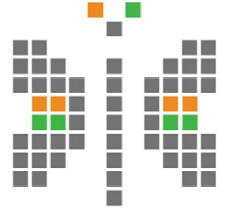


# REQUEST FOR PROPOSAL (RFP)

RFP NO: 01/NDMCSCCL/PMC/2016: DATED 28.10.2016



## APPOINTMENT OF SMART CITY INFRASTRUCTURE PROJECT MANAGEMENT CONSULTANTS

FOR

### Strategic Advisory and Smart Infrastructure Project Management Support

TO

**New Delhi Municipal Council Smart City Ltd.  
(NDMCSCCL)**

**For Implementation of**

**New Delhi Smart City Proposal (SCP)**

**Issued By**

**The Chief Executive Officer (CEO)**

**New Delhi Municipal Council Smart City Ltd.  
(NDMCSCCL)**

New Delhi Municipal Council (NDMC)

Palika Kendra, Sansad Marg

New Delhi 110001

**Cost of RFP Document – Rs 10,000/- Only**

# Disclaimer

The information contained in this Request for Proposal document (“**RFP**”) whether subsequently provided to the bidders, (“**Bidder/s**”) verbally or in documentary form by New Delhi Municipal Council Smart City Ltd (henceforth referred to as “**NDMCSCCL**” in this document) or any of its employees or advisors, is provided to Bidders on the terms and conditions set out in this Tender document and any other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is not an offer or invitation to any party. The purpose of this RFP is to provide the Bidders or any other person with information to assist the formulation of their financial offers (“**Bid**”). This RFP includes statements, which reflect various assumptions and assessments arrived at by NDMCSCCL in relation to this consultancy. This Tender document does not purport to contain all the information each Bidder may require. This Tender document may not be appropriate for all persons, and it is not possible for the Chief Executive Officer, NDMCSCCL and their employees or advisors to consider the objectives, technical expertise and particular needs of each Bidder. The assumptions, assessments, statements and information contained in the Bid documents, may not be complete, accurate, adequate or correct. Each Bidder must therefore conduct its own analysis of the information contained in this RFP and to seek its own professional advice from appropriate sources.

Information provided in this Tender document to the Bidder is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. NDMCSCCL accepts no responsibility for the accuracy or otherwise for any interpretation of opinion on law expressed herein.

NDMCSCCL and their employees and advisors make no representation or warranty and shall incur no liability to any person, including the Bidder under law, statute, rules or regulations or tort, the principles of restitution or unjust enrichment or otherwise for any loss, cost, expense or damage which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, reliability or completeness of the RFP, and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

NDMCSCCL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. NDMCSCCL may in its absolute discretion, but without being under any obligation to do so, can amend or supplement the information in this RFP.

The issue of this Tender document does not imply that NDMCSCCL is bound to select a Bidder or to appoint the Selected Bidder (as defined hereinafter) or Consultant (as defined hereinafter), as the case may be, for the Consultancy assignment and NDMCSCCL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by NDMCSCCL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and NDMCSCCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the Selection process.

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# Introduction

## 1.1. Background

- 1.1.1. The Smart City proposal of the New Delhi Municipal Council (NDMC) was selected for priority financing under Smart City Mission by Ministry of Urban Development (MoUD), Government of India. Thereafter, the New Delhi Municipal Council (NDMC) has incorporated a Special Purpose Vehicle (SPV) company called New Delhi Municipal Council Smart City Ltd (NDMCSCCL), under the Companies Act 2013, solely for the purpose of implementing the Smart City proposal. NDMCSCCL is wholly owned by the New Delhi Municipal Council (NDMC).
- 1.1.2. NDMCSCCL will receive funding from Government of India for implementing the smart city projects as identified in the NDMC Smart City Proposal (SCP). Given the wide range of technical and sector specific expertise required to implement the smart city infrastructure projects, NDMCSCCL shall be supported by a team of consultants for strategic, technical and project management support.

## 1.2. Request for proposals

NDMCSCCL intends to select the Smart City Infrastructure Consultants (SCIC) to provide Strategic Advisory and Project Management Support to NDMCSCCL, through **an open competitive online bidding process** in accordance with the procedure set out herein. In this regard, NDMCSCCL invites proposals from interested and eligible firms to provide the consultancy services as detailed in this RFP.

## 1.3. Due diligence by bidders

- 1.3.1. Bidders are encouraged to inform themselves fully about the assignment and the local conditions before submitting the Proposal by paying a visit or sending written queries to NDMCSCCL, and attending a Pre-Proposal Conference (Pre- bid Meeting ) on the date and time specified in this RFP. Any query should be referred on or before the Pre-bid Meeting date and to be addressed to the CEO, NDMCSCCL through the email.
- 1.3.2. Submission of bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications. The response to this RFP should be full and complete in all respects. Failure to furnish all information required by the RFP documents or submission of a proposal not substantially responsive to the RFP documents in every respect will be at the bidder's risk and may result in rejection of the bidder's Proposal.

## 1.4. Sale of RFP documents

- 1.4.1. RFP document can be downloaded from the website of [www.ndmc.gov.in](http://www.ndmc.gov.in) and <https://govtprocurement.delhi.gov.in> In case of downloaded RFP document, the Applicant is required to deposit a Demand Draft of Rs.10,000/- drawn in favour of "Secretary NDMC" payable at Delhi/New Delhi while submitting the bid. The RFP document can also be obtained after depositing a Demand Draft of Rs.10,000 (Rupees Ten Thousand only) drawn in favour of "Secretary NDMC" payable at Delhi/New Delhi , in the office, details of which are given below.

**Office of the Secretary NDMC /CEO, NDMCSCL**

3rd Floor, New Delhi Municipal Council

Palika Kendra

New Delhi – 110001

Email: [secretary@ndmc.gov.in](mailto:secretary@ndmc.gov.in)

**1.5. Earnest Money Deposit(EMD)**

- 1.5.1. An EMD of Rs. 25 Lakhs (Rs Twenty Five Lakhs) to be deposited in the form of Demand Draft/Pay order/Bankers Cheque/FDR/TDR in favour of “Secretary NDMC” Payable at Delhi/New Delhi, copy of which to be scanned and to be uploaded with other technical documents as mentioned in the RFP. Failing to deposit EMD on or before the last date of submission of bids (Proposal Due Date ) shall lead to non -consideration of bid and its automatic rejection. The physical copy of the EMD is also required to be submitted in the Office of Secretary NDMC as per the address below

**Office of the Secretary NDMC /CEO, NDMCSCL**

3rd Floor, New Delhi Municipal Council

Palika Kendra

New Delhi – 110001

Email: [secretary@ndmc.gov.in](mailto:secretary@ndmc.gov.in)

- 1.5.2. The EMD is refundable not later than 60 (sixty) days from the Proposal Due Date, except in the case of the Selected Bidder whose EMD shall be retained till it has provided a Performance Security. Where a demand draft is provided, its validity shall not be less than 80 (eighty) days from the Proposal Due Date, for the purposes of encashment by the Authority. **The Bid shall be summarily rejected if it is not accompanied by the EMD.**

**1.6. Performance Security**

- 1.6.1. Upon selection, the Consultant shall furnish to the Client, a performance security of the amount specified in Clause 1.6.2 below, on or before execution of the Contract to secure the due performance of the obligations of the Consultant under the Contract (the Performance Security). The Performance Security will be in the form of an unconditional, irrevocable and on-demand bank guarantee issued in favour of the Client in the format appended to the RFP .
- 1.6.2. The Performance Security shall be for an amount equal to **10% (Ten per cent)** of the total value of the Contract and shall be released after satisfactory completion of work with the last bill of payment .
- 1.6.3. The format of the Performance Security is provided in Appendix III.

**1.7. Validity of the proposal**

The Proposal shall be valid for a period of not less than 120 days from the Proposal Due Date (the “PDD”).

**1.8. Schedule of selection process and other details**

<b>S No</b>	<b>Information related to bid process</b>	<b>Details</b>
1.	Publication of Request for Proposal	<b>28.10.2016 (FRIDAY)</b>
2.	RFP Document Fee	Rs 10,000/- (Rupees Ten Thousand Only)
3.	Earnest Money Deposit (EMD)	Rs 25,00, 000/- (Rupees Twenty Five Lakhs)
4.	<b>Submission deadline or Proposal Due Date (PDD)</b>	<b>21.11.2016 (MONDAY) up to 3.00PM</b>
5.	Bid validity period	120 days from PDD
6.	Last date for submission for queries for clarification to NDMCSCL	<b>8.11.2016</b>
7.	Contact person and email id	<b>Ms. Chanchal Yadav</b> CEO, NDMCSCL <a href="mailto:secretary@ndmc.gov.in">secretary@ndmc.gov.in</a>
8.	Pre-bid meeting - Date, time, and venue	<b>8. 11.2016; 4:00 pm</b> <b>(TUESDAY)</b> <b>Address:</b> <b>Office of CEO, NDMCSCL</b>
9.	Opening of Technical Proposal – date, time and venue	<b>21.11.2016 at 4:00 pm( MONDAY )</b> <b>Address:</b> <b>Office of CEO, NDMCSCL</b>
10.	Presentation before Technical Evaluation Committee	To be intimated
11.	Opening of Financial Proposal	To be intimated to the qualified bidders
12.	Letter of Award (LoA)	In due course
13.	Signing of agreement	In due course

**1.9. Communications and address**

All communications, including proposal documents should be addressed to:

**The Chief Executive Officer,**  
3<sup>rd</sup> Floor, New Delhi Municipal Council Smart City Ltd. (NDMCSCCL)  
Parliament Street (SANSAD MARG), New Delhi 110001, India  
Ph No: +91 011 23742451  
E mail ID: [secretary@ndmc.gov.in](mailto:secretary@ndmc.gov.in)

All communications including the demand drafts for EMD and purchase of RFP document should contain the following information:

**RFP NO: 01/NDMCSCCL/PMC/2016**

**“Strategic Advisory and Smart Infrastructure Project Management Support to NDMCSCL for implementation of New Delhi Smart City Infrastructure”**



# Instruction to bidders

## GENERAL

### 2.1. Scope of proposal

- 2.1.1. The objectives, scope of services, deliverables and other requirements relating to this consultancy are specified in this RFP. In case a bidding firm possesses the requisite experience and capabilities required for undertaking the Consultancy, it may participate in the selection process either individually (the “Sole Firm”) or as lead member of a consortium of firms (the “Lead Member”) in response to this invitation. The term “Bidder” means the Sole Firm or the Lead Member, as the case may be. The manner in which the Proposal is required to be submitted, evaluated and accepted is explained in this RFP.
- 2.1.2. Bidders are advised that the selection of Consultant shall be on the basis of an evaluation by NDMCSCL through the Selection Process specified in this RFP. Bidders shall be deemed to have understood and agreed that no explanation or justification for any aspect of the Selection Process will be given and that NDMCSCL’s decisions are without any right of appeal whatsoever.
- 2.1.3. The Bidder shall submit its Proposal in the form and manner specified in this RFP. The Technical proposal shall be submitted in the format specified in Appendix-I and the Financial Proposal shall be submitted in the format specified in Appendix-II. Upon selection, the Bidder shall be required to enter into an agreement with NDMCSCL in the format specified in this RFP.
- 2.1.4. The term **Consultancy Team** shall refer to the following Key Personnel

S No	Consultancy Team	Number of Persons
	<b>Core Staff</b>	
1	Project Director	1
2	Procurement Specialist	1
3	Sustainability Expert	1
4	Financial Expert	1
5	Spatial Urban Planner	1
6	Urban Infrastructure Specialist	1
	<b>Total Core Staff from lead firm</b>	<b>6</b>
	<b>Non-Core Staff</b>	
7	Knowledge Management Specialist	1
8	Legal and Corporate Governance Specialist	1
9	IT and Analytics Expert	1
10	Water & Sanitation Specialist	1
11	Landscape and Horticulture Specialist	1
12	Project Support Team	8
	<b>Total non-core Staff from lead firm</b>	<b>13</b>
	<b>Total Man Power</b>	<b>19 (NINETEEN)</b>

## **2.2. Eligibility conditions for consultants**

2.2.1. Proposals of only those Bidders who satisfy the Conditions of Eligibility, stated herein, will be considered for evaluation by NDMCSCL

### **2.2.2. Basic Eligibility Criteria**

- a) The Bidder shall be a company, firm incorporated in India under the (Indian) Companies Act 1956/2013 or a company incorporated under equivalent law abroad.  
The Bidder shall be required to submit a true copy of its Incorporation Certificate
- b) The Bidder must have a valid service tax registration
- c) The Bidder must have at least one office in India which has been operational for the last three years or more
- d) Bidder should be a registered firm/company/partnership/consortium and should be in operations in India for a minimum of 10 years
- e) Bidder should not be black-listed by any Central / State Government / Public Sector Undertaking in India.
- f) Average Annual Revenue from Consulting Business of the Lead Member in the last 3 financial years of minimum Rs. 250 Crores**
- g) Bidder should have experience of at least one project (completed/ ongoing) of contract value more than Rs 10 crore involving project management/ monitoring for an ULB in India

**Note:** In case of a consortium/Joint Venture, lead member must meet the basic eligibility criteria.

2.2.3. The Bidder shall enclose with its Proposal, certificate(s) from its Statutory Auditors stating its total revenues from professional fees during each of the 3 (three) financial years preceding the PDD. In the event that the Bidder does not have a statutory auditor, it shall provide the requisite certificate(s) from the firm of Chartered Accountants that ordinarily audits the annual accounts of the Bidder.

2.2.4. The bidder shall offer in the proposal and make available all the key resources, as per Clause 2.1.4.

2.2.5. The Bidder should submit a Power of Attorney (Form 4 ) as per the format at Appendix-I provided, however, such Power of Attorney would not be required if the Bid document is signed by a Partner or Director (on the Board of Directors) of the Bidder.

2.2.6. Any entity which has been barred by the Central Government, any State Government, a statutory authority or a public sector undertaking, as the case may be, from participating in any project, and the bar subsists as on the date of the Proposal, would not be eligible to submit the Proposal either by itself or through its Associate.

## **2.3. Conflict of interest**

2.3.1. Bidders shall not have a conflict of interest that may affect the Selection Process or the

Consultancy (the “**Conflict of Interest**”). Any Bidder found to have a Conflict of Interest shall be disqualified.

- 2.3.2. NDMCSCL requires that the Smart City Infrastructure Consultant provides professional, objective, and impartial advice and at all times hold the NDMCSCL’s interests paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work.
- 2.3.3. The Bidder and any entity affiliated with the Bidder, including sub consultants and their affiliates shall be disqualified from providing goods, works, or services (other than consulting services), resulting from or directly related to the Smart City Infrastructure Consultant’s services as defined in the scope of this assignment. This restriction shall not apply after a cooling period of 3 years.

**2.4. Number of proposals**

A Bidder applying individually or as an associate shall not be entitled to submit another application either individually or as a member of any other consortium, as the case may be.

**2.5. Acknowledgement by the Bidder**

- 2.5.1. It shall be deemed that by submitting the proposal, the Bidder has
  - a) Made a complete and careful examination of the RFP
  - b) Received all relevant information requested from NDMCSCL
  - c) Accepted the risk of inadequacy, error or mistake in the information provided in the RFP or furnished by or on behalf of NDMCSCL or relating to any of the matters
  - d) Agreed to be bound by the undertaking provided by it under and in terms hereof.

**2.6. Right to reject any proposal**

- 2.6.1. Notwithstanding anything contained in this RFP, NDMCSCL reserves the right to accept or reject any Proposal and to annul the Selection Process and reject all Proposals, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons therefore.
- 2.6.2. Without prejudice to the generality of Clause 2.6.1, NDMCSCL reserves the right to reject any Proposal if,
  - a) at any time, a material misrepresentation is made or discovered, or
  - b) the Bidder does not provided within the time specified by NDMCSCL, the supplementary information sought by NDMCSCL for evaluation of the Proposal
  - c) Misrepresentation/ improper response by the Bidder may lead to the disqualification. If the Bidder is the Lead Member of a consortium, then the entire consortium may be disqualified / rejected. If such disqualification / rejection occurs after the Proposals have been opened and the highest ranking Bidder gets disqualified / rejected, then NDMCSCL reserves the right to consider the next best Bidder, or take any other measure as may be deemed fit in the sole discretion of NDMCSCL, including annulment of the Selection Process

- 2.6.3. The entire Proposal shall be strictly as per the format specified in the Request for Proposal (RFP). Any deviation from the specified format will lead to disqualification of the Bidder

**2.7. Clarifications to queries**

- 2.7.1. Bidders requiring any clarification on the RFP may send their queries to NDMCSCL in writing by e-mail so as to reach before the date mentioned in the Schedule of Selection Process at Clause 1.8 of this RFP.( or before the Pre-Bid Meet )
- 2.7.2. NDMCSCL shall endeavor to respond to the queries within the period specified therein. NDMCSCL will post the reply to all such queries on the official website and copies thereof will also be circulated to all Bidders who have purchased the RFP document without identifying the source of queries.
- 2.7.3. NDMCSCL reserves the right not to respond to any query or provide any clarifications, in its sole discretion, and nothing in this clause 2.7 shall be construed as obliging NDMCSCL to respond or provide clarifications.
- 2.7.4. Only those bidders who have purchased the RFP document shall be allowed to attend the Pre-bid Meeting and hence should produce proof of having purchased the same.

**2.8. Amendment to RFP**

- 2.8.1. At any time prior to the deadline for submission of Proposal, NDMCSCL may, for any reason, whether at its own initiative or in response to clarifications requested by a Bidder, modify the RFP document by the issuance of Addendum/ Amendment and posting it on the official website.
- 2.8.2. In order to give the Bidders a reasonable time for taking an amendment into account, or for any other reason, NDMCSCL may, in its sole discretion, extend the PDD.

**SUBMISSION OF BID DOCUMENTS**

**2.9. Language**

- 2.9.1. The Proposal with all accompanying documents (the “**Documents**”) and all communications in relation to or concerning the Selection Process shall be in English language and strictly on the forms provided in this RFP.
- 2.9.2. No supporting document or printed literature shall be submitted with the Proposal unless specifically asked for.

**2.10. Format of Proposal**

- 2.10.1. The Bidder shall provide all the information sought under this RFP. NDMCSCL would evaluate only those Proposals that are received in the specified forms and complete in all respects and within the submission date and time . The proposals shall be submitted online only.
- 2.10.2. The Bidder shall prepare one original set of the Technical and Financial Proposal (together with originals/ copies of Documents required to be submitted (online ) along therewith pursuant to this RFP).
- 2.10.3. The Proposal shall be typed or written in indelible ink and signed by the authorized signatory of the Bidder. All the alterations, omissions, additions, or any other amendments made to the Proposal shall be initialed by the person(s) signing the Proposal. The Proposals must be signed

by the authorized signatory (the “**Authorized Signatory**”) as detailed below:

- a) by the proprietor, in case of a proprietary firm; or
- b) by a partner, in case of a partnership firm and/or a limited liability partnership; or
- c) by a duly authorized person holding the Power of Attorney, in case of a Limited Company or a corporation; or
- d) by the authorized representative of the Lead Member, in case of consortium

A copy of the Power of Attorney certified by a notary public shall accompany the Proposal (if required)

- 2.10.4. Bidders should note the PDD, as specified in Clause 1.8, for submission of Proposals. Except as specifically provided in this RFP, no supplementary material will be entertained by NDMCSCL, and that evaluation will be carried out only on the basis of Documents submitted online by the closing time of PDD. Bidders may be asked to provide additional material information or documents or technical presentations subsequent to the date of submission, and unsolicited material if submitted will be summarily rejected.

## **2.11. Technical proposal**

- 2.11.1. Bidders shall submit the technical proposal online at <https://govtprocurement.delhi.gov.in> in the formats at Appendix-I (the “**Technical Proposal**”) on or before PDD. Bidders should have valid class II / III Digital Signature Certificate (DSC) obtained from certifying Authorities.
- 2.11.2. While submitting the Technical Proposal, the Bidder shall, in particular, ensure that:
- a) power of attorney, if applicable, is executed as per Applicable Laws
  - b) CVs of all Key Personnel have been included with only one CV proposed for each position
  - c) CVs have been recently signed and dated by the respective Personnel and countersigned by the Bidder.
  - d) CVs shall contain an undertaking from the respective Key Personnel about his/her availability for the duration specified in the RFP
  - e) Key Personnel would be available for the period indicated in the TOR
  - f) Integrity Agreement as per Form 12
- 2.11.3. The Technical Proposal shall not include any financial information relating to the Financial Proposal.**
- 2.11.4. NDMCSCL may ask bidders to make technical presentations in a suitable format before technical appraisal is finalized. This would help in aiding the process of technical appraisal.
- 2.11.5. NDMCSCL reserves the right to verify all statements, information and documents, submitted by NDMCSCL in response to the RFP. The lack of such verification by NDMCSCL shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of NDMCSCL there under.
- 2.11.6. In case it is found during the evaluation or at any time before signing of the Agreement or after its execution and during the period of subsistence thereof, that one or more of the eligibility

conditions have not been met by the Bidder or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith if not yet appointed as the Consultant either by issue of the LOA or entering into of the Agreement, and if the Selected Bidder has already been issued the LOA or has entered into the Agreement, as the case may be, the same shall, notwithstanding anything to the contrary contained therein or in this RFP, be liable to be terminated, by a communication in writing by NDMCSCL without NDMCSCL being liable in any manner whatsoever to the Selected Bidder or Consultant, as the case may be.

## **2.12. Financial proposal**

- 2.12.1. **The Financial Proposal shall be submitted online and digitally signed in the formats at Appendix-II (the “Financial Proposal”) clearly indicating the total cost of the Consultancy in both figures and words, in Indian Rupees, and signed by the Authorized Signatory of the Bidder.** In the event of any difference between figures and words, the amount indicated in words shall prevail. In the event of a difference between the arithmetic total and the total shown in the Financial Proposal, the lower of the two shall prevail.
- 2.12.2. While submitting the Financial Proposal, the Bidder shall ensure the following
- a) All the costs associated with the assignment shall be included in the Financial Proposal. These shall normally cover remuneration for all the Personnel (Expatriate and Resident, in the field, office, etc.), accommodation, air fare, equipment, printing of documents, etc.
  - b) The total amount indicated in the Financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the Financial Proposal, it shall be considered non-responsive and liable to be rejected.
  - c) The Financial Proposal shall take into account all expenses **excluding tax liabilities**. All applicable taxes shall be paid in addition to the financial quote and calculated as per applicable laws at the time of payment. All payments to consultants shall be subject to deduction of taxes at source as per Applicable Laws.

## **2.13. Withdrawal of proposals**

- 2.13.1. The Bidder may withdraw its Proposal after it has been submitted by sending a written Withdrawal Notice, duly signed by an authorised Signatory, and including a copy of the authorisation document. The Withdrawal Notice must be submitted at least one day prior to the PDD.
- 2.13.2. Proposals that are withdrawn in accordance with Clause 2.14.1 shall be returned unopened to the Consultant.
- 2.13.3. No Proposal shall be withdrawn in the interval between the deadline for submission of Proposals and the expiration of the period of Proposal validity specified in the RFP or any extension thereof, except in the case of a request by the Client to extend the Proposal validity.

**2.14. Responsiveness**

- 2.14.1. The Bidder, by submitting its Proposal pursuant to this RFP, shall be deemed to have acknowledged that without prejudice to NDMCSCL's any other right or remedy hereunder or in law or otherwise, the EMD shall be forfeited and appropriated by NDMCSCL as the mutually agreed pre-estimated compensation and damage payable to NDMCSCL for, *inter alia*, the time, cost and effort of NDMCSCL in regard to the RFP including the consideration and evaluation of the Proposal under the following conditions:
- a) If a Bidder submits a non-responsive Proposal
  - b) If a Bidder engages in any of the Prohibited Practices
  - c) If a Bidder withdraws its Proposal during the period of its validity
  - d) In the case of the Selected Bidder, if the Bidder fails to reconfirm its commitments during negotiations
  - e) In the case of a Selected Bidder, if the Bidder fails to sign the Agreement or commence the assignment
  - f) If the Bidder is found to have a Conflict of Interest

**EVALUATION PROCESS****2.15. Evaluation of proposals**

- 2.15.1. NDMCSCL shall open the Proposals on the PDD as specified in clause 1.8, at the place and time specified in this RFP and in the presence of the Bidders who choose to attend. The Technical Proposals shall be opened first.
- 2.15.2. Prior to evaluation of Proposals, NDMCSCL will determine whether each Proposal is responsive to the requirements of the RFP. A Proposal shall be considered responsive only if:
- a) the Technical Proposal is received in the form specified at Appendix-I
  - b) it is received by the PDD including any extension thereof
  - c) it is accompanied by the Power of Attorney for Authorised Signatory
  - d) it contains all the information (complete in all respects) as requested in the RFP
  - e) it does not contain any condition or qualification; and
  - f) it is not non-responsive in terms hereof
  - g) It is accompanied by the EMD and proof of purchase of RFP document
- 2.15.3. NDMCSCL reserves the right to reject any Proposal which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by NDMCSCL in respect of such Proposals.
- 2.15.4. After the technical evaluation, NDMCSCL shall invite qualified Bidders for opening of their Financial Proposals. A date, time and venue will be notified to all Bidders for announcing the result of evaluation and opening of Financial Proposals. Before opening of the Financial Proposals, the list of pre-qualified Bidders along with their Technical Scores will be read out.
- 2.15.5. The opening of Financial Proposals shall be done in presence of respective representatives of Bidders who choose to be present. NDMCSCL will not entertain any query or clarification from Bidders who fail to qualify at any stage of the Selection Process. After the financial evaluation, the final ranking of the Proposals shall be carried out.

- 2.15.6. Bidders are advised that Selection shall be entirely at the discretion of NDMCSCL. Bidders shall be deemed to have understood and agreed that NDMCSCL shall not be required to provide any explanation or justification in respect of any aspect of the Selection Process or Selection.
- 2.15.7. Any information contained in the Proposal shall not in any way be construed as binding on NDMCSCL, its agents, successors or assigns, but shall be binding against the Bidder if the Consultancy is subsequently awarded to it.

## **2.16. Confidentiality**

Information relating to the examination, clarification, evaluation, and recommendation for the selection of Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional adviser advising NDMCSCL in relation to matters arising out of, or concerning the Selection Process. NDMCSCL shall treat all information, submitted as part of the Proposal, in confidence and shall require all those who have access to such material to treat the same in confidence. NDMCSCL may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or to enforce or assert any right or privilege of the statutory entity and/or NDMCSCL or as may be required by law or in connection with any legal process.

## **APPOINTMENT OF CONSULTANT**

### **2.17. Negotiations**

The Selected Bidder may, if necessary, be invited for negotiations. The negotiations may generally not be for reducing the price of the Proposal, but will be for re-confirming the obligations of the Consultant under this RFP. Issues such as deployment of Key Personnel, understanding of the RFP, methodology and quality of the work plan shall be discussed during negotiations.

### **2.18. Indemnity**

- 2.18.1. The Consultant shall, subject to the provisions of the Agreement, indemnify NDMCSCL, for an amount not exceeding the value of the Agreement, for any direct loss or damage that is caused due to any deficiency in Services.
- 2.18.2. NDMCSCL shall, subject to the provisions of the Agreement, indemnify the Consultant for any direct loss or damage or Claims that is caused due to deficiencies in its responsibilities as defined in the Agreement.

### **2.19. Award of Consultancy**

After selection, a Letter of Award (the “**LOA**”) shall be issued, in duplicate, by NDMCSCL to the Selected Bidder and the Selected Bidder shall, within 15 (fifteen) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Bidder is not received by the stipulated date, NDMCSCL may, unless it consents to extension of time for submission thereof, cancel the LOA and the next highest ranking Bidder may be considered.



**2.20. Execution of Agreement**

After acknowledgement of the LOA as aforesaid by the Selected Bidder, it shall execute the Agreement within 15 days of the issue of LOA as prescribed in this RFP after furnishing the Performance Guarantee in the form of Bank Guarantee.

**2.21. Commencement of the Assignment**

- 2.16.1. The Consultant shall commence the Services at the Project site within 15 (fifteen) days of the date of the Agreement or such other date as may be mutually agreed. If the Consultant fails to either sign the Agreement or commence the assignment as specified herein, NDMCSCL may invite the second ranked Bidder for negotiations. In such an event, the Bid Security of the first ranked Bidder shall be forfeited and appropriated in accordance with the provisions of Clause 2.15.3.

**2.22. Proprietary data**

Subject to the provisions of Clause 2.18, all documents and other information provided by NDMCSCL or submitted by a Bidder to NDMCSCL shall remain or become the property of NDMCSCL. Bidders and the Consultant, as the case may be, are to treat all information as strictly confidential. NDMCSCL will not return any Proposal or any information related thereto. All information collected, analysed, processed or in whatever manner provided by the Consultant to NDMCSCL in relation to the Consultancy shall be the property of NDMCSCL.

## Criteria for Evaluation

### 3.1. Evaluation of Technical Proposals

3.1.1. In the first stage, the Technical Proposal will be evaluated on the basis of Bidder's experience, its understanding of TOR, proposed methodology and Work Plan, and the experience of Key Personnel. Only those Bidders who score **70 points or more out of 100 points in their Technical Proposals will be eligible for financial evaluation.**

3.1.2. The technical proposals will be evaluated on a scale of 100, and the break up for each criterion would be as follows:

	Type	Evaluation Criteria	Max Marks																																													
1.	Financial Strength	Average Annual Revenue from Consulting Business of the Lead Member in the last 3 financial years (2015-16, 2014-15, 2014-13) of minimum Rs. 300 Crores <ul style="list-style-type: none"> <li>▪ Greater than equal to Rs 325 Crores: 10 marks</li> <li>▪ Rs 300 – Rs 324 Crores: 5 marks</li> <li>▪ Rs 275 – Rs 299 Crores: 3 marks</li> <li>▪ Rs 250 – Rs 274 crores: 1 mark</li> </ul>	10																																													
2.	Technical Capability of the firm/ consortium	Experience of completed/ ongoing bid advisory management of the projects listed in SCP's of cities shortlisted in 1 <sup>st</sup> round of Smart City Challenge of MoUD, Government of India.  (5 marks for each bid advisory experience related to projects listed in SCP's of cities shortlisted in 1st round of Smart City Challenge of MoUD, Government of India)	20																																													
3.	Quality and experience of the proposed engagement team	<table border="1"> <thead> <tr> <th>Sl. No</th> <th>Position</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align: center;"><b>Core Staff</b></td> </tr> <tr> <td>1</td> <td>Project Director</td> <td>8</td> </tr> <tr> <td>2</td> <td>Procurement Specialist</td> <td>5</td> </tr> <tr> <td>3</td> <td>Sustainability Specialist</td> <td>5</td> </tr> <tr> <td>4</td> <td>Financial Expert</td> <td>5</td> </tr> <tr> <td>5</td> <td>Spatial Urban Planner</td> <td>5</td> </tr> <tr> <td>6</td> <td>Urban Infrastructure Expert</td> <td>5</td> </tr> <tr> <td colspan="3" style="text-align: center;"><b>Non-Core Staff</b></td> </tr> <tr> <td>7</td> <td>Knowledge Management Specialist</td> <td>3</td> </tr> <tr> <td>8</td> <td>Legal and Corporate Governance Specialist</td> <td>4</td> </tr> <tr> <td>9</td> <td>IT and Analytics Specialist</td> <td>3</td> </tr> <tr> <td>10</td> <td>Water &amp; Sanitation Specialist</td> <td>3</td> </tr> <tr> <td>11</td> <td>Landscape &amp; Horticulture Expert</td> <td>3</td> </tr> <tr> <td>12</td> <td>Support Team</td> <td>6</td> </tr> </tbody> </table>	Sl. No	Position	Marks	<b>Core Staff</b>			1	Project Director	8	2	Procurement Specialist	5	3	Sustainability Specialist	5	4	Financial Expert	5	5	Spatial Urban Planner	5	6	Urban Infrastructure Expert	5	<b>Non-Core Staff</b>			7	Knowledge Management Specialist	3	8	Legal and Corporate Governance Specialist	4	9	IT and Analytics Specialist	3	10	Water & Sanitation Specialist	3	11	Landscape & Horticulture Expert	3	12	Support Team	6	55
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4.	Understanding of the project and proposed methodology	<ul style="list-style-type: none"> <li>▪ Understanding of NDMC Smart City Proposal (SCP) including key projects, criticality of each project and methodology on how to implement them – 3 marks</li> <li>▪ Presentation to NDMC Technical Evaluation Committee – 12 marks</li> </ul>	15																																													
<b>Total Marks</b>			<b>100</b>																																													

**Note:**

1. Both completed/ ongoing engagements will be accepted – unless otherwise mentioned
  2. Supporting documentary proof will have to be provided (work orders or signed contract or client testimonial or completion certificate) to substantiate each credential cited by the firm
  3. Last three years' audited P&L statement of the bidding company will have to be submitted as proof of turnover. Alternatively, auditor's certificate may be provided.
- 3.1.3. In case of a consortia bid, the combined technical experience would be considered. The projects executed by sub-consultants shall not be considered for technical evaluation
- 3.1.4. Every project is mandatorily required to involve overall sustainability assessment both from the point of view of financial and environmental sustainability

**3.2. Shortlisting of Bidders**

NDMCSCL shall normally pre-qualify not less than 3 (three) Bidders and shortlist for financial evaluation. However, if the number of such pre-qualified Bidders is less than 3 (three), NDMCSCL may, in its sole discretion, go ahead with further evaluation.

**3.3. Evaluation of Financial Proposal**

- i) For financial evaluation, the total Lump-sum cost of the consultancy assignment indicated in the Financial Proposal, excluding all applicable taxes, shall be considered.
- ii) NDMCSCL will determine whether the Financial Proposals are complete, unqualified and unconditional. The cost indicated in the Financial Proposal shall be deemed as final and reflecting the total cost of services. Omissions, if any, in costing any item shall not entitle the Consultant to be compensated and the liability to fulfil its obligations as per the TOR within the total quoted price shall be that of the Consultant. The lowest Financial Quote (FM) will be given a financial score (SF) of 100 points. The financial scores of other proposals will be computed as follows:

$$SF = 100 \times (FM/FX), \text{ where } FX \text{ is the Financial Quote}$$

**3.4. Combined and Final Evaluation**

- iii) Proposals will finally be ranked according to their combined technical (ST) and financial (SF) scores as follows

$$\text{Combined Score (S)} = ST \times TW + SF \times FW$$

Where TW and SW are weights assigned to the Technical Proposal and Financial Proposal, **which shall be 70% and 30% respectively**

- iv) **The Selected Bidder shall be the Bidder with the highest combined score (S).** The second highest Bidder shall be kept in reserve and may be invited in its discretion for negotiations in case the first-ranked Bidder withdraws, or fails to comply with the requirements specified in in this RFP, as the case may be.

## Fraud and Corrupt Practices

- 4.1. The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, NDMCSCL shall reject a Proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the “**Prohibited Practices**”) in the Selection Process. In such an event, NDMCSCL shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security, if available, as mutually agreed genuine pre-estimated compensation and damages payable to NDMCSCL for, *inter alia*, time, cost and effort of NDMCSCL, in regard to the RFP, including consideration and evaluation of such Bidder’s Proposal.
- 4.2. Without prejudice to the rights of NDMCSCL under Clause 4.1 hereinabove and the rights and remedies which NDMCSCL may have under the LOA or the Agreement, if a Bidder or Consultant, as the case may be, is found by NDMCSCL to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOA or the execution of the Agreement, such Bidder or Consultant shall not be eligible to participate in any tender or RFP issued by NDMCSCL during a period of two years from the date such Bidder or Consultant, as the case may be, is found to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.
- 4.3. For the purposes of this Clause, the following terms shall have the meaning hereinafter respectively assigned to them
- a) “**corrupt practice**” means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of NDMCSCL who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of NDMCSCL, shall be deemed to constitute influencing the actions of a person connected with the Selection Process; or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of NDMCSCL in relation to any matter concerning the Project;
  - b) “**fraudulent practice**” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process; “**coercive practice**” means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person’s participation or action in the Selection Process;

- c) “**undesirable practice**” means (i) establishing contact with any person connected with or employed or engaged by NDMCSCL with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and
- d) “**restrictive practice**” means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process

## Miscellaneous

- 5.1.** The Selection Process shall be governed by, and construed in accordance with, the laws of India and the Courts in the State of Delhi in which NDMCSCL has its headquarters shall have exclusive jurisdiction over all disputes arising under, pursuant to and/or in connection with the Selection Process.
- 5.2.** NDMCSCL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to
  - a) suspend and/or cancel the Selection Process and/or amend and/or supplement the Selection Process or modify the dates or other terms and conditions relating thereto;
  - b) consult with any Bidder in order to receive clarification or further information;
  - c) retain any information and/or evidence submitted to NDMCSCL by, on behalf of and/or in relation to any Bidder; and/or
  - d) independently verify, disqualify, reject and/or accept any and all submissions or other information and/or evidence submitted by or on behalf of any Bidder
- 5.3.** It shall be deemed that by submitting the Proposal, the Bidder agrees and releases NDMCSCL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/or performance of any obligations hereunder, pursuant hereto and/or in connection herewith and waives any and all rights and/or claims it may have in this respect, whether actual or contingent, whether present or future.
- 5.4.** All documents and other information supplied by NDMCSCL or submitted by a Bidder shall remain or become, as the case may be, the property of NDMCSCL. NDMCSCL will not return any submissions made hereunder. Bidders are required to treat all such documents and information as strictly confidential
- 5.5.** NDMCSCL reserves the right to make inquiries with any of the clients listed by the Bidders in their previous experience record.

## Schedule 1: Terms of Reference

### 1. Background

The NDMC Smart City Proposal (SCP) includes both Area Based Development (ABD) projects and Pan City smart projects and covers a wide range of sectors for city transformation such as transport, water supply, public health, culture & identity and e-governance infrastructure. The vision for NDMC Smart City is “To be the Global Benchmark for a Capital City”. Hence, each smart solution proposed will employ state of the art technology, as well as innovative project structure and design. It is therefore important to recruit multiple specialist firms, on a need basis, to assist NDMCSCL in technical design and rollout of the projects. In order to build this robustness and flexibility into the implementation framework, NDMCSCL has decided to recruit a Smart City Infrastructure Consultant to support the senior management team. This Smart City Infrastructure Consultant (SCIC) shall have the capacity and market outreach to identify the technical firms and assist NDMCSCL in procuring them depending on project requirements.

### 2. Objective

The objective of the consultancy assignment is to provide strategic and project management assistance to NDMCSCL in order to ensure timely completion of projects and to achieve the critical outcomes outlined in the New Delhi Smart City Proposal (SCP).

### 3. Scope of services/ Consultancy Work

The Smart City Infrastructure Consultant (SCIC) is responsible for overall project management of the NDMC Smart City initiative. The scope of work for the Smart City Infrastructure Consultant can be broadly classified under Two major components – Strategic Implementation Advisory and Project Management Consultancy of the smart infrastructure initiatives of NDMC as outlined in the Smart City Proposal (SCP) submitted to Ministry of Urban Development (MoUD), Government of India. The detailed scope under each component is as follows:

#### A. Infrastructure Advisory:

1. The Smart City Infrastructure Consultants shall provide strategic inputs to NDMCSCL for all key projects as identified in the SCP:

The smart city projects can be categorized under Six (06) major Project Groups such as:

S.No	Major Project Groups	Key Projects
1.	Urban Mobility, Transportation & Parking Infrastructure	<ol style="list-style-type: none"> <li>1. PELICAN crossing facilities for differently-abled/ senior-citizens</li> <li>2. Electric Vehicles (EV's) based last mile connectivity to Metro/Bus Transport</li> </ol>

S.No	Major Project Groups	Key Projects
		<p>System/park and ride facility</p> <p>3. First in the world EV charging facility at each parking bay</p> <p>4. Smart bus-stops-providing interactive bus information system/ATM/wi-fi/ vending machine</p> <p>5. Strengthening parking infrastructure by developing multi-level automated parking at KG Marg, Shivaji Terminal &amp; near IOC Building</p> <p>6. e-surveillance including e-challan for enforcing traffic discipline</p> <p>7. Parking Plan for Intermediate-Public-Transport (IPT) such as Taxi, Auto</p>
2.	Water and Sanitation & Other Infrastructure	<p>1 Mini smart Sewage Treatment Plants (STPs) for wastewater management</p> <p>2 Sensor based Common Service Utility Duct</p> <p>3 Command and Control Centre for integrated Urban management &amp; Public Safety/Security through CCTV-Surveillance</p> <p>4 24x7 Water Supply</p> <p>5 Dual piping systems to be used for horticulture &amp; flushing</p> <p>6 Water Conservation</p>
3.	Energy and Solar Infrastructure	<p>1 Resource Conservation</p>
4.	Solid Waste Management	<p>1 Green (Horticulture) to Gas Initiatives</p> <p>2 Electronic Bin Monitoring System</p>
5.	Social & Value Infrastructure	<p>1 2 Happiness area for the cultural and social needs of citizens</p> <p>2 Transforming subways in NDCC areas into vibrant spaces</p> <p>3 Financial, Identity, Ticketing &amp; Access</p>



S.No	Major Project Groups	Key Projects
		<p>inclusion (Single Card access to New Delhi inclusive of Banking / Jan-Dhan Yojana/ Insurance for all based on regular Bank Debit card)</p> <p>4 Annual Delhi International Art and Culture Festival</p> <p>5 Awards to Global Capital Cities based on City Benchmarks</p> <p>6 Gateway to the World: On-street Live Video Conferencing between people of Delhi and multiple Global Cities</p> <p>7 Signature Giant Smart Digital Screen</p> <p>8. Develop Standard Operating Procedures (SOPs) for Horticulture, Landscape formulations and integration</p>
6.	Health, Education and other citizen services	<p>1. Skill Development - Development of skills required in near future such as solar energy management, designing for 3D printing, computer based design, horticulture and animation etc.</p> <p>2. Vocationalisation of schools</p> <p>3. Develop processes for raising standard of schools</p> <p>4. Centralized Student's Health &amp; Education e-records</p> <p>5. Integration of all public medical facilities through Cloud-based e-healthcare system (Cloud provided by NIC under Digital India)</p>

Additionally, NDMCSCL in consultation with the PMC **may finalize upto an additional 5 projects** in the above broad categories, as and when required, without the requirement of any additional skills from the PMC, and as long as it is feasible to complete the additional projects within the overall stipulated timelines of this project of total 24 months, and is agreed upon by the PMC.

**2. The scope of work for each of the above mentioned projects under section shall include:**

- a) Review the NDMC SCP and develop the project implementation plan and schedule.
- b) Review the documents available with NDMC and assess the need for further studies and

- analysis.
- c) Group projects under each functional head and into modules for implementation and for each module of projects, prepare an implementation plan with timelines
  - d) Prepare Detailed Project Reports (DPRs) with required technical specifications/KPIs and tender documents for procurement of Project Consultants (PC) & Implementation Agencies (IA) as required.
  - e) Prepare tender notices and assist NDMCSCL in organizing Pre -Bid Meetings for hiring PCs and/ or IA, as required<sup>1</sup>
  - f) Support NDMCSCL in bid process management including bid evaluation, negotiation and award of contracts for procuring PCs and/ or IA, as required
  - g) Assist NDMCSCL in drafting and award of final service contract
  - h) Oversee functioning of PCs and IAs to help NDMCSCL ensure timely completion of projects
  - i) Review the reports and output of PCs to support NDMCSCL in deciding final project structure, implementation options (PPP/EPC/other types of contracts), project financing plan and implementation plan including timelines
  - j) Undertake periodic review and monitoring of projects under implementation and evaluate performance of IAs including physical and financial progress
  - k) Identify bottlenecks and critical constraints to project implementation and suggest corrective measures to NDMCSCL
  - l) Support NDMCSCL in preparing status reports and periodic review reports of smart city projects for the Board and Government of India

#### **B. Economic Strategy for Smart City Initiatives**

- a) As-Is assessment of financial health of NDMC and NDMCSCL, in order to understand the overall creditworthiness of NDMCSCL
- b) Review the project costs and financing plan for each smart initiative and assess need for additional fundraising to bridge gaps between CAPEX required and allocable funds through Value Capture Financing (VCF).
- c) Develop the Regulatory framework for NDMCSCL with regard to alternative financing instruments by identifying possible project financing options available and analyzing the most optimal financing option

#### **C. Knowledge Management Support**

- a) Provide knowledge support to NDMCSCL in organizing workshops, events, and other such events for both knowledge sourcing and dissemination pertaining to projects
- b) Assist to conduct stakeholder consultation during design and implementation process.
- c) Provide advice and guidance to the client for modern procedures and guidelines for project implementation and management in general.
- d) Prepare Capacity building plan and Change Management Plan and organization and staff structuring of the NDMCSCL
- e) Support NDMCSCL in engaging knowledge partners that include national and international academic and research institutions, think-tanks, other relevant organizations

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<sup>1</sup> The cost of conducting the pre bid meeting will be borne by NDMCSCL

4. **Implementation schedule of assignments:**

Sl. No.	ACTIVITY DESCRIPTION	TIMELINES (from the date of commencement of assignment)
1.	Review of smart city proposal projects, grouping of projects-projectisation, strategy formulation, commencement of DPR preparations etc	2 months
2.	Roll out of bid documents/RFP-ready to float for invitation of bids, duly accepted and approved by the NDMCSCL, for projects identified under the 6 groups of projects as per Schedule-1(ToR).- Para 3 (A)	From 3 <sup>rd</sup> month onwards
3.	Finalization of <b>at least 12 bid documents / RFPs</b> , ready to float for invitation of bids duly accepted and approved by the NDMCSCL, for projects identified under the 6 groups of projects as per Schedule-1 (ToR).- Para 3 (A),	11 months
4.	<b>Finalization of at least 15 bid documents / RFPs</b> , ready to float for invitation of bids duly accepted and approved by the NDMCSCL, for projects identified under the 6 groups of projects as per Schedule-1 (ToR).- Para 3 (A),	12 months
5.	<b>Finalization of at least 16 bid documents / RFPs</b> , ready to float for invitation of bids duly accepted and approved by the NDMCSCL, for projects identified under the 6 groups of projects as per Schedule-1 (ToR).- Para 3 (A),	13 months
6.	<b>Finalization of at least 18 bid documents / RFPs</b> , ready to float for invitation of bids duly accepted and approved by the NDMCSCL, for projects identified under the 6 groups of projects as per Schedule-1 (ToR).- Para 3 (A),	14months
7.	<b>Finalization of at least 20 bid documents / RFPs</b> , ready to float for invitation of bids duly accepted and approved by the NDMCSCL, for projects identified under the 6 groups of projects as per Schedule-1 (ToR).- Para 3 (A),	15 months
5.	Project advisory, knowledge management monitoring and evaluation of projects	24 months

## 5. Consultant Team Composition and Qualifications

The Smart City Infrastructure Consultants' team shall closely mirror NDMCSCL's team structure and shall be functionally positioned as a management layer between the decision making Heads of Department of NDMCSCL and project specific consultants/vendors/implementing agencies.

The following is the expected team member profiles of Smart City Infrastructure Consultants (SCIC):

S. No	Professionals & Person months	Qualification	Relevant Experience
<b>CORE STAFF</b> (CVs not fulfilling the desired Qualification criteria will not be marked during technical evaluation)			
1.	<b>Project Director</b>	<ul style="list-style-type: none"> <li>PhD and MBA/PGDM with undergraduate in engineering with minimum 20 years' experience and age less than 50 years</li> <li>All education should be from top 20 universities as per National Institutional Rankings Framework's (MHRD) India Ranking 2016/ in Top 20 global universities as per Times Ranking</li> <li>At least 2 years in the firm</li> <li>Should be from the lead firm</li> </ul>	<ul style="list-style-type: none"> <li>Experience in successfully assisting at least one city in developing their Smart City Proposal (SCP) to be selected as one of the top 20 Cities under the First Round of the "Smart City Challenge" of Ministry of Urban Development, Government of India – <b>4 marks</b></li> <li>Should have implementation experience in the capacity of Team Leader/Project Leader or Project Director for at least 2 projects of project value Rs. 50 Cr. Each- <b>2 marks</b></li> <li>Experience of leading at least 3 PPP projects- <b>2 marks</b></li> </ul> <p><b>Total marks: 8</b></p>
2.	<b>Procurement Specialist</b>	<ul style="list-style-type: none"> <li>MBA/PGDM in Finance/Operations / Marketing with undergraduate in engineering having minimum 10 years professional experience</li> <li>Certified Project Management Professional (PMP®) or PRINCE2</li> </ul>	<ul style="list-style-type: none"> <li>Experience of procurement in at least 1 urban infrastructure projects worth Rs 500 crores – <b>2 marks</b></li> <li>Experience of procurement/ project controls/ process for more than 5 years related to urban infrastructure projects – <b>2 marks</b></li> <li>Experience of PPP in urban infrastructure projects worth Rs 500 crores – <b>1 mark</b></li> </ul>

S. No	Professionals & Person months	Qualification	Relevant Experience
		<ul style="list-style-type: none"> <li>● MBA/PGDM should be from top 20 universities as per National Institutional Rankings Framework's (MHRD) India Ranking 2016</li> <li>● Should be from the lead firm</li> </ul>	<b>Total marks: 5</b>
3.	<b>Sustainability Specialist</b>	<ul style="list-style-type: none"> <li>● MBA/PGDM with undergraduate in Engineering having minimum 08 years professional experience</li> <li>● Engineering should be from top 20 universities as per National Institutional Rankings Framework's (MHRD) India Ranking 2016</li> <li>● Should be from the lead firm</li> </ul>	<ul style="list-style-type: none"> <li>● Experience in development of smart city plans in India for at least 1 city selected as one of the top 20 Cities under the First Round of the "Smart City Challenge" of Ministry of Urban Development, Government of India- 2 marks</li> <li>● Experience of execution of at least 1 project on Energy efficiency / environmental sustainability project with government/ bilateral and / or multilateral institutions- 2 mark</li> <li>● Experience in bid advisory projects related to wastewater/ renewable energy/ energy efficiency/ pollution control/air water quality sensors in India for at least 1 city ranked within the top 20 Cities under the First Round of the "Smart City Challenge" of Ministry of Urban Development, Government of India- 1 mark</li> </ul> <p><b>Total marks: 5</b></p>
4.	<b>Financial Expert</b>	<ul style="list-style-type: none"> <li>● MBA/PGDM in Finance with minimum 8 years professional experience</li> <li>● Should be from the lead firm</li> </ul>	<ul style="list-style-type: none"> <li>● Should have international development consulting experience with banks, MFIs, M banking institutions, payment agency, government and ministry and multilateral/ donor organisations – 2 mark</li> <li>● Experience of planning, strategizing, implementing and supervising projects related to financial inclusion and technology enabled financial services – 2 mark</li> <li>● Experience of working with national</li> </ul>

S. No	Professionals & Person months	Qualification	Relevant Experience
			<p>payment systems – 1 mark</p> <p><b>Total marks-5</b></p>
5.	<b>Spatial Urban Planner</b>	<ul style="list-style-type: none"> <li>• Postgraduate in Spatial Planning and undergraduate in Urban Planning with minimum 10 years' experience</li> <li>• Planning &amp; Architecture education should be from top 10 Architecture institutions as per India Today Ranking 2014/ in Top 10 global Architecture institutions as per Times Ranking</li> <li>• At least 1 year in the firm</li> <li>• Should be from the lead firm</li> </ul>	<ul style="list-style-type: none"> <li>• Experience in successfully assisting at least one city in developing their Smart City Proposal to be selected as one of the top 20 Cities under the First Round of the “Smart City Challenge” of Ministry of Urban Development, Government of India – 2 marks</li> <li>• Experience of managing projects related to policy formulation, urban governance reforms, economic development, water and sanitation infrastructure in at least 10 cities in India and abroad, out of which at least half should be outside India - 1 marks</li> <li>• Experience in bid advisory projects for at least 1 city, ranked within the top 20 Cities under the First Round of the “Smart City Challenge” of Ministry of Urban Development, Government of India - 1 mark</li> <li>• Experience in citywide urban development in infrastructure planning/ design nationally and internationally, with at least 3 years of international experience - 1 marks</li> </ul> <p><b>Total marks- 5</b></p>
6.	<b>Urban Infrastructure Expert</b>	<ul style="list-style-type: none"> <li>• Master's degree/Bachelors in Civil Engineering with MBA with minimum 10 years of professional experience, in projects in the domain of water/sewerage/solid waste/transport/affordable housing infrastructure</li> <li>• Should be from the lead firm</li> </ul>	<ul style="list-style-type: none"> <li>• Experience of bid advisory, financial modelling, feasibility studies of projects related to water/sewerage/solid waste/transport/affordable housing infrastructure / markets /multi-level parking- 3 marks</li> <li>• Should have led at least 3 projects in water/sewerage/solid waste/transport/affordable housing infrastructure / markets /multi-level parking of Rs 50 Crores each- 2 marks</li> </ul> <p><b>Total marks-5</b></p>

S. No	Professionals & Person months	Qualification	Relevant Experience
	<b>NON-CORE STAFF</b> (CVs not fulfilling the desired Qualification criteria will not be marked during technical evaluation) The staff need not be from the PMC lead firm and can be outsourced.		
7.	<b>Knowledge Management Specialist</b>	<ul style="list-style-type: none"> <li>Bachelor's Degree in Commerce/ Engineering/ Economics with MBA having at least 08 years of experience in management research</li> </ul>	<ul style="list-style-type: none"> <li>Experience of at least 10 years in Research Management – 2 marks</li> <li>Experience of working with global consulting clients – 1 mark</li> </ul> <p><b>Total marks-3</b></p>
8.	<b>Legal and Corporate Governance Specialist</b>	<ul style="list-style-type: none"> <li>Masters &amp; Bachelor's Degree in Law with MBA in Finance having at least 10 years of relevant experience</li> </ul>	<ul style="list-style-type: none"> <li>Experience of least 12 years in Procurement of goods, services as per State guidelines including preparation of bid documents, evaluation of bids, contract formation - 2 mark</li> <li>Extensive regulatory experience on government policy, regulatory issues and policy/model documents issued by Ministries/ other government bodies - 1 mark</li> <li>Experience of corporate law consultancy with private or public sector at least for 2 firms- 1 mark</li> </ul> <p><b>Total marks-4</b></p>
9.	<b>IT and Analytics Specialist</b>	<ul style="list-style-type: none"> <li>M. Tech/ B. Tech with MBA</li> <li>Minimum 10 years of relevant experience</li> </ul>	<ul style="list-style-type: none"> <li>Experience of having sectoral expertise in IT based service delivery projects, IT enabled project monitoring tools development- 1 mark</li> <li>Experience of Advanced Analytics, Machine Learning and Artificial Intelligence augmented projects – 1 mark</li> </ul>

S. No	Professionals & Person months	Qualification	Relevant Experience
			<ul style="list-style-type: none"> <li>Experience of at least 1 project on urban analytics with Central/ State/ ULB – 1 mark</li> </ul> <p><b>Total marks-3</b></p>
10.	<b>Water &amp; Sanitation Specialist</b>	<ul style="list-style-type: none"> <li>Master's Degree in Environmental Engineering/Civil Engineering with specialization in water resource management with 10 years of experience.</li> </ul>	<ul style="list-style-type: none"> <li>Should have minimum 10 years of professional experience in environmental engineering with primary focus on water and sanitation projects with at least 10 years of experience in a developed country - 1 mark</li> <li>Experience in developing innovative customized solutions for integrated waste water systems for at least 5 ULBs- 1 mark</li> <li>Experience in implementation of “zero water discharge” projects - 1 mark</li> </ul> <p><b>Total marks - 3</b></p>
11.	<b>Landscape and Horticulture Specialist</b>	<ul style="list-style-type: none"> <li>Landscape Architect with 10 years of relevant experience</li> </ul>	<ul style="list-style-type: none"> <li>Experience of 10 or more years in Landscaping Design and Landscape execution -- 2 marks</li> <li>Experience of Irrigation management/ Soft &amp; Hard scape development/ Landscape Lighting - 1 mark</li> </ul> <p><b>Total marks - 3</b></p>
12.	<b>Support Team</b>	<ul style="list-style-type: none"> <li>MBA/PGDM/ MA (Economics) with minimum 3 years professional experience</li> </ul>	<ul style="list-style-type: none"> <li>Experience of at least 3 years in minimum 2 infrastructure projects/ 2 finance projects - 1 mark for each person</li> </ul> <p><b>Total marks - 4</b></p>
		<ul style="list-style-type: none"> <li>MBA/PGDM/ MA (Economics) with minimum 1 year of professional experience</li> </ul>	<ul style="list-style-type: none"> <li>Minimum 1 year of professional experience – 1/2 mark for each person</li> </ul> <p><b>Total marks - 2</b></p>



## 6. Time duration, level of effort and payment schedule

The Smart City Infrastructure Consultants (SCIC) is expected to support NDMCSCL throughout the implementation phase of the Smart City Project, approximately from November 2016 to October 2018. (24 months). The contract under this RFP will be for a period of two years. This may be extended for another two years based on NDMCSCL's evaluation of SCIC's performance and mutual consent between NDMCSCL and SCIC. In that case, the contract value agreed under this RFP will be subject to escalation by 10%.

#	Key Resources	Duration (Staff-months)
<b>Core Staff (90 staff months )</b>		
1)	Project Director	24
2)	Procurement Specialist	18
3)	Sustainability Specialist	12
4)	Financial Expert	12
5)	Spatial Urban Planner	12
6)	Urban Infrastructure Expert	12
<b>Non-Core Staff/ Project Support Team (228 staff months)</b>		
7)	Knowledge Management Specialist	12
8)	Legal and Corporate Governance Specialist	12
9)	IT and Analytics Specialist	18
10)	Water & Sanitation Specialist	06
11)	Landscape and Horticulture Specialist	12
12)	4 Consultants with 3 years professional experience	96
13)	4 Consultants with 1 year professional experience	72
<b>Total Duration</b>		<b>318 staff months</b>

### Note:

- Core team members will be available full time during the project on a home or field basis. The core team members shall be available for all key meetings/discussions with NDMCSCL as and when required. The field inputs for the core members should be at least 50% of the staff months as specified in the above table.
- Non-Core team members will be working intermittently on the project on a home or field input basis. The non-core members shall be available for all key meetings with the NDMCSCL as and when required for discussion related to their area of expertise.
- Project support team shall be available full time at the project office of SCIC.
- Project team will be monitored based on RFP's being released from the 4<sup>th</sup> month onwards.
- The payment to the Smart City Infrastructure Consultant will be based on a lump-sum quote– a fixed component equivalent to the lump-sum quote, paid on a monthly basis as calculated below:

<b>1. Fixed Component for First 10 months of the Contract period</b>			
Lump-sum amount quoted by the selected consultant		: M	
Total period of consultancy (in months)		: 24	
Monthly payment to consultants		: M/24 for first 10 Months	
<b>2. Monthly Payment post 10 months of Contract Period shall be governed as per following delivery Timelines :</b>			
Sr. No.	No. of Months from the commencement of assignment	Number of bid documents finalized, ready to float for bid invitation, accepted and approved by NDMCSCL	Monthly payment entitled
01	11 months	12	@ M/24
02	12 months	15	
03	13 months	16	
04	14 months	18	
05	15 months	20	
<p>A. Failure on part of the PMC to deliver the complete bid documents/ RFPs as indicated in the table above, shall <b>lead to entitlement of monthly payment @ M/48</b> and this condition shall not be altered in any circumstances, unless the inputs to the PMC from NDMCSCL did not come on time and was not of appropriate quality and/or NDMCSCL did not adhere to the deadlines for activities to be executed by NDMCSCL as outlined in the finalized work plan between NDMCSCL &amp; the PMC.</p> <p>B. Further it is to be noted that as per the scope of work mentioned in the Schedule -1 of the RFP, the PMC (ToR) shall finalize at least 20 – ready to float bid documents / RFPs accepted and approved by the NDMCSCL during the period of first 15 months of consultancy for which the PMC shall be paid Monthly payment as per the table above.</p> <p>C. <b>Failure of part of PMC to deliver at least 20 complete, ready to float bid documents/RFP accepted and approved by NDMCSCL within 15 months of the PMC contract period shall lead to entitlement of monthly payment @M/48. Delivery of 20 documents after 15 months period shall not restore the monthly payment @ M/24 and shall continued to be paid @M/48 only.</b></p>			

7. **Facilities to be made available by NDMCSCL**

NDMCSCL shall provide furnished office space including power supply, telecommunication and internet to the Selected Bidder

8. **Reporting**

The Consultant will work under the direct supervision of Chief Executive Officer (CEO), New Delhi Municipal Council Smart City Ltd. (NDMCSCL).

9. **Change of team members during consultancy period**

During the First Year maximum two members from the core team can be replaced with equivalent qualification and experience and in the 2nd year not more than 3 experts/team members from the core team can be replaced with equivalent qualification and experience.

10. **Implementing Arrangements**

The Special Purpose Vehicle: New Delhi Municipal Council Smart City Limited (NDMCSCL shall be the implementing body for the smart city projects and the PMC Staff /Team members shall be directly reporting to the CEO of the NDMCSCL or the nominated officer/personnel of the NDMCSCL for the matters related to the projects management consultancy.

\*\*\*\*\*

# **APPENDICES**

# Appendix I: Technical Proposal

## Form 1: Letter of Proposal

(On Bidder’s letterhead)

(Date or Reference) To

.....  
.....  
.....

Sub: Appointment of Smart City Infrastructure Consultant (SCIC) for Strategic Advisory and Project Management Support to New Delhi Municipal Council Smart City Ltd (NDMCSCCL) for Implementation of NDMC Smart City Proposal (SCP)

Dear Sir,

1. With reference to your RFP Document dated ....., I/We, having examined all relevant documents and understood their contents, hereby submit our Proposal for selection as Consultant for Strategic Advisory and Project Management Support (the “**Consultant**”) for NDMC Smart City Proposal (SCP). The proposal is unconditional and unqualified.
2. I/We acknowledge that the Authority will be relying on the information provided in the Proposal and the documents accompanying the Proposal for selection of the Consultant, and we certify that all information provided in the Proposal and in the Appendices is true and correct, nothing has been omitted which renders such information misleading; and all documents accompanying such Proposal are true copies of their respective originals.
3. This statement is made for the express purpose of appointment as the Consultant for the aforesaid Project.
4. I/We shall make available to the Authority any additional information it may deem necessary or require for supplementing or authenticating the Proposal.
5. I/We acknowledge the right of the Authority to reject our application without assigning any reason or otherwise and hereby waive our right to challenge the same on any account whatsoever.
6. I/We declare that:
  - a. I/We have examined and have no reservations to the RFP Documents, including any Addendum issued by the Authority;
  - b. I/We do not have any conflict of interest as defined in this RFP Document;
  - c. I/We have not directly or indirectly or through an agent engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as defined in this RFP document, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprise or any government, Central or State; and
  - d. I/We hereby certify that we have taken steps to ensure that in conformity with the provisions of this RFP, no person acting for us or on our behalf will engage in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice.

7. I/We understand that you may cancel the Selection Process at any time and that you are neither bound to accept any Proposal that you may receive nor to select the Consultant, without incurring any liability to the Bidders in accordance with this RFP document
8. I/We declare that we are not a member of any other Consortium applying for Selection as a Consultant
9. I/We certify that in regard to matters other than security and integrity of the country, we or any of our Associates have not been convicted by a Court of Law or indicted or adverse orders passed by a regulatory authority which would cast a doubt on our ability to undertake the Consultancy for the Project or which relates to a grave offence that outrages the moral sense of the community.
10. I/We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of Law for any offence committed by us or by any of our Associates
11. I/We hereby irrevocably waive any right or remedy which we may have at any stage at law or howsoever otherwise arising to challenge or question any decision taken by the Authority [and/ or the Government of India] in connection with the selection of Consultant or in connection with the Selection Process itself in respect of the above mentioned Project.
12. I/We agree and understand that the proposal is subject to the provisions of the RFP document. In no case, shall I/we have any claim or right of whatsoever nature if the Consultancy for the Project is not awarded to me/us or our proposal is not opened or rejected
13. I/We agree to keep this offer valid for 120 (one hundred twenty) days from the PDD specified in the RFP.
14. A Power of Attorney in favour of the authorised signatory to sign and submit this Proposal and documents is attached herewith in Form 4.
15. In the event of my/our firm being selected as the Consultant, I/we agree to enter into an Agreement in accordance with the form at Schedule-2 of the RFP.
16. I/We have studied RFP and all other documents carefully. We understand that except to the extent as expressly set forth in the Agreement, we shall have no claim, right or title arising out of any documents or information provided to us by the Authority or in respect of any matter arising out of or concerning or relating to the Selection Process including the award of Consultancy.
17. The Financial Proposal is being submitted in a separately ( online ). This Technical Proposal read with the Financial Proposal shall constitute the Application which shall be binding on us.
18. I/We agree and undertake to abide by all the terms and conditions of the RFP Document

In witness thereof, I/we submit this Proposal under and in accordance with the terms of the RFP Document.

Yours faithfully,

(Signature, name, and designation of the authorised signatory)

(Name and seal of the Bidder/ Lead Member)

**Form 2: Particulars of the Bidder**

1	Title of Consultancy	
2	Sole firm/ Lead member of consortia	
3	Name of the Bidder	
4	Legal status (Proprietorship/ partnership/etc.)	
5	Country of incorporation	
6	Registered address of Bidder	
7	Year of incorporation	
8	Year of commencement of business	
9	Principal place of Business	
10	Name of the authorised signatory	
11	Designation of authorised signatory	
12	Address of authorised signatory	
13	Phone no:	
14	E-mail address	

	(Name, legal status, country of incorporation, registered address, principal place of business)	
15	Details of other firms in the consortia	
16	In case of non-Indian firm, does the firm have business presence in India	Yes/ No
17	Has the Bidder or any member of the consortium been blacklisted by any Government department/Public Sector Undertaking in the last five years	
18	<p>(signature, name, designation of the authorized signatory)</p> <p>For and on behalf of</p> <p>.....</p>	



**Form 3: Statement of legal capacity**

(To be forwarded on the letterhead of the Bidder)

Reference Date:

To

.....  
.....  
.....

Dear Sir,

Sub: Appointment of Smart City Infrastructure Consultant (SCIC) for Strategic Advisory and Project Management Support to New Delhi Municipal Council Smart City Ltd (NDMC SCL) for Implementation of NDMC Smart City Proposal (SCP)

I/We hereby confirm that we, the Bidder (along with other members in case of consortium, the constitution of which has been described in the Proposal), satisfy the terms and conditions laid down in the RFP document

I/We have agreed that ..... (*Insert Bidder's name*) will act as the Lead Member of our consortium

I/We have agreed that ..... (*Insert individual's name*) will act as our Authorised Representative/ will act as the Authorised Representative of the consortium on our behalf and has been duly authorized to submit our Proposal. Further, the authorised signatory is vested with requisite powers to furnish such proposal and all other documents, information or communication and authenticate the same.

Yours faithfully,

(Signature, name, designation of the authorised signatory)

For and on behalf of .....

**Form 4: Power of Attorney**

Know all men by these presents, We, ..... (Name of Firm and address of the registered office) do hereby constitute, nominate, appoint and authorise Mr. / Ms. .... son/daughter/wife and presently residing at ....., who is presently employed with/ retained by us and holding the position of ..... as our true and lawful attorney (hereinafter referred to as the “**Authorised Signatory**”) to do in our name and on our behalf, all such acts, deeds and things as are necessary or required in connection with or incidental to submission of our Proposal for and selection as the Consultant for Strategic Advisory and Smart Infrastructure Project Management Support to NDMC Smart City Project, proposed to be developed by the New Delhi Municipal Council Smart City Ltd (the “**Authority**”) including but not limited to signing and submission of all applications, proposals and other documents and writings, participating in pre-bid and other conferences and providing information/ responses to the Authority, representing us in all matters before the Authority, signing and execution of all contracts and undertakings consequent to acceptance of our proposal and generally dealing with the Authority in all matters in connection with or relating to or arising out of our Proposal for the said Project and/or upon award thereof to us till the entering into of the Agreement with the Authority.

AND, we do hereby agree to ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Authorised Representative pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by our said Authorised Representative in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us.

IN WITNESS WHEREOF WE, ..... THE ABOVE NAMED PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS ..... DAY OF ....., 20.....

For .....

(Signature, name, designation, and address)

Witnesses:

- 1)
- 2)

Notarised:

Accepted

..... (Signature, name, designation and address of the Attorney)

**Form 5: Financial Capacity of the Bidder**

S No	Financial Year	Annual Revenue from Advisory and Consultancy Services (Rs)
1)		
2)		
3)		
Average		
<b>Certificate from the Statutory Auditor*</b>		
<p>This is to certify that..... (Name of the Bidder) has received the payments shown above against the respective years on account of professional fees from advisory and consulting services.</p>		
Signature, name, designation of the authorized signatory		
Date:	Name and seal of the firm	

\* In case the Bidder does not have a statutory auditor, it shall provide the certificate from its chartered accountant that ordinarily audits the annual accounts of the Bidder.

Note:

- 1) Please do not attach any printed Annual Financial Statement
- 2) In case of a consortium, Form 5 shall be submitted for all the members of the consortia

## **Form 6: Description of approach, methodology, and work plan in response to the Terms of Reference**

A description of the approach, methodology and work plan for performing the assignment, including a detailed description of the proposed methodology and staffing.

Suggested structure:

- a. **Technical Approach and Methodology:** Explain understanding of the objectives of the assignment as outlined in the Terms of Reference (TORs), the technical approach, and the methodology for implementing the tasks to deliver the expected output(s), and the degree of detail of such output. Please do not repeat/copy the TORs in here.
- b. **Work Plan:** Outline the plan for the implementation of the main activities/tasks of the assignment, their content and duration, phasing and interrelations and tentative delivery dates of the monthly progress reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents (including reports) to be delivered as final output(s) should be included here.
- c. **Organization and Staffing:** Describe the structure and composition of your team, including the list of the Key Personnel, Sector Experts, Support Team and relevant technical and administrative support staff.

Prescribed format:

Strictly follow the page limit of 15 pages. Non-conforming submissions may be disqualified.

**Form 7: Team Composition, Task Assignment and Level of Effort**

Name of Staff & firm associated with	Area of expertise	Designation	Assigned tasks	No of staff months

**Form 8: Particulars of Key Professional**

S No	Designation of Key Personnel	Name	Educational Qualification	Length of experience
1)				
2)				
3)				
4)				
5)				
6)				
7)				
8)				
9)				
10)				

**Form 9: Abstract of relevant assignments of the Bidder**

S No	Name of Project	Name of the Client
1)		
2)		
3)		
4)		
5)		
6)		
7)		
8)		
9)		
10)		

The Bidder should provide details of only those assignments that have been undertaken by it under its own name.

In the event that the Bidder does not wish to disclose the actual fee received for any particular assignment, it may state that it has received more than the amount specified for eligibility under this RFP. For example, it may state: "Above Rs. 5 (five) crores" in respect of a particular project.

**Form 10: Eligible Assignments of Bidder**

1	Name of the company	
2	Assignment name	
3	Description of the assignment	
4	Approximate value of contract	
5	Approx. value of the services	
6	Country	
7	Location within country	
8	Duration of the Assignment	
9	Name of the Client	
10	Client address and contact information	
11	Lead member/ other member	
12	No of staff months	
13	No of staff months provided by your company	
14	Start date (month / year)	
15	Completion date	

**Note:**

1. Use separate sheet for each Eligible Assignment.
2. Each Eligible Assignment shall not exceed 2 pages.
3. In the event that the Bidder does not wish to disclose the payment received by it as professional fees for any particular assignment, it may state that it has received more than the amount specified in this statement.



### Form 11: Curriculum Vitae of Key Personnel

<b>Position Title</b>			
<b>Name of Expert</b>			
<b>Date of Birth</b>			
<b>Country of Citizenship/ Residence</b>			
<b>Education:</b>			
<b>College/University</b>	<b>Degree/ Diploma obtained</b>	<b>Dates Attended</b>	
<b>Employment record relevant to the assignment:</b>			
<b>Period</b>	<b>Employing organisation, Title/position, and References</b>	<b>Country</b>	<b>Summary of activities performed relevant to the assignment</b>
<b>Membership in professional associations and publications:</b>			
<input type="checkbox"/>			
<b>Language skills:</b>			
<b>Language</b>	<b>Speaking</b>	<b>Reading</b>	<b>Writing</b>
<b>Adequacy for the assignment</b>			
<b>Detailed tasks assigned on consultant's team of Experts</b>			
<b>Assignments that best illustrate capability to handle the assigned tasks:</b>			
<b><u>Name of the assignment:</u></b>			
<b>Year: /Location: /Client:</b>			
<b>Main project features:</b>			
<b>Position held:</b>			
<b>Activities Performed:</b>			
<b>Experts contact information</b>		<b>Email:</b>	
		<b>Phone:</b>	

**Certification**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience, and I am available to undertake the assignment in case of an award. I understand that any misstatement or misrepresentation described herein may lead to my disqualification or dismissal by the Client.

<b>Name of the expert</b>	<b>Signature</b>	<b>Date</b>
<b>Name of the authorized representative of the consultant</b>	<b>Signature</b>	<b>Date</b>

## Form 12: Integrity Agreement

### General

This pre-bid pre-contact Agreement (hereinafter called the Integrity Pact) is made on \_\_\_\_\_ day of the month of \_\_\_\_\_20....., between on one hand the New Delhi Municipal Council Smart City Limited (NDMCSCCL) acting through \_\_\_\_\_, The Chief Executive Officer, CEO (hereinafter called the “Principal/Owner”, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s \_\_\_\_\_ represented by Shri \_\_\_\_\_ (hereinafter called the “Bidder(s)/Contractor(s) which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns ) of the Second Part.

**Whereas** the Principal/Owner proposes to procure goods and services pertaining to the tender titled “**Strategic Advisory and Smart Infrastructure Project Management Support to NDMCSCCL for implementation of New Delhi Smart City Infrastructure**” through the Bidder(s)/Contractor(s) and the Bidder(s)/Contractor(s) is willing to offer / has offered the same.

**Whereas** the Bidder(s)/Contractor(s) is a private company/public company/ Government undertaking/ partnership/ registered export agency, constituted in accordance with the relevant law in the matter and the Principal/Owner is the Special Purpose Vehicle of the municipal government of New Delhi established as per NDMC act 1994 performing its functions on behalf of the Council.

### Now, therefore,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:

Enabling the Principal/Owner to procure the desired said work/ Services/ Stores / Equipments at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption during bidding, execution & public procurement,

### And

Enabling Bidder(s)/Contractor(s) to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the Principal/Owner will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties here to hereby agree to enter into this Integrity Pact and agree as follows:

### 1. Commitments of the Principal/Owner

1.1 The Principal/Owner undertakes that no official of the Principal/Owner, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Bidder(s)/Contractor(s), either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in

the bidding process, bid evaluation, contracting or implementation process related to the contract.

- 1.2 The Principal/Owner will, during the pre-contract stage, treat all Bidder(s)/Contractor(s) alike, and will provide to all Bidder(s)/Contractor(s) the same information and will not provide and such information to any particular Bidder(s)/Contractor(s) which could afford an advantage to that particular Bidder(s)/Contractor(s) in comparison to other Bidder(s)/Contractor(s).
- 1.3 All the officials of the Principal/Owner will report to the CVO, NDMCSCL any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the Bidder(s)/Contractor(s) to the CVO, NDMCSCL with full and verifiable facts and the same is prima facie found to be correct by the NDMCSCL, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the NDMCSCL and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the NDMCSCL the proceedings under the contract would not be stalled.

## **2. Commitments of Bidder(s)/Contractor(s)**

The Bidder(s)/Contractor(s) commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following:

- 1.4 The Bidder(s)/Contractor(s) will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the Principal/Owner, connected directly or indirectly with the bidding process, or to any person, organization or third part related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.
- 1.5 The Bidder(s)/Contractor(s) further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees brokerage or inducement to any official of the Principal/Owner or otherwise in executing the contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the New Delhi Municipal Council for showing or forbearing to show favour or disfavor to any person in relation to the contract or any other contract with the New Delhi Municipal Council.
- 1.6 Bidder(s)/Contractor(s) shall disclose the name and address of agents/Brokers/representatives/ Intermediaries and Indian Bidder(s)/Contractor(s) shall disclose their foreign Principals or associates at the time of bidding.
- 1.7 Bidder(s)/Contractor(s) shall disclose the payments to be made by them to such agents/brokers/representatives/ intermediaries, in connection with this bid/contract at the time of bidding.

- 1.8 The Bidder(s)/Contractor(s), either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in Connection with the contract and the details of services agreed upon for such payments. A copy of contract so made with agents /brokers/intermediaries shall be submitted.
- 1.9 The Bidder(s)/Contractor(s) will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract. Bidder shall remain responsible to maintain safety & confidentiality of his bid documents during bid process.
- 1.10 The Bidder(s)/Contractor(s) will not accept any advantage in exchange for any corrupt practice, unfair means, and illegal activities.
- 1.11 The Bidder(s)/Contractor(s) shall not use improperly, for purposed of competition or personal gain, or pass on to others, any information provided by the Principal/Owner as part business relationship regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The Bidder(s)/Contractor(s) also undertakes to exercise due and adequate care lest any such information is divulged.
- 1.12 The Bidder(s)/Contractor(s) commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts, either to principal/owner or to IEMs so appointed by NDMCSCL.
- 1.13 The Bidder(s)/Contractor(s) shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 1.14 If the Bidder(s)/Contractor(s) or any employee of the Bidder(s)/Contractor(s) or any person acting on behalf of the Bidder(s)/Contractor(s), either directly or indirectly, is a relative of any of the officers of the Principal/Owner, or alternatively, if any relative of an officer of the Principal/Owner has financial interest/ stake in the Bidder(s)/Contractor(s) firm, the same shall be disclosed by the Bidder(s)/Contractor(s) at the time of filing of bid. The term 'relative' for this purpose would be as defined in Section 6 of the Companies Act 1956.
- 1.15 The Bidder(s)/Contractor(s) shall not lend to or borrow any money form or enter into any monetary dealings or transaction, directly or indirectly, with any employee of the Principal/Owner.
- 1.16 NDMCSCL has adopted integrity pact for all its contract for 50 lacs and above. It is mandatory for the bidders/contractors to sign the I.P. The bid of bidder/contractor to do not sign the I.P. shall not be considered. Details of IEMs (Independent External Monitor) is as under:-

- |                   |     |  |
|-------------------|-----|--|
| 1. Dr. U.K. Sen,  | IEM | <a href="mailto:uksen@hotmail.com">uksen@hotmail.com</a>         |
| 2. Sh. V.K. Gupta | IEM | <a href="mailto:vinod101951@gmail.com">vinod101951@gmail.com</a> |

In case of any grievances about the bid the same may be sent to IEM/Vigilance of NDMCSCL with the name address of the sender.

### 3. Previous Transgression

- 1.17 The Bidder(s)/Contractor(s) declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged here under or with any Public Sector Enterprise in India or New Delhi Municipal Council that could justify Bidder(s)/Contractor(s) exclusion from the bidding process.
- 1.18 The Bidder(s)/Contractor(s) agrees that if it makes incorrect statement on this subject, Bidder(s)/Contractor(s) can be disqualified from the bidding process or the contract, if already awarded, can be terminated for such reason.

### 4. Sanctions for Violations

- 1.19 Any breach of the aforesaid provisions by the Bidder(s)/Contractor(s) or any one employed by it or acting on its behalf (whether with or without the knowledge of the Bidder(s)/Contractor(s) shall entitle the Principal/Owner to take all or any one of the following actions, wherever required:-
- i. To immediately call off the pre contract negotiations without assigning any reason or giving any compensation to the Bidder(s)/Contractor(s). However, the proceedings with the other Bidder(s)/Contractor(s) would continue.
  - ii. The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond / Gurantee (after the contract is signed) shall stand forfeited and the Principal/Owner shall not be required to assign any reason therefore.
  - iii. To immediately cancel the contract, if already signed, without giving any compensation to the Bidder(s)/Contractor(s).
  - iv. To recover all sums already paid by the Principal/Owner, and in case of an Indian Bidder(s)/Contractor(s) with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a bidder(s)/Contractor(s) form a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the Bidder(s)/Contractor(s) from the Principal/Owner in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.
  - v. To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the Bidder(s)/Contractor(s), in order to recover the payments, already made by the Principal/Owner, along with interest.
  - vi. To cancel all or any other contracts with the Bidder(s)/Contractor(s). The Bidder(s)/Contractor(s) shall be liable to pay compensation for any loss or damage to the Principal/Owner resulting from such cancellation/ rescission and the Principal/Owner shall be entitled to deduct the amount so payable from the money(s) due to the Bidder(s)/Contractor(s).
  - vii. To debar the Bidder(s)/Contractor(s) from participation in future bidding processes of the New Delhi Municipal Council for a period ranging from six months to maximum three years. However if the bidder takes corrective measures against transgressions, subject to satisfaction of Principal/Owner & IEMs, the period of debar can be reviewed.
  - viii. To recover all sums paid in violation of this Pact by Bidder(s)/Contractor(s) to any middleman or agent or broker with a view to securing the contract.
  - ix. In case where irrevocable Letter of Credit have been received in respect of any contract signed by the Principal/Owner with the Bidder(s)/Contractor(s), the same shall not be opened.
  - x. Forfeiture of Performance Bond/Guarantee in case of a decision by the Principal/Owner to

forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

- 1.20 The Principal/Owner will be entitled to take all or any of the actions mentioned at para 6.1 (i) to (x) of this Pact also on the Commission by the Bidder(s)/Contractor(s) or any one employed by it or acting on its behalf (whether with or without the knowledge of the Bidder(s)/Contractor(s), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 1.21 The decision of the Principal/Owner to the effect that a breach of the provisions of this Pact has been committed by the Bidder(s)/Contractor(s) shall be final and conclusive on the Bidder(s)/Contractor(s). However, the Bidder(s)/Contractor(s) can approach the Independent Monitor(s) appointed for the purposes of this Pact. IEMs shall examine the transgression and its severity and submit the report to Chairman, NDMCSCL for further action after providing an opportunity and hearing to the affected parties.

### **5. Independent External Monitors**

- 1.22 The Principal/Owner has appointed Independent External Monitors (hereinafter referred to as IEMs) for this Pact in consultation with the Central Vigilance Commission whose names and email IDs have been given in the NIT.
- 1.23 The task of the IEMs shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- 1.24 The IEMs shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 1.25 Both the parties accept that the IEMs have the right to access all the documents relating to the project/procurement, including minutes of meetings
- 1.26 As soon as the IEMs notices, or have reasons to believe a violation of this Pact, they shall so inform to Chairman, NDMCSCL.
- 1.27 The Bidder(s)/Contractor(s) accepts that the IEMs have the right to access without restriction to all Project documentation of the Principal/Owner including that provided by the Bidder(s)/Contractor(s). The Bidder(s)/Contractor(s) will also grant the IEMs, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to subcontractors. The IEMs shall be under contractual obligation to treat the information and documents of the Bidder(s)/Contractor(s)/Subcontractor(s) confidentiality.
- 1.28 The Principal/Owner will provide to the IEMs sufficient information about all meetings among the parties related to the Project provided such meeting could have an impact on the contractual relations between the parties. The parties will offer to the IEMs the option to participate in such meetings.
- 1.29 The IEMs will submit a written report to the Chairman, NDMCSCL within 8 to 10 weeks from the date of reference or intimation to him by the Principal/Owner/Bidder(s)/Contractor(s) and, should the occasion arise, submit proposals for correcting problematic situation. However an opportunity of hearing shall be provided by the IEMs to the buyers /bidders before submitting their written report.

### **6. Facilitation of Investigation**

In case of any allegation of violation of any provisions of this pact or payment of

commission, the Principal/Owner or its agencies shall be entitled to examine all the documents including the Books of Accounts of the Bidder(s)/Contractor(s) and the Bidder(s)/Contractor(s) shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

**7. Law and Place of Jurisdiction**

This pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the Principal/Owner.

**8. Other Legal Actions**

The action stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings and Jurisdiction in case of dispute between the parties if any shall be new Deficiency.

**9. Validity**

1.30 The validity of this Integrity Pact shall be from date of its signing and extend up to 12 months beyond the defects liability period of the contracts. In case Bidder(s)/Contractor(s) is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract by the successful bidder.

1.31 Should one or several provision of this Pact turn out to be invalid, the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intention.

1.32 The parties hereby sign this Integrity Pact at \_\_\_\_\_ on \_\_\_\_\_  
Principal/Owner  
Bidder(s)/Contractor(s) Name of the Officer,  
Chief Executive Officer Designation

**New Delhi Municipal Council Smart City Limited**

Witness

1. \_\_\_\_\_

2. \_\_\_\_\_

Witness

1. \_\_\_\_\_

2. \_\_\_\_\_

\* Provisions of these clauses would need to be amended / deleted in line with the policy of The Principal/Owner in regard to involvement of Indian agents of foreign suppliers.



# Appendix II: Financial Proposal

## Form 1: Letter of Proposal

(On Bidder's letterhead)

(Date and Reference)

To

.....  
.....  
.....

Dear Sir,

Sub: Appointment of Smart City Infrastructure Consultant for Strategic Advisory and Project Management Support to New Delhi Municipal Council Smart City Ltd (NDMCSCCL) for Implementation of New Delhi Smart City proposal

I/We, ..... (Bidder's name) herewith enclose the Financial Proposal for selection of my/our firm as Consultant for Strategic Advisory and Project Management Support to New Delhi Municipal Council Smart City Ltd (NDMCSCCL) for Implementation of New Delhi Smart City proposal.

I/We agree that this offer shall remain valid for a period of 120 (one hundred and twenty) days from the Proposal Due Date or such further period as may be mutually agreed upon.

Yours faithfully,

(Signature, name and designation of the authorized signatory)

Note: The Financial Proposal is to be submitted strictly as per norms given in the RFP.

**Form 2: Financial Proposal**

S No	Particulars	Amount (Rs. in numbers)	Amount (Rupees in words)
1.	Total fee or Remuneration for 24 Months Period for project management consultancy <i>(Excluding all taxes applicable)</i>		

Authorised Signature .....

Name of the Signatory .....

Designation: .....

Name of the firm: .....

Address.....

**Note:**

- 1) For avoidance of doubt, Total Fee shall be considered as amount of Financial Proposal for the purpose of evaluation
- 2) For avoidance of doubt, Total Fee shall be equal to the Total Remuneration
- 3) The Remuneration and Reimbursable expenses shall be exclusive of all taxes. The tax payments shall be paid additionally to the Consultant in accordance with applicable laws

# **Appendix III: Bank Guarantee for Performance Security**

B.G. No. Dated:

1. In consideration of you, ....., having its office at ....., (hereinafter referred to as the “Authority”, which expression shall unless it be repugnant to the subject or context thereof include its, successors and assigns) having agreed to receive the Bid of ..... (a company registered under the Companies Act, 1956/ 2013) and having its registered office at ..... (and acting on behalf of its Consortium) (hereinafter referred to as the “Bidder” which expression shall unless it be repugnant to the subject or context thereof include its/their executors, administrators, successors and assigns), for the ..... Project on “---“ (hereinafter referred to as “the Project”) pursuant to the RFP Document dated ..... issued in respect of the Project and other related documents including without limitation the draft concession agreement (hereinafter collectively referred to as “Bidding Documents”), we (Name of the Bank) having our registered office at ..... and one of its branches at ..... (hereinafter referred to as the “Bank”), at the request of the Bidder, do hereby in terms of the RFP Document, irrevocably, unconditionally and without reservation guarantee the due and faithful fulfilment and compliance of the terms and conditions of the Bidding Documents (including the RFP Document) by the said Bidder and unconditionally and irrevocably undertake to pay forthwith to the Authority an amount of Rs. .... (Rupees ..... only) (hereinafter referred to as the “Guarantee”) as our primary obligation without any demur, reservation, recourse, contest or protest and without reference to the Bidder if the Bidder shall fail to fulfil or comply with all or any of the terms and conditions contained in the said Bidding Documents.
2. Any such written demand made by the Authority stating that the Bidder is in default of the due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents shall be final, conclusive and binding on the Bank.
3. We, the Bank, do hereby unconditionally undertake to pay the amounts due and payable under this Guarantee without any demur, reservation, recourse, contest or protest and without any reference to the Bidder or any other person and irrespective of whether the claim of the Authority is disputed by the Bidder or not, merely on the first demand from the Authority stating that the amount claimed is due to the Authority by reason of failure of the Bidder to fulfil and comply with the terms and conditions contained in the Bidding Documents including failure of the said Bidder to keep its Bid open during the Bid validity period as set forth in the said Bidding Documents for any reason whatsoever. Any such demand made on the Bank shall be conclusive as regards amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs. .... (Rupees ..... only).

4. This Guarantee shall be irrevocable and remain in full force for a period of 180 (one hundred and eighty) days from the Bid Due Date inclusive of a claim period of 60 (sixty) days or for such extended period as may be mutually agreed between the Authority and the Bidder, and agreed to by the Bank, and shall continue to be enforceable till all amounts under this Guarantee have been paid.
5. We, the Bank, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, *inter alia*, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Bidding Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, Tribunal, Arbitrator or any other authority.
6. The Guarantee shall not be affected by any change in the constitution or winding up of the Bidder or the Bank or any absorption, merger or amalgamation of the Bidder or the Bank with any other person.
7. In order to give full effect to this Guarantee, the Authority shall be entitled to treat the Bank as the principal debtor. The Authority shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee from time to time to vary any of the terms and conditions contained in the said Bidding Documents or to extend time for submission of the Bids or the Bid validity period or the period for conveying acceptance of Letter of Award by the Bidder or the period for fulfilment and compliance with all or any of the terms and conditions contained in the said Bidding Documents by the said Bidder or to postpone for any time and from time to time any of the powers exercisable by it against the said Bidder and either to enforce or forbear from enforcing any of the terms and conditions contained in the said Bidding Documents or the securities available to the Authority, and the Bank shall not be released from its liability under these presents by any exercise by the Authority of the liberty with reference to the matters aforesaid or by reason of time being given to the said Bidder or any other forbearance, act or omission on the part of the Authority or any indulgence by the Authority to the said Bidder or by any change in the constitution of the Authority or its absorption, merger or amalgamation with any other person or any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of releasing the Bank from its such liability.
8. Any notice by way of request, demand or otherwise hereunder shall be sufficiently given or made if addressed to the Bank and sent by courier or by registered mail to the Bank at the address set forth herein.
9. We undertake to make the payment on receipt of your notice of claim on us addressed to [name of Bank along with branch address] and delivered at our above branch which shall be deemed to have been duly authorised to receive the said notice of claim.

10. It shall not be necessary for the Authority to proceed against the said Bidder before proceeding against the Bank and the guarantee herein contained shall be enforceable against the Bank, notwithstanding any other security which the Authority may have obtained from the said Bidder or any other person and which shall, at the time when proceedings are taken against the Bank hereunder, be outstanding or unrealised.
11. We, the Bank, further undertake not to revoke this Guarantee during its currency except with the previous express consent of the Authority in writing.
12. The Bank declares that it has power to issue this Guarantee and discharge the obligations contemplated herein, the undersigned is duly authorised and has full power to execute this Guarantee for and on behalf of the Bank.
13. For the avoidance of doubt, the Bank's liability under this Guarantee shall be restricted to Rs. .... crore (Rupees ..... crore only). The Bank shall be liable to pay the said amount or any part thereof only if the Authority serves a written claim on the Bank in accordance with paragraph 9 hereof, on or before [..... (indicate date falling 180 days after the Bid Due Date)].

Signed and Delivered by ..... Bank

By the hand of Mr./Ms ....., its ..... and authorised official.

(Signature of the Authorised Signatory)

(Official Seal)

# **Appendix IV**

## **General Terms & Conditions**

### **1 Appointment of Successful bidder**

#### **1.1. Selection of Applicant**

- 1.1.1. After selection of Preferred Applicant( successful bidder ) a Letter of Award (the “LOA”) shall be issued, in duplicate, by the NDMCSCL to the Preferred Applicant and the Preferred Applicant shall, within 7 (seven) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Preferred Applicant is not received by the stipulated date, the NDMCSCL may, unless it consents to extension of time for submission thereof, appropriate the Earnest Money Deposit of such Applicant as Damages on account of failure of the Preferred Applicant to acknowledge the LOA.
- 1.1.2. Issue of Letter of Acceptance (LOA) shall not be construed as any right given in favour of the Preferred Applicant, and NDMCSCL reserves the right to annul the process of award, including signing of agreement, of this project without any liability or any obligation for such annulment, and without assigning any reasons thereof.
- 1.1.3. Upon issue of LOA to the Preferred Applicant, NDMCSCL will release the EMD of all Applicants, except the Preferred Applicant.
- 1.1.4. After acknowledgement of the LOA as aforesaid by the Preferred Applicant, it shall cause the Preferred Applicant to execute the Agreement within the period prescribed in the RFP. The Preferred Applicant shall not be entitled to seek any deviation, modification or amendment in the Agreement.

#### **1.2. Term of the Agreement**

The term of this Agreement shall be a period of two (2) years (24 months ) from the date of signing of this Agreement. The Agreement period may be extended by the NDMCSCL after evaluation of the performance of the PMC at the mutually agreed terms and at an amount that is escalated at 10% of the original bid value. The decision for any extension of the term of the Agreement shall be at the sole discretion of the NDMCSCL.

**1.3. Performance Security**

- 1.3.1. The Preferred Applicant will be required to submit a Performance security (PS) of 10% of the contract value to the NDMCSCL within 15 (fifteen) days from the date of receipt of Letter of Acceptance.
- 1.3.2. In case, the Preferred Applicant fails to submit performance security within the time stipulated, the NDMCSCL at its discretion may cancel the Letter of Acceptance issued to the Preferred Applicant without giving any notice and may invoke the EMD of such Preferred Applicant.
- 1.3.3. NDMCSCL shall invoke the Performance security in case the selected bidder fails to discharge their contractual obligations during the Agreement period or NDMCSCL incurs any loss due to selected bidder's negligence in carrying out the project implementation as per the agreed terms and conditions.

**1.4. Release of Performance Security**

The Performance security will be released only after meeting all of the following conditions:

- 1.4.1. After successful implementation of the scope of the project;
- 1.4.2. Successful managing ,operation and maintenance of all the services under this agreement;
- 1.4.3. Payment of all the penalties throughout project tenure;
- 1.4.4. On production of clearance for all applicable dues, if any;

**1.5. Signing of Agreement**

- 1.5.1. Subsequent to NDMCSCL's issuing Letter of Acceptance to the Preferred Applicant, the Preferred Applicant shall execute the Agreement with the NDMCSCL within a period of fifteen (15) days from the date of issue of the Letter of Acceptance subject to the condition that the Performance security has been deposited by the Preferred Applicant within the prescribed period. The Contract Form is annexed with the RFP.
- 1.5.2. Failure of the Preferred Applicant to furnish the Performance security or execute the Agreement within the prescribed time shall cause the EMD of the Preferred Applicant to be liquidated. The Preferred Applicant will be liable to indemnify NDMCSCL for any additional cost or expense, incurred on account of failure of the Preferred Applicant to execute the Agreement.
- 1.5.3. Notwithstanding anything to the contrary mentioned above, NDMCSCL at its sole discretion shall have the right to extend the timelines for execution of Agreement on the request of the Preferred Applicant, provided the same is bona-fide.

**1.6. Failure to Agree with the Terms and Conditions of the RFP document**

- 1.6.1. The performance of Applicant will be continuously reviewed by NDMCSCL to maintain the terms & conditions as specified in this RFP document. Based on the review, if the Selected Bidder fails to satisfy / maintain their commitment with respect to Performance, Timely Implementation of the Project etc. the Agreement may be terminated by giving 30 days notice as cure period and if it is not cured within 30 days then NDMCSCL will terminate the Agreement by giving further notice of 30 days for termination of Agreement. NDMCSCL's decision in this regard will be final. In case of termination of this Agreement, NDMCSCL shall have the right to avail services of any other Applicant / agency to continue the project without any hindrance from Applicant and the Applicant has to provide all necessary assistance for smooth switch over. NDMCSCL will not pay any charges to the Applicant. Failure of the Preferred Applicant/ Selected Bidder to agree with the RFP document shall constitute sufficient grounds for the annulment of the award, in which event NDMCSCL may take a decision to re-issue the RFP document. In such a case, NDMCSCL shall invoke the PS of the most responsive Applicant / Preferred Applicant.
- 1.6.2. In addition, NDMCSCL reserves the right to appropriate/forfeit the EMD / Performance security given by the Applicant / Selected Bidder and black-list the Applicant / Selected Bidder.

**Miscellaneous**

**1.7. Jurisdiction of Court**

- 1.7.1. The Bidding Process shall be governed by, and construed in accordance with, the laws of India. The courts at Delhi/New Delhi shall have the exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the Bidding Process.
- 1.7.2. The NDMCSCL, in its sole discretion and without incurring any obligation or liability, reserves the right, at any time, to;
- a. suspend and/ or cancel the Bidding Process and/ or amend and/ or supplement the Bidding Process or modify the dates or other terms and conditions relating thereto;
  - b. consult with any Applicant in order to receive clarification or further information;
  - c. retain any information and/ or evidence submitted to the NDMCSCL by, on behalf of, and/ or in relation to any Applicant; and/ or
  - d. Independently verify, disqualify, reject and/ or accept any and all submissions or other information and/ or evidence submitted by or on behalf of any Applicant.



1.7.3. It shall be deemed that by submitting the Bid, the Applicant agrees and releases the NDMCSCL, its employees, agents and advisers, irrevocably, unconditionally, fully and finally from any and all liability for claims, losses, damages, costs, expenses or liabilities in any way related to or arising from the exercise of any rights and/ or performance of any obligations hereunder, pursuant hereto and/ or in connection with the Bidding Process and waives, to the fullest extent permitted by applicable laws, any and all rights and/ or claims it may have in this respect, whether actual or contingent, whether present or in future.

### **1.8. Indemnity Clause**

The Selected Bidder shall defend, indemnify, release and hold harmless the NDMCSCL from and against any and all loss, damage, injury, liability, demands and claims for injury to or death of any person (including an employee of the Selected Bidder or NDMCSCL) public or for loss of or damage to property (including Selected Bidder or NDMCSCL property), in each case whether directly or indirectly resulting from or arising out of Selected Bidder performance under this RFP document / concession agreement. This indemnity shall apply whether or not NDMCSCL was or is claimed to be passively, concurrently, or actively negligent, and regardless of whether liability without fault is imposed or sought to be imposed on one or more of the NDMCSCL. Such indemnity shall not apply to the extent that it is void or otherwise unenforceable under applicable law in effect on or validly retroactive to the date of this RFP document / concession agreement and, shall not apply where such loss, damage, injury, liability, death or claim is the result of the sole negligence or wilful misconduct of the NDMCSCL.

### **1.9. Applicable Law(s)**

The Selected Bidder has to follow all the applicable statutes, laws, bye-laws, rules, regulations, orders, ordinances, protocols, codes, guidelines, policies, notices, directions, judgments, decrees or other requirements or official directive of any government authority or court or other law, rule or regulation approval from the relevant governmental authority, government resolution, directive, or other government restriction or any similar form of decision of, or determination by, or any interpretation or adjudication having the force of law in India as amended from time to time while providing these services.

### **1.10. Integrity Pact**

The Applicant shall submit a duly signed integrity pact as per Form 12 along with its proposal as per the RFP document.

### **1.11. Documents and Information**

The documents including this RFP document and all attached documents, provided by the NDMCSCL are and shall remain or become the property of the NDMCSCL and are transmitted to the Applicants solely

for the purpose of preparation and the submission of a Bid in accordance herewith. Applicants are to treat all information as strictly confidential and shall not use it for any purpose other than for preparation and submission of their Bid. The provisions of this Clause shall also apply mutatis mutandis to Bids and all other documents submitted by the Applicants, and the NDMCSCL will not return to the Applicants any Bid, document or any information provided along therewith.

#### **1.12. Rights of Parties**

Notwithstanding anything to the contrary contained in this Agreement, Termination pursuant to any of the provisions of this Agreement shall be without prejudice to accrued rights of either Party including its right to claim and recover money damages and other rights and remedies which it may have in law or under any clause of the RFP. The rights and obligations of either Party under this Agreement, including without limitation those relating to Termination Payment, shall survive the Termination but only to the extent such survival is necessary for giving effect to such rights and obligations.

#### **1.13. Dispute Resolution**

1.13.1. Any disputes and or difference relating to this agreement or claims arising out of or relating to this agreement or breach, termination or the invalidity thereof or on any issue whether arising during the progress of the services or after the completion or abandonment thereof or any matter directly or indirectly connected with this agreement will be resolved through joint discussion of the authorized representatives of both the parties (NDMCSCL and selected bidder). If the dispute is not resolved by joint discussion, then the matter will be referred for adjudication to Arbitrator/s appointed by the Chairman, NDMCSCL on receipt of written notice / demand of appointment of Arbitrator from either party as set out in the Contract Form annexed

1.13.2. The award of the sole Arbitrator shall be final and binding on all the parties. The cost of Arbitration shall be borne by the respective parties equally. Arbitration proceedings will be held at premises of NDMCSCL, New Delhi only.

#### **1.14. Rules governing Arbitration Proceedings**

The Arbitration Proceedings shall be governed by Indian Arbitration and Conciliation Act 1996, as amended from time to time including provisions in force at the time the references made. During the pendency of arbitration proceeding and currency of the Agreement, the selected bidder shall continue to perform and make due payments to NDMCSCL as per the Agreement.

# **APPENDIX –V**

## **STANDARD FORM OF CONTRACT**

FOR

**APPOINTMENT OF SMART CITY INFRASTRUCTURE  
PROJECT MANAGEMENT CONSULTANTS  
FOR**

**Strategic Advisory and Smart  
Infrastructure Project  
Management Support**

To

**New Delhi Municipal Council Smart City Ltd. (NDMCSCCL)  
For Implementation of New Delhi Smart City Proposal (SCP)**

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## Preface

1. The standard Contract form consists of four parts: the Form of Contract to be signed by the Client and the Consultant, the General Conditions of Contract (GCC), the Special Conditions of Contract (SCC); and the Appendices.
2. The General Conditions of Contract, shall not be modified. The Special Conditions of Contract that contain clauses specific to each Contract intend to supplement, but not over-write or otherwise contradict, the General Conditions.
3. All conditions including General Terms & Conditions as set in RFP will also be applicable under this contract document

**CONTRACT FOR CONSULTANT'S SERVICES**

**Lump-Sum**

**APPOINTMENT OF SMART CITY PROJECT MANAGEMENT CONSULTANTS  
FOR**

**Strategic Advisory and Smart  
Infrastructure Project Management  
Support**

**TO**

**New Delhi Municipal Council Smart  
City Ltd. (NDMCSCCL)**

**For Implementation of**

**New Delhi Smart City Proposal (SCP)**

**Contract No. XXXX**

**between**

*New Delhi Municipal Council Smart City Ltd. (NDMCSCCL)*

**and**

M/s \_\_\_\_\_

*[Name of the Consultant]*

**Dated:** \_\_\_\_\_

## I. Form of Contract

This CONTRACT (hereinafter called the “Contract”) is made the *[number]* day of the month of *[month]*, *[year]*, between, on the one hand, *New Delhi Municipal Council Smart City Ltd. (NDMCSCCL)* (hereinafter called the “Client”) and, on the other hand, *[name of Consultant]* (hereinafter called the “Consultant”).

*[If the Consultant consist of more than one entity, the above should be partially amended to read as follows: “...(hereinafter called the “Client”) and, on the other hand, a Joint Venture /consortium(name of the JV/consortium) consisting of the following entities, each member of which will be jointly and severally liable to the Client for all the Consultant’s obligations under this Contract, namely, [name of member] and [name of member] (hereinafter called the “Consultant”).*

### WHEREAS

- (a) New Delhi Municipal Council (NDMC) has been selected to be developed into a smart city under the first phase of the Smart Cities Mission launched by the Ministry of Urban Development, GoI. The Client is the special purpose vehicle incorporated to implement the Smart Cities Mission in NDMC area in accordance with the Smart City Proposals.
- (b) The Client has, by way of its request for proposal for Selection of Project Management Consultant for Smart City Projects for NDMCSCL issued on *[date]* (hereinafter called the “**RFP**”), invited proposals for providing certain consultancy services for the smart city Projects as defined in this Contract (hereinafter called the “**Services**”)
- (c) The Consultant submitted its proposal dated *[insert date]* in response to the RFP for award of the Contract (the “**Proposal**”), whereby the Consultant represented to the Client that it has the required professional skills, expertise and technical resources and is willing to provide the Services on the terms and conditions set forth in this Contract.
- (d) The Client has, by way of a letter of award dated (the “**LOA**”), *[insert date]* accepted the offer of the Consultant to provide the Services on the terms and conditions set forth in this Contract.



## II. General Conditions of Contract

NOW THEREFORE the parties hereto hereby agree as follows:

1. The following documents attached hereto shall be deemed to form an integral part of this Contract:
  - (a) The General Conditions of Contract
  - (b) The Special Conditions of Contract;F
  - (c) RFP document
  - (c) Appendices:

Appendix A: Terms of Reference

Appendix B: Key Experts

Appendix C: Breakdown of Contract Price

In the event of any inconsistency between the documents, the following order of precedence shall prevail: the Special Conditions of Contract; the General Conditions of Contract; Appendix A; Appendix B; Appendix C. Any reference to this Contract shall include, where the context permits, a reference to its Appendices.

2. The mutual rights and obligations of the Client and the Consultant shall be as set forth in the Contract, in particular:
  - (a) the Consultant shall carry out the Services in accordance with the provisions of the Contract; and
  - (b) the Client shall make payments to the Consultant in accordance with the provisions of the Contract.

## II. General Conditions of Contract

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be signed in their respective names as of the day and year first above written.

For and on behalf of *New Delhi Municipal Council Smart City Ltd.*

---

**Chief Executive Officer**

*[Authorized Representative]*

For and on behalf of *[Name of Consultant or Name of a Joint Venture]*

---

*[Authorized Representative of the Consultant – name and signature]*

*[For a joint venture, either all members shall sign or only the lead member, in which case the power of attorney to sign on behalf of all members shall be attached.]*

For and on behalf of each of the members of the Consultant *[insert the Name of the Joint Venture]*

*[Name of the lead member]*

---

*[Authorized Representative on behalf of a Joint Venture]*

*[add signature blocks for each member if all are signing]*

## II. General Conditions of Contract

### A. GENERAL PROVISIONS

#### 1. Definitions

1.1. Unless the context otherwise requires, the following terms whenever used in this Contract have the following meanings:

- (a) “Activity” means an activity or action specified in the Terms of Reference, which is to be performed by the Consultant as a part of the scope of Services.
- (b) “Additional Resource” means any professional and support staff, in addition to the Key Experts and the Programme Support Staff, who may be engaged by the Consultant to provide the Services.
- (c) “Applicable Law” means all laws in force and effect in India, as on the date of the Contract, or which may be promulgated or brought into force and effect after the date of the Contract, including all regulations, rules and notifications made thereunder and all judgments, decrees, injunctions, writs, orders, directives and notifications issued by any court or Authority, as may be in force and effect during the subsistence of the Contract and applicable to either Party, their obligations or this Contract, from time to time.
- (d) “Affiliates” means, in relation to the Consultant, a Person who Controls or is Controlled by such Consultant, or a Person who is under the common Control of the same Person who Controls such Consultant.
- (e) “Authority” means the GoI, GoO or any local authority or any department, instrumentality or agency thereof or any statutory body or corporation (to the extent acting in a legislative, judicial or administrative capacity and not as a contracting party with the Client or the Consultant) or commission under the direct or indirect control of the central, state or local government or any political sub-division thereof or any court, tribunal or judicial body within India.
- (f) “Breakage Costs” means the amount payable by the Client to the Consultant that is attributable to the losses, costs, claims and expenses that have been or will reasonably and properly be incurred by the Consultant in respect of: (i) any contracts placed that cannot be terminated, without such losses, costs, claims and expenses being incurred; and (ii) any expenditure incurred in anticipation of the performance of the Services, provided however that the Consultant has used its reasonable endeavors to mitigate the losses, costs, claims and expenses incurred, as a result of the termination of the Contract due to a Client default, to the extent that such losses, costs, claims and expenses are or may be incurred in connection with the performance of the Services. For the avoidance of doubt, the Breakage Costs shall mean any losses, costs, claims and expenses incurred or to be incurred in respect of: (i) any contracts placed that cannot be terminated,

## II. General Conditions of Contract

without such losses, costs, claims and expenses being incurred; and (ii) any expenditure incurred in anticipation of the performance of the Services, provided however that the Consultant has used its reasonable endeavors to mitigate the losses, costs, claims and expenses incurred.

- (g) “CEO” means the Chief Executive Officer of the Client.
- (h) “Clause” means a clause of the GCC, as may be supplemented by the SCC
- (i) “Client” shall have the meaning ascribed to it in the preamble of the Contract.
- (j) “Client Event of Default” has the meaning ascribed to it in Clause 19.1.3
- (k) “Communication” has the meaning ascribed to it in Clause 6.1.
- (l) “Consultant” shall have the meaning ascribed to it in the preamble of the Contract.
- (m) “Consultant Event of Default” has the meaning ascribed to it in Clause 19.1.1
- (n) “Deliverable” means a work product (including reports, software, know-how, design, drawings, diagrams, maps, models, specifications, analysis, solutions, data base, programmes, technical information, data and other documents) to be prepared and submitted by the Consultant as a part of the Services, in accordance with the terms of this Contract and the term “Deliverables” shall be construed accordingly. The list of Deliverables to be provided by the Consultant is set out in the Terms of Reference.
- (o) “Party” means the Client or the Consultant, as the case may be, and “Parties” means both of them.
- (p) “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented but not over-written.
- (q) “Services” means the work to be performed by the Consultant pursuant to this Contract, as described in Appendix A hereto.
- (r) “Sub-consultants” means an entity to whom/which the Consultant subcontracts any part of the Services while remaining solely liable for the execution of the Contract.
- (s) “Third Party” means any person or entity other than the Government, the Client, the Consultant or a Sub-consultant.

### 2. Relationship between the

2.1. Nothing contained herein shall be construed as establishing a relationship of master and servant or of principal and agent as between the Client and the Consultant. The Consultant, subject to this Contract, has

## II. General Conditions of Contract

- Parties** complete charge of the Experts and Sub-consultants, if any, performing the Services and shall be fully responsible for the Services performed by them or on their behalf hereunder.
3. **Law Governing Contract** 3.1. This Contract, its meaning and interpretation, and the relation between the Parties shall be governed by the Applicable Law.
4. **Language** 4.1. This Contract has been executed in the language specified in the **SCC**, which shall be the binding and controlling language for all matters relating to the meaning or interpretation of this Contract.
5. **Headings** 5.1. The headings shall not limit, alter or affect the meaning of this Contract.
6. **Communications** 6.1. Any communication required or permitted to be given or made pursuant to this Contract shall be in writing in the language specified in Clause GCC 4. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent to such Party at the address specified in the **SCC**.
- 6.2. A Party may change its address for notice hereunder by giving the other Party any communication of such change to the address specified in the **SCC**.
7. **Location** 7.1. The Services shall be performed at such locations as are specified in **Appendix A** hereto and, where the location of a particular task is not so specified, at such locations, whether in the Government's country or elsewhere, as the Client may approve.
8. **Authority of Member in Charge** 8.1. In case the Consultant is a Joint Venture /Consortium , the members hereby authorize the member specified in the **SCC** to act on their behalf in exercising all the Consultant's rights and obligations towards the Client under this Contract, including without limitation the receiving of instructions and payments from the Client.
9. **Authorized Representatives** 9.1. Any action required or permitted to be taken, and any document required or permitted to be executed under this Contract by the Client or the Consultant may be taken or executed by the officials specified in the **SCC**.
10. **Corrupt and Fraudulent Practices** 10.1. The consultant requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in the General Terms & Conditions of the RFP.
- a. **Commissions and Fees** 10.2 The Client requires the Consultant to disclose any commissions, gratuities or fees that may have been paid or are to be paid to agents or any other party with respect to the selection process or execution of the Contract. The information disclosed must include at least the name and address of the agent or the other party, the amount and currency, and the purpose of the commission, gratuity or fee. Failure to disclose such

## II. General Conditions of Contract

commissions and gratuities may result in termination of the Contract..

### B. COMMENCEMENT, COMPLETION, MODIFICATION AND TERMINATION OF CONTRACT

11. Effectiveness of Contract
- 11.1. This Contract shall come into force and effect on the date (the “Effective Date”) of the Client’s notice to the Consultant instructing the Consultant to begin carrying out the Services. This notice shall confirm that the effectiveness conditions, if any, listed in the **SCC** have been met.
12. Termination of Contract for Failure to Become Effective
- 12.1. If this Contract has not become effective within such time period after the date of Contract signature as specified in the **SCC**, either Party may, by not less than twenty two (22) days written notice to the other Party, declare this Contract to be null and void, and in the event of such a declaration by either Party, neither Party shall have any claim against the other Party with respect hereto.
13. Commencement of Services
- 13.1. The Consultant shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the **SCC**.
14. Expiration of Contract
- 14.1. Unless terminated earlier pursuant to Clause GCC 19 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the **SCC**, unless until extended on mutually acceptable terms and conditions.
15. Entire Agreement
- 15.1. This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.
16. Modifications or Variations
- 16.1. Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.
- 16.2. In cases of substantial modifications or variations, the prior written consent of the Bank is required.
17. Force Majeure
- a. **Définition**
- 17.1. For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party, is not foreseeable, is unavoidable, and makes a Party’s performance of its obligations hereunder impossible or so impractical as reasonably to be considered impossible under the circumstances, and subject to those requirements, includes, but is not limited to, war, riots, civil disorder, earthquake, fire, explosion, storm, flood or other adverse weather conditions, strikes, lockouts or other industrial action confiscation or any other action by Government agencies.

## II. General Conditions of Contract

17.2. Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or such Party's Experts, Sub-consultants or agents or employees, nor (ii) any event which a diligent Party could reasonably have been expected to both take into account at the time of the conclusion of this Contract, and avoid or overcome in the carrying out of its obligations hereunder.

17.3. Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

17.4. All the definitions and terms & conditions of Force Majeure under General Terms & Conditions under the RFP document will be applicable

**b. No Breach of Contract**

17.5. The failure of a Party to fulfill any of its obligations hereunder shall not be considered to be a breach of, or default under, this Contract insofar as such inability arises from an event of Force Majeure, provided that the Party affected by such an event has taken all reasonable precautions, due care and reasonable alternative measures, all with the objective of carrying out the terms and conditions of this Contract.

**c. Measures to be Taken : Notification Procedures for Force Majeure**

17.6. A Party affected by an event of Force Majeure shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall take all reasonable measures to minimize the consequences of any event of Force Majeure.

17.7. A Party affected by an event of Force Majeure shall notify the other Party of such event as soon as possible, within seven(7) days of occurrence of such event following the occurrence of such event, providing evidence of the nature and cause of such event, and shall similarly give written notice of the restoration of normal conditions as soon as possible.

17.8. Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.

17.9. During the period of their inability to perform the Services as a result of an event of Force Majeure, the Consultant, upon instructions by the Client, shall either:

- (a) demobilize, in which case the Consultant shall be reimbursed for additional costs they reasonably and necessarily incurred, and, if required by the Client, in reactivating the Services; or
- (b) continue with the Services to the extent reasonably possible, in

## II. General Conditions of Contract

which case the Consultant shall continue to be paid under the terms of this Contract and be reimbursed for additional costs reasonably and necessarily incurred.

17.10. In the case of disagreement between the Parties as to the existence or extent of Force Majeure, the matter shall be settled according to Clauses GCC 47& 48.

### 18. Suspension

18.1. The Client may, by written notice of suspension to the Consultant, suspend all payments to the Consultant hereunder if the Consultant fails to perform any of its obligations under this Contract, including the carrying out of the Services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the Consultant to remedy such failure within a period not exceeding thirty (30) calendar days after receipt by the Consultant of such notice of suspension.

### 19. Termination

19.1. This Contract may be terminated by either Party as per provisions set up below:

#### **a. By the Client**

19.1.1. The Client may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (f) of this Clause. In such an occurrence the Client shall give at least thirty (30) calendar days' written notice of termination to the Consultant in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e); and at least five (5) calendar days' written notice in case of the event referred to in (f):

- (a) If the Consultant fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension pursuant to Clause GCC 18;
- (b) If the Consultant becomes (or, if the Consultant consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;
- (c) If the Consultant fails to comply with any final decision reached as a result of arbitration proceedings pursuant to Clause GCC 48.1;
- (d) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;
- (e) If the Client, in its sole discretion and for any reason whatsoever, decides to terminate this Contract;



## II. General Conditions of Contract

- (f) If the Consultant fails to confirm availability of Key Experts as required in Clause GCC 13.

19.1.2. Furthermore, if the Client determines that the Consultant has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Client may, after giving fourteen (14) calendar days written notice to the Consultant, terminate the Consultant's employment under the Contract.

### **b. By the Consultant**

19.1.3. The Consultant may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Client, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.

- (a) If the Client fails to pay any money due to the Consultant pursuant to this Contract and not subject to dispute within forty-five (45) calendar days after receiving written notice from the Consultant that such payment is overdue.
- (b) If, as the result of Force Majeure, the Consultant is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.
- (c) If the Client fails to comply with any final decision reached as a result of arbitration pursuant
- (d) If the Client is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the Consultant may have subsequently approved in writing) following the receipt by the Client of the Consultant's notice specifying such breach.

### **c. Cessation of Rights and Obligations**

19.1.4. Upon termination of this Contract pursuant to Clauses GCC 12 or GCC 19 hereof, or upon expiration of this Contract pursuant to Clause GCC 14, all rights and obligations of the Parties hereunder shall cease, except (i) such rights and obligations as may have accrued on the date of termination or expiration, (ii) the obligation of confidentiality set forth in Clause GCC 22, (iii) the Consultant's obligation to permit inspection, copying and auditing of their accounts and records set forth in Clause GCC 25, and (iv) any right which a Party may have under the Applicable Law.

### **d. Cessation of Services**

19.1.5. Upon termination of this Contract by notice of either Party to the other pursuant to Clauses GCC 19a or GCC 19b, the Consultant shall, immediately upon dispatch or receipt of such notice, take all necessary steps to bring the Services to a close in a prompt and orderly manner and shall make every reasonable effort to keep expenditures for this purpose to a minimum. With respect to

## II. General Conditions of Contract

documents prepared by the Consultant and equipment and materials furnished by the Client, the Consultant shall proceed as provided, respectively, by Clauses GCC 27 or GCC 28.

### **e. Payment upon Termination**

19.1.6. Upon termination of this Contract, the Client shall make the following payments to the Consultant:

- (a) payment for Services satisfactorily performed prior to the effective date of termination; and
- (b) in the case of termination pursuant to paragraphs (d) and (e) of Clause GCC19.1.1, reimbursement of any reasonable cost incidental to the prompt and orderly termination of this Contract, including the cost of the return travel of the Experts.

## C. OBLIGATIONS OF THE CONSULTANT

### 20. General

#### **a. Standard of Performance**

20.1 The Consultant shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Consultant shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Client, and shall at all times support and safeguard the Client's legitimate interests in any dealings with the third parties.

20.2. The Consultant shall employ and provide such qualified and experienced Experts and Sub-consultants as are required to carry out the Services.

20.3. The Consultant may subcontract part of the Services to an extent and with such Key Experts and Sub-consultants as may be approved in advance by the Client. Notwithstanding such approval, the Consultant shall retain full responsibility for the Services. The deliverables shall be as per the schedule-I of the RFP document.

#### **b. Law Applicable to Services**

20.4. The Consultant shall perform the Services in accordance with the Contract and the Applicable Law and shall take all practicable steps to ensure that any of its Experts and Sub-consultants, comply with the Applicable Law.

20.5. Throughout the execution of the Contract, the Consultant shall comply with the import of goods and services prohibitions in the Client's country when

- (a) as a matter of law or official regulations, the Borrower's

## II. General Conditions of Contract

country prohibits commercial relations with that country; or

- (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.

20.6. The Client shall notify the Consultant in writing of relevant local customs, and the Consultant shall, after such notification, respect such customs.

### 21. Conflict of Interests

21.1. The Consultant shall hold the Client's interests paramount, without any consideration for future work, and strictly avoid conflict with other assignments or their own corporate interests.

**a. Consultant Not to Benefit from Commissions, Discounts, etc.**

21.1.1 The payment of the Consultant pursuant to GCC F (Clauses GCC 41 through 45) shall constitute the Consultant's only payment in connection with this Contract and, subject to Clause GCC 21.1.3, the Consultant shall not accept for its own benefit any trade commission, discount or similar payment in connection with activities pursuant to this Contract or in the discharge of its obligations hereunder, and the Consultant shall use its best efforts to ensure that any Sub-consultants, as well as the Experts and agents of either of them, similarly shall not receive any such additional payment.

21.1.2 Furthermore, if the Consultant, as part of the Services, has the responsibility of advising the Client on the procurement of goods, works or services, the Consultant shall comply with the Bank's Applicable Guidelines, and shall at all times exercise such responsibility in the best interest of the Client. Any discounts or commissions obtained by the Consultant in the exercise of such procurement responsibility shall be for the account of the Client.

**b. Consultant and Affiliates Not to Engage in Certain Activities**

21.1.3 The Consultant agrees that, during the term of this Contract and after its termination, the Consultant and any entity affiliated with the Consultant, as well as any Sub-consultants and any entity affiliated with such Sub-consultants, shall be disqualified from providing goods, works or non-consulting services resulting from or directly related to the Consultant's Services for the preparation or implementation of the project, unless otherwise indicated in the SCC.

**c. Prohibition of Conflicting Activities**

21.1.4 The Consultant shall not engage, and shall cause its Experts as well as its Sub-consultants not to engage, either directly or indirectly, in any business or professional activities that would conflict with the activities assigned to them under this Contract.

**d. Strict Duty to Disclose**

21.1.5 The Consultant has an obligation and shall ensure that its Experts and Sub-consultants shall have an obligation to disclose any situation of actual or potential conflict that impacts their capacity to

## II. General Conditions of Contract

- Conflicting Activities** serve the best interest of their Client, or that may reasonably be perceived as having this effect. Failure to disclose said situations may lead to the disqualification of the Consultant or the termination of its Contract.
- 22. Confidentiality** 22.1 Except with the prior written consent of the Client, the Consultant and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the Consultant and the Experts make public the recommendations formulated in the course of, or as a result of, the Services.
- 23. Liability of the Consultant** 23.1 Subject to additional provisions, if any, set forth in the **SCC**, the Consultant's liability under this Contract shall be provided by the Applicable Law.
- 24. Insurance to be Taken out by the Consultant** 24.1 The Consultant (i) shall take out and maintain, and shall cause any Sub-consultants to take out and maintain, at its (or the Sub-consultants', as the case may be) own cost but on terms and conditions approved by the Client, insurance against the risks, and for the coverage specified in the **SCC**, and (ii) at the Client's request, shall provide evidence to the Client showing that such insurance has been taken out and maintained and that the current premiums therefore have been paid. The Consultant shall ensure that such insurance is in place prior to commencing the Services as stated in Clause GCC 13.
- 25. Accounting, Inspection and Auditing** 25.1 The Consultant shall keep, and shall make all reasonable efforts to cause its Sub-consultants to keep, accurate and systematic accounts and records in respect of the Services and in such form and detail as will clearly identify relevant time changes and costs.
- 25.2 The Consultant shall permit and shall cause its Sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or all accounts and records relating to the performance of the Contract and the submission of the Proposal to provide the Services, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Consultant's attention is drawn to Clause GCC 10 which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights provided for under this Clause GCC25.2 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility under the Bank's prevailing sanctions procedures.)
- 26. Reporting Obligations** 26.1 The Consultant shall submit to the Client the reports and documents specified in **Appendix A**, in the form, in the numbers and within the time periods set forth in the said Appendix. And Schedule 1 (ToR) of the RFP
- 27. Proprietary Rights of the Client in Reports and** 27.1 Unless otherwise indicated in the **SCC**, all reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the Client in the course of the Services shall be confidential

## II. General Conditions of Contract

### Records

and become and remain the absolute property of the Client. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the Client, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval of the Client.

27.2 If license agreements are necessary or appropriate between the Consultant and third parties for purposes of development of the plans, drawings, specifications, designs, databases, other documents and software, the Consultant shall obtain the Client's prior written approval to such agreements, and the Client shall be entitled at its discretion to require recovering the expenses related to the development of the program(s) concerned. Other restrictions about the future use of these documents and software, if any, shall be specified in the **SCC**.

### 28. Equipment, Vehicles and Materials

28.1 Equipment, vehicles and materials made available to the Consultant by the Client, or purchased by the Consultant wholly or partly with funds provided by the Client, shall be the property of the Client and shall be marked accordingly. Upon termination or expiration of this Contract, the Consultant shall make available to the Client an inventory of such equipment, vehicles and materials and shall dispose of such equipment, vehicles and materials in accordance with the Client's instructions. While in possession of such equipment, vehicles and materials, the Consultant, unless otherwise instructed by the Client in writing, shall insure them at the expense of the Client in an amount equal to their full replacement value.

28.2 Any equipment or materials brought by the Consultant or its Experts into the Client's country for the use either for the project or personal use shall remain the property of the Consultant or the Experts concerned, as applicable.

## D. CONSULTANT'S EXPERTS AND SUB-CONSULTANTS

### 29. Description of Key Experts

29.1 The title, agreed job description, minimum qualification and estimated period of engagement to carry out the Services of each of the Consultant's Key Experts are described in **Appendix B**.

### 30. Replacement of Key Experts

30.1 Except as the Client may otherwise agree in writing, no changes shall be made in the Key Experts.

30.2 Notwithstanding the above, the substitution of Key Experts during Contract execution may be considered only based on the Consultant's written request and due to circumstances outside the reasonable control of the Consultant, including but not limited to death or medical incapacity. In such case, the Consultant shall forthwith provide as a replacement, a person of equivalent or better qualifications and experience, and at the same rate

## II. General Conditions of Contract

of remuneration.

### 31. Approval of additional experts

31.1 If during execution of the Contract, additional Key Experts are required to carry out the Services, the Consultant shall submit to the Client for review and approval a copy of their Curricula Vitae (CVs). If the Client does not object in writing (stating the reasons for the objection) within twenty two (22) days from the date of receipt of such CVs, such additional Key Experts shall be deemed to have been approved by the Client.

### 32. Removal of Experts or Sub-consultants

32.1 If the Client finds that any of the Experts or Sub-consultant has committed serious misconduct or has been charged with having committed a criminal action, or shall the Client determine that Consultant's Expert of Sub-consultant have engaged in corrupt, fraudulent, collusive, coercive or obstructive practice while performing the Services, the Consultant shall, at the Client's written request, provide a replacement.

32.2 In the event that any of Key Experts, Non-Key Experts or Sub-consultants is found by the Client to be incompetent or incapable in discharging assigned duties, the Client, specifying the grounds therefore, may request the Consultant to provide a replacement.

32.3 Any replacement of the removed Experts or Sub-consultants shall possess better qualifications and experience and shall be acceptable to the Client

### 33. Replacement/ Removal of Experts – Impact on Payments

33.1 Except as the Client may otherwise agree, (i) the Consultant shall bear all additional travel and other costs arising out of or incidental to any removal and/or replacement, and (ii) the remuneration to be paid for any of the Experts provided as a replacement shall not exceed the remuneration which would have been payable to the Experts replaced or removed.

### 34. Addition of Experts- Impact on payments

34.1 The consultant will access and deploy extra number of personnel after obtaining approval of the client to complete a deliverable within specified timeline, if required. For such extra personnel deployment the client shall not pay extra remuneration or reimbursable expenses.

## E. OBLIGATIONS OF THE CLIENT

### 35. Assistance and Exemptions

35.1 Unless otherwise specified in the SCC, the Client shall use its best efforts to:

- (a) Assist the Consultant with obtaining work permits and such other documents as shall be necessary to enable the Consultant to perform

## II. General Conditions of Contract

the Services.

- (b) Assist the Consultant with promptly obtaining, for the Experts and, if appropriate, their eligible dependents, all necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in the Client's country while carrying out the Services under the Contract.
- (c) Facilitate prompt clearance through customs of any property required for the Services and of the personal effects of the Experts and their eligible dependents.
- (c) Issue to officials, agents and representatives of the Government all such instructions and information as may be necessary or appropriate for the prompt and effective implementation of the Services.
- (d) Assist the Consultant and the Experts and any Sub-consultants employed by the Consultant for the Services with obtaining exemption from any requirement to register or obtain any permit to practice their profession or to establish themselves either individually or as a corporate entity in the Client's country according to the applicable law in the Client's country.
- (e) Assist the Consultant, any Sub-consultants and the Experts of either of them with obtaining the privilege, pursuant to the applicable law in the Client's country, of bringing into the Client's country reasonable amounts of foreign currency for the purposes of the Services or for the personal use of the Experts and of withdrawing any such amounts as may be earned therein by the Experts in the execution of the Services.
- (f) Provide to the Consultant any such other assistance as may be specified in the **SCC**.

### 36. Access to Project Site

36.1 The Client warrants that the Consultant shall have, free of charge, unimpeded access to the project site /sites in respect of which access is required for the performance of the Services. The Client will be responsible for any damage to the project site or any property thereon resulting from such access and will indemnify the Consultant and each of the experts in respect of liability for any such damage, unless such damage is caused by the willful default or negligence of the Consultant or any Sub-consultants or the Experts of either of them.

### 37. Change in the Applicable Law Related to Taxes and Duties

37.1 If, after the date of this Contract, there is any change in the applicable law in the Client's country with respect to taxes and duties which increases or decreases the cost incurred by the Consultant in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultant under this Contract shall be increased or decreased accordingly by agreement between the Parties hereto, and

## II. General Conditions of Contract

corresponding adjustments shall be made to the Contract price amount specified in Clause GCC 41.1

### 38. Services, Facilities and Property of the Client

38.1 The Client shall make available to the Consultant and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference (**Appendix A**) at the times and in the manner specified in said **Appendix A**.

### 39. Counterpart Personnel

39.1 The Client shall make available to the Consultant free of charge such professional and support counterpart personnel, to be nominated by the Client with the Consultant's advice, if specified in **Appendix A**.

39.2 Professional and support counterpart personnel, excluding Client's liaison personnel, shall work under the exclusive direction of the Consultant. If any member of the counterpart personnel fails to perform adequately any work assigned to such member by the Consultant that is consistent with the position occupied by such member, the Consultant may request the replacement of such member, and the Client shall not unreasonably refuse to act upon such request.

### 40. Payment Obligation

40.1 In consideration of the Services performed by the Consultant under this Contract, the Client shall make such payments to the Consultant for the deliverables specified in **Appendix A** and in such manner as is provided by GCC F below.

## F. PAYMENTS TO THE CONSULTANT

### 41. Contract Price

41.1 The Contract price is fixed and is set forth in the **SCC**. The Contract price breakdown is provided in **Appendix C**.

41.2 Any change to the Contract price specified in Clause 41.1 can be made only if the Parties have agreed to the revised scope of Services pursuant to Clause GCC 16 and have amended in writing the Terms of Reference in **Appendix A (Schedule – (ToR) of the RFP)**

### 42. Taxes and Duties

42.1 The Consultant, Sub-consultants and Experts are responsible for meeting any and all tax liabilities arising out of the Contract unless it is stated otherwise in the **SCC**.

42.2 As an exception to the above and as stated in the **SCC**, all local identifiable indirect taxes (itemized and finalized at Contract negotiations) are reimbursed to the Consultant or are paid by the Client on behalf of the Consultant.

### 43. Currency of Payment

43.1 Any payment under this Contract shall be made in the currency (ies) of the Contract.



## II. General Conditions of Contract

### 44. Mode of Billing and Payment

44.1 The total payments under this Contract shall not exceed the Contract price set forth in Clause GCC 41.1.

44.2 The payments under this Contract shall be made in lump-sum installments against deliverables specified in **Appendix A**. The payments will be made according to the payment schedule stated in the **SCC (on the basis of schedule-1, para-4 (ToR) of the RFP document**.

44.2.1 Advance payment: No advance payment has been set forth in this contract document

44.2.2 The monthly Invoices. As soon as practicable and not later than fifteen (15) days after the end of each calendar month during the period of the Services, or after the end of each time interval otherwise indicated in the SCC, the Consultant shall submit to the Client, in duplicate, itemized invoices, accompanied by the receipts or other appropriate supporting documents, of the amounts payable pursuant to Clauses GCC 44 and GCC 45 for such interval, or any other period indicated in the SCC. Separate invoices shall be submitted for expenses incurred in foreign currency and in local currency.

44.2.3 The Client shall pay the Consultant's invoices within Thirty (30) days after the receipt by the Client of such itemized invoices with supporting documents. Only such portion of an invoice that is not satisfactorily supported may be withheld from payment. Should any discrepancy be found to exist between actual payment and costs authorized to be incurred by the Consultant, the Client may add or subtract the difference from any subsequent payments.

44.2.4 The Final Payment . The final payment under this Clause shall be made only after the final report and a final invoice, identified as such, shall have been submitted by the Consultant and approved as satisfactory by the Client. The Services shall be deemed completed and finally accepted by the Client and the final report and final invoice shall be deemed approved by the Client as satisfactory ninety (90) calendar days after receipt of the final report and final invoice by the Client unless the Client, within such ninety (90) calendar day period, gives written notice to the Consultant specifying in detail deficiencies in the Services, the final report or final invoice. The Consultant shall thereupon promptly make any necessary corrections, and thereafter the foregoing process shall be repeated. Any amount that the Client has paid or has caused to be paid in accordance with this Clause in excess of the amounts payable in accordance with the provisions of this Contract shall be reimbursed by the Consultant to the Client within thirty (30) days after receipt by the Consultant of notice thereof. Any such claim by the Client for reimbursement must be made within twelve (12) calendar months after receipt by the Client of a final report and a final invoice approved by the Client in accordance with the above.

## II. General Conditions of Contract

All payments under this Contract shall be made to the accounts of the Consultant specified in the SCC

44.2.5 With the exception of the final payment under 44.2.4 above, payments do not constitute acceptance of the whole Services nor relieve the Consultant of any obligations hereunder.

### 45. Interest on Delayed Payments

45.1 If the Client had delayed payments beyond fifteen (15) days after the due date stated in Clause GCC 44.2.2 , interest shall be paid to the Consultant on any amount due by, not paid on, such due date for each day of delay at the annual rate stated in the SCC.

## G. FAIRNESS AND GOOD FAITH

### 46. Good Faith

46.1 The Parties undertake to act in good faith with respect to each other's rights under this Contract and to adopt all reasonable measures to ensure the realization of the objectives of this Contract.

## H. SETTLEMENT OF DISPUTES

### 47. Amicable Settlement

47.1 The Parties shall seek to resolve any dispute amicably by mutual consultation.

47.2 If either Party objects to any action or inaction of the other Party, the objecting Party may file a written Notice of Dispute to the other Party providing in detail the basis of the dispute. The Party receiving the Notice of Dispute will consider it and respond in writing within fourteen (14) days after receipt. If that Party fails to respond within fourteen (14) days, or the dispute cannot be amicably settled within fourteen (14) days following the response of that Party, Clause GCC 48.1 shall apply.

### 48. Dispute Resolution

48.1 Any dispute between the Parties arising under or related to this Contract that cannot be settled amicably may be referred to by either Party to the adjudication/arbitration in accordance with the provisions specified in the SCC.

### 49. Liquidated Damages

49.1 The liquidated damages shall be levied in accordance with the provision specified in the SCC

### III. Special Conditions of Contract (SCC)

*[Notes in brackets are for guidance purposes only and should be deleted in the final text of the signed contract]*

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
1.1(b) and 3.1	The Contract shall be construed in accordance with the law of INDIA
4.1	The language is: English
6.1 and 6.2	<p>The addresses are:</p> <p>Client : New Delhi Municipal Council Smart City Ltd. (NDMCSCCL)</p> <p>Attention : Secretary, NDMC</p> <p>Mobile : --</p> <p>Email : --</p> <p>Consultant :</p> <p>Attention :</p> <p>Facsimile :</p> <p>E-mail :</p>
8.1	<p><i>[If the Consultant consists only of one entity, state "N/A";</i></p> <p><i>OR</i></p> <p><i>If the Consultant is a Joint Venture consisting of more than one entity, the name of the JV member whose address is specified in Clause SCC6.1 should be inserted here. ]</i></p> <p><b>The Lead Member on behalf of the JV is _____</b>  <i>[insert name of the member]</i></p>
9.1	The Authorized Representatives are:

### III. Special Conditions of Contract

	<p><b>For the Client:</b> <i>Chief Executive Officer, NDMCSCL</i></p> <p><b>For the Consultant:</b> <i>[name, title]</i> _____</p>
<b>11.1</b>	<b>Effectiveness condition shall apply. Approval of the Contract by the NDMCSCL</b>
<b>12.1</b>	<p><b>Termination of Contract for Failure to Become Effective:</b></p> <p><b>The time period shall be :</b> Fifteen days</p>
<b>13.1</b>	<p><b>Commencement of Services/Assignments :</b></p> <p><b>The number of days shall be :</b> Fifteen days of the signing of the agreement</p> <p>Confirmation of Key Experts' availability to start the Assignment shall be submitted to the Client in writing as a written statement signed by each Key Expert.</p>
<b>14.1</b>	<p><b>Expiration of Contract:</b></p> <p><b>The time period shall be:</b> 24 months from the effective date unless until extended on mutually acceptable terms and conditions.</p>
<b>21 b.</b>	<p><b>The Client reserves the right to determine on a case-by-case basis whether the Consultant should be disqualified from providing goods, works or non-consulting services due to a conflict of a nature described in Clause GCC 21.1.3</b></p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>

<b>23.1</b>	<p>The following limitation of the Consultant's Liability towards the Client can be subject to the Contract's negotiations:</p> <p>"Limitation of the Consultant's Liability towards the Client:</p> <p>(a) Except in the case of gross negligence or willful misconduct on the part of the Consultant or on the part of any person or a firm acting on behalf of the Consultant in carrying out the Services, the Consultant, with respect to damage caused by the Consultant to the Client's property, shall not be liable to the Client:</p>
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III. Special Conditions of Contract

	<p>(i) for any indirect or consequential loss or damage; and</p> <p>(ii) for any direct loss or damage that exceeds three times the total value of the Contract;</p> <p>(b) This limitation of liability shall not</p> <p>(i) affect the Consultant's liability, if any, for damage to Third Parties caused by the Consultant or any person or firm acting on behalf of the Consultant in carrying out the Services;</p> <p>(ii) be construed as providing the Consultant with any limitation or exclusion from liability which is prohibited by the Applicable Law</p>
<p><b>24.1</b></p>	<p><b>The insurance coverage against the risks shall be as follows:</b></p> <p><i>[Delete what is not applicable except (a)].</i></p> <p>(a) <b>Professional liability insurance, with a minimum coverage of equal to the value of Contract Price;</b></p> <p>(b) Third Party motor vehicle liability insurance in respect of motor vehicles operated in the Client's country by the Consultant or its Experts or Sub-consultants, with a minimum coverage as per Indian Motor Vehicle Act 1988;</p> <p>(c) employer's liability and workers' compensation insurance in respect of the experts and Sub-consultants in accordance with the relevant provisions of the applicable law in the Client's country, as well as, with respect to such Experts, any such life, health, accident, travel or other insurance as may be appropriate; and</p> <p>(d) insurance against loss of or damage to (i) equipment purchased in whole or in part with funds provided under this Contract, (ii) the Consultant's property used in the performance of the Services, and (iii) any documents prepared by the Consultant in the performance of the Services.</p>
<p><b>27.2</b></p>	<p><b>All information shall be confidential and remain the absolute property of the Client. The Consultant shall not use these documents and software for purposes unrelated to this Contract without the prior written approval of the Client.</b></p>
<p><b>35.1 (f)</b></p>	<p>The Client will provide the following inputs and facilities:</p> <p>Make best efforts in providing relevant data, information, and reports deemed necessary for the assignment.</p>
<p><b>41.1</b></p>	<p><b>The Contract price is:</b> _____ <i>[insert amount and currency for each currency as applicable]</i> <i>[indicate: <b>exclusive of all applicable taxes/ charges .</b></i></p>

### III. Special Conditions of Contract

	<p><b>Any indirect local taxes chargeable in respect of this Contract for the Services provided by the Consultant shall [insert as appropriate: “be paid” or “reimbursed”] by the Client [insert as appropriate: “for“ or “to”]the Consultant.</b></p> <p><b>The amount of such taxes is _____ [insert the amount as finalized at the Contract’s negotiations on the basis of the estimates provided by the Consultant in the Financial Proposal</b></p>
<p><b>42.1, 42.2</b></p>	<p><b><u>For domestic consultants/sub-consultants / personnel and foreign consultants/personnel who are permanent residents in India</u></b></p> <p>The consultants, Sub-consultants and the Personnel shall pay the taxes, duties, fees, levies and other impositions levied under the existing, amended or enacted laws during life of this contract and the client shall perform such duties in regard to the deduction of such tax as may be lawfully imposed.</p> <p><b><u>For foreign Consultancy firms: not applicable in view of the lump-sum inclusive of all costs of contract price</u></b></p> <p>(a) The client shall reimburse Service Tax payable in India as per Applicable Law. The consultant shall register itself for service tax with appropriate authority in India &amp; shall provide the registration Number to the client.</p> <p>b) Tax will be deducted at source as per the prevailing Income Tax Rules.</p>
<p><b>44.2</b></p>	<p>The accounts are:</p> <p>for foreign currency or currencies: <i>[insert account]</i></p> <p>for local currency: <i>[insert account]</i></p> <p>Payments shall be made on a monthly basis according Remuneration of Personnel as indicated in Financial proposal and as agreed during Negotiations, as per this contract according to the agreed work plan.</p> <p>Lump-sum amount quoted by the selected consultant : M</p> <p>Total period of consultancy (in months): 24</p> <p>A. Failure on part of the PMC to deliver the complete bid documents/ RFPs after expiry of months indicated of the PMC contract period in the table given in para-4 in schedule-1 (ToR) of the RFP document, <b>shall lead to entitlement of monthly payment @ M/48</b> and this condition shall not be altered in any circumstances, unless the inputs to the PMC from NDMCSCL did not come on time and was not of appropriate quality and/or NDMCSCL did not adhere to the deadlines for activities to be executed by NDMCSCL as outlined in the finalized work plan between NDMCSCL &amp; the PMC.</p> <p>B. Further it is to be noted that as per the scope of work mentioned in the Schedule -1 of the RFP, the PMC shall finalize at least 20 – ready to float bid documents / RFPs accepted and approved by the NDMCSCL during the period of first 15</p>

### III. Special Conditions of Contract

	<p>months of consultancy for which the PMC shall be paid Monthly payment as per the table given in Schedule 1, Clause 4, of the RFP- .</p> <p><b>C. Failure of part of PMC to deliver at least 20 complete, ready to float bid documents/RFP accepted and approved by NDMCSCL within 15 months of the PMC contract period shall lead to entitlement of monthly payment @M/48. Delivery of 20 documents after 15 months period shall not restore the monthly payment @ M/24 and shall continued to be paid @M/48 only.</b></p>
44.2.1	No advance payment.
44.2.4	<p><b>The accounts are:</b></p> <p>for foreign currency: <i>[insert account]</i>.</p> <p>for local currency: <i>[insert account]</i>.</p>
45.1	<b>The interest rate is:</b> 6% per annum.
48.1 Dispute Resolution	<p><b>Disputes shall be settled by arbitration in accordance with the following provisions:</b></p> <p>1. <u>Selection of Arbitrators.</u> Each dispute submitted by a Party to arbitration shall be heard by a sole arbitrator or an arbitration panel composed of three (3) arbitrators, in accordance with the following provisions:</p> <p>(a) Where the Parties agree that the dispute concerns a technical matter, they may agree to appoint a sole arbitrator or, failing agreement on the identity of such sole arbitrator within thirty (30) days after receipt by the other Party of the proposal of a name for such an appointment by the Party who initiated the proceedings, either Party may apply to <i>[Chairman (Delhi State Centre), The Institution of Engineers (India), New Delhi</i> for a list of not fewer than five (5) nominees and, on receipt of such list, the Parties shall alternately strike names therefrom, and the last remaining nominee on the list shall be the sole arbitrator for the matter in dispute. If the last remaining nominee has not been determined in this manner within sixty (60) days of the date of the list, <i>Chairman (Delhi State Centre), The Institution of Engineers (India), New Delhi</i> shall appoint, upon the request of either Party and from such list or otherwise, a sole arbitrator for the matter in dispute.</p> <p>(b) Where the Parties do not agree that the dispute concerns a technical matter, the Client and the Consultant shall each appoint one (1) arbitrator, and these two arbitrators shall jointly appoint a third arbitrator, who shall chair the arbitration</p>

III. Special Conditions of Contract

	<p>panel. If the arbitrators named by the Parties do not succeed in appointing a third arbitrator within thirty (30) days after the latter of the two (2) arbitrators named by the Parties has been appointed, the third arbitrator shall, at the request of either Party, be appointed by <i>Registrar, The Indian Council of Arbitration, New Delhi</i>.</p> <p>(c) If, in a dispute subject to paragraph (b) above, one Party fails to appoint its arbitrator within thirty (30) days after the other Party has appointed its arbitrator, the Party which has named an arbitrator may apply to the <i>Registrar, The Indian Council of Arbitration, New Delhi</i>. to appoint a sole arbitrator for the matter in dispute, and the arbitrator appointed pursuant to such application shall be the sole arbitrator for that dispute.</p>
	<p>2. Rules of Procedure. Except as otherwise stated herein, arbitration proceedings shall be conducted in accordance with the rules of procedure for arbitration of the United Nations Commission on International Trade Law (UNCITRAL) as in force on the date of this Contract.</p> <p>3. <u>Substitute Arbitrators.</u> If for any reason an arbitrator is unable to perform his/her function, a substitute shall be appointed in the same manner as the original arbitrator.</p> <p>4. <u>Nationality and Qualifications of Arbitrators.</u> The sole arbitrator or the third arbitrator appointed pursuant to paragraphs 1(a) through 1(c) above shall be an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute and shall not be a national of the Consultant’s home country [<i>If the Consultant consists of more than one entity, add: or of the home country of any of their members or Parties</i>] or of the Government’s country. For the purposes of this Clause, “home country” means any of:</p> <p>(a) the country of incorporation of the Consultant [<i>If the Consultant consists of more than one entity, add: or of any of their members or Parties</i>]; or</p> <p>(b) the country in which the Consultant’s [or any of their members’ or Parties’] principal place of business is located; or</p>



### III. Special Conditions of Contract

	<p>(c) the country of nationality of a majority of the Consultant's [or of any members' or Parties'] shareholders; or</p> <p>(d) the country of nationality of the Sub-consultants concerned, where the dispute involves a subcontract.</p>
	<p>5. <u>Miscellaneous</u>. In any arbitration proceeding here under:</p> <p>(a) proceedings shall, unless otherwise agreed by the Parties, be held in <i>[select a country which is neither the Client's country nor the Consultant's country]</i>;</p> <p>(b) the <i>English</i> language shall be the official language for all purposes; and</p> <p>(c) the decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.</p>
<p>49</p>	<p><b>Liquidated Damages</b></p> <p>49.1 The parties hereby agree that due to negligence of act of any party, if the other party suffers losses, damages the quantification of which may be difficult, and hence the amount specified hereunder shall be construed as reasonable estimate of the damages and both the parties agree to pay such liquidated damages, as defined hereunder as per the provisions of this Contract.</p> <p>49.2 The amount of liquidated damages under this Contract shall not exceed 10 (Ten ) % of the total value of the contract.</p> <p>49.3 The liquidated damages shall be applicable if the deliverables are not submitted as per schedule as specified in Clause 26.1, the Consultant shall be liable to pay 1% of the total cost of the services for delay of each week or part thereof.</p>

## IV. Appendices

### **APPENDIX A – TERMS OF REFERENCE**

*[This Appendix shall include the final Terms of Reference (TORs) worked out by the Client and the Consultant during the negotiations; dates for completion of various tasks; location of performance for different tasks; detailed reporting requirements and list of deliverables against which the payments to the Consultant will be made; Client’s input, including counterpart personnel assigned by the Client to work on the Consultant’s team; specific tasks or actions that require prior approval by the Client]*

*( It shall be as per the Schedule -1 of the RFP document )*

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### **APPENDIX B - KEY EXPERTS**

*[Insert a table based on Consulting firms EOI and finalized at the Contract’s negotiations. Attach the CVs (updated and signed by the respective Key Experts) demonstrating the qualifications of Key Experts.]*

*(It shall be as per the documents and information furnished in response to the Clause 5 of the Schedule -1 of the RFP- Consultant Team Composition and Qualifications- )*

.....

### **APPENDIX C – BREAKDOWN OF CONTRACT PRICE**

*[Insert the filled up Appendix II of the RFP document]*

**APPENDIX –VI**

**SMART CITY PROPOSAL OF NEW DELHI MUNICIPAL COUNCIL**

**(Attached as PDF)**

**INDIA SMART CITY MISSION**  
MISSION TRANSFORM-NATION



**Smart City**  
MISSION TRANSFORM-NATION

**THE SMART CITY CHALLENGE**  
**STAGE 2**

**SMART CITY PROPOSAL**

**SMART CITY CODE:**

DL-01-NDM

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सत्यमेव जयते  
Ministry of Urban Development  
Government of India

## CHECKLIST

All fields in the SCP format document have to be filled. The chart below will assist you in verifying that all questions have been answered and all fields have been filled.

Q. No	TICK		
<b>PART A: CITY PROFILE</b>			
1.	<input checked="" type="checkbox"/>	QUALITY OF LIFE	
2.	<input checked="" type="checkbox"/>	ADMINISTRATIVE EFFICIENCY	
3.	<input checked="" type="checkbox"/>	SWOT	
4.	<input checked="" type="checkbox"/>	STRATEGIC FOCUS AND BLUEPRINT	
5.	<input checked="" type="checkbox"/>	CITY VISION AND GOALS	
6.	<input checked="" type="checkbox"/>	CITIZEN ENGAGEMENT	
7.	<input checked="" type="checkbox"/>	SELF-ASSESSMENT: BASELINE	
8.	<input checked="" type="checkbox"/>	SELF-ASSESSMENT: ASPIRATIONS & IMPERATIVES	
<b>PART B: AREA BASED PROPOSAL</b>			
9.	<input checked="" type="checkbox"/>	SUMMARY	
10.	<input checked="" type="checkbox"/>	APPROACH & METHODOLOGY	
11.	<input checked="" type="checkbox"/>	KEY COMPONENTS	
12.	<input checked="" type="checkbox"/>	SMART URBAN FORM	
13.	<input checked="" type="checkbox"/>	CONVERGENCE AGENDA	<input checked="" type="checkbox"/> Table 1
14.	<input checked="" type="checkbox"/>	CONVERGENCE IMPLEMENTATION	
15.	<input checked="" type="checkbox"/>	RISKS	<input checked="" type="checkbox"/> Table 2
16.	<input checked="" type="checkbox"/>	ESSENTIAL FEATURES ACHIEVEMENT PLAN	
17.	<input checked="" type="checkbox"/>	SUCCESS FACTORS	
18.	<input checked="" type="checkbox"/>	MEASURABLE IMPACT	
<b>PART C: PAN-CITY PROPOSAL(S)</b>			
19.	<input checked="" type="checkbox"/>	SUMMARY	
20.	<input checked="" type="checkbox"/>	COMPONENTS	
21.	<input checked="" type="checkbox"/>	APPROACH & METHODOLOGY	

22.	<input checked="" type="checkbox"/>	DEMAND ASSESSMENT				
23.	<input checked="" type="checkbox"/>	INCLUSION				
24.	<input checked="" type="checkbox"/>	RISK MITIGATION	<input checked="" type="checkbox"/>	Table 3		
25.	<input checked="" type="checkbox"/>	FRUGAL INNOVATION				
26.	<input checked="" type="checkbox"/>	CONVERGENCE AGENDA	<input checked="" type="checkbox"/>	Table 4		
27.	<input checked="" type="checkbox"/>	CONVERGENCE IMPLEMENTATION				
28.	<input checked="" type="checkbox"/>	SUCCESS FACTORS				
29.	<input checked="" type="checkbox"/>	BENEFITS DELIVERED				
30.	<input checked="" type="checkbox"/>	MEASURABLE IMPACT				
<b>PART D: IMPLEMENTATION PLAN</b>						
31.	<input checked="" type="checkbox"/>	IMPLEMENTATION PLAN	<input checked="" type="checkbox"/>	Table 5		
32.	<input checked="" type="checkbox"/>	SCENARIOS				
33.	<input checked="" type="checkbox"/>	SPV	<input checked="" type="checkbox"/>	Table 6	<input checked="" type="checkbox"/>	7 DOCUMENTS
34.	<input checked="" type="checkbox"/>	CONVERGENCE	<input checked="" type="checkbox"/>	Table 7		
35.	<input checked="" type="checkbox"/>	PPP	<input checked="" type="checkbox"/>	Table 8		
36.	<input checked="" type="checkbox"/>	STAKEHOLDER ROLES				
<b>PART E: FINANCIAL PLAN</b>						
37.	<input checked="" type="checkbox"/>	ITEMISED COSTS				
38.	<input checked="" type="checkbox"/>	RESOURCES PLAN				
39.	<input checked="" type="checkbox"/>	COSTS				
40.	<input checked="" type="checkbox"/>	REVENUE AND PAY-BACK				
41.	<input checked="" type="checkbox"/>	RECOVERY OF O&M				
42.	<input checked="" type="checkbox"/>	FINANCIAL TIMELINE				
43.	<input checked="" type="checkbox"/>	FALL-BACK PLAN				
<b>ANNEXURE 1</b>		Smart City features				
<b>ANNEXURE 2</b>		A-3 sheets (self-assessment)				
<b>ANNEXURE 3</b>		max 20 sheets (A-4 and A-3)				
<b>ANNEXURE 4</b>		Documents for Question 33				

## INSTRUCTIONS

1. This document must be read along with the Smart City Mission Guidelines. An electronic version of the SCPformat is also available on the website <smartcities.gov.in> Follow: 'Downloads' > 'Memos'.
2. The responses must be within the word limits given. The font size must be 12 Arial, with 1.5 spacing, left aligned paragraphs with one inch margins. All additional information must be given in 20 nos. A-4 size pages in Annexure 3.
3. For the Area-Based Proposal, only one 'Area' should be selected. The Area selected can be a combination of one or more types of area-based developments. This can be retrofitting or redevelopment or greenfield alone or a combination of these, but the area delineated should be contiguous and not at separate locations in the city.
4. The Area-based Development must contain all the Essential Features as per para 6.2 of the Mission Guidelines. Please fill out the following checklist.

S. No	Essential Feature	Confirm if included (✓)	Para. No. in SCP
1.	Assured electricity supply with at least 10% of the Smart City's energy requirement coming from solar	<input checked="" type="checkbox"/>	Q. No 20
2.	Adequate water supply including waste water recycling and storm water reuse	<input checked="" type="checkbox"/>	Q. No 20
3.	Sanitation including solid waste management	<input checked="" type="checkbox"/>	Q. No 11
4.	Rain water harvesting	<input checked="" type="checkbox"/>	Q. No 19, 20 & 31
5.	Smart metering	<input checked="" type="checkbox"/>	Q. No 11 & 20
6.	Robust IT connectivity and digitalization	<input checked="" type="checkbox"/>	Q. No 11 & 20
7.	Pedestrian friendly pathways	<input checked="" type="checkbox"/>	Q. No 11
8.	Encouragement to non-motorised transport (e.g. walking and cycling)	<input checked="" type="checkbox"/>	Q. No 11
9.	Intelligent traffic management	<input checked="" type="checkbox"/>	Q. No 11
10.	Non-vehicle streets/zones	<input checked="" type="checkbox"/>	Q. No 11
11.	Smart parking	<input checked="" type="checkbox"/>	Q. No 11
12.	Energy efficient street lighting	<input checked="" type="checkbox"/>	Q. No 11

13.	Innovative use of open spaces	<input checked="" type="checkbox"/>	Q. No 11
14.	Visible improvement in the Area	<input checked="" type="checkbox"/>	Q. No 11
15.	Safety of citizens especially children, women and elderly	<input checked="" type="checkbox"/>	Q. No 11
16.	At least 80% buildings (in redevelopment and green-field) should be energy efficient and green buildings	<input type="checkbox"/>	
17.	In green-field development, if housing is provided, at least 15% should be in 'affordable housing' category.	<input type="checkbox"/>	
18.	Additional 'smart' applications, if any	<input checked="" type="checkbox"/>	Q. No 11

5. The pan-city Smart Solution should be IT enabled and improve governance or public services. Cities may propose one or two such Smart Solution(s). If more than one solution is presented kindly use supplementary template 'Pan-City Proposal No 2'.

6. In order to make the proposal credible, all claims must be supported with government order, council resolutions, legal changes, etc and such supporting documents must be attached as Annexure 4.

7. The Questions can be answered directly in this editable PDF file and can be saved on local computer, before printing. Your submission in electronic form should contain:

1. The SCP in whole (92) pages
2. The Self Assessment Sheet (Annexure 2)
3. Additional 20 Sheets (Annexure 3)
4. Additional list of Documents (Annexure 4)

Electronic submission to be sent on DVD along with printed copies. 5 printed copies of the SCP document (complete in all respect) should be sent to MoUD along with the DVD containing the complete electronic copy. The printed copies should be spiral bound as separate volumes.

It is advised to use latest version of Acrobat Reader (Acrobat XI or higher) to fill the form.

Acrobat Reader XI can be downloaded from:

<https://www.adobe.com/support/downloads/thankyou.jsp?ftpID=5507&fileID=5519>



## SCORING DIVISION

<b><u>TOTAL 100 POINTS</u></b>	
<b>CITY-LEVEL:</b>	<b>30</b>
<b>AREA-BASED DEVELOPMENT:</b>	<b>55</b>
<b>PAN-CITY SOLUTION:</b>	<b>15</b>

### CITY LEVEL CRITERIA: 30%

S.No.	Criteria	%
1.	Vision and goals	5
2.	Strategic plan	10
3.	Citizen engagement	10
4.	Baseline, KPIs, self-assessment and potential for improvement	5

### AREA-BASED DEVELOPMENT (ABD): 55%

S.No.	Criteria	%
1.	'Smartness' of proposal	7
2.	Citizen engagement	5
3.	Results orientation	15
4.	Process followed	3
5.	Implementation framework, including feasibility and cost-effectiveness	25

### PAN-CITY SOLUTION: 15%

(If more than one solution is proposed, each proposed solution will be graded separately and the average of the two aggregate scores will be awarded to the city toward the 15% overall weightage)

S.No.	Criteria	%
1.	'Smartness' of solution	3
2.	Citizen engagement	1
3.	Results orientation	5
4.	Process followed	1
5.	Implementation framework, including feasibility and cost-effectiveness	5

# A. CITY PROFILE

## 1. QUALITY OF LIFE

In the last three years, what efforts have been made by the city to improve livability, sustainability and economic development? Give specific examples along with improvement with KPIs that are in the public domain and/ or can be validated. Your answer should cover, but not be restricted to (Describe in max. 50 words each, mentioning the source of the data):

### a. Transportation condition in the city

- Modernized 77 parking lots with handheld online ticketing machines and mobile app
- Commissioned in 2012 automated multilevel car parking with 1408 and 800 ECS in BKS Marg and Sarojini Nagar respectively in PPP mode
- Commissioned in 2014 multilevel car parking with 750 ECS at Shivaji Stadium
- Constructed 11 Kms central verge in 2012-2014 at Mother Teresa Road, BHS Marg & South Avenue roads
- Commissioned PELICAN signals for pedestrians at C-Hexagon & Africa Avenue
- Constructed 8 TSR & taxi stands (signages & lots) at metro entry & exit points
- Constructed cycle tracks of 1.4 kms at Lodhi Road

### b. Water availability in the city and reduction in water wastage/ NRW

- Present water demand is 127.71 MLD & expected to reach 213 MLD in 2027
- 2 MLD capacity STP commissioned at Rashtrapati Bhawan
- Developed additional 75 (total 140) rainwater harvesting systems between 2012-15
- Revamped 10 km of water supply lines including 4 km in service utility corridors
- Constructed 6 km dedicated grey water network through service utility tunnel
- Water supply coverage increased from 87% in 2013 to 100% in 2015
- Non-revenue water (NRW) reduced to 20% in 2015 from 39% in 2013
- Efficiency in collection of water charges increased to 98% in 2015 from 95% in 2013
- Added 2 super suckers and 2 pressure cum jetting machine in 2012-15

### c. Solid waste management programs in the city

- 100% MSW processed (300 TPD), including WtE plant. Less than 5% residue to SLF
- Residential door-to-door MSW collection improved to 100% in 2015 from 60% in 2012
- Started construction of decentralised 70 TPD (1.4 MW) waste-to-energy plant
- Commissioned 100% mechanisation of MSW collection & transportation in 2015 (16 compactors, 28 auto-tippers & 12 open tipper trucks with GPS) in PPP mode.
- Commissioned 4 machines (8 TPD) to convert horticulture waste to fuel pellets in 2014
- Increased composting capacity to 30 TPD by adding 21 composting pits in 2013-15
- Introduced mechanized sweeping & mechanized sewer cleaning in 2013-15
- Created field offices for Safai Karmacharis in 2015 (First in India)

## d. Safety/ security conditions in the city

- NDMC area has been made 'Dark Spot Free' during 2012-15
- 310 CCTV surveillance cameras installed at all major markets including CP & Khan Mkt.
- 700 CCTV surveillance cameras installed at 72 colonies in 2015
- Treated 1500 sick trees to avoid accidental fall on pedestrian/ vehicles in 2012-15
- Improved pedestrian safety in 2013-15 through:
  - Resurfaced 70% road/lanes by cold methodology (micro-surfacing) & RMC
  - Retro-reflective signages, markings & speed-calming devices
  - Table-top crossing and dedicated pedestrian corridor, including CP
  - 22 escalators in subways for disabled citizens; Braille information panels in CP

## e. Energy availability and reduction of outages in the city

- 24x7 power supply without scheduled outages to all consumers during 2013-15
- Operationalised SCADA (33/ 66 KV) and automatic power factor correction in 2012-15
- Met peak power demand, which increased to 386 MW in 2015 from 350 MW in 2013
- Transformation capacity increased to 1466 MVA from 1386 MVA during 2013-15
- 100% electrification of JJ Clusters (Juggi-jhopri)
- Collection efficiency increased to 93% in 2015 from 91% in 2013
- Upgradation of 33 & 66 KV system to improve power quality (harmonics/fluctuation-free)
- Renewable Purchase Obligations (RPO) fully complied (only DISCOM in the country)
- Started commissioning of 4 MW rooftop solar power panels on NDMC Buildings

## f. Housing situation in the city, specifically role of municipality in expediting building plan approvals, enhancing property tax collection, etc

- Commissioned online property tax (PT) collection mechanism, citizens can access the portal with their unique property number
  - Collection of PT increased to INR 370 Cr in 2014-15 from INR 286 Cr in 2011-12
  - Online building plan approval system being commissioned & trials in progress
  - Online electricity/water bill & property tax payment facility implemented during 2013-14
  - Started construction of 240 EWS units at Bakkarwala in 2013 & 90% completed
  - Constructed 296 residential quarters at Bapu Dham for Safai Karmacharis in 2012-15
  - 60% digitization of building plans completed during 2013-15 for record management
- Refer to Annexure 3 (Section 3.1 & 3.2)

## 2. ADMINISTRATIVE EFFICIENCY

In the last three years, what have been the changes in Administrative Efficiency due to the use of Information and Communication Technology (ICT) (Describe in max. 50 words each, mentioning the source of the data):

### a. Overall attendance of functionaries

- Introduced biometric attendance system in 2014, which resulted recording of attendance by 6000 employees (other than field functionaries). This significantly improved availability of official to citizens
- Started construction of Roll-call Centre for attendance of field functionaries (10 such centres completed)
- Organized field units into 14 Circles and started regular inspection by senior officials

### b. Two-way communication between citizens and administration

- Setup a two-way real-time communication system with citizens through a Complaint Redressal Mechanism, which involves:
  - 24x7 Call Centre with multiple modes of communication
  - 'PleaseFix' Mobile App
  - Dedicated WhatsApp number +91 8588887773
  - Received and attended 23000 calls in last 12 months
- Regular citizen engagement through:
  - Social Media (Twitter/ Facebook); Feedback and suggestion on NDMC web portal
  - Meetings with RWA / Trader Associations

### c. Use of e-Gov to enable hassle free access to statutory documents

- Following statutory documents are provided electronically through NDMC portal:
- NDMC's Citizens Charter, RTI manuals, Acts & Byelaws of NDMC, Council Resolutions, Circulars, Orders, Forms related to trade licenses (such as restaurants, theatres)
  - eSLA (electronic Service Level Agreements) - Online applications for new electricity & water supply connections, Birth & Death Certificates, Appointment for International Health Regulation Certificate, Booking of parks/community halls, Building Plan Approval
  - Implemented E-tendering procedure with integrity pact concerning transparency in 2014

## d. Dashboards that integrate analytics and visualization of data

Implemented the following advanced analytical dashboards for visualization of data:

- Complaint Redressal Management (CRM)
- e-finance (municipal accounting)
- Work Asset Management (WAM) – inventory of all NDMC assets
- Property Tax Information System (PTIS)
- Commercial water/ electricity connections over the last three years.
- e-litigation for monitoring court cases
- Project Management System (PMS) for monitoring of projects

## e. Availability of basic information relevant to citizens

- Information of services and functions through:
  - NDMC web portal
  - 24x7 Citizen Information Centre (011 - 4999355, 23348301, care@ndmc.gov.in)
- 11 Decentralised Citizen Facilitation Centers
- Daily Public Hearing between 12:00 pm - 1:00 pm (except Wed) by Department Heads
- Outdoor, print & electronic information dissemination
- Special camps for health licenses, property tax, arrear clearances
- Messages through utility bills and sms
- Signboards at important public locations/ NDMC buildings/ parks

### 3. SWOT

Based on the detailed city profiling, what are the strengths and developmental areas of the city?

Conduct a detailed SWOT analysis of the city with all relevant metrics and data. (max 1000 words):

The SWOT analysis has been attempted considering the following framework:

- Identifying strengths which act as the foundation for future developments of NDMC;
- Identifying weaknesses, which can become constraints for future developments of NDMC, therefore is to be appropriately addressed in the Smart City Proposal
- Identifying opportunities where NDMC could potentially become world class, and
- Identifying threats where NDMC has limited control and therefore collaboration is required to develop mitigation strategies

Accordingly, based on the analysis of City Scenarios from Annexure 2, the identified strengths of NDMC are as follows:

- 1 Strong institutional legacy - Created under an act of Parliament with a greater degree of autonomy
- 2 Financial Robustness - NDMC has not sought any external financial assistance in the past and currently has surplus funds
- 3 A municipal body which also has the mandate for power and water distribution, and has robust institutional structures to provide the same
- 4 Robust ICT enabled service delivery mechanism in place
- 5 Continuous energy supply (100% energy availability)
- 6 Advanced infrastructure for both water and power distribution such as strong 66 & 33 KV power system and separate grey water distribution system
- 7 Planned city with high quality civic infrastructure such as world class metro network, footpaths, roads, drainage and sewer system, green areas (~48% Green) etc.
- 8 Presence of a vibrant Central Business District – Connaught Place
- 9 Relatively better ICT infrastructure in place for development of Smart City
- 10 Availability of large number of world-class vendors for Smart City Solutions strengthened through the diplomatic presence and commitments
- 11 Strong Social Infrastructure - Rational coverage of schools and colleges, hospitals, dispensaries, both in public and private sector
- 12 Cosmopolitan Area – large number of diplomats and expats and central government workers, presence of large international organisations such as World Bank, ADB, KfW, WWF, UNIDO etc.
- 13 Easy access to key subject matter expert (SME) resources

The weaknesses for NDMC are as follows:

- 1 Capacity Building to address recent technology advancements in the field of renewable energy / automation of processes / execution of large projects etc.
- 2 Paucity of land availability and statutory restrictions being a part of LBZ
- 3 Problem of squatters
- 4 Lack of discipline on-road and public spaces including high occurrence of vandalism of public infrastructure
- 5 Dependence on DJB for water supply system including drain and sewer

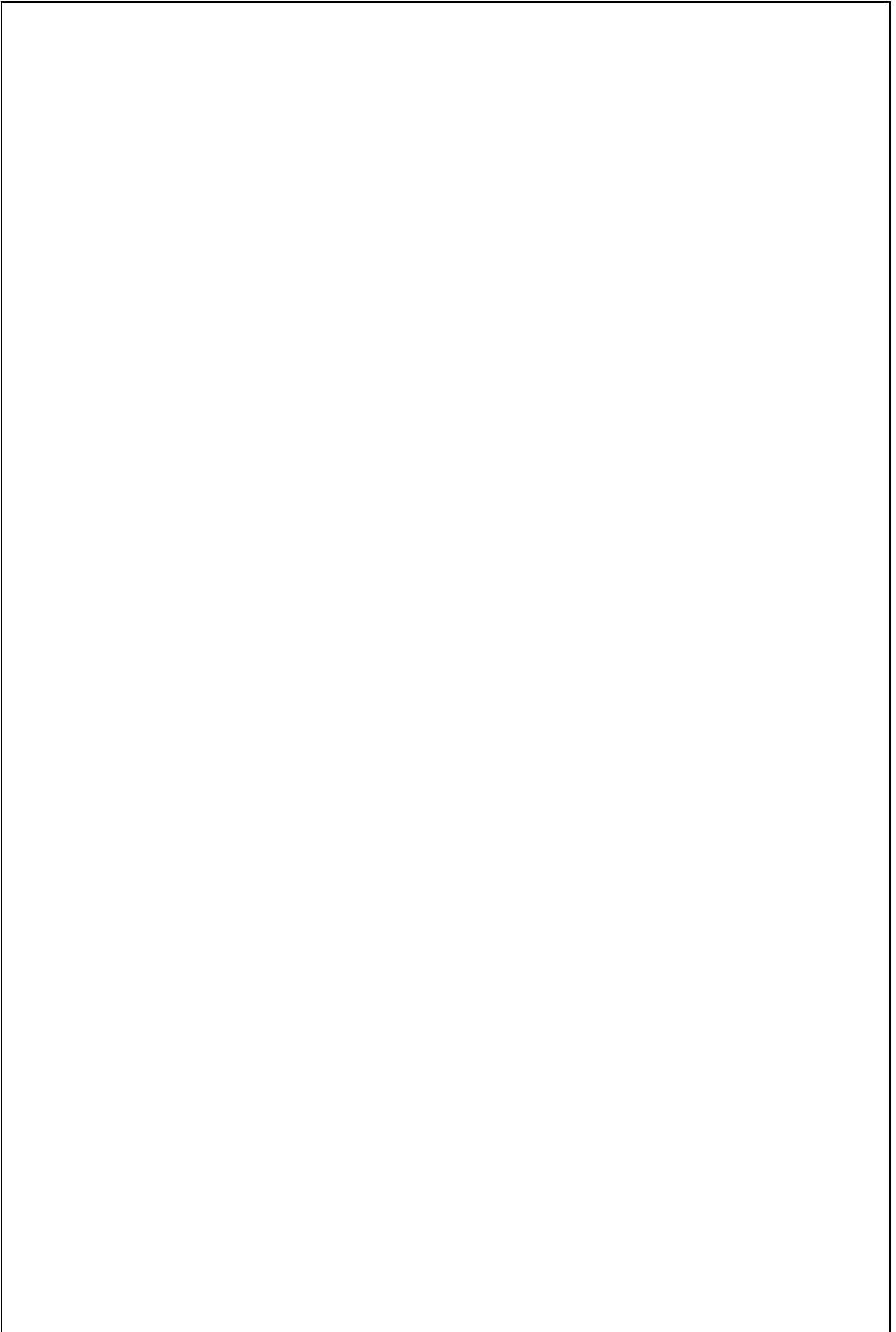
The opportunities for NDMC are as follows:

- 1 Country (MoUD, Govt. Of India) commitments for developing Smart Cities as a focus
- 2 Higher paying capacity leading to higher PPP – implementation of user charges for services provided
- 3 Development of high value impact area around metro stations, last mile connectivity - electric vehicles, sensor based parking, cycling tracks etc.
- 4 Willingness of industry to invest / implement their product or services in the capital city for country wide demonstration effect / branding etc.
- 5 Regulatory framework for renewable energy is in place to incentivize investments into Smart City
- 6 Availability of significant rooftop area of government buildings for renewable energy
- 7 Recharging aquifiers in large green areas with the help of mini/micro STPs and rain water harvesting
- 8 City with a high cosmopolitan and young population brings high acceptance to innovative offerings

The threats for NDMC are as follows:

- 1 Unwillingness to adapt to the change by the city and the citizen
- 2 Significant increase of traffic putting pressure on infrastructure
- 3 Increase in floating population
- 4 Reduction in commercial entities in the business district shall impact the financials within the area
- 5 Stakeholder dissonance on pedestrianization and illegal hawking in market areas
- 6 Rapid technology obsolescence
- 7 Absence of standards (eg: Environment norms for waste to energy plant)
- 8 Environmental Pollution
- 9 Higher security threats due to high value targets

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## 4. STRATEGIC FOCUS AND BLUEPRINT

Based on the SWOT analysis, what should be the strategic focus of the city and the strategic blueprint for its development over next 5-10 years to make it more livable and sustainable? (max 500 words):

NDMC's inherent strengths are financial robustness & planned area, high quality civic & ICT infrastructure; NDMC's opportunities are nation's commitments towards developing Smart Cities, higher paying capacity of its citizen, willingness of investors to invest and a cosmopolitan city with young population who are digital natives. Therefore, being the administrative capital of India, the Strategic Focus of NDMC, is to be the best-in-class Capital City in order to provide the highest quality of life to all its citizens and visitors, and to be the most economically competitive business ecosystem, while being sensitive towards the environment. The strengths enable the Strategic Focus to be credible and achievable. The credibility is further enhanced due to the expectation that India is poised to become a major economic power and NDMC area is the administrative capital of India and is already best-in-class in many parameters.

The blueprint for executing the Strategic focus is based on the 4 pillars on the foundation of ICT, Regulatory Framework and Innovation, that has evolved from the extensive stakeholder consultations and desk research.

- 1) Physical Infrastructure
- 2) Social Infrastructure
- 3) Value Infrastructure
- 4) SMART\* Governance

SMART - Sustainable, Moral (inclusive), Accountable, Responsive, Transparent

The Strategic Blueprint is to be executed over a period of ten years, from 2015 till 2025, transforming the city into the desired vision of a best-in-class capital city

The blueprint for Smart NDMC 2025 includes the following sub-goals:

- a) Physical Infrastructure covering Urban Mobility and Smart Parking, Smart Grid & Energy Management, Smart Water & Wastewater management, Setting up of rooftop solar panels in public & private sector, Municipal Waste Management, Transformation of electric-Poles into Smart Poles, Hierarchical Command and Control Centre, Developing Smart Public Spaces, Giant Smart Digital Screens.
- b) Social Infrastructure covering transformation of existing Public-Toilets into Smart Public Amenities Centres, Smart Education, Smart Health, Financial, Identity & Ticketing inclusion
- c) Value Infrastructure covering signature initiative to establish the city's culture and identity, City transformations achieved by appropriately changing the behavioural pattern
- d) e-Gov Infrastructure including institutional infrastructure and participatory governance

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These programs are to be enabled by (a) robust ICT layer, (b) a supporting regulatory framework and (c) citizen driven innovation process.

To protect the environment and its sustainability, the focus will be on reduction and reuse of natural resources, maximizing output of renewable energy using efficient and environment friendly technologies.

Keeping in mind the aspiration of New Delhi to become the global benchmark for capital cities, the sub-goals are benchmarked against the Smart City indicators of ISO 37120:2014 of top 20 cities. The ISO 37120 comprises of 100 indicators, wherein 46 are core indicators while the remaining are supporting indicators. NDMC's targeted values for the ISO37120 indicators are higher than those of the 20 top global cities against which it has been benchmarked.

Thus the adopted blueprint provides a roadmap for becoming the best-in-class livable and sustainable smart city by 2025. The benchmarks are rationalized for NDMC's aspiration to be a Global Benchmark for a Capital City.

Refer to Annexure 3 (Section 3.3)

## 5. CITY VISION AND GOALS

What should be the vision of the city based on the strategic blueprint? How does the Vision Statement relate specifically to the city's profile and the unique challenges and opportunities present in your city? Define overall aspirations and goals for the city along with how you see key metrics of livability and sustainability improving over the next 5-10 years? (max 1000 words):

The vision for NDMC Smart City has been formulated based on the strategic blueprint and the needs and aspirations articulated through the stakeholder consultations.

NDMC Vision for Smart City is thus : "To be the Global Benchmark for a Capital City"

NDMC's key profile is that of housing the administrative setup of the country within the capital city of a fast growing economy with one of the largest populations in the world. NDMC thus has the responsibility to provide a city to its citizens that will allow the nation to achieve its aspirations. Thus, for a country with the second largest population and poised to become one of the largest economies, nothing short of being the best capital city in the world would do justice.

The goals emerging from the city vision are:

- 1) Urban mobility  
Enhanced access to sustainable public transport, smart parking, non-motorized vehicles (NMVs) and last mile connectivity.
- 2) Inclusive city  
Addressing the needs of the most vulnerable citizens including women, children, disabled and trans-gender individuals
- 3) City planning and design  
Improved quality of life through citizen focused planning
- 4) Social development  
Focus on improved education and healthcare through incorporation of ICT
- 5) World's capital  
Setting global standards to meet citizens aspirations

Keeping in mind the aspirations of New Delhi to become the global benchmark for capital cities, the above goals have been aligned with the Smart City indicators of ISO 37120:2014 of top 20 cities:

Metric	Best Case(City)	NDMC 2025
1. Percentage of female school-aged population enrolled in schools	100% (Toronto)	100%
2. Percentage of students completing primary education: survival rate	100% (Toronto)	100%
3. Percentage of students completing secondary education: survival rate	100% (Dubai)	100%
4. Primary education student/teacher ratio	8.3 (Dubai)	≤ 8.3
5. Percentage of city population with authorized electrical service	100% (Toronto)	100%

Metric	Best Case(City)	NDMC 2025
6. Percentage of total energy derived from renewable sources, as a share of the city's total energy consumption	69% (Bogota)	70%
7. Fine particulate matter (PM2.5) annual mean concentration	6.1µg/m <sup>3</sup> (Melbourne)	60 µg/m <sup>3</sup>
8. Particulate matter (PM10) concentration	16.1µg/m <sup>3</sup> (Boston)	100 µg/m <sup>3</sup>
9. Greenhouse gas emissions measured in tonnes per capita	2.7(Amman)	≤ 2.17
10. Capital spending as a percentage of total expenditures	39.8%(Minna)	20%
11. Own-source revenue as a percentage of total revenues	100% (Dubai)	95%
12. Percentage of women employed in the city government workforce	74.6%(Helsinki)	30%
13. Average life expectancy	83.2 years (Melbourne)	83 years
14. Under age five mortality per 1000 live births	1.5 (Helsinki)	≤ 1.5
15. Square meters of public indoor recreation space per capita	8.54 (Melbourne)	0.1
16. Square meters of public outdoor recreation space per capita	118.48(Rotterdam)	20
17. Percentage of city population living in slums	0%(Helsinki)	0%
18. Number of homeless per 100 000 population	5.89 (Dubai)	0
19. Percentage of city population with regular solid waste collection	100% (Toronto)	100%
20. Total collected municipal solid waste per capita	1.28 (Dubai)	1.30
21. Percentage of the city's solid waste that is recycled	76.4%(Los Angeles)	80%
22. Number of internet connections per 100 000 population	156499.53 (Buenos Aires)	80000
23. Number of cell phone connections per 100 000 population	283021.19 (Dubai)	100000
24. Kilometres of high capacity public transport system per 100000 population	101.3 (Melbourne)	20
25. Kilometres of light passenger public transport system per 100 000 population	541.61 (Melbourne)	72
26. Annual number of public transport trips per capita	2097.25 (Makati)	300
27. Number of personal automobiles per capita	0.01 (Haiphong)	0.60
28. Green area (hectares) per 100 000 population	4465.48 (Guadalajara)	190

continue on next page

Metric	Best Case(City)	NDMC 2025
29. Percentage of city population served by wastewater collection	100% (London)	100%
30. Percentage of the city's wastewater receiving primary treatment	100% (Barcelona)	100%
31. Percentage of the city's wastewater receiving secondary treatment	100% (Barcelona)	100%
32. Percentage of the city's wastewater receiving tertiary treatment	100% (Boston)	10%
33. Percentage of city population with potable water supply service	100% (Barcelona)	100%
34. Percentage of city population with sustainable access to an improved water source	100% (London)	100%
35. Percentage of population with access to improved sanitation	100% (Amsterdam)	100%

Underlying assumption: The performance of the 20 cities against which NDMC has been benchmarked wouldn't change significantly till the year 2025.

The key impact of the vision and goals on the citizen shall be:

- 1) Improved standard of living within the city
  - All the residents would have access to core infrastructure facilities including 24x7 clean water supply and uninterrupted power supply.
- 2) Improvement in air quality of the city
  - Reduction of greenhouse gas emissions
- 3) Improvement in mobility through efficient traffic management
- 4) Provision of facilities to promote walkability and cyclability within the city
- 5) Sustainability
  - Financial and Environmental
- 6) Safe, healthy and uniquely inviting public places
  - Recreational and entertainment opportunities for the residents and the visitors.
- 7) Skill Development
  - A diverse workforce which is equipped with the skills that are in demand
- 8) Waste minimization and conservation of resources.

Refer to Annexure 3 (Section 3.4)

## 6. CITIZEN ENGAGEMENT

How has city leveraged citizen engagement as a tool to define its vision and goals? Specifically describe (max 150 words each):

### a. Extent of citizens involved in shaping vision and goals

NDMC has undertaken several mechanisms to ensure maximum and effective participation of citizens in shaping the vision and goals. The outcome was to achieve informed high quality consultations, ensuring inclusion of diverse groups and communities in the city. A volunteering system has been institutionalized to enable continuous citizen involvement in all aspects of shaping the vision.

The following categories of stakeholders were covered during the engagement:

1) Hotel & Traders association 2) Diplomats - Embassies and High Commissions  
3) Economically Weaker Sections (EWS)/ Slum Dwellers 4) Women 5) Elected Representatives 6) RWA's 7) Students - schools and colleges 8) Public at large.

The citizen engagements conducted with the above key groups during each round of the smart city planning process enabled a deeper understanding of citizen needs and priorities. The process helped in identifying aspirations of citizens with respect to the 24 smart city features mentioned in Annexure 2 of MoUD guidelines.

The overall citizen outreach figures were:

- % of residents covered: >95% through face to face RWA Consultations
- 1,08,00,000 Mobile SMS's sent out to 6,00,000 people; 6700+ responses received
- Total hours of face to face consultations: >150 hours

Detailed results of the citizen consultations are available at [www.smartnewdelhi.in](http://www.smartnewdelhi.in)

### b. Engagement strategy to get best results from citizens

Initial focus was on generating awareness and educating the citizens on the Smart City initiative. This was achieved through (a) Nukkad Nataks (b) Short movie clip (c) face to face presentations (d) Student march (e) information on website, (f) outdoor publicity (g) pamphlet distribution (h) MyGov site and (f) SMS's.

The engagement strategy was to achieve maximum high quality touch-points with as many citizens and floating population as possible. This also included the diplomats, high profile residents, slum dwellers, government employees etc.

The citizen engagement process had two key mechanisms (a) unstructured consultation and (b) Questionnaire based structured consultation. The unstructured consultations process helped formulate the questionnaire based on the key pain points identified by the gamut of stakeholders from various sections of the society. The structured questionnaire helped in prioritizing the pain points and aspirations by comparing the feedback on the same across sections of the society.

Subsequently, project prioritization was done based on citizen voting and feedback, recognizing the stakeholder conflicts on issues such as animal control, pedestrianization etc.

## c. Different means of citizen engagement adopted

- 1) Face-to-face unstructured consultations - Interactions with 1056 citizens that included RWA's, students, Slum Dwellers, Traders associations, Government employees, diplomats, vendors
- 2) Face to Face Structured consultations: The above groups were also consulted using a questionnaire, administered through Tablets and fill-in forms
- 3) Online consultation - Discussion forums, polling, online questionnaires, essay writing competitions and logo design administered through (a) MyGov.in,(b) www.ndmc.gov.in (c) www.smartnewdelhi.in (d) twitter and (e) facebook
- 4) Nukkad Natak (Street Plays) - 21 street plays in all major markets and slums, reaching out to large population, for effective participation in the NDMC smart city consultation process and also to spread information on key aspects of smart city initiative
- 5) Multimedia presentations - Used for generating awareness with RWA's, Students, Traders associations, Diplomats, NDMC council members and Government employees
- 6) Mobile Polling - 1,08,00,000 touch points with citizens, through SMS campaign with 6,700 responses

## d. Extent of coverage of citizen engagement in different media and channels

## Coverage of citizen engagements-

Face-to-face meetings : 1056 people covered. 95% residents covered through reps

MyGov : Extensive coverage in MyGov

Twitter : @smartnewdelhi

Facebook : <https://m.facebook.com/New-Delhi-Municipal-Council-309524815857975/>

Websites : www.ndmc.gov.in, www.smartnewdelhi.in

Nukkad Natak : 21 street plays across the city

Mobile SMS : 1,08,00,000 SMS's sent out to 6,00,000 people

## Coverage in print Media :

17 September, 2015 The Economic Times (NDMC seeks public ideas, suggestions for Smart City project), 20 September, 2015 The Indian Express (In its bid for 'smart city' tag, NDMC seeks suggestions from people), 24 September, 2015 ET Realty.Com (New Delhi Municipal Council outlines its vision for Smart City), 14 October, 2015 The Times of India (NDMC to hold public consultations for Smart City Mission), 16 October, 2015 Business Standard (34 embassy delegates give NDMC suggestions on smart city), 17 October, 2015 The Hindu (NDMC wants to make you happy), 23 October, 2015 The Economic Times (Delhi gets inputs from diplomats to make it a smart city), 24 October, 2015 Navbharat Times (NDMC gets 60 marks for citizen consultations)

## e. Incorporation of citizen inputs in overall vision

Entire vision of NDMC has been formulated based on citizen inputs. The inputs received were in the following areas:

a) Physical Infrastructure: need for improved Urban Mobility, need for improved electricity distribution, need for 24x7 Water & improved Wastewater management, desire for use of renewable energy, need for better Municipal Waste Management, need for better ICT infrastructure, need for improved security through Command and Control Centre, need for public/open spaces, need for public dissemination of information through on-street Screens.

b) Social Infrastructure: Improved Public-Toilets, need for Public Amenities Centres, better Education, better Health, need for Financial, Identity & Ticketing inclusion

c) Value Infrastructure: Aspirations for establishing the city's culture and identity, need for improving the civic sense of the general population

d) Desire to have participatory governance and a more responsive administration

Refer to Annexure 3 (Section 3.5)



## 7. SELF-ASSESSMENT: BASELINE

Define the baseline for your city based on self-assessment criteria given in Annexure 2 (column 'H'). Marks will be awarded based on how well you know your city (Fill column 'I' in the self assessment sheet in Annexure 2 with as many KPIs and "hard metrics" as possible; max 50 words per cell)

Note: Attach Annexure 2

## 8. SELF-ASSESSMENT: ASPIRATIONS & IMPERATIVES

Emerging from the vision statement, assess the qualitative or quantifiable outcomes that need to be achieved for each of the Smart City Features described in Annexure 2 (column 'J'). In column 'K' describe the biggest single initiative/solution that would get each feature of the city to achieve 'advanced' characteristics (eg. increasing share of renewable energy generation in the city by X percent). Note that a single initiative/solution may impact a number of features (eg. improved management of public spaces may ease congestion on roads as well as improve public health). (Fill in Annexure 2; max 50 words per cell)

Note: Attach Annexure 2

## B. AREA-BASED PROPOSAL

The area-based proposal is the key element of the proposal. An area-based proposal will identify an area of the city that has been selected through desk research, analysis, meetings with public representatives, prominent citizens, and citizen engagement, as the appropriate site for either of three types of development: retrofitting (approx. 500 acres), redevelopment (approx. 50 acres) or Greenfield development (approx. 250 acres). This area will be developed into a 'smart' area, which incorporates all the Essential Features/Elements prescribed in the Mission Guidelines and any additional features that are deemed to be necessary and appropriate.

Mapping of information and data is a key part of your Smart City Proposal. Create a suitable Base Map of your city with all the relevant systems and networks as they exist today, showing its physical, administrative and other characteristics, such as natural features, heritage areas, areas prone to flooding, slums, etc. The base map should show the regional context in which your city is located and should contain the spatial and physical layout/morphology of your city, the street network, the open and green spaces, the geographical features and landmarks and the infrastructure, including for transportation, water supply, sewerage, electricity distribution and generation, and so on.

Using the base map, represent, with the most effective method available, as much information and data about the 'Area' selected for area-based development. **Only one 'Area' should be selected and attached in the form of a map containing the spatial and physical layout/morphology of the Area, the street network, the open and green spaces, the geographical features and landmarks and the infrastructure, including for transportation, water supply, sewerage, electricity distribution and generation, and so on.** The Essential Elements and additional features that are proposed to be part of the area-based development should be included. Describe, using mainly graphic means (maps, diagrams, pictures, etc.) the proposed area-based development, including the project boundaries, connectivity, significant relationships, etc.

(max. 2 nos. of A-3 size sheets)

## 9. SUMMARY

Summarize your idea for an area-based development. (max. 100 words)

The New Delhi City Centre (NDCC), consisting of Connaught Place and contiguous surrounding areas of approx. 550 acres, has been selected for undertaking the retrofitting model of development, based on stakeholder consultations, desk research and the underlying need to transform the area as a 'World Class Urban Area'.

The area comprises of important Commercial areas (Connaught Place (CBD), Bengali Market, Janpath etc.), Heritage areas (Jantar Mantar and Agrasen Ki Baoli etc.), International Institutions (Foreign Embassies / Mission offices as Nepal Embassy, British Council, Soviet Cultural Centre, Max Muller Bhawan etc.), Happiness Area (Central Park Connaught Place, Hanuman Lane Park, Palika Bazar), Religious Areas (Hanuman Mandir, Sacred Cathedral, Aulia Mosque and Gurudwara Bangla Sahib). The area was selected through a continuous process of engagement with all stakeholders and analysis undertaken through desk research. The 'essential elements' suggested under section 6.2 of the Mission Guidelines is incorporated in the infrastructure services and smart solutions envisaged for NDCC. The area-based proposal leverages ICT interventions in physical, social, value infrastructure & SMART governance to improve livability and support NDMC towards its stated vision of being the world's benchmark capital city.

## 10. APPROACH & METHODOLOGY

What is the approach and methodology followed in selecting/identifying the area-based development?

Describe the reasons for your choice based on the following (max. 1000 words):

- a. The city profile
- b. Citizen opinion and engagement
- c. Opinion of the elected representatives
- d. Discussion with urban planners and sector experts
- e. Discussion with suppliers/ partners

The process followed for area selection involved:

- a) Detailed desk review
- b) Multiple iterative consultations with stakeholders and urban planners
- c) Focused group discussions with NDMC council members and select public representatives
- d) Consultation with key citizens of NDMC area
- e) Discussions with stakeholders of the shortlisted potential areas

The issues considered for selecting the given area were (a) economic significance of the area for the ULB (b) social significance of the area (c) cultural significance of the area (d) number of footfalls received by the area and (e) ease of implementation in the given area.

Given the absence of greenfield land of the size of 250 acres and above and given the absence of potential redevelopment areas of 50 acres due to the heritage characteristics of NDMC area, the sole option available to NDMC was retrofitting.

Based on the above process and criteria, the New Delhi City Centre (NDCC) area was selected and marked as the area for “retrofitting” as per the guidelines prescribed by MoUD. The area selected spans over 550 acres and covers the following key dimensions: 1) Historical Monuments / Heritage sites 2) Central Business District 3) Residential Accommodation 4) Schools 5) PHCs 6) Open Spaces 7) Highly effective waste management system 8) Dedicated pedestrian walkways free from hawkers 9) Significant access for differently-abled 10) High density of parking accommodation.

#### a) City Profile of New Delhi City Centre (NDCC)

The Connaught Place region functions as the hub of NDMC and is acknowledged as a significant area with regards to urban characteristics such as city economy, heritage, mobility, public open spaces and identity and culture. Connaught Place is categorised by the Master Plan of Delhi (MPD 2021) as the ‘Central Business District’ in the hierarchy of key commercial centres with Delhi.

Through the city profile and stakeholder consultation, the following requirements were identified: a) Augmentation of Parking (including Underground Parking); Smart Parking, EV charging at parking lots; Dedicated parking for pod transportation (autos etc.); Solar panel for each parking lot - energy generated can be used to charge e-vehicles b) Park & Ride (eco-friendly transport options to ferry citizen from centralized parking lots) c) Last Mile Connectivity – Transportation (Electric Vehicles/ NMV) d) Cycling Zones e) Pedestrian zones f) E-surveillance / e-challan for traffic violation including challan to scooters /cycles illegally utilizing pedestrian areas/ footpaths g) Redevelopment of JJC (notified Juggi-Jhopri cluster)

#### b) Citizen opinion and engagement

Citizen opinion was gathered both through online and offline mediums. Citizen stakeholder consultation workshops were conducted to understand the pain points / issues faced by the citizen and to seek inputs on the change desired within NDMC. Questionnaires and polls were used as primary mediums to collect information from the citizens. Apart from this there were several online campaigns and forums that were run on social media, MyGov and websites ([www.smartnewdelhi.in](http://www.smartnewdelhi.in)) to engage and gather citizen feedback.

The various stakeholder that were reached out to are as below:

(i) Hotels Association & Traders Association (ii) Women (iii) Embassies (iv) JJ Cluster (v) Students (vi) RWAs

Through their inputs and feedback what emerged was the need for:

Public Spaces Development and Landscaping, Walking Streets within the city, Maintenance of Heritage Areas (Jantar Mantar, Bangla Sahib, Agrasen Ki Baoli etc.), Green Areas / Landscaping, Innovation Center/ Skill Development within the city, Dedicated hawker / squatter areas, Localized Sports Infrastructure for children, Skill Development - vocational skills, City wide connectivity, Better governance, Proper waste collection and management system, Provision of utilities – uninterrupted power and water, Mobility improvements – such as parking, cycling tracks, road redevelopment.

### c) Opinion of the elected representatives

Discussions with various elected representatives were undertaken to seek inputs and guidance on projects that should be taken forward for the NDMC Smart City. A few of the esteemed elected representatives and key functionaries interacted with in this regard were:

- 1) Ms Meenakshi Lekhi, Member of Parliament (MP), New Delhi Constituency
- 2) Mr Karan Singh Tanwar, Vice Chairman NDMC
- 3) Mr Surinder Singh, MLA Delhi Cantonment, Member NDMC Council
- 4) Top government officials

The key inputs from these interactions related to area-based development are as below: Need for Social Development, Innovative Governance, City development & maintenance, Provision of urban utilities, Improvement in quality of living, Capacity building of NDMC through cross border municipal employee exchange programs

d) Discussion with urban planners and sector experts - The discussion with urban planners in institutions like School of Planning and Architecture and National Institute of Urban Affairs were undertaken in various discussion forums and one to one interactions. The urban planners emphasized on the importance of improving the landscaping of the city (open spaces and buildings) and also focus on optimal mixed land use. There were suggestions to incorporate principles of compact cities and green buildings within NDMC. The sector experts provided a focused perspective with regard to infrastructure, utility, transport & mobility, technology etc. The key inputs gathered from this segment were:

- Improvements in urban mobility
  - access to disabled, parking management, introduction of electric vehicles and last mile connectivity
- Public Spaces Development and Landscaping
- The need for designated Walking and cycling tracks in the streets
- Restoration of Heritage Areas
- Green Areas / Landscaping
- Advanced public facilities

### e) Discussion with suppliers/ partners

Multiple discussions with suppliers and partners were conducted to understand the wide array of solutions and offerings that exist and have been implemented in various parts of India and globally as well. These would help improve the livability of the city and help benchmark to best practices in other parts of the world. The inputs generated are as below: - Smart Governance within NDCC, Improvement in urban mobility through smart solutions, Sensor based parking management, Electric Vehicle charging, e-surveillance management, LED screen based advertisements. In addition to this, the significant innovation projects that emerged from the discussion with respect to NDCC are as below:

- Delhi International Festival
- Smart Public Amenities Centres (transformation of public toilets)
- Air quality tweet of pollution level
- Happiness areas/ Wellness Areas
- Smart Parking
- Carpooling application

Methodology diagram for selection of area-based projects provided in Annexure 3 (Sec 3.6 & 3.7). Base map of New Delhi City Centre - NDCC is provided in Annexure 3.

## 11. KEY COMPONENTS

List the key components of your area-based development proposal (eg. buildings, landscaping, on-site infrastructure, water recycling, dual piping for water supply, etc.)? (max. 250 words)

### (A) PHYSICAL INFRASTRUCTURE

(1) Urban Mobility & Smart Parking: (i) Enhancement of para-transit including PELICAN crossing facilities for differently-abled/ senior-citizens (NDMC already has dedicated pedestrian corridors having access for differently-abled) (ii) Electric Vehicles (EV's) based last mile connectivity to Metro/Bus Transport System/park and ride facility (iii) First in the world EV charging facility at each parking bay (iv) Construction of mobile application integrated cycle tracks in identified routes (v) Citizen application for car-pooling/cycling/traffic conditions/CCTV videos/air quality/e-challan etc. (vi) e-surveillance including e-challan for enforcing traffic discipline (vii) Providing parking for Intermediate-Public-Transport (IPT) such as Taxi, Auto (viii) Smart bus-stops-providing interactive bus information system/ATM/wi-fi/ vending machine (ix) Strengthening parking infrastructure by developing multi-level automated parking at KG Marg, Shivaji Terminal & near IOC Building (x) Converting existing parking into Sensor based Smart Parking Management System linked to a centralized mobile application (xi) Pedestrianization of Inner Circle CP, free from unauthorized hawkers in accordance with Street Vendors Act (2014) (2) Sensor based Common Service Utility Duct (3) Transformation of electric-Poles into Smart Poles with LEDs having incident-driven-controllers; communication infrastructure, Wi-Fi access points, air-quality sensors, noise-pollution sensors (4) Hierarchical Command and Control Centre for integrated Urban management & Public Safety/Security through CCTV-Surveillance (5) Happiness area for the cultural and social needs of citizens (i) renovation of Gole Market, adding Interactive Museum on History of Indian Civilization (6) Transforming sub-ways into vibrant spaces ATM/pet adoption centre etc. (7) Signature Giant Smart Digital Screen: Traffic Info/Social Messaging/Alerts/Cricket (8) Rooftop Solar Panels (Public & Pvt Buildings) (9) MSWM (i) Extending door to door MSW for commercial/ institutional areas, including biometric attendance, RFID based bin monitoring, app-based citizen monitoring (ii) Green(Horticulture waste) to Gas plant.

### (B) SOCIAL INFRASTRUCTURE

(10) Transforming Public Toilets into Smart Public Amenities Centres: Adding ATM's/ Pathology Labs/ e-Commerce Centres/Rooftop renewable energy (11) Financial, Identity, Ticketing & Access inclusion: Single Card access to New Delhi inclusive of Banking / Jan-Dhan Yojana/ Insurance for all based on regular Bank Debit card

### (C) VALUE INFRASTRUCTURE

(12) Introducing signature initiative to the city's Identity and Culture (a) Annual Delhi International Art and Culture Festival (b) Awards to Global Capital Cities based on City Benchmarks (c) Gateway to the World: On-street Live Video Conferencing between people of Delhi and multiple Global Cities, (13) Behavioural transformation through (a) instilling appropriate values through mass & social media, (b) children through social messaging in Smart education systems (d) Creating volunteer ecosystem.

\* PAN-City projects are also applicable over this area

## 12. SMART URBAN FORM

Describe the 'smart' characteristics of the proposed development that relate to urban form (eg. uncluttered public places, mixed-use, open spaces, walkability) and how these will be incorporated.  
(max. 250 words)

The smart characteristics of the proposed area-based development related to elements of urban form (such as identity and culture, livability, density, open space design, recreational activity) are listed below:

- a) Universal access to the city centre with special focus on differently-abled and senior citizens
- b) Future proofing – EV charging at each parking slot
- c) Real-time parking information through mobile application
- d) Innovative citizen participation through online and offline mechanisms
- e) Enhanced safety through video based real time crime monitoring
- f) Advance alerts related to traffic congestion and natural disaster through intelligent government services
- g) Smart displays for public awareness and information
- h) Sustainability through solar installation\*, rainwater harvesting and water management\*\*
- i) Improving and encouraging walkability\*\*\*
- j) Financial and identity inclusion through single card access delivering improved transparency
- k) Provision for non-motorized transport (NMT)
- l) Development of pedestrian friendly urban areas, inter-alia with designated hawking areas with high levels of accessibility and integration with adjacent commercial and institutional areas in CP
- m) Significant reduction of greenhouse gas emissions (GHGs) through improvement in local air quality through reduction in suspended particulate matter (SPM) from vehicular emission through conventional sources
- n) Promotion of local heritage through an annual festival
- o) Establish people to people contact across cities globally
- p) Inducing behavioural change in citizens through innovation

These smart characteristics will be implemented through the components of the individual activities in the area-based development as outlined in Question 11.

\*NDMC plans to set up 40 MW of Solar Power by 2020 which will increase the share of renewable energy from the current levels of around 2% to around 25% of the energy mix.

\*\* The technology which will be implemented for Smart Mini STP incorporates the provision of integrating the options of wastewater management and storm water management. Energy for the plant can be provided through utilization of the space permitting installation of solar panels with battery storage to provide power requirement for the pumps. The details of the technology description is provided in Annexure 3.

\*\*\*Implementing of Pedestrianization of Inner Circle CP will take place in accordance with Street Vendors Act (2014). All the street vendors will be accommodated in designated vending zone. In case, all the vendors cannot be accommodated in the same vending zone, allocation of space will be made by drawing of lots.

### 13. CONVERGENCE AGENDA

In Table 1, list the Missions/Programmes/Schemes of the Government of India (eg. AMRUT, HRIDAY, SBM, IPDS, Shelter for All, Digital India, Make in India, Skill India) and relevant external projects and describe how your proposal will achieve convergence with these, in terms of human and financial resources, common activities and goals. (max. 50 words per cell)

TABLE 1		
S.No	Mission/Programme/ Scheme/Project	How to achieve convergence
1	Swachh Bharat Mission (Urban) [SBM]	<p>The following goals and finances of the Swachh Bharat Mission is incorporated within SCP:</p> <ul style="list-style-type: none"> <li>• SBM Component IV: Solid Waste Management (75% Central contribution)</li> <li>• SBM Component -V: IEC &amp; Public Awareness (75% Central contribution)</li> </ul>
2	Jawaharlal Nehru National Solar Mission [JNNSM]	<p>The following goals and finances of the JNNSM is incorporated within the SCP:</p> <p>Create an enabling policy framework for the deployment of 15MW of solar power through rooftops of public and private buildings. (Eligible for 15% Capital Subsidy)</p>
3	Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	<p>SCP aligns with AMRUT by including:</p> <ul style="list-style-type: none"> <li>• Water supply systems including augmentation of existing water supply, water treatment plants and universal metering.</li> <li>• Rehabilitation of old water supply systems</li> <li>• Augmentation of existing sewerage systems and sewage treatment plants.</li> <li>• Recycling of water</li> <li>• Footpaths/walkways for NMT</li> </ul> <p>80% of the annual budgetary allocation can be raised through AMRUT.</p>

Continue on next page



TABLE 1

S.No	Mission/Programme/ Scheme/Project	How to achieve convergence
4	Digital India	<p>SCP aligns with the five out of nine pillars of digital India covering broadband highways, e-governance: reforming governance through technology, eKranti: electronic delivery of services, information for all and electronics manufacturing,</p> <ul style="list-style-type: none"> <li>- Usage of NIC i-cloud Meghraj</li> <li>- Modules of e-Health Management System developed by NIC</li> </ul>
5	<p>National Electric Mobility Mission Plan 2020 (NEMP)</p> <p>Start up India</p>	<p>The development of dedicated Electric Vehicle (EV) charging stations and provision of last mile connectivity converges with the NEMP by promoting electric mobility. Additionally, Delhi Government provides a 15% subsidy on the base price, 12.5% exemption on VAT and refund on road tax and registration charges for electric vehicles.</p> <p>“Electric Vehicles (EV’s)”, “Smart Parking App” and “Smart mini STP” are unique concepts which will attract various start up firms to implement these projects. Thus this initiatives can get benefits under Startup India</p>
6	Pradhan Mantri Jan-Dhan Yojana (PMJDY)	<p>SCP aligns with PMJDY by ensuring inclusive access to financial services, namely, Banking/ Savings &amp; Deposit Accounts &amp; Insurance. The following projects are included:</p> <ul style="list-style-type: none"> <li>• NDCC’s project on single card for identity and accessing utilities is aligned with the objectives of the Jan-Dhan Yojana national mission</li> <li>• The project on single card identity will be launched which will link the identity card of each user to his/her bank account</li> </ul>
7	<p>Make in India</p> <p>Skill India</p>	<p>The Solar Power Project falls under the Renewable energy sector of “Make in India”. NDMC will try to procure the solar PV panels Made in India. In addition, as part of the proposed Smart City Policy of NDMC, preference will be given for procurement from startups and Indian firms.</p> <p>Initiatives such as education of children and youth of the Juggi Jhopdi clusters through skill transfer and mentorship by senior citizens in various areas of expertise will converge with the National Urban Livelihoods Mission (NULM) scheme of the Government of India.</p>

## 14. CONVERGENCE IMPLEMENTATION

Describe how the convergence will be implemented? For example, convergence with IPDS will be credible if 'smart' city elements (e.g. smart metering, underground cabling, shifting of transformers) are included in the DPR being prepared for IPDS. If, a DPR has already been prepared, then the 'smart' elements should be included in the form of a supplementary DPR. Furthermore, according to the IPDS Guidelines the DPR has to be approved by the State Government and sent to the Ministry of Power, Government of India. All these have to be completed before submitting the proposal. (max. 350 words)

Swachh Bharat Mission (SBM) Urban: The following projects are proposed to be implemented having convergence with SBM Urban:

- (i) Extending door to door MSW for commercial/institutional areas under SBM Component IV
- (ii) Behavioural transformation through mass & social media under SBM Component V

Jawaharlal Nehru National Solar Mission (JNNSM): The proposed 15MW roof-top solar power (7.5 MW each from government & private buildings) will be implemented through a significant capital subsidy of 15%.

Atal Mission for Rejuvenation and Urban Transformation (AMRUT): The hard infrastructure components of the projects such as (i) Para-transit facilities including PELICAN crossing (ii) Pedestrianization of Inner Circle Connaught Place inter alia with dedicated area for hawkers (iii) Water and wastewater Management will be eligible to receive 80% of the required funding from the scheme and will be implemented over a span of 2 years.

Digital India: The following project components are proposed to be implemented, that will have convergence with cloud-based usage related to E-KRANTI, MEGH RAJ scheme: (i) Mobile application for integrated cycle tracks in identified routes (ii) Citizen application for car-pooling/ cycling/ traffic conditions/CCTV videos/air quality/e-challan etc. (iii) e-surveillance including e-challan for enforcing traffic discipline (iv) Sensor based Smart Parking Management System linked to a centralized mobile application (v) Hierarchical Command and Control Centre for integrated Urban management & Public Safety/Security linked with citizen social media app (vi) Mobile app-based citizen monitoring for MSW.

National Electric Mobility Mission Plan 2020 (NEMP): The development of dedicated Electric Vehicle (EV) charging stations and provision of last mile connectivity converges with the NEMP by promoting electric mobility. Additionally, Delhi Government provides a 15% subsidy on the base price, 12.5% exemption on VAT and refund on road tax and registration charges for electric vehicles.

Pradhan Mantri Jan-Dhan Yojana (PMJDY): SCP aligns with PMJDY by ensuring inclusive access to financial services, namely, Banking/ Savings & Deposit Accounts & Insurance. The projects related to single card for identity and accessing utilities is proposed to be implemented under the PMJDY.

Make in India: NDMC proposes to procure most of the equipments of the solar power project made in India under this scheme.

Skill India: Initiatives such as education of children and youth of the Juggi Jhopdi clusters through skill transfer and mentorship by senior citizens in various areas of expertise will converge with the National Urban Livelihoods Mission (NULM) scheme of the Government of India as well as with Pradhan Mantri Kaushal Vikas Yojana (PMKVY) under the Ministry of Skill Development and Entrepreneurship wherein the youth will be eligible to receive outcome based training with rewards. Other skill development initiatives include extensive capacity building and skill development of the stakeholders responsible for the implementation of the ABD as well as the PAN city initiative through setting up of world class Skill Training Centre for imparting various skills related solar energy management, 3D design and printing, computer based design and animation. School infrastructure after normal school timings would be used for imparting skills in the aforementioned areas. These are in line with the National Policy for skill development and entrepreneurship wherein various mentioned initiatives such as setting up of multi-skill institutes through appropriate PPP models with the help of Government funding will be explored.

#### StartUp India:

Various initiatives such as “Electric Vehicles (EV's) based last mile connectivity”, “Citizen application for car-pooling/cycling/traffic conditions/CCTV videos/air quality/e-challan etc.”, “Creating volunteer ecosystem”, “Smart Parking App” and “Smart mini STP” are unique concepts within the NDMC SCP, which have been discussed in detail at the idea stage with various start-up vendors. These initiatives will provide opportunities for start-ups to function as implementation partners of NDMC. These projects have the potential to avail the benefits of Start-Up India policy of Government of India if implemented by the start-up organizations. Benefits will include those declared under the Prime Minister’s 19 Action Plan for Start-ups such as incubation opportunity, substantial tax breaks, and relaxed norms of public procurement among others.

## 15. RISKS

What are the three greatest risks that could prevent the success of the area-based proposal? In Table 2, describe each risk, its likelihood, the likely impact and the mitigation you propose. (max. 50 words per cell)

TABLE 2			
Risk	Likelihood	Impact	Mitigation
Behavioural Risk: (a) internal to NDMC (b) citizen stakeholders	High	Medium	Structured change management: -Organizational realignment -Capacity Building within NDMC -Vigorous implementation of Value Infrastructure initiatives -Implementation of ICT based monitoring -Employee Exchange Program with Global Cities -Structured dialogue process with citizens for conflict resolution -Involving Senior Leaders and Personalities in crafting constructive citizens participation
Technological Risk: (a) Readiness of NDMC (b) Gateway constraint for managing the required bandwidth (c) Cyber Security	Medium	Medium	-Training and Capacity Building Calendar on technology assessments -Ensure redundant connectivity such as fibre, wireless, RF, ultra narrow band, powerline communication -Upgradation of existing communication infrastructure to work with proposed smart solution -Stand-by arrangement for bandwidth from alternate ISPs -Training citizens and NDMC employees on social engineering based cyber-security attacks -Adopting strong cyber-security measure

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TABLE 2

Risk	Likelihood	Impact	Mitigation
<p>Project Delay due to:</p> <ul style="list-style-type: none"> <li>(i) change in key individuals managing the projects</li> <li>(ii) Delay by Vendors</li> <li>(iii) Litigation by unsuccessful vendors/PILs</li> <li>(iv) Delayed procurement</li> <li>(v) Delayed payments</li> <li>(vi) Contractual Obligations not been fulfilled by stakeholders</li> <li>(vii) Delays in sanctioning of funds/releases by various missions/schemes of Gol</li> <li>(viii) Technological obsolescence during implementation</li> <li>(ix) Lack of availability of skills/appropriate vendors</li> <li>(x) Inter-agency approvals</li> <li>(xi) Global Cities Cooperation/Coordination</li> <li>(xii) Opposition by Citizen Groups</li> </ul>	Medium	High	<ul style="list-style-type: none"> <li>i) Fixed tenure for key champions ii) &amp; vi) Impose high deterrent penalties on vendors iii) Clarity in policy framework iv) Strong procurement management through external consultants v) Third party certification process for payments by NDMC vii), x) &amp; xi) Dedicated external program management team viii) Detailed consultations with cutting edge technologists to limit obsolescence ix) Inclusion of Global vendors xii) Specific project on behavioral intervention in SCP</li> </ul>
Lack of extensive coordination between different stakeholders.	<p>Project: 'Single Card access to New Delhi'</p> <p>Likelihood: High</p>	<p>Stakeholders:</p> <ul style="list-style-type: none"> <li>(i) ULB</li> <li>(ii) Citizens</li> <li>(iii) Financial partner institution (iv) Government</li> </ul> <p>Impact: High</p>	<p>NDMC will go for intensive coordination with stakeholders through in collaboration with selected financial partner institution for implementation of the 'One Card' through:</p> <ul style="list-style-type: none"> <li>(a) Setting up of information kiosks at major nodes (metro stations, shopping centres, banks) in collaboration with NDMC's financial partner institution</li> <li>(b) Comprehensive social media campaign with citizens with regard to access and benefits</li> <li>(c) Advertisement of the 'One Card' through FM Radio, Social media, Movie Theatres, outdoor billboards and metro stations</li> </ul>

Continue on next page

TABLE 2

Risk	Likelihood	Impact	Mitigation
Lack of extensive coordination between different stakeholders.	Project: 'World City Awards'  Likelihood: High	Stakeholders: (i) ULBs of shortlisted cities based on City Benchmarks, (ii) citizens (iii) Event Managers, (iv) Corporate Partners, Hospitality Partners and Knowledge Partners (v) Key Sponsors.  Impact: High	NDMC will collaborate with selected partner institution through a) Evaluation of alliances with event managers/ research firms, etc. for the event b) Selection of ULBs through City Benchmarking c) Awards for the best Capital Cities on themes related to smart solutions, Emotional connect with the citizen Promotion of local heritage, tourism asset through a events d) Social media campaign
Lack of extensive coordination between different stakeholders.	Project: 'Gateway to the World: On-street Live Video Conferencing between people of Delhi and multiple Global Cities'  Likelihood: High	The Stakeholders for the initiative will be (i) Citizens of multiple Global Cities (ii) Embassies (iii) Partner Cities global  Impact: High	A similar initiative was undertaken during the India-Africa Summit 2015, wherein NDMC proposes to replicate such initiatives at least once a month. NDMC will strengthen coordination between stakeholders through (a) Alliances with ULBs globally through coordination with Embassies in New Delhi (b) Comprehensive social media campaign for engaging citizens

## 16. ESSENTIAL FEATURES ACHIEVEMENT PLAN

Describe a plan for achieving the Essential Features in your area-based proposal. Importantly, accessible infrastructure for the differently-abled should be included. List the inputs (eg. resources) that will be required for the activities that you will conduct, leading to the outputs. Please note that all Essential Elements, item-wise, have to be included in the area-based proposal. (max. 2000 words)

Adherence to the essential features of a smart city has been assured through the area based projects selected for implementation within NDCC area. The key projects that will aid NDMC in attaining the essential features of a Smart City along with the inputs, activity and outputs are listed below:

1) Urban Mobility & Smart Parking - the key components envisaged are:

(i) Enhancement of para-transit including pelican crossing facilities for differently-abled/ senior-citizens. Accessibility for the differently-abled addressed through proposed implementation of access signages for disabled, creation of new access ramps with ramp handles, improvement or retrofitting existing ramps, removal of restrictions on footpaths, creation of additional disabled friendly restrooms. As per NDMC vision, the city will be a global benchmark for accessible infrastructure for the differently-abled.

Resources Required : 5 Specialists in differently-abled infrastructure for 12 months, consulting firm for strategic program management, civil works firm for implementation, 2 urban design specialists, CPWD personnel

Output: Planning space efficiency, entries and exits and para-transit access routes; Differently-abled friendly infrastructure at Metro Station entry/ exit points (Gate No 1, 2, 5, 6, 8 & Block D), Shivaji Stadium Terminal, Parking at Baba Kharak Singh Marg, Hanuman Mandir, Jantar Mantar, Agrasen ki Baoli, all pedestrian areas and footpaths across NDCC, all bus stops and market areas, increased pedestrian safety

(ii) Electric Vehicles (EV's) based last mile connectivity to Metro/ Bus Transport System/ park and ride to connect all Metro/ Bus Stops to other parts of NDCC including all major car parking facilities such as Baba Khadak Singh Marg, Shivaji Stadium etc

Resources Required: 2 procurement specialist, 1 Urban Transport specialist

Activities: preparation of a last mile connectivity strategy, identification of key routes

Output: Provision of dedicated electric vehicles in NDCC for last mile connectivity

(iii) First in the world EV charging facility at each parking bay

Resources Required: 1 procurement specialist, 1 Transport Specialist, 3 Analysts

Activities: Plan and design of charging facility layout across various parking lots

Output: Charging facility at each bay

(iv) Construction of mobile application integrated cycle tracks in identified routes

Resources Required: 2 procurement specialist, 2 Urban Planner, 1 Transport Specialist,

Activities: Creation of a cycling Infrastructure strategy that facilitates end-to-end connectivity

Output: Estimated reduction of greenhouse gas emissions (GHGs) by 30-40% through Improvement in local air quality through reduction in suspended particulate matter (SPM) from vehicular emission through conventional sources.

(v) Citizen app for car-pooling/cycling/traffic conditions/CCTV videos/air quality/e-challan

Resources Required: 2 Mobile-based application experts, 3 Analysts

Activities: Analysis of existing NDMC Citizen grievances redressal application : NDMC's 'PleaseFix', initial data gathering and finalization, Story boarding of citizen application new modules, Designing, development and testing of mobile app.

Output: Integration with various services: Locating Toilets, Smart Parking, car-pooling, Shops, smart education, citizen grievance, social media integration

(vi) e-surveillance including e-challan for enforcing traffic discipline

Resources Required: 2 procurement specialist, 1 Urban Transport Specialist, 4 Network Analysts  
 Activities: Preparation of vision plan for equipment, Identification of locations to install equipment, Evaluation/estimation of energy requirement, Obtaining approval from Delhi police, designing networks required for data transfer

Output: Area wide surveillance and automated penalty system, enforcement of traffic discipline in NDCC, enhanced monitoring and improved safety for pedestrians

(vii) Providing parking for Intermediate-Public-Transport (IPT) such as Taxi, Auto

Resources Required : 1 Urban Design specialist, 1 Urban Transport specialist

Activities: Identification and designation of IPT locations

Output: Creation of new and modification of existing spaces for IPT

(viii) Smart bus-stops-providing interactive bus information system/ ATM/ wi-fi hotspot/ vending machine

Resources Required : 1 procurement specialist, 1 Urban Design specialist, 1 civil works firm for implementation

Activities: Procurement and fixing of infrastructure,

Output: Provision of 10 smart bus-stops with the aforesaid smart features in NDCC

(ix) Strengthening parking infrastructure by developing multi-level automated parking at KG Marg, Shivaji Terminal & behind IOC Building

Resources Required: 2 procurement specialists, 1 Transport Specialist, 3 Analysts

Activities: Feasibility study, assessment of impact on environment and surroundings and study on citizen acceptance

Output: Parking facility for additional 3000 slots

(x) Converting existing parking into Sensor based Smart Parking Management System linked to a centralized Mobile App

Resources required: 2 procurement specialist, 1 Urban Planner, 1 Transport Specialist, 1 Analysts

Activities: Procurement & Installation of parking sensors in both on-street and off-street locations, Supply and installation of gateways (1 gateway covers an area of 1 sq Km), Cashless pre-payment of parking fees through credit/ debit cards/ online portals, Modernization of parking lots by implementing technology solutions, active parking lot management, Parking Apps and web portals.

Output: Enhanced parking experience through real-time information related to available parking lots through mobile application and illuminated signboards on-site.

Improved monitoring, management and optimal utilization of parking spaces through real time analytics.

(xi) Pedestrianization of inner circle Connaught Place, free from unauthorized hawkers

Resources Required: 2 procurement specialist, 2 Urban Planner, 1 Transport Specialist, 3 Analysts, 1 Architectural Design Firm

Activities: Feasibility study on pedestrian access and circulation plan, procurement of street furniture

(2) Sensor based Common Service Utility Duct\* - Resources Required: 2 Procurement specialist. Activities: Identification of locations to install equipment,

\* Multi-utility Duct: Depending upon the availability of the technology, provision will be made for City Gas distribution Network through the utility duct

(3) Transformation of electric-Poles into Smart Poles with LEDs having incident-driven-controllers; communication-infrastructure, Wi-Fi access points, air-quality sensors, noise-pollution sensors



Resources Required: 2 Procurement specialists, 1 ICT Expert

Activities: Identification of locations to install equipment, Evaluation/ estimation of energy requirement, Procurement of equipments, Obtaining approval from Delhi Police

Output: Pro-active intervention for area-wide crisis management, Enhanced efficiency through better information dissemination and traffic management, substantial energy saving, provide wi-fi in hot-spots and area-wide surveillance

(4) Hierarchical Command and Control Centre for integrated Urban management & Public Safety/Security through

Resources Required: 2 Procurement specialists, 2 ICT Experts

Activities: Design firm for procurement of surveillance equipment, Evaluation/ estimation of energy requirement, Procurement of equipments, Obtaining approval from Delhi Police, Determining location and functioning of command centre

Output: Pro-active intervention for area-wide crisis management, Enhanced efficiency through better information dissemination, surveillance and traffic management

(5) Happiness area for the cultural and social needs of citizens (i) renovation of Gole Market, adding Interactive Museum on History of Indian Civilization,

Resources Required: 2 Architects, 2 Urban Design specialists, Civil works,

Activities: Identification of locations to install equipments, designing and developing such facilities through PPP

Output: Enhanced quality of life for citizens through improved access to public amenities, improved aesthetics of the city, availability of more open spaces and green spaces, communication Channel for advertising government schemes, achievements & updates

\*Objective of Happiness Areas: Redesign of existing public spaces for hosting wellness/ happiness areas by organizing cultural and social activities on regular basis throughout the year. The scope of the intervention includes indoor and outdoor facilities in the following areas: arts and culture, fitness arenas and skating surfaces, gymnasiums and multipurpose spaces, outdoor sports complexes, and other recreational outdoor spaces. NDMC recognizes that local sport, culture and recreation facilities – including parks and open spaces – are vital to building a sustainable future and in achieving its Vision “To be the Global Benchmark for a Capital City”.

(6) Transforming sub-ways into vibrant spaces ATM/puppy adoption/Advt.

Resources Required: 2 Architects, 2 Urban Design specialists, Civil works,

Activities: Identification of locations to install stalls, designing and developing such facilities through PPP

Output: Enhanced quality of life for citizens through improved access to public amenities, improved aesthetics of the city, availability of more open spaces

(7) Signature Giant Smart Digital Screen-Traffic Info/Social Messaging/Alerts/Cricket/Advt

Resources Required: 1 Architect, 1 ICT Expert, 1 Content Management Specialist

Activities: Identification of locations to install equipment, Evaluation/ estimation of energy requirement, Procurement of equipments

Output: Smart display for public awareness and information, Enhanced efficiency through better information dissemination and traffic management, Additional revenue through advertisement, visible improvement in the area, robust IT connectivity and digitalization

(8) Rooftop Solar Panels (Public & Pvt Buildings)

Resources Required: 1 Architect, 1 ICT Expert, Activities: Identification of locations to install equipment, Evaluation/ estimation of energy requirement, Procurement of equipments. Output: Contribution to renewable energy sources

(9) MSWM (i) Extending door to door municipal waste management for commercial/ institutional areas, including biometric attendance, RFID based bin monitoring, app-based citizen monitoring (ii) Green (Horticulture waste) to Gas Smart plant.

Resources Required: 1 Public Health specialist, 2 Procurement specialists, 1 Horticulturist

Activities: Preparation of action plan for door-to-door collection from new areas, Procurement of waste collection and transportation infrastructure, Procurement and installation of infrastructure for green to gas plant, civil works firm for implementation.  
Output: Hundred percent coverage of door-to-door collection for SWM, Sustainable creation and usage of alternative energy.

#### (B) SOCIAL INFRASTRUCTURE

(10) Transforming Public Toilets into Smart Public Amenities Centres: Adding ATM's/ Pathology Labs/ e-Commerce Centres/Rooftop renewable energy

Resources Required: 2 procurement specialist, 2 Urban Planner, 3 Analysts

Activities: Planning and designing of hygiene centre locations for optimum visibility, proximity and access, planning and design to incorporate time, space and energy efficiencies with due consultations, Procurement of equipment with lighting, signages, security and maintenance systems

Output: Enhanced access to public amenities, provide infrastructure to support e-commerce, access to ATMs, florists, cafes, ice-cream parlours, access to pathological labs, installation of solar panels etc.

(11) Financial, Identity, Ticketing & Access inclusion: Single Card access to New Delhi inclusive of Banking / Jan-Dhan Yojana/ Insurance for all based on regular Bank Debit card

Resources Required: 2 procurement specialists, 3 Analysts

Activities: Identify system integrator, planning and design of digitisation of user payments for channelisation of funds, procurement of cloud-based payment software such as parking fees, water, electricity bills, rental fees, etc., planning smart services (banking, transport etc.) that will be covered by this single card

Output: Enhanced ease of cashless payments for multiple uses, Single card as an identity mechanism for accessing various institutions, Usage of card as a ticket for accessing movie theatres, laser and sound shows, Provision of inclusive banking and insurance

#### (C) VALUE INFRASTRUCTURE

(12) Introducing signature initiative to the city's Identity and Culture(a) Annual Delhi International Art and Culture Festival (b) Awards to Global Capital Cities based on City Benchmarks (c) Gateway to the World: On-street Live Video Conferencing between people of Delhi and multiple Global Cities,

Resources Required: 1 Event Management Agency, 1 ICT specialist, 1 City Planner cum systems analyst

Activities: Evaluate tie-ups/alliance with event managers/partners/research firms etc. for the event, Setting benchmarks for awards, Key matrices to be identified, Obtain concurrence with global institutions, Design AV / print strategy

Output: Creation of forum for exchange of ideas and capital cities across the world, Awards for the best Capital Cities on themes related to smart solutions, Emotional connect with the citizens, Promotion of local heritage, Creation of a tourism asset through a marquee event

(13) Behavioural transformation through (a) instilling appropriate values through mass & social media, (b) children through social messaging in Smart education systems (c) Creating volunteer ecosystem

Resources Required: IEC Specialist, PR Specialist, Digital Media Specialist

Activities: Formulate Strategy for improvement of cities, Design of IEC components

Output: Enhanced socio-cultural behaviour, improved ease of living, improved civic value, enhanced psychological well-being of citizens

## 17. SUCCESS FACTORS

Describe the three most significant factors for ensuring the success of the area-based development proposal. What will your city do if these factors turn out to be different from what you have assumed?

(max. 500 words)

The success of the area-based project is dependent on the following key factors that will be addressed both from a process and an implementation perspective:

### 1. Citizen Engagement:

- The area-based projects involve high degree of public participation and are intended to be implemented within a short term.
- It is therefore critical that measures are institutionalized for effective participation of all stakeholders in key decision-making processes during and after the project implementation period (e.g. the process of reshaping and redesign of public spaces is to be realistically achieved through increased participation of all stakeholders).
- Measures related to transparency regarding each project is proposed to be made available in public domain through all possible means. All possible channels of communication would be utilized to receive feedback by ensuring maximum outreach regarding the procedures followed in the planning and implementation of area-based infrastructure projects at various stages such as decision-making, planning and design/formulation, financing, execution/implementation and monitoring and supervision.

### 2. Monitoring and Review:

Monitoring of projects i.e execution culture in the organization is essential for ensuring their timely implementation and successful outcomes. Independent monitoring & evaluation (M & E) of physical and financial progress with regards to project implementation and the dissemination of such information is critical for the success. A regular monitoring plan is essential to respond to emerging socio-economic scenarios, wherein the outputs of the monitoring and review stages are addressed at each appropriate level of responsibility. Developing an execution culture in the organization by focusing on three processes - people, strategy and operations i.e building blocks and heart of good execution.

### 3. Capacity Building:

A range of capacity building requirements are identified for the success of the projects, which include:

- Identification of training needs and delivery of the same to match knowledge and skills required for the project execution
- Exchange Programs with the premier Smart Cities across the globe on a regular basis
- People: The key to enable a successful change management is people. This will be achieved through:
  - Identifying the training needs
  - Modernizing recruiting and selection practices according to the implementation requirements of the projects
  - Modernizing the incentive plans

- Culture/ Organizational Behaviour
  - Building a culture of collaboration among employees and a culture of quality consciousness and having pride in their work
  - Building core beliefs and values to the changing environment

The critical success factors for the area-based projects have been identified taking cue of the requirements of each project. There is very little possibility of the critical success factors (CSFs) changing in due course of the project.

However the embedded monitoring and review mechanisms undertaken during project implementation phase will enable NDMC to take into account the necessary course corrections as identified during the implementation phase.

4. Replication potential of the ABD projects- This is a critical success factor since replication potential throughout the NDMC area will help in sustainability of these projects in the long term as well as will extend benefits to greater number of citizens

NDMC through the stakeholder consultation chose projects in the NDCC area which has replication potential in other areas of NDMC as well. Few such initiatives are already planned to be replicated in Sarojini Nagar, Gole Market, Khan Market, Chanakyapuri & Bengali Market post the implementation in NDCC are:

(i) Enhancement of para-transit including PELICAN crossing facilities for differently-abled senior-citizens (ii) Electric Vehicles (EV's) based last mile connectivity to Metro/ Bus Transport System/ park and ride to connect all Metro/ Bus Stops to other parts of NDCC including all major car parking facilities (iii) First in the world EV charging facility at each parking bay (iv) Construction of mobile application integrated cycle tracks in identified routes (vi) e-surveillance including e-challan for enforcing traffic discipline (vii) Providing parking for Intermediate-Public-Transport (IPT) such as Taxi, Auto (viii) Smart bus-stops-providing interactive bus information system/ ATM/ wi-fi hotspot/ vending machine (x) Converting existing parking into Sensor based Smart Parking Management System linked to a centralized Mobile App (3) Transformation of electric-Poles into Smart Poles with LEDs having incident-driven-controllers; communication-infrastructure, Wi-Fi access points, air-quality sensors, noise-pollution sensors (4) Hierarchical Command and Control Centre for integrated Urban management & Public Safety/Security (7) Signature Giant Smart Digital Screen-Traffic Info/Social Messaging/Alerts/Cricket/Advt (9) MSWM (i) Extending door to door municipal waste management for commercial/ institutional areas, including biometric attendance, RFID based bin monitoring, app-based citizen monitoring (ii) Green(Horticulture waste) to Gas Smart plant. (10) Transforming Public Toilets into Smart Public Amenities Centres (11) Financial, Identity, Ticketing & Access inclusion (13, c) Creating volunteer ecosystem.

During the implementation phase of these projects in the NDCC area, a stakeholder consultation will be carried out through myGov, Social Media, face-to-face consultations with the aforementioned regions in mind. Following the response of the stakeholders, the regions will be finalized and the projects will be replicated.

## 18. MEASURABLE IMPACT

What will be the measurable impact of the area-based development proposal, on the area and the wider city, through scale-up and replication? Please describe with respect to the five types below, as relevant to your city and proposals (max. 150 words each):

- a. Governance Impact (eg. improvement in service provision and recovery of charges due to establishment of SPV)

- Improved connectivity to differently abled and elderly
- Enhanced safety and crisis management through monitoring of public spaces using surveillance cameras
- Increased efficiency in citizen oriented services through mobile cashless payments of house tax, commercial tax, electricity bill etc.
- e-Governance services to citizens through a transparent, faster manner & at a lower operating expense, thereby, facilitating better monitoring & collection of service charges
- Provision of governance applications such as public grievance, information dissemination in an integrated manner through smart phones
- Enhanced capacity of NDMC employees towards deepening citizen engagement.
- Employee exchange programs leading to capacity building in education, health, traffic management, Information Technology (IT) and other relevant areas

- b. Spatial Impact (eg. built form changed to incorporate more density or more public space)

- Reorganization of the existing built environment in NDCC to provide access for differently abled individuals
- Reclamation of sidewalks, parks, plazas, and commercial areas in NDCC for citizens and visitors
- Modernization of parking lots by implementing technology solution
- Enhanced quality of built environment through installation of signature LED screens
- Redesign of existing open space for hosting wellness/ happiness areas by organizing cultural and social activities throughout the year
- Redesigning the existing built environment to create provision for NMT infrastructure
- Road signages in multiple languages including Hindi, English, Urdu, Punjabi, French, Chinese and Spanish to direct, inform, warn and protect road users.

## c. Economic Impact (eg. new commercial space created for organized economic activity)

- Universal accessibility ensures that people with disabilities and elderly have equal access to commercial areas, thereby increasing sales volume & profits for businesses
- Reduction in economic losses in terms of air pollution related costs of lost productivity and medical expenses
- Expected increase in retail turnover through increased pedestrian footfalls
- Positive impact on real estate values through enhanced quality of life
- Improved collection of user charges through better monitoring and efficiency
- Increase in revenue collection through efficient management of existing parking sites
- Additional revenue through smart LED advertisement signages
- Improved supply chain efficiency of e-commerce in the city
- Employment opportunities for e-commerce, florists, cafes, ice-cream parlours, pathological labs, thereby aiding NDCC in generating additional revenue
- 99% power and water availability, reduction in power restoration time, significant reduction in losses, reduction in O&M cost i.e. better power and water management through smart power and water grid

## d. Social Impact (eg. accessible features included in the Proposal)

- Equal access to transport facilities and services within NDCC for the differently abled
- Increased safety for vulnerable groups (women and children), as they are often the victims of road accidents
- Enhanced ability of law enforcement to detect and apprehend criminals and improve road safety
- Improved citizen experience through reduction of driver stress
- Creation of opportunities for cultural and entertainment events
- Reach out to citizens through positive publicity for existing and proposed services and programs delivered by NDMC in relation to smart initiatives
- Affordable accessibility to city services/ information for tourists/ visitors
- Availability of advance alerts related to traffic congestion and natural disaster at multiple locations

e. Sustainability, including environmental impact (eg. intensive 24X7 use of public spaces results in reduced traffic and reduced pollution)

- Pedestrian zones will lead to a vehicle-free environment thereby:
  - reducing atmospheric emissions
  - aid in reduction of noise and air pollution by discouraging or restricting access of motorized vehicles
  - provide a platform for carrying out activities for changing people's behaviour and sensitizing them towards environmental issues
- Significant reduction in emission levels through better integrated traffic system
- Generation of clean energy through solar with lower carbon footprint
- Improved public health and cleanliness
- Reduced pollution and improved air quality
- E-governance will lead to optimum utilization of resources and ensure sustainability
- Better power management including power load, power outage and power through renewable sources would lead to reduced GHG emissions, thereby considerably improving the environment
- Better integrated MSW management will lead to re-use and recycle of resources, efficient usage of MSW to generate power, eliminating groundwater contamination, therefore leading to enhanced sustainability

## C. PAN-CITY PROPOSAL (S)

A pan-city smart solution should benefit the entire city through application of ICT and resulting improvement in local governance and delivery of public services. The SCP should contain one or two such Smart Solutions. Generally, 'smartness' refers to doing more with less, building upon existing infrastructural assets and resources and proposing resource efficient initiatives.

### 19. SUMMARY

Summarize your idea(s) for the pan-city proposal(s). (max. 100 words)

The Pan-city proposal leverages ICT interventions in basic Infrastructure to improve livability and transform NDMC towards its stated vision of being the world's benchmark capital city. It addresses the issues of water, power, education, healthcare & governance by utilizing M2M & IOT technologies: 1) e-governance - Using innovative structuring to enable startups & established private players to contribute to world class governance 2) Smart Grid and Energy Management – including smart grid installation & solar power integration to enable electricity continuity. This would lead to greater reliability, efficiency & sustainability. It also addresss need for contingency power & focus on renewables. 3) Smart Water and wastewater management, including rehabilitation of the existing systems. It includes (a) ICT interventions, (b) water conservation measures like rain water harvesting & mini Sewerage Treatment Plants (STPs) & (c) smart metering to achieve reliability & efficiency in water management 4) Smart Education – e-Education in NDMC schools, senior citizen driven mentoring program for underprivileged, skill development, Centralized Student's e-health records 5) Smart Health - Enable EWS citizens to access private hospitals through Centralised Hospitalization Facilitation, Virtual Medical Service including network of volunteer doctors and access to online blood banks through integrated e-healthcare; air quality monitoring. These projects will improve the quality of lives of all segments of citizens & shall be the critical pillars for success of NDMC in setting the global benchmarks.



## 20. COMPONENTS

List the key components of your pan-city proposal(s). (max. 250 words)

1) e-Governance: e-Governance as a tool for efficient services to citizens, re-engineer internal processes to bring it on a digital platform, improve transparency, accountability & citizen participation a) Application of ICT for delivering municipal services; integration of various standalone systems and services between Government & Citizens and within the organization b) Use of smart devices enabled through standards based M2M & IOT technologies c) Developing web-based/ mobile-based applications and e-services d) Opening up of government data through www.data.gov.in e) Encouraging paperless communication through cloud-based document management f) Biometric Attendance (ongoing) g) Expanding network (dedicated lease lines and P2P connectivity) and server capabilities (ongoing) h) Virtualisation of Licenses (ongoing) (i) NDMC Mobile App Store. Details of ICT Architecture provided in Annexure 3 (Sec 3.8)

2) Smart Grid and Energy Management (ongoing):  
 A. Smart Grid Implementation: a) SCADA enablement b) Power Management & demand forecasting including peak load management & GIS enablement c) Integrated distribution management system and outage management system d) 100% Automated Metering Infrastructure with Automated Demand Response e) Field force automation: Sub-station automation f) Billing and Energy Audit system g) Short circuit analysis and relay coordination h) Network for smart meters and grid management i) Net metering i.e. renewable energy integration j) Energy efficiency system i.e. asset monitoring substation k) Energy Audit & Certification process for NDMC Building  
 B. Solar Power Projects: 40 MW grid connected Solar PV power plant by 2020 (ongoing)

3) Smart Water and Wastewater Management including rehabilitation of the existing system through ICT intervention (ongoing): a) 24x7 smart water supply - Water quality monitoring, smart metering, smart piping, smart leakage detection and automation and instrumentation & SCADA enablement b) Automation/ Instrumentation c) Web GIS software solutions & water billing software solution d) Distributed generation & supply of grey water through dual piping systems to be used for horticulture & flushing e) Mini smart STP's for wastewater management; rainwater harvesting (Annexure 3, Sec 3.9)

4) Smart Education: a) e-Learning Solution in all NDMC schools - Smart Classrooms, fibre connectivity & digital content, Virtual Labs (from IIT Delhi), digital library, 360 degree monitoring of students & teachers b) Mentoring program- Mentoring each underprivileged student by a senior citizen c) Centralized Student's health e-records d) Skill Development - Development of skills required in near future such as solar energy management, designing for 3D printing, computer based design and animation etc.

5) Smart Health: a) Integrate all public medical facilities through Cloud-based e-healthcare system (Cloud provided by NIC under Digital India) b) Centralised Hospitalization facilitation for EWS for enabling them to access private hospital beds reserved for EWS, & provision of transportation service for transfer to private hospitals c) Virtual medical service - A network of online volunteer doctors, exchange of volunteer blood donors, real time availability of blood in blood banks d) Air quality monitoring

## 21. APPROACH & METHODOLOGY

What is the approach and methodology followed in selecting/identifying the pan-city proposal(s)?

Describe the reasons for your choice based on the following (max. 1000 words):

- a. The city profile and self assessment;
- b. Citizen opinion and engagement
- c. Opinion of the elected representatives
- d. Discussion with urban planners and sector experts
- e. Discussion with suppliers/ partners

### a) City Profile and Self-Assessment

The city profile, created using desk research, aimed towards the gaps and key issues that exist within various focus zones of NDMC (such as Connaught Place, Central Secretariat, Khan Market, Sarojini Nagar, Gole Market, diplomatic inhabited areas etc.) across the 24 focus areas listed by MoUD .The self-assessment for NDMC (Annexure 2) provides the as-is assessment of NDMC across the 24 focus areas and identified their current ranking on a scale of 1 to 4 (4 being the advanced state). The following maturity landscape emerged from this evaluation process.

- |                                   |              |
|-----------------------------------|--------------|
| - Water Supply                    | : Scenario 2 |
| - Energy Supply                   | : Scenario 3 |
| - Energy Source                   | : Scenario 3 |
| - Energy Efficiency               | : Scenario 2 |
| - Education                       | : Scenario 3 |
| - Health                          | : Scenario 3 |
| - Safety and Security             | : Scenario 2 |
| - Intelligent Government Services | : Scenario 2 |

### b) Citizen Opinion and Engagement

Following multiple citizen stakeholder consultation workshops that were conducted to engage and gather inputs / issues and challenges. The key stakeholders that were engaged for the purpose of the workshops:

- i) Hotels and Traders Associations
- ii) RWAs
- iii) Women groups
- iv) Embassies and High Commissions
- v) JJ Clusters (Jhuggi-Jhopri)
- vi) Students
- vii) Eminent Citizens

The stakeholder consultations were captured using questionnaires, polls, opinion surveys and other mediums through social media (Refer to Annexure 3, Section 3.5 for analysis of citizen consultation). Through this mechanism what emerged was the need for:

- 24x7 reliable water supply
- Better public safety & security
- Advanced energy management
- Smart education
- Effective e-governance adoption, based on robust ICT infrastructure

c) Opinion of elected representatives

Discussions with various elected representatives were undertaken to seek inputs and guidance on projects that should be taken forward for the NDMC Smart City. A few of the esteemed elected representatives interacted with for this purpose were:

- i) Ms Meenakshi Lekhi, Member of Parliament (MP), New Delhi Constituency
- ii) Mr Karan Singh Tanwar, Vice Chairman NDMC
- iii) Mr Surinder Singh, MLA Delhi CANT, Member NDMC Council
- iv) Top government officials

The consultations led to shortlisting of following areas for pan city interventions

- i) Need for public safety & security within the area
- ii) Need for renewable energy integration through Smart Energy Management
- iii) Need to provide uninterrupted water supply to the citizen
- iv) Need to provide e-governance and information & communication technology (ICT) based solutions
- v) Aspiration to become the world's best capital city

d) Discussion with Urban Planners and Sector Experts

Discussions carried out with urban planners in institutions like School of Planning and Architecture and National Institute of Urban Affairs. General feedback from urban planners was on improving landscaping in the city (open spaces and buildings) and focusing on optimal mixed land use.

There were suggestions to incorporate principles of compact cities, green buildings and removing of boundary walls. Sector experts brought in a focused perspectives in infrastructure, utility, transport & mobility, technology etc.

This process led to the following focus areas for NDMC pan city interventions:

- 1) The need for Smart Energy
- 2) The need for Smart Water Management
- 3) City-wide surveillance for safety and security
- 4) Resources optimization through technology intervention
- 5) Social Infrastructure

e) Discussion with Suppliers / Partners

Multiple vendor / supplier / partner workshops were conducted over the last 2 months aimed at getting feedback on doability of the interventions identified by the citizen stakeholders and gathering information & best practices on similar implementations carried out in other cities in the world. Interactions were organized with over 29 vendors/ suppliers to understand the capacity that exists in India to execute the proposed interventions.

This process led to the following focus areas for NDMC pan city interventions:

- 1) Need for integrated e-governance
- 2) Need for Smart Utilities for a city
- 3) Need for Public Safety & Hierarchical Command and Control Centre
- 4) Need for Smart Education & Health
- 5) Need for integrated MSWM

Thus as a result of various stakeholder and influenced group interactions, a significant number of suggestions and opinions evolved and were captured. The inputs underwent detailed analysis with focus on societal benefit (governance impact, impact on public services) emanating from the proposed interventions. Based on this detailed analysis, the final list of projects for pan-city implementation were structured, to be presented back to stakeholders for their views.

There are sub-components of PAN city projects which are applicable within the area chosen for ABD i.e. NDCC. Following the same, linkages of the PAN city initiatives with the Area Based Development projects were also established as given below:

- 1) e-governance: Online provisions for bill payment for common utility services, grievance redressal for utilities related to power, water supply & MSW through mobile applications.
- 2) Smart Water & Wastewater management: 24x7 water supply and dependable, cheaper, clean power in Area Based Development
- 3) Smart Education – Skill Development Centres in Area Based Development
- 4) Smart Health – Air Quality monitoring in Area Based Development

Methodology diagram for selection of pan-city projects is provided in Annexure 3 (Section 3.10). Base map of the area under New Delhi Municipal Council (NDMC) is provided in Annexure 3.

## 22. DEMAND ASSESSMENT

What are the specific issues related to governance and public services that you have identified during city profiling and citizen engagement that you would like to address through your pan city proposal(s)?

How do you think these solution(s) would solve the specific issues and goals you have identified?

(max.1000 words)

City profiling through the desk research and citizen engagement through the focused citizen stakeholder workshops (refer to Annexure 3, Section 3.5 for analysis of citizen consultation) enabled us to understand the issues faced by citizens related to governance and public services.

The issues faced by citizens with regard to governance are:

- 1) Limited online provisions for bill payment for common utility services
- 2) Grievance redressal for utilities related to power, water supply & MSW
- 3) Limited perceived responsiveness & accountability of the Municipal Council
- 4) Issues related to efficiency and effectiveness of municipal services

The key issues the citizens faced with regard to public services are:

- 1) Absence of 24x7 water supply
- 2) Dependable, cheaper, clean power
- 3) Inadequate public safety & security
- 4) Inadequate ICT in social infrastructure such as education and public health institutions
- 5) Inadequate health monitoring facilities

Through the selected pan-city projects NDMC aims to address the issues and concerns raised by the citizens related to governance and public services as mentioned above in the following manner:

1) e-Governance: The following benefits are envisaged: i) Electronic service delivery to citizens in a time-bound manner ii) Seamless accessibility to all government services iii) Improved transparency by providing an integrated platform to make council data available in public domain iv) Encouraging paperless communication through cloud-based document management, improving efficiency of NDMC v) Integration of existing systems and ongoing e-governance initiatives, improving effectiveness of NDMC vi) Establish two-way communication mechanisms through ICT leading to increased participatory governance vii) enhance internal capacity of ULB and smart city strategy with a focus on big data analysis, M2M & IOT for enhanced efficiency and effectiveness of municipal service delivery viii) Smart Citizen Mobile App - provide livability data to citizens by providing air quality/ noise level information, traffic conditions, quality of water, availability of tickets for shows, level of crowds on street, crowd in park etc.

2) Smart Grid & Energy Management project shall help in peak load management, renewal energy integration, improvement in operational efficiency & consumer services. The Smart Grid will help in improving the distribution systems to substantially reduce AT&C losses to 9% from the current levels of 17%, bringing in energy savings for consumer, improving billing and collection efficiency and thus help in making NDMC future ready, world class and sustainable as a distribution utility. The smart grid technology will provide a two-way communication channel between the utility and the households. Using the smart grid, the utility can send the rate of electricity at the time of use and other relevant information to the customers. The utility can track the energy being used by the households simultaneously. Smart grid will allow peak-load shifting through the use of smart metering and in turn demand side management by the consumers. This in turn will reduce the cost of electricity to the consumers to a large extent. In addition, LED street-lighting will further reduce energy consumption.

3) Smart Water & Wastewater Management would help in reduction of life cycle cost by 20%. The project envisages to rehabilitate the existing systems to ensure 24x7 uninterrupted supply of water. The efficiency in monitoring demand through SCADA based systems is estimated to increase by 20% post implementation of the system. NRW/UFW losses are estimated to reduce from the existing levels of 30% to 15% in the year 2018-19. The Smart mini STP's will save equivalent amount of water used for horticulture purposes and will thus increase the availability of water to citizens and save the cost of purchasing equivalent water from Delhi Jal Board by NDMC.

#### 4) Smart Education will bring following benefits to the students:

- Reduce student drop-outs and improve knowledge retention through leveraging e-Learning that leads to gamification of education
- Personalization of education by making available online content and MOOC (Massive Online Open Curriculum) and would improve quality of teaching.
- Virtual Labs (created by IIT Delhi under MHRD funding) and digital library (Million book initiatives of Late President Abdul Kalam) would provide quality education.
- The repository of health records of the students would help in diagnosing/ monitoring the health of children on a regular basis. The student's health will be an important secondary metric for measuring the outcome of the municipality's citizen focused initiatives, such as reducing air pollution, providing better water quality etc.
- Senior Citizen based mentoring of underprivileged students. Senior citizens will adopt and oversee the development of underprivileged student on a one to one basis, mentoring the students in their studies, grades improvement, psychological well being, health and career choices.
- Skill Development will help in:
  - Leveraging the demographic dividend by skilling the youth for jobs in the sun-rise/ upcoming industries. A world class Skill Training Centre is proposed to be developed as a role model for the country, wherein future skills related to solar energy management, 3D design and printing, computer based design and animation etc. would be imparted.

#### 5) Smart Health will help in:

- Improving efficiency and effectiveness through Cloud-based integration of existing public medical facilities.
- Enabling access and reduced response time to avail healthcare facilities for EWS through a centralized portal
- Enabling an online portal to avail medical advice through a network of online volunteer doctors
- Monitoring the availability of required blood group in blood banks during emergency situations
- Real time analytics for predicting/monitoring the areas during outbreak of epidemic
- Dissemination of information on specific air pollutants through public display boards and formulating appropriate mitigation strategies.

## 23. INCLUSION

How inclusive is/are your pan-city proposal(s)? What makes it so? (max. 150 words)

The pan-city proposal comprises essential public services offered by NDMC such as electricity, water supply, healthcare, education. The pan-city projects have been designed in an inclusive manner to incorporate the concerns of the vulnerable segments of the city and are outlined below:

(1) Benefits to EWS largely residing in Juggi-Jhopdi (JJ) clusters:

- 24 X 7 quality water supply to JJ clusters; Minimizing water-borne diseases
- Education of children through skill transfer and mentorship by senior citizens
- Psychological well-being of students through improved levels of education

(2) Benefits to differently-abled:

- Access to digital library for differently-abled, thereby reducing challenges to mobility
- Courses specially designed for differently abled citizens under smart education

(3) Benefits to Senior Citizens:

- Increased involvement through the skill transfer and mentoring program will increase the sense of belonging and larger emotional attachment to the city
- User-friendly citizen interface with navigation tools and content in native language

(4) Access to clean and affordable solar energy for all citizens.

## 24. RISK MITIGATION

What are the three greatest risks that could prevent the success of the pan-city proposal(s)? In table 3, describe each risk, its likelihood, the likely impact and the mitigation you propose. (max. 50 words per cell)

TABLE 3			
Risk	Likelihood	Impact	Mitigation
Behavioural Risk: (a) internal to NDMC (b) citizen stakeholders	High	Medium	Structured change management: -Organizational realignment -Capacity Building within NDMC -Vigorous implementation of Value Infrastructure initiatives -Implementation of ICT based monitoring -Employee Exchange Program with Global Cities -Structured dialogue process with citizens for conflict resolution -Involving Senior Leaders and Personalities in crafting constructive citizens participation

Continue on next page

TABLE 3

Risk	Likelihood	Impact	Mitigation
Technological Risk: (a) Readiness of NDMC (b) Cyber security like Confidential Records of citizens (c) EHR Interoperability	Medium	Medium	<ul style="list-style-type: none"> <li>-Training and Capacity Building Calendar on technology assessments</li> <li>- Security Audit of the Cloud Based Applications</li> <li>-Essential Preventive methods will be adopted               <ul style="list-style-type: none"> <li>• Social engineering based attacks will be mitigated through capacity building</li> <li>• Cloud based Application updated to Latest Version</li> <li>• Routine Backup of the data to prevent loss of data</li> </ul> </li> <li>- Records will be stored in an encrypted form with the personal information being encrypted</li> <li>- Access control of medical records will be controlled by the patient</li> </ul>
Project Delay due to: (i) change in key individuals managing the projects (ii) Delay by Vendors (iii) Litigation by unsuccessful vendors/PILs (iv) Delayed procurement (v) Delayed payments (vi) Contractual Obligations not been fulfilled by stakeholders (vii) Delays in sanctioning of funds/releases by various missions/schemes of Gol (viii) Technological obsolescence during implementation (ix) Lack of availability of skills/appropriate vendors (x) Inter-agency approvals (xi) Global Cities Cooperation/Coordination (xii) Opposition by Citizen Groups	Medium	High	<ul style="list-style-type: none"> <li>- Project Implementation Monitoring framework for each sub-steps of each project and setting up of project implementation unit for all of the pan-city projects.</li> <li>- Strict monitoring of project implementation timeline, reducing delay</li> </ul>

Continue on next page



TABLE 3

Risk	Likelihood	Impact	Mitigation

Continue on next page

## 25. FRUGAL INNOVATION

Which is the model or 'best practice' from another city that you are adopting or adapting in your proposal(s)? How are you innovating and ensuring best use of resources? Is there an aspect of 'frugal innovation' in your proposal(s)? (max. 500 words)

### (A) Best Practices of Smart Grid Implementation

(i) Location: Queensland, Australia; Budget: AU \$30 million; Duration: 2007 – 2013

Targets:

- Reduce peak demand by 27% compared to business as usual predictions (Achieved 46% reduction)
- Reduce electricity consumption by 25% from BAU (Achieved 46% reduction)
- Reduce greenhouse gases by 50,000t (Achieved reduction of 54,000t to June 2012).

(ii) Smart Metering CPLF Energia, Sao Paulo

Duration: 2013-15 (First Phase)

- Smart Grid roll-out including Automation
- AMI to all commercial and industrial customers (25,000)

Targets:

- 99.8% performance and reliability of networks - heightened consumer control and management of their energy usage particularly during peak power usage

NDMC plans to adapt these elements of Smart Grid in its DPR

### (B) Best Practices of Smart Water Management

(i) Location : JUSCO, Jamshedpur

Key Features :

- NRW is less than 10% is a benchmark figure for utilities in India

Some of the water and wastewater solutions implemented over the years include:

- Rain/surface water harvesting as an integral part of new construction guidelines.
- Implementation of these in existing residential and commercial establishments
- Recharge pits to arrest storm water for in-house use
- Potable sewage treatment plants to convert sewage into reusable water for irrigation and other purposes
- GIS and SCADA system for real-time data analysis and corrective measures
- Use of insertion probes, leak detection equipment and pressure sustaining valves a to reduce water loss.

(ii) Smart Sewage Treatment Plants in California

- Use of sensors and analytics to reduce cost of water treatment and improve quality

NDMC plans to adapt these elements of Smart Water and Wastewater in its DPR

### (C) Best Practices of Smart Education

(i) Location: East China Normal University (ECNU)

Key Features : Smart Education Cloud Collaboration Solution, including the collaboration cloud platform, collaboration cloud terminal, eClass (a remote interactive teaching platform), and the unified communications (UC) platform

NDMC plans to adapt these elements of Smart Education in its Pan City proposal

### (D) Best Practices of Smart Waste Management

Low cost green to gas plant at Kalimpong

Frugal Innovation for projects wherever applicable are listed below:

**Smart Education:**

- Reduce student drop-outs and improve knowledge retention through leveraging e-Learning that leads to gamification of education at very low cost
- Senior Citizen volunteer based mentoring of underprivileged students
- Virtual laboratories and digital libraries for low cost quality education
- Access to online assessment reports, health records and other relevant student information for teachers, parents and education officials

**Smart Health:**

- Availing medical services globally through a network of online volunteer doctors
- Enabling access and reduced response time to avail healthcare facilities for EWS through a centralized portal, creating health infra for the EWS without large investments
- Centralized repository of blood donors and availability of blood in different banks
- Centralized electronic health records with complete medical history including diagnostics reports, diagnosis, prescriptions history etc. reducing cost of healthcare
- Real time analytics for predicting/monitoring the areas during outbreak of epidemic
- Dissemination of information on specific air pollutants through low cost public display boards

## 26. CONVERGENCE AGENDA

In Table 4, list the Missions/Programmes/Schemes of the Government of India (eg. SBM, AMRUT, HRIDAY, Shelter for All, Digital India, Make in India, Skill India) and relevant external projects and describe how your proposal(s) will achieve convergence with these, in terms of human and financial resources, common activities and goals. (max. 50 words per cell)

TABLE 4		
S.No	Missions/Programmes/Schemes/Projects	How to achieve convergence
1	Integrated Power Development Scheme (IPDS)	<p>Integrated Power Development Scheme (IPDS) is supposed to extend financial assistance against capital expenditure to bridge the gap in sub transmission and distribution network and metering.</p> <p>The Smart Grid &amp; Energy Management project will be eligible to receive 75% of the capital cost of the project and the initial phase of the project has already been approved by the Government of India (Rs.318cr). The second phase will also be submitted for approval. (Refer to Annexure 4, Section 4.5)</p>

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TABLE 4

S.No	Missions/Programmes/Schemes/Projects	How to achieve convergence
2	Atal Mission for Rejuvenation and Urban Transformation (AMRUT)	A portion of Smart Water & Wastewater Management project falls under the guidelines of the AMRUT scheme wherein the hard infrastructure areas such as rehabilitation of Water supply system is eligible to receive fund from AMRUT upto 80%.
3	Digital India	<p>All the pan-city solutions, especially the Smart Grid &amp; Energy Management, Smart Water &amp; Wastewater Management, Smart Education and Smart Health projects have aspects that will be enabled through ICT.</p> <p>Under this scheme the smart health and education projects will be able to save the cloud infrastructure cost through the usage of cloud under DIGITAL INDIA (E-KRANTI - MEGH RAJ scheme). Modules developed by NIC for e-Healthcare Management System is envisaged to be incorporated within the Smart Health project components.</p>
4	Make in India	The Solar Power Project falls under the Renewable energy sector of "Make in India". NDMC will try to procure the solar PV panels Made in India.

TABLE 4

S.No	Missions/Programmes/Schemes/Projects	How to achieve convergence
5	Intended Nationally Determined Contribution (INDC)	The renewable energy plan will help in fulfilling the INDC of the Government of India presented in the Conference of Parties (COP 21) held in Paris on November 30, 2015
6		
7		

## 27. CONVERGENCE IMPLEMENTATION

Describe how the convergence will be implemented? (max. 350 words)

### Integrate Power Development Scheme (IPDS)

NDMC's Smart Grid and Energy management project is eligible to receive a Government Grant to the tune of 75% of the total Capital Cost of the project under this scheme. The initial phase of this project is already approved by the Government for the grant and the implementation of this project will be implemented in a phase-wise manner over 2 years in accordance to the IPDS scheme

### Atal Mission for Rejuvenation and Urban Transformation (AMRUT)

AMRUT programme is designed to enable better living and drive economic growth, focusing on the need for people centric urban planning and development. NDMC's hard infrastructure such as water & wastewater management system will be eligible to receive 80% of the funding from the scheme and will be implemented over a span of 2 years.

### Digital India

Under this scheme, NDMC's smart health and education projects will be able to save the cloud infrastructure cost through the usage of cloud under DIGITAL INDIA (E-KRANTI, MEGH RAJ scheme). Modules developed by NIC for e-Healthcare Management System is envisaged to be implemented within the Smart Health project components.

### Make in India

NDMC proposes to procure most of the equipments of the solar power project made in India under this scheme. In addition the proposed Smart City Policy of NDMC will give preference to Indian firms and startups for procurement.

### Intended Nationally Determined Contribution (INDC)

The renewable energy plan will help in fulfilling the INDC of the Government of India presented in the Conference of Parties (COP 21) held in Paris on November 30, 2015.

## 28. SUCCESS FACTORS

Describe the three most significant factors for ensuring the success of the pan-city proposal(s). What will your city do if these factors turn out to be different from what you have assumed? (max. 250 words)

The key success factors for the proposed pan-city projects are:

- 1) Existence of a robust ICT infrastructure & e-Governance for enabling Smart Education & Smart Health
- NDMC already has a strong ICT infrastructure and e-governance related to property tax, grievance redressal, finance, litigation, licenses, health, project management, assets etc. & will leverage this.

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- 2) Existence of a functional, robust Grid as basis for Smart Grid and Energy management  
 - Reduce risk of failure by execution through subsidiary of Navratna Company (REC, SECI); DPR already prepared and the project approved by Gol funds to the extent of Rs.318cr agreed in-principle by Gol; Land for solar energy plant has been identified.
- 3) Availability of land and water source for Smart Water & Wastewater Management  
 - DPR is ready; area is small and planned; secure source of water supply from DJB (125 MGD); Global technology is available to develop mini waste water treatment plant with minimum footprint.

#### Mitigation Strategy:

The requisite steps w.r.t. identified success factors have already been undertaken and are irreversible such as DPR finalisation and in-principle approval of Gol. In case the Navratna company is unable to execute the project, it will be re-tendered globally. DJB's inability to provide the required water can be addressed through reprocessing of NDMC's wastewater. The challenge for Smart Education and Smart Health projects is to ensure efficient, effective and timely execution, which can be overcome by placing adequate resources, individually and collectively, with a focus on appropriate details and timing.

## 29. BENEFITS DELIVERED

How will you measure the success of your pan-city proposal(s) and when will the public be able to 'see' or 'feel' benefits: immediately, within Year 1, or in the medium or long term, 3-5 years? (max. 150 words)

Success of the pan-city proposals would be measured through the following indicators as follows:

	(Year 1)	(Year 2)	(Year 3)	(Year 4)	(Year 5)
e-Governance initiatives	-	55%	70%	100%	100%
Smart Grid & Energy Management					
o Reduction in unscheduled outages of electricity	-	55%	100%	100%	100%
o AT&C losses	-	15%	13.5%	11%	9%
o Reduction in peak demand	-	10%	12%	15%	15%
Smart Water Management					
o Hours of continuous water supply	-	10	24	24	24
o Coverage of water supply	100%	100%	100%	100%	100%
o Water Quality	-	90%	90%	100%	100%
Smart Education					
o Reduction in School Drop-out Rate	-	25%	35%	50%	100%
Smart Health					
o Quick response to emergencies	-	100%	100%	100%	100%

### 30. MEASURABLE IMPACT

What will be the measurable impact of your pan-city proposal(s)? Please describe with respect to the following types given below, as relevant to your city and proposals (max. 150 words)

- a. Governance Impact (eg. government response time to citizen complaints halved, creating faster service delivery overall)

1. Impact of e-Governance: Cost-effective enhancing of effective access to government services for all citizens in an inclusive manner
2. Impacts of Smart Grid & Energy Management:
  - a) Customer satisfaction index would increase to 95%
  - b) AT&C losses would reduce from current 17% to 9%
  - c) Reduce the citizen complaints to less than 0.1%
  - d) Reduce the peak demand by 15%
  - e) Decrease CO2 emissions by 333305 tCO2 in 5 years
3. Impacts of Water & Wastewater Management:
  - a) Four-fifth of the complaints would be addressed within 24 hours
  - b) 100% metering of water connections
  - c) Extent of non-revenue water would be reduced to 10%
4. Impacts of Smart Education:
  - a) School enrollment rate within NDMC would increase to 100% within 5 years
  - b) School drop rate would decrease
  - c) Monitoring the school premises would become easier.
5. Impacts of Smart Health:
  - a) Reduce response time in providing health care facilities to EWS
  - b) Real time analytics for identifying/monitoring areas during outbreak of epidemic.

- b. Impact on public services (eg. real-time monitoring of mosquito density in the atmosphere reduces morbidity)

1. Impact of e-governance:
  - a) Reducing corruption through improved transparency in service delivery system
  - b) Time bound delivery of public services
2. Impacts of Smart Grid & Energy Management:
  - a) Customer satisfaction index would increase to 95%
  - b) 65% reduction in AT&C losses
  - c) Citizen complaints decrease to less than 0.1%
  - d) Reduce the peak demand by 15%
  - e) Decrease CO2 emissions by 333305 tCO2 in 5 years
3. Impacts of Water & Wastewater Management:
  - a) Redressal of complaints within 24 hours
  - b) 100% metering of water connections
  - c) Extent of non-revenue water would reduce to 10%
4. Impacts of Smart Education:
  - a) Personalized education experience for the students
  - b) Monitoring of student and teacher performance
  - c) Delivery of quality education
  - d) Improve performance through gamification
5. Impact of Smart Health:
  - a) EWS would receive medical advice from the experts & specialists
  - b) Dissemination of air quality information and appropriate mitigation strategies.



# D. IMPLEMENTATION PLAN

## 31. IMPLEMENTATION PLAN

In Table 5, describe the activities/components, targets, resources and timelines required to complete the implementation of your area-based development and pan-city solution/s. This should include the items mentioned as Essential Features in Q. No. 16 plus other 'smart' solutions, including accessible infrastructure for differently-abled. (max. 50 words per cell)

Table 5						
S . N o	Activity/component	Indicator	Baseline (as on)	Target	Resources required	Likely date of completion
<b>AREA-BASED DEVELOPMENT</b>						
1	(A)PHYSICAL INFRASTRUCTURE Urban Mobility & Smart Parking  i) Enhancement of para-transit including PELICAN crossing facilities for differently-abled/ senior-citizens  ii) Electric Vehicles (EV's) based last mile connectivity to Metro/Bus Transport System/park and ride  iii) First in the world EV charging facility at each parking bay  (iv) Construction of mobile application integrated cycle tracks in identified routes	i) 100%  ii) 100%  iii) 100%  iv) 100%	i) NDMC already has dedicated pedestrian corridors having access for differently-abled  ii), iii) Pre-feasibility study ongoing  iv) Strategy is being undertaken	i) Universal access to the city centre with special focus on differently abled and senior citizen  ii), iii) Future-proofing of NDMC with significant reduction of carbon footprint  iv) Provision for NMT; Booking of cycles through mobile application	i) 5 Specialists in differently-abled infrastructure for 12 months, consulting firm for strategic program management, civil works firm for implementation, 2 urban design specialists, CPWD personnel  ii) & iii) 2 procurement specialist, 1 Urban Transport Specialist, 3 Analysts iv) 2 procurement specialist, 2 Urban Planner, 1 Transport Specialist	i) March 2017  ii) March 2018  iii) March 2018  iv) March 2018
2	v) Citizen application for car-pooling/cycling/traffic conditions/CCTV videos/air quality/e-challan etc.  vi) e-surveillance including e-challan for enforcing traffic discipline  vii) Providing parking for Intermediate-Public-Transport (IPT) such as Taxi, Auto  (viii) Smart bus-stops-providing interactive bus information system/ATM/wi-fi /vending machine  ix) Strengthening parking infrastructure by developing multi-level automated parking at KG Marg, Shivaji Terminal & behind IOC Building	v) 100%  vi) 100%  vii) 100%  viii) 100%  ix) 50%	v) 'PleaseFix' mobile app already functional  vi) Similar initiatives being done by Delhi Police vii) IPT parking locations currently exist viii) Dedicated bus infra exists ix) Parking management is currently being undertaken by DIMTS	v) Real-time public information through mobile application  vi) Enhanced safety through video based real time crime monitoring vii) Provision of affordable transport viii) Real time information on bus routes and access to essential facilities ix) Real-time parking information through mobile application	v) 2 Mobile-based application experts, 3 Analysts  vi) 2 procurement specialist, 1 Urban Transport Specialist, 4 Network Specialist  vii) 1 Transport Specialist  viii) 2 procurement specialist, 1 Urban Planner, 1 Transport Specialist  ix) 2 procurement specialists, 1 Transport Specialist, 3 Analysts	v) March 2016  vi) March 2018  vii) March 2017  viii) March 2018  ix) March 2019

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Table 5

S - N o	Activity/component	Indicator	Baseline (as on)	Target	Resources required	Likely date of completion
3	<p>x) Converting existing parking into Sensor based Smart Parking Management System linked to a centralized mobile application</p> <p>xi) Pedestrianization of Inner Circle Connaught Place free from unauthorized hawkers</p> <p>(2) Sensor based Common Service Utility Duct</p> <p>(3) Transformation of electric-Poles into Smart Poles with LEDs having incident-driven-controllers; communication-infrastructure, Wi-Fi access points, air-quality sensors, noise-pollution sensors</p>	<p>x) 100%</p> <p>xi) 100%</p> <p>2) 100%</p> <p>3) 100%</p>	<p>x) Parking management is currently being undertaken by DIMTS</p> <p>xi) DPR for the same is being prepared for NDMC</p> <p>2) Pre-feasibility study ongoing</p> <p>3) PleaseFix' Mobile application of NDMC currently in operation for grievance redressal</p>	<p>x) Real-time public information through mobile application</p> <p>xi) Improving and encouraging walkability</p> <p>2) Real time utility management</p> <p>3) Advance alerts related to traffic congestion &amp; natural disaster, substantial energy saving, provide wi-fi in hot-spots &amp; area</p>	<p>x) 2 procurement specialist, 2 Urban Planner, 1 Transport Specialist</p> <p>xi) 2 procurement specialist, 2 Urban Planner, 1 Transport Specialist, 3 Analysts, 1 Architectural Design Firm 2),3) 4 Procurement specialists, 2 Mobile-based app experts, 3 Analysts 1 ICT Expert, 1 Construction Firm</p>	<p>x) March 2017</p> <p>xi) March 2018</p> <p>2) March 2018</p> <p>3) March 2017</p>
4	<p>(4) Hierarchical Command and Control Centre for integrated Urban management &amp; Public Safety/Security through CCTV-Surveillance</p> <p>(5) Happiness area for the cultural and social needs of citizens (i) renovation of Gole Market, adding Interactive Museum on History of Indian Civilization</p> <p>(6) Transforming sub-ways into vibrant spaces ATM/pet adoption centre/Advt. etc.</p> <p>(7) Signature Giant Smart Digital Screen: Traffic Info/Social Messaging/Alerts/Cricket/Advt.</p>	<p>4) 100%</p> <p>5) 50%</p> <p>6) 100%</p> <p>7) 100%</p>	<p>4) Similar initiatives are being undertaken by Delhi Police and NDMC's efforts will contribute to the same</p> <p>5) NA</p> <p>6) NA</p> <p>7) NA</p>	<p>4) Pro-active intervention for area-wide crisis</p> <p>5) &amp; 6) Enhanced quality of life for citizens through improved access to public amenities, improved aesthetics of the city</p> <p>7) Enhanced efficiency through better public information dissemination and traffic management</p>	<p>4) 2 Procurement specialists, 2 ICT Experts</p> <p>5) 2 Architects, 2 Urban Design specialists, Civil works</p> <p>6) 2 Architects, 2 Urban Design specialists, Civil works</p> <p>7) 1 Architect, 1 ICT Expert, 1 Content Management Specialist</p>	<p>4) March 2018</p> <p>5) March 2017, (i) March 2019</p> <p>6) March 2018</p> <p>7) March 2018</p>
5	<p>(8) Rooftop Solar Panels (Public &amp; Pvt Buildings)</p> <p>(9) Municipal Waste Management</p> <p>i) Extending door to door municipal waste management for commercial/ institutional areas, surveillance for littering, including biometric attendance, RFID based bin monitoring, app-based citizen monitoring</p> <p>ii) Green (Horticulture waste) to Gas Smart plant</p>	<p>(8) 100%</p> <p>(9) i) Hundred percent coverage of door-to-door collection for SWM</p> <p>ii) 100%</p>	<p>(8) Initiative already undertaken by NDMC</p> <p>(9) i) 100% door-to-door municipal waste management exist in residential areas</p> <p>ii)</p>	<p>(8) Sustainable creation and usage of alternative energy</p> <p>(9) i) Real time monitoring of collection and transportation of MSW</p> <p>ii) Sustainable creation and usage of alternative energy.</p>	<p>(8)</p> <p>(9) i) 1 Public Health specialist, 2 Procurement specialists, 1 Horticulturist</p> <p>ii) 1 Procurement Expert, 1 SWM Expert</p>	<p>(8) March 2017</p> <p>(9) i) March 2018</p> <p>ii) March 2018</p>

Continue on next page

Table 5

S · N o	Activity/component	Indicator	Baseline (as on)	Target	Resources required	Likely date of completion
6	(B) SOCIAL INFRASTRUCTURE  (10) Transforming Public Toilets into Smart Public Amenities Centres: Adding ATM's/ Pathology Labs/ e-Commerce Centres/Rooftop renewable energy /Skill Development in solar energy in collaboration with National Solar Power Institute  (11) Financial, Identity, Ticketing & Access inclusion: Single Card access to New Delhi inclusive of Banking / Jan-Dhan Yojana/ Insurance for all based on regular Bank Debit card	10) 15 public toilets powered with solar energy, with access to essential amenities  11) Cashless payment of parking fees, water/ electricity bills, rental fees, smart services (banking, transport etc.) covered by a single card (100%)	10) Public toilet facilities are widely accessible across NDMC  xx) NA	10) Enhanced access to public amenities, provide infrastructure to support e-commerce, access to ATMs, florists, cafes, ice-cream parlours, access to pathological labs  11) Financial and identity inclusion through single card access delivering improved transparency	9) 2 procurement specialist, 2 Urban Planner, 3 Analysts  10) 2 procurement specialists, 3 Analysts	10) March 2018  11) March 2017
7	(C) VALUE INFRASTRUCTURE  (12) Introducing signature initiative to the city's Identity and Culture a) Annual Delhi International Art and Culture Festival b) Awards to Global Capital Cities based on City Benchmarks c) Gateway to the World: On-street Live Video Conferencing between people of Delhi and multiple Global Cities	a) To be promoted as an annual event  b) To be promoted as an event every two years  c) To be promoted as a daily event at two locations	xxi) NA  xxii) NA  xxiii) NA	a) Promotion of local heritage through an annual festival  b) Collaboration with Global Smart Cities  c) Establish people to people contact across cities globally	a), b) & c) 1 Event Management Agency, 1 ICT specialist, 1 City Planner cum systems analyst	a) March 2017  b) March 2017  c) March 2017
8	(13) Behavioural transformation through (a) instilling appropriate values through mass & social media, (b) children through social messaging in Smart education systems (c) Creating volunteer ecosystem	(12) Significant improvement	(12)	(12) Inducing behavioural change in citizens through innovation	(12) 1 IEC Specialist, 1 PR Specialist, Centre of Excellence for Smart City	March 2018

Table 5						
S · N o	Activity/component	Indicator	Baseline (as on)	Target	Resources required	Likely date of completion
<b>PAN-CITY SOLUTION</b>						
1	e-Governance	Inclusive e-government services to citizens in a time bound manner	Online citizen grievance redressal through mobile and web-based applications, 'PleaseFix' mobile app in existence.	100% implementation of all components by 2018	1 e-Gov Specialist, 3 ICT Specialists, 4 Web and mobile Developers, 1 Cyber-security Expert, 5 dedicated front-end staff for citizen engagement	March 2018
	Smart Grid & Energy Management i. Strengthening of sub-transmission and distribution network	Reduction in AT&C losses levels	17% as in 2015	9% by 2019-20	Companies like Rural Electrification Corporation (REC) to be engaged for execution through a competitive bidding procedure	March 2018
2	Smart Grid & Energy Management ii. Installation of AMIs/ smart meters	Peak demand reduction, Customer satisfaction index	0% peak demand reduction, 85% satisfaction index as on 2015	15% peak demand reduction, 95% satisfaction index by 2018	Companies like REC to be engaged for execution through a competitive bidding procedure	March 2018
3	Smart Grid & Energy Management iii. IT enablement of the distribution network including technology infusion	Redressal of customer complaints, billing and collection efficiency	1% consumer complaint billing and collection efficiency around 85% as on 2015	<0.1% customer complaints, billing and collection efficiency 95% by 2018	NDMC employees of the Electrical Department to be trained to be able to adjust to IT enablement of the systems and technological maturity	March 2018

Continue on next page

Table 5

S · N o	Activity/component	Indicator	Baseline (as on)	Target	Resources required	Likely date of completion
4	Phasewise implementation of 40 MW capacity from Solar Power	Capacity to be achieved is 40 MW	1.81 MW as on 2015	40 MW by 2020	1. Engage firms to prepare of Detailed Project reports followed by competitive tariff bidding 2. Solar Energy Corporation of India (SECI)	March 2020
5	Smart Water & Wastewater Management i. Rehabilitation of the existing distribution network i. Instrumentation & SCADA for Water Supply Components ii. Smart Metering, water quality monitoring, iii. Mini STP Installation and rain water harvesting	Reduction in NRW losses, Extent of metering of water connections	NRW losses 38%, extent of metering of water connections 28% as on 2015	NRW losses 10%, extent of metering of water connections 100% as on 2019	Engage firms for the execution of the projected plans in the DPR.  Eg: IBM, Eram Scientific Solutions Pvt. Ltd.	March 2019
6	Smart Health and Education i. Smart Classrooms, fiber connectivity and digital content, virtual laboratories, digital library ii. Initiation of the skill transfer and mentoring program iii. Smart Healthcare- Virtual Hospitals. e-healthcare	Completion of Digital Library components, Adoption of JJ cluster students for skill transfer and mentoring, Virtual Hospital	Extent of digitization is negligible, Skill transfer and mentoring programs yet to be initiated and there is no virtual hospital as on 2015	Completion by 2018	-Engage organizations like Adobe Systems, Blackboard, Cisco, DocTree, GE for the execution of the plans  -Identify and engage volunteers for the skill transfer and mentoring program	March 2017

## 32. SCENARIOS

Using information from Table 5, describe the critical milestones, realistic timelines and sequencing of efforts and events that you are projecting as the short-, medium- and long-term scenarios for your smart city. If necessary, include PERT and CPM charts in Annexure 3. (max. 500 words)

The scenarios including critical milestones, realistic timelines and sequencing of efforts for both pan-city & area-based proposals are provided in the Gantt chart at Annexure 3. Broad Timelines are as follows:

(A) Projects to be implemented in short-term scenario (By March 2017)

1. Enhancement of para-transit for differently-abled/ senior-citizens including PELICAN crossing
2. Providing parking for Intermediate-Public-Transport (IPT) such as taxi, auto
3. Pedestrianization of Inner Circle, Connaught Place free from unauthorized hawkers
4. Converting existing parking into Sensor based Smart Parking Management System linked to a centralized mobile application
5. Transformation of electric-Poles into Smart Poles
6. Citizen application for car-pooling/cycling/traffic conditions/CCTV videos/air quality/e-challan etc.
7. Behavioral transformation
8. Gateway to the World: On-street live Video Conferencing between people of Delhi and multiple Global Cities
9. Smart Health
  - a) Centralised Hospitalization facilitation
  - b) e-healthcare
  - c) Virtual Hospital
  - d) Air Quality Monitoring
10. Skill transfer and mentoring programs
11. Smart Education:
  - a) Digital Learning Solution in NDMC schools
  - b) Centralized Student's health records in electronic form
12. Smart Grid and Energy Management: 100% Automated Metering Infrastructure with Automated Demand Response
13. e-Governance implementation
14. New Delhi Art and Culture Festival

(B) Projects to be implemented in medium-term scenario (By December 2018):

1. Smart bus-stops-providing interactive bus information system/ATM/wi-fi /vending machine
2. e-surveillance including e-challan for enforcing traffic discipline
3. Hierarchical Command and Control Centre
4. EV charging facility at each parking bay
5. Construction of mobile app integrated cycle tracks
6. Transforming sub-ways into vibrant spaces ATM/puppy adoption centre/Advt etc
7. Electric Vehicles (EV's) based last mile connectivity to Metro/Bus Transport System/park and ride
8. Single Card access to New Delhi
9. Rooftop solar power projects (both public & private buildings)
10. Awards to Global Capital Cities based on City Benchmarks

11. Signature Giant Smart Digital Screen:Traffic Info/Social Messaging/Alerts/Cricket/Advt
12. Extending door to door MSWM for commercial/ institutional areas
13. Sensor based Common Service Utility Duct
14. Smart Grid and Energy Management: Billing and Energy Audit system,Network for smart meters and grid management, Net metering, SCADA, Power Management and demand forecasting, GIS, including peak load management; Integrated distribution management system and outage management system, Phase I of 40MW Solar Plant
15. Smart Water & Wastewater Management: 24x7 smart water supply - Water quality monitoring, smart metering, smart piping, smart leakage detection and automation and instrumentation and SCADA ; Mini smart sewage Treatment Plants for waste water management; Distributed supply of grey water through dual piping systems for horticulture, flushing, Automation / Instrumentation & SCADA System; Web GIS Software Solutions with customized Application

(C) Projects to be implemented in long-term scenario (By March 2020)

1. Strengthening parking infrastructure by developing multi-level automated parking at KG Marg, Shivaji Terminal & behind IOC Building
2. Smart Grid and Energy Management: Phase II of 40 MW grid connected Solar PV power plant

### 33. SPV

The SPV is a critical institution for the implementation of the Proposal. Describe the SPV you propose to create in your city, with details of its composition and structure, leadership and governance, and holding pattern. Based on your responses in Table 6 describe how you envision the SPV to fulfill the role set out in the Mission Guidelines. (max. 500 words)

Table 6 (CHECKLIST: supporting documents for 1-7 must be submitted in Annexure 4)		
S. No.	Activity	Yes/No
1.	Resolution of the Corporation/Council approving Smart City Plan including Financial Plan.	Yes
2.	Resolution of the Corporation/Council for setting up Special Purpose Vehicle.	Yes
3.	Agreement/s with Para Statal Bodies, Boards existing in the City for implementing the full scope of the SCP and sustaining the pan-city and area-based developments.	No
4.	Preliminary human resource plan for the SPV.	Yes
5.	Institutional arrangement for operationalisation of the SPV.	Yes
6.	If any other SPV is operational in the City, the institutional arrangement with the existing SPV	No
7.	Additional document/s as appropriate	Yes

The New Delhi Municipal Council vide resolution dated 07/12/2015 read with resolution dated 15/12/2015 approved-(a) Smart City Plan including Financial Plan (b) Proposal for setting up Special Purpose Vehicle.

The case is also placed before the council along with this agenda for approval of Memorandum of Association and Article of association for establishment of the SPV under the provisions of Section 12(z) of the NDMC Act, 1994. The proposed SPV will be a 100% public limited company wholly owned by NDMC

The Council vide resolution No. 07(W-02) dated 26.04.2016 has approved Memorandum of Association and Article of Association for establishment of the SPV under the provisions of section 12(z) of the NDMC Act, 1994. The proposed SPV will be a 100% Public Ltd. Company wholly owned by NDMC.

A full time CEO will be appointed with the approval of Ministry of Home Affairs/MoUD, who will manage, administer and supervise the SPV, and will monitor and review the expenditure of the SPV at regular intervals. The CEO would be assisted by a team of professional and officers from the state/ central government as well as the private sector - under the overall control and supervision of the Board of Directors.

Till appointment of regular CEO by Ministry of Home Affairs/MoUD, it is proposed that the role and functions of the CEO will be performed by the Secretary NDMC, who is an IAS officer.

(Refer to Annexure 4, Section 4.1 to 4.4)



## 34. CONVERGENCE

In Table 7, give details of the government (Central, state/ULB) departments, parastatal organizations and public agencies who will be involved with the time-bound execution of each of the project activities/components (both area-based and pan-city) you have identified. (In Annexure 3, include a flowchart showing the network/relationships that the SPV will form with government and non-government agencies, and indicating the nature of connection with each entity.) (max. 50 words per cell)

<b>TABLE 7</b>			
<b>S.No</b>	<b>Activity/Component</b>	<b>Department/agency/organization</b>	<b>Role/responsibility</b>
1	<p>1) Urban Mobility &amp; Smart Parking</p> <p>(2) Sensor based Common Service Utility Duct</p> <p>(3) Transformation of electric-Poles into Smart Poles with LEDs having incident-driven-controllers</p>	<p>DIMTS DTC,DMRC UTTIPEC Delhi Police IIT Delhi</p> <p>EIL</p> <p>Delhi Police Delhi Government Energy Efficiency Services Limited (EESL)</p>	<p>- Infrastructure Sharing - Regulatory Assistance - Advisory - Implementation</p> <p>- Feasibility Study - Implementation</p> <p>- Feasibility Study - Integration</p>
2	<p>(4) Hierarchical Command and Control Centre</p> <p>(5) Happiness area for the cultural and social needs of citizens (i) renovation of Gole Market, adding Interactive Museum</p> <p>(6) Transforming sub-ways into vibrant space</p>	<p>Delhi Police Delhi Government</p> <p>Delhi College of Art Art &amp; Culture Department, Delhi Government Delhi Tourism and Transport Development Corporation</p> <p>Public Sector Banks Directorate of Information &amp; Publicity, Delhi Government</p>	<p>- Feasibility Study - Integration</p> <p>- Preparation of DPR - Concept Plan - Implementation Plan</p> <p>- Preparation of DPR - Concept Plan</p>
3	<p>(7) Signature Giant Smart Digital Screen</p> <p>(8) Rooftop Solar Panels (Public &amp; Private Buildings)</p>	<p>- DeitY/ NIC - Ministry of Information &amp; Broadcasting</p> <p>- REC - Solar Corporation of India</p>	<p>- Feasibility Studies - Procurement - Integration of lighting and digital display management systems</p> <p>- Feasibility Studies - Application for loans for private buildings</p>

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TABLE 7

S.No	Activity/ Component	Department/agency/ organization	Role/responsibility
4	(9) Municipal Solid Waste Management (SWM)	- All Municipal Corporations of Delhi - Government of Delhi	- Collaboration with Government agencies - integrated piping and gas resourcing solutions
5	(10) Transforming Public Toilets into Smart Public Amenities Centres  (11) Financial, Identity, Ticketing & Access inclusion	Government of Delhi  - Public Sector Banks such as State Bank of India	- Design of Smart Public Amenities - Implementation  - Smart, cashless banking solutions and management systems - Document digitization, information management systems, systems integration
6	(12) Introducing signature initiative to the city's Identity and Culture (a) Annual Delhi International Art and Culture Festival  (b) Awards to Global Capital Cities based on City Benchmarks  (c) Gateway to the World: On-street Live Video Conferencing between people of Delhi and multiple Global Cities,	- Government of Delhi - Ministry of External Affairs - Ministry of Tourism	- Concept development, planning and execution  - Development of Smart City Indicators for Awards
7	(13) Behavioural transformation through (a) instilling appropriate values through mass & social media,  (b) children through social messaging in Smart education systems  (c) Creating volunteer ecosystem	- Government of Delhi	- Design and creation of mobile application  - Content creation and management - Update of content  - Creation of volunteership strategy

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TABLE 7

S.No	Activity/ Component	Department/agency/ organization	Role/responsibility
8	Pan-City Projects e-governance	- DeitY/ NIC - DGS&D (GoI) - Delhi Government - MTNL/ Railtel - cDoT (C-DOT Centre for D	- Technology advisory and Software provider - Software Development - Interface with technology providers - Integration of services
9	2) Smart Grid & Energy Management including Solar Power Plant	GoI - Ministry of Power Rural Electrification Corporation (REC); PGCIL NIC/ DeitY CERC MCD/ PWD Solar Energy Corporation of India (SECI) National Institute of Solar Energy Department of Revenue, Power, Forest, (Delhi Government)	- RoW permission - Consulting & Monitoring Agency - Consultation Agency - Coordination for tariff determination with DERC
10	3) Smart Water & Wastewater Management	Delhi Jal Board (DJB) MoUD (funding assistance under AMRUT), WAPCOS CWC, Delhi Government	- Advisory & Consultancy - Tariff Regulation - ICT Enablement - Financial Assistance - Project Execution - Project Monitoring - ICT Consultations & handholding - Coordination with state DISCOMS - Regulatory & ARR
11	4) Smart Education  5) Smart Health	- Educational Consultants India - Kendriya Vidyalaya Sangathan - NCERT - CBSE  -NICSi, -AIIMS, RML -NIC in North East/ Govt of Tripura	- Approved Content availability - Capacity Building - Content Management - Regulatory Framework  - Software Customisation - eHospital software - Implementation Strategy - BPR

### 35. PPP

In Table 8, give details of all the private companies/corporations/organizations that need to be engaged with the execution and operations & maintenance of the various activities and components envisaged in this proposal, along with a description of their roles and responsibilities as basic TORs. Use appropriate terms such as 'vendor', 'concessionaire', 'JV partner', etc. (max. 50 words per cell)

<b>TABLE 8</b>			
<b>S. No</b>	<b>Activity/ Component</b>	<b>Company/corporation/ organization</b>	<b>Role/responsibility (basic TOR)</b>
1	1) Urban Mobility & Smart Parking	Pristech (PParkE) UTC, Siemens, Schneider	- Smart parking solutions - RFID systems, systems integration solutions
	(2) Sensor based Common Service Utility Duct	L&T Shapoorji Pallonji DMRC NBCC	- Feasibility Studies - DPR Preparation - Implementation
	(3) Transformation of electric-Poles into Smart Poles with LEDs having incident-driven-controllers	Leica Gepsystems, 3M, Indus Towers, Reliance, Airtel, Vodafone, Idea	- poles, airborne smart sensors - energy efficient surveillance equipment, integrated software systems
2	(4) Hierarchical Command and Control Centre	Schneider Electric, Honeywell, CISCO IBM, Microsoft Tech Mahindra, Flexeye,	- Feasibility Studies - DPR Preparation - Implementation
	(5) Happiness area for the cultural and social needs of citizens (i) renovation of Gole Market , adding Interactive Museum	L&T Shapoorji Pallonji DesignNotion	- Feasibility Studies - Concept Plan - Implementation Plan
	(6) Transforming sub-ways into vibrant space	L&T Shapoorji Pallonji NBCC	- Feasibility Studies - DPR Preparation - Collaboration with Public/ Pvt Banks - Branding Strategy
3	(7) Signature Giant Smart Digital Screen	MIC; Siemens; Origin Panasonic; Barco Shenzen Gloshine; Texas Instruments (TI)	- Feasibility Studies - Procurement - Integration of lighting and digital display management systems
	(8) Rooftop Solar Panels (Public & Private Buildings)	SunEdison Sharp Solar Panasonic, Schneider, Siemens, Banks, Honeywell	- Feasibility Studies - Application for loans for private buildings

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TABLE 8

S. No	Activity/ Component	Company/corporation/ organization	Role/responsibility (basic TOR)
4	(9) Municipal Solid Waste Management (SWM)	IL&FS Green Gas Limited IREDA Viridyen Technologies Boson SmartCity Ltd	- Procurement of RFID based bins, green-to-gas technology  - Development of mobile application  - integrated piping and gas resourcing solutions
5	(10) Transforming Public Toilets into Smart Public Amenities Centres  (11) Financial, Identity, Ticketing & Access inclusion	Shapoorji Pallonji, L&T, UTC  IBM, ICICI, SBI, CMC Limited	- Design of Smart Public Amenities - Implementation  - Smart, cashless banking solutions and management systems - Document digitisation, information management systems, systems integration
6	(12) Introducing signature initiative to the city's Identity and Culture (a) Annual Delhi International Art and Culture Festival	Center for Cultural Resources and Training (CCRT)  FICCI	- Concept development, planning and execution - Branding Strategy
7	(b) Awards to Global Capital Cities based on City Benchmarks  (c) Gateway to the World: On-street Live Video Conferencing between people of Delhi and multiple Global Cities,		- Development of Smart City Indicators for Awards  - Procurement & Installation of Infrastructure

TABLE 8

S. No	Activity/ Component	Company/corporation/ organization	Role/responsibility (basic TOR)
8	(13) Behavioural transformation through (a) instilling appropriate values through mass & social media,  (b) children through social messaging in Smart education systems  (c) Creating volunteer ecosystem	ASCII IIPA	- Design and creation of mobile application  - Content creation and management  - Update of content  - Creation of volunteership strategy
9	Pan-City Projects  1) e-governance	- 3M, Microsoft - NASSCOM (National Association of Software and Services Companies) - CII - Reliance, Vodaphone, Airtel, Tata DoCoMo - TCS, Infosys,	- Safety and surveillance equipment, management and integration systems - Technology Adviser, Capacity Building, Interface with technology providers - Execution
10	2) Smart Grid & Energy Management including Solar Power Plant    3) Smart Water & Wastewater Management	DR Associates JV Miya Manila Shah Technical Consultants IBM, Eram Scientific Solutions Pvt. Ltd.  DuPont, Boson SmartCity, Valluri - Technology Accelerators	- Smart Grid Management, rooftop solar paneling, net metering - On and off solar grid management, procurement and integration of mechanisms  - Fresh water resource management, water demand forecasting - Integrated water waste manage
11	4) Smart Education         5) Smart Health	- Liqid - EduComp - Extramarks -Tata Classes - Adobe Systems    - GE Health - WIPRO - IBM	- Procurement, integrated leaning and information systems, digital library - Curriculum assessment development solutions - Integrated learning and education platform   - Integrate medical facilities - Create network of online volunteer doctors - Develop an online blood bank monitor

## 36. STAKEHOLDER ROLES

Attach one A-4 sheet (part of 'Annexure 3'), containing an organogram showing the relationships:

- a) MPs, MLAs, MLCs.
- b) Mayors, Councilors, other elected representatives.
- c) Divisional Commissioner
- d) Collector
- e) Municipal Commissioner
- f) Chief Executive of the Urban Development Authority/ Parastatal
- g) Consultant (Select from empanelled list)
- h) Handholding Organisation (Select from following list: World Bank, ADB, JICA, USTDA, AFD, KfW, DFID, UN Habitat, UNIDO, Other)
- i) Vendors, PPP Partners, Financiers
- j) Others, (eg. community representatives) as appropriate to your city

## E. FINANCIAL PLAN

The development of bankable proposals will be a key success factor in the Smart City Mission. In order to arrange appropriate amounts and types of funding and financing for your SCP, you must keep financial considerations always in mind while preparing your overall strategy and the pan-city and area-based proposals. It is anticipated that innovative means of funding and financing the projects will be necessary. For this purpose, you must evaluate the capacity of the ULB and the SPV to undertake self-funded development projects, the availability of funds from other government schemes that will converge in your SCP (refer Questions 13 and 26), and the finance that can be raised from the financial market.

### 37. ITEMISED COSTS

What is the total project cost of your Smart City Proposal (SCP)? Describe in detail the costs for each of the activities/components identified in Questions 31. (Describe in Max. 300 words)

The total project capital cost of the SCP is ₹: 1897.27 Cr.  
(Area-based= ₹669.1 Cr., Pan-city= ₹1,228.17 Cr.)

#### Components of AREA-BASED PROJECTS (Capital Cost):

##### A. Physical Infrastructure

1) Urban Mobility and Smart Parking	₹ 256Cr.
2) Sensor based Common Service Utility Duct	₹ 150Cr.
3) Transformation of electric-Poles into Smart Poles	₹ 25Cr.
4) Hierarchical Command and Control Centre	₹ 15Cr.
5) Happiness area for the cultural and social needs of citizens	₹ 35Cr.
6) Transforming sub-ways into vibrant spaces ATM/Advt. etc.	₹ 5Cr.
7) Signature Giant Smart Digital Screen	₹ 20Cr.
8) Rooftop solar panels in public & Private buildings	₹ 105Cr
9) Municipal Solid Waste Management (MSWM)	₹ 40.6Cr

##### B. Social Infrastructure

10) Transforming Public Toilets into Smart Public Amenities Centres	₹ 4.5Cr.
11) Financial, Identity, Ticketing & Access inclusion	₹ 5Cr.

##### C. Value Infrastructure

12) Introducing signature initiative to the City's Identity and Culture	₹ 3Cr.
13) Behavioural transformation	₹ 6Cr.

#### Components of PAN-CITY PROJECTS (Capital Cost):

1) E-governance	₹ 10Cr.
2) Smart Grid and Energy Management, including Solar Energy Project	₹ 958Cr
3) Smart Water and wastewater Management	₹ 190.42Cr.
4) Smart Education	₹ 45Cr.
5) Smart Health	₹ 24.75Cr.

Sub-components cost break-up of Area-based projects and Pan-city projects are at Annexure 3 (Section 3.12).



### 38. RESOURCES PLAN

Describe the financing sources, the own-sources of income, the financial schemes of the Central or State governments for which your city/SPV is eligible, which can be used to fund the SCP proposals and pay back loans. Briefly describe an action-plan for resource improvement to make the ULB financially self-sustaining. (max. 1500 words)

AREA BASED PROJECTS:		(All figures in ₹ Crores)			
S.No.	Components of the Project	Cost	Gol Funds	NDMC & Smart City Funds	PPP
1.	Urban Mobility & Smart Parking	256.00	9.10	49.00	197.90
a.	Para-transit facilities including PELICAN crossing	5.00	4.00 (AMRUT)	1.00	0.00
b.	Electric Vehicles (EV's) based last mile connectivity	25.00	0.00	25.00	0.00
c.	First in the world EV charging facility at each parking bay	1.00	0.10 (NEMP)	0.00	0.90
d.	App integrated cycle tracks	2.00	0.00	2.00	0.00
e.	e-surveillance including e-challan for traffic violation	5.00	0.00	5.00	0.00
f.	Parking for Intermediate-Public -Transport	1.00	0.00	1.00	0.00
g.	Smart Bus Stops	1.00	0.00	0.00	1.00
h.	Multi-level automated parking at KG Marg, Shivaji Terminal & near IOC Bldg.	190.00	0.00	0.00	190.00
i.	Sensor based Smart Parking	6.00	0.00	0.00	6.00
j.	Pedestrianization of Inner Circle, CP free from unauthorized hawkers	20.00	5.00 (AMRUT)	15.00	0.00
2.	Sensor based Common Service Utility Duct	150.00	0.00	150.00	0.00
3.	Transformation of electric-Poles into Smart Poles	25.00	0.00	0.00	25.00
4.	Hierarchical Command and Control Centre	15.00	0.00	15.00	0.00
5.	Happiness areas	35.00	0.00	35.00	0.00
a.	Happiness area for the cultural and social needs of citizen	10.00	0.00	10.00	0.00
b.	Renovation of Gole Market, adding Interactive Museum on History of Indian Civilization	25.00	0.00	25.00	0.00
6.	Transforming sub-ways into vibrant spaces ATM/pet adoption centre/Advt. etc.	5.00	0.00	5.00	0.00
7.	Signature Giant Smart Digital Screen	20.00	0.00	20.00	0.00

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S.No. Components of the Project	Cost	Gol Funds	NDMC & Smart City Funds	PPP
8. Rooftop solar panels (7.5 MW each)	105.00	15.74 (JNSM)	33.47	55.79
a. Rooftop solar panels in public buildings	52.50	7.87	33.47	11.16
b. Rooftop solar panels in private buildings	52.50	7.87	0.00	44.63
9. Municipal Solid Waste Management	40.60	0.00	40.60	0.00
a. Geo tagging of bins	1.00	0.00	1.00	0.00
b. Providing new bins	1.00	0.00	1.00	0.00
c. Automatic sewer cleaning machine	14.00	0.00	14.00	0.00
d. Augmenting existing mechanized road cleaning machines	16.00	0.00	16.00	0.00
e. Green (Horticulture waste) to Gas Smart plant	8.60	0.00	8.60	0.00
10. Transforming Public Toilets into Smart Public Amenities Centres	4.50	0.00	4.50	0.00
11. Financial, Identity, Ticketing & Access inclusion	5.00	0.00	2.00	3.00
12. Introducing signature initiative to the city's Identity and Culture	3.00	0.00	3.00	0.00
13. Behavioural transformation	5.00	0.00	5.00	0.00
TOTAL	669.10	24.84	362.57	281.69
<b>PAN CITY PROJECTS:</b>				
1. E-governance	10.00	0.00	10.00	0.00
2. Smart Grid and Energy Management (ongoing)	958.00	461.00	497.00	0.00
a. Smart Grid Implementation	528.00	396.00 (IPDS)	132.00	0.00
b. 40 MW Solar Power Projects	430.00	0.00	430.00	0.00
3. Smart Water and Wastewater Management	190.42	90.00 (AMRUT)	100.42	0.00
4. Smart Education	45.00	0.00	45.00	0.00
a. eLearning Solution in all NDMC schools, Virtual Labs	35.00	0.00	35.00	0.00
b. Centralized Student's health e-records	10.00	0.00	10.00	0.00
5. Smart Health	24.75	0.00	24.75	0.00
a. Integrate e-healthcare system	20.00	0.00	20.00	0.00
b. Central Hospitalization facilitation (EWS)	1.75	0.00	1.75	0.00
c. Virtual medical service	3.00	0.00	3.00	0.00
TOTAL	1228.17	486.00	742.17	0.00
GRAND TOTAL	1897.27	510.84	1104.74	281.69

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## SUMMARY OF THE FINANCING STRUCTURE

The key features of the financing structure are as follows:

Area-based projects:

- 42% of the capital cost of the projects is through PPP mode
- 3.7% through convergence with the Govt. of India existing schemes
- 53.3% through NDMC internal funds & Smart City funds
- O&M is with the concessionaire
- Concessionaire will recover the cost through user charges
- Being the central business district of Delhi, significant potential exist for earning revenue through advertisements, which will be tapped through modern interactive digital screens, smart bus stops, and public amenities centres
- Few projects such as pedestrian zones, cycle tracks which do not entail user charges or revenue generation, NDMC will bear the cost as public/ social investments through internal resources
- NDMC will look for innovative financing schemes for promoting roof-top solar projects for private sector through raising capital in a distributed manner wherein residents will take housing loan and be eligible for tax-breaks through investments. They will be able to sell the additional electricity to NDMC.

Pan-city projects:

- 39.6% through convergence with the Govt. of India existing schemes (65.4% of this amount is already approved by Government of India)
- 60.4% through NDMC internal funds & Smart City funds

1. Smart Grid & Energy Management: This project has been developed based on the guidelines of the IPDS scheme of Government of India and is eligible to receive a Government grant to the tune of 75% of the total Capital Cost (Rs.318cr approved by Gol, which is 60.2% of the project cost).

2. Smart Water & Wastewater Management: Convergence with AMRUT (Rs.90cr, which is 47.3% of the project cost).

3. 40 MW Solar Power Project- Rural Electrification Corporation Limited (REC) agreed to fund the project at interest rate of 8.5%, which is less than PLR, in case need arises.

Out of total project cost of Rs. 1897.27cr (100%), Rs. 510.84cr (26.9%) through convergence with Gol schemes, 281.69cr (14.9%) will be through PPP, Rs.500cr (26.4%) through Smart City funds and Rs.604.74cr (31.9%) through NDMC internal funds.

Rs.604.74cr will be required from NDMC internal funds in the next five years (on an average Rs.121cr/annum), which can be comfortably financed by NDMC.

Refer Annexure 3 (Section 3.12)

### 39. COSTS

What is the lifetime cost estimated for your area-based development and your pan-city solution/s? Add O&M costs wherever applicable. (max 500 words)

AREA BASED PROJECTS:	CAPEX	(All figures in ₹ Crores)	
		O&M(5Yrs)	Lifetime Cost
1. Urban Mobility & Smart Parking	256.00	102.72	358.22
a. Para-transit facilities & PELICAN crossing	5.00	0.65	5.65
b. Electric Vehicles (EV's) based last mile connectivity	25.00	12.50	37.50
c. First in the world EV charging facility at each parking bay	1.00	0.14	1.14
d. App integrated cycle tracks	2.00	0.50	2.50
e. e-surveillance including e-challan for traffic violation	5.00	2.00	7.00
f. Parking for Intermediate-Public-Transport	1.00	0.13	1.13
g. Smart Bus Stops	1.00	0.40	1.40
h. Multi-level automated parking at KG Marg, Shivaji Terminal & near IOC Bldg.	190.00	76.00	266.00
i. Sensor based Smart Parking	6.00	2.40	8.40
j. Ped Inner Circle-CP, free of unauthorized hawkers	20.00	8.00	28.00
2. Sensor based Common Service Utility Duct	150.00	60.00	210.00
3. Transformation of electric-Poles to Smart Poles	25.00	10.00	35.00
4. Hierarchical Command and Control Centre	15.00	2.00	17.00
5. Happiness areas	35.00	14.00	49.00
a. Happiness area for the cultural and social needs of citizen	10.00	4.00	14.00
b. Renovation of Gole Market, adding Interactive Museum on History of Indian Civilization	25.00	10.00	35.00
6. Transforming sub-ways into vibrant spaces ATM/pet adoption centre/Advt. etc.	5.00	2.50	7.50
7. Signature Giant Smart Digital Screen	20.00	10.00	30.00
8. Rooftop solar panels (7.5 MW each)	105.00	26.25	131.25
9. Municipal Solid Waste Management	40.60	25.15	65.75
a. Geo tagging of bins	1.00	0.25	1.25
b. Providing new bins	1.00	0.25	1.25
c. Automatic sewer cleaning machine	14.00	10.50	24.50
d. Augmenting existing mechanized road cleaning machines	16.00	12.00	28.00
e. Green (Horticulture waste) to Gas	8.60	2.15	10.75
10. Transforming Public Toilets into Smart Public Amenities Centres	4.50	9.00	13.50
11. Financial, Identity, Ticketing & Access inclusion	5.00	0.25	5.25
12. Introducing signature initiative to the city's Identity and Culture	3.00	116.50	119.50
13. Behavioural transformation	5.00	30.00	35.00
<b>TOTAL</b>	<b>669.10</b>	<b>408.37</b>	<b>1077.47</b>

Continue on next page

PAN CITY PROJECTS:	CAPEX	O&M(5Yrs)	Lifetime Cost
1. E-governance	10.00	10.00	20.00
2. Smart Grid and Energy Management	958.00	53.50	1011.50
a. Smart Grid Implementation	528.00	0.00	528.00
b. 40 MW Solar Power Projects	430.00	53.50	483.50
3. Smart Water and Wastewater Management	190.42	357.95	548.37
4. Smart Education	45.00	22.50	67.50
a. e-Learning Solution in all NDMC schools, Virtual Labs	35.00	17.50	52.50
b. Centralized Student's health e-records	10.00	5.00	15.00
5. Smart Health	24.75	12.38	37.13
a. Integrate e-healthcare system	20.00	10.00	30.00
b. Central Hospitalization facilitation (EWS)	1.75	0.88	2.63
c. Virtual medical service	3.00	1.50	4.50
<b>TOTAL</b>	<b>1228.17</b>	<b>456.33</b>	<b>1684.50</b>

#### 40. REVENUE AND PAY-BACK

How will the area based development and the pan-city smart solutions(s) of your city be financed? If you plan to seek loans or issue bonds, what revenue sources will be used to pay back the loans?

(max. 250 words)

OVERALL FINANCING STRUCTURE				(All figures in ₹ Crores)
<b>CAPITAL COST</b>				
Type	Gol Funds	NDMC & Smart City Funds	PPP	Total
Area-based projects	24.84	362.57	281.69	669.10
Pan-city projects	486.00	742.17	0	1228.17
Out of total project cost of Rs. 1897.27cr (100%), Rs. 510.84cr (26.9%) through convergence with Gol schemes, 281.69cr (14.9%) will be through PPP, Rs.500cr (26.4%) through Smart City funds and Rs.604.74cr (31.9%) through NDMC internal funds.				
<b>VARIABLE COST (for five years)</b>				
Type	Gol Funds	NDMC Funds	PPP	Total
Area-based projects	0	234.40	173.97	408.37
Pan-city projects	0	402.83	53.50	456.33
<b>REVENUE SOURCES</b>				
Area Based Projects: 1) Parking/EV-Charging User Charges; 2) Advertisements / Kiosk rental from public amenities centres; 3) Advertisements through Signature Giant Smart Digital Screen & Smart Poles; 4) Advertisements/User charges from Global Capital Cities Awards; 5) Sponsorship from laser & sound show; 6) Share of transactions from single card access; 7) Sale of gas from green to gas plants; 8) Electricity tariff revenue from solar rooftop.				
Pan-city Projects: 1) Cost savings to NDMC due to AT&C loss reduction; 2) Water tariff revenue to NDMC; 3) Saving of water charges to NDMC through usage of grey water using mini STPs; 4) Selling of power to grid through installation of 40 MW Solar Plants. Refer Annexure 3 (Section 3.12).				

## 41. RECOVERY OF O&M

What is your plan for covering the Operations & Maintenance costs for each of the activities/components identified in Questions 31? (max. 1000 words)

The O&M costs will be covered through the following set of revenue streams for both area-based and pan-city projects to both NDMC and private developers.

(All figures in ₹ Crores)

Area Based projects:

Revenue Stream	2016-17	2017-18	2018-19	2019-20
1. Parking User Charges	₹1.19	₹2.38	₹3.60	₹3.60
2. EV Charging charges	₹0.93	₹2.81	₹2.81	₹2.81
3. Public toilet user charges	₹0.22	₹0.28	₹0.28	₹0.28
4. Advertisement in public amenities centres	₹1.25	₹1.56	₹1.56	₹1.56
5. Kiosk revenue from rentals in public amenities centres	₹3.74	₹4.68	₹4.68	₹4.68
6. Advertisements through Signature Giant Smart Digital Screen	₹3.58	₹6.20	₹2.40	₹2.40
7. Advertisements in Smart Poles	₹24.00	₹24.00	₹24.00	₹24.00
8. Advertisements from Global Capital Cities Awards	₹30.00	N.A.	₹30.00	N.A.
9. User charges from Global Capital Cities Awards	₹2.00	N.A.	₹2.00	N.A.
10. Sponsorships from Laser and Sound user per weekend	₹20.00	₹20.00	₹20.00	₹20.00
11. Share of transactions arising from single card access to New Delhi	₹3.80	₹3.80	₹3.80	₹3.80
12. Electricity tariff revenue from roof top solar power plant to private developers	₹4.60	₹4.60	₹4.60	₹4.60
13. Sale of gas and fertilizer through Green to gas plant	₹0.33	₹0.55	₹0.55	₹0.55
<b>TOTAL</b>	<b>₹95.64</b>	<b>₹70.85</b>	<b>₹100.28</b>	<b>₹68.28</b>

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## Pan-city projects:

Revenue Stream	2016-17	2017-18	2018-19	2019-20
1. Cost Savings to NDMC due to AT&C loss reduction	₹6.42	₹25.68	₹51.44	₹70.75
2. Water Tariff revenue to NDMC	-	₹109.30	₹109.30	₹117.46
3. Saving of water charges to NDMC through usage of grey water using mini STPs	-	₹3.45	₹3.45	₹3.45
4. Selling of power to grid through installation of 40 MW solar plant	-	-	₹10.82	₹43.28
TOTAL	₹6.42	₹138.43	₹175.01	₹234.94
<b>TOTAL REVENUE STREAM</b>				
Area & Pan City Projects	2016-17	2017-18	2018-19	2019-20
Area based projects	₹95.64	₹70.85	₹100.28	₹68.28
Pan-City based projects	₹6.42	₹138.43	₹175.01	₹234.94
TOTAL	₹102.26	₹209.28	₹275.29	₹303.22

After the implementation of all area and pan-city based projects, estimated revenue in the year 2019-20 will be approx. ₹303.22cr against an average O&M cost of approx. ₹173cr in that year. Therefore, the O&M cost are sufficiently covered against the revenue streams per year.

## 42. FINANCIAL TIMELINE

What is the financial timeline for your smart city agenda? Describe the milestones and target dates related to fund flows, payback commitments, etc. that must be adhered to for the proposal to achieve the vision set out in Table 5 (question 31)? (max. 1 page: A4 size)

Project Name	Key Milestones and Fund Flows	Target Dates
Physical infrastructure based projects (Sl. No. 1 to 5 of area based projects in Q. 31)	1. Project planning and preparation of DPR - 5% to 10% of the estimated project cost 2. Vendor(s) selection 3. Project execution and monitoring - 90% to 95% of the estimated project cost	1. Partially achieved. To be completed by July 2016. 2. To be completed by Dec. 2016. 3. To be completed by Mar. 2017 to Mar. 2019 As per details given in Q. 31.
Social infrastructure based projects (Sl. No. 6 of area based projects in Q.31)	1. Project planning and preparation of DPR - 5% to 10% of the estimated project cost 2. Vendor(s) selection 3. Project execution and monitoring - 90% to 95% of the estimated project cost	1. To be completed by June 2016. 2. To be completed by Sep. 2016. 3. To be completed by Mar. 2017 to Mar. 2018 As per details given in Q. 31.
Value infrastructure based projects (Sl. No. 7 and 8 of area based projects in Q.31)	1. Project planning and preparation of DPR - 5% to 10% of the estimated project cost 2. Vendor(s) selection 3. Project execution and monitoring - 90% to 95% of the estimated project cost	1. To be completed by June 2016. 2. To be completed by Sep. 2016. 3. To be completed by Mar. 2017 to Mar. 2018 as per details given in Q. 31.
e-Governance (Sl. No. 1 of pan city projects in Q.31)	1. Project planning and preparation of DPR - 5% to 10% of the estimated project cost 2. Vendor(s) selection 3. Project execution and monitoring - 90% to 95% of the estimated project cost	1. To be completed by June 2016. 2. To be completed by Dec. 2016. 3. To be completed by Mar. 2018 As per details given in Q. 31.
A. Smart Grid Implementation B. Solar Power Projects (Sl. No. 2 to 4 of pan city projects in Q.31)	1. Project planning & preparation of DPR:5-10% of estd. project cost 2. Vendor(s) selection 3. Project execution & monitoring:90-95% of estimated project cost  1. Project planning & preparation of DPR:5-10% of estd. project cost 2. Vendor(s) selection 3. Project execution & monitoring:90-95% of estimated project cost	1. Completed. 2. By Jun. 2016. 3. By Mar. 2018.  1. By June 2016. 2. By Dec. 2016. 3. By Mar 2020, details at Q.31
Smart water and waste water management (Sl. No. 5 of pan city projects in Q.31)	1. Project planning and preparation of DPR - 5% to 10% of the estimated project cost 2. Vendor(s) selection 3. Project execution and monitoring - 90% to 95% of the estimated project cost	1. Ongoing. To be completed by Mar 2016. 2. To be completed by Sep. 2016. 3. To be completed by Mar. 2019 As per details given in Q. 31.
Smart Edu. & Health (Sl. No. 6 of pan city projects in Q.31)	1. Project planning and preparation of DPR - 5% to 10% of the estimated project cost 2. Vendor(s) selection 3. Project execution & monitoring: 90-95% of estimated project cost	1. By Mar 2016. 2. By Jun 2016. 3. By Mar 2017 As per details at Q.31



## 43. FALL-BACK PLAN

What is your plan for mitigating financial risk? Do you have any alternatives or fall-back plans if the financial assumptions do not hold? (max. 250 words)

Financial risks are in terms of non-availability of the financial funds on:

(i) Sizable increase in estimated project cost, (ii) Project funding, (iii) Project cash flow & (iv) OPEX

These financial risk and its mitigating plan is outlined herewith:

Sizable increase in estimated project cost:

- The assumptions for the capex for all the projects has been validated through sector experts and the most conservative estimate has been considered.
- The internal rate of return of all the projects are significantly higher than the requirements for commercial borrowing. Also, NDMC has a healthy balance sheet & therefore there is sufficient scope to cover the project cost through internal fundings & through debt in case of sizable increase in estimated project cost.
- Given that each of the projects have very comfortable IRR, the projects are in a position to absorb higher capex.

Project Funding

- NDMC has already got approval from Government of India for financial assistance in form of grants of Rs.318 cr. for Smart Grid under IPDS. This will address the funding requirements for the most capital intensive project i.e. Smart Grid management, thereby, covering uncertainty to a large extent. Other GOI sources such as AMRUT have been factored in
- NDMC itself is financially sound to provide for the funding requirement for the health & education projects
- The internal rate of return of all the projects are significantly attractive and sufficient to enable funding through debt from commercial banks.
- In addition, NDMC is in discussions with ADB, UNIDO, World Bank, KfW and JICA for alternate sources of funds, should the situation arise.

Project Cash Flow

- Presently, NDMC has sufficient cash surplus to take care of any unforeseen contingency.
- Revenue is expected from most of the area based projects in the form of user charges as detailed in the previous questions. The internal rate of return of all the projects are significantly attractive to address any dip in expected cash flows.

OPEX

After implementation of all area and pan-city based projects, significant amount of cost savings are expected from the Smart Grid & Energy project and Water & Wastewater Management project through reduction of AT&C losses and NRW losses respectively. Thus, O&M cost are sufficiently covered against the revenue streams generated through these projects, details of which have been provided in answer to Q. 41.

Refer Annexure 3 (Section 3.13 & 3.14)

## ANNEXURE 1

S. No	Feature	Definition
1.	Citizen participation	A smart city constantly adapts its strategies incorporating views of its citizens to bring maximum benefit for all. (Guideline 3.1.6)
2.	Identity and culture	A Smart City has a unique identity, which distinguishes it from all other cities, based on some key aspect: its location or climate; its leading industry, its cultural heritage, its local culture or cuisine, or other factors. This identity allows an easy answer to the question "Why in this city and not somewhere else?" A Smart City celebrates and promotes its unique identity and culture. (Guideline 3.1.7)
3.	Economy and employment	A smart city has a robust and resilient economic base and growth strategy that creates large-scale employment and increases opportunities for the majority of its citizens. (Guideline 2.6 & 3.1.7 & 6.2)
4.	Health	A Smart City provides access to healthcare for all its citizens. (Guideline 2.5.10)
5.	Education	A Smart City offers schooling and educational opportunities for all children in the city (Guideline 2.5.10)
6.	Mixed use	A Smart City has different kinds of land uses in the same places; such as offices, housing, and shops, clustered together. (Guidelines 3.1.2 and 3.1.2)
7.	Compactness	A Smart City encourages development to be compact and dense, where buildings are ideally within a 10-minute walk of public transportation and are located close together to form concentrated neighborhoods and centers of activity around commerce and services. (Guidelines 2.3 and 5.2)
8.	Open spaces	A Smart City has sufficient and usable public open spaces, many of which are green, that promote exercise and outdoor recreation for all age groups. Public open spaces of a range of sizes are dispersed throughout the City so all citizens can have access. (Guidelines 3.1.4 & 6.2)
9.	Housing and inclusiveness	A Smart City has sufficient housing for all income groups and promotes integration among social groups. (Guidelines 3.1.2)
10.	Transportation & Mobility	A Smart City does not require an automobile to get around; distances are short, buildings are accessible from the sidewalk, and transit options are plentiful and attractive to people of all income levels. (Guidelines 3.1.5 & 6.2)
11.	Walkable	A Smart City's roads are designed equally for pedestrians, cyclists and vehicles; and road safety and sidewalks are paramount to street design. Traffic signals are sufficient and traffic rules are enforced. Shops, restaurants, building entrances and trees line the sidewalk to encourage walking and there is ample lighting so the pedestrian feels safe day and night. (Guidelines 3.1.3 & 6.2)
12.	IT connectivity	A Smart City has a robust internet network allowing high-speed connections to all offices and dwellings as desired. (Guideline 6.2)

13.	Intelligent government services	A Smart City enables easy interaction (including through online and telephone services) with its citizens, eliminating delays and frustrations in interactions with government. (Guidelines 2.4.7 & 3.1.6 & 5.1.4 & 6.2)
14.	Energy supply	A Smart City has reliable, 24/7 electricity supply with no delays in requested hookups. (Guideline 2.4)
15.	Energy source	A Smart City has at least 10% of its electricity generated by renewables. (Guideline 6.2)
16.	Water supply	A Smart City has a reliable, 24/7 supply of water that meets national and global health standards. (Guidelines 2.4 & 6.2)
17.	Waste water management	A Smart City has advanced water management programs, including wastewater recycling, smart meters, rainwater harvesting, and green infrastructure to manage storm water runoff. (Guideline 6.2)
18.	Water quality	A Smart City treats all of its sewage to prevent the polluting of water bodies and aquifers. (Guideline 2.4)
19.	Air quality	A Smart City has air quality that always meets international safety standards. (Guideline 2.4.8)
20.	Energy efficiency	A Smart City promotes state-of-the-art energy efficiency practices in buildings, street lights, and transit systems. (Guideline 6.2)
21.	Underground electric wiring	A Smart City has an underground electric wiring system to reduce blackouts due to storms and eliminate unsightliness. (Guideline 6.2)
22.	Sanitation	A Smart City has no open defecation, and a full supply of toilets based on the population. (Guidelines 2.4.3 & 6.2)
23.	Waste management	A Smart City has a waste management system that removes household and commercial garbage, and disposes of it in an environmentally and economically sound manner. (Guidelines 2.4.3 & 6.2)
24.	Safety	A Smart City has high levels of public safety, especially focused on women, children and the elderly; men and women of all ages feel safe on the streets at all hours. (Guideline 6.2)

## **ANNEXURE 2**

### **Self-Assessment Form**

**Attach self-assessment format given in supplementary template (Excel sheet),  
with columns I-L duly filled**

## ANNEXURE 3

**Twenty sheets ( A-4 and A-3) of annexures, including  
annexures mentioned in questions 32, 34, 36**

S. No	Particulars	✓
1	NDMC City Profile (Annexure 3, Section 3.1)	<input checked="" type="checkbox"/>
2	Recent Smart Projects undertaken by NDMC (Annexure 3, Section 3.2)	<input checked="" type="checkbox"/>
3	Smart City Framework (Annexure 3, Section 3.3)	<input checked="" type="checkbox"/>
4	NDMC Smart City Vision Development (Annexure 3, Section 3.4)	<input checked="" type="checkbox"/>
5	Citizen Engagement (Annexure 3, Section 3.5)	<input checked="" type="checkbox"/>
6	Face to Face Stakeholder Consultation (Annexure 3, Section 3.5.1)	<input checked="" type="checkbox"/>
7	On-line Consultations (Annexure 3, Section 3.5.2)	<input checked="" type="checkbox"/>
8	Consultations through Mobile Phones (Annexure 3, Section 3.5.3)	<input checked="" type="checkbox"/>
9	Methodology – Area-Based Project Selection (Annexure 3, Section 3.6)	<input checked="" type="checkbox"/>
10	Rationale for the selection of NDCC area (Annexure 3, Section 3.7)	<input checked="" type="checkbox"/>
11	ICT Architecture (Annexure 3, Section 3.8)	<input checked="" type="checkbox"/>
12	Rainwater Harvesting: Pan-City Project Selection (Annexure 3, Section 3.9)	<input checked="" type="checkbox"/>
13	Methodology – Pan-City Project Selection (Annexure 3, Section 3.10)	<input checked="" type="checkbox"/>
14	Organogram of Relationship between SPV & Stakeholders (Annexure 3, Section 3.11)	<input checked="" type="checkbox"/>
15	Sub-components cost break-up of area-based and pan-city projects (Annexure 3, Section 3.12)	<input checked="" type="checkbox"/>
16	NDMC Current Robust Financial Health (Annexure 3, Section 3.13)	<input checked="" type="checkbox"/>
17	NDMC Spending Pattern (Annexure 3, Section 3.14)	<input checked="" type="checkbox"/>
18	Gantt Chart (Area-Based projects) (Annexure 3, Section 3.15)	<input checked="" type="checkbox"/>
19	Gantt Chart (Pan-City projects) (Annexure 3, Section 3.16)	<input checked="" type="checkbox"/>
20	Maps: (i) Area-based Proposal - NDCC (ii) NDMC Base Map (Pan-City)	<input checked="" type="checkbox"/>

**ANNEXURE 4**

(Supporting documents, such as government orders, council resolutions, response to Question 33 may be annexed here)

S. No	Particulars	✓
1	Minutes of the State Level High Powered Steering Committee (HPSC), Government of NCT of Delhi approving Smart City Proposal of NDMC (Annexure 4, Section 4.1)	<input checked="" type="checkbox"/>
2	Incorporation of the suggestions made by the HPSC as recorded in the minutes of the meeting held on 11.12.2015 (Annexure 4, Section 4.2)	<input checked="" type="checkbox"/>
3	Minutes of the Council approving item No. 24(W-01) regarding Smart City Proposal of NDMC, including proposal for formation of SPV (Annexure 4, Section 4.3)	<input checked="" type="checkbox"/>
4	Agenda for the Council regarding Smart City Proposal of NDMC, including proposal for formation of SPV (Annexure 4, Section 4.4)	<input checked="" type="checkbox"/>
5	Government of India in-principle approval under IPDS scheme for Smart Grid and Energy Management Project (Annexure 4, Section 4.5)	<input checked="" type="checkbox"/>
6	Minutes of the meeting of state level high powered steering committee (HPSC) held on 12/05/2015 (Annexure 4, Section 4.6)	<input checked="" type="checkbox"/>
7	Agenda for the Council regarding Revision in the Smart City Proposal of NDMC, including proposal for formation of SPV dated 26.04.2016 (Annexure 4, Section 4.7)	<input checked="" type="checkbox"/>
8		<input type="checkbox"/>
9		<input type="checkbox"/>
10		<input type="checkbox"/>
11		<input type="checkbox"/>
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