litre)	
Walk-in Coolers	
Walk-in Freezers	
Mortuary Cabinet	

H2. Share of refrigerators still using CFC refrigerants (in %)

#### Section I: Medical imaging equipment

This section covers those medical imaging equipment that typically represent large single plug loads, and where significant energy savings might be possible through good operational practices.

Medical Imaging Equipment



[Not applicable: Public sub- centre]1.1 Number of machines Explanatory Note: Number of units should be filled against the types present in the hospital.1.2 Power mode when not in use (i.e. when not scanning) during business hours Explanatory Note: Order of power consumption:1.3 Power mode during non-business hoursVisit Strength Description:I.2 Power mode when not in use (i.e. when not scanning)I.3 Power mode during non-business hoursVisit Strength Power present in the hospital.I.2 Power scanning)I.3 Power mode when not in use (i.e. when not scanning) Dower consumption:Visit Strength Power Consuming (standby' power mode > Low power mode > Low power mode > Low power mode > Corsuming (standby' mode > Low power Consuming (standby' mode > Low power Consuming (standby' mode > Consuming (standby' mode Single select from options A. Power mode C. OFFI.3 Power mode Single select from options A. Power mode C. OFFX-ray machineX-ray machineI.2 Power modeI.3 Power mode C. OFF	Economy			
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C. OFF				
	X-ray machine		0.011	
CT scanner	CT scanner			
Cyclotron	Cyclotron			
MRI machine	MRI machine			
Echocardiogram	Echocardiogram			
Ultrasound	Ultrasound			
machine	machine			

I.4 Energy saving measures practised in the procurement and operation of medical imaging equipment (Multi select from options) [Not applicable: Public sub-centre]

- 'Energy-saving' mode/feature is an important consideration while purchasing medical imaging equipment
- Medical imaging equipment regularly recommissioned for optimal energy performance by trained O&M personnel
- Operators trained to reduce 'standby' energy consumptions by manufacturers of medical imaging equipment
- □ Other
- □ None

## Section J: Steam and hot water

This section covers centralised and standalone hot water systems for personal hygiene, kitchen/pantry use, and laundry; and centralised and standalone steam generation for sterilisation of medical instruments, laundry use, and humidifying air.

J.1 Type of steam and hot water systems (Multi select from options)

#### Steam system

- □ Standalone electric steam generator (boiler)
- $\hfill\square$  Centralised electric steam generator (boiler)
- $\hfill\square$  Centralised gas-fired steam generator (boiler)
- $\hfill\square$   $\hfill Centralised oil-fired steam generator (boiler)$
- □ None

## Hot water system

- □ Standalone electric geysers for hot water
- □ Centralised electric hot water generator (boiler)
- □ Centralised electric Heat Pump for hot water generation
- □ Centralised gas-fired hot water generator (boiler)
- □ Centralised oil-fired hot water generator (boiler)
- □ Centralised biomass-fired hot water generator (boiler)
- □ Solar or solar-electric hybrid water heater

□ None

J.2 Type and number of standalone electric geysers for hot water. <u>Explanatory Note:</u> Number of units should be filled against the types present in the hospital.

Ask if: Response to J.1 "Steam and hot water" is either "Standalone electric geysers for hot water"]

Electric geyser with storage (capacity <20 l)	
Electric geyser with storage (capacity 20 to	
Electric geyser with storage (capacity 50 to	
Electric geyser with storage (capacity >=100 l)	
Electric instantaneous geyser without storage	

J.3 Energy saving measures practised in the design and operation of

- steam and hot water systems (Multi select from options)
  - Using economiser
  - Using condensing heat exchanger
  - □ Air preheating
  - $\hfill\square$  Using exhaust vapour heat exchanger
  - $\hfill\square$  Annual inspection to ensure desired insulation level for pipes
  - □ Annual inspection to identify and fix leakages
  - □ Other
  - □ None

## Section K: Water supply pumping

This section covers pumping cold and clear treated municipal and/or ground water for water supply purposes. It does NOT include pumping water for specialised medical procedures and laboratory use, and pumping within Water/Sewage/Effluent Treatment Plants.

K1. Total connected load for water supply pumping

(in kilowatt (kW))

[Not applicable: "Public sub-centre" or "Public PHC" or "Public HWC-SC or HWC-PHC" or "Public CHC"]

Explanatory Note: 1 horsepower (hp) = 0.746 kW

#### Section L: Treatment Plant

This section covers (1) Water Treatment Plant (WTP): Building-level onsite treatment of municipal and/or recycled water, including reverse osmosis (RO). It does not include small standalone water purifiers. (2) Sewage Treatment Plant (STP): Building-level onsite treatment of sewage. (3) Effluent Treatment Plant (ETP): Building-level onsite treatment liquid waste from operation theatres or other such liquid waste

L.1 Operational capacity of on-site WTP (Water Treatment Plant), if present (in kilo litre per day (kl/day))

[Not applicable: "Public sub-centre" or "Public PHC" or "Public HWC-SC or HWC-PHC" or "Public CHC"]

L.2 Operational capacity of on-site STP (Sewage Treatment Plant), if present (in kilo litre per day (kl/day))

[Not applicable: "Public sub-centre" or "Public PHC" or "Public HWC-SC or HWC-PHC" or "Public CHC"]

L.3 Operational capacity of on-site ETP (Effluent Treatment Plant) or liquid waste management plants, if present (in kilo litre per day (kl/day)) [Not applicable: "Public sub-centre" or "Public PHC" or "Public HWC-SC or HWC-PHC" or "Public CHC"]

#### Section M: Electric vehicle (EV) charging

This section covers onsite charging of electric vehicles.

M.1 EV charging points



## Section N: Other information

This section is meant to capture any other additional supporting information relevant to the questions in Sections A to M.

N.1 Hospital management's or engineering department's most pressing concern related to the issues enquired in the survey <u>Explanatory Note</u>: Use this space to share details about the hospital management's or engineering department's most pressing concern related to issues enquired in the survey questions from Sections B to M N.2 Any other information (optional) <u>Explanatory Note:</u> Use this space to capture any other additional information relevant to the sections A to M

