



**GUWAHATI SMART CITY LTD.**  
(CIN U45309AS2016SGC017403)

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No. SPV/GSCDAL/GEN/1/2016/PT-I/41A

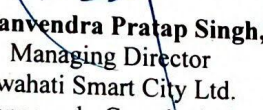
Dated: 08/03/2017

**EXPRESSION OF INTEREST (EOI) FOR IMPLEMENTATION OF INTELLIGENT STREET POLES IN GUWAHATI UNDER PPP-MODEL**

Guwahati Smart City Ltd. (GSCL) invites Eoi from interested entities for Implementation of Intelligent Street Poles in Guwahati under PPP which will involve, but not limited to, Feasibility Study, Design, Development, Implementation, Operation and Maintenance of fixtures, equipment and services related to Smart LED Street Lights, OFC Cable, WiFi, City Surveillance, etc. in selected areas of Guwahati City under the Smart City project.

No.	Stage	Date / Time
1.	EOI Publication Date	08/03/2017
2.	Bidders to submit queries, if any (Queries can be raised to <a href="mailto:mdsmartguwahati@gmail.com">mdsmartguwahati@gmail.com</a> )	15/03/2017; 17:30 hrs
3.	EOI Submission Date	24/03/2017; 17:30 hrs
4.	Date(s) for Presentation of design, implementation, operation, maintenance and business model for qualified bidders	27/03/2016 - 29/03/2017
5.	Date(s) for Installation of 'Proof of Concept' and demonstration of functionalities / applications	30/03/2017 - 13/04/2017
6.	RFP Publication Dates- only for qualified EOI Respondents will be eligible for participation to this RFP	To be notified

EOI documents will be available on [www.gscdal.com](http://www.gscdal.com). For queries and clarifications send e-mail to [mdsmartguwahati@gmail.com](mailto:mdsmartguwahati@gmail.com).

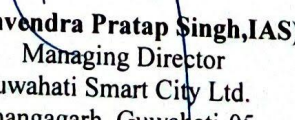
  
(Manvendra Pratap Singh, IAS)  
Managing Director  
Guwahati Smart City Ltd.  
Bhangagarh, Guwahati-05

Memo No. SPV/GSCDAL/GEN/1/2016/PT-I/41-A

Dated: 08/03/2017

Copy to:

1. PS to the Chief Secretary, Govt Of Assam, Dispur- for kind appraisal of the Chief Secretary
2. PS to the Addl. Chief Secretary, Govt Of Assam, GDD, Dispur- for kind appraisal of the Addl. Chief Secretary, GDD
3. DIPR, Dispur, Guwahati -6 you are requested to publish the advertisement on 09/03/2017 in two local Daily newspapers- one in English and one in Assamese vernacular and one in all editions of The Times Of India .

  
(Manvendra Pratap Singh, IAS)  
Managing Director  
Guwahati Smart City Ltd.  
Bhangagarh, Guwahati-05

# Expression of Interest For Selection of Concessioner for Implementing Intelligent Poles for Smart City Projects in Guwahati on BOOT model

Reference No.: SPV/GSCDAL/GEN/1/2016/PT-I/41

Date 08-03-2017



**Guwahati Smart City Ltd, Guwahati  
Assam**

Handwritten signature and date: 8/3/17





Selection of Concessioner for Implementing Intelligent Poles for Smart City Projects in Guwahati on BOOT model

**Disclaimer**

The information contained in this Expression of Interest (EOI) or subsequently provided to Applicants, whether verbally or in documentary or any other form by or on behalf of the Guwahati Smart City Development Limited ("the Authority") or any of its employees or advisers, shall be considered confidential and not to be reproduced / transmitted / adopted / displayed for any purpose whatsoever.

This EOI is one of the steps in the process of selection of an entity for the project of implementation of intelligent poles on PPP-model in whole or part of Guwahati City.

This EOI is not an agreement or an offer by the Authority to the Applicants or any other person. The purpose of this EOI is to provide interested parties with information that may be useful to them in the formulation of their Proposals pursuant to a specific Request For Proposal (RFP).

This EOI includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Project. It is not possible for the Authority, its employees or advisers to consider the objectives, technical expertise and particular needs of each Applicant who reads or uses this EOI. The assumptions, assessments, statements and information contained in this EOI, may not be complete, accurate, adequate or correct. Each Applicant should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this EOI.

The information provided in this EOI is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Authority accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.

The Authority, its employees and advisers make no representation or warranty and shall have no liability to any person including any Applicant under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this EOI or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the EOI and any assessment, assumption, statement or information contained therein or deemed to form part of this EOI or arising in anyway in this subject.

The Authority, may in its absolute discretion, update, amend or supplement any information, objective, assessment or assumption contained in this EOI.

The issue of this EOI does not imply that the Authority is bound to select an Applicant for the project and the Authority reserves the right to terminate the process at any time without assigning any reasons whatsoever.

(P) 08/3/17





**Selection of Concessioner for Implementing Intelligent Poles for Smart City Projects in Guwahati on BOOT model**

**The Applicant shall bear all its costs associated with or relating to the participation in this process regardless of the conduct or outcome of the process.**

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## Introduction:

1. Guwahati Smart City Limited (GSCL) is a Govt. Company for implementing the Smart City mission at the city level. GSCL will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects.

2. Guwahati Smart City Ltd. invites Expression of Interest from interested firms / entities for Installation of Intelligent Street Poles in Guwahati City under PPP model which will involve, but not limited to, Feasibility Study (ies), Design, Development, Implementation, Operation and Maintenance of fixtures, equipment and services related to Smart LED Street Lights, dedicated OFC network, Telecom Infrastructure, WiFi, City Surveillance, Command and Control Centre, environment monitor, power management, parking management etc. in selected areas of Guwahati City under the Smart City project.

3. Interested applicants are requested to submit their responses in the formats under 'Annexure'. They shall also provide documents in support of their approach, achievements / claims and compliance to eligibility criteria.

### Key Events and Tentative Dates:

No.	Stage	Date / Time
1.	EOI Publication Date	08/03/2017
2.	Bidders to submit Queries, if any ( Queries can be raised to <a href="mailto:mdsmartguwahati@gmail.com">mdsmartguwahati@gmail.com</a> )	15/03/2017; 17:30 hrs
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**The Objective**

4. **Intelligent Street Pole Concept:** The intelligent street pole (popularly known as “smart pole”) combine the capabilities of telecom connectivity and LED lighting in a city. Owing to their “omni-presence”, street-lighting poles can enable a role in city surveillance. For the same reason, some other functionalities / features / equipment can also be added which directly or indirectly utilize the main capability of telecom connectivity, such as, environment monitor, power management, parking management, waste management, etc.
5. The mobile wireless 4G LTE network infrastructure deployment on intelligent pole can result in improved mobile network coverage and capacity for citizens so there are no more signal dropouts. This can vastly improve the telecom infrastructure of the city. LED street-lighting can generate energy savings of 50 to 70 percent, coupled with smart controls.
6. Advertisement, Bill-boards, Application Stations, EV charging are some other features that may be attached to the Intelligent Poles. Further, upon establishing connectivity from household connections to Central Command & Control Centre through optical fibre cable networks, Intelligent Poles have a role to play in operation and maintenance of urban infrastructure.
7. All these functionalities / features / equipment create a significant commercial potential for its implementer. Thus this project can result in a “win-win” situation for the citizens, government and businesses.
8. The successful applicant shall be solely and exclusively responsible to design, implement and maintain on a BOOT model the project and to provide the services which would be defined in the RFP.
9. The successful applicant shall have the exclusive right to use the assets (which will be specified in the RFP document) in GSCL area to create infrastructure to enable multiple digital services based on Wi-Fi/2G/3G/4G to be utilized by all/multiple service providers having valid license from Department of Telecom (DoT) on non-discriminatory basis.
10. GSCL expects that atleast 15% of the project should be completed by 15<sup>th</sup> of Oct, 2017. This implies that atleast 15% of intelligent street poles becomes operational. On the failure to meet the criteria , penalty may be imposed which will be decided in RFP stage.
11. To expedite the project , GSCL expects that successful applicant shall tie up with telecom/internet service providers to get access into the existing optical fibre cable network . Simultaneously, they shall start the laying down of their own optical fibre cable. For this purpose the successful applicant will be allowed to lay dedicated optical fiber cable along the alignment and ROW which will be granted free of cost





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after due approval by the competent authorities.

12. The Concessioner can form a consortium. The consortium may consist of multiple members (not more than 4 parties) with one lead member and other consortium members. The Concessioner need to provide the details of firm wise activities that will be performed by the consortium.
13. While implementing Intelligent poles ,Concessioner has to keep in consideration the overall aesthetics of the poles with no loose wires hanging, slots for placing switches and other IoTs etc.

**The Process:**

14. For evolving the best techno-economically feasible solution allowing non-proprietary functionalities / features / equipment / technology, it is essential to identify all system components, their operational requirements as well as capabilities, their mutual compatibility / interoperability, and formulating the minimum essential specifications, GSCL has planned to invite an open and interactive participation of all solution providers.

15. It is envisaged that consortium of businesses in communication technology, lighting technology, operation & maintenance service providers, advertisement & publicity houses, and others will emerge to meet the long term objectives of this project.

16. The Concessioner need to give a detailed technical presentation to GSCL covering the following;

- Details on technical solution envisaged in the project
- Indicative approach to be adopted
- Suggest, with proper justification, the various revenue modes which can be part of the EOI.

17. GSCL will receive EOIs from full / part solution providers ("applicant") who will participate in technical discussions with GSCL, demonstrate their solutions / capabilities / functionalities / features through installation of a 'Proof-of-Concept' (PoC). Each shortlisted Concessioner for Technical Evaluation shall demonstrate the PoC on No Cost No Commitment basis (NCNC) . This PoC shall comprise a minimum of two smart poles, to be installed at a predefined location by each applicant for live demonstration. The demonstration/ presentation should provide a representative solution to integrate various features / aspects / functionalities / applications of the project as per the objective(s) set above.

18. GSCL shall facilitate ground space for installation of Gateway, Switches, Routers etc. and power requirement to each applicant during the entire period of PoC. Any Civil/Electrical work required will be the responsibility of the applicant. The applicants

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may organize demonstrations “on-site” through use of RF / WiFi / Cloud and local display media.

19. For Wi-Fi services to Citizens / Visitors, the applicants have to provide the statistics of the number of persons connected online on each hotspot, duration of the Wi-Fi usage, data downloaded, etc. If free Wi-Fi services will be denied to any person, the online statistics of such cases will also be provided by the applicant.

20. Based on the learnings of the PoC; final specifications of the project will be drawn up for city-wide implementation. The applicants shall involve in formulation of technical specifications of various system components for long term sustainable implementation of the project, which shall be compiled in the RFP document.

21. The applicants shall also provide their inputs for identification and quantification of revenue streams, making their own assessments of revenue potential. Details, as necessary, may be shared with GSCL for suitable incorporation in the RFP document.

22. The applicants will be invited to submit their technical and financial proposals in response to the RFP document, in the method to be described in the RFP document. After technical and financial evaluations, in the method to be described in the RFP document, GSCL will identify the Most Preferred Partner for implementation of the project.

23. It is the responsibility of the applicants for the watch & ward, O & M, of the assets / services created for the PoC.

24. At the end of the PoC period, all facilities given to the applicants shall be terminated automatically.

25. During the presentation as well as PoC as per ‘Key Events and Tentative Dates’, each applicant shall discuss their recommendation of solution(s) for Guwahati Smart City and also exhibit their technical approach, methodology and work plan for the implementation of:

- i. Smart Pole with LED Street Light
- ii. WI-FI Services
- iii. Optical Fiber Cable City Wide Network
- iv. Video Surveillance
- v. Environmental Sensors
- vi. EV Charging Points
- vii. Smart Bill Board
- viii. SOS Application
- ix. Public Address System
- x. Connectivity to Central Command and Control Centre





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along with discussion on proposed solutions regarding (i) Efficiency, operability, maintainability of features involved, (ii) Collaboration model among all ecosystem stakeholders, (iii) Procurement & Financing Models.

26. All the information provided by the applicants, like the names of the clients, contract values or any proprietary information etc. will be treated as confidential information.

**Design Parameters:**

27. Desired design parameters of the complete system are as below. The applicant should strive to exhibit most of these to confirm suitability of their products / services for the project. The design of the smart pole should be sleek and aesthetic. The frame should hide remote radio units and antennas inside the pole and macro radios, baseband units, transmission equipment, extra capacity, power, batteries and additional equipment underneath. All equipment being used should comply with relevant ISO standards. All equipment which are exposed to the environment should comply IP 64 standards or better.

- a. **Smart LED Lighting:** Energy efficient Smart LED Lighting shall be provided. The lighting should be anti-glare. The installation should comply with IP 66. The Lighting Operations Management software should be able to send commands to the smart street lighting system based on the data analytics to increase / decrease the luminosity as per the daylight and weather conditions, volume of population, traffic etc.

Luminary Basic Specs requirement:

- (i) 6,000 – 18,000 Lumens
- (ii) Dimming Compatible
- (iii) Auto detection moving sensors
- (iv) Automation and centrally controlled

- b. **Mobile/Broadband Equipment Installation Space-** There should be enough space for installation of mobile/broadband equipment on smart poles. So that this space is given on rent to telecom/internet service provider to implement their services in these areas.

- c. **Power Back-up:** There should be power back-up to ensure round-the-clock functioning. A minimum of six hours' power back-up should be ensured. The service provider should give a detailed breakdown of the power consumption of the equipment being used and accordingly work out 6 hour back-up.

- d. **City Surveillance System:** The system shall manage video feeds for all CCTV systems required under this project through Video Management System (VMS) application at central command control centre with video storage facility for 90 days. The camera should be IP 66 compliant.

Camera Basic Specs Requirement:

- (i) 360 & 180 degree coverage

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- (ii) Min 1080P CMOS Sensors with 25 mtr. clear view
- (iii) Edge based video Analytics
- (iv) Day & Night Vision
- (v) Anti Theft Design

Surveillance functions with following analytics at particular locations:

- (i) Automatic Number Plate recognition
- (ii) Face recognition (Basic)
- (iii) Speed Recognition
- (iv) Movement Recognition
- (v) Wi-fi & Optical Fiber Cable connectivity for Monitoring

- e. Wi-Fi Hotspot services: OFC (Optical fibre cable) backbone with 2GBps or more bandwidth should be provided. Customers should be able to get a minimum speed of 2 Mbps on their devices.
- f. Air Quality sensors: Ambient Air quality monitoring sensors fitted on the smart pole will provide real time data to the CCCC for analysis and reporting.
- g. Security: The physical and data security shall be the responsibility of the service provider. Cyber Security / ISO 27001 standards as applicable to Smart City project should be complied with.
- h. Central Command and Control centre (CCCC): A CCCC facility is required to be set up and implement by the service provider. The CCCC will acquire real time data and analyse and provide dashboard view of all reports necessary for monitoring and managing the smart pole infrastructure. Software requirement specifications shall be shared prior to installation. During the full-scale implementation, the selected service provider will set up the CCCC on a Tier-III ( or higher) data centre, and connect all intelligent poles installed under this project by OFC. The specifications and the facilities of the CCCC shall be elaborated in the RFP document. In future , it will be integrated with City Command and Control Centre.

**Eligibility Criteria:**

28. EOI of each Applicant shall be evaluated on the basis of the following Eligibility Criteria:

No	Criteria	Specific Requirements	Documents Required
1.	Applicant Entity	Legal entities duly registered under the Companies Act 1956 / 2013, or, public / semi-public entities which are financially autonomous. Entities registered under equivalent law / act in foreign countries may participate. However, they will need to be registered in India, if selected for this project's implementation.	Certificate(s) of incorporation.
2.	General Requirement	Applicant/Lead Member of consortium should be: (i) Telecom Service Provider having valid UL(AS) / UASL from DoT, GoI or Internet Service Provider having valid	Self-attested certificates / registrations / copy of documents to

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		license to operate in the region for a minimum period of next 5 years. Or  (ii) Previously Engaged in Supply, Installation, Commissioning and Operations & Maintenance Services of Wi-Fi (atleast 250 Access Point)/ LED Lighting (atleast 100km)/ CCTV( atleast 200) / OFC(min 200 km linear) for telecom/internet network projects for a period of last five years and atleast one of the consortium members shall be telecom/internet service provider	establish the general requirement conditions to be enclosed. MoU of the consortium clearly specifying the role and area of specialization of the individual partners should be submitted.
3.	Turnover	The applicant / lead partner in case of consortium, shall have Average Annual turnover of at least Rs. 100 Crores during the last three FYs (2013-14, 2014-15, 2015-16).	Certificate(s) from statutory auditors of the Applicant; Annual Audit Reports
4.	No Barring Certificate	Any entity which has been barred, by any public / semi-public agency / Central / State / Local Government, and the bar subsists as on the date of Application, would not be eligible, either individually or as member of a Consortium.	Undertaking by the authorized signatory as well as all members of consortium

29. Only the applicants who has been shortlisted at EOI stage will be allowed to respond to the RFP and submit their proposal for participation in the implementation of the project. New consortium partners may be allowed to participate in the revenue streams as identified in #6 above.

30. The applicants may associate with each-other to form consortium. However, any applicant can't be part of more than one consortium in the RFP stage.

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Annexure

**Particulars of the Concessioner**

*(All responses to be made alongwith supporting documents to be attached)*

1. Name and Address of the Applicant
2. Name , Designation ,Address and Contact Details of person to whom all references can be made in connection with this EOI
3. Legal Status
4. Product(s)/ Service(s) Offered
5. Years in Business
6. Requirement to form any joint venture for providing any product/feature/service etc under this project (Yes/No)
7. If Yes for (6) above , define the product/feature/service etc.
8. Number of similar projects executed
9. Project Information – Name , Client , Scope, Technology Used , Value , Start/End dates etc.  
(repeat for each project as per information under (4))
10. MoU with other agency(ies) , if making a joint application (Attach)

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**Company Profile**

A brief company profile covering the following aspects;

- A brief description of the Company's organization and an outline of recent experience on assignment of similar nature
- Understanding of the project
- Type of resources and their expertise that should be deployed on such type of projects

In case of Consortium, all members of the Consortium need to provide the details

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### Revenue Generation

Details/Suggestions on revenue generation out of the following;

- Intelligent Poles
- Public Wi-Fi
- Smart LEDs
- Smart Billboards
- Optical Fiber
- Any other component

The Concessioner need to highlight the various methods for generating revenue (from the aforementioned smart components) along with an indicative calculation, along with total monetization period, on how the revenue will be generated.

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**Documents to establish legal entity**

- a) **Certificate of Incorporation**
- b) **Articles and Memorandum of Association**
- c) **Annual Report for last three financial years**

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**Audited balance sheet for last three years**

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**Self-Declaration for non – blacklisting**

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