



Association for the Improvement  
of American Infrastructure

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# P3 Payment Mechanism Considerations for Public Officials

**Payment mechanism alternatives for public officials to consider when assessing procurement options for public infrastructure projects utilizing Public Private Partnerships – P3s.**

**Summary:** Public Public Private Partnerships can provide many benefits for the delivery of public assets across a broad range of sectors but they are not free money. In all cases, the private sector partner can finance up to 100% of the project upfront, however, there is an obligation for the public-sector partner or the users of the asset to pay the private sector partner for its investment and services.

## PAYMENT MECHANISM

In a P3, private equity assumes significant risk and consequently performs a level of due diligence and management of operations that exceed most traditional municipal projects. This model has been successfully deployed for years in Australia, Canada and Latin America, as well as in Europe. P3s are based on the principle that the private sector partner will assume the responsibility and risk for integrated project delivery for the long-term in exchange for the right to collect contracted or asset use revenue over such term. Similar to traditionally financed municipal projects, such revenue streams, or payment mechanisms of a P3, can take many forms.

## CONSIDERATIONS

Aspects to be considered when structuring the payment mechanism of a particular project include (i) the project's ability to directly generate revenues itself; (ii) the certainty of any such revenues; (iii) the revenue amounts in comparison to the project costs; (iv) the public-sector client's objectives for the project and possibly its policy for the wider regional network of similar infrastructure; and (v) the political environment with respect to revenue collection and retention by a private sector entity.

When analyzing all these aspects, public officials will consider the best interests of the public as well as the financing feasibility of a particular project to make such a determination. In both Availability and Demand-based P3s, the public-sector client maintains ultimate control and ownership of the asset

## DEMAND BASED | REVENUE RISK P3S

Revenue risk or demand based P3s projects are paid through user fees to offset the capital investment made to build the project. This model is often utilized for toll roads, managed lanes, bridges, water/waste projects, gas and even electricity P3s. Pure "greenfield" projects without any historic data on demand and usage patterns bear the highest risk; and therefore tend to have the highest cost of capital and likely attract a lower level of interest from the industry. For some projects, the revenues generated by the project itself will not be sufficient to pay for the entire project costs. In such cases, the public sector may want to consider subsidizing the construction of the project with public funds; thus enhancing the financial viability of the project by shifting revenue risk (i.e., appropriate risk allocation) between the parties. Keep in mind, even when the public-sector client transfers demand risk of any given project to the private sector, in many instances there may be the possibility to limit the rate setting authority of the private sector partner and retain some level of control.

REVENUE   DEMAND RISK	EXAMPLE	DESCRIPTION	RISKS & CONTROL
FIXED-USE CHARGE FOR UTILIZATION OF ASSET	Fees, Fares, Taxes or Tolls.	A ship is charged for the use of a port. A car is charged a toll for using a bridge or tunnel.	Demand risk can be taken by the public or private entity or both. Typically, risks are borne by the private sector as this is how investment returns are achieved.  Functional daily control of the asset can be outsourced to experts if desired. Ownership ALWAYS remains with the public entity.
AGREED UPON FEES FOR SERVICES PROVIDED	Campus Housing.	Students pay for their room and board, and this “fee for service” is collected and directed to offset capital investments made to restore or modernize or build new campus housing.	
VARIABLE USAGE FEES (MILEAGE-BASED, TIME-OF-USE BASIS)	Managed Lanes.	Access to converted HOV (High Occupancy Vehicle) lanes to ease congestion or provide alternative lanes for travelers, where a car is charged according to predetermined amounts, based on length of segment or time of day usage on managed lanes.	

## AVAILABILITY BASED P3S

Availability Payment P3s are paid for by contractually-set payments from the public-sector owner to its P3 partner for the design, construction, finance, operations and maintenance of a project over the life of the concession term (typically terms from 25-35+ years). This model includes a hand-back of the project at a prescribed minimum condition which is achieved by implementing regularly scheduled maintenance and life cycle replacements. By their very nature, Availability Payments are performance-based and are not directly subject to usage levels or customer demand. Availability Payments are distinct amounts stated in the project agreement and can be reduced by penalty charges for not achieving defined performance levels as set forth in the project agreement. Only upon completion of construction and acceptance of the project will the public-sector client commence making Availability Payments. Similar to demand-based P3s, a public entity may decide to contribute public funds to the construction of a project (in the form of Progress payments and/or Milestone Payments). While such payments reduce the amount of private capital that would be outstanding during the asset’s operational phase and consequently reduce the overall cost of capital for the life of the project, an oversized public-sector contribution may undermine the overall objective of long-term risk transfer to the private sector partner.

AVAILABILITY RISK	EXAMPLE	DESCRIPTION	RISKS & CONTROL
MILESTONE PAYMENTS FOR REACHING AGREED UPON DESIGN, PRE-CONSTRUCTION OR CONSTRUCTION GOALS.	Design drawings completed to specified level to initiate the construction of a project.	Payments to the construction company and/or sponsor come due once a bridge is complete. The public sector takes minimal construction risk, but if project is completed as agreed, payments are made.	In availability projects, the construction, and at times performance risk of an asset is shifted to the private sector.  Public funds are only paid when construction is complete or services are delivered. Control typically transfer to public entity once construction requirements are met. Ownership ALWAYS remains with public entity.

## HYBRID MODEL P3S

There are hybrid models where a combination of demand risk and availability risk are shared by the partnership; with risks taken by the party considered best suited to assume those risks and payments determined proportionately and appropriately. Hybrid structures can enhance the financial feasibility of a project or allow a public entity to monetize an unused asset to contribute funding to a new project. In addition to the applications cited in the chart below, hybrid P3 models can also be used to effectively monetize air rights, mineral rights, advertising, sponsorship, concessions or tax increment financing opportunities. Popular models have included projects where the public entity makes a minimum payment to protect the private sector partner against severe downside risks, while also sharing upside potential.

HYBRID MODELS	EXAMPLE	DESCRIPTION	RISKS & CONTROL
LAND VALUE EXCHANGE (AIR RIGHTS, FAR OR DEVELOPMENT RIGHTS, TAX INCREMENT FINANCING (TIF)).	Off balance sheet transaction value to provide capital cash offset.	Sale of excess city land parcels to accommodate a consolidation of municipal facilities.	The public entity typically has greater control of toll setting and shares in the project's upside potential.
MINIMUM REVENUE GUARANTY	Used to support financing of toll roads.	Public entity guarantees an annual minimum revenue payment sufficient to cover debt service and allow for some level of equity return.	

## CONCLUSION

Paying for infrastructure projects in an era of tight, scrutinized budgeting, is no easy task. P3 models can offer solutions to political, regulatory and financial hurdles. In those instances when a P3 is determined to be the appropriate method for development and delivery of public infrastructure, there are options to consider for a project's payment mechanism to ensure policy objectives and funding availability for a specific project are met. This can take the form of either "revenue risk" or "availability payments" or a "hybrid structure" There are considerations for risk transfer and control for each which need to be addressed specifically for each individual project.

## ADDITIONAL RESOURCES FOR PUBLIC OFFICIALS

AIAI is available to assist public officials to plan and work to implement P3 programs, including providing assistance for getting project procurements initiated, as well as identifying creative means and methods of securing funding and financing.