
THE PUBLIC-PRIVATE PARTNERSHIP LAW REVIEW

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LAW BUSINESS RESEARCH

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The Public-Private Partnership Law Review
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This article was first published in The Public-Private Partnership Law Review - Edition 1
(published in March 2015 – editors Bruno Werneck and Mário Saadi).

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Published in the United Kingdom
by Law Business Research Ltd, London
87 Lancaster Road, London, W11 1QQ, UK
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ISBN 978-1-909830-33-2

Printed in Great Britain by
Encompass Print Solutions, Derbyshire
Tel: 0844 2480 112

Chapter 15

UNITED STATES

*Robert H Edwards, Jr, Randall F Hafer and Mark J Riedy*¹

I OVERVIEW

The challenge facing the US infrastructure sector is well stated in a recent US Department of Treasury Report:

*Our nation needs to continually modernize and maintain our infrastructure to make the U.S. an attractive place for businesses to operate and for people to live. [. . .] If we fail to provide and maintain adequate infrastructure, the consequences will be severe: fewer jobs will be created, and some may be lost; paychecks will not go as far because Americans will pay more for goods and services; and traffic jams, potholes, and water main breaks will lead to longer commutes, higher greenhouse gas emissions, and lower quality of life.*²

The US has historically relied on public funding for the majority of its infrastructure needs through deep and broad municipal bond markets to keep pace with growing infrastructure needs. However, during the past few decades there have been dramatic reversals in federal, state and local budgets significantly reducing the funds available, as well as the borrowing power of public entities required to fund the construction of a wide array of infrastructure projects.

Importantly, unlike many countries, the US has a federal system of government, wherein significant authority and spending power is devolved to the 50 state governments. Public-private partnerships (PPP) are generally undertaken at the state and local levels.

1 Robert H Edwards, Jr, Randall F Hafer and Mark J Riedy are partners at Kilpatrick Townsend & Stockton LLP. The authors would like to thank Ben Deninger and Gautam Reddy for their assistance in the composition of this article.

2 'Expanding our Nation's Infrastructure through Innovative Financing', US Department of the Treasury, Office of Economic Policy, September 2014, p.8.

The federal government frequently plays a supporting role by providing concessionary financing and credit support.

PPPs have been used in the US across a wide range of sectors in various forms for more than 30 years. However, increasingly stressed public budgets and a sustained push towards tax relief pursued at all levels of government have made the use of PPPs more common. From 1986–2012, water, water treatment and waste water have represented the largest segment by number of projects at 33 per cent, followed by motorways, toll bridges, toll roads and tunnels, accounting for 28 per cent of those projects: ³

<i>Type of project</i>	<i>No. of PPP projects that reached financial closure 1986–2012</i>
Building	161
Water and waste water	105
Waste water	104
Toll road	95
Motorway	69
Rail	45
Airport	32
Water	23
Toll bridge	22
Parking	14
Seaport	13
Miscellaneous	6
Toll Tunnel	5

To date, however, PPPs remain a relatively small part of the total funding for US infrastructure projects. For example, between 2007 and 2013, US\$22.7 billion of public and private funds were invested in PPP transportation projects. However, this amount represents only 2 per cent of the overall capital investment in the nation's highways during that same period.⁴

PPP contracts allow governments to introduce private sector capital, management, and technical expertise into the project. A typical US PPP involves private equity investors funding a project, in whole or in part, in exchange for a return while also assuming some of the project's risks and responsibilities. The risk is transferred to the private sector for more cost effective management which creates value for taxpayers by lowering long-term project costs, improving the quality of services, or both.⁵

As the US economy has recovered from the downturn in 2008–2009, all levels of government (federal, state and local) are refocusing attention on infrastructure

³ Source: *Public Works Financing*.

⁴ Fierce, Richard. Statement to the House, Committee on Transportation and Infrastructure. Overview of Public and Private Partnerships in Highway and Transit Project, Panel, 5 March 2014.

⁵ US Department of the Treasury (footnote 2, *supra*), p.8.

investment. In some respects, the American Recovery and Reinvestment Act (ARRA) implemented in 2009 was a step towards reinvestment in infrastructure.⁶ A significant portion of ARRA funds were dedicated to infrastructure investment in roads and bridges.

One of the most important drivers of PPPs, which will continue over the next several years, was the Obama Administration's efforts in 2014 to place a renewed focus on infrastructure investment. As further described below, President Obama launched the 'Build America Investment Initiative' in July 2014. This initiative was a government-wide effort to increase infrastructure investment by engaging with state and local governments and private sector investors to encourage collaboration, and expand the market for PPPs.⁷

In this chapter, we also address joint investments between the public and private sectors in the increasingly important area of renewable energy. These quasi-PPPs take the form of cost-share grants and guaranteed loans from the US Department of Energy and the US Department of Agriculture in varied industries from solar energy to advanced biofuels.

II THE YEAR IN REVIEW

One of the most important US PPP developments during 2014 was the announcement of new and upgraded initiatives by the federal government to encourage PPPs. Another significant development was to more effectively leverage federal funds in support of PPPs undertaken at the state and local levels. These initiatives span all traditional PPP sectors. In addition, the federal government is also pushing the envelope of its participation in areas such as renewable energy.

i Significant federal initiatives in 2014

Traditional PPPs – the Build America Investment Initiative

The Build America Investment Initiative, launched in 2014, includes the establishment of the Build America Transportation Investment Center (BATIC), housed within the US Department of Transportation (DoT). BATIC will:

- *serve as a one-stop shop for state and local governments, public and private developers and investors seeking to use innovative financing strategies for transportation infrastructure projects;*
- *provide hands-on support, advice and expertise to states and local governments to make DoT credit programmes more understandable and accessible;*
- *provide private sector developers and infrastructure investors with tools and resources to identify and execute successful PPPs; and*
- *develop and make available tools useful to the establishment of innovatively financed and delivered projects, including case studies, best practices, and analytical tools.*⁸

6 American Recovery and Reinvestment Act of 2009, Pub L No. 111-5, 123 Stat 115 (2009).

7 D Bruce Gabriel and Roderick N Devlin, 'Market Update: A Review of the US Public Private Partnership (P3) Sector in 2014', *Practical Law*, 7 January 2015 at p.3; available at: www.squiresanders.com/a-review-of-the-us-public-private-partnership-sector-in-2014/.

8 Ibid.

Under this initiative, the Administration re-invigorated a number of the principal financing mechanisms frequently used to finance PPPs including: the Transportation Infrastructure Finance and Innovation Act (TIFIA) and the Water Infrastructure Finance Innovation Act (WIFIA). These financing programmes are described in Section VI, *infra*.

New initiative in renewable-energy financing

Beginning with the implementation of the ARRA energy and energy infrastructure provisions, the Obama Administration has supported the development and deployment of renewable energy systems using the full range of federal government tools. From significant cost-share grants supporting all types of renewable-energy activities, including solar energy, biomass, wind, battery storage and electric vehicles, to the Department of Energy loan guarantee programme supporting large-scale deployments of solar and wind energy, the Obama Administration has pushed the limits of federal government support for renewable energy. Other loan programmes, such as the Department of Agriculture supporting biofuels projects and the various renewable energy initiatives of the Department of Defense, have some attributes of PPPs.

Most recently, in February 2015, the Administration announced a new initiative to scale up investment in clean energy innovation.⁹ As the imperative to increase clean energy continues, one can expect that both the current and future administrations may adopt PPP structures directly for the renewable-energy sector.

ii PPPs reaching financial closing in 2014

Five PPP projects reached financial closing in 2014, and are summarised briefly as follows:

- a* Florida's I-4 Ultimate Project consists of adding, replacing and widening multiple bridges and reconstruction of major interchanges along a 21-mile stretch of I-4 through Orange and Seminole counties. The project is expected to cost approximately US\$2.3 billion. It will be financed through a 40-year PPP between the Florida Department of Transportation and I-4 Mobility Partners.¹⁰
- b* Texas's SH 183 Managed Lane Project rebuilds 15 miles of SH 183 from Euless to the Dallas/Fort Worth Airport while also installing express lanes at a total projected cost of US\$847 million. The Texas Department of Transportation awarded the contract to Southgate Mobility Partners.¹¹
- c* The 5th phase of Indiana's I-69 Project connecting Bloomington to Martinsville upgrades the road formally known as Indiana 37 to interstate standards at a total

9 www.whitehouse.gov/the-press-office/2015/02/10/fact-sheet-obama-administration-announces-initiative-scale-investment-cl

10 I-4 Ultimate Improvement Project, Project Info: FAQs (2015), available at: <http://i4ultimate.com/project-info/faqs/>.

11 Nicholas Sakelaris, 'TxDot picks contractor for S.H. 183 project, secures \$847M in funding', *Dallas Business Journal*, 30 May 2014, available at: www.bizjournals.com/dallas/news/2014/05/30/txdot-picks-contractor-for-s-h-183-project-secures.html?page=all.

cost of US\$370 million. Through the procurement process Indiana selected I-69 Development Partners, to build and maintain the project for 35 years.¹²

- d* The next phase of Colorado's US 36 Project will focus on the construction of an 18-mile segment of road and toll lanes between Boulder and Westminster at a projected cost of US\$120 million. The Colorado Transportation Commission approved a contract with Plenary Roads Denver to build and operate toll lanes on the new stretch of road.¹³
- e* The US\$104 million student housing project at Texas A&M University, wherein Balfour Beatty Investments secured US\$104 million in tax-exempt bonds, will fund the construction of the new 1,274-bed apartment-style facility operating as a design-build PPP.¹⁴

III GENERAL FRAMEWORK

i Types of public-private partnership

In the US, PPPs cover a broad range of innovative contracting, project delivery and financing arrangements. It is helpful to describe them along three fundamental characteristics; (1) the mission; (2) the method – PPP project delivery models; and (3) the money – sources of financing for PPPs.¹⁵

ii The mission

Underlying all PPPs is a public mission or intended public benefit. In the US, PPPs have been used across a wide range of infrastructure and services. While transportation and highway funding has been most prevalent, PPPs have been implemented for building and modernising schools, hospitals and other health-care facilities, traditional and renewable-energy projects, water and waste-water utilities, government buildings, prisons, police and fire stations, and national defence projects. Across the transportation sector, PPPs have been used for diverse purposes including highway, bridge, rail, mass transit, aviation, ferry and port projects.¹⁶

12 Chelsea Schneider, 'Indiana preparing to issue \$250 million in bonds for the latest phase of I-69', *Evansville Courier & Press*, 4 July 2014, available at: <http://indianaeconomicdigest.com/Main.asp?SectionID=31&SubSectionID=66&ArticleID=75332>.

13 Allen Best, 'Is US 36 plan a conspiracy to privatise roads or a tool to achieve public goals?', *Denver Post*, 21 February 2014, available at: www.denverpost.com/opinion/ci_25201450/street-war.

14 'Balfour Beatty Reaches Financial Close on \$104M Student Housing Project at Texas A&M University', *Yahoo Finance*, 20 June 2014, available at: <http://finance.yahoo.com/news/balfour-beatty-reaches-financial-close-143800561.html>.

15 Jaime Rall, James B Reed and Nicholas J Farber, 'Public-Private Partnerships for Transportation: A Toolkit for Legislators', at the direction of the NCSL Partners Project on Public-Private Partnerships (PPPs) for Transportation, October 2010 at p.3.

16 *Ibid.* p.4.

iii The method: PPP project delivery models

The National Council for Public-Private Partnerships currently recognises 18 types of PPPs. It is useful to examine them as two categories:¹⁷

<i>PPPs for new construction</i>	<i>PPPs for existing facilities and services</i>
Design–build	Operate and maintain
Design–build–maintain	Operate, maintain and manage
Design–build–operate	Buy–build–operate
Design–build–operate–maintain	Enhanced-use leasing
Design–build–finance–operate–maintain	Lease–develop–operate
Design–build–finance–operate–maintain–transfer	
Build–operate–transfer	
Build–own–operate	
Developer finance	
Lease/purchase	
Sale/leaseback	
Tax-exempt lease	
Turnkey	

The names of each type of PPP structure generally describe what tasks are involved in this regard, with the public sector partner(s) typically responsible for ‘defining the objectives and goals of the project and monitoring compliance with those objectives. Similarly, the private sector partner[s] is focused on the design, completion, and implementation of the project’.¹⁸ In the US, PPPs are typically long-term arrangements, where the private sector partner funds much of the project but the public sector partner retains ownership of the project in the long term. Because of this financial relationship, the private sector partner(s) perform a wide array of tasks and have a large amount of control over the method by which such tasks are accomplished.¹⁹

The various PPP project delivery models are best organised as a continuum. Roles assumed by the private sector in a PPP can include designing, building, operating, maintaining or financing a facility and, in some cases assuming limited-term ownership. In a design–build–own–transfer PPP, a private entity owns an asset for a period of time before eventually transferring ownership to the public sponsor.²⁰

ii The authorities

In the US, whether at the federal, state or local level, enabling legislation generally is required to provide the legal authority for the public entity to enter into a PPP with one

17 National Council for Public-Private Partnerships, ‘Types of Partnerships’, www.ncppp.org/ppp-basics/types-of-partnerships/.

18 Gaffey, ‘Outsourcing Infrastructure: Explaining the Use of Public-Private Partnerships in the US’, 39 *Pub. Cont. L.J.* (2010), pp.351 and 353; Khosharay, ‘The Who, What and Why of Public-Private Partnerships’, *Law360* (13 May 2013), www.law360.com/banking/articles/440933/the-who-what-and-why-of-public-private-partnerships.

19 Gaffey pp.353–4.

20 Rall, Reed and Farber (footnote 15, *supra*), p.5.

or more private entities.²¹ Under the US federal system there ‘is no national legislative standard providing for public-private partnerships’.²² Accordingly, implementing legislation is usually enacted at the state level. Currently, 33 states, Washington, DC, and Puerto Rico have enacted enabling legislation for PPPs.²³ Historically, the states with the most active PPP programmes have been, California, Florida, Texas, New Jersey, Massachusetts, New York and Virginia.²⁴ As the majority of PPP projects traditionally have been related to transportation, many states’ enabling legislation specifies that the public partner is the state department of transportation.

There are common characteristics and best practices across the country. State legislators nationwide have worked together to define best practices through organisations such as the National Conference of State Legislatures (NCSL), which has formed the NCSL Partners Project on PPPs for Transportation.²⁵ Generally, the enabling legislation includes the following best practices: (1) creates a focus of governmental responsibility; (2) grants appropriate statutory powers to the executive branch in the state (the governor’s office); (3) provides adequate staffing and funds for expert consultants; (4) identifies and encourages advocates and supporters across state government; (5) well defined and drafted solicitation process; (6) develops a clear state role on land acquisition, siting and environmental clearances; (7) provides clear authority and mechanisms to ensure the required state funding; and (8) does not require final, post-agreement, approval by the state legislative bodies.

iii General requirements for PPP contracts

Due to the lack of a federal standard, state autonomy has led to variety of statutory schemes. The requirements for PPP contracts have their origins in the enabling legislation. As the enabling legislation provides the statutory authority for the state agency to enter into a PPP, the terms and conditions of the PPP contract must fit squarely within the scope of the enabling legislation. The enabling legislation identifies the implementing agency and describes the types of projects permitted under PPP structures it also may identify the sources of public funding and other requirements for a PPP contracts to comply with the enabling legislation.

21 National Council for Public-Private Partnerships, ‘7 Keys to Success’, www.ncppp.org/ppp-basics/7-keys/.

22 Sluger and Satterfield, ‘How Do You Like Your Infrastructure: Public or Private?’ (2010) p.12, available at: www.ncppp.org/wp-content/uploads/2013/03/PS-2010-HowDoYouLike.pdf.

23 See NCSL, ‘Appendix B State PPP Enabling Statutes for Transportation Projects As of October 2010 and February 2014 Update and Corrections’, which both can be found at www.ncsl.org/research/transportation/public-private-partnerships-for-transportation.aspx.

24 Jonathan L Gifford and Portker K Wheeler, ‘Public-Private Partnership Policy Primer – Challenges and Best Practices: A U.S. Perspective’, Center for Transportation Public-Private Partnership Policy, presentation to Denver Regional Transportation District board of directors, Washington, DC, 11 March 2014 at p.6.

25 Ibid. p.12.

In many respects, all facets of a US PPP are integrated in the PPP contract and related project agreements. To better understand how PPPs are constructed, refer to the Virginia Department of Transportation (VDOT) Downtown Tunnel/Midtown Tunnel/Martin Luther King Jr Extension (the VA project). This PPP benefits from nearly all available federal financing programmes described in Section VI, *infra*, uses public and private funds and is partially financed by the collection of toll revenues.²⁶ The VA Project reflects the complexities involved in a design, build, finance, operate, and maintain (DBFOM) PPP in the US. Specifically, the funding sources for the project included: (1) senior debt (private activity bonds) – US\$675 million; (2) TIFIA loan – US\$422 million; (3) equity contributions – US\$272 million; (4) toll revenues – US\$268 million; and TIFIA capitalised interest – US\$43 million.²⁷ The US\$2.1 billion project is being built on a DBFOM concession basis by Elizabeth River Crossings Opco, LLC (ERC). ERC is comprised of Skanska Infrastructure Development and Macquarie Group and will operate the concession for 58 years.

The following is a summary of a well-developed PPP structure used in the VA project.²⁸ The following general requirements and fundamental provisions are included in nearly all PPP contracts:

Provisions vesting required rights in the concessionaire

As the PPP arrangement finds its origin in the enabling legislation, as opposed to common law or other traditional contractual rights, it is necessary for the PPP contract to explicitly grant rights to the private party concessionaire. These rights include: (1) ownership interests in the project assets; (2) interests in the project right of way; and (3) various franchises, licences and permits so that the concessionaire, along with other rights, will have the legal standing to qualify for various tax-advantaged treatment.

Granting of the permit

Under the PPP contract, the authority grants an exclusive right to the concessionaire to construct and operate the project. The VDOT comprehensive agreement provides the exclusive right to the concessionaire: (1) to finance, develop, design, construct, manage, operate and maintain the project; and (2) to establish, impose, charge, collect, use and enforce payment of tolls and related charges (the permit).

Tolling of the project

The concessionaire will have the exclusive right to impose, charge, collect, use and enforce the collection and payment of toll revenues. The toll rates and related provisions

26 Federal Highway Administration, US Department of Transportation, 'Project Profile Downtown Tunnel/Midtown Tunnel/MLK Extension Project, Innovative Program Delivery Office', www.fhwa.dot.gov/ipd/project_profiles/va_midtown_tunnel.aspx.

27 Ibid.

28 The comprehensive agreement relating to the Downtown Tunnel/Midtown Tunnel/Martin Luther King Freeway Extension Project [executed version], Articles 4–9, available at: <https://driveert.com/wp-content/uploads/2012/12/Amendment-No.-3-to-CA.pdf>.

are precisely provided for to match the overall economic deal between the concessionaire and VDoT and are aligned with the various statutory and regulatory provisions included in the enabling legislation and related laws.

Base case financial model and project financing

The agreement also tightly integrates financial modelling, financing costs, lenders rights and related issues so that the cash flows of the project will provide the permitted rate of return for the investors while also guarding against unreasonable increases in tolls.

Design and construction of the project

These provisions set forth the design and construction conditions including detailed timelines for commencement of work and completion of work. Warranties and liquidated damages are included to protect VDoT in case of delayed or defective performance by the concessionaire.

Operation and maintenance

As the Project is a DBFOM, the agreement addresses the long-term issues of operations and maintenance including the provisions for a maintenance reserve fund and for the provision of annual budgets.

Standard terms and conditions

As with all PPP contracts, the agreement covers the customary terms and conditions including *force majeure*, delay events, indemnification, dispute resolution and the like.

All in all, the PPP's contractual general requirements resemble US commercial contracts with an additional special set of public sector requirements and provisions, which make PPPs different from both purely public and entirely private sector transactions.

IV BIDDING AND AWARD PROCEDURE

i Expressions of interest

While each state has specific procedures for PPP bidding, the Federal Highway Administration (FHWA) has created a 'PPP toolkit'²⁹ containing exemplary procedures and recommendations for public entities modelled around highway projects. While not binding on any state, the FHWA recommends that the public partner solicit bids by using: 'a multi-stage "best value" procurement process. This approach initially includes a public request for qualifications, followed by a selection of qualified bidders and the issuance of a request for proposals.'³⁰ Thereafter, the public entity selects a bid and negotiates with the private entity with the winning bid.

29 Federal Highway Administration, 'P3 Toolkit' (2013), available at: www.fhwa.dot.gov/ipd/p3/index.htm.

30 Federal Highway Administration, 'Conducting Procurement for Public-Private Partnerships (P3s)' p.1 (2013), available at: https://www.fhwa.dot.gov/ipd/pdfs/p3/factsheet_06_conducting_procurement.pdf.

ii Requests for proposals and unsolicited proposals

A common approach for a public entity seeking a private sector partner for a PPP is ‘the “two-step request for qualification” and “request for proposals” to obtain a qualified pool of candidates’.³¹ Many public entities also conduct interviews with potential private partners.³² Some public entities even receive unsolicited bids for PPPs depending on applicable regulations. For instance, Miami-Dade County allows potential private partners to submit unsolicited proposals containing specified information, as well as a fee, to contract for public works over US\$15 million.³³ The County has a specified period of time to consider such proposals and, if selected, issues a competitive solicitation asking for proposals for the same project.³⁴

iii Evaluation and grant

Regardless of solicitation methodology, selection of a preferred bid also can occur based on criteria ‘such as the lowest net present value of gross revenues required, the shortest proposed length of the concession term, the lowest subsidy or availability payment required, or the dollar value of the offer’.³⁵ Evaluation and selection of PPP bids are typically governed by procedures that achieve transparency in procurement due to the public nature of the public partner. For instance, some states require an independent review panel comprised of members from stakeholder groups³⁶ to review PPP project proposals. The financial stability of all partners is also of great importance and ‘complete due diligence [confirming] the potential private partner’s resources and its financial viability’³⁷ is common. Most states also require contractors to maintain various levels of insurance or bonds³⁸ for PPPs.

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- 31 John Jenkins and Chasity O’Steen, ‘We built it, and they came! Now What? Public-Private Partnerships in the Replacement Era, 41 *Stetson L. Rev.* 249 (2012).
- 32 California Debt & Investment Advisory Commission (CDIAC), ‘Public-Private Partnerships: A Guide to Selecting a Private Partner’ (2008), pp.2–3.
- 33 Metro Dade Co. Code Ordin. (Fla.) Section 2-8.1(k) (1992).
- 34 *Ibid.* at Section 2-8.1(k)(4)-(6), (10).
- 35 *Ibid.*
- 36 Daniel Plunkett and Erin Minor, ‘Public-Private Partnerships: Primer, Pointers & Potential Pitfalls’, 13-7 BRPAPERS 1, 13-7 Briefing Papers 1, 3 (June 2013).
- 37 CDIAC (footnote 32, *supra*), p.11.
- 38 Water Partnership Council, ‘Establishing Public-Private Partnerships for Water and Wastewater Systems: A Blueprint for Success’ p.66 (2003) available at: www.nawc.org/uploads/documents-and-publications/documents/document_567764ad-b69f-4715-bc5d-eaa32c304fdd.pdf.

V THE CONTRACT

i Payment

A variety of payment models have been implemented in US transportation PPPs including: (1) ‘toll concessions’ whereby the private partner takes on a project in exchange for receiving tolls (the public party usually limits the rate of toll increase in some manner); (2) ‘shadow toll concessions’ whereby the private partner receives payment for each vehicle that uses the facility (sometimes payment is adjusted based on safety, congestion, or pre-established floors and ceilings); and (3) ‘availability payments’ whereby the private partner receives payment based on the availability of the facility at a specified performance level.³⁹

Two of the most important payment mechanisms are: revenue-based payments and availability payments. Under revenue-based payments PPP contracts, the private entity recoups its development and construction costs from user fees generated by the asset. For example, if the asset is a road, the user fee would be the toll charged for usage. The PPP agreement typically details the structure of the toll and the extent to which the private entity can modify the toll. The contract often limits the profit of the private entity by establishing a cost-sharing structure with the government when a certain threshold is reached. On the other hand, if toll revenues are below a certain threshold, the government may be contractually required to cover the difference.

Due to the private sector’s limited appetite to take on this market risk, availability payments have become increasingly popular. Availability payments are a means of compensating a private concessionaire for its responsibility to variously design, construct, operate and maintain a tolled or non-tolled roadway for a set period. They are made by a public project sponsor based on project milestones such as facility completion or facility performance standards such as lane closures or snow removal. Availability payments are often used for toll facilities not expected to generate adequate revenues to pay for their own construction and operation, and the public sponsor retains the underlying revenue risk associated with the toll facility.⁴⁰

Because availability payments also carry less overall risk to the private entity than does a full concession, a concessionaire also can rely on the public agency’s credit to secure financing or rather than unpredictable toll revenue. In a typical availability payment model, the government makes periodic payments, often contingent on the achievement of project milestones, to the private contractor over an extended period of time (often 20 to 30 years). Due to the potential burden of availability payments on the

39 See US Department of Transportation Federal Highway Administration, ‘Innovative Program Delivery’, www.fhwa.dot.gov/ipd/fact_sheets/p3.aspx.

40 See Transportation Finance Clearinghouse, ‘Availability Payments’, www.transportation-finance.org/funding_financing/financing/other_finance_mechanisms/availability_payments.aspx.

public sector entity, should usage fall below the predicated base case model, certain states may place limits on the scope and size of availability payments.⁴¹

ii State guarantees

In general, US states do not offer state guarantees. Unlike PPP projects in developing countries, the solvency of the government has not historically been a serious consideration. In addition, financing for many US PPP projects is obtained through TIFIA and similarly federally guaranteed funds.

Most state guarantees to the private entity are contractually based. The most common such guarantee is a revenue guarantee. A revenue guarantee assures a certain level of usage or revenue for a project.⁴² For example, it may guarantee the revenue generated by a toll road per year. If the actual revenue falls below this amount, the state makes up the difference. In support of the state PPPs, the federal government offers various credit enhancements and in some cases guarantees. See Section VI, *infra*.

iii Distribution of risk

The table opposite provides a comprehensive summary of the various risk sharing approaches implemented under US PPP arrangements.⁴³ For each project delivery model, various functional responsibilities are shifted to the private sector. The risk transfer to the private sector increases along a spectrum ranging from the design–build project delivery model to the build–own–operate–transfer model.

41 D Bruce Gabriel, Jeffrey Bomberger and Greg Daniels, 'Public Private Partnership Legislation: Ohio', *Practical Law* (2014), at p.6, available at: www.squiresanders.com/files/Publication/eabff08c-7c70-42dd-a9d4-7f72d5a34489/Presentation/PublicationAttachment/835abac2-ce00-4cca-92fd-7fe05fd2ffa6/Practical-Law-Public-Private-Partnership-Legislation-Ohio.pdf.

42 www.eib.org/epec/resources/epec-state-guarantees-in-ppps-public.pdf.

43 Chart derived from Rall, Reed and Farber (footnote 15, *supra*), p.5.

	<i>Project delivery models</i>	<i>Functional responsibilities and project risks</i>
<i>PPP</i>	Design-build	Final design, construction and construction inspection
	Design-build with warranty	Final design, construction, construction inspection and long-term preservation
	Operate and maintain	Maintenance and operations
	Construction management at risk	Preliminary design, final design, construction and construction inspection
	Design-build-operate-maintain	Finance, final design, construction, construction inspection, maintenance, operations and traffic revenue
	Design-build-finance-operate	Finance, final design, construction, construction inspection, maintenance, operations and traffic revenue
	Brownfield concession	Finance, maintenance, operations, long-term preservation and traffic revenue
	Greenfield concession	Finance, final design, construction, construction inspection, maintenance, operations, long-term preservation and traffic revenue
	Build-transfer-operate	Finance, preliminary design, final design, construction, construction inspection, maintenance, operations, long-term preservation and traffic revenue
	Build-own-operate-transfer	Planning, environmental clearance, land acquisition, finance, preliminary design, final design, construction, construction inspection, maintenance, operations, long-term preservation, traffic revenue and asset ownership
<i>Non-PPP</i>	Traditional design-bid-build	Final design and construction
	Build-own-operate	Planning, environmental clearance, land acquisition, finance, preliminary design, final design, construction, construction inspection, maintenance, operations, long-term preservation, traffic revenue and asset ownership
	Asset sale (not a PPP)	Finance, maintenance, operations, long-term preservation, traffic revenue and asset ownership

iv Adjustment and revision

PPP contracts are carefully calibrated to help balance the ability of the private party to make its return on investment while simultaneously ensuring that the public service is delivered in an efficient and cost-effective manner. Accordingly, PPP contracts frequently contain adjustment of payment levels including floors to help ensure a minimum return for the private sector and ceilings designed to protect the public and avoid excess profits or over compensation to the private party. Further, in many toll PPPs, there are sharing mechanisms that may be triggered by revenue or return targets.⁴⁴

PPP contracts frequently contain adjustment provisions for unforeseen circumstances, *force majeure*, change of law and other events that were beyond the reasonable contemplation of the contracting authority and the private sector participant. Adjustment provisions also may be included and allow the public entity to request changes to the scope or timing of services or adjustments to the design of the delivered systems.

⁴⁴ US Department of Transportation, 'Model Public-Private Partnerships Core Toll Concessions Contract Guide, Innovative Program Delivery of the Federal Highway Administration', p.20.

When market conditions change dramatically making the assumptions underlying the original contract unworkable, it is helpful if the PPP contract itself provides mechanisms for the parties to orderly make acceptable contractual amendments.

v Ownership of underlying assets

The public sponsor generally has control of the underlying asset in US PPPs:⁴⁵

*In a PPP, the public agency retains ownership of the asset or enterprise, oversight of the operations and management of the asset, and controls the amount of private involvement. Through a PPP, the public sector sets the parameters and expectations for the partnership and the private sector uses access to capital markets to address the public agency's needs. If the PPP does not live up to the contractual expectations of the partnership, the public agency can regain complete control of the asset or enterprise system.*⁴⁶

vi Early termination

With respect to early termination, most US PPP contract provisions address the following key issues: termination for public entity default; termination for developer default; termination for extended *force majeure* events; and termination for convenience by the public entity.⁴⁷ PPP contracts must anticipate default, compensation for default and orderly unwinding of the PPP in the event of termination.

VI FINANCE

In the US PPPs are frequently financed through a combination of private (debt and equity) and public funds including federal, state and local funds. Under many PPP structures, the public entity requires that the private sector place equity at risk. In the event that the private sector fails to perform on time and or on budget, the entity may lose part or all of its equity investment.

At the centre of a PPP project is a special purpose vehicle formed to undertake the PPP. Under many typical PPP arrangements, the equity investments from the investors, along with bonds and loans benefiting from various federal and state enhancements are used to fund the initial design, development, procurement and construction of the PPP project. That is, the necessary up front investments required to enable the project to reach commercial operation.

45 Florida Department of Transportation, 'White Paper: Public Private Partnerships', November 2013, available at: www.freightmovesflorida.com/docs/default-source/fmtp-freight-information/public-private-partnerships.pdf?sfvrsn=0.

46 California Debt & Investment Advisory Commission, 'Privatization vs. Public-Private Partnerships: A Comparative Analysis', August 2007, available at: www.treasurer.ca.gov/cdiac/publications/privatization.pdf.

47 See US Department of Transportation, Federal Highway Administration, 'Model Public-Private Partnerships CoreToll Concessions Contract Guide', September 2014, available at: www.fhwa.dot.gov/ipd/pdfs/p3/model_p3_core_toll_concessions.pdf.

Historically, there have been varied sources of equity in PPPs. A recent survey determined that the sources of equity investments in PPPs in the US from 2008–2013 are as follows: contractor–developer 37 per cent, fund manager 32 per cent, operator 19 per cent, and institutional direct investor 12 per cent.⁴⁸ The funding from ‘lenders’ described as bonds and loans are usually supported by federal programmes, or benefit from tax-exempt status as described below.

With respect to federal funding, two of the most important programmes include: TIFIA and WIFIA.

i TIFIA

TIFIA provides long-term, flexible financing to highway and transit projects that feature dedicated revenue sources. Each dollar of TIFIA can support about US\$10 in loans, loan guarantees, or lines of credit. TIFIA plays a significant role in financing surface transportation projects and focuses on attracting substantial private and non-federal co-investment by providing supplemental and subordinate capital. In many cases, the lower cost of capital and flexible terms offered by TIFIA are critical factors in determining whether a PPP is a viable and cost-effective option for a project. For example, from 2008–2013, TIFIA accounted for about 23 per cent of total PPP project value (and 35 per cent of PPP debt).⁴⁹ With a recently expanded budget, the programme can support approximately US\$9.2 billion in lending capacity in FY 2014, which translates into approximately US\$20 to US\$30 billion in total project value. Eligible applicants for this credit assistance include state and local governments, transit agencies, railroad companies, as well as private entities.⁵⁰

TIFIA offers three forms of financial assistance:

- a* Secured loans for up to 49 per cent of the total project cost with a static interest rate set at the Treasury note equivalent. ‘Repayment of a TIFIA loan must begin by five years after the substantial completion of the project, and the loan must be fully repaid within 35 years after the project’s substantial completion or by the end of the useful life of the asset being financed, if that life is less than 35 years.’⁵¹
- b* Loan guarantees backed by the federal government to institutional investors.
- c* Lines of credit available during the first 10 years of the project. The total amount available is no more than 33 per cent of the project cost.

ii WIFIA

WIFIA is a low-interest loan programme administered by the Environmental Protection Agency (EPA), with a parallel programme administered by the US Army Corps of Engineers for flood-control projects. The EPA programme:

48 US Department of the Treasury (footnote 2, *supra*), p.9.

49 Peter Allison, InfraAmericas managing director, welcoming remarks at InfraAmericas USP3 Infrastructure Forum, June 2013, New York. About 45 per cent of total TIFIA assistance during this period was PPP related.

50 US Department of the Treasury (footnote 2, *supra*), p.9.

51 www.fhwa.dot.gov/map21/factsheets/tifia.cfm.

- a* will support water and waste-water-related infrastructure projects, including pipe replacement or rehabilitation, construction or rehabilitation of treatment plants, desalination projects, groundwater replenishment projects, energy efficiency improvements, and others;
- b* is aimed at larger projects, in which eligible projects must cost at least US\$20 million (US\$5 million for communities serving no more than 25,000 people);
- c* provides loan guarantees and direct loans at long-term Treasury rates. Projects must be deemed creditworthy, with loans repayable from a dedicated revenue source within 35 years of substantial project completion;
- d* limits WIFIA support of a project to 49 per cent of the project's costs, with an overall limitation of 80 per cent for all federal assistance in any project (with an exception for certain federally funded projects in Indian tribal communities), and provides that tax-exempt debt cannot be used to pay the non-federal share of project costs. However, in any year the EPA Administrator may use up to 25 per cent of appropriated funds in projects exceeding the 49 per cent limitation;
- e* reserves 15 per cent of appropriated funds each year for projects in communities with a population of no greater than 25,000. By 1 June of each year, any such reserved funds that have not been obligated shall be available for projects in communities of any size; and
- f* authorises US\$20 million in year one of a project, which should support at least US\$200 million in loan guarantees or low-interest loans. The authorisation level rises to US\$50 million in year five, which should support up to US\$1.65 billion in assistance, according the Office of Management and Budget.⁵²

In addition to the two federal programmes described, infrastructure in the US, including PPPs, have long taken full advantage of tax-exempt financing, which has been a mainstay of infrastructure financing over the years. One such financing source is qualified (private activity bonds – PABs). PABs are tax-exempt bonds issued by state or local governments on behalf of private developers of a project. PABs are a significant component of many PPP arrangements; from 2008 to 2013 PABs accounted for 17 per cent of total PPP project value and 25 per cent of project debt. To be eligible for tax-exempt status, 95 per cent or more of the bond's net proceeds must be used for a qualified purpose, such as surface transportation projects that receive federal funding or credit assistance. Transportation PPPs are increasingly pursuing PABs as a senior debt vehicle for their project financing. In FY 2014 alone, almost US\$3 billion in PABs authority has been allocated to public-private partnership projects, while nearly US\$500 million in bonds have been issued. In many cases, project sponsors are pursuing PABs in conjunction with TIFIA.⁵³

52 Infrastructure Financing, American Water Works Association, 'President Obama signs legislation authorising WIFIA into law', at www.awwa.org/legislation-regulation/issues/infrastructure-financing.aspx.

53 US Department of the Treasury (footnote 2, *supra*) pp.10–11.

Another source of funding for PPPs are direct-pay bonds, which are taxable bonds issued by state and local governments for which interest expense is directly subsidised by the federal government. These bonds are designed to attract investment in US infrastructure from the private sector that is not subject to US income tax. From 2009–2010, as part of ARRA, over US\$185 billion of ‘Build America Bonds’ (BABs) were issued by state and local governments. A 2011 Department of the Treasury analysis found that issuers of BABs achieved approximately US\$20 billion in savings relative to what their borrowing costs would have been from issuing tax-exempt debt.

Besides federal funding, PPPs are also funded by the state itself, either through funding itself from the state’s department of transportation or through taxes. For example, a state may levy or increase a fuel tax to generate enough funding for a large project.⁵⁴

PPPs also issue bonds to fund projects, which are often tied to future project revenue; in addition, state and local governments issue PABs to fund projects.

*With approval from the US Department of Transportation (DOT) to issue PABs, the State or local government issues tax-exempt debt on behalf of the private entity undertaking the project. The private entity finances and delivers the project and is responsible for debt service on the PABs. As of June 2014, over 73% of the authorized \$15 billion in PAB allocations had been approved by DOT for twenty projects. The first project for which bonds were issued is the Capital Beltway/I-495 high-occupancy toll (HOT) lanes project.*⁵⁵

Finally, private investment is also used to fund PPPs.⁵⁶

VII RECENT DECISIONS

Due to differing state enabling legislation, opponents of PPP projects have attempted to lodge various challenges and have even gone so far as to challenge the validity of the enabling legislation itself. The following are three recent cases that illustrate the various legal theories advanced by litigants in opposition to PPP projects:

- a* A union of engineers in the California government sued the California Department of Transportation seeking a permanent injunction to stop Phase 2 of the Presidio Parkway, a PPP highway project, on the grounds that it did not qualify as a PPP. The trial court, the appeals court and the Supreme Court of California all denied their petition for review.⁵⁷

54 US Department of Transportation, ‘Georgia Northwest Corridor’, available at: www.fhwa.dot.gov/ipd/project_profiles/ga_northwest_corridor_project.aspx.

55 US Department of Transportation, ‘Private Activity Bonds (PABs)’, available at: www.fhwa.dot.gov/ipd/fact_sheets/pabs.aspx.

56 National Council for Public-Private Partnerships, ‘Pension funds Targeting Infrastructure Investment Largely Go Overseas’, available at: www.ncppp.org/pension-funds-targeting-infrastructure-investment-largely-go-overseas/.

57 *Prof’l Engineers in California Gov’t v. Dep’t of Transp.*, 129 Cal. Rptr. 3d 255 (2011).

- b* The plaintiff, a corporation that owned adjacent land to the proposed ‘Dulles Corridor Metrorail Project (a PPP project), brought a suit against the VDoT and others alleging, among other things, that the VDoT improperly applied the Virginia Public Private Partnership Act. Aside from issues with the plaintiff’s standing to bring suit, the court ruled that sovereign immunity prevented the federal court from ordering state officials to conform their conduct the state law.⁵⁸
- c* Private developers of the ‘CityCenterDC’ development, a PPP with the District of Columbia, challenged the Department of Labor Administrative Review Board’s determination that the construction taking place as part of the PPP project constituted a ‘public work’ pursuant to the David-Bacon act. The court determined that the PPP project and associated construction was not a public work.⁵⁹

VIII OUTLOOK

Many analysts predict robust growth for US PPPs. For example, the credit-rating agency Moodys Investor Service states in its ‘Global PPP Landscape’ report that ‘[g]iven the sheer size of its infrastructure and growing urban population, the US has the potential of becoming the largest market for public-private partnerships (PPPs) in the world.’ An increasing number of US states are authorising the use of PPPs for transportation projects, typically the first type of PPP project in a new market. The use of PPP models has been steadily increasing over the past five years.⁶⁰

In the coming years, there will be greater reliance on PPPs to meet some of the US’s most pressing infrastructure challenges. However, it is important to note that while PPPs provide innovative mechanisms for sharing risk between the public and private sectors, the ability of both the private and public sectors to take on large, long-term obligations for funding the US’s increasing infrastructure needs will be limited by the overall economic health of the US and the strengths of its debt and equity capital markets.

58 *Parkridge 6 LLC v. US Dep’t of Transp.* 2010 WL 1404421, at *5 (E.D. Va. 2010).

59 *D.C. v. Dep’t of Labor* 2014 WL 1292788, at *2 (D.D.C. 2014).

60 Moody’s, ‘US is poised to become largest public-private partnership (P3) market in the world’, https://www.moodys.com/research/Moodys-US-is-poised-to-become-largest-public-private-partnership--PR_308002.