



**GOVERNMENT OF HIMACHAL PRADESH**  
**Department of Irrigation & Public Health &  
Himachal Pradesh Infrastructure Development Board**

**Name of Project: Engineering, Procurement, Construction, Testing, Commissioning, and Operation & Maintenance of Water Supply Scheme for Various Towns in Himachal Pradesh State under Public Private Partnership (PPP) Mode**

The Himachal Pradesh Irrigation and Public Health desires development of water supply project and related activities for water supply of Various Towns in Himachal Pradesh State under Public Private Partnership (PPP) mode. As part of this endeavour, the Authority has decided to carry out the bidding process for selection of the bidder to whom the Project may be awarded. Brief particulars of the Project are as follows:

<b>Name of the Work</b>	<b>Various Towns</b>
Engineering, Procurement, Construction, Testing, Commissioning, Trial Run and Operation & Maintenance of various components of Water Supply Scheme for following towns in Himachal Pradesh State under Public Private Partnership (PPP) Mode	Kangra
	Nurpur
	Palampur
	Nahan
	Paonta Sahib
	Baddi
	Parwanoo
	Rampur

The objective of the proposed project is to support State Water Policy and improve city water management and services by developing a commercially viable Performance Based Management Contract with integrated water supply management. The Project shall include development, operation, maintenance, repairs/maintenance of all assets of water supply system. This shall also include metering, billing and collection along with all fixed and variable investments relating to water supply scheme. The principle objective of the project shall be reduction in non revenue water (NRW), Unaccounted for Water (UFW) and provision of adequate water supply 24x7 to the population by utilizing efficiencies of Private partner under PPP mode. The project investments will be performance based and demand driven.

The scope of work will broadly include Engineering, Procurement, Construction, Testing, Commissioning, Trial Run, replacement and upgradation of existing water distribution network & house service connections, expansion of pipe water supply to unconnected areas within the service area, O&M with reduction in Non Revenue Water & Unaccounted for Water & improvements in Service level for 24x7 water supply in these towns. In order to improve the water supply and quality of services level, HPIPH has planned a comprehensive water project for the Town. The Project focus is on:

- Measures to improve the efficiency
- Undertake condition assessment
- Formulate and implement the project components for improvement of service levels
- Effective operation and maintenance of the water supply system
- Carrying out the rehabilitation and expansion schemes
- Effective billing and collection
- SCADA, GIS mapping and dedicated fire fighting system

The Authority intends a single-stage bidding process for selection of the bidder for award of the Project. The Bid shall consist of a Grant or a Premium, as the case may be, to be quoted by the Bidder. Grant shall be payable by the Authority to the Concessionaire and the Premium shall be payable by the Concessionaire to the Authority, as the case may be, as per the terms and conditions of the bid document.

The scope of the Project shall include following:

- a) Design and Construction of the Water Supply System to be installed in the Service Area in conformity with the Specifications and Standards;
- b) Install capacity utilization of existing Water Supply system including refurbishment, rehabilitation and expansion of transmission and distribution network;
- c) Reduction of non-revenue water by reduction of physical losses through leakage management and reduction of commercial losses in water supply system through identification and regularization of unauthorized connections, meeting and improvement in billing and collection systems;
- d) Operation and maintenance of the Water Supply System in accordance with the provisions of this Agreement;
- e) Provision of 24\*7 water supply service targeting entire population duly developing the distribution network to reach the end User;

- f) Introduction of SCADA (Supervisory control and data acquisition), ring fencing, GIS mapping and dedicated fire fighting system;
- g) Providing ducts, trestles (concrete pillars) wherever possible for laying of main and feeder line specifically along the urban highway, state highway; and
- h) Performance and fulfillment of all other obligations of the Concessionaire in accordance with the provisions of concession and matters incidental thereto or necessary for the performance of any or all of the obligations of the Concessionaire.

**Service Level Benchmark:**

- a) 100% Coverage of water supply in defined time period (e.g.2016)
- b) Per capita water supply up-to 135 lpcd by demand management.
- c) Continuity of water supply form 3-4 hrs to 24x7 in defined time period (e.g.2016)
- d) Extent of metering of water connection up to 100% in defined time period (e.g.2016)
- e) Extent of Non Revenue Water to reduce up to 15% during contract period.
- f) Quality of water from existing mix supply to 100% treated water.
- g) Operating cost recovery up-to 100% in defined time period
- h) Efficiency in redressal of complaint to 100% in defined time period
- i) Efficiency in collection of water related charges up to 90% in in defined time period

**Performance Benchmark**

S No.	Defect/Deficiency	Time limit for repair/ rectification	
1	Bursts in the transmission mains and-feeder mains of water supply system	6 hrs from occurrence	
2	Bursts in the distribution network pipelines	4 hrs from occurrence	
3	Billing complaint	3 hrs from registration of complaint	
4	Downtime of pumps/ T/w at all pumping stations.	Repair time within one day except for major repairs and replacement which shall be within 7 days and by ensuring that 24*7 water supply is available to the Users from the stand by system and from any other sources	
<b>S.</b>	<b>Service Level</b>	<b>Benchmark to</b>	<b>Targeted performance</b>

No.	Benchmark	be achieved	
1	Coverage of Water Supply	100%	2016; There are 9 wards in town which are to be covered upto 2016. The Concessionaire shall be required to complete 'Y Within 6 months - 01(01) 'Y Within 12 months - 02 (03) 'Y Within 18 months - 03 (06) 'Y Within 24 months - 03 (09)
2	Coverage of Services	100%	2016; There are 9 wards in town which are to be covered upto 2016. The Concessionaire shall be required to complete 'Y Within 6 months - 01(01) 'Y Within 12 months - 02 (03) 'Y Within 18 months - 03 (06) 'Y Within 24 months - 03 (09)
3	Continuity of Supply	24 hrs	2016; There are 9 wards in town which are to be covered proportionately under 24*7 water supply upto 2016, as under (and with reference to Clause 12.3.2 of this Agreement): 'Y Within 6 months - 01(01) 'Y Within 12 months - 02 (03) 'Y Within 18 months - 03 (06) 'Y Within 24 months - 03 (09)
4	Extent of Metering of Water Connections	100%	2016; There are 9 wards in town which are to be covered proportionately under 24*7 water supply upto 2016, as under (and with reference to Clause 12.3.2 of this Agreement): 'Y Within 6 months - 01(01) 'Y Within 12 months - 02 (03) 'Y Within 18 months - 03 (06) 'Y Within 24 months - 03 (09)
5	Extent of Metering of Water Connections	100% of total	'Y Within 6 months - 40% 'Y Within 12 months- 60% 'Y Within 24 months - 100%
6	Efficiency in redress of Complaints within 24 hrs	100%	Within 18 months
7	Quality of Water	100%	Within 6 months w.e.f. Appointed Date

**DESIGN CONCREN**

- “State of the Art” Technology and Process
- Analysis of projects risks
- Assessment of Functional and Hydraulic requirements
- Use of Flow and Pressure Measurements (FPM)
- Use Hydraulic Network Model (HNM)
- Network Assessment
- Pre-determined standard - CPHEEO Manual
- Focuses on the whole Life Cycle Cost of the project
- More Disciplined and Commercial approach

### **Cost Component:**

- Capex – Cost of Planning and Designing, Establishment of water infrastructure, Water extracting element, purification equipment, storage reservoir, Distribution system etc.
- Cap-man ex – Renewal and Rehabilitation of system i.e. replacement of major equipment, borehole plant equipment etc.
- Opex – Regular operation and maintenance expenditure e.g. establishment cost, energy charges, chemical cost, administrative charges, routine maintenance of equipment etc.

### **PROJECT OUTCOME FOR 24 x 7 WATER SUPPLY**

- Supply side efficiency
- Demand side efficiency
- Managerial Reforms
- Complaints and Redressal Management System
- Better customer service
- Reduction in energy cost & O&M cost.
- Reliability of water supply.
- Ensure better water quality.
- Better financial sustainability

## **OBLIGATIONS**

### **1. Operator's Obligation**

- a) Designing of the project
- b) Applicable Laws and Applicable Permits
- c) Mobilising of finances for executing the project
- d) Procurement of material
- e) Construction of the project
- f) Maintenance of the project over the period of the concession

### **2. Department's Obligation**

- a) Hand over the O&M of the Project Facilities
- b) Assist the Concessionaire
- c) Security Concerns of the project
- d) In Procuring Applicable Permits
- e) Detailed specifications for construction
- f) Detailed maintenance standards in terms of output parameters, to the extent feasible

### **3. Consumer's Obligation**

- a) To get water connection have to apply on prescribed application
- b) Have metering on Water Connections and ensure its safety
- c) Pay the water charges as per metered connection to the authorized Operator for services that have been entrusted by the HPIPH and/or local authorities.
- d) Have to lay the pipe line upto the supply line from where the connection is required at his cost.
- e) The pipe shall be provided with wheel valve and water meter provided in a masonry chamber having proper locking arrangement
- f) He shall arrange permission of the land owner for laying the pipe line from the supply line to his house/premises, if required.
- g) He shall have to deposit security /connection charges etc. as per rules and as per tariff fixed by the Govt.