AGENDA

CITY COUNCIL OF THE CITY OF MORENO VALLEY
MORENO VALLEY COMMUNITY SERVICES DISTRICT
CITY AS SUCCESSOR AGENCY FOR THE COMMUNITY REDEVELOPMENT AGENCY OF THE CITY OF MORENO VALLEY
MORENO VALLEY HOUSING AUTHORITY

September 1, 2015

STUDY SESSION – 6:00 PM

City Council Study Sessions
First & Third Tuesdays of each month – 6:00 p.m.
City Council Meetings
Special Presentations – 5:30 P.M.
Second & Fourth Tuesdays of each month – 6:00 p.m.
City Council Closed Session
Will be scheduled as needed at 4:30 p.m.

City Hall Council Chamber – 14177 Frederick Street

Upon request, this agenda will be made available in appropriate alternative formats to persons with disabilities, in compliance with the Americans with Disabilities Act of 1990. Any person with a disability who requires a modification or accommodation in order to participate in a meeting should direct such request to Guy Pegan, ADA Coordinator, at 951.413.3120 at least 48 hours before the meeting. The 48-hour notification will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Jesse L. Molina, Mayor

Dr. Yxstian A. Gutierrez, Mayor Pro Tem
Jeffrey J. Giba, Council Member
George E. Price, Council Member
D. LaDonna Jempson, Council Member

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THE CITY COUNCIL RECEIVES A SEPARATE STIPEND FOR CSD MEETINGS

STUDY SESSION – 6:00 PM
SEPTEMBER 1, 2015

CALL TO ORDER

PLEDGE OF ALLEGIANCE

INVOCATION

ROLL CALL

INTRODUCTIONS

PUBLIC COMMENTS ON MATTERS UNDER THE SUBJECT MATTER JURISDICTION OF THE CITY COUNCIL
There is a three-minute time limit per person. Please complete and submit a BLUE speaker slip to the City Clerk. All remarks and questions shall be addressed to the presiding officer or to the City Council.

A. SPECIAL ORDER OF BUSINESS

A.1. 2015 BOND ISSUE UPDATE - PUBLIC PRIVATE PARTNERSHIP (P3) (Report of: Financial & Management Services)

A.2. CITY COUNCIL REQUESTS AND COMMUNICATIONS

(TIMES SHOWN ARE ONLY ESTIMATES FOR STAFF PRESENTATION. ITEMS MAY BE DEFERRED BY COUNCIL IF TIME DOES NOT PERMIT FULL REVIEW.)
❖ Oral Presentation only - No written material provided

PUBLIC INSPECTION
The contents of the agenda packet are available for public inspection on the City's website at www.moval.org and in the City Clerk's office at 14177 Frederick Street during normal business hours.
Any written information related to an open session agenda item that is known by the

City to have been distributed to all or a majority of the City Council less than 72 hours prior to this meeting will be made available for public inspection on the City's website at www.moval.org and in the City Clerk's office at 14177 Frederick Street during normal business hours.

ADJOURNMENT

CERTIFICATION

I, Jane Halstead, City Clerk of the City of Moreno Valley, California, *certify that 72 hours prior to this Study Session,* the City Council Agenda was posted *on the City's website at: www.moval.org and* in the following *three public* places pursuant to City of Moreno Valley Resolution No. 2007-40:

City Hall, City of Moreno Valley
14177 Frederick Street

Moreno Valley Library
25480 Alessandro Boulevard

Moreno Valley Senior/Community Center
25075 Fir Avenue

Jane Halstead, CMC,
City Clerk

Date Posted:

MORENO VALLEY UTILITY
DISTRIBUTION SYSTEM PLANNING

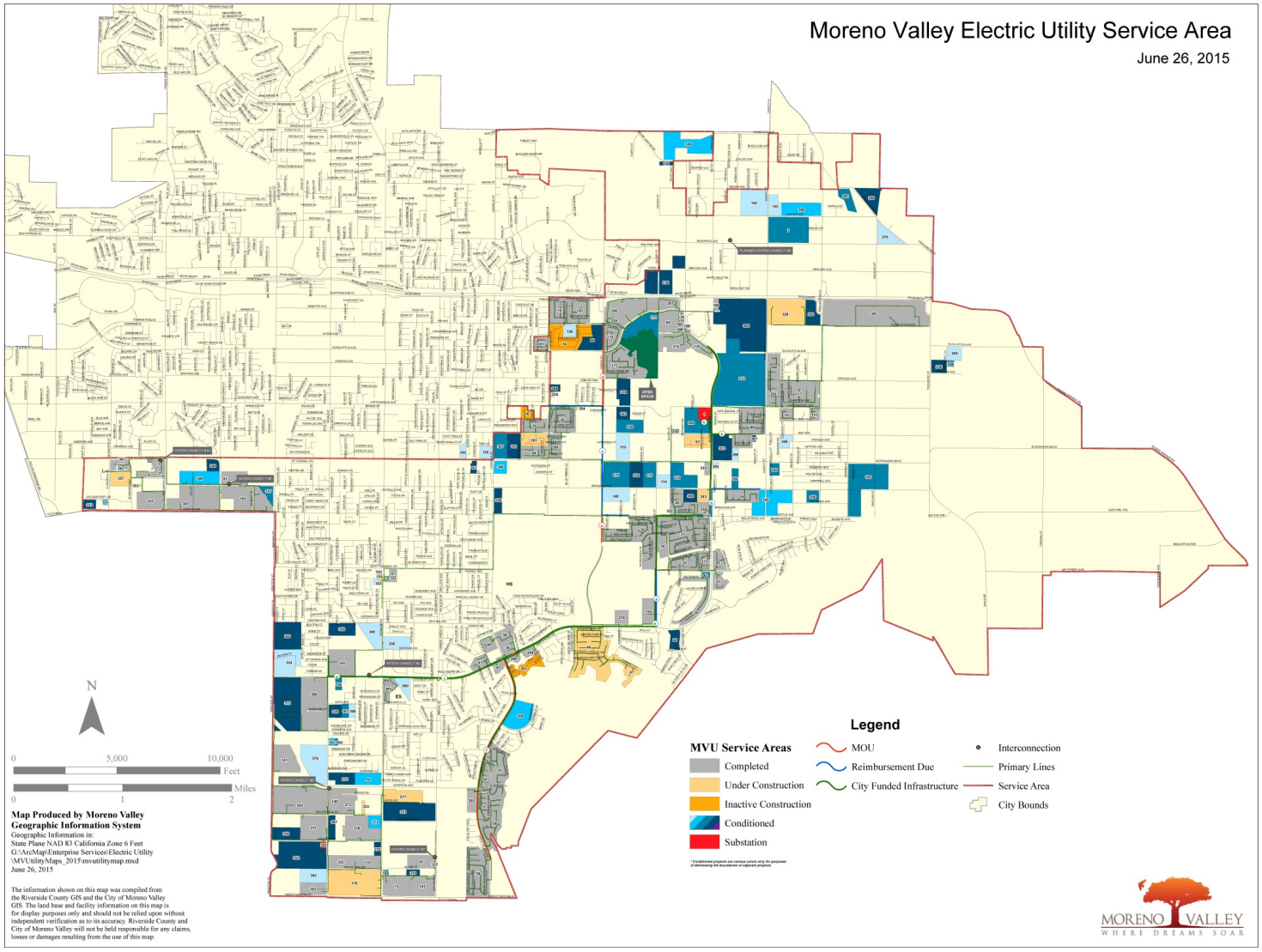
FOR YEARS

2014 - 2018

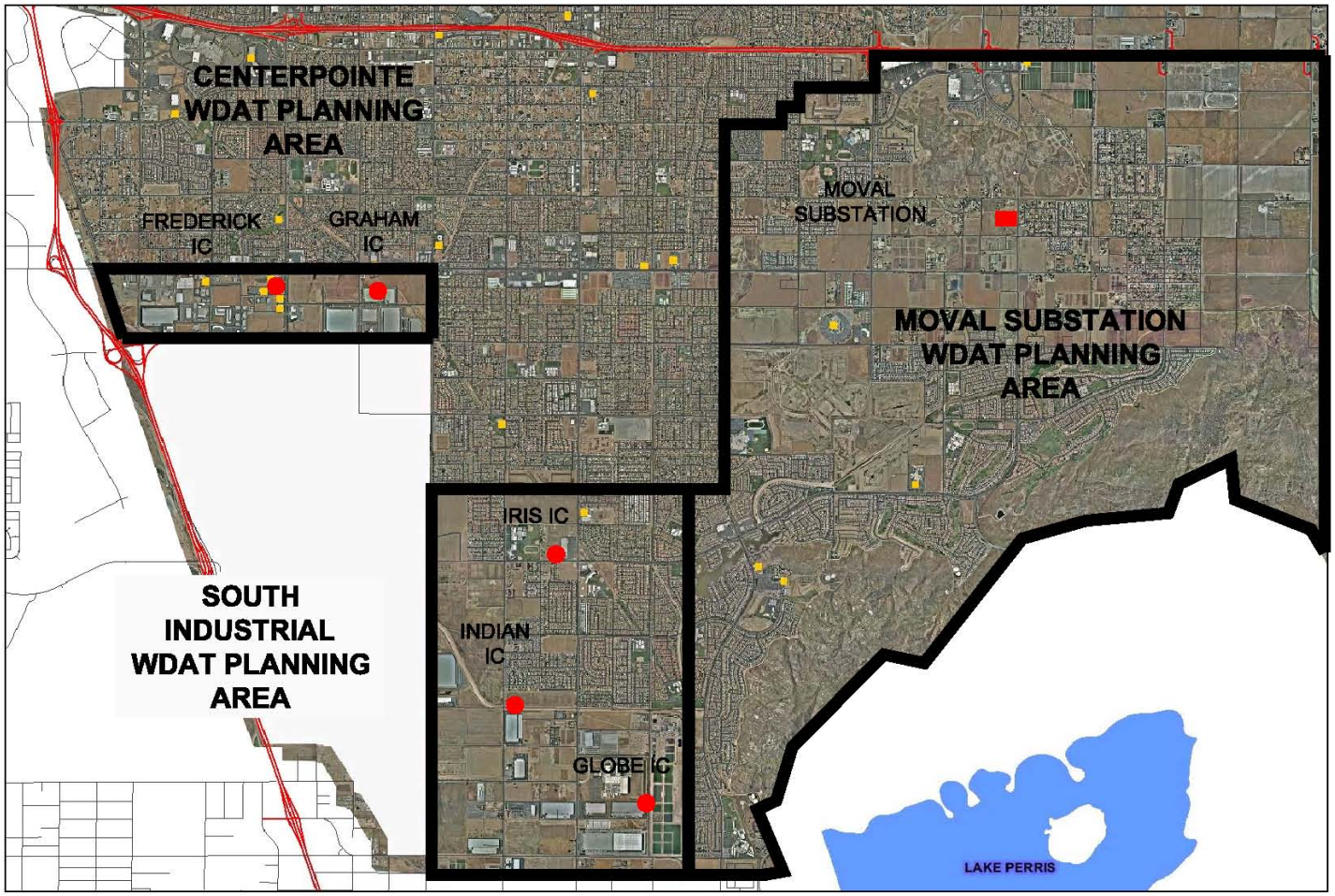
MORENO VALLEY
ELECTRIC UTILITY

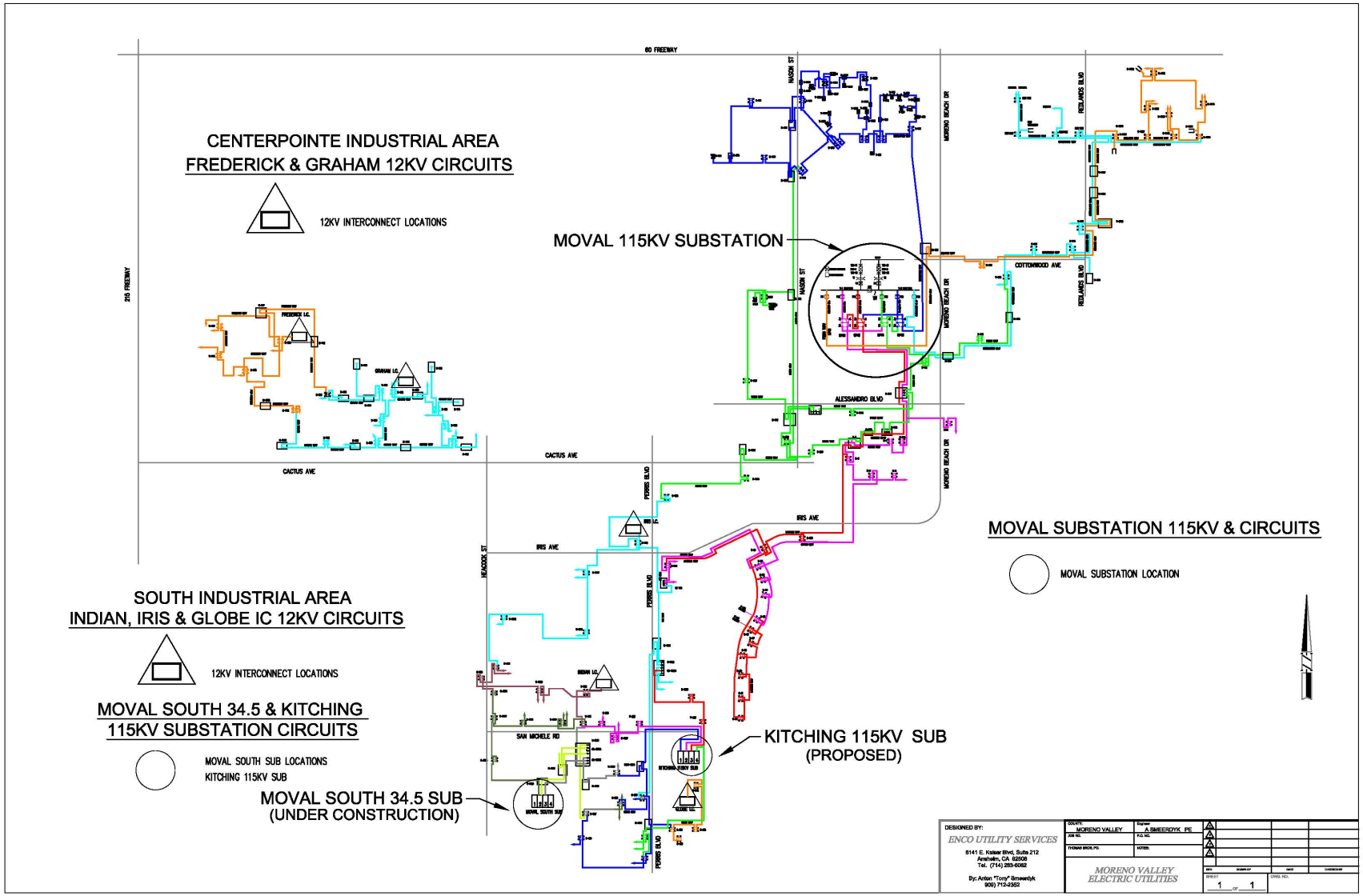
Distribution System Plan (DSP)

- Purpose and goals
- Annual review begins in the fall, after summer peak
- Analysis of impact of projects in various phases of planning or construction on electric system
- Data also used for load forecasting, resource planning

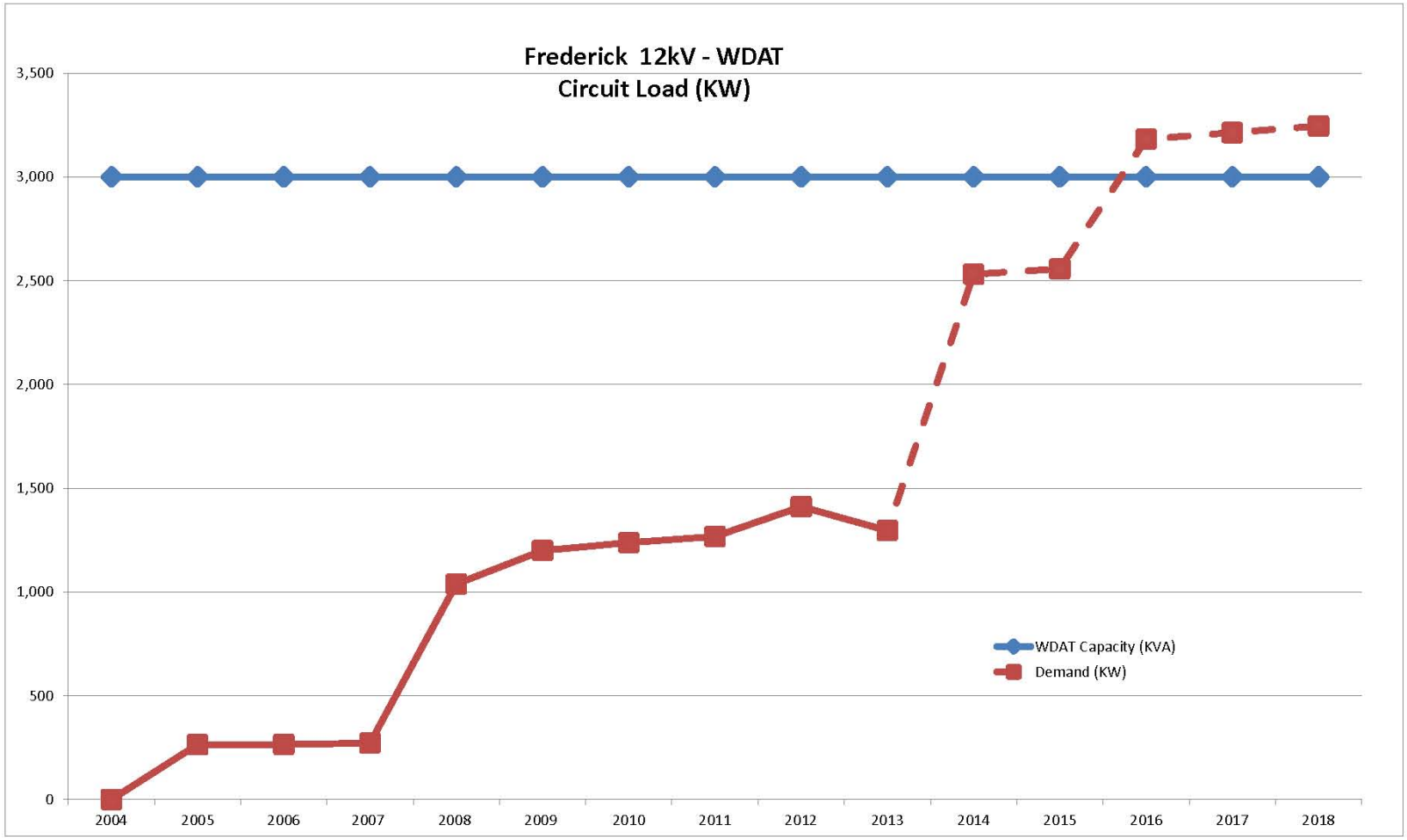

Moreno Valley Electric Utility Service Area
June 26, 2015
N
0
5,000
10,000
Feet
0
1
2
Miles
Map Produced by Moreno Valley
Geographic Information System
Geographic Information in:
State Plane NAD 83 California Zone 6 Feet
G:\ArcMap\Enterprise Services\Electric Utility
\MVUtilityMaps_2015\mvutilitymap.mxd
June 26, 2015
The information shown on this map was compiled from the Riverside County GIS and the City of Moreno Valley GIS. The land base and facility information on this map is for display purposes only and should not be relied upon without independent verification as to its accuracy. Riverside County and City of Moreno Valley will not be held responsible for any claims, losses or damages resulting from the use of this map.
Legend
MVU Service Areas
Completed
Under Construction
Inactive Construction
Conditioned
Substation
MOU
Reimbursement Due
City Funded Infrastructure
Interconnection
Primary Lines
Service Area
City Bounds
MORENO VALLEY
WHERE DREAMS SOAR

MORENO VALLEY UTILITY
WDAT PLANNING AREAS

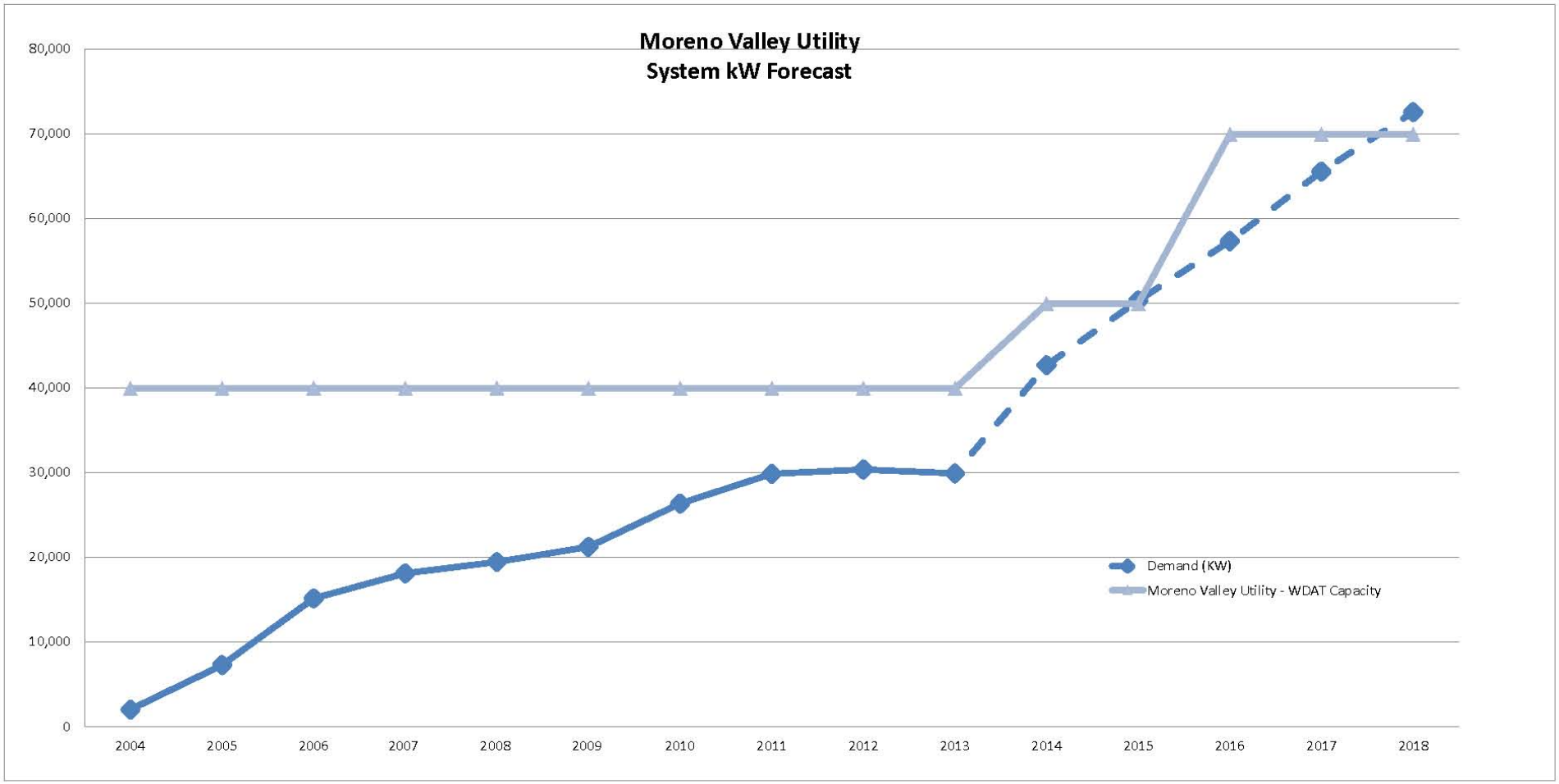




FREDERICK 12 KV - WDAT - IC								
Max Contract Demand = 3,000 KW*			Units/Sq Ft	METERS NEW	METERS TOTAL	LOADS KW	LOADS TOTAL KW	LOADS AMPS
2010		Peak Recorded			10		1,238	60
2011		Peak Recorded			11		1,267	61
2012		Peak Recorded			13		1,411	68
2013		Peak Recorded			13		1,296	62
5 YEAR FORECAST- CUSTOMERS (Mtrs) & LOAD (KW)								
Yr	Projects		Qty	Mtrs		KW		
14	247	Overton Moore #247	520 KSF	2	15	520	1,931	93
14	237	Harbor Freight Expansion Phase 1	508 KSF	1	16	600	2,531	122
15		No known Projects Known add 1 % growth		0	16	25	2,557	123
16	312	Hawthorne Hotel	50 KSF	1	17	225	2,782	134
16		Blackridge (Vet way & Bus Cnt Dr)	400 KSF	1	18	400	3,182	153
17		No known Projects Known add 1 % growth		0	18	32	3,213	155
18		No known Projects Known add 1 % growth		0	18	32	3,245	156



	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
WDAT Capacity (KVA)	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Demand (KW)	0	265	265	272	1038	1200	1238	1267	1411	1296	2531	2557	3182	3213	3245
Frederick Circuit % KW Gain			0%	3%	282%	16%	3%	2%	11%	-8%	95%	1%	24%	1%	1%



Years	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Moreno Valley Utility - WDAT Capacity	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	39,900	49,900	49,900	69,900	69,900	69,900
Demand (KW)	1,995	7,238	15,119	18,078	19,412	21,204	26,317	29,828	30,335	29,884	42,661	50,285	57,301	65,519	72,532
Moval Circuits % KW Gain		263%	109%	20%	7%	9%	24%	13%	2%	-1%	43%	18%	14%	14%	11%

Moreno Valley Utility
SUMMARY of LOAD FORECAST

5 YEAR LOAD FORECAST - MOVAL SUBSTATION (kW)															
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CACTUS 12KV	1,475	4,440	7,357	5,147	5,355	4,875	4,877	5,362	5,485	5,602	5,658	6,026	6,401	7,033	8,358
LASSELLE 12KV	355	2,581	3,349	2,943	3,976	4,650	5,909	6,686	6,116	6,315	6,541	6,625	6,993	7,443	8,743
REDLAND 12KV	NA	NA	NA	NA	NA	NA	0	1,379	2,703	2,743	2,770	7,361	7,434	8,694	9,794
COTTONWOOD 12KV	NA	NA	842	2,311	2,485	895	1,828	2,293	1,554	1,464	1,569	1,585	3,585	5,811	8,253
EUCALYPTUS 12KV	NA	NA	1,296	4,683	4,715	5,635	6,228	6,492	6,007	6,117	6,217	6,319	6,382	6,976	7,406
NASON 12KV	NA	NA	NA	NA	NA	3,400	3,574	4,316	3,998	3,918	4,978	5,028	5,636	5,870	6,248
Total Substation(Non-Coincident)	1,830	7,021	12,844	15,084	16,531	19,455	22,416	26,527	25,862	26,159	27,733	32,943	36,431	41,827	48,802
Peak Coincident Demand					16,128	20,160	21,312	23,616	23,616	23,040	26,346	31,296	34,609	39,735	46,362
Demand Factor (Coinc/Non-Coinc)					98%	104%	95%	89%	91%	88%	95%	95%	95%	95%	95%

5 YEAR LOAD FORECAST - INTERCONNECTS (kW)															
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
CENTERPOINT INTERCONNECT LOADS (kW)															
FREDERICK 12 KV (Max Cd 3,000 kW)	0	265	265	272	1,038	1,200	1,238	1,267	1,411	1,296	2,531	2,557	3,182	3,213	3,245
GRAHAM 12 KV (Max CD 3,500 kW)	387	383	310	815	1,837	1,552	1,584	2,240	2,688	2,848	2,876	3,476	3,904	4,592	4,638
Total IC's (Frederick & Graham Non-Coinc)	387	648	575	1,087	2,875	2,752	2,822	3,507	4,099	4,144	5,408	6,033	7,086	7,806	7,884
IC AREA Capacity	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500
% WDAT AREA Loading	6%	10%	9%	17%	44%	42%	43%	54%	63%	64%	83%	93%	109%	120%	121%
SOUTH INDUSTRIAL INTERCONNECT LOADS (kW)															
GLOBE 12 KV (Max CD 3,000 kW)	0	373	1,118	1,012	1,012	1,911	3,686	3,744	3,571	3,370	3,609	3,645	3,681	3,718	3,755
INDIAN 12 KV (Max CD 3,000 kW)	0	0	307	363	263	658	630	806	872	1,082	2,800	2,828	2,856	2,885	2,914
IRIS 12 KV (Max CD 3,000 kW)	0	0	1,955	2,541	2,541	729	791	1,469	1,547	1,568	2,850	3,900	3,900	3,968	4,184
MOVAL Sub South (Max CD 10,000 kW)											6,388	8,171	11,535	14,687	15,493
Total IC's (Globe,Indian, Iris, & MOVAL S Non-Coinc)	0	373	3,380	3,916	3,816	3,298	5,107	6,019	5,990	6,020	15,647	18,544	21,972	25,258	26,346
IC AREA Capacity	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	19,000	19,000	19,000	19,000	19,000
% WDAT AREA Loading	0%	4%	38%	44%	42%	37%	57%	67%	67%	67%	82%	98%	116%	133%	139%

Total Interconnects (Non-Coinc)	387	1,021	3,955	5,003	6,691	6,050	7,929	9,526	10,089	10,164	21,054	24,577	29,058	33,064	34,230

Total MVU	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
(Non-Coincident KW Demand)	2,217	8,042	16,799	20,087	21,569	23,560	29,241	33,142	33,705	33,204	47,401	55,873	63,668	72,799	80,591
(Coincident KW Demand)	1,995	7,238	15,119	18,078	19,412	21,204	26,317	29,828	30,335	29,884	42,661	50,285	57,301	65,519	72,532
Exceeds Max Contract Demand (CD)															

QUESTIONS?

FIELDMAN | ROLAPP & ASSOCIATES

Financing Options in General

City of Moreno Valley and
Moreno Valley Utility (MVU)

Moreno Valley City Council Study Session
September 1, 2015

Presented by: Fieldman, Rolapp & Associates

Project Funding Considerations

- Useful life of assets or facilities being constructed
- Timeline for completion
- Project completion, operational, and timing risks
- Availability of existing funds to cash-fund project(s)
  - Must consider alternative uses for the available cash
- Availability of revenues to repay potential borrowing
  - Consider strength and continuity of revenue stream available to repay debt
- Existing capital funding policies or preferences

Types of Financing / Funding Overview

- Pay-As-You Go or Cash Funding
- Short Term Debt
  - Bonds/Notes/Loans/Lines of credit
- Long Term Debt
  - Publicly Sold Bonds (Municipal Bond Market)
  - Private Placements or Direct Bond Purchases
- Alternative / Private Financing
  - Including Public Private Partnerships (P3)

Selecting Most Cost-Effective Financing

- Pay-As-You Go or Cash Funding
  - Smaller projects
  - Shorter useful life projects
  - Longer project spending timelines (e.g. more than 3 years)
  - Recurring project types or major maintenance items
  - Existing funding available or available in the near future
  - Consistent with policies identifying Pay-Go project types
- Moreno Valley Experience: Pay-As-You Go Funding
  - Heacock Street widening, sidewalks, ADA compliance, storm drains, Police Camera Project, Transportation Mgt Project
  - Grant funded projects and those with a dedicated revenue source (Measure A, Gas Tax, SCAQMD funded, DIF funded)

Selecting Most Cost-Effective Financing

- Short-Term Debt: Loans / Lines of Credit
  - Smaller to medium-sized projects
  - Projects with shorter expenditure timeframes
  - Interim or short-to-medium term financing typical (1-5 years)
  - Cash flow borrowings of one year or less
  - Existing full funding not available but expected in near term
  - Sufficient revenues to cover short to medium term repayment
- Moreno Valley Experience: Short Term Loans/Lines of Credit
  - Typically short term internal borrowing
  - Nason Street South Extension (borrowed from DIF funds)
  - Funds to start MV Utility and Funds to buy land for the Substation Project borrowed against General Fund line of credit

Selecting Most Cost-Effective Financing

- Long-term Debt: Publicly Sold Bonds
  - Medium to large projects
  - Useful life of project of 20+ years
  - Finite near-term expenditure period (e.g. 1-3 years)
  - Long-term, fixed-rate repayment period (e.g. 15 – 30 years)
  - Sufficient revenues / annual funding to repay borrowing
  - Strong repayment source credit quality and transparency
  - May meet policies guidelines to match useful life to payments
  - Project is well-understood with minimal operational or construction risks

Selecting Most Cost-Effective Financing

- Moreno Valley Experience - Long-term Debt: Municipal Bond Issuance
  - Certificates of Participation issued in 1994 for City Hall Building purchase and tenant improvement (scheduled to be paid off in 2017)
  - Lease Revenue Bonds issued in 1997 for the Public Safety Building project (scheduled to be paid off in 2019)
  - Lease Revenue Bonds issued in 2007 for MVU system expansion (allowed the utility to expand and become financially strong)

Selecting Most Cost-Effective Financing

- Long-term Debt: Private Placements or Direct Bond Purchase
  - Repayment source with weaker credit quality or inability in providing public market initial and continuing disclosures
  - Revenues for bond repayment may face some uncertainty
  - Project may have some potential operational or construction risks
  - Medium to large projects
  - Useful life of project of 10+ years
  - Finite near-term expenditure period (e.g. 1-3 years)
  - Long-term, fixed-rate repayment period (e.g. 10 – 30 years)

Selecting Most Cost-Effective Financing

- Moreno Valley Experience - Private Financing
  - Refinanced City Hall and Public Safety Building debt directly with Bank of America
  - Less than 10 years remaining on both debt issues made the financings attractive for BofA's investment portfolio
  - Recession and a bond rating "watch" rating made refinancing in Muni market less feasible
  - BofA took the time to review the City's financial situation and provided a very favorable proposal to refinance the remaining debt with significant savings

Selecting Most Cost-Effective Financing

- Alternative / Private Financing (Public Private Partnership)
  - Repayment source with weaker credit quality or possibly contingent upon revenues generated from project
  - Revenues for bond repayment face significant uncertainty and may not be available for initial repayment period
  - Projects with identified operational or construction risks
  - Medium to large projects
  - Useful life of project of 10+ years
  - Finite near-term expenditure period (e.g. 1-3 years)
  - Long-term, fixed-rate repayment period (e.g. 15 – 30 years)

Selecting Most Cost-Effective Financing

- Moreno Valley experience with P3s
  - Moreno Valley Utility contracts the operation and customer service and billing with Enco through 2020
  - Moreno Valley began contracting with LSSI to operate Library services in 2013
  - Capital Projects have typically been contracted with private firms for design or construction in partnership with private firms
  - Moreno Valley has not pursued a "Design-Build" approach or a more complex "Finance/Design/Build/Operate" project

Discussion - Public Private Partnerships

- Most simply put:
  - Public private partnerships (P3s)allow a public entity to leverage its revenues and a private entity's equity to fund major projects in some cases when the facts/criteria of the project make sense
  - A P3 is a legally binding contract between a public sector entity and a private company (often referred to as concessionaire)
  - The partners agree to share some portion of the risks and rewards inherent in an infrastructure project.

Public Private Partnerships

- Many Forms of Public Private Partnerships
  - Operate / Maintain
  - Bid / Build
  - Design / Bid / Build
  - Design / Build
  - Design / Build / Finance
  - Design / Build / Finance / Operate / Maintain

Public Private Partnerships

Different Levels of Private Sector Engagement in PPP Contracts

	Identify Service/ Infrastructure Need	Propose Solution	Project Design	Project Financing	Construction	Operation/ Maintenance	Ownership
Operate/Maintain	Public Sector		N/A	Public Sector	N/A	Private Sector	Public Sector
Bid/Build	Public Sector				Private Sector	Public Sector	
Design/Build	Public Sector		Private Sector	Public Sector	Private Sector	Public Sector	
Design/Build/Finance	Public Sector		Private Sector			Public Sector	
Design/Build/Finance/Operate/Maintain	Public Sector		Private Sector				Public Sector

FIELDMAN | ROLAPP & ASSOCIATES

Why Pursue a P3?

- To ensure the implementation of high priority projects which require resources not available to the public entity
- To supplement public agency's resources and personnel
- To utilize the private sector's expertise for large complex projects
- To deliver the private sector's technology to the public
- To encourage private sector entrepreneurial development, partnership, and operation of public facilities
- To shift project risks to the private sector
- To access private financing techniques, including equity investment , which may reduce public agency's debt load
- To reduce overall costs of the project through private sector efficiencies

Why do public agencies not pursue P3s?

- P3s for infrastructure are complicated. They require robust economic analysis, complex negotiations, long-term commitments, political leadership, and new skill sets from public sector employees and policymakers to implement
- When Project facts do not support that P3s will be most cost effective solution
- Municipal bond market and risk averse nature of public procurement officers make them not the first choice.
- Long lead time to procure (up to 24 months for a typical P3)
  - Success of the P3 project lies in the planning, detailed RFP and extremely detailed contract specifying the exact performance of the private entity
- Public agency still has the cost to administer the contract and private entity performance

P3 Benefits

- **Benefits of a P3 approach**
  - Provides access to financial capital if an agency does not have the capacity to borrow (an alternative source of debt)
  - If project includes a substantial operating component – private firm pays lower operating costs, primarily lower pensions and benefits
  - If the project is structured where the public agency will never own the asset, prevailing wage may be avoided, resulting in lower capital cost of the project
  - Project is a design/build/finance/operate/maintain turnkey project, the private firm has many opportunities to make a profit and can subsidize overall costs project-wide

P3 Weaknesses

- **Weaknesses of a P3 approach**
  - Cost of capital and financing is typically higher
    - If the public agency has access to municipal bond markets with a strong credit rating, the public cost of capital is significantly lower
    - A turnkey project may allow a private entity to bid lower financing cost in exchange for a long-term operating profit component
  - If the public agency will own the project/asset when completed, the private firm must pay prevailing wage
  - Procurement process is complex, requires much more time to construct a very detailed RFP and detailed contract, making all deliverables and performance by the private firm explicit.
    - The private firm will only perform to the contract, since going beyond the contract will add additional cost to the firm

Financing Considerations Going Forward

- Generally, the City has considered financing projects using traditional dedicated funding available (Pay as you Go) or municipal financing
- P3s have not been a stated priority for the City Council
- Direct staff to bring the debt financing policy to a City Council Study Session to discuss the overall interest and priority of P3s in the future
  - The intent would be to consider directing staff to identify a reasonable P3 opportunity for the City to try in the future
    - One opportunity may be to manage and operate the City's storm drain system

Source/ Notes:

PROPOSED FINANCING - MVU PROJECTS - $25.1 MILLION

PRESENTATION BY: Richard Teichert, Chief Financial Officer
Jeannette Olko, Moreno Valley Utility Division Manager

September 1, 2015

MORENO VALLEY
WHERE DREAMS SOAR

Why did the City of Moreno Valley form a Municipally-Owned Utility? What are the benefits?

- The City was facing the threat of losing large tax based business to the City of Riverside lured by reduced electric rates offered by Riverside Public Utility (RPU)
  - This was possible due to the City's 100 year old, financially stable Municipal Electric Utility
  - The mature RPU generates surplus cash to the General Fund based on the City Charter and provides a source for economic development rate incentives to bring jobs and tax base to the City ($40 million annually)
- Moreno Valley City Council began the process of building a successful municipally-owned electric utility in 2004 to bring these same benefits to Moreno Valley
- The originating documents included statements that surplus revenue would be used to support additional police and fire services
- Economic development rates would attract critically needed businesses and jobs to the City
- The recession delayed the financial maturing of the Moreno Valley Utility (MVU)
  - MVU is now generating significant surplus cash and is financially strong

MORENO VALLEY
WHERE DREAMS SOAR

What is the Financial Vision for MVU?

- **MVU will generate a revenue surplus exceeding $3 million for FY 2014/15**
- Staff will work with City Council to establish direction to fund long needed reserves for the utility
- These include Equipment Replacement Reserves, Working Capital Reserves, Emergency Reserves and Rate Stabilization Reserves (estimated total need is a minimum of $14 million today)
- Establishing these reserves over the next 5 years will allow MVU to issue tax exempt debt as a municipally owned utility in 2021
- With a strong balance sheet, the MVU debt will garner lower rates than general fund debt with tax exempt investors
- MVU may refinance the General Fund backed Taxable Lease Revenue Bonds as tax exempt debt of the utility - allowing the utility to stand alone as a financially stable entity
    - Frees-up General Fund borrowing capacity for new projects

MORENO VALLEY
WHERE DREAMS SOAR

Why does the City want a financially strong Municipally Owned Utility?

- Financially strong MVU established with a properly funded balance sheet (est. FY 2021), the City can consider additional options to support City Services:
  - The City may consider a charter - including a General Fund transfer from MVU to support services (police/fire) or reduce the Utility Users Tax (UUT)
  - The City could consider breaking from SCE rate parity, providing an extra economic incentive to draw more businesses and jobs to the community
  - Continue to be able to offer economic incentives for job creation and tax base development
    - Tax base growth may allow weaning off of the UUT

MORENO VALLEY
WHERE DREAMS SOAR

How do we grow MVU and ensure the vitality of the Utility for years to come?

- Borrow money at low cost interest rates to build and expand MVU capacity timely to serve more customers, particularly large electric use customers:
  - This approach allows the utility to have the capacity to grow and take advantage of the current rapid pace of development of large electricity consuming businesses
  - Manage MVU like a business - A growing business either takes on equity investors or borrows money to invest in the business infrastructure
  - As a public agency, the City (S&P rating of A+) and the Utility have access to the lowest borrowing rates available

MORENO VALLEY
WHERE DREAMS SOAR

MVU Projects proposed to be funded (included in CIP)

Project Title	Project Description	Estimated Cost
Kitching Substation	Install 115kV/12kV substation	$13,489,000
Kitching Substation to Edwin Rd.	Install conduit and cable from Kitching to Edwin Rd.	$480,000
Kitching Backbone to Indian	Circuit going north towards Heacock for reliability	$787,000
Kitching Substation to Perris Blvd.	Allow part of Iris circuit to transfer to Kitching substation	$414,000
Kitching Substation to Lasselle Sports Park	Create a tie to Lasselle 12kV	$477,000
Load transfer to Iris Interconnect	Install cable from Iris to Indian	$378,000
Kitching Substation to Globe	Connect new circuit to Globe interconnect	$459,000

MORENO VALLEY
WHERE DREAMS SOAR

MVU Projects proposed to be funded (included in CIP)

Project Title	Project Description	Estimated Cost
Kitching Backbone to Perris Blvd.	Install conduit and cable along Modular Way to Perris Blvd.	$465,000
Kitching – Nason 12kV tie	Ties Kitching substation to MoVal substation providing additional reliability	$816,000
Alessandro Blvd.	Ties Centerpointe Interconnects to MoVal substation	$2,025,000
Heacock St.	Ties Centerpointe Interconnects to South Industrial area	$1,396,350
Electrical system automation	Build automation, communication, and protection in circuits that serve critical customers	$2,000,000
MoVal Substation - 3rd transformer bank	Addition of a 3rd transformer bank at MoVal substation. 50% of cost funded by bonds.	$1,925,000
Total		$25,111,350

History of MVU Project Need and Financing Strategy

The substation and reliability projects have been planned since early 2014

- February 26, 2014: Need for the South Substation and Reliability projects identified in the Distribution System Plan (DSP) for years 2014 – 2018
- June 2014: Identified property for Substation Project – completed appraisal
- August 26, 2014: Closed session to discuss negotiation of property purchase
- October 21, 2014: Study Session regarding DSP and cost of service study
- November 18, 2014: City Council approved property purchase, use of General Fund line of credit to fund purchase and reimbursement agreement for GF to be reimbursed from future bond proceeds

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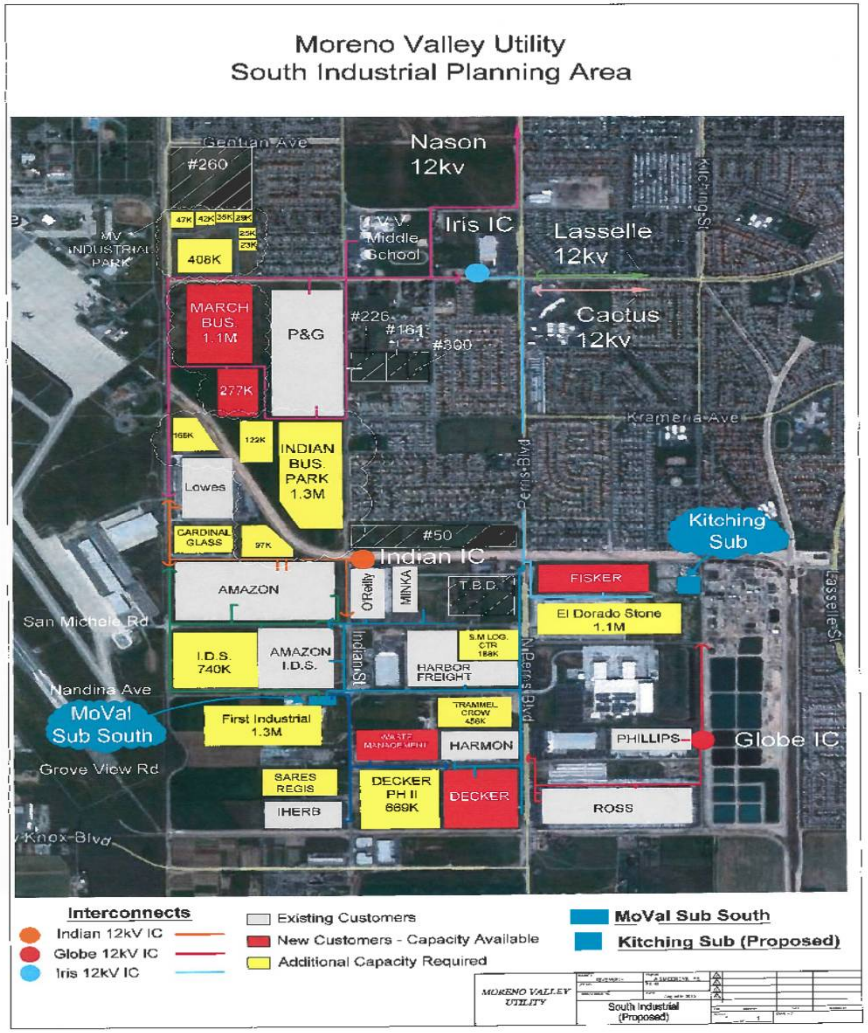
History of MVU Financing Strategy and Need

- March 10, 2015: Request for Proposals completed – Finance Subcommittee and City Council approve Financing Team to support future financings for the City
    - Financing referenced is MVU projects totaling about $25 million
- April/May review and May 26, 2015 Approval: City Council approved the Fiscal Year 2015/16 Five Year Capital Improvement Program; CIP includes MVU projects, stating they are contingent upon a June 2015 bond issue to fund the projects
- June 26, 2015: MVU Utility Commission reviewed and discussed the proposed financing structure and projects. Approved by Commission on a 4-1 vote.
- June 25, 2015: Materials distributed for a June 29, 2015 Finance Subcommittee meeting – meeting rescheduled to July 8, 2015

Time sensitivity of the project

- Recent large customers that have connected in the past 24 months:
  - Proctor and Gamble
  - Deckers Outdoor
  - Amazon 1
  - Amazon 2
  - Fisker


Moreno Valley Utility
South Industrial Planning Area
Gentian Ave
#260
Nason
12kv
Iris IC
Lasselle
12kv
Cactus
12kv
MARCH
BUS
1.1M
P&G
#226
#161
#300
277K
INDIAN
BUS
PARK
1.3M
Lowes
CARDINAL
GLASS
97K
#50
Indian IC
Kitching
Sub
AMAZON
O'Reilly
MINKA
T.B.D.
FISKER
El Dorado Stone
1.1M
San Michele Rd
I.D.S.
740K
AMAZON
I.D.S.
HARBOR
FREIGHT
Nandina Ave
MoVal
Sub South
First Industrial
1.3M
HARMON
PHILLIPS
Globe IC
Grove View Rd
SARES
REGIS
IHERB
DECKER
PH II
889K
DECKER
ROSS
Knox Blvd
Kramer Ave
Interconnects
Indian 12kV IC
Globe 12kV IC
Iris 12kV IC
Existing Customers
New Customers - Capacity Available
Additional Capacity Required
MoVal Sub South
Kitching Sub (Proposed)
MORENO VALLEY UTILITY
South Industrial
(Proposed)

Time sensitivity of the project

- Capacity Issues –
  - MVU South Substation – with recent rapid building of distribution centers and manufacturing, known large customers put the **current system infrastructure at capacity in 2016**
  - To serve additional large usage customers (**SEE MAP**) substation **completion is needed as early in 2017 as possible (project goal May 2017)**
  - System capacity expansion directly ties to continued Economic Development (ED) and Job Growth
  - With Loss of Redevelopment Agency, MVU is most significant ED tool
- Reliability Improvements –
  - The balance of projects funded creates reliability by guaranteeing service through multiple source points
  - Reliability is a key business attraction point for MVU
  - The reliability projects will be completed by 2018

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What occurs if capacity is not available for large projects?

- If capacity is not available by May 2017:
  - If substation project is not available when a developer is ready to connect, staff will need to advise the developer in 2016 to prepare to connect to SCE system to ensure service availability upon project completion
  - Result – loss of revenue stream for years ….
  - Negatively impacting the financial strength of MVU
- Staff is ready to proceed to prevent delays to the project

How do we grow MVU and ensure the vitality of the Utility for years to come?

- Borrow money at low cost interest rates to build and expand MVU capacity timely to serve more customers, particularly large electric use customers:
  - This approach allows the utility to have the capacity to grow and take advantage of the current rapid development of large electricity consuming businesses
  - Growing slower, MVU may lose some critical customers to SCE due to inadequate capacity to serve them when they need to connect
  - MVU was caught slightly behind the curve in anticipating the pace of growth in the South Industrial Area
  - This creates a current crisis to ensure the businesses entering the planning queue in the next few months will have the capacity in 2017 that they will need - TIME IS OF THE ESSENCE

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Meeting the Goals of the MVU Vision

- Following this plan for growing the MVU business keeps the utility on course to achieve the following by about 2021:
  - The City will have sufficient revenue to consider a charter that could include a General Fund transfer from MVU to support services priorities or reduce the Utility Users Tax
  - The City could consider breaking from SCE rate parity, providing an extra economic incentive to draw more businesses and jobs to the community
  - Continue to be able to offer economic incentives for job creation and tax base development
    - Tax base growth provides support of Council priorities, which may include weaning off of the UUT

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Proposed Alternative 1 Financing Structure

- Taxable Lease Revenue Bonds of the General Fund – not to exceed $29 million
    - Taxable due to the nature of the ENCO contract
    - Lease Revenue Bonds allow the Council to determine the timing and business purpose of the issuance (does not require a vote of the electorate)
    - Secured by property owned by the General Fund (Conference and Recreation Center, parks and fire stations)
    - Callable in 6 years to prepare for the developing financial strength of MVU to be able to refinance debt in 2021; this will free up the GF assets for future GF financing projects

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Other Financing Options Considered

- General Obligation Bonds
  - Not a feasible option since it requires a vote – earliest election date would be November 2016; need the project online by early 2017
  - Economists anticipate an increase in Fed Reserve rates by late 2015
  - No guarantee the vote would pass, essentially shutting down the economic development capacity of MVU
  - Would require all citywide property owners to increase taxes to support the MVU rate payers
- Alternative 2 - Pay as You Go
  - Current business strategy is to use the operating surplus to build a strong MVU balance sheet for the long term
  - MVU to begin to issue its own debt by 2021
  - Pay as you GO would cannibalize the balance sheet to pay for infrastructure projects with operating revenue, while deferring building the MVU financial strength needed for the long term
  - Funding to complete with Pay as you GO would push project completion out many years

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Other Financing Options Considered

- Alternative 3 - Public Private Partnership (P3)
  - MVU would need to start an RFP process that will take many months to complete – delaying project completion
  - Cost of capital is higher than the City's (A+ bond rating)
  - Additional parties involved, adding a cost layer that is not necessary
  - Any cost savings is typically from avoiding paying Prevailing Wages – MVU will own the asset at completion, therefore prevailing wages is required
  - The bulk of the $15 million substation is equipment; so avoiding prevailing wages will not have a great savings impact
  - No opportunity to include an operating/maintenance element, since Enco has the private operating/maintenance contract through December 2020

Alternatives

- Alternative 1 - Proceed with the Proposed Taxable Lease Revenue Bond Financing Not to Exceed $29 million
    - Allows the projects to move forward timely
    - Currently a very favorable municipal bond market due to impacts of China and Greece economies struggling
- Alternative 2 - Proceed on a Pay as You Go basis
    - Complete portions of the projects as funding allows
    - Return to Council with a project timeline under this methodology
- Alternative 3 - Proceed to Prepare a Request for Proposals for a Public Private Partnership option
    - Direct staff to return with a timeline for this approach (staff estimates an additional 6-9 months for this process)

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Next Steps

- Moreno Valley Utilities Commission recommended Alternative 1 to Finance SubCommittee and City Council by a vote of 3-1 on August 21, 2015
- Finance Subcommittee will give Council their recommendation from meeting on August 31, 2015
- Staff recommends that the City Council direct staff to bring the documents required to proceed with Alternative 1, Lease Revenue Bond Financing in an amount not to exceed $29 million, to the September 8, 2015 City Council meeting for Council consideration
- Other options that City Council deem appropriate
- Direct staff to bring the City's Debt Management Policy for review and discussion at a future Study Session

PRIVATE CAPITAL, PUBLIC GOOD

Drivers of Successful Infrastructure Public-Private Partnerships

BROOKINGS

PRIVATE CAPITAL, PUBLIC GOOD

DRIVERS OF SUCCESSFUL INFRASTRUCTURE PUBLIC-PRIVATE PARTNERSHIPS

BY PATRICK SABOL AND ROBERT PUENTES

Executive Summary

Despite its fundamental and multifaceted role in maintaining national growth and economic health, infrastructure in the United States has not received an adequate level of investment for years.[1] Political dysfunction, a challenging fiscal environment, greater project complexity, and the sheer size of the need across different sectors are forcing leaders across the country to explore new ways to finance the investments and operations that will grow their economies over the next decade.

Part of this exploration means new kinds of agreements between governments at all levels and the private sector to deliver, finance, and maintain a range of projects. Beyond simplistic notions of privatization, the interest is in true partnerships between agencies, private firms, financiers, and the general public. Many nations already successfully develop infrastructure in this manner today.

These public-private partnerships (PPPs) are alternately framed as a panacea to all of America's infrastructure challenges or a corporate takeover of critical public assets. In reality, they are neither. A well-executed PPP is simply another tool for procuring or managing public infrastructure—albeit a new and increasingly popular one.[2] The growing interest can be attributed to a number of factors, including tightening budgets, increased project complexity, better value for money, the desire to leverage private sector expertise, and shifting public sector priorities.

However, this surge of interest is not matched by broad public sector understanding of the PPP landscape.

This paper is designed to fill that gap by providing an overview of basic PPP structure, how to consider proper risk and reward sharing, and the purpose and the rationale behind these arrangements. It is based on extensive background research and directly informed by interviews with leading practitioners from the public and private sector. Primarily, this paper presents nine recommendations for public leaders as they consider PPPs and is intended to serve as a guide to executing them in the public interest.

1. **Create a strong legal framework at the state level.** PPPs require a sound legal basis to ensure that the public sector has the authority to pursue a deal and allows the private sector to mitigate unnecessary political risk.

2. **Prioritize projects based on quantifiable public goals.** Not every infrastructure project is suitable for a PPP, so it is essential for policymakers to base their procurement decisions on economic and financial analysis that captures the social, environmental, and fiscal impacts of the deal.

3. **Pick politically smart projects.** A successful PPP requires a pragmatic understanding of what is feasible in a constantly evolving political environment.

4. **Understand what the private sector needs.** Strong partnerships are based on finding the right alignment of interests, which is why it is essential to understand what makes a project appealing to private sector investors.

5. **Find the right revenue stream.** PPPs are not free money; they require localities to find durable and resilient revenue sources that will pay for the investment over the long-term.

6. **Create a clear and transparent process.** Routinization and standardization will create a market for PPPs that provides the public and private sector with a clear roadmap for success.

7. **Build an empowered team.** Assembling an empowered public sector team that is capable of making and executing informed procurement decisions is an essential part of any successful PPP.

8. **Actively engage with stakeholders.** PPPs are inherently complex deals that require significant public engagement to ensure that the deal is in the interest of the community and executed at the highest standards possible.

9. **Monitor and learn from the partnership.** PPPs involve decades of dedicated attention that requires thoughtful monitoring, flexibility in the face of a changing world, and a willingness to learn from mistakes.

I. What is an Infrastructure Public-Private Partnership?

A precise definition of a PPP for infrastructure is elusive, as it refers to a broad range of deal structures and asset types. However, the easiest way to understand a PPP is as a legally binding contract between a public sector entity and a private company—typically referred to as a concessionaire—where the partners agree to share some portion of the risks and rewards inherent in an infrastructure project.[3]

In the most advanced PPP markets, such as the United Kingdom, this risk and reward sharing structure more narrowly refers to agreements where the private sector designs, builds, finances, operates, and maintains (also known as DBFOM) an infrastructure asset for a pre-determined period of time.[4] In exchange, the public sector provides a recurring payment based on the condition of the asset (known as an availability payment) or allows the private sector to collect tolls or fees generated from the project.

Figure 1. Different Levels of Private Sector Engagement in PPP Contracts

<table>
<tr><th></th><th>Identify Infrastructure Need</th><th>Propose Solution</th><th>Project Design</th><th>Project Financing</th><th>Construction</th><th>Operation/ Maintenance</th><th>Ownership</th></tr>
<tr><td>Bid/Build</td><td colspan="4">Public Sector</td><td>Private Sector</td><td colspan="2">Public Sector</td></tr>
<tr><td>Design/Build</td><td colspan="2">Public Sector</td><td>Private Sector</td><td>Public Sector</td><td>Private Sector</td><td colspan="2">Public Sector</td></tr>
<tr><td>Design/Build/Finance</td><td colspan="2">Public Sector</td><td colspan="3">Private Sector</td><td>Public Sector</td></tr>
<tr><td>Design/Build/Finance/ Operate/Maintain</td><td colspan="2">Public Sector</td><td colspan="4">Private Sector</td><td>Public Sector</td></tr>
</table>

Source: Brookings analysis and expert interviews

Despite federal efforts to create a uniform American definition, domestically the term remains amorphous and highly variable depending on the audience.[5] In the United States, PPPs can include everything from the highly integrated DBFOM model to simple arrangements where the private sector only takes an active role in design, engineering, and construction of the project (also known as "design-build").

Public sector agencies procuring infrastructure PPPs may opt to engage with the private sector on either end of this spectrum, and will often choose something in between. Depending on the particulars of the infrastructure asset, local political restraints, existing contractual obligations, financing costs, or other limitations, a public sector agency may choose to engage with the private sector on only a subset of issues. For example, they may choose to form a PPP to design, build, and finance a school, but not maintain it due to an existing contract with a custodial union.

Figure 1 shows the range of PPP types and the elements for which the public or private sector is typically responsible. It shows that, for example, the public sector is always responsible for identifying an infrastructure need. Likewise, the private sector is nearly always contracted out to construct projects.[6]

Financial arrangements and oversight abilities also depend on the specific needs of the public and private sector partners. However, PPPs usually take on a variation of the same basic structure. The public sector maintains ownership of the infrastructure asset, but engages in a formal agreement with a private partner for the financing, construction, operation, and maintenance responsibilities.

The concessionaire is typically comprised of a financing group and an engineering or development firm, which receives revenue from the tolls, fees, or ratepayers using the infrastructure asset. Additionally, some PPPs now involve "availability payments," in which the public sector makes regular payments to the private sector for keeping an infrastructure asset in good working order and open and available to the public.[7] The entire system is overseen by the public sector partner, which ensures that the concessionaire abides by all the terms of the PPP contract.

The wide range of terms and structures possible in a PPP make generalizations difficult—if not impossible. Therefore, the best practices and case studies in this paper relate specifically to DBFOM procurements. While many of these lessons are applicable to more limited partnerships, the intent is to inform policymakers of the critical issues in the most comprehensive form of a PPP.

"The public sector is always responsible for identifying an infrastructure need. Likewise, the private sector is nearly always contracted out to construct projects."

II. How Does Reward and Risk Sharing Work?

Thoughtful allocation of project rewards and risks are the basis of a successful PPP. While the exact terms are project dependent and tied to the specific needs of both partners, there are some general best practices in the field.[8] Of these, **reward sharing** is generally more straightforward. At the most fundamental level, the public sector passes the costs of building and/or maintaining certain elements of an infrastructure asset to the private sector, usually without directly assuming any financial risk. The public sector may also receive a one-time payment from the concessionaire for the right to operate the asset, and, in some cases, a recurring payment or profit sharing. The private sector is rewarded with a long-term recurring revenue source, either through tolls, fees, or through an availability payment.

Risk sharing, on the other hand, is much more complicated. These agreements can take a wide variety of forms, often specifically tailored to an individual project. But they always involve one or more different—but related—types or risk described below and in Figure 2.

Figure 2. Typical Risk Sharing Responsibilities in a PPP

Type of Risk	Public Sector	Private Sector	Shared
Regulatory/Legislative	X		
Government Default	X		
Planning and Design		X	
Permits and Approvals		X	
Construction		X	
Occupational/Workforce		X	
Operation/Maintenance		X	
Financial/Market		X	
Private Sector Default		X	
Political			X
Acts of God			X
Demand	Project dependent		

Source: Modified and adapted from the U.K. Treasury

Generally, the public partner that owns the asset fully assumes the **regulatory or legislative** risk for potential changes that might affect the project. For example, if legislation were passed that demands all bridges need 24-hour video monitoring, then the public sector would be responsible for the additional costs of installing the new equipment on the existing asset. The public partner also usually assumes the **risk of government default** and is subject to fees or penalties if it fails to make payments or other contractually agreed on provisions.

The private sector often assumes a large amount, or all, of the **planning and design** risks associated with the project. In the early stages, this means that the concessionaire must put up their own capital to develop the engineering, technical, and aesthetic aspects of the asset. These key elements will influence the performance and cost of the entire endeavor, as well as serving as a basis for the public sector to evaluate competing project bids. Once these plans are finalized, the risk for acquiring the requisite **permits and approvals** also falls to the private sector. This is often an intensive process that requires negotiations with the local, state, and federal government.

Once the design and permits are in order, the concessionaire assumes the risk of constructing or upgrading the asset to meet the demands of the PPP agreement. **Construction** risk includes price fluctuations in labor or materials costs, problems in implementing the design, and general project delays. Furthermore, providing insurance for **occupational and workforce** risks, like workplace injuries, also falls to the concessionaire.[9]

Risk transfer does not stop once the project is physically completed. The responsibility and costs associated with **operating and maintaining** the asset are also passed on to the concessionaire. These day-to-day concerns may involve making routine repairs, managing staff, providing customer service, or anything else that keeps the infrastructure asset functional.

Direct exposure to **financial** risk is also borne by the private sector, which includes the possibility of unexpected interest rate fluctuations in the capital markets that may undermine the debt structure of the project. This financial risk extends to the concessionaire's own balance sheet, as their revenue is contingent on keeping the infrastructure asset available and in a state of good repair. If the **private sector defaults** on any aspect of the contract, the public sector maintains the right to fine the concessionaire, or in some cases, even terminate the PPP agreement.

Other risks are shared between the public and private sectors. For example, each take on a degree of **political** risk, as each partner will devote resources to a project that might not come to fruition.[10] The risk of large unforeseeable events, often called "**acts of God**" or "*force majeure*," is also usually shared.[11] These can include everything from terrorist attacks to unforeseen weather or geological events.

Demand risk is an area that is often highly project dependent. Functionally, demand risk refers to the possibility that fewer users than projected will support the project through revenue from tolls, fees, rates or fares. In a standard PPP agreement, the public sector passes on the risk of lower than expected revenue to the concessionaire and that possibility is priced into the contract. A recent example is the Indiana Toll Road. In 2010, the private partner estimated that the road needed nearly 11 million toll-paying trucks each year just to break even, but only half as many traveled the highway.[12]

However, the public sector may also retain some portion of demand risk for a number of reasons, primarily when issues around social equity or the environment are involved. For example, a profit-maximizing toll road concessionaire may prefer that commuters using their facility did not carpool, as it would cut into their revenues. The public sector, for equity or environmental reasons, may favor carpooling. To bring both these interests in line, the public sector can choose to subsidize the concessionaire for the lost toll revenue. This collaborative approach was implemented for the 495 Express Lanes project in Virginia to balance each sectors' goals.[13]

III. Why Pursue a Public/ Private Partnership?

PPPs for infrastructure are complicated. They require robust economic analysis, complex negotiations, intense public scrutiny, long-term commitments, political leadership, and force public sector employees and policymakers to hone a relatively new skill set. The $3.6 trillion municipal bond market that makes public sector borrowing for infrastructure projects affordable and the risk adverse nature of public procurement offices brings added complexity.[14] Despite these challenges, PPPs can make sense in a number of different situations:

- **Debt Constraints** – Cities and states across the country have approximately $3.6 trillion in outstanding debt.[15] This weighs heavily on many standalone infrastructure systems, including public water utilities, transit agencies, and departments of transportation. This legacy debt increases borrowing costs, makes new issuances unappealing to policymakers and the public, and, in some cases, precludes the issuance of new bonds because of statutory debt limits.[16]

  PPPs can be structured to allow the public sector to avoid adding to their long-term debt obligations by using private sector capital to finance a project. This does not mean that the users of the system may not bear higher costs, or that the public sector avoids additional budgetary outlays. However, it does mean that the financing, building, and maintenance costs are no longer the direct responsibility of the government.

> "PPPs are rarely the lowest-cost way to procure infrastructure. [However] a well-structured PPP can deliver better *value* for the public dollar."

RIALTO UTILITY AUTHORITY

In 2010, Rialto, California's beleaguered water utility struggled with a number of environmental, operational, and financial challenges. Contamination from a shuttered munitions plant complicated water processing, required expensive purchases from neighboring water systems, and posed a major public health concern.[17] Years of deferred maintenance and lack of improvements to the system's aging facilities lead to a number of water main breaks and substandard service that hurt the utility's 48,000 customers.[18] The historically underfunded system also struggled to meet pension liabilities, which were starting to weigh on the utility's ability to affordably raise capital in the tax-exempt market.[19]

The city itself was poorly equipped to tackle all of these issues on its own. The Great Recession hit the city's finances hard, which were still in a delicate position from a near default in the early 2000s.[20] After a thorough evaluation of city-led refinancing options provided few viable options, Rialto opted to explore a PPP for the struggling utility. The city placed a special emphasis on building consensus around key control and quality issues with the community at large, organized labor, and existing utility staff.[21] Critically, Rialto did not rush into a deal and instead spent nearly two years building out selection criteria and a process that would best suit their needs.[22]

Rialto's careful efforts resulted in a 30 year concession with Veolia Water, a large water operator, and Table Rock Capital, a boutique equity firm specializing in infrastructure PPPs.[23] Reinforcing the important role of organized labor, Ullico (a major labor-owned insurance and investment company) came alongside Table Rock as one of the largest equity partners in the deal.[24] This engagement with unions resulted in a comprehensive labor agreement, which ensured that that all existing employees would maintain their positions for at least 36 months and receive additional training.[25]

The reorganized water authority, rechristened Rialto Water Services (RWS), took over the operations, maintenance, financing, and modernization of the utility in exchange for the right to collect revenue from ratepayers with formula based rate adjustments.[26] RWS compensated the city with an upfront payment of $30 million, defeased (or extinguished) the city's $27.4 million in utility debt, and agreed to invest in a $42 million capital improvement plan for the water system.[27] The deal effectively shifted all the operational and financial risks inherent in running the utility to RWS, while easing the city's budgetary challenges.

In exchange, the public sector pledges to share revenues or to simply pay the private sector a fixed cost based on the availability and condition of the facility. This is by no means "free money" for the procuring agency, but does allow the public sector to mitigate the upfront borrowing costs and sometimes even receive a onetime cash payment for rights to operate the asset. However, it is important to note that these transactions can preclude future budgetary flexibility and may end up costing users or taxpayers more over the long term, depending on the structure of the deal. Availability payments, for example, could be considered to be a form of "debt" since they require an ongoing public expenditure and a binding budgetary obligation.

VIRGINIA 495 EXPRESS LANES

The Washington Beltway is infamously congested. INRIX, a traffic data provider, recently ranked metropolitan Washington as the 10th most congested metro in the United States, mostly along the key corridors connecting the city with commuter suburbs.[30] The problem is particularly acute in Virginia along a 14 mile stretch of the Capital Beltway between the I-95 interchange and the Dulles Access/Toll road.

Alleviating traffic along this corridor in the traditional manner by building new lanes would be expensive, politically toxic, and require the state to relocate at least 350 private residences.[31] After nearly 20 years of intermittent planning work, the Virginia Department of Transportation (VDOT) received an unsolicited proposal to create special dynamically tolled lanes along the highway from Fluor Daniel, a large private sector construction firm.

The proposed High Occupancy/Toll (HOT) lanes would incorporate both new monitoring technologies and advanced price-setting algorithms that maximize traffic flow and revenue, while reducing congestion. Tolls would vary depending on real-time congestion conditions (i.e., drivers would pay higher tolls when congestion is high, and vice versa.) Furthermore, they would not require the expansion of the existing highway, as the lanes would be added in the center median.

While most states are not equipped to handle unsolicited proposals, VDOT maintains a dedicated internal PPP unit, the Office of Transportation Public-Private Partnerships (OTP3) that specifically works to pursue these types of partnerships. Under the guidance of OTP3, Virginia was able to develop a PPP with Fluor to launch the managed lane project in November 2012.[32]

In this case, VDOT used its robust PPP process to shift the planning and design risk of developing a complex and creative traffic project to the private sector, while gaining the ability to use a traffic management model that was beyond their internal expertise and technical capacity. Currently, revenue from the HOT lanes is not meeting projections, but due to the PPP structure the state gained a technologically advanced system that delivered a 50 percent increase in capacity along the corridor, without bearing the demand risk for revenue shortfalls.[33]

- **Private Sector Expertise** – While the public sector brings significant expertise to projects; many private sector firms have access to technologies, materials, and management techniques that exceed the capabilities of an individual governmental agency or department. PPPs are one way to harness the ideas and breadth of experience the private sector brings to projects by fully incorporating them into the procurement process.[28]

  Public and private sector collaboration from the outset of an infrastructure project, whether greenfield or brownfield, can lead to a number of innovations. These may come in the form of new materials, faster project delivery, increased use of technology, operational efficiencies, or enhanced building techniques.[29] An open PPP procurement process, at minimum, provides the possibility for new ideas that the public sector may have never considered.

LONG BEACH, CALIFORNIA COURTHOUSE

Built in 1959, the Long Beach Courthouse had long been an unpleasant and unprofessional place to conduct legal proceedings. Ceiling collapses, a termite infestation, and overcrowding seriously compromised the building's operations.[37]

In 2007 when the Judicial Council of California's Administrative Office of the Courts (AOC) began looking into options for replacing the aging building, they chose to pursue a procurement model that delivered the best value for the money, not just the lowest cost. After a feasibility study and a legal review, the AOC launched a request for qualifications and then a formal request for proposals to evaluate what was achievable using a PPP.

Using a value for money (VFM) analysis, the AOC compared the PPP proposals against traditional bid-build procurement models. The AOC determined that the best value over the lifetime of the project came from a consortium led by AECOM, Clark Construction, Johnson Controls, and Meridiam Infrastructure. The AOC would continue to own the facility, but would pay the consortium a monthly fee based on the condition and availability of the courthouse over 35 years.[38]

Through a combination of construction and operational risk transfer as well as state of the art materials and energy efficiency measures, the project came in at 15 percent under the AOC's initial cost estimates. The project was also delivered eleven days early.[39]

- **Value for Money** - PPPs are rarely the lowest-cost way to procure infrastructure for several reasons.[34] For one, the transaction costs for PPPs are usually higher than traditional bid-build contracts, which average around 10 percent of the entire value of the project.[35] Plus, private sector borrowing costs are generally higher than those available to the public sector, as governments are able to access the tax-exempt municipal bond market.[36] Despite these limitations, a well-structured PPP can deliver better *value* for the public dollar. This value can be derived in a number of ways.

  Driven by the need to deliver profit to investors and shareholders, the private sector is less tolerant of cost overruns and project delays than the public sector. Therefore, transferring construction, operational, and/or demand risk to the private sector can result in quantifiable savings for the public sector, as taxpayers or ratepayers do not bear the costs if the project takes longer than expected to complete, goes over budget, or underperforms. The company or consortium that assumes responsibility for the infrastructure asset may also opt to invest in more durable materials or efficient technologies that drive down lifecycle costs. These might not be the cheapest options in the *short term*, but have the potential to drive savings over the *long term* through decreased energy usage, lower maintenance costs, or enhanced resiliency.

PORT OF BALTIMORE, SEAGIRT TERMINAL

The expansion of the Panama Canal is forcing ports across the United States to re-evaluate their role in the global supply chain. Once the expansion is complete, the canal will be capable of handling cargo ships that are nearly three times as large as current standards, requiring American ports to either make large investments in upgrading their facilities or else restrict their operations to accommodate only smaller, conventional boats.[40]

Making the investment to host these so-called Panamax ships is not a trivial matter. Dredging costs alone can range from $345 million at a port like Charleston, South Carolina to $1.7 billion at the Port of New York and New Jersey.[41] These estimates do not include the price of new logistics facilities or larger gantry cranes to unload the supersized ships.

For the Port of Baltimore, which is owned and operated by the state, the cost of improving the Seagirt Terminal to handle the new demands of Panamax ships was in excess of $700 million.[42] Balancing this significant investment against other projects—such as improvements to I-95 and the Chesapeake Bay Bridge—led the state to consider a PPP. After an open bid process, Maryland formalized a partnership with Ports America, an experienced private operator, and Highstar Capital, a large private equity firm that focuses on infrastructure, to improve and manage the port for 50 years.

While the state lost access to the full future revenues from the port for the term of the deal, they received a one-time $140 million payment, all the necessary infrastructure to handle the new Panamax ships, an annual payment, and a profit sharing mechanism with the concessionaire.[43] These payments and revenues were used to improve transportation assets, including highways and bridges throughout the state.[44] Furthermore, the concessionaire assumed not only the construction risk inherent in the project, but also the demand risk that the expanded Panama Canal would not deliver the expected increase in shipping volumes.

The Seagirt terminal is a strong example of a state using a PPP to develop economically critical infrastructure that did not necessarily fulfill a fully public sector function.

- **Non-Inherently Governmental Assets** – State and local governments own and operate a number of infrastructure assets that, for a variety of reasons, may no longer be central to their organizational mission or even have a clearly defined governmental function. These assets might include parking garages, port facilities, water and electric utilities, buildings, idled property, or even the right to develop real estate above an existing road or transit facility.

  PPPs are one way for the public sector to monetize or improve these untapped or non-inherently governmental assets, without ceding public ownership. This gives the public sector both the oversight it needs to ensure the proper use of the asset and gives the government the opportunity to reevaluate their role at the end of the PPP concession. Furthermore, the agreements also drive new revenue since private sector concessionaires often pay upfront lump sums for long-term operational rights. Additionally, the development of the asset itself can increase local economic activity or enhance property values which, in turn, raise tax revenue.

IV. What Do Policymakers Need to Do?

PPPs are not appropriate in all instances. However, public sector agencies interested in using this tool need to implement a number of rules, tools, and institutions to ensure that the process is carried out in a responsible manner. Through interviews with leading stakeholder groups and extensive background research, we identified a set of success factors for PPPs.

1. Create a Strong Legal Framework at the State Level

Markets thrive on certainty and PPPs are no exception. While many aspects of PPPs can be executed without the involvement of state legislatures, a strong legal basis is a necessary precondition for a successful partnership.[45] The public sector can only enter into contracts that are authorized in their jurisdictions. For their part, the private sector needs assurances that a project will not be derailed by political fiat or in a way that may be considered arbitrary or capricious. To do so, PPP authorizing legislation must address several key issues:

First, it should authorize state and local agencies to enter into concession and partnership contracts with private entities without a second review by the legislature. Strong oversight and evaluation processes should be implemented early in project selection, often orchestrated by a dedicated public sector unit and guided by an appointed board.[46] However, giving elected officials multiple veto points, especially late in the procurement process, can be prohibitively expensive for private sector bidders and public sector agencies.[47] Furthermore, the political uncertainty created by the lack of authorizing legislation discourages bidders and that additional risk will be priced into future contractual agreements.

Second, authorizing legislation should introduce flexibility for state and local agencies to engage in PPPs for a broad range of project types, not just a single subset of assets. Narrowly focused language that targets a single sector, like transportation, may prevent the public sector from experimenting with different types of assets and precludes the ability to join up sectors such as energy and water. Innovative localities or agencies looking to procure broadband, social, and other types of infrastructure should not be left without legal standing or guidance. The same flexibility should also be applied to both new greenfield projects and the redevelopment of existing brownfield assets.

Third, the legislation must address fundamental PPP contractual issues. Legal requirements to accept lowest cost bids—which undermine the value for money (VFM) concept—must be modified to allow procuring public sector agencies to take issues beyond price into account. Legislation should also allow public and private funds to be mixed.

Finally, PPP legislation must take into account existing legal structures that may undermine the intent of the authorization. State and local laws may impact PPP procurements in a number of unexpected ways, including rate setting requirements, insurance, tolling authority, federal loan eligibility, fraud statutes, collective bargaining agreements, and environmental review processes. Performing a detailed scan of the existing legal environment and rectifying these issues through the legislative process will ensure that PPPs are not applied in inappropriate situations or unnecessarily delayed due to inconsistencies in the authorizing language.

While 33 states have some form of PPP authorizing legislation in place, most are focused exclusively on transportation and even fewer states actually pursue deals with any frequency.[48] While a relative latecomer to the field, Maryland passed some of the most thorough PPP legislation in 2013.[49] Their legislation addresses all the issues identified above and serves as a strong model for other states interested in starting a PPP program or looking to update existing statutes.

2. Prioritize Projects Based on Quantifiable Public Goals

The success of a PPP is driven by a wide variety of factors, but the most important are the underlying policy goals, economics, and financial drivers of a project. Quantifying these is a mix of art and science; however there are several distinct ways to guide smart project prioritization.

A key driver of a successful PPP procurement and for procuring infrastructure in general is prioritizing projects based on a strong economic, and not political, rationale. This rationale can derive from a number of different sources, including concerns around social equity and inclusion, the environment, business development, or other quantifiable and justifiable public sector goals. It is difficult to adhere to these principles in order to serve a poorly considered or politically motivated project.

Some of the most notable PPP failures in the United States are based on such misguided planning or overly optimistic projections. For example, the concession of the Pocahontas Parkway in Virginia was premised not on a need for increased passenger or freight transit in the Richmond area, but on a poorly considered real estate development strategy.[50] Overly optimistic traffic projections tied to unrealistic development expectations around the Parkway eventually led the project to the brink of default in 2013 and forced one of the concessionaires to write off nearly $140 million in equity.[51]

Successful projects must demonstrate real value as a partnership between the public and private sector. With the relatively low cost of capital from the tax-exempt municipal bond market, the financial case for a PPP requires a thoughtful approach.[52] The U.S. Department of Transportation, as well as international leaders like Her Majesty's Treasury in the United Kingdom, recommends using a VFM (also referred to as a public sector comparator) analysis to econometrically evaluate the true costs and benefits of a PPP project.[53]

Private consultants or financially savvy internal review teams are capable of running these types of models, which can incorporate a number of different scenarios. Importantly, VFM analysis is predicated on quantifiable inputs and outputs in the project. These considerations often look at the cost of capital, demand projections, tax implications, social gains, risk transfer pricing, environmental externalities, and a range of other factors.[54] Using a VFM, policymakers can start making informed decisions about entering into a PPP by comparing the costs and risks associated with different proposals and procurement models.

As mentioned, PPPs are usually not the lowest cost procurement option, but very often will present greater value for the public through other cost savings. Faster delivery times, increased certainty and accountability for the operational condition of the asset, diminished downside financial risk for taxpayers, budgetary certainty over a long period of time, lower lifecycle costs, and the use of innovative materials or technologies are all achievable through a well-structured PPP.[55]

However, it is important to remember that these models will only capture things that can be measured in dollars and cents. Issues that are not easy to monetize, such as broad equity, environmental, or even aesthetic concerns, will not appear in a VFM. That does not mean that these factors do not merit serious attention. In any PPP analysis, these difficult to quantify concerns should be noted and expanded upon along with a rigorous financial model. When factoring in so many variables and the inherent limitations of VFM models, policymakers should always consider these studies as rough guides to the financial implications of a PPP and not an exact assessment of a deal.

"Some of the most notable PPP failures in the United States are based on such misguided planning or overly optimistic projections."

3. Pick Politically Smart Projects

Even with all the right financial and legal pieces in place, a poor understanding of the political environment can increase costs, delay the project, or even scuttle a well-structured PPP.

Despite the fact that PPPs are not privatizations, as the public sector retains ownership and some degree of control over the asset, a number of users and stakeholders may consider any type of partnership as a threat to the livelihoods of their constituents. This is particularly the case in highly unionized infrastructure sectors where toll collectors, maintenance workers, or other employees might feel that their jobs are threatened by any deal directly connected to the private sector.

For example, the Professional Engineers in California Government (PECG) took extensive legal action against a PPP deal to improve the Presidio Parkway outside of San Francisco.[56] The union feared that any type of partnership could result in job losses, reduced benefits, and increased costs to state taxpayers. Engineers also displayed concerns that the private contractors would supplant public engineers to conduct safety inspections of their own work.[57] Ultimately the legal efforts failed and the union's concerns proved largely unfounded. However, the misunderstanding delayed the road improvement significantly and damaged sensitive relationships with organized labor groups.

That is not to say that PECG did not have reason for concern. A study by the U.S. Government Accountability Office found that while contracting out services may provide short-term cost savings for some public transit agencies, those savings are almost always borne by reductions in wages and benefits.[58] However, these issues can potentially be addressed with early outreach to unions, benefit guarantees, and other employment assurances.[59] For example, the Service Employees International Union (SEIU) recommends a decision making board to oversee investments that have a wide range of community stakeholders, including representatives of labor, state and local governments and other organizations.[60] In 2006, an official at Goldman Sachs testified that "it is important to consider the future of the municipal employees as a result of a PPP concession. It is possible for concession contracts to be written so a concessionaire must use municipal employees for all or a portion of toll collection, maintenance, administration, etc."[61]

While there are examples of failed partnerships with unions, there are also success stories.[62] The Seagirt Terminal in Baltimore is a notable example of successfully concessionaire and union negotiation, in which the Longshoremen retained their jobs and received technical training as part of the agreement.[63] In this way, strong labor practices and early outreach added great value to the investment.

There are also strong political risks in raising rates or changing toll structures. Highly tax or toll adverse communities are increasingly pushing back against PPPs, as these revenues may be seen

as "crony-capitalism" or generally an inappropriate way to pay for infrastructure.[64] This shift is particularly pronounced in Texas, where the state Republican Party platform recently changed its longstanding endorsement of tolling for highway PPPs, to a strong stance against them.[65] Virginia, already a leader in PPPs, also faced significant and unexpected political and legal challenges to a toll based concession in their Elizabeth River Crossing project.[66]

Understanding and overcoming these types of challenges is difficult for any public agency, but doubly so for those engaging in their first PPP. Therefore, it is often politically easier and less time consuming to start simpler PPP projects and then graduate to more complicated deals, if appropriate. Parking facilities are potential early entry points for PPPs since they have straightforward revenue streams and the public is already accustomed to their fee structures. Provisions around job creation, continuity of service, and other well defined public goals can be codified into these contracts, to ensure that they appeal to a broad set of community interests. Once the public sector can demonstrate competence in executing smaller deals, they are more likely to receive support in larger endeavors.

4. Understand What the Private Sector Needs

Public entities also need to understand how to select projects that will drive private sector interest. Public officials looking to improve high risk, overleveraged, or outdated assets might view PPPs as an attractive model for stimulating much needed capital investment. Yet, while these troubled assets may draw some private sector interest, there must be a compelling revenue stream or underlying economic potential to draw serious bidders.

Outside of the state of the asset itself, the number of available or possible PPP projects in a given market is a key driver of private sector involvement in public infrastructure. Private sector builders and financiers interviewed for this paper cited due diligence costs for projects running into the millions of dollars and taking months or even years of dedicated staff time. One contractor interviewed for the paper cited a five year proposal development process for a project that never came to fruition.

Proper analysis requires detailed information on the specific engineering and demand characteristics of the individual project, as well as a thorough understanding of the legal, political, and regulatory environment in each market. Therefore, the private sector is less likely to engage in a place that only offers up a handful of PPP projects every couple of years. To make their investment in understanding that locality worthwhile, the private sector needs a defined pipeline of projects that justify their upfront costs.[67]

This type of market building is what makes Virginia's approach successful. Through a thoughtful PPP selection process, the state maintains a well-defined list of projects that the private sector can rely on for continued business over the long term.[68] On an even larger scale, the West Coast Infrastructure Exchange is building a pipeline of projects across infrastructure types for California, Oregon, Washington, and British Columbia by identifying and preparing assets for PPP procurement.[69] These are the types of markets where the private sector will devote its time and resources for the foreseeable future.

As a corollary to the volume of PPP deals in a given state, the projects need to be large enough in dollar terms to merit private sector attention. As a rule of thumb, the private sector is interested in projects in the $100 million range to make the investment of their time and resources worth the effort. For some straightforward projects, notably parking garages, this number can be as low as $50 million.

Given this high threshold, many states and localities need to bundle smaller projects together into a single deal. Bundling similar small scale projects into one deal generates the scale needed for the private sector to justify its due diligence costs, for both sides to keep transaction costs low, and to effectively diversify the risks across a number of individual projects. While this is an appealing idea, few have tried it, primarily due to the challenge of coordinating multiple jurisdictions. Pennsylvania

is one of the first to attempt this strategy domestically by including several hundred bridges in a single availability payment concession.[70] Examples of water project bundling can be found throughout Canada's First Nations communities.[71]

> "Provisions around job creation, continuity of service, and other well defined public goals can be codified into these contracts, to ensure that they appeal to a broad set of community interests."

5. Find the Right Revenue Stream

PPPs are not free money. Just like other public sector projects, they fail or succeed based on access to long-term revenue streams. While the details of PPP funding and financing packages are arranged far along in the procurement process, states and localities must lay the groundwork for a successful repayment mechanism in advance.

Taking projects directly to the voters remains a popular and time-tested approach. Ballot measures have traditionally played an important role in securing funds for infrastructure investment, particularly at the local level. These initiatives are popular among voters. According to the Center for Transportation Excellence, 73 percent of measures passed in 2013 as did 79 percent in 2012.[72] These ballot box initiatives can be used to increase revenues in a number of ways, including new toll authorizations or user fees, which can be used as a revenue stream for concessionaires. Alternately, voters can approve general sales or gas tax increases that can be applied to availability payment PPPs.

In many cases, direct voter approval may not be necessary. Legislatures, city councils, boards, or other authorizing agencies have the power to increase taxes, rates, or approve new tolling, which can generate revenue to support the capital needs of the PPP. While politically challenging, these measures are a straightforward way to generate the recurring revenue necessary for a successful PPP. Using predictable formula-based rate increases (an approach Rialto, CA used for their water PPP) can temper political resistance, keep the rate setting process transparent, and also protect consumers from rate shocks.[73]

Beyond direct appeals for money, new technologies allow infrastructure operators to squeeze new efficiency out of existing assets by more accurately pricing demand. Water and energy companies are utilizing smart metering technologies to dynamically adjust pricing to reflect factors like the time of day and system load.[74] Similarly, high occupancy tolling (HOT) lanes, like those installed along the 495 Express Lanes in Virginia, manage demand and increase revenues by charging for a dedicated, less congested lane on an existing roadway.[75] PPPs allow the private sector to use these efficiency gains to drive new revenue out of existing assets, which incentivizes them to both make improvements and to engage with the public sector.

Outside of creating new revenue streams, many states and localities are pursuing ways to capture value from existing assets. Value capture is based on the idea that infrastructure improvements will attract new businesses, customers, and investors to a community. For example, tax increment financing (TIF) districts capture the appreciation in real estate values surrounding the infrastructure project to pay back project bonds. In Denver the TIF model is being used in conjunction with the Eagle Commuter Rail PPP to back redevelopment along the new transportation corridor, which will move more housing closer to public transportation, potentially increase the local tax base, and reduce road congestion in the region.[76]

Exploring and establishing these revenue streams will ensure that a PPP has the fundamental financial underpinnings that will position the project to succeed. Furthermore, they are the basis for the financing packages that constitute the risk sharing component of any partnership.

6. Create a Clear and Transparent Process

Both the public and private sector need a well-defined process to guide a successful PPP procurement. This does not mean that some states and localities have not executed ad hoc PPP deals. However, routinization and standardization are what drives a healthy PPP environment.

In many cases, a state's PPP authorizing legislation outlines a generic process for agencies to procure a PPP. However, the actual procurement will require the development of a wide variety of internal rules and processes. See Figure 3.

Figure 3. A Typical DBFOM Procurement

Project Prioritization and Selection	*Build the economic, financial, and business case for the project*
Basic Political and Market Testing	*Evaluate private sector and political interest in the project internally and with partners*
Formally Present the Project	*Publically present the project at a forum and/or take the project out to investors*
Issue Request for Qualifications	*Issue a formal soliciation to narrow the field of eligible private sector candidates*
Select Qualified Bidders	*Engage in a consistent, transparent, and fair initial pre-screening process*
Issue Request for Proposals	*Request detailed and technical proposals from the pre-qualitfied bidders*
Short-List Proposals	*Rank proposals based on pre-defined and transparent criteria*
Negotiations and Final Selection	*Engage the top bidders and negotiate a final contractual agreement with the winning party*
Construction	*Monitor the building phase for compliance with all aspects of the contract*
Contract Management	*Actively manage the private sector partner over the life of the contract*
Asset Return	*Ensure the asset is fully returned to the public sector as negotiated and determine next steps*

Source: Brookings analysis and expert interviews

While establishing a PPP procurement process requires a number of steps, it is important to note that even traditional lowest cost bid/build contracts require similar measures.[77] The additional transaction costs incurred through this complicated process can be added to the VFM analysis, ensuring that they are captured in any comparison to other forms procurement or competing bids.[78]

Building an effective process also requires the public sector to establish a roadmap that charts out the variety of boards, permits, approvals, and regulations that apply to the PPP. These may range from hyper-local concerns like a zoning board, to nationally dictated policy such as environmental regulations. Both the public and private sector stakeholders working on a PPP may not be aware of the scope and breadth of these potential roadblocks, which is why it is so important to map out the full process before moving a project forward. This mapping process is often carried out by a dedicated PPP unit, the public sector procurement team, or with the help of an outside consultant.

Beyond identifying possible bottlenecks, a roadmap can inform administrative changes that smooth the process. Commonly applied practices include fast track permitting and standardization.

Fast tracking can be as simple as moving a project to the top of the regulatory review process, or as involved as granting specific waivers to accelerate project permitting and approval. While expediting the process may be appealing, these measures are best applied as part of a well-defined policy framework and codified in statute to avoid legal challenges and to prevent abuse of power. In other words, a project should not be fast tracked just because it is a PPP. Setting up clear benchmarks or qualifications for gaining fast track status is necessary to clarify the process for both the public and private sector. A strong example of fast tracking exists in Maryland, where qualifying projects receive expedited review from all the relevant state agencies, as well as a direct liaison to ease the permitting and approval process.[79]

Form standardization is significantly easier to implement and generally does not require legislative or political authorization. As PPPs are inherently complex financial and logistical undertakings, even basic steps like maintaining common application forms and consistent submission deadlines both horizontally across public agencies and vertically between levels of government can significantly speed up procurement. While not specific to PPPs, Governor Cuomo's NY Works Task Force is working to implement form standardization across multiple state agencies.[80]

Many of the public and private sector leaders interviewed for this paper noted persistent inefficiencies due to lag times between decisionmaking bodies and the need to submit nearly duplicate forms multiple times to multiple agencies. Considering the wide variety of stakeholders involved, even the small inconvenience of learning how to fill out a new form for each agency or a misaligned approval process can add significant time and cost to project development. California approached this problem by consolidating and aligning several existing financing programs under their new Green Bank, which is working to streamline all of its approval processes.[81]

"While expediting the process may be appealing, these measures are best applied as part of a well-defined policy framework and codified in statute to avoid legal challenges and to prevent abuse of power."

7. Build an Empowered Team

Creating a well-defined procurement process is useless without a team to execute it. Assembling a group with the right mix of finance, legal, policy, and communications experience is critical to the success of any PPP project. Public sector agencies looking to procure a limited number of PPP projects or engaging in their first, often use outside advisors for most of these services. This can be a successful strategy as long as public sector decisionmakers remain in control of the process.[82]

However, a dedicated PPP unit increases the public sector's in house capacity and expertise to execute these transactions. These teams can live inside a department, such as a transportation office, or may be generalists under a mayor or governor's office. Examples of these types of PPP units can be found at both the state level, notably in Virginia, and at the city level in places like Los Angeles and Chicago.[83] The Obama administration is also creating the Build America Transportation Investment Center, a coordination unit at the U.S. Department of Transportation that will help localities with innovative finance tools like PPPs.[84]

While the exact mission of each of these offices varies, PPP units have five distinct roles in the procurement process: policy formulation and coordination, quality control, technical assistance, standardization, and promotion (Figure 4).[85]

Figure 4. Core Functions of a PPP Unit

Policy Formulation and Coordination	Quality Control	Technical Assistance	Standardization and Dissemination	Promotion
• Develop program guidelines • Create application processes • Coordinate both between agencies and levels of government	• Perform project review • Monitor budgetary implications • Certify compliance with existing policy	• Provide guidance across the procurement process • Perform value for money analysis	• Create common contract language and forms • Provide best practices and sample documents • Push materials out to agency and local government partners	• Keep private sector informed of available PPP projects • Provide guidance for interested private sector stakeholders • Consolidate and maintain project list

Source: Istrate and Puentes, 2011.

By bringing this expertise in-house, states and localities are able to develop both the formal and informal processes that underpin smooth transactions. Finance expertise in these units is especially important, as it decreases transaction costs over time by cutting down on need to hire outside consultants and builds greater market certainty for leading private sector partners.[86]

Once the process and team are in place, the final considerations must be placed on maintaining a well-defined schedule and establishing clear lines of authority. Simply put, the private sector needs their partners in the public sector to come up with clear yes or no decisions. PPPs do not rely on the private sector to only line up material and labor costs, as is common in typical low-bid build contracts. The private sector must invest large amounts of resources into multiple aspects of the design, finance, and operational aspects of the project. Long delays or unclear decisions drive up both the realized and opportunity costs for the bidders, which will result in lower quality and weaker proposals and decreased market interest.

8. Actively Engage with Stakeholders

PPPs are inherently technically and financially complex projects. Unfortunately, this complexity presents ample opportunities for miscommunication, weak management, and poor planning. While it is essential to have both a strong financial case and an initial market assessment in place before fully pursuing a PPP, an engagement strategy is a necessary component of any transaction. Key stakeholders and the public at large need to have meaningful opportunities to understand, vet, and shape the deal. Creating these opportunities requires three major steps: ensuring transparency, creating a targeted engagement strategy, and finding a project champion.

Any relationship between the public and private sector presents an opportunity for corruption or inside dealing. However, creating and actively maintaining a transparent procurement process will not only help allay public suspicion of any backroom decisions, but also put pressure on public officials to avoid taking shortcuts or moving forward without complete documentation. While it is often too early to engage in this type of public dialogue and scrutiny in the initial project selection process, providing thorough documentation and a coherent narrative for the PPP procurement should be done as soon as possible.

Achieving transparency is straightforward. All the relevant documents should be made publicly available online through an easily accessible database. These should include the financial analysis, business case, environmental review documents, and any other supplemental materials related to the procurement. Many states and localities have so-called "sunshine laws" that require this, but a pre-emptive and active approach to disclosure will not only help the public sector further vet the proposal, but also provide opportunities to change course or even abandon the project if necessary. Here again, Virginia's OTP3 is a leader in the field with a robust and fully documented website that tracks each of its projects.

Beyond making these materials available online, it is important to get out in front of the communities that will use or be affected by the project. Key stakeholder groups must be identified and approached early and often to ensure a broad understanding of the project and to gain feedback that can improve or even veto the deal. This requires targeted communication with both the committees that are likely to have oversight duties related to any given infrastructure type and with community members on the ground.

It is critical to meet stakeholders where they live and work and not expect them to only engage through publically announced meetings. Going into the community and presenting the project at churches, union halls, schools, chambers of commerce, and other local forums will help ensure that a broad variety of voices are heard and that they are approached on their own terms. For example, Charlotte, NC held a two-day summit to explore using a PPP to finance the expansion of their light rail system and invited a broad set of both local and national stakeholders to discuss the pros and cons of the approach.[87] The goal of such outreach should not be only to "sell" the transaction but to engage with stakeholders to design a better project.

Failure to take these steps around transparency and engagement has real consequences. Chicago's parking meter PPP is a prime example of what happens when stakeholders and the public are excluded from the process. The 75-year PPP to manage the city's 36,000 parking meters was negotiated out of public view with an opaque selection and oversight process.[88] Combined with a large and poorly communicated spike in the parking fee structure, Chicago faced a broad backlash against the deal and the overall mishandling of the project soured public opinion on the entire PPP model.[89]

Finally, PPP projects need a champion. A mayor, governor, legislator, or other prominent citizen who can speak compellingly about the project is an essential component of any engagement strategy. They build project credibility and give cover to the more technical staff working on the particulars of the deal. However, a strong spokesman is not a substitute for strong legal or financial fundamentals, as was demonstrated by Governor Ed Rendell's failed PPP bid for the Pennsylvania Turnpike. Despite

the governor's strong support for the project, conflict with the state legislature, lack of PPP authorizing legislation, and insufficient economic analysis ultimately made the $12.8 billion project infeasible. An analysis of the transaction revealed that despite a generally optimistic assesment of the projects economic impact, the state's residents and labor interests were unclear about the long-term effects of the deal.[90]

9. Monitor and Learn from the Partnership

Much of the attention given to a PPP occurs during the procurement process and when the construction is completed. However, these contractual agreements often last decades and require open and sustained engagement from the public and private sector, as well as the community at large. To ensure a successful PPP over the long term, the public sector should create a staffed monitoring mechanism, design an ongoing engagement strategy with the public, be willing to adapt to project changes, and actively learn from mistakes made throughout the process.

Most monitoring procedures involved in a PPP are codified into the contract. These formalized processes around condition reporting, definitions for state of good repair, and formal steps to remedy any problems are often one of the most intensive parts of the negotiation process. While these steps are contractually defined, it is up to the public sector to dedicate sufficient staff time and resources to ensure that the private sector is fulfilling its contractual obligations. For example, the Long Beach Courthouse commissioned an independent expert to monitor the condition of the building and provide onsite opportunities for community feedback, which can translate into fines for compliance failure or suggestions for improving the facility.[91]

Outside of these contractual duties, the public sector should maintain open and honest communication channels with the concessionaire. These less formal interactions can take the form of regular meetings or check-in calls where the partners can identify potential issues or challenges, before they become a source of discord or even a legal dispute.

Open lines of communication are not limited to dealings with the concessionaire. Public awareness of the value that the asset provides to the community or the challenges the project faces are essential to maintaining a healthy PPP. Open communication ensures that the public knows how its scarce resources are being spent. Ongoing community meetings, widely available financial reports, and sometimes even a direct helpline can be used to keep the public informed. Virginia's OTP3 regularly updates its website, provides ongoing opportunities for community feedback, schedules regular calls with their concessionaires, and maintains a dedicated communications staff.[92]

While PPPs appear to be unyielding contractual agreements, the reality is that these are ongoing partnerships which can and should adapt to changes on the ground. Over the course of a 20, 30, or even 99 year contract massive changes can occur. Demographic shifts, new technologies, emerging economic trends, climate change, and a wide variety of other factors may alter the assumptions underlying an infrastructure PPP. While these issues can be identified through continued dialogue with the concessionaire and the broader community, the public and private sectors have to be able to find ways to adapt their PPP strategy to serve new realities. Working around the margins of the contract to tweak services and periodically defined opportunities to re-evaluate the agreement are two ways to ensure that the public and private sector can remain responsive to changes on the ground.

V. Conclusion

Infrastructure PPPs are technically, economically, politically, and contractually difficult arrangements. Despite these challenges, they are increasingly a topic of conversation in congressional hearings, state forums, local meetings, and are featured at conferences and symposiums around the world. This enthusiasm for a complex procurement model reflects growing demand for infrastructure investment, the search for new tools, and also a great deal of over-optimism. In a tax averse and politically gridlocked environment, PPPs are appealing as abstract solutions to very tangible infrastructure problems.

Yet PPPs are not a substitute for direct public sector investment in infrastructure and in fact are highly dependent on public revenue and expertise to operate effectively. The real opportunity for public benefit in a PPP lies in the innovation, risk sharing, and value to the taxpayer that these agreements are capable of providing. Better commutes, access to economic opportunity, more efficient energy distribution, world class public buildings, more resilient water systems, and a wide range of other benefits are imminently achievable through carefully arranged PPPs.

These benefits can be difficult to achieve and only a subset of projects will ever have the scale, revenue, and political support to become a PPP. Creating an accountable, effective, and lasting PPP environment requires both the work of highly competent public officials and the strategic use of precious public resources. However, taking the time to develop these processes will guide private capital towards the greater public good.

Endnotes

1. Susan Lund et al, "Game Changers: Five Opportunities for U.S. Growth and Renewal." (McKinsey Global Institute, 2013).

2. Standard and Poors, "2014 U.S. State Debt Review: New Issuance Remains A Lower Priority," (2014).

3. Infrastructure sectors that are inherently private are largely excluded from this analysis. We recognize there are sectors such as freight rail, telecommunications, and clean energy, where the public sector still plays an active regulatory role.

4. HM Treasury, "A New Approach to Public-Private Partnerships." (2012).

5. See for example: Federal Highway Administration, "P3 Defined." (U.S. Department of Transportation, 2014).

6. A recent Congressional report rightfully points out that public agencies rarely design and construct projects themselves. In this way, even traditional procurements represent at least a version of PPPs. See: Committee on Transportation and Infrastructure, "Public-Private Partnerships: Findings and Recommendations of the Special Panel on Public-Private Partnerships." (U.S. House of Representatives, 113th Congress, September 2014).

7. Federal Highway Administration, "Payment Mechanisms in Public-Private Partnerships." (U.S. Department of Transportation, 2012a).

8. As each deal is unique, certain commonly used risk transfer responsibilities may be reversed. Areas like permit, demand, and operation risk might be retained by the public sector if they are better able to control or price these issues.

9. The insurance issues around PPPs represent a distinct set of challenges, as concessionaires do not enjoy the same protections and liability caps that sovereign governments possess. For a thorough discussion of the issue see Chapter 7 of David Hatem and Patricia Gary, "Public-Private Partnerships: Opportunities and Risks for Consulting Engineers," American Council of Engineering Companies (2013).

10. Communication risk is a related side issue. For example, the responsibility of communicating rate increases to the public as the result of a PPP transaction may fall to either the public or private sector. However, it does not necessarily falls into the category of real risk transfer in any legal or economic sense.

11. Damien McNair, "Force Majeure Clauses–Revisited." (Washington, DLA Piper, 2012).

12. Robert Puentes and Patrick Sabol, "The Indiana Toll Road: How Did a Good Deal Go Bad?" (Forbes, October 3, 2014).

13. Virginia Department of Transportation, "Amended and Restated Comprehensive Agreement Relating to the Route 495 HOT Lanes in Virginia Project." (2007).

14. *Bond Buyer,* "2013 in Statistics: Annual Review." (New York, 2013).

15. Securities Industry and Financial Markets Association, "US Bond Market Issuance and Outstanding." (New York, 2014).

16. "Legacy debt" usually specifically applies to situations where current pensioners are pulling out more money than is being put into a fund. See: U.S. Security and Exchange Commission, "Municipal Bonds: Understanding Credit Risk." (2012); Janney Capital Markets, "The Rime of Municipal Bond Issuance." (Philadelphia, 2014); and William D. Eggers and Tiffany Dovey, "Closing America's Infrastructure Gap: The Role of Public-Private Partnerships." (Washington: Deloitte, 2011).

17. Phil Willon, "Goodrich Corp. to Help Clean Up Perchlorate in Rialto Groundwater." (*Los Angeles Times*, March 26, 2013).

18. National Council for Public-Private Partnerships, "A Tale of Two Cities: The Rialto and Allentown Water/ Wastewater System Transactions." (2014).

19. Committee on Transportation and Infrastructure, "Overview of Public-Private Partnerships for Water Supply and Treatment." (U.S. House of Representatives, 113th Congress, March 2014).

20. Ibid.

21. Ibid.

22. Rachel Layne and Justin Doom, "KKR to Goldman Breach Water Deal Dam in U.S.: Commodities." (*Bloomberg*, May 8, 2013).

23. Randall Jensen, "Southern California City Enters Into P3 for its Water and Sewer Systems." (*Bond Buyer*, December 6, 2012).

24. Ullico, "Ullico Announces First Infrastructure Investment." (2012). Available online at: http://www.ullico.com/news-item/ullico-announces-first-infrastructure.

25. Deborah Robertson, "The City of Rialto Concession Agreement: A Case Study of a Successful Public-Private Partnership." (Presentation at Greater Los Angeles Water Summit, October 17, 2013.) Available online at: http://www.westbasin.org/files/glaws/la-water-summit-rialto-panel-2.pdf.)

26. Randall Jensen, "Southern California City Enters Into P3 for its Water and Sewer Systems." (*Bond Buyer,* December 6, 2012).

27. House Transportation Committee, March 2014.

28. Federal Highway Administration, "Case Studies of Transportation Public-Private Partnerships in the United States." (U.S. Department of Transportation, 2007); and Finnish Road Enterprise, "Innovative Project Delivery Methods for Infrastructure: An International Perspective." (2002).

29. ibid

30. INRIX, "Worst Corridors." (2013). Available online at: http://www.inrix.com/scorecard/uscorridors.asp.

31. Thomas Jenning et al., "Traveling the Capital Beltway Is Now E-Zier." (U.S. Department of Transportation: Federal Highway Administration, 2014).

32. Fluor Daniel, "Capital Beltway HOT Lanes: Detailed Proposal Virginia Public-Private Transportation Act." (2003).

33. Federal Highway Administration, "Project Profiles: I-495 Capital Beltway HOT Lanes." (U.S. Department of Transportation, 2008).; Larry Cloyed, "Virginia's 495 Express Lanes." (Presentation to Regional Transportation Alliance, November 20, 2013); and Eric Jaffe, "Why Are HOT Lanes Struggling to Make Money?" (*Atlantic Cities*, June 24, 2013).

34. Congressional Budget Office, "Using Public-Private Partnerships to Carry Out Highway Projects." (2012).

35. Gerti Dudkin and Timo Välilä, "Transaction Costs in Public-Private Partnerships: A First Look at the Evidence." (European Investment Bank, 2005).

36. Dennis Zimmerman, "Tax Topics: Tax-Exempt Bonds." (The Urban Institute and Brookings Institution Tax Policy Center, 2005). Available online at: http://www.taxpolicycenter.org/taxtopics/encyclopedia/Tax-exempt-bonds.cfm.

37. California Administrative Office of the Courts, "Governor George Deukmejian Courthouse: An Evaluation of Project Agreement Development, Procurement Process & Performance During Design & Construction." (2012).

38. Ibid.

39. Ibid.

40. Adie Tomer and Joseph Kane, "Widening the Panama Canal and the Future of Global Trade Mapping." (Brookings Institution, 2013).

41. Maryland Department of Transportation, "Maryland's Transportation Public- Private Partnership Case Studies." (2012a).

42. U.S. Army Corps of Engineers, "The National Dredging Needs Study of Ports and Harbors-Implications to Cost-Sharing of Federal Deep Draft Navigation Projects Due to Changes in the Maritime Industry." (2000).

43. Maryland Department of Transportation Port Administration, "Maryland Port Administration-Ports America Chesapeake Public-Private Partnership Summary." (2012b).

44. Maryland Department of Transportation, (2012a).

45. Jaime Rall et al, "Public-Private Partnerships for Transportation: A Toolkit for Legislators." (National Conference of State Legislatures, 2010). Available online at: http://www.ncsl.org/documents/transportation/PPPTOOLKIT.pdf

46. Emilia Istrate and Robert Puentes, "Moving Forward on Public-Private Partnerships: U.S. and International Experience with PPP Units." (Brookings Institution, 2011).

47. Rall et al. (2010).

48. Eno Center for Transportation, "Partnership Financing: Improving Transportation Infrastructure through Public Private Partnerships." (Washington, 2014).

49. General Assembly of Maryland, "House Bill 560: An Act Concerning Public–Private Partnerships." (2013).

50. Peter Galuszka, "Australians May Dump Pocahontas Parkway." (*Bacon's Rebellion*, August 10, 2012).

51. Michael Martz, "Pocahontas 895 Toll Road Under a New Operator," (*Richmond Times-Dispatch*, June 17, 2014).

52. *Bond Buyer*, 2013.

53. Federal Highway Administration, "Value for Money Assessment for Public-Private Partnerships: A Prime." (U.S. Department of Transportation, 2012b); and HM Treasury, "Value for Money Assessment Guidance." (2006).

54. Federal Highway Administration, 2012b.

55. William D. Eggers and Tiffany Dovey, "Closing America's Infrastructure Gap: The Role of Public-Private Partnerships." (Deloitte, 2011).

56. Robert Carlsen, "California Judge Dismisses Engineer Union's Lawsuit on P3 Project." (*ENR California*, February 23, 2011).

57. Ianthe Jeanne Dugan, "In California, a Road to Recovery Stirs Unrest." (*Wall Street Journal*, December 1, 2010).

58. Other concerns include decreased level of safety, reduction in service quality, and other hidden costs. Government Accountability Office, "Public Transit: Transit Agencies' Use of Contracting to Provide Service," GAO-13-782 (2013).

59. Bill Barhnart, "Infrastructure Partnerships: Labor's Evolving Experience." (Washington: Center for American Progress, 2013).

60. Service Employees International Union, "Protecting Workers Under Public-Private Partnerships: Public Sector Union Experiences and Models." (Washington, 2007).

61. Mark Florian, "Understanding Contemporary Public Private Highway Transactions: The Future of Infrastructure Finance?" Testimony before the Committee on Transportation and Infrastructure. (U.S. House of Representatives, 109th Congress, May 24, 2006).

62. SEIU, 2007.

63. Ron Cassie, "Our Ship Has Come In." (*Baltimore Magazine*, August 2012).

64. Terri Hall, "Reason Foundation Comes Unhinged at Populist Revolt Against Tolls." (*San Antonio Express-News*, August 27, 2014).

65. Aman Batheja, "As Perry Exits, Texas GOP Shifting Away From Toll Roads," (*Texas Tribune*, July 4, 2014).

66. Dean Hoffmeyer, "Virginia High Court to Get Last Word on Tolls Lawsuit." (*Richmond Times Dispatch*, July 22, 2013).

67. CH2MHill, "West Coast Infrastructure Exchange Final Report." (2012).

68. The list of candidate PPP projects is available online at: http://www.vappta.org/projects.asp.

69. West Coast Infrastructure Exchange, "Framework to Establish a West Coast Infrastructure Exchange." (November 24, 2012.) Available online at: http://west-coastx.com/assets/documents/WCX_framework-agreement.pdf.

70. Pennsylvania Department of Transportation, "PennDOT Office of Policy & Public Private Partnerships." (2014). Available online at: http://www.dot.state.pa.us/Internet/P3info.nsf/P3Home.

71. PPP Canada, "P3 Water/Wastewater Sector Study." (Ottawa, 2013). Available online at: http://www.p3canada.ca/en/about-p3s/p3-resource-library/

72. Center for Transportation Excellence, "Transportation Ballot Measures." (Washington: 2014). Available online at: http://www.cfte.org/elections/past.

73. Governing Institute, "Transforming Water Management in Local Government." (Washington: 2013).

74. Navigant Research, "Smart Water Networks Smart Water Meters, Communications Infrastructure, Network Monitoring and Automation Technologies, and Data Management and Analytics: Market Analysis and Forecasts." (2013); and Edison Electric Institute, "Smart Meters and Smart Meter Systems: A Metering Industry Perspective." (2011)

75. Neil Spiller and Greg Jones, "Cool Tips on HOT Lanes: Are They Right for Your Community?" (U.S. Department

of Transportation, Federal Highway Administration, 2013). Available online at: http://www.ops.fhwa.dot.gov/publications/fhwahop12031/fhwahop12025/index.htm.

76. Rick Clarke, "Eagle P3 Project Update." (Denver Regional Transportation District, 2014); and Federal Transit Administration, "Eagle Commuter Rail Denver, Colorado Final Design." (U.S. Department of Transportation, 2010).

77. See New York State's Design/Build bidding guidelines as an example: New York State Procurement, "Bidding 101." (2014). Available online at: http://nyspro.ogs.ny.gov/content/bidding-101-0.

78. Federal Highway Administration, "Value for Money: State of the Practice." (U.S. Department of Transportation, 2011).

79. "About FastTrack." (2014). Available online at: http://easy.maryland.gov/fasttrack/.

80. Margaret Tobin, Panel Discussion: "Can Do States: A New Era for Infrastructure Investment." (Brookings Institution, 2013).

81. California State Treasury, "California's Green Bank." (2014). Available online at: http://www.treasurer.ca.gov/greenbank/.

82. European PPP Expertise Center, "Role and Use of Advisers in Preparing and Implementing PPP Projects." (2014). Available online at: http://www.eib.org/epec/resources/publications/role_and_use_of_advisers_en.pdf.

83. Virginia Office of Transportation Public Private Partnerships, "About the Office." (2014). Available online at: http://www.vappta.org/about_the_office.asp; Los Angeles Metro, "About Public-Private Partnerships for Metro Transportation Projects." (2014). Available online at: http://www.metro.net/projects/public_private_partnerships; and Chicago Infrastructure Trust, "How it Works." (2014). Available online at: http://shapechicago.org.

84. The White House, "Fact Sheet: Building a 21st Century Infrastructure: Increasing Public and Private Collaboration with the Build America Investment Initiative." (2014).

85. Istrate and Puentes, 2011.

86. Organization for Economic Cooperation and Development, "An Overview of Dedicated Public-Private Partnership Units." (2010). Available online at: http://www.oecd-ilibrary.org/governance/dedicated-public-private-partnership-units/an-overview-of-dedicated-public-private-partnership-units_9789264064843-3-en.

87. Charlotte Chamber of Commerce, "East Coast P3 Summit." (2014). Available online at: http://charlottechamber.com/summits/east-coast-p3-infrastructure-conference-2014.

88. Office of the Inspector General, "An Analysis of the Lease of the City's Parking Meters." (Chicago: 2009). Available online at: http://chicagoinspectorgeneral.org/wp-content/uploads/2011/03/Parking-Meter-Report.pdf.

89. David Schafer, "Chicago's Privatized Parking Meters Sour Airport Lease Deal." (*National Public Radio*, 2013).

90. Stephen Fehr, "Why the Pennsylvania Turnpike Plan Failed." (Philadelphia: Pew Charitable Trusts, 2009). Available online at: http://www.pewtrusts.org/en/research-and-analysis/reports/2009/03/24/study-why-the-pennsylvania-turnpike-plan-failed.

91. California Administrative Office of the Courts, "An Evaluation of Project Agreement Development, Procurement Process & Performance During Design & Construction." (2012).

92. Virginia Office of Transportation Public Private Partnerships, "PPTA Outreach Information." (2014). Available online at: http://www.vappta.org/ppta_outreach_information.asp.

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Intra-Metro Transportation includes local roads and bridges; public transit such as subways and buses; taxis and limousines; sightseeing transportation; and bicycle/pedestrian infrastructure.

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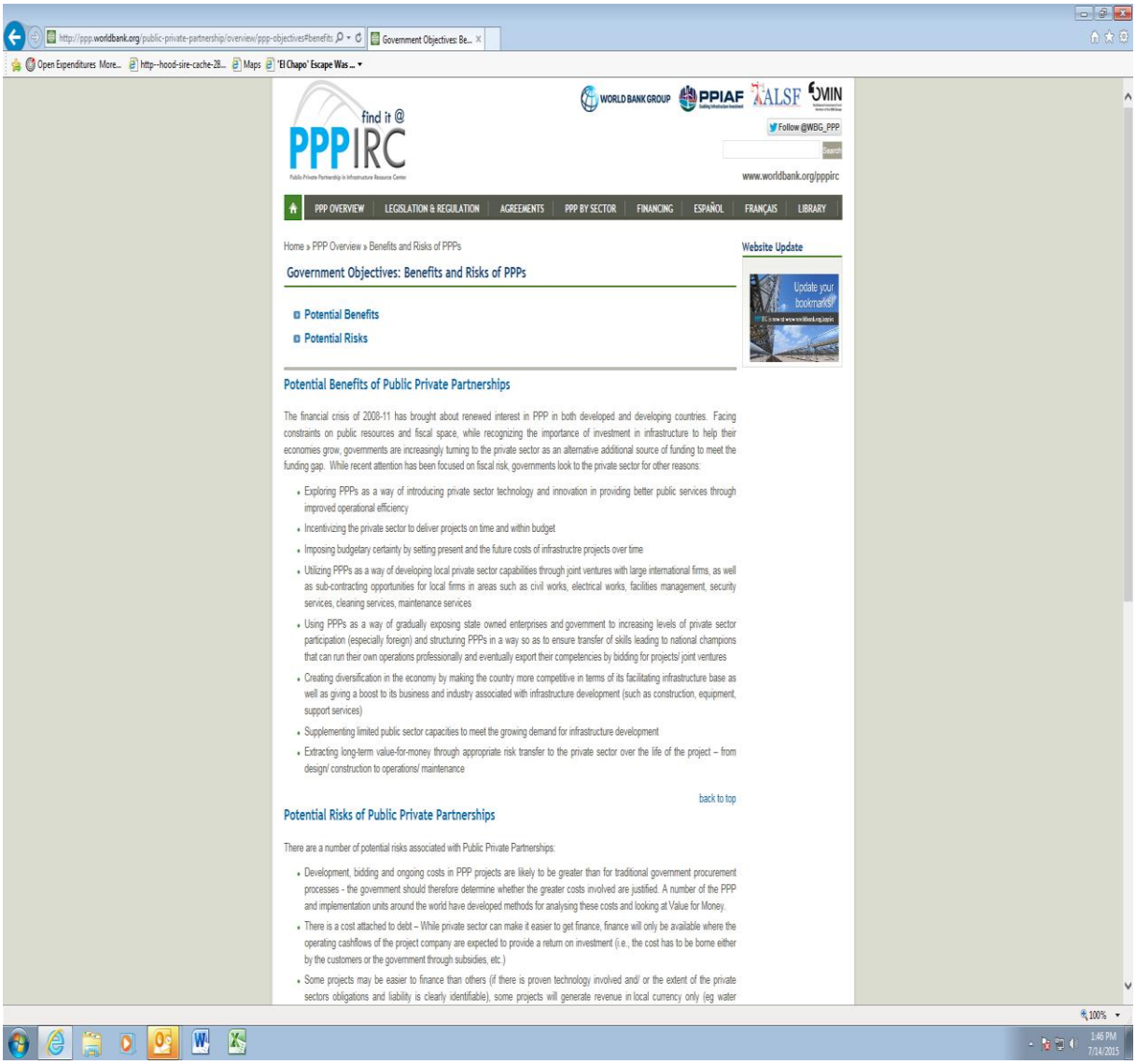

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Potential Benefits of Public Private Partnerships

The financial crisis of 2008-11 has brought about renewed interest in PPP in both developed and developing countries. Facing constraints on public resources and fiscal space, while recognizing the importance of investment in infrastructure to help their economies grow, governments are increasingly turning to the private sector as an alternative additional source of funding to meet the funding gap. While recent attention has been focused on fiscal risk, governments look to the private sector for other reasons:

- Exploring PPPs as a way of introducing private sector technology and innovation in providing better public services through improved operational efficiency
- Incentivizing the private sector to deliver projects on time and within budget
- Imposing budgetary certainty by setting present and the future costs of infrastructre projects over time
- Utilizing PPPs as a way of developing local private sector capabilities through joint ventures with large international firms, as well as sub-contracting opportunities for local firms in areas such as civil works, electrical works, facilities management, security services, cleaning services, maintenance services
- Using PPPs as a way of gradually exposing state owned enterprises and government to increasing levels of private sector participation (especially foreign) and structuring PPPs in a way so as to ensure transfer of skills leading to national champions that can run their own operations professionally and eventually export their competencies by bidding for projects/ joint ventures
- Creating diversification in the economy by making the country more competitive in terms of its facilitating infrastructure base as well as giving a boost to its business and industry associated with infrastructure development (such as construction, equipment, support services)
- Supplementing limited public sector capacities to meet the growing demand for infrastructure development
- Extracting long-term value-for-money through appropriate risk transfer to the private sector over the life of the project – from design/ construction to operations/ maintenance

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Potential Risks of Public Private Partnerships

There are a number of potential risks associated with Public Private Partnerships:

- Development, bidding and ongoing costs in PPP projects are likely to be greater than for traditional government procurement processes - the government should therefore determine whether the greater costs involved are justified. A number of the PPP and implementation units around the world have developed methods for analysing these costs and looking at Value for Money.
- There is a cost attached to debt – While private sector can make it easier to get finance, finance will only be available where the operating cashflows of the project company are expected to provide a return on investment (i.e., the cost has to be borne either by the customers or the government through subsidies, etc.)
- Some projects may be easier to finance than others (if there is proven technology involved and/ or the extent of the private sectors obligations and liability is clearly identifiable), some projects will generate revenue in local currency only (eg water

http://ppp.worldbank.org/public-private-partnership/overview/ppp-objectives#benefits

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revenue in local currency only (eg water projects) while others (eg ports and airports) will provide currency in dollar or other international currency and so constraints of local finance markets may have less impact

- Some projects may be more politically or socially challenging to introduce and implement than others - particularly if there is an existing public sector workforce that fears being transferred to the private sector, if significant tariff increases are required to make the project viable, if there are signficant land or resettlement issues, etc.
- There is no unlimited risk bearing – private firms (and their lenders) will be cautious about accepting major risks beyond their control, such as exchange rate risks/risk of existing assets. If they bear these risks then their price for the service will reflect this. Private firms will also want to know that the rules of the game are to be respected by government as regards undertakings to increase tariffs/fair regulation, etc. Private sector will also expect a significant level of control over operations if it is to accept significant risks
- Private sector will do what it is paid to do and no more than that – therefore incentives and performance requirements need to be clearly set out in the contract. Focus should be on performance requirements that are out-put based and relatively easy to monitor
- Government responsibility continues – citizens will continue to hold government accountable for quality of utility services. Government will also need to retain sufficient expertise, whether the implementing agency and/ or via a regulatory body, to be able to understand the PPP arrangements, to carry out its own obligations under the PPP agreement and to monitor performance of the private sector and enforce its obligations
- The private sector is likely to have more expertise and after a short time have an advantage in the data relating to the project. It is important to ensure that there are clear and detailed reporting requirements imposed on the private operator to reduce this potential imbalance
- A clear legal and regulatory framework is crucial to achieving a sustainable solution (for more, go to Legislation and Regulation)
- Given the long-term nature of these projects and the complexity associated, it is difficult to identify all possible contingencies during project development and events and issues may arise that were not anticipated in the documents or by the parties at the time of the contract. It is more likely than not that the parties will need to renegotiate the contract to accommodate these contingencies. It is also possible that some of the projects may fail or may be terminated prior to the projected term of the project, for a number of reasons including changes in government policy, failure by the private operator or the government to perform their obligations or indeed due to external circumstances such as force majeure. While some of these issues will be able to be addressed in the PPP agreement, it is likely that some of them will need to be managed during the course of the project

Frequently Asked Questions about P3s

Why should governments turn to the private-sector to help perform services they have traditionally handled themselves?

Actually, public-private partnerships have been in existence since long before the Revolutionary War. In 1652, the Water Works Company of Boston was the first private firm in America to provide drinking water to citizens. Today, creative government leaders develop partnerships with private contractors to provide essential services to meet environmental compliance requirements and improve operations, without having to increase taxes upon their constituencies. Also, governments realize that the combined capital and intellectual resources of the public- and private-sectors can result in better, more efficient services.

Aren't private companies less accountable than governments to the public?

Actually, private companies involved in public-private partnerships have a very high level of public accountability. They must answer to the government agencies that hire them, to various regulators, to the Securities and Exchange Commission, to congressional oversight committees and, in very visible partnerships, to the media. A private contractor that hopes to succeed and establish a reputation for quality service must be accountable to its government partners and to the public at large.

When services are contracted out to private companies, doesn't that mean that public employees lose jobs?

The Department of Labor examined that very question and, in a 2001 report, found that public workers don’t lose jobs because of public-private partnerships. Examining partnerships in 34 cities and counties, the Labor Department found that virtually all affected public employees were either hired by private contractors or transferred to other government positions. In fact, the most productive partnerships have been those in which government employees (and sometimes their unions) are actively involved in the partnership planning process.

Isn't there a danger of corruption when private companies are involved in providing public services?

The only way private contractors can achieve long-term success in partnering with governments is to provide quality, value and dependability. As mentioned earlier, private companies have high levels of accountability with the public, media and regulators at various levels. In fact, regulatory bodies tend to enforce regulations more tightly with private contractors than they do with government agencies, realizing that ordering government entities to comply with regulatory requirements can mean increased budget challenges and higher taxes. As a result, both private companies and government officials are under full scrutiny, which minimizes the opportunities for corruption.

Don't private companies take short cuts in providing services in order to increase profits?

The reason governments are increasing their participation in partnerships with private contractors is because their constituencies approve of the high quality of services being provided without a commensurate increase in taxes. By reducing the quality of service, a company can reduce the possibility of repeat and/or new business. The profits made by the private-sector in these partnerships come from increased efficiencies, economies of scale and long-term financing that may not be available to the pubic-sector, and not from cuts in the quality of service.

When the private sector is involved, doesn't that mean that citizens will eventually have to pay more for services?

There is more than ample evidence to show that public-private partnerships result in a higher quality of services while holding the line on costs. Private-sector partners are able to practice cost efficiencies to hold down expenditures, while also taking advantage of additional revenue streams. In cases where there have been rate or tax increases, it came as a result of upgrading or expanding systems — and under the terms of the contract signed between the public and private partners. Often, major projects can be undertaken at little or no cost to the public. For example, in the public-private partnership that rebuilt Washington, D.C.'s landmark Union Station, the multi-million dollar improvements were completed without using a dime of taxpayer money. In part, the private contractor is recouping costs from rents paid by retail shops in the facility.

Will the need for public-private partnerships increase, or will we see fewer of them as the economy improves and governments become less revenue-strapped?

First, public infrastructure and service needs far exceed the capability of government budgets to meet them. In education, for example, the American Society of Civil Engineers has said that 75 percent of America's school buildings are inadequate to meet student needs. To close this schoolhouse gap would require a capital investment of $3,800 for every student in the United States. Even in better times, school districts won't have the funding to meet this need. This is true in virtually every area of public life, from highways to waterworks. Public-private partnerships enhance the resources and the capability to address pressing public needs.

Second, public-private partnerships aren't just about budgetary issues. Governments are turning to partnerships because they see that merging the resources of the public- and private-sectors makes it possible to improve the quality of services provided to citizenries. The U.S. military, for example, has developed partnerships to build housing for enlisted personnel, resulting in higher-quality living quarters without a large impact on the defense budg

The 'P3' dilemma: States learn partnerships come with hazards

August 13, 2014 12:14 AM

- The 'P3' dilemma: Bridge initiative promises savings and efficiency

By Len Boselovic / Pittsburgh Post-Gazette

Many government officials see public-private partnerships as a convenient solution to their infrastructure woes. Enlisting investors and private sector know-how gets roads, bridges and other projects built long before government could do the work on its own. And it comes without career-jeopardizing tax increases, and sometimes with deal-sweetening upfront payments.

“It’s such an easy sell to politicians, which is why we have such a hard time stopping it,” said Terri Hall, founder of Texans Uniting for Reform and Freedom, a citizens group fighting toll roads being built and operated by private investors in that state.

One need look no farther than the federal highway trust fund, recently rescued from the brink of insolvency by a stopgap funding measure approved by Congress, to appreciate the lack of political will to do something about America’s deteriorating infrastructure.

But states using public-private partnerships, or P3s, are discovering that what sounds like a straightforward, efficient process can be fraught with hazards. Those include negotiating an agreement that protects the public interest and monitoring that agreement over the decades-long life of the project. Federal financing for many projects sparks concerns that taxpayers may be left on the hook.

More importantly, critics question the fundamental premise of P3s: that they cost less. They say if P3s save one part of government money, there are costs incurred elsewhere.

The Indiana Toll Road was turned over to a Spanish-Australian joint venture in 2006 for 75 years in exchange for a $3.8 billion upfront payment to the state. Since then, traffic on the 157-mile road has dropped and toll rates have skyrocketed. Tractor-trailer drivers are heading off to local roads that are not equipped to handle the increased loads.

The truckers' decision to take alternate routes is causing congestion and sparking concerns about safety and maintenance costs.

"You just can't go around chasing public-private partnerships like they are a cash cow," Indiana state Rep. Terri Austin told a House Transportation committee this year.

Despite their shortcomings, even critics believe the political climate makes P3s inevitable.

Failing grades

America must spend $3.6 trillion by 2020 to fix deteriorating roads, bridges and other infrastructure according to the American Society of Civil Engineers. How the professional group grades the condition of infrastructure in Pennsylvania and nationwide:

ASCE INFRASTRUCTURE GRADES

	U.S.	PA.
Aviation	D	NA
Bridges	C+	D+
Dams	D	C-

Infrastructure grades in Pennsylvania and nationwide

Mildred Warner is no fan of P3s. The Cornell University professor's specialty is analyzing whether taxpayers are better off turning over publicly operated water and sewer systems to private operators, based on the premise that they can provide upgraded services more efficiently and at a lower cost.

Her conclusion? "There is no statistical support for cost savings in privatization of water," Ms. Warner said.

P3 proponents dispute her findings. But they hope she is right about something else.

"I expect to see more privatization in water," Ms. Warner predicted. "Not because it's cheaper, but because you've got to get the money from somewhere."

Circumventing democracy

Investors prefer assuming responsibility for infrastructure for a longer period of time for a number of reasons. If revenue meets projections, the longer contract increases their return. If it falls short — a common problem with P3s — an extended contract gives them the flexibility to renegotiate their debt. Contracts that run 50 years or longer allow them to claim depreciation expenses, another tool that increases returns.

But critics say signing over assets such as parking meters for 50 years or more limits the government's flexibility to respond to changing public needs.

"A lot of it is circumventing democracy, if you will," said Aaron Renn, an Indianapolis-based urban policy specialist. "You're giving away urban planning ability for your streets. Who knows what we might want to do with that real estate in the future?"

Donald Cohen agrees.

"It has a huge impact on democratic decision making," said Mr. Cohen, executive director of In the Public Interest, a Washington, D.C., think tank that analyzes terms of privatization deals.

Changes in the use of motor vehicles illustrate the concerns.

Whether measured by person, by licensed driver, by household, or by registered vehicle, driving distances peaked in 2004 and have fallen since, according to the University of Michigan's Transportation Research Institute. The fact that reliance on motor vehicles began falling prior to the recession indicates broader, demographic trends — such as more

people working from home or living in cities — are behind the downturn, according to Michael Sivak, author of the report.

At the same time, ridership on public transit has increased.

Given those developments, paying private operators to build toll roads to alleviate urban congestion may not make sense, P3 critics caution.

“The factor that none of the [state] departments of transportation want to pay attention to is that per capita vehicle miles traveled are falling,” said Stewart Schwartz, head of the Coalition for Smarter Growth, a Washington, D.C., group that backs greater use of mass transit.

Toll road operators recognize the risks from that trend, as well as others that can develop over the decades-long life of a project. The P3 agreements they agree need to reflect those uncertainties.

“The private sector worries quite a bit about having its equity on the line and committed. You’re kind of lashed to the mast for the duration of the concession,” said Richard Fierce, an executive with Fluor Enterprises, an Irving, Texas, engineering and construction firm.

Private, but subsidized

Governments raising money for infrastructure projects have a big advantage over private investors raising funds for the same purpose. Governments can issue tax-free debt, which means lower borrowing costs. While savings from private sector ingenuity and efficiency applied over the decades-long life of a project can make up some of the disadvantage, borrowing expenses can still be a significant hurdle for investors pursuing P3s.

So Congress has authorized the projects to use federally guaranteed loans and private activity bonds, tax-exempt financing that lowers the private sector’s borrowing costs.

“Which is a subsidy, no question about it,” said Timothy Carson, former Pennsylvania Turnpike commissioner. “That subsidy is not replicated elsewhere in the world.”

The federally backed loans, managed by the U.S. Department of Transportation, allow P3 operators to defer repayment for up to five years after a project is substantially completed, giving them 35 years to pay off the debt.

The federal loans have a short track record, but already the bankruptcy of a California toll road financed by the program raises concerns about how well taxpayers will be protected. The federal government expects to recover $140 million loaned to operators of San Diego’s South Bay Expressway, a 10-mile road that was reorganized after declaring bankruptcy in 2010.

More recently, private investors who have a 50-year concession to operate a 41-mile toll road near Austin, Texas, defaulted on $686 million in bank debt. The troubled road's operators aren't scheduled to begin repaying another $430 million in federal loans used to finance the $1.3 billion project until 2017. Moody's, a credit ratings agency, does not expect toll revenue will increase fast enough to meet the project's escalating repayment requirements.

"At the end of the day, who's backstopping the project? If things fall apart, who's left holding the bag? The taxpayers," said Ryan Bowley of the Owner-Operator Independent Drivers Association, which represents professional truckers hard hit by toll increases on P3 roads.

What risk? What price?

The key to a successful P3 is determining whether it is appropriate to invite private investors to invest in the project.

If that makes sense, what follows is the arduous job of negotiating a long-term agreement that provides improved, more efficient services while protecting public interests and ensuring investors a reasonable rate of return. A critical part of those negotiations is allocating risks between the public and private partners.

"It's all about pricing risk and assuming you're pricing it correctly," said San Francisco attorney Scott Douglass, who advises developers, contractors and other clients on P3 deals.

Mr. Carson, now a Philadelphia attorney who advises government clients on public finance issues, said transferring risks to the private sector is one of the biggest reasons to use P3s. If a highway project being built with a P3 goes over budget or takes longer to build than planned, those costs should fall on the private operator.

But investors will expect to be compensated for assuming that risk.

"Everybody's in this to make a dollar and there's nothing wrong with that in terms of a reasonable rate of return," Mr. Carson said.

Many question just how much risk investors assume when contracts contain provisions reimbursing them if governments take actions that curb their revenue, such as adding bus or express lanes that eliminate or limit parking.

When September 2008 flooding closed a major highway, tolls were waived on the privatized Indiana Toll Road to encourage motorists to use that route. Taxpayers picked up the tab, paying $508,000 to compensate the Spanish-Australian venture operating the highway for the lost tolls.

Ellen Dannin, a former Penn State law professor who writes extensively on privatization issues, said the lease agreements, which frequently run hundreds of pages, would be much shorter and less complex if they did not have to detail how investors are compensated for their public partner's actions.

Provisions requiring Chicago to reimburse the private operators of the city's parking meters when parades, maintenance or other events put the meters out of service "actually puts the private operator in a much better financial position than the city," Ms. Dannin said.

"These reimbursement terms make government the contractor's insurer and guarantor. They operate as a form of penalty for government taking actions in the public interest," she wrote in 2011.

The cost of oversight

Because of the exhaustive provisions that must be made for everything that could occur over the decades-long life of the project, P3 negotiations are lengthy and expensive enough to sometimes discourage potential bidders. Each side hires lawyers, financial experts and other consultants, an arms race some believe puts government at a disadvantage.

"The people they are sitting across from at the negotiating table are high-priced lawyers who have done this a million times before," said Phineas Baxandall of the U.S. PIRG, a coalition of state consumer watchdogs.

Mr. Fierce said negotiations are complicated because each project is different, procurement laws differ from state to state, and financing arrangements vary.

"It's amazing how many different law firms get tied up into one of these transactions," he said. "That's one of the reasons that P3s in the United States have been a little bit slower to take off."

North Carolina DOT officials had 70 one-on-one meetings with bidders to discuss recently approved plans for a $655 million, 50-year P3 that will add 26 miles of tolls lanes along a heavily traveled stretch of I-77 near Charlotte. Some of the meetings lasted two hours, while others lasted an entire day, said Rodger Rochelle, an administrator for the agency.

After a contract is negotiated, the government has to monitor the performance of the private operator.

"Just because you hand it over to private industry doesn't mean government can wash its hands of it," Mr. Swan said. "You don't get completely out of that if you're not managing that. If you do, you're making a big mistake."

The costs of ongoing vigilance are often understated to make it look like the partnerships are less expensive and more efficient than doing infrastructure projects the traditional way, according to Columbia University professor Elliott Sclar, a P3 critic.

Mr. Cohen of In the Public Interest said any large organization, whether government or industry, can be plagued by ineptitude and inefficiencies. So the government has to make sure the private operator abides by its commitments, monitoring the costs and benefits on an ongoing basis.

"The issue is not public or private. The issue is management," Mr. Cohen said. "Subcontracting requires higher skilled management, not less. You have to watch it more closely and you have to plan it more carefully."

Backlash and lessons

The early wave of P3s illustrates how hard it can be to protect the public interest. Reaction to what happened after Chicago turned over its parking to an investor group has prompted Cincinnati, New York and other cities to join Pittsburgh in rejecting doing the same thing. Chicago recently scuttled the idea of privatizing its Midway airport. Pennsylvania resisted billion-dollar proposals to privatize its turnpike and lottery.

Many industry leaders, government officials and their consultants believe P3s will only be used for a small portion of America's massive infrastructure needs. A high-level Maryland Department of Transportation official recently told the House Transportation committee that such partnerships are only expected to account for 5 to 10 percent of the state's capital program.

In addition to using P3s for a Baltimore port terminal and two rest stops on I-95, Maryland plans to use a P3 to build a $2.2 billion, 16-mile light rail line that will connect suburban Washington, D.C., communities with subway and bus systems as well as Amtrak. Private investors are expected to provide $500 million to $900 million of the money.

The Congressional Research Services forecasts that P3s will likely account for no more than 10 percent of highway projects over the next 20 years or so. They will probably provide a much smaller share of the funding for transit projects, the group said.

Some believe P3s should be thought of more as a way to deliver smart infrastructure faster and more efficiently rather than as a way to plug funding gaps. They are convinced projects can be more intelligently designed if government invites the private sector in early and takes advantage of the innovations it can offer.

"It's a way to unleash more value," Mr. Fierce said.

But they are not a cure-all, the Fluor executive warned members of the House Transportation Committee this year.

"They're not a magic bullet that converts projects that aren't feasible into showpieces," Mr. Fierce testified.

■ Part 1: The 'P3' dilemma: How effective are public-private partnerships?

■ Part 2: The 'P3' dilemma: Partnerships often fall short of taxpayers' expectations

■ Part 3: Bridge initiative promises savings and efficiency

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Government Finance Officers Association

GFOA Advisory

Public-Private Partnerships (P3)

Background. Public Private Partnership (P3) Agreements are complex arrangements that use public and private sector resources to accomplish a stated goal. Many organizations have used P3 agreements successfully to gain access to capital, develop capital assets, provide services more efficiently, or provide large infusions of cash to help fund other organizational priorities. However, P3 agreements also contain varying degrees of risk, and some organizations have pursued projects that have been controversial and detrimental to the short-term and long-term fiscal health of the public sector entity. P3 agreements can leave the public entity exposed to fiscal and/or political fallout if proper due diligence does not occur, the private partner fails to perform, or if expected project outcomes do not happen. Careful planning and analysis is necessary with every P3 project. GFOA has developed resources for approaching P3 agreements in a structured way that mitigates risk and improves prospects for long-term success.

Recommendation. Organizations, and especially the finance officer, must understand what is at stake and make informed, strategic decisions on whether or not to pursue P3 opportunities. Finance officers should be involved throughout the process of a public entity's consideration of potential P3 opportunities. Not fully understanding the overall financial implications, including what the public entity may forfeit, can result in P3 agreements that may not serve the public interest or be detrimental to the long-term financial health of the organization.

Before deciding to pursue or enter into a P3 agreement, the public entity should carefully analyze the potential P3 agreement, including all financial impacts. The list of key considerations below has been developed to help the public entity decide whether or not to pursue a P3 opportunity.[1]

1. **Legal Authority of P3.** Does the public entity have the legal and regulatory capacity, including approval from any applicable oversight body, to enter into processes that result in a P3 agreement? Also, does the public entity's contracting/procurement policies or requirements provide for how to handle the proposed P3?
2. **Justification for the Project.** Does the project address a public priority and is the P3 project consistent with the overall strategic, master plans and financial policies of the organization?
3. **Competition.** Will the potential P3 opportunity be open to competition? What is the expectation for competition in determining the best private partner? Otherwise, is there justification to support a non-competitive process? Also, has the financial, risk and legal analysis of the project been compared to a public-sector alternative?

[1] Note: this list is not intended to serve as a comprehensive analysis of all P3 terms and features, but as a listing of common risks and areas of focus.

4. **Expected Project Revenue.** If the P3 opportunity involves an upfront payment by the private partner in exchange for operation of a public asset, has the public entity evaluated and prioritized how to use project proceeds?
5. **Independent Analysis.** Has the public entity or an independent third party analyzed the P3 opportunity to verify revenue projections, demand and other assumptions used in the P3 evaluation?
6. **Method for Performance Monitoring.** Is there a proper management structure in place and within the proposed agreement in the event that anticipated/expected results are not achieved? How will performance be monitored against expected results and who will have this responsibility? Will there be check-in milestones, executive reporting and service-level targets in place to monitor and report performance of the project?
7. **Flexibility During the P3 Term.** Does the expected term of the P3 agreement limit the public entity's flexibility in responding to changing demographics or other circumstances? Does the P3 agreement limit the public entity's flexibility to make certain decisions about service provision in the future? Does the public entity have the ability to renegotiate the agreement?
8. **Project Risks.** Are project risks and risk transfer elements clearly articulated and understood by all key stakeholders? Is the public entity responsible for any costs should the private entity not perform?
9. **Transaction Costs.** Does the project proposal contain a comprehensive and realistic statement of transaction costs? Do expected transaction costs limit project benefits? Often, for smaller organizations and smaller projects, the time and costs associated with negotiating and finalizing a P3 agreement can limit the potential benefits from the project.
10. **Bond Rating Impact.** What are the potential positive or negative bond rating impacts on the public entity? Are municipal payments treated as operational expenses or debt service in a flow of funds?
11. **Public Participation and Disclosure.** Have appropriate public outreach mechanisms (such as community meetings, informational newsletters, and other communications or actions as may be required by law) been met to provide transparency and feedback?
12. **Availability of Assistance.** Do external resources such as professional associations, state agencies or non-profit organizations exist to support and assist the public entity with the consideration, process and/or drafting of the agreement? P3 agreements are typically complex and will require access to specialized financial, legal or technical skill sets. Many smaller governments may also lack the resources necessary to ensure adequate, independent analysis and due diligence when evaluating potential opportunities.

A.1.h

Public-Private Partnership (P3) for the Sale or Lease of Assets

** NOTE: GFOA has an Advisory on Public-Private Partnerships alerting governments to the risks involved with these agreements.*

Government assets may include properties that are not needed, that are used in anciallary, non-core government functions and/or properties better suited for private sector ownership and/or management. Additionally, governments may have assumed control or been granted properties that are no longer needed. Governments may be approached by a private sector party interested in acquiring property. Property owned by the government often does not generate tax revenues but may require maintenance and create risk exposure.

Sale or lease of a public asset involves a shift in rights and responsibilities from the government to the private sector. They may involve agreements with private parties to provide services previously delivered by the government. The degree of ongoing public-private partnership is dependent upon the nature of the transaction. Each transaction is unique, and requires careful analysis including estimation of the fiscal impact; consideration of future opportunities, and selection of the best private sector partner; all while ensuring equity, fairness, transparency and accountability. Successful partnering requires an understanding of a transaction's risks and benefits for both parties. Government assets are property of the public, and disposal of them should maximize public value. Projects satisfy a private partner when they offer an appropriate return relative to the level of investment and risk that is undertaken.

If a government is considering the sale or lease of a public property or asset, it should develop and maintain comprehensive procedures for maintenance of property records and the processes used to evaluate the potential deal. The following is a list of considerations and processes to help reduce the potential risk exposure from these agreements.

1. **Maintain an Inventory of Government-Owned Properties.** Governments should maintain asset records that docoment properties owned, the history of government ownership, whether property was donated or purchased using grant funds or tax-exempt financing proceeds, how it is currently being used, its assessed value, its market value, whether there are donor or legal restrictions on its use, whether there are environmental concerns, and annual maintenance costs.
2. **Categorize Properties as to Current Use and the Government's Goals for Future Use.** Current utilization may include use in a core government function, an ancillary function, as idle property or as privately-leased property. Future use could entail properties the government will contiue to own, that it holds for sale/lease, or that it would consider for sale/lease. A government may hold property in inventory with plans to sell in the future when economic conditions justify such. Defining a property's highest and best use ensures property ownership and management plans are consistent with the government's overall goals and strategies.
3. **Develop and Maintain Policies Regarding Disposition of Property.** Determine what unit of government will oversee the inventory of government property, including that which may be sold or leased. Create policies and procedures for guidance when a property is actively marketed for sale and when an unsolicited proposal is received.
4. **Undertake a Competitive Process for Sale of Property.** Whether the initial offer is an unsolicited offer or the process is competitive from the start, ensuring the public obtains maximum consideration for the property entails competition. Governments should market properties available for sale or lease and should require interested parties to submit proposals for evaluation. Complex projects may also warrant a prequalification process for potential proposers.
   a. Marketing efforts may range from postings on organization websites to the use of signs, sales brochures, marketing by a real estate professional or other methods. Auction is appropriate in certain circumstances, and marketing efforts applicable to the auction process should precede the sale.
   b. Proposals should include a concept plan for any intended development, qualifications and experience of the proposer/developer, a business plan for the project, financing plan, an anticipated time schedule for development, evidence of financial strength and viability of investors, identification of any adjacent property proposed for inclusion in the project and an offer amount.
5. **Perform an Economic Analysis.** The fair value of the property should be determined by a third party utilizing acceptable appraisal methods. The evaluation should consider opportunities for the optimal use of the property and the fiscal impact associated with a change from tax-exempt to taxable status. An awareness of the government's assessed value should be maintained, as there may be a significant variance between the proposed sales price and the assessed value. The economic analysis should also consider current revenues obtained by the government from the property, a forecast of anticipated future revenues under private ownership, current expenses incurred by the government, and future expenses, if any, under private ownership. Analysis should include an evaluation of the property's suitability for development, whether it is challenging to develop, and whether the proposed project may spur additional develolpment. Finally, the impact of upcoming regulatory requirements, lifecyle costs and revenues should also be considered in connection with any economic analysis.
6. **Assemble a Strong Team to Evaluate Alternatives.** The finance officer should play a central role in the evaluation process. Many asset transfer transactions are driven by a government's financial needs. As such, the finance officer is well-positioned to serve as a lead member of the team evaluating sale or lease of an asset. Team members should include finance, legal, economic development, property mangement, and executive management members as appropriate. Outside expertise can augment unmet staff skills. This may include legal experts, appraisers and financial advisors working solely on behalf of the public entity.
7. **Determine Whether Sale or Lease is the Best Arrangement.** Both the government and a private party may have preferences regarding sale versus lease of property, and these may not always result in alignment. Ultimately, the government should execute an arrangement that best suits its long term goals. Lease of property is appropriate when the government wishes to retain ownership, but determines that the private sector can most efficiently and effectively provide services. Leasing entails a careful assessment of the appropraite balance of risk and reward between a government owner and a private sector operator. When leasing, the government needs to ensure that agreements address required maintenance levels by the private sector.
8. **Define Required Legal Steps.** Ensuring that government has the authority to sell or lease is the first step. Donor or grantor restrictions may exist regarding use and/or ownership. Steps to consider include advertising and public hearing requirements, bid/proposal processes, and the opportunity to considerother offers

following receipt of an unsolicited proposal. Governments should seek an appropriate balance of confidentiality to maintain the best negotiating position, while remaining open and transparent to the extent possible.

9. **Establish and Weight Criteria to Evaluate Competing Offers.** Suggested criteria include consideration received, long-term fiscal impact, proposed use, historic preservation, qualifications and experience of development team, proximity to other properties that will be involved in proposed development, and compatibility of a proposed use with comprehensive and neighborhood plans and current zoning. Consideration of viable alternatives (such as property swaps) should also be included in the evaluation process. Creative alternatives may offer the best solution.
0. **Develop Agreements for Sale/Lease of Property.** Governments should develop one or more agreements based on the nature of the transaction. A sale or lease agreement will be needed, and a performance agreement should be developed if appropriate. A performance agreement protects the government's interest by ensuring the developer executes the project as agreed. A performance agreement is of particular necessity when properties are transferred for amounts below market value. Performance agreements can address items such as required minimum investment, jobs created (during construction and upon commencement of operations), and tax and/or other revenues generated. Such agreements should establish milestones for delivery/performance and include reversion provisions or monetary penalties in the event of non-performance.
1. **Determine How Sales Proceeds Will be Used.** The finance officer should ensure appropriate use of property sales proceeds, and that required approvals are obtained prior to any allocation of funds. If required, tax-exempt debt should be defeased and compliance with the requirements of any grantors should be met before proceeds are used for other purposes.
2. **Monitor, Communicate and Report Results of Sale/Lease Activities.** The finance officer can play an integral role in ensuring a strong, transparent process and in serving as a steward of the long-term public interest in the asset. This includes post-transaction monitoring and due diligence, analysis of performance and communication to elected and appointed officials. The finance officer should assist in determining whether agreed-upon performance criteria are satisfied, and if not, the appropriate steps that should be taken with the private partner to remedy or invoke reversion process and/or penalty provisions.

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A.1.h

Establishing Public-Private Partnership (P3) Agreements for Outsourcing

** NOTE: GFOA has an Advisory on Public-Private Partnerships alerting governments to the risks involved with these agreements.*

Traditionally, the term "public-private partnership" refers to private or public-private projects that involve the use of public resources or financing to promote economic development. The term also refers to transactions that are essentially privatization efforts, in which a government entity enters into a long-term lease of a public asset, or a transaction aimed at privatizing or outsourcing services that a government utilizes or provides. These transactions present a fundamentally different set of opportunities, risks and concerns than what is otherwise evident within customary P3 agreements.
The use of P3 agreements for outsourcing involves multi-faceted decisions at several stages as to how to best promote the public interest, including determining feasibility, fully negotiating agreements, assessing performance, and resolving concerns. Significantly, P3 agreements involve a substantial shift in duties away from government and therefore require considerable coordination. Each transaction is inherently complex, and requires estimating the cost of service delivery; measuring service levels; selecting the most competent provider; ensuring equity, fairness, and transparency; addressing technical concerns; and ensuring accountability.

For governmental entities, successful partnering requires an understanding of a transaction's risks and benefits for both parties and sufficient knowledge of potential service providers to assess their capabilities. For the public entity, outcomes need to be realized while financial risk is minimized – the public benefit should at least justify the public cost. For the private entity, the project must provide an appropriate return related to the level of resource investment and/or risk that is involved. Often times, expected savings fail to materialize, particularly when outsourcing initiatives are not planned or administered effectively. Though many arrangements achieve their objectives, others are neither profitable nor efficient, and most are more difficult to implement than originally anticipated.

Most outsourcing initiatives are driven by a government's financial needs or constraints. Accordingly, the finance officer is well-positioned to function in a lead role upon the team exploring privatization. Recognizing that such arrangements involve not only public-private entity agreements, but also intra-governmental decisions that include complex analyses, the finance officer acts as a communicator and interpreter of financial results to elected officials and the general public.

The following list acts as a guide to help conduct a comprehensive examination of issues that must be addressed before, during and after an opportunity is determined to be viable and prudent. The list emphasizes that a great deal of due diligence must be completed prior to the execution of an agreement, since these decisions may have significant and long-lasting ramifications. Actions that should be taken, and issues for which procedures should be established, include:

1. **Analyze Motivations for Outsourcing.** Typically, there are several reasons to consider outsourcing: cost savings, improved performance, increased responsiveness, and reduced financial obligations. But feasibility, costs and benefits cannot be fully evaluated without clarity of purpose. Informed determinations depend largely on a thorough understanding of the rationale that supports consideration of a particular outsourcing initiative.
2. **Assess Initial Plan & Scope of Project.** Most often, the private sector can deliver efficiencies when the task being sought is well-defined, easy to measure and subject to competition. An adequate cost assessment necessitates a thorough understanding of the project's scope. When decision-makers are clear about objectives and expected outcomes, they are better positioned to plan major processes, tasks, and milestones, as well as identify associated costs.
3. **Evaluate for Consistency with Priorities, Plans & Policies.** P3 agreements should be consistent with the strategic plans, master plans, and financial policies of the organization. In addition, the organization should evaluate project objectives and determine if participation is consistent with the governmental entity's overall vision and mission.
4. **Identify Unmet Staff Competencies.** Early in the process of analyzing a proposed "partnership", the finance officer should assess the nature and degree to which any outside consulting or financial services may be necessary, in order for the governmental entity to analyze or negotiate a transaction. With many outsourcing initiatives, in-house staff will be able to complete the necessary analysis. More complex outsourcing opportunities may require the use or subcontracting of more specialized resources, including legal counsel, industry experts or independent financial advisors.
5. **Conduct a Feasibility Analysis.** Public entities should complete feasibility studies to determine if potential opportunities are viable from both a short- and long-term perspective. The finance officer involved in such analyses should work to promote full disclosure, and ensure that recommendations regarding participation do not result in excessive risk to the public. Statutes, regulations, taxation issues, labor contracts, and intergovernmental partnerships may all have implications for assessing feasibility. Additionally, the interests of stakeholders and key constituencies should be understood and acknowledged. Preparing a comprehensive list of issues will help guarantee that outsourcing opportunities are beneficial to the public, as well as prospective private entities.
6. **Determine Fiscal Impact.** A cost analysis of a service that may be privatized must be performed to determine what such a service should actually cost the government. This appraisal, based on estimates that include all related expenses, is critical towards assessing if proposals are realistic and reasonable. It is also imperative to understand the services offered by potential providers, and the underlying concepts and technologies associated with such proposals. Comparisons between internal and external options should involve a consideration of likely transaction costs, including data gathering, contract negotiation, performance monitoring, and contract review or amendment.
7. **Determine Service Level Impact.** Potential partnerships must also be evaluated to determine if existing or expected service levels will be impacted by the decision to privatize. Any direct or indirect impacts on existing services should be carefully considered and entirely disclosed in connection with a government entity's consideration of any outsourcing opportunity. Within the evaluation process, the privatization agreement should also include appropriate enforcement features to promote service quality and compliance with all applicable standards and requirements.

8. **Analyze Other Alternative Arrangements.** A full array of service delivery options should be considered, so as to ensure efficient pricing and informed decision-making. Alternatives might include delivery in-house or by another unit of government, contracting with non-profits or for-profit institutions, or service provision through a hybrid arrangement. In order to compare such alternative options, decision-makers will require complete cost, benefit, and performance data for all functions and services that may be subject to potential outsourcing.
9. **Analyze and Promote a Competitive Market.** In order to realize efficiency gains through outsourcing, government entities must ensure that the solicitation process is both competitive and transparent. Accordingly, finance officers should gather pertinent information about the capabilities, expertise and past performance of potential partners, and tailor contract specifications so as to attract a significant number of quality proposers. A method for evaluating responses, assessing financial strength and selecting the winner should also be established, and include clear criteria that can be appropriately weighted or ranked.
0. **Institute Clear and Effective Contract Requirements.** Outsourcing agreements should reflect an organization's goals and mission and establish specific expectations, roles, and responsibilities. Contract management and enforcement require a significant degree of discipline and expertise, and can lead to costly uses of staff time or other resources that are often difficult to quantify. Contract provisions should balance the need for specificity and flexibility with opportunities for adjustment. An agreement's term should provide appropriate consideration to any necessary investments, while also accounting for risk tolerance, past performance, and the cost of rebidding.
1. **Assess Potential Performance Metrics.** P3 outsourcing agreements must include standardized metrics (e.g. milestones, service level expectations, output measures) so as to establish a basis by which performance can be both measured and assessed. The finance officer, in particular, can assist in this process by incorporating suitable accounting, auditing and financial reporting standards into a privatization agreement. Provisions should also be established to insulate any contract evaluations or disagreements from undue political influence, and to address any concerns regarding future ownership of data or intellectual property.
2. **Ensure that Outsourcing Considerations are Open, Public & Transparent.** When a government entity considers whether to outsource or privatize a particular function or service, it is imperative that the deliberation process allow for adequate input from key stakeholders affected by such an initiative. A thoughtful and well-designed process that encourages a range of input from vendors, employees, elected officials, citizens and other parties helps ensure that potential issues or problems are identified before solicitation or contract finalization occurs. An open process also helps educate stakeholders and decision-makers on the details of a particular outsourcing initiative, and allows the initial project scope or proposed agreement to be continuously improved and refined.

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