

PENSION INFRASTRUCTURE FINANCE & INNOVATION ACT (“P̄FIA”)

New Federalism Program — Federal Government Partnering with States and Local Governments to Solve Pension and Infrastructure Challenges Without Adding To The Federal Deficit

PROGRAM. The economic devastation raging across our Country is also exacerbating the long-standing challenge of adequately funding US public pension funds (“Public Plans”). Pew estimates that pension underfunding has increased from \$1.2 to \$1.7 trillion. This together with an already large infrastructure gap of \$2 Trillion as estimated in ASCE 2017 Report Card. So, states and local governments (“SLGs” or “Borrowers”) are now likely to seek more direct Federal assistance, which as before, may not lead to permanent fixes. However, Congress already has excellent models in lieu of grants – the TIFIA and WIFIA² programs. And, **Pension Infrastructure Finance and Innovation Act (“P̄FIA”)** is a comparable alternative to direct assistance, delivering immediate relief to SLG budgets, to taxpayers across America and to the economy – stabilizing markets and creating new jobs. P̄FIA will promote permanent pension reforms, including requiring full funding of annual actuarial required contributions (“ARC”).

Loans. Must be highly creditworthy, carrying investment grade ratings, and be fully “self-supporting”. While funded by US Treasury (“UST”), P̄FIA financing will not increase Federal Deficit. Congress would appropriate \$5 billion to UST to support up to \$500 billion in Loans at UST bond rates (assuming 1.5%). Borrowers shall use all Loan proceeds to make irrevocable contributions to their Public Plans, and such amounts will facilitate Plan investments in infrastructure and other assets. At least 20% of Loan proceeds (10% for Lower Density Borrowers²) must be invested in infrastructure. P̄FIA Loans replace Borrower’s IOUs with real assets, so the infrastructure investment requirement (“IIR”) should not raise a fiduciary issues.

New Federalism – Local Choice, Local Match & Local Control. P̄FIA may not be the answer for all SLGs as pensions and infrastructure may not be their most pressing needs. So, the next COVID 19 Aid Package should offer alternative choices.

P̄FIA HIGHLIGHTS

Immediate Budget & Tax Relief

- \$110 Billion over first 3 years
- \$600 Billion over 30 years (\$500B on PV basis)

Stabilize Markets, Economy and Create New Jobs

- Stymie investment sell-off for liquidity
- \$500 billion in infrastructure investment

20% Infrastructure Investment Requirement

- 10% IIR for Lower Density Borrowers
- Bonuses for Infrastructure & Pension Funding Innovations
- Pension Equity works in concert with TIFIA/WIFIA

P̄FIA LOAN TERMS:

Eligible Borrower: All States plus Local Governments with over 1 million population (small local governments can borrow apply for Loans through their state)

Security: Loan with investment grade rating

Interest Rate: UST Bond Rate (assuming 1.5%)

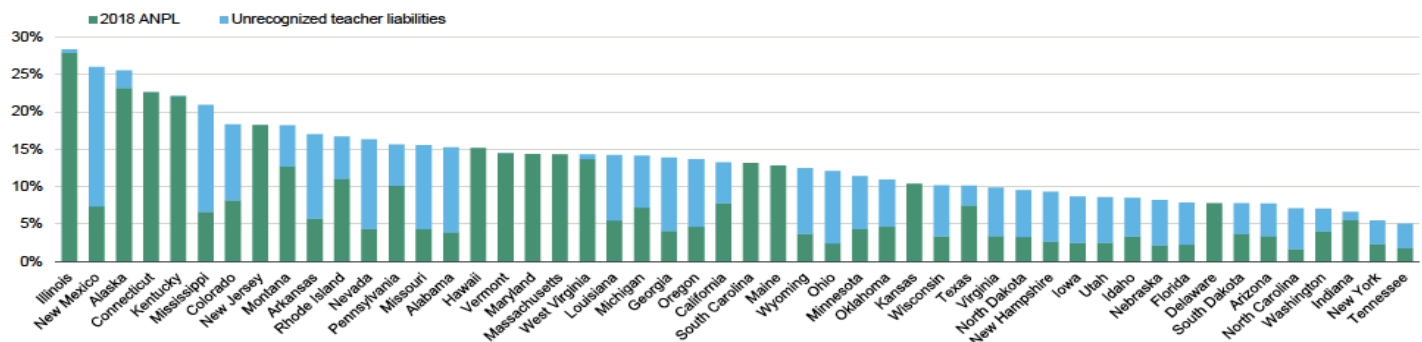
Amortization: 30 yrs. with debt service deferral for 3 yrs. and prepayable at anytime without penalty or fee

Loan Prioritization: Top priority to “shovel ready” projects and asset transfers that improve pensions

Loan Draws: 3 yrs. from program commencement

Moody’s Analysis Reveals Long Unnoticed Pension Trouble Spots – Teacher Unfunded Liabilities³

Teacher liabilities significantly increase pension burdens for some states
Fiscal 2018 ANPL Including currently unrecognized teacher liabilities as a percent of state GDP



ANPL stands for adjusted net pension liability.

Sources: Moody's Investors Service, state and pension plan financial statements, US Bureau of Economic Analysis

¹ Transportation Infrastructure Finance and Innovation Act (“TIFIA”) and the Water Infrastructure Finance and Innovation Act (“WIFIA”)

² Lower Density Borrowers are states that with population of less 200 people per square mile and local governments that are located in an area that is outside of an urbanized area with a population greater than 150,000 individuals.

³ Sector Profile – “Medians – Adjusted net pension liabilities decline, OPEB liabilities vary widely,” Moody’s Investor Services (9/7/19)

Moody's Highlights that Many of the Largest Local Governments Have Combined Pension, Debt Service and Other Post Employment Benefit Contributions that Exceed 30% of Operating Revenues⁴

Summary of key fiscal 2017 pension risk metrics for the 50 largest local governments

Exhibit 1

ANPL and pension contribution measures, cities and counties

| Government | State | Rating | FY 2017 ANPL (billions) | FY 2017 ANPL - % of revenues | FY 2017 pension contributions - % of revenues | | | | Tread Water Gap - % of revenues |
|----------------------|-------|--------|-------------------------|------------------------------|-----------------------------------------------|----|-----|-----|---------------------------------|
| | | | | | -20% | 0% | 20% | 40% | |
| Chicago | IL | Ba1 | \$41.7 | 782% | 18% | | | | 20% |
| Dallas | TX | A1 | \$8.1 | 562% | 11% | | | | 7% |
| Los Angeles | CA | Aa2 | \$28.4 | 424% | 12% | | | | 1% |
| Phoenix | AZ | Aa1 | \$7.8 | 397% | 14% | | | | 5% |
| Houston | TX | Aa3 | \$8.8 | 367% | 15% | | | | 8% |
| Jacksonville | FL | A2 | \$5.3 | 364% | 17% | | | | -1% |
| Detroit | MI | Ba3 | \$4.0 | 356% | 8% | | | | 3% |
| Honolulu | HI | Aa1 | \$4.9 | 309% | 8% | | | | 6% |
| Columbus | OH | Aaa | \$3.2 | 296% | 8% | | | | 1% |
| San Francisco | CA | Aaa | \$12.4 | 233% | 6% | | | | 2% |
| Philadelphia | PA | A2 | \$9.7 | 231% | 15% | | | | -2% |
| Kansas City | MO | Aa2 | \$2.3 | 227% | 7% | | | | 3% |
| San Antonio | TX | Aaa | \$3.0 | 224% | 7% | | | | 1% |
| New York City | NY | Aa2 | \$130.7 | 157% | 11% | | | | -2% |
| Metro Nashville | TN | Aa2 | \$2.4 | 121% | 6% | | | | -2% |
| District of Columbia | DC | Aaa | \$3.6 | 43% | 2% | | | | 0% |
| Counties | | | | | -20% | 0% | 20% | | |
| Cook County | IL | A2 | \$16.2 | 374% | 12% | | | | 4% |
| Fairfax County | VA | Aaa | \$14.7 | 305% | 11% | | | | 1% |
| Clark County | NV | Aa1 | \$7.5 | 270% | 5% | | | | 2% |
| Miami Dade County | FL | Aa2 | \$8.1 | 225% | 6% | | | | 1% |
| LA County | CA | Aa1 | \$37.7 | 221% | 6% | | | | 0% |
| Santa Clara County | CA | Aa2 | \$7.3 | 218% | 7% | | | | 2% |
| Cuyahoga County | OH | Aa2 | \$2.0 | 186% | 5% | | | | 1% |
| Bexar County | TX | Aaa | \$0.9 | 175% | 6% | | | | 0% |
| Harris County | TX | Aaa | \$4.1 | 172% | 5% | | | | 0% |
| Baltimore County | MD | Aaa | \$3.2 | 164% | 5% | | | | 3% |
| Suffolk County | NY | Baa1 | \$3.3 | 117% | 7% | | | | -2% |
| Anne Arundel County | MD | Aa1 | \$1.6 | 109% | 4% | | | | 0% |
| Nassau County | NY | A2 | \$2.9 | 99% | 6% | | | | -1% |
| Montgomery County | MD | Aaa | \$2.6 | 77% | 4% | | | | -1% |
| Wake County | NC | Aaa | \$0.5 | 39% | 1% | | | | 0% |

Government names are abbreviated in some cases. Each government's full name and associated abbreviation is provided in the first Appendix table in this report.

Source: Moody's Investors Service

⁴ Sector In-Depth – "Adjusted net pension liabilities for most of the 50 largest local governments in 2017," Moody's Investor Services (12/18/18)

Exhibit 2

ANPL and pension contribution measures, school districts and other special districts

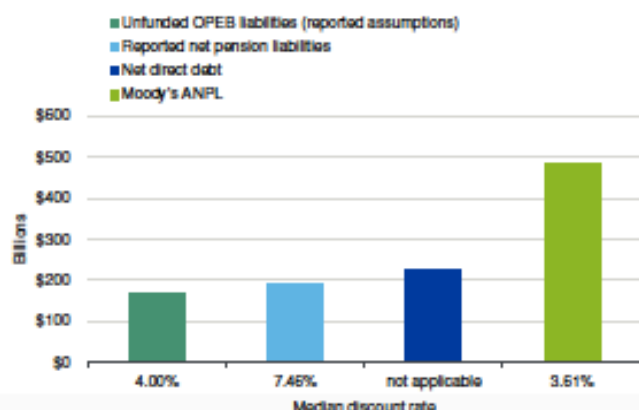
| Government | State | Rating | FY 2017 ANPL (billions) | FY 2017 ANPL - % of revenues | FY 2017 pension contributions - % of revenues | | | Tread Water Gap - % of revenues | |
|-------------------------|-------|--------|-------------------------|------------------------------|-----------------------------------------------|-----|-------------|---------------------------------|----|
| | | | | | <div></div> | | | <div></div> | |
| School Districts | | | | | | 0% | 20% | | |
| Chicago Board of Ed | IL | B2 | \$24.7 | <div></div> | 432% | 13% | <div></div> | | 3% |
| Clark County Schools | NV | A1 | \$11.6 | <div></div> | 367% | 7% | <div></div> | | 3% |
| SD Unified | CA | Aa2 | \$4.4 | <div></div> | 286% | 7% | <div></div> | | 3% |
| LA Unified | CA | Aa2 | \$20.3 | <div></div> | 249% | 6% | <div></div> | | 3% |
| Denver Schools | CO | Aa1 | \$2.6 | <div></div> | 229% | 2% | <div></div> | | 7% |
| Palm Beach Schools | FL | Aa2 | \$3.3 | <div></div> | 163% | 4% | <div></div> | | 1% |
| Miami Dade Schools | FL | Aa3 | \$5.9 | <div></div> | 159% | 4% | <div></div> | | 1% |
| Broward Schools | FL | Aa2 | \$3.6 | <div></div> | 137% | 4% | <div></div> | | 1% |
| Houston ISD | TX | Aaa | \$2.6 | <div></div> | 123% | 2% | <div></div> | | 1% |
| Dallas ISD | TX | Aa1 | \$1.9 | <div></div> | 113% | 2% | <div></div> | | 1% |
| Cy-Fair ISD | TX | Aa1 | \$1.0 | <div></div> | 96% | 2% | <div></div> | | 1% |
| Northside ISD | TX | Aa1 | \$1.0 | <div></div> | 92% | 2% | <div></div> | | 1% |
| Katy ISD | TX | Aa1 | \$0.6 | <div></div> | 76% | 2% | <div></div> | | 0% |
| Frisco ISD | TX | Aa1 | \$0.4 | <div></div> | 73% | 2% | <div></div> | | 1% |
| Philadelphia Schools | PA | Ba2 | \$1.7 | <div></div> | 64% | 3% | <div></div> | | 0% |
| Other Special Districts | | | | | | 0% | 20% | | |
| Met Water Reclamation | IL | Aa2 | \$2.2 | <div></div> | 320% | 13% | <div></div> | | 0% |
| SF BART District | CA | Aaa | \$2.0 | <div></div> | 205% | 6% | <div></div> | | 2% |
| LA Comm College | CA | Aa1 | \$2.1 | <div></div> | 187% | 5% | <div></div> | | 2% |
| LV Valley Water | NV | Aa1 | \$0.6 | <div></div> | 160% | 9% | <div></div> | | 0% |

Government names are abbreviated in some cases. Each government's full name and associated abbreviation is provided in the first Appendix table in this report.
Source: Moody's Investors Service

ANPLs hit aggregate \$481 billion in fiscal 2017 for 50 largest local governments, up more than 9%

Exhibit 3

ANPLs greatly exceed unfunded OPEBs and bonded debt for the 50 largest local governments, in aggregate



Source: Moody's Investors Service

Pensions are the greatest driver of balance sheet leverage

- » At an aggregate \$481 billion in fiscal 2017, up more than 9% over fiscal 2016, ANPLs are the single largest source of balance sheet leverage for the 50 largest local governments.
- » Unfunded OPEB liabilities of the 50 largest, based on reported discount rates, amounted to \$166 billion in fiscal 2017 (see Exhibit 3).
- » Individual governments exhibit wide variation, with net direct debt exceeding ANPL for 19 out of the 50 largest.

Infrastructure Investment via Public Plans – Canada, Europe and institutional investors around the world have demonstrated the importance of core infrastructure in a portfolio – PIFIA fosters prudent investment by making US core infrastructure available and by requiring sound pension policies

Infrastructure Fund Investment – Base Case

Variety of funds along with specialties in Alternative Delivery & Project Finance – Synonymous with NEW infrastructure investment

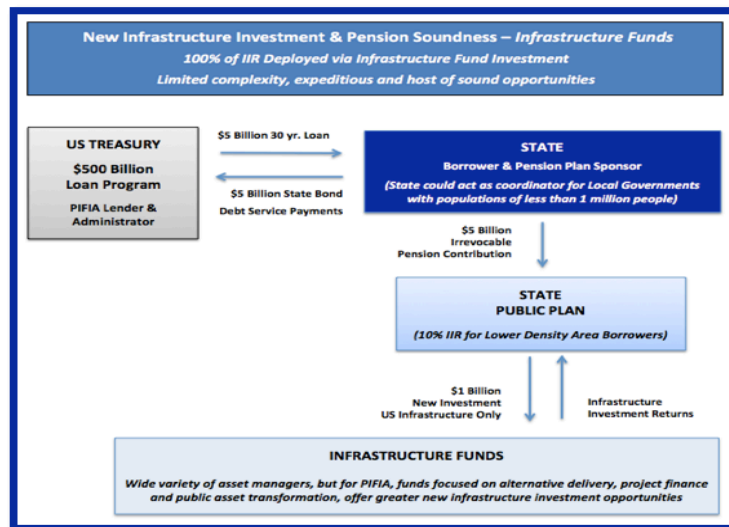
\$20 Billion Net Unfunded Pension Liability (NPL)

- \$5 Billion PIFIA Loan proceeds – Contributed
- NPL reduced to \$15 Billion

All 20% of IIR Placed with Infrastructure Funds

- No Innovation Bonuses identified
- Once verified, Borrowers can get Bonus credit
- **\$1 Billion in Infrastructure (20% of \$5B)**

50% Bonuses for Innovations in Infrastructure Investment & Pension Funding via Asset Transfers



Dynamic Infrastructure Investment - Innovations that Maximize New Infrastructure Investment AND Enhance Pension Soundness –Combining AIK, Alternative Delivery and Infrastructure Fund investment strategies⁴

\$20 Billion Net Unfunded Pension Liability

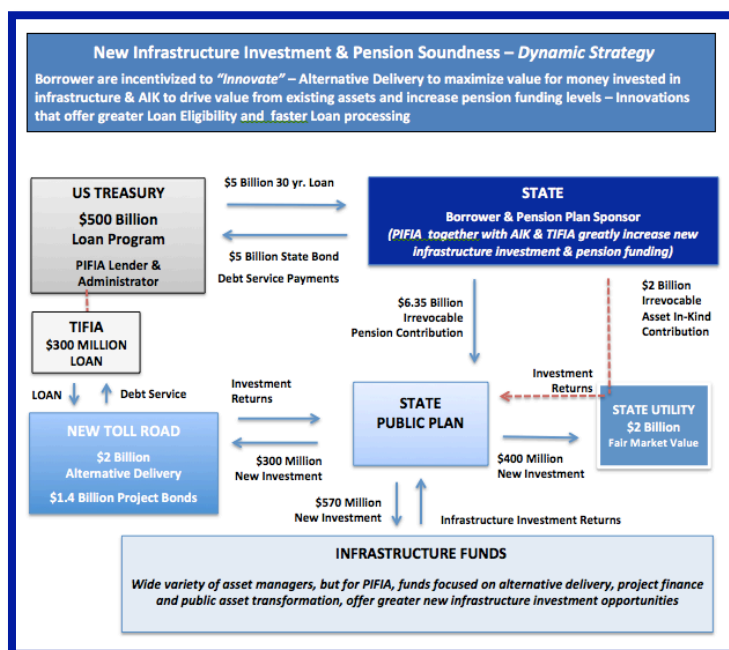
- \$5 Billion PIFIA Loan proceeds – Contributed
 - \$2 Billion AIK of Utility asset – Contributed
 - \$1.35 Billion PIFIA Loan Bonus – Contributed
- NPL is reduced by \$8.35 Billion to \$11.65 Billion**

20% IIR Met with a Combination of Investments

- \$400 Million Invested in \$1.2B Utility Projects
 - \$300 Million Invested in New Toll Road
 - \$570 Million Invested in Infrastructure Funds
- \$1.27 Billion in Infrastructure (20% of \$6.35B)**

\$700 Million of Pension Equity Leveraged to Support \$3.2 Billion in New Infrastructure³

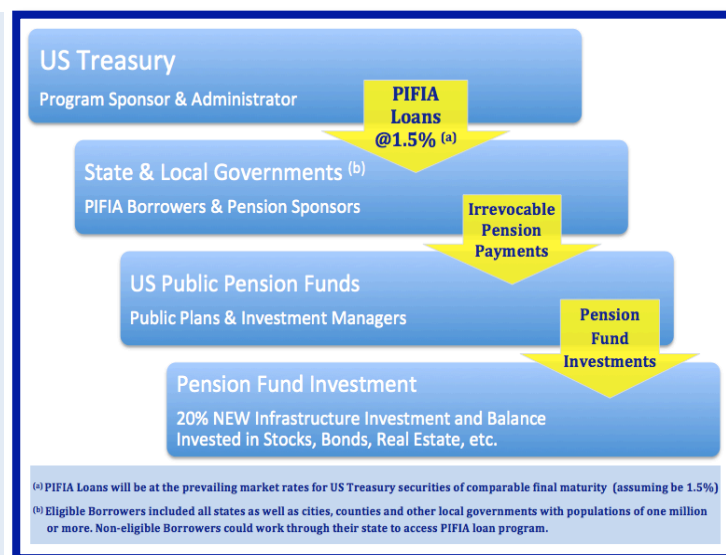
50% Bonuses for Innovation in Infrastructure Investment & Pension Funding via Asset Transfers



⁴ AIK in the two examples above illustrates how a Public Plan's newfound value from PIFIA and an AIK can lead to new infrastructure investments, and more important, provide equity capital that can be leverage appropriately and attract better financing terms. The total new infrastructure investment in the Utility asset acquired via AIK is assumed to be a \$1.2 billion and is financed by \$400 million of Public Plan equity and \$800 million of debt. In this illustration, the Public Plan's newfound value provides it with the wherewithal to make a \$300 million equity investment in the state's New Toll Road project. The Public Plan equity is leveraged with \$1.7 billion of debt, including \$300 million in TIFIA loans, for a new infrastructure multiple of nearly 6 to 1, or \$6 of new infrastructure for \$1 of Public Plan equity investment. The Utility and Toll Road new infrastructure investments total \$3.2 billion for a 4.6 to 1 multiple.

PROGRAM GOALS:

- *Soundly buttress capital markets, kick start the economy and facilitate job creation*
- *Provide budget relief to SLG's and taxpayers of \$110 Billion (Over 3 yrs.) & \$600 Billion (Over 30 yrs.)*
- *Fund up \$500 billion of NEW infrastructure investment by leveraging the 20% IIR by as much as 10 to 1*
- *Promote safe, prudent pension investments with attractive, risk-adjusted, investment returns*
- *Must meet annual ARC using conservative assumptions*



CONDITIONS & ASSUMPTIONS:

Loan Proceeds. All Loans made to Borrowers must be irrevocably deposited with the Borrower's Public Plan(s) for investment in infrastructure, stocks, bonds, real estate, etc. pursuant to their updated allocation policy of the Plan and in accordance with its fiduciary responsibility.

Infrastructure Investment Requirement or IIR. 20% of Loan proceeds (10% for Lower Density Borrowers) must be deployed into US infrastructure "equity" investments. Under PIFIA, infrastructure would include, but not be limited to, water and sewer utilities, irrigation projects and other rural infrastructure, toll facilities, highways and bridges, airports, ports and waterways, energy generation, transmission and distribution, telecommunications, renewables and other green infrastructure, schools, higher education facilities, student housing, justice centers and other public facilities, and pandemic protection infrastructure. Plans would make equity investments in:

- 1) **Infrastructure Funds.** An asset class that has a wide variety of investment options with highly capable asset managers including those infrastructure funds that specialize in making new infrastructure investments in the US, utilizing alternative delivery approaches and project finance. Many infrastructure funds focus on existing assets, therefore to qualify for an Innovation Bonus, these funds would need to clearly demonstrate what portion of PIFIA related investments are for new infrastructure.
- 2) **Alternative Delivery/Project Finance.** Investments backed by availability payments, off-take contracts, or leases would have higher new infrastructure investment multiples – \$1 of Plan equity builds \$5-10 of new infrastructure.
- 3) **New Infrastructure Projects.** Limited partnerships, limited liability corporations, master limited partnerships, etc., could offer direct investment opportunities and generate new infrastructure investment in an amount equal to the associated Loan proceeds or multiples thereof.
- 4) **Asset Transfers & Asset In-Kind Contribution (AIK) of Existing Public Assets.** AIK is a powerful innovation that works to create great value by transforming existing public assets into high performance-driven enterprises. Borrowers can improve Public Plan funding and earn Innovation Bonuses by making additional contributions to their Plan, e.g., proceeds from a concession, lease or sale of public assets, AIK of infrastructure asset to the Plan, or other creative approaches dedicating future asset savings to the Plan. AIKs also avoid the political risks and challenges of sale or concession of public assets to private or alien interests and can be executed reasonably quickly. Like other Asset Transfers, AIKs optimize the value of existing infrastructure, and thereby, increase the value of assets in the Plan, preserving the "up-side" – **Transform Public Assets under Superior Public Stewardship for Maximum Public Benefit.**

- **Innovation Bonuses.** PIFIA, like TIFIA and WIFIA, advances Federal public policy to encourage innovations in infrastructure investment that optimize assets, project delivery, and finance, and more importantly, that result in an increase in total infrastructure investment. PIFIA builds upon these successes by expanding the role of Public Plan equity in delivering more infrastructure investment, while greatly improving Public Plan soundness. So, in addition to Bonuses for innovation in infrastructure investment, PIFIA would provide Bonuses for Asset Transfers that increase Public Plan soundness through infrastructure, e.g., privatization, consolidation, AIK, etc.
 - **IIR Credit.** Loan proceeds invested in #1 above may not significantly increase new infrastructure construction or innovation, but could provide an important investment vehicle to help close America's infrastructure funding gap. Such investments would count toward the 20% IIR.
 - **Bonus Adjustments.** Given that #2-4 above promote innovation and are designed to deliver new infrastructure investment, greater efficiencies and asset optimization, such investments would qualify for Innovation Bonuses, as would investments under #1 above that verify new infrastructure delivery. Such Bonuses could take the form of:
 - **Better loan eligibility, terms & priority.** If a Borrower meets its IIR through #2-4 above, it would be entitled to a 50% Bonus. And, Loans should be expedited to accelerate project design, engineering and construction.
 - **Greater loan.** If a Public Plan meets 100% of infrastructure requirement per #2-4, their loan eligibility would be improved by 1.5 times, i.e., \$1 billion in Loan eligibility can be increased to \$1.5 billion.
 - **Reduced Requirement.** Alternatively, if a Borrower has an IIR of \$200 million and the Plan invests \$134 million in an Alternative Delivery project, the 50% (\$67M) Innovation Bonus can be used to meet the IIR obligation.

New Federalism - Local Choice, Local Match & Local Control. PIFIA may not be the answer for all SLGs as pensions and infrastructure may not be their most pressing needs. So, the next COVID 19 Aid Package should include:

- **Local Choice.** SLGs can choose cash for assistance, direct infrastructure investment, or access to other loan programs
- **Local Match.** With PIFIA, it is less about "match" and more about getting "credit" or "bonus" for local initiatives that contribute to the overarching objective of "eliminating pension underfunding" and "closing the infrastructure gap."
- **Local Control.** Pension investments and infrastructure project selection, planning, and execution all remain with the SLGs and their pensions – Similarly, taking a PIFIA Loan requires a local decision on whether such a loan with the 20% IIR is more prudent and responsible than continuing forward with the challenges of pension underfunding.

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| INFRASTRUCTURE INVESTMENT REQUIREMENTS & OPTIONS | Infrastructure Funds – Eligibility for Innovation Bonuses Will Vary |
| 20% of Total Loan (10% for Rural Borrowers) | – Funds focused on Alternative Delivery will deliver more new infrastructure – Acquiring existing assets may not materially increase infrastructure investment |
| | Alternative Delivery – Great Way to Maximize Infrastructure Investment |
| | – Treasury Equity could leverage "contractually-secured" projects by 5-10 times – Largely toll facilities, airport terminals, highways & bridges, and schools – Great approach for emerging needs like pandemic retrofit of public facilities |
| | Asset In-Kind Contribution of Public Assets – Offers Faster Execution |
| | – Powerful platform for transforming public assets into high performance-driven enterprises – AIK acts as match for 20% Requirement, if Borrower commits to new infrastructure build – AIK increases both infrastructure investment and Plan funding ratios |
| | Other Asset Classes – Driven by asset allocation policy & fiduciary duties |
| INFRASTRUCTURE. It may include, but is not limited to, water and sewer utilities, toll facilities, highways and bridges, airports, ports and waterways, energy generation, transmission and distribution, telecommunications, renewables and other green infrastructure, schools and higher education facilities, student housing, justice centers and other public facilities, and pandemic protection infrastructure. | |

Key PIFIA Loan Terms:

- **Eligible Borrower.** All states as well as counties, cities and other local governments with a population of one million or more would be eligible to participate directly in the PIFIA Loan Program. Non-eligible local governmental units could “indirectly” access PIFIA by working through their state, which could act on behalf the local governmental unit. *These criteria are similar to those found in the Federal Reserve’s Municipal Liquidity Facility established under the CARE Act.*
- **Eligible Loan Amount.** TBD
- **Security:** Borrower shall provide UST with either i) general obligation bonds secured by its full faith and credit and taxing power, or ii) other evidence of indebtedness, but in all cases, such obligations shall have an investment grade rating from a nationally recognized rating agency as well as a legal opinion from a nationally recognized bond counsel.
- **Loan Amortization & Final Maturity:** Principal and interest may be deferred for up to three (3) years and the principal amortization would be negotiated with UST with final maturity up to 30 years. Loans could be pre-paid at any time without a penalty or a fee.
- **Interest Payments:** The Loan rate could be set on the date of the Loan commitment, and would be at the prevailing interest rate on UST bonds with a maturity that is comparable to the Loan’s final due date.
- **Loan Prioritization:** Applications would be accepted on first come, first serve basis; however, Borrowers that i) can expedite investment in NEW infrastructure projects (“Shovel Ready” or nearly so) and can demonstrate “Innovation” by creating value in enterprise and project design, construction, finance, operations and management; and/or ii) agree to immediately increase contributions to Public Plan above the ARC amount with resources generated from asset transfer(s), would receive top priority. Innovative approaches would include, but would not be limited to, asset transfers, alternative delivery, life-cycle management, regional consolidation, etc.
- **Loan Draw Down Period:** Borrowers will have three (3) years from the date of commencement of the PIFIA Loan Program to draw down the Loan under schedules to be provided by UST. The extended draw down period is intended to give Public Plans sufficient time to make any necessary revisions to their investment strategies, asset allocation plan, approved list of asset managers, etc. The over-arching goal is fostering sound and prudent investment of these newfound resources.
- **Loan Facility Deadlines and Expiration:** SLGs interested in participating in the PIFIA Loan Program would need to give initial, non-binding “Notice of Interest” by [July 30, 2020], and would need to submit application by [April 1, 2021.] UST could make initial Loan allocations as early as [November 1, 2020].

