

ITEM NO. 24 (W-01)

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of

Councils Ordinary Meeting

Dated..... 15.12.2015

1. **Name of the Subject/Project:** Smart City Proposal (SCP) of New Delhi Municipal Council (NDMC) for participation in the Second Stage – Challenge Round-1 for selection as Smart City under Smart Cities Mission of Government of India.
2. **Name of the Department:** Project Department, New Delhi Municipal Council.
3. **Brief history of the subject:**
- 3.1 Government of India Ministry of Urban Development (MoUD) launched Smart City Mission on 25<sup>th</sup> June, 2015 to develop 100 cities throughout the country as Smart Cities who will be given matching grant of 500 crores each from the Government of India and same amount to be arranged by the Urban Local Body/State. The mission is a centrally sponsored scheme lunched and steered by the Ministry of Urban Development (MoUD), GOI.
- 3.2 The selection process of Smart City under the Smart City Mission is two stage processes. In the stage-1, the State Governments shortlisted potential smart cities according to number of smart cities distributed across states/UTs by the MoUD based on present performance indicators and recommended the same to MoUD. The Delhi state was allocated one potential Smart City.
- 3.3 NDMC has been selected by MoUD after due recommendations by the State Level High Powered Steering Committee (HPSC), Delhi Government (GNCTD) to participate in the second stage – City Challenge Round for selection, which was announced on 27<sup>th</sup> August 2015. In total 98 cities have been selected for participation in City Challenge Round- Stage-2.
- 3.4 As per the Smart City Mission & Statement Guidelines issued by the Ministry of Urban Development GOI in June 2015 (para 9.1.2), in the second stage of competition each of the potential 98 smart cities required to prepare their SCP for participation in the City Challenge Round for stage-2. The SCP of a city to contain the city vision statement, strategy and the model chosen—retrofitting/ redevelopment/green field/pan city and smart solutions etc, the proposal for financing the smart city and the revenue model to attract private participation. The SCP will also outlining the consultations held with the city residents and other stakeholders, as to how the aspirations are matched with the vision contained in the SCP.
- 3.5 An evaluation criteria for the Smart Cities Proposals has been worked out by MoUD based on professional advice, which acts as guidance for preparing Smart City Proposals.
- 3.6 For preparation of SCP, NDMC issued Limited Tender (RFP) to the eleven (11) MoUD empanelled consulting agencies on 03.09.2015. Five (05) bids were received and M/s. KPMG Advisory Services Pvt. Ltd with lowest bid amount of Rs.4.5 Lacs (inclusive of all taxes but excluding of service tax) was selected as Consultant for preparing the Smart City Challenge for Stage-2. The M/s. KPMG Advisory Services Pvt. Ltd began their consultancy process from 24.09.2015 and to complete the proposals by 10.12.2015.
- 3.7 The Smart City proposals are to be submitted by 15.12.2015 for consideration in the Challenge Round of Stage -2 Competition for grants of fund from MoUD after approval from Council and the State Level High Powered Steering Committee.

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#### 4. Detailed proposal on the subject:

4.1 The Smart City Proposal (SCP) is required to be submitted as per the defined template provided by the MoUD vide their letter dated 12.11.2015 for the purpose of open, fair and transparent evaluation. The SCP template has following broad structured layout on various aspects of smart city:

- A. CITY LEVEL CRITERIA
- B. AREA-BASED PROPOSAL
- C. PAN-CITY PROPOSAL
- D. IMPLEMENTATION PLAN
- E. FINANCING PLAN
- F. ANNEXURES

Further, the Ministry, has also given scoring criteria (out of 100) to each aspect as mentioned below:

##### 1. 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

##### 2. 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

##### 3. PAN -CITY SOLUTION : 15%

S.NO.	CRITERIA	%
1.	'Smartness' of solution	3
2.	Citizen engagement	1
3.	Results orientation	5
4.	Process followed	1
5.	Implementation framework (Financial plan), including feasibility and cost-effectiveness	5

4.2 NDMC after having wider discussions with the stakeholders including women, RWAs, students, residents of J.J. Clusters, Government Officials, diplomats and taking into the city profile, existing physical, social, institutional and value infrastructure, the performance indicators required to be achieved as per ISO 37120:2014 (Sustainable development of communities – indicators for city services and quality of life), best practices, current strength, weakness, opportunities, threats (SWOT), financial viability, current gaps and aspiration of people and the vision emerged, has prepared its Smart City Proposal as per the structure and criteria laid out by the Ministry of Urban Development with the assistance of M/s KPMG Advisory Services Pvt. Ltd the consultant engaged for this purpose.

4.3 The salient features of the Smart City Proposal are as under:

#### 4.3.1 Strategic Focus and Blue Print

- NDMC's inherent strengths are - financial robustness, compact & 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 and thus NDMC has high success rates to be a Smart City.
- 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 of NDMC 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 already is best-in-class in many parameters.
- The blueprint for executing the Strategic focus is based on the following 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
- Keeping in view of 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 (Sustainable development of communities – indicators for city services and quality of life) 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.
- 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. However, the projects enumerated under the Smart City proposal are to be completed by 2020.

#### 4.3.2 NDMC Smart City Vision

- 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”**

- The goals that have been derived from the city vision are :
  - 1) Urban mobility – Enhanced access to sustainable public transport, smart parking, non-motorized vehicles (NMTVs) and last mile connectivity. NDMC has dedicated pedestrian corridors with access for differently-abled citizens in various parts of the city

- 2) Inclusive city – Addressing the needs of the most vulnerable citizens including women, children, disabled and transgender individuals
- 3) City planning and design – Improved quality of life through citizen focussed 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

#### 4.3.3 Citizen Engagements

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.

The citizen engagement process had two key mechanisms (a) unstructured consultations and (b) questionnaire based structured consultations. 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 pedestrianization etc.

Various method of citizen engagement were deployed including face to face interaction, online consultations, feedback (using platforms of NDMC website and myGov), multimedia presentations and mobile polling through SMS platform.

#### 4.3.4 Projects identified in the Smart City Proposals

- As per the mission guidelines, the Smart City Proposal to have one **Area Based project** in a contiguous geographical area and one or two **Pan City projects**.
- The **Area Based projects** could be for **Retrofitting** (improvements) in area consisting of more than 500 acres or **Redevelopment** (replacement of existing built-up environment) in an area of more than 50 acres or **Green field project** (new development) in an area consisting more than 5 to 50 acres.
- The **Pan City projects** are one which envisages applications of Smart Solutions to the existing citywide infrastructure. Application of Smart Solution will involve use of technology information and data to make infrastructure service better.

#### 4.3.5 The Area Based project and the Pan City Projects included in the Smart City Proposal

- 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 constant 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 and value infrastructure to improve livability and support NDMC towards its stated vision of being the world's benchmark capital city.
- There are 29 individual Area Based projects and there are nine (9) Pan City projects included in the Smart City Proposal.

#### 4.3.6 The main category of projects under **Area Based** are as under:

1. Urban Mobility & Smart Parking
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
5. Happiness area
6. Transforming sub-ways into vibrant spaces ATM/pet adoption centre/Advertisement etc.
7. Signature Giant Smart Digital Screen: Traffic Information/Social Messaging/Alerts/Cricket/Advertisement
8. Rooftop solar panels
9. Municipal Solid Waste
10. Transforming Public Toilets into Smart Public Amenities Centers
11. Financial, Identity, Ticketing & Access inclusion
12. Introducing signature initiative to the city's Identity and Culture
13. Behavioral transformation

The Area Based projects includes essential features of SCP as envisages in the Mission City Guidelines (para 6.2) encompassing generation of solar power, recycling of waste water, rain harvesting, smart metering, robust IT connectivity, pedestrian pathways, intelligent traffic management smart parking, efficient street lighting, innovative use of open spaces, safety of citizens and smart applications for service deliveries

#### 4.3.7 Pan City Projects of NDMC Smart City Proposal are broadly under following projects baskets;

1. e-Governance
2. Smart Grid and Energy Management
3. Smart Water & Wastewater Management
4. Smart Education
5. Smart Health

#### 4.3.8 Financial Timeline for computing the Project

Some of the projects such as Smart Grid under Pan City, ground work for which has already been done, will start getting implemented from the fourth quarter of year 2015-16 and all projects are to be completed by 2019-2020. All the projects envisaged under the Area Based and Pan City are to be completed within 5 years time period.

#### 4.3.9 Implementation and execution of Smart City Project – Creation of Special Purpose Vehicle (SPV)

The mission guidelines envisage creation of Special Purpose Vehicle (SPV) as a critical institution for the implementation of the Smart City Proposal and hence same has been given due importance in the implementation framework of the Smart City Proposals. As per Smart City Guidelines, Government grants of State/ULB will be leveraged to attract funding from internal and external sources and the success of this endeavor will depend on the robustness of SPV.

As per the city guidelines, a city level SPV (by NDMC) is to be established under the Companies Act, 2013 and will be promoted jointly by the State/UT and NDMC jointly having equal equity share holding (50 : 50).

The Smart city proposal of NDMC proposes following in respect of SPV creation and its functions :

- a) will be a 100% Public Ltd company wholly owned by NDMC.
- b) The Council will lay down the broad policy framework for the functioning of the SPV and review its working.
- c) The Council will approve the annual plan and annual budget of the SPV upon the recommendation of the CEO.
- d) A full time CEO or MD from the IAS cadre (appointed with the approval of Ministry of Home Affairs) will manage, administer and supervise the SPV, and will monitor and review the expenditure of the SPV at regular intervals.
- e) While discharging his functions, the CEO will follow the policy framework and overall directions of the NDMC.
- f) The CEO would be assisted by a team of professionals and officers from the state/ central government as well as the private sector - under the overall control and supervision of the Board of Directors.
- g) Funds will be procured from the Central Government as well as various bilateral and multilateral institutions like the World Bank, ADB, JICA etc. - to name a few.
- h) The other key functions that will be performed by the SPV shall be :
  - i) Approve and sanction the projects including their technical appraisal under Smart City Proposal (SCP)
  - ii) Execute the Smart City Proposal (SCP) with complete operational freedom.
  - iii) Take measures to comply with the requirements of MoUD with respect to the implementation of the Smart Cities program.
  - iv) Mobilize resources within timelines and take measures necessary for the mobilization of resources.
  - v) Approve and act upon the reports of a third party Review and Monitoring Agency.
  - vi) Overview capacity building activities
  - vii) Ensure timely completion of projects according to set timelines
  - viii) The working structure as proposed above until creation of the SPV meets all the requirements of the guidelines.
- i) It is informed that as per the NDMC Act, 1994, there are no enabling provisions for creating an SPV. However, the Council may resolve to

propose the following to the Ministry of Home Affairs to enable creation of the SPV and matters connected therewith:

- a) appropriate amendment to the NDMC Act, 1994 or
  - b) directions by the Central Government under Section 395 of the NDMC Act, 1994 permitting formation of such SPV.
- j) Further, it is proposed that till the formation of the SPV, the NDMC Council, being autonomous within the mandate given in the Act and financially self-sufficient, will perform the functions of the SPV. The role and functions of the CEO will be performed by the Secretary NDMC, who is an IAS officer. SPV will plan, appraise, approve, release funds, implement, manage, operate, monitor and evaluate the Smart City development projects.

## 5 Financial implication of the project :

### 5.1 Costs

The costs mentioned in the Smart City proposal for the Area Based project and Pan City Project are estimation and projection only which may vary depending on the market conditions and competitions and appropriate and available technologies.

The total project cost estimates/projections under Area Based are Rs.1077.47 crore and Rs.1684.50 crore under the Pan City Projects as lifetime costs, including capital and operational cost in five years, therefore, total cost equals to Rs.2761.97 crore.

The Estimated Costs (Capital and Operational), sources of funds and total lifetime cost are detailed in the table below.

S.No. (1)	Components of the Project (2)	CAPEX				O&M Cost (for 5 yrs)			Lifetime Cost (10) = (3) + (7)
		CAPEX Cost (3) = (4) + (5) + (6)	GoI Funds (4)	NDMC & Smart City Funds (5)	PPP (6)	O&M Cost (7) = (8) + (9)	NDMC Funds (8)	PPP (9)	
<b>AREA BASED PROJECTS</b>									
A	Urban Mobility & Smart Parking	256	9.1	49.0	197.90	102.72			358.72
1.	Para-transit facilities including PELICAN crossing	5	4 (AMRUT)	1	0	0.65	0.65	0	5.65
2.	Electric Vehicles (EV's) based last mile connectivity	25	0	25	0	12.50	12.50	0	37.5
3.	EV charging facility at parking bay	1	0.1 (NEMP)	0	0.9	0.14	0	0.14	1.14
4.	App integrated cycle tracks	2	0	2	0	0.5	0.50	0	2.5
5.	e-surveillance including e-challan for traffic violation	5	0	5	0	2.0	2.0	0	7
6.	Parking for Intermediate-Public-Transport	1	0	1	0	0.13	0	0.13	1.13
7.	Smart Bus Stops	1	0	0	1	0.40	0	0.40	1.4
8.	Multi-level automated parking at KG Marg, Shivaji Terminal & near IOC Building	190	0	0	190	76.00	0	76.00	266
9.	Sensor based Smart Parking	6	0	0	6	2.40	0	2.40	8.4
10.	Pedestrianization of Inner Circle Connaught Place	20	5 (AMRUT)	15	0	8.00	8.0	0	28
									0
B	Sensor based Common Service Utility Duct	150	0	150	0	60.00	60.0	0	210
C	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	25	0	0	25	10.00	10	0	35

