WHITE PAPER ON SMART CITY POLICY RECOMMEDATIONS

U.S. India Infrastructure Collaboration Platform:

The U.S.-India Infrastructure Collaboration Platform (ICP) led by the U.S. private sector was formalized at the September 30 summit between President Obama and Prime Minister Modi through an MOU signed between the U.S Department of Commerce and the Indian Ministry of Finance. It seeks to facilitate U.S. industry participation in Indian infrastructure projects. This was followed by Government of India's offer to U.S industry to be the leading partner in developing smart city projects in three states:

Rajasthan – city of Ajmer

Uttar Pradesh – city of Allahabad

Andhra Pradesh-city of Vishakhapatnam

Three separate bilateral MoUs have been signed for each of these cities by which the U.S. will assist the cities at various stages including project planning, infrastructure development, feasibility studies and capacity building. US government agencies like the U.S Trade and Development Agency, Department of Commerce, US Export-Import Bank and other trade and economic agencies will collaborate to promote greater US-India infrastructure development cooperation and to support development of smart cities. Initiative undertaken by this platform will be replicable all over India.

Building on a Strong Foundation

U.S. cooperation has acquired a new dimension with the signing of the three MoUs for each of the above three cities and will make significant contribution to building smart cities. Under these Memoranda of Understanding, U.S. Trade and Development Agency , (U.S.T.D.A)plans to sponsor activities such as feasibility studies, pilot projects and reverse trade missions that will help each state develop its smart cities. USTDA will contribute funds for necessary feasibility studies and pilots, study tours, workshops or trainings and other projects to be mutually determined.

The United States and India have taken significant series of initiatives together on energy and climate, including under the **U.S.-India Energy Dialogue** and **the U.S.-India Joint Working Group on Combating Climate Change**. This partnership includes the **PACE-D Technical Assistance Program**, which is accelerating deployment of clean energy technologies and policies at the national and state levels, **Promoting Energy Access through Clean Energy (PEACE)**, which aims to harness commercial enterprise to bring clean energy access to unserved and underserved Indian villages, the **U.S.-India Collaboration on Smart and Efficient Air Conditioning and Space Cooling** to drive rapid uptake of high-efficiency technologies, and the **U.S.-India Energy Cooperation Program (ECP)**, a public-private partnership between U.S. member companies and the governments of the United States

and India. These programs are estimated to generate more than $4 billion in trade and investment with India and support thousands of jobs in both of our countries.

Purpose

- Members of the ICP have formed a consortium with over 20 U.S. companies offering technology, products and services in these areas. Any or all qualified US companies with experience in India are able to join this consortium. A Capability Deck (Infrastructure & Energy Capability Deck) outlining the offerings from these companies has been compiled and is provided as an annexure (3).

- The ICP will enable U.S. industry to mobilize private sector expertise and resources to address important technology solutions for related infrastructure projects connected to development of smart cities in the identified areas of – Energy, Transport, Water/Sanitation, Safety/Surveillance, Security, Healthcare and Front-End Data Analytics and Systems integration.

-The U.S. industry Consortium will collaborate with other U.S. government agencies like U.S. Trade and Development Agency, Department of Commerce, U.S. Export-Import Bank and other trade and economic agencies and promote greater US-India infrastructure development cooperation and to support development of smart cities.

-The Consortium envisions being the lead in delivering targeted solutions and services for the Smart cities programs, keeping in mind partnerships with Indian companies that can complement/ supplement the overall objective. It seeks to be the industry voice on all serious deliberations that feed into finalizing the Smart City Policy & implementation framework undertaken at the Central and state government levels.

White Paper on Smart Cities

This White paper has been drawn with inputs from members of ICP and outlines key challenges and recommendations for Smart Cities. As initiatives to develop smart solutions to address the challenges associated with rapid urbanization are being undertaken and high focus is given by Government of India on creating 100 smart cities, multiple challenges / issues are likely to affect the implementation phase. Select issues and potential solutions have been elaborated to aid stakeholders in advancing the Smart City Policy & implementation framework. The effort has been to include Conditions preceding smart city development including, presence of notified Master Plan; commitment to building institutional & technical capacity; cohesion and coordination between ULB, State and MoUD; commitment to e-Governance; identification of key drivers, specifications/ standards and technical assessment, clarity on financing mechanism – multilateral funding, grants, PPP and financial sustainability models; and Capacity building support.

Also enumerated per annexure (2) are the short term and medium term initiatives that may be undertaken by the ICP which plug into the existing framework of Smart cities in India. We hope, by this effort, to promote the possibility of providing sustainable framework for development of smart cities and do so well within available resources and accessible solutions.

Ajay Singha
Executive Director
Amcham India

About AMCHAM INDIA :

American Chamber of Commerce in India (AMCHAM India) is an association of American business organizations operating in India. AMCHAM India has around 500 members, spread across the country. Amcham has been guiding and providing a forum for US-based business organizations in India to discuss and identify common issues, economic and commercial interests in India and/or the US by stimulating dialogues between U.S. industry and U.S. and Indian Government on sectors of bilateral cooperation.

ANNEXURE 1

WHITE PAPER ON SMART CITY POLICY RECOMMEDATIONS

March 26, 2015

Area	Challenge	Recommendation
Establish Definition of Smart City	• A Clear Definition of "Smart City" needs to be clearly articulated and defined and is not broadly understood	• Develop a standard GOI definition of Smart City – what constitutes a smart city • Define the types of use cases that constitute a smart city, and assign priorities to these use cases • Specify types products, services, solutions fall within the "smart city" procurement process • Develop **Scorecard** by which Smart Cities will be evaluated by ensuring: ➢ Appropriate metrics for evaluating smart cities ➢ Key milestones & timelines for defining roadmaps ➢ Ensure these guidelines are communicated to States and Municipalities and other stakeholders
Help Define & Support New Business Models	• Traditional funding is not likely to meet the funding required to rollout the GOI's 100 smart city plan • The GOI should support new business models to ensure the funding required to meet its smart city objectives	• Develop new sustainable business finance models in consultation with leading infrastructure banks on raising investment through Municipal bonds, Infra development bonds, and other financial instruments • GOI to work with multilateral funding agencies (like World Bank, ADB) and private sector funding sources (Banks, Sovereign Wealth Funds) and Industry to develop and publish business model best practices – perhaps set up a Business Model working group to publish best practices • Industry to share Best Practices on Funding followed in other parts of the world • Combined Offerings Approach to make the US funding sizable – (USTDA +

		Financial offerings from multilateral funding agencies)
		• Recommend procurement models so that cities do not fall under burdens of L1 being granted the tasks,but on lifecycle cost based integrated total solution • Provide 2 "model" Business Procurement proposals with funding defined for - -a)Infrastructure proposal on EPC basis -b)ICT proposal on BOT basis
Build Capacity and Capability in Smart Cities amongst Government Officials	• Officials at the National, State, Municipal level require training on Smart City concepts (to be able to make sound decisions on what to procure)	• Roll out Smart City training workshops at the Central, State, and Municipal levels with industry participation. Training programs to be developed in-house, for example, on Procurement norms emphasizing the "What to" & "How to" aspects of public procurement-aimed at municipal entities & corporations to aid decision making. • Organize a Smart City Reverse Trade Mission by USTDA with Support from the Amcham consortium. • Setting up advisory and technical committees to develop technical specification & standards and also a process to incorporate them in tendering process. • Develop robust conformity assessment framework[third party certification] for developing safe, green and connected smart cities and at the same time ensure speed to projects and sustainability.
Define Clear Decision Making and Procurement Processes and an Effective Governance Model	• Unclear who/what Dept is setting the strategy for Smart Cities and who is responsible for allocating resources • Industry requires a clear & transparent view of what the Smart City opportunities are across India • Clear Mandates and mechanisms put in place such as Single window clearances, clarity & priority of fund allocation to assigned authorities/SPVs etc.	• GOI to develop clear accountabilities for smart cities (who is responsible for what within the Govt) • In ideal state, GOI to set up an single entity (dedicated department or an SPV) to facilitate all GOI procurement related to Smart Cities • In interim (before an SPV is set up) Provide clear & transparent decision making "maps" to industry – indicating responsibilities by Dept and person; also clearly delineating Central, State, Municipal funding responsibilities • Assign established **Knowledge Partners** to (the Govt's) **Smart city Task forces**

		comprising of GOI(central & state govt reps), other interested Govts, funding agencies **and industry bodies.**
		• In interim, Set up a Website that lists all Smart City opportunities across India with relevant details (decision makers, funding, objectives, etc) • Publish clear Procurement processes and standards
Provide Clarity on Funding to Industry	• Government to provide clarity on Funding Levels , timing of funding, uses of funding, process by which states/municipalities can access funding	• Establish and publish clear & transparent guidelines on amount, potential uses, and process to access GOI funding for smart cities (what is the GOI funding to be used for vs. State and Municipal funding) • Make clear to States/Municipalities what funding is available to them and for what purposes and the process by which they can access this funding • World Bank, USTDA, etc to publish similar guidelines
Ensure Industry Participation in Smart Cities	• Industry (US Companies, Indian Companies) etc. need to inform and influence Smart City strategy in India	• Include Industry reps as key members in the **Smart City Task forces** • Structured monthly meetings between GOI officials, US Govt, and Industry reps to assess progress, discuss challenges, for Smart City rollout
Innovation by Local Industry must be encouraged	• Local Innovation must be encouraged in Smart Cities – a robust eco-system of Indian firms and entrepreneurs is essential to the long-term success of Smart Cities	• Establish a National Center of Excellence for Smart Cities with industry support. National Center of Excellence to serve as a repository of best practices, as a center of research, and as an incubator of new firms • National Center of Excellence should include participation from stake-holders like Academia, Industry, Funding Agencies, Think Tanks, etc. • Over time, Set up prizes, hackathons, etc to encourage smart city innovation • Link to incubators, Private Equity, Venture Capital, etc.
Develop Lighthhouse Smart City Projects to serve as Examples	• Need 2-3 concrete projects to demonstrate key aspects of Smart Cities such as business models, technology, etc.	• Identify 2-3 Lighthouse smart city projects with limited, realizable goals • Provide fast-track funding access to these • Encourage industry consortia formation • Implement light-houses

ANNEXURE 2

SHORT TERM/ MEDIUM TERM ACTIONS

INDUSTRY ACTIONS

1) Capability Deck compilation of U.S. technology offerings provided (ANNEXURE3)

(2) Capacity Building Support by:

-Govt-to- Business Workshops /business Roundtables for rolling out Smart City Implementation plans in states

- Demo/ pilots studies/projects can be conducted for nodal agencies at no cost for studying the feasibility/ viability of smart technologies

-Recommend procurement models- Two 'Model' Business Procurement proposals can be offered-

 a) Infrastructure project proposal   b)ICT project proposal

(3) Consolidated projection of funding availability for projects by leveraging combined offerings from multilateral funding agencies from ADB, World Bank, USTDA,EXIM, OPIC etc . Sharing Best practices funding models around the world.

(4) USTDA funding available for industry supported Study tours / Smart City Reverse Trade Mission.

(5) Advisory Support for Institutional capacity building.

SUGGESTED GOVERNMENT ACTIONS

(1)Publish clear definition of smart cities & smart city indicators to be identified

 (2) Smart City Evaluation Scorecard /guidelines to be developed

(3)Setting up a GOI website that lists Smart city opportunities with relevant details (decision makers/funding/objectives etc)

(4)US Embassy and USTDA to assist (by working with GOI) with making smart city opportunities across India transparent

(5)Central/ state funding options/allocations/priority and accessibility guidelines be defined.

 (6)Government & Industry to join hands for developing system-centric approach on Procurement process and bidding norms, terms of reference etc for Smart city Project engagement opportunities

(7) Clarity of Nodal agencies/Smart City Task forces & SPV roles & responsibilities & clarity of fund allocation

(8)Establish a national center for Excellence for Smart Cities with Industry support.

ANNEXURE 3

AMCHAM's INFRASTRUCTURE & ENERGY CAPABILITY DECK

LIST OF COMPANIES

3M
Accenture
AECOM
Altair
CISCO
Datacard
EMD
Emerson
First Solar
Fluor Daniel
GE
Honeywell
Hewlett Packard
IBM
ICF International
Ingersoll Rand
KPMG
Louis Berger
Moog Technology centre
Timken
UL
UTC
Chubb & Alba
Carrier
OTIS
Osh Kosh Corp
Walter P Moore
Xylem Inc.