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Presentation by John F Williams, Chairman and CEO, Impact Infrastructure, LLC.

**The Future of Infrastructure Investing: It Must be Sustainable**

Good afternoon everyone. My name is John Williams and I am Chairman and CEO of Impact Infrastructure, LLC based in NYC with offices also in Toronto.

My first task in this session is to transition from social ventures to Infrastructure and building projects. The connections should be pretty clear. Infrastructure facilities are essential for life sustaining services, healthy communities, economic viability, as well as regional and global competitiveness.

Infrastructure comes in a variety of forms:

* Mobility – transit (heavy, light, bus, high speed rail), active transport (walking and biking), bridges and highways, railroads, aviation facilities;
* Energy – generation, transmission, storage;
* Environmental Infrastructure includes water, wastewater and stormwater treatment, storage and conveyance, solid waste management, flood protection;
* Social Infrastructure includes schools, healthcare, correctional, parks and administration facilities; and
* Eco System Goods and Services include land, soil, crops, forest, minerals, and marine services.

We rely on each type of infrastructure to provide social and often environmental and economic benefits. More recently, infrastructure is viewed as a potential preventative resiliency strategy used in conjunction with responsive insurance strategies.

Allow me to illustrate:

Imagine that you lived in NYC’s Far Rockaway when Hurricane Sandy struck. Its three days later and you are sitting in your car, dazed, mourning the loss of your dog and wondering where grandma is.

Your house and everything that was in it is gone and you see a man walking up to your car. You roll down the window only to see the Mayor standing there. He asks how you are doing and you tell him about your dog and Grandma. He expresses his sympathy but adds that you shouldn’t worry. Why? Because there is insurance. Interesting.

You ask who has insurance, what it covers, how much it will pay, when it will pay, what will it pay for. You thank the mayor but add that right now, insurance is not a lot of help.

What you would have preferred is not to lose your house, dog and grandma in the first place. You are going to want to know what will be done to prevent another disaster. That’s where infrastructure comes in (see the social good?).

Think of this example as the ultimate Public Private Partnership (PPP) – proactive, preventative investments in the first ten feet of “sea wall” supplemented by insurance to cover the next five feet of protection when the next storm comes.

I say it is the ultimate PPP because the public sector knows how to deliver sea wall and the private sector is best equipped to handle the insurance and Catastrophe bonds that back it.

The better the sea wall the more the CAT bonds are worth.

For those really extreme events that are so difficult to predict, the insurance covers extraordinary risk and shares it within the marketplace allowing for reduced costs in exchange for protection that many share.

So, to pull my remarks back to the theme for this conference: “Finding the Ethical Alpha,” Ethical investors can find plenty of return in infrastructure projects. Investors can gain exposure through a variety of investment vehicles including private equity funds, hedge funds, and direct investments. *Prequin Online* reports that unlisted infrastructure funds are the preferred route to market over the next twelve months for investors followed by direct investment.

Some investors, like CalPERS, choose to invest directly in projects alongside their allocation to infrastructure oriented funds. In fact investment and co-investment were the main strategies institutional investors intend to focus on for the long-term.

A more traditional approach is to invest in infrastructure is through tax exempt municipal bonds which serve state and local governments as the main funding sources for infrastructure projects. Municipal bonds can be divided into two groups: (i) General Obligation Bonds which are backed by revenues of the issuing institution such as sales and property taxes, and (ii) revenue Bonds which pledge future revenues from specific projects for debt repayment.

The tax-exempt status on most municipal bonds reduces the cost of capital for new projects. However, their tax exempt status and lower associated returns make municipal bonds less attractive than non-tax – exempt bonds to institutional and retail investors.

Infrastructure projects inherently produce a large amount of social and economic value in a region. This value can be modeled (this is what our company, Impact Infrastructure does) and the induced tax boost and decreased spending for Municipal, State and Federal governments can be determined (with a certain level of confidence).

Examples of induced tax boosts include increased property taxes due to property value enhancement, increased economic activity leading to higher corporate taxes and sales taxes, and reduced health costs due to improved air quality or improved access to recreational spaces. This information should be leveraged to fund projects at a higher rate of financial return as compared to municipal bonds in order to attract impact capital.

By modeling the NPV of increased tax revenues over the life of the project as a result of the project being built, we can identify (with confidence) increased tax revenues with a 95% probability of being greater than the NPV of the coupon payments above and beyond what they would have been otherwise (say at 3%), the premium could be justified.

The ability for the sponsor government to realize benefits from the project over its life in the form of increased tax revenues and lower healthcare costs (in this example) that are worth MORE than its financing costs – sets the stage for creating wins for Government, private investors and society (stakeholders).

So why hasn’t this become a standard practice?

Until now there has been a data gap or lack of tools that can do this kind of valuation and sensitivity analysis while using a standard approach. Also, without the ability to determine comprehensive value, there is little reason to look beyond tax exempt bonds that have cash payout rates that are higher. Governments will be leery of locking into higher cash payout rates with nothing more than forecasting models telling them that they will get their money back.

Might this concern be mitigated if investor confidence levels can be elevated to something like 99%?

These barriers (including lack of certainty) lay like a blanket of fog over the emerging – multitrillion dollar infrastructure finance market. I am going to

assume the role of Impact Investment ‘Radar’ for the next couple of minutes.

I want to guide you through the next two years and the developments that will clear the way to plenty of opportunity to unleash impact capital and realize Ethical Alpha (financial returns plus external economic + social + environmental returns x adjusted for risk = Ethical Alpha or Sustainability Impact Value (SIV)).

Every gathering of impact investors will find its way to a discussion regarding infrastructure. Each time the same set of barriers surface.

The **first concern** to come up has to do with the lack of metrics and standards for assessing project value and risk. My ‘radar’ is picking up good news in that solutions are on the horizon.

The Institute for Sustainable Infrastructure or ISI was formed by the APWA, ASCE ACEC and Zofnass Program for Sustainability at Harvard’s Graduate School of Design. Those organizations include over 600,000 capital program influencers and some of the most prominent planners and architects in the US.

They bring scale to sustainability rating. Their EnvisionTM tool is the infrastructure equivalent of LEED but, it adds a feature that LEED and other rating systems lack – economics and risk analysis in the form of the of a companion tool called the Business Case Evaluator or BCE.

The BCE is backed by an $11 billion applied track record. That track record when combined with its Cost Benefit Analysis based metrics and analytical process give it the credibility and standard attributes the industry needs.

Its potential for integration with BIM or Building Information Modeling (the industry default standard for computer aided planning and design) give the ability to deploy rapidly to millions of users.

Users can run comprehensive business cases (early and often) at a nominal cost as compared to custom economic studies.

This is particularly good news as business cases need to follow projects from concept through detailed design, construction, commissioning and long-term operations. Each step of the way they should be updated and used to establish performance baselines for ongoing performance monitoring and reporting. For more information Google: www.sustainableinfrastructure.org/resources.

The **second concern** voiced by the impact investing community has to do with the lack of capacity to evaluate opportunities to determine the shade of green or, risk adjusted value associated with the opportunities at hand. My ‘radar’ has spotted the answer to this concern. It resides in the group of professionals that are engaged first and released last as infrastructure projects are developed and operating - the planning and design community which has access to massive amounts of data/information relative to every aspect of the project.

Project sponsors are more than willing to harvest and share the information impact investors need if they, the investors, would only demand it.

Let me give you an example.

In 2003 I applied for a construction loan to build a vacation home on Martha’s Vineyard. Think of me as the project sponsor (because I was). My bank (Impact Investors) had a long list of demands for information and access to the project that I had to respond to. Each item involved an extra expense that I had to cover and, I did. Why? Because I wanted the loan.

The same is true with infrastructure Project Sponsors. They will engage their planners and designers who will use the EnvisionTM tools including the BCE to craft objective, transparent and comprehensive business cases needed to inform, and thus, reduce the cost and time required to complete due diligence.

The **third concern** centers on the necessity to bundle projects. They are typically valued at between $5m and $100m and need to be financed in groups to increase the efficiency and lower the cost of investing.

As long as project assessments rely on one-off custom studies, it will be impossible to bundle disparate projects. The use of a common, standard assessment tool/process like EnvisionTM and the BCE will enable project comparability on a basis of a common approach to rating and including risk adjusted economic values as well as sustainable supply chain and climate risk analysis of clearly defined project features. Project features are translated to economic outcomes which are highly comparable and thus, subject to bundling.

The **fourth concern** is focused on the friction between the use of tax exempt bonds and taxable vehicles. It is very difficult for a public official to justify the cost of capital associated with impact investments when tax exempt bonds are available. My ‘radar’ has detected the key to this challenge which resides in the ability to engage in deal “balancing” based on high probability outcomes as to value of infrastructure in exchange for capital.

If an impact investment will enable a project to produce measurable public benefits that would be otherwise impossible to realize, the public official can point to the value of public benefits in exchange for the cost of capital. Those benefits may well include new tax revenue beyond the current tax base that can justify new investments.

So in **summary,** realizing the Ethical Alpha in infrastructure and public building projects requires metrics and standards to establish credibility, tools to determine risk adjusted value, economics based business cases for comparability and bundling, and the ability to establish value of public benefits in exchange for the

cost of capital in order to build political support for financing beyond tax exempt bonds.

The good news is that solutions to each of these challenges are emerging rapidly and will soon be broadly available. So, expect clearer opportunities, lower transaction costs, shorter due diligence, and greater political support.

That is why impact investors will soon play a major role in creating sustainable infrastructure. They can expect a reasonable risk reward outcome but also, the ability to generate additional impact in the form of public benefit that can be measured and tracked over the term of their investments.

That total MEASURABLE OUTCOME includes:

Financial Return + External Economic + Social + Environmental Impacts X Adjusted for Risks = the Ethical Alpha that we are all searching for.

Questions?

**John F. Williams** is Chairman and CEO of Impact Infrastructure, LLC. in New York City. He has spent 35 years as an advisor to governments at all levels that engage in infrastructure delivery. He pioneered the development of the Sustainable Return on Investment (SROI) Framework, co-created the Business Case Evaluator and AutoCASETM a cloud based automated business case evaluation product line that operates as a plug-in feature to project simulation and visualization software. Williams Chairs ISI’s Economics Committee and Co-Chairs the West Coast Infrastructure Exchange’s Business Standards Committee. He is a member of the Ceres President’s Council and has been on faculty at Columbia University’s School of Public Administration and International Affairs since 2002.

**Impact Infrastructure, LLC**. (ii), is at the center of efforts to create standard risk-adjusted metrics and tools for project valuation. The company’s AutoCASETM product line automates the business case analysis for infrastructure and public building projects. ii has offices in NYC and Toronto.