Report to Ken Livingstone on the
London Underground PPP

For the past three years, the Government has been engaged in an effort to enter into a Public Private Partnership (PPP) on behalf of London Underground, after which ownership of London Underground would be transferred to Transport for London (TfL). Under the Government's plan, control of the Underground, however, would remain in private hands. This is the first report on this process based upon access to virtually all relevant information.

Last November, the Mayor requested that Transport for London examine the proposed PPP and report its conclusions. That report, submitted to the Mayor on 13 December 2000, concluded that the PPP, as then understood by TfL, based on the limited information made available by the Government, was "fatally flawed". At the same time, Transport for London put forth an alternative plan for the reconstruction and renewal of the London Underground under the direction of a chief executive with responsibility for all aspects of this critical public asset.

Our work since December, described below, confirms the fundamental conclusions of the December report. The "fatal flaw" is simply that the public will own the system, but not control it. The result is a divided management structure that will leave the public managers with no practical means of effectively operating the transport system or ensuring the safety of its millions of daily customers. In short, implementation of the PPP would be unsafe, inefficient and prohibitively expensive.

In the time we have spent with representatives of the Government, staff of London Underground and the Government's consultants, it has become clear that many PPP advocates share our concerns. But they believe it is worth taking the risks of the PPP if that is the only way to obtain a stable and secure long term funding commitment from the

Treasury. The erratic history of financial support for the Underground is perhaps the most important factor in the Underground's current deteriorated condition. There is no question that it is desperately in need of a robust, long-term and sustainable capital improvement program. But the loss of management control is simply too high a price to pay for the commitment of those funds. Under the PPP, the decisions about what to do, when to do it and how to do it will be transferred from the public sector to three private-sector monopolies. The public sector managers of the Underground will remain responsible to the public but will be effectively powerless to run the system.

Moreover, while in the public's mind the Underground will remain a unitary "system", in reality what was a unified whole will be both balkanised and bifurcated. Balkanised in the sense that responsibility for the infrastructure of the Underground's eleven lines will be arbitrarily parceled out to three private companies, with little incentive or obligation to operate in a unified manner. Bifurcated in the sense that the indivisible bond between the operation of trains and the maintenance of all aspects of the systems will be broken. These are not mere words. An example of the problem is presented by the PPP bids. Under the PPP structure, the Underground's two north-south lines have been parceled out to separate companies. Bidders for the contracts for both lines have indicated that they plan major line upgrade projects at the same time. This presents the very real risk that London will have no north-south tube service for an extended period of time. TfL and LUL will be held responsible, but under the PPP they are powerless to do anything about it.

Recent Background

Following a December meeting between Deputy Prime Minister John Prescott and Bob Kiley, Commissioner of Transport for London, in January the Government and TfL entered into a process to identify TfL's specific concerns with the PPP in the hope that modifications could be made to address those concerns which would allow TfL to recommend support of modified PPP arrangements. The Government believed that the more we learned about the PPP, the more comfortable we would become with its implementation. In fact, just the opposite has occurred. The more we learned, the more convinced we have become that the PPP is unworkable, potentially dangerous and prohibitively expensive.

This process began early in January, but continued to be hampered by the Government's refusal to make available highly relevant information concerning the financial and legal relationship between LUL and the private consortia bidding for the three contracts. This notwithstanding, we made numerous proposals throughout the month for modification which might have met TfL's requirements. Each time, our proposals briefly received serious consideration, but were then rejected after, we have been told, the intervention of the Treasury.

The February 2 Agreement

In the last week of January, discussions culminated in an agreement between John Prescott and Bob Kiley, announced on 2 February. Under that agreement, the Government and TfL agreed that LUL should have "unified management of the Underground". At the press conference announcing the agreement, Mr Prescott stated that Kiley would "take the lead" in identifying the modifications necessary to achieve this essential requirement of the February 2 agreement.

To that end, TfL staff began an intensive review of the PPP bid information, finally having been given access to all the relevant data. Of particular interest were the following:

--General management and control issues;
--Proposed scope of work;
--Staffing and management plans;
--Non-competitive contracting;

--Transition arrangements;

--Due diligence regarding condition of system assets;

--Amount and nature of equity investment;

--Debt financing arrangements;

--Termination arrangements.

This work progressed rapidly and we received a high level of cooperation from Government/LUL staff and advisors. On Friday 9 February and Monday 12 February, under arrangements made by LUL staff, we met with each of the four consortia bidding on the deep lines contracts. These meetings were focused primarily on the bidders' work plans for the first 7 ½ year period under the PPP contracts.

After the bidders' meetings we immediately began a dialogue regarding possible PPP changes with the PPP "team", consisting of LUL staff and financial and legal advisors. These discussions were productive, with all participants contributing to the development of concepts for revisions to the PPP which would meet the agreed objective, namely, "unified management". The following day, Wednesday 14 February, senior representatives of the Government, none of whom had participated in the earlier meetings with the PPP team, requested a special meeting specifically to inform Kiley that the Government's position was that the private sector must control the Infracos and that this position was "non negotiable". Kiley responded that such a position violated the 2 February agreement ("nothing is ruled in, nothing is ruled out", in the words of a Minister).

The fact that this position was non-negotiable was reconfirmed in subsequent discussions. The LUL negotiators had been instructed not to discuss with TfL staff options to provide for public sector, that is TfL, control. As a result, the previous solid cooperation of the LUL negotiators reverted back to a wooden defense of the original PPP, with the by then well discredited suggestion that modest tinkering at the edges could satisfy TfL's objectives.

Nonetheless, further attempts were made to find common ground. But, given the Government's position, it had become clear that common ground on the issue of unified management would not be found. TfL could not recommend any form of PPP which did not provide for unified LUL/TfL control over the system. For its part, notwithstanding the provision in the 2 February agreement for unified management, the Government refused to countenance any approach which could deliver this objective. In consequence, at a meeting on 22 February between the Deputy Prime Minister and Commissioner Kiley it became clear that further talks under the 2 February agreement would be fruitless.

How the PPP would Work

It takes literally thousands of pages of legal documentation to implement the PPP. But the basic scheme is clear. Three new private companies ("Infracos") with thousands of employees will be set up from scratch to provide, maintain and upgrade all elements of the Underground infrastructure in return for an annual payment (the Infrastructure Service Charge or ISC) initially fixed for 7 ½ years and then subject to renegotiation for the balance of the thirty-year contract term. LUL's major remaining roles are to provide drivers for the trains and staff to service customers in the stations. It is also, of course, charged with managing the PPP contracts, but constrained by the limited management authority those contracts provide.

As a theoretical matter, if the Infracos perform better than established benchmarks (which are contractually specified in dozens of pages of complex formulae), their lump sum payment is increased. If they perform worse, the payment decreases. Since the lump sum payment required is substantially higher than the cash available to LUL from the farebox net of costs, the Government must bridge the gap through a substantial annual subsidy. The proposed ISCs are slightly backloaded so that the Government subsidy could be made artificially low in the first few years, but for the initial 7 1/2 year period the aggregate Government subsidy dwarfs the theoretical financial risk transfer (as measured by the "equity" investment in the Infracos).

The reason for the length and complexity of the contracts is to prevent LUL from participating in the ongoing decision-making process. While LUL is the "customer" and the Infraco is the "vendor", the principle of excluding LUL from any substantive role in deciding the future of its own infrastructure has meant that all decisions generally made on a day-to-day basis by the customer are instead provided for by contract. It is as if LUL is placed in a state of suspended animation for a thirty year period. A complex dispute resolution mechanism is called into play if the contractual route is not clear. But unlike the typical infrastructure maintenance and rebuilding contracts, the owner, that is, LUL, is denied the customary right to instruct the contractor to perform in a particular way while the dispute is heard.

Because, statutorily, LUL cannot contract away its safety responsibilities, LUL does retain some measure of control over safety. What this means is that if LUL perceives a safety defect, and if the Infraco agrees it is a safety-related defect, LUL may attempt to instruct the Infraco to correct it, at potentially LUL's expense. If the Infraco refuses to comply with LUL's directive, LUL may "step-in" to address the problem itself, assuming it still has the personnel and equipment to do so. LUL may also require the Infracos to participate in one "table top" safety drill per year and one actual safety drill every three years. These provisions are inadequate to address the full range of the safety problems exacerbated by the fragmentation of the system.

The LUL PPP and Government Policy

The Government would contend that the LUL PPP is thoroughly consistent with a broader Government predisposition toward greater private sector involvement in public sector activities. It would suggest that it is merely a natural extension of the Labour party's PFI policies which, according to a Government report published by the Treasury last year, have lead to 35 hospital PFIs and 520 school PFIs since May 1997(see *Public Private Partnerships The Government's Approach* (London, HM Treasury, 2000). This is not the case.

The reality is that the Underground PPP is not just another, bigger, PFI transaction. Every one of the PFI/PPPs to date has involved a specific project or facility, usually one newly constructed or rehabilitated by the contractor. Once a limited and finite construction or installation period has been completed, the contractor's responsibilities are clearly defined and largely immutable. There is no opportunity, as there is here, for repricing every 7 ½ years; the price in a true PFI is fixed at the outset. While the typical PFI contract may be output specified, the range of available inputs is, as a practical matter, extremely narrow. Even the highly controversial proposed Air Traffic Control PPP is far narrower in scope and more clearly defined than the Underground PPP, and there the Government is retaining the largest equity stake for itself (in the PPP plans for BNFL and DERA, the Government appears to be insisting upon retaining majority equity control).

By contrast, the LUL PPP contemplates continuous operations, maintenance and construction for 30 years. The output specifications are extremely broad, largely statistical in nature, and, as a practical matter, permit the private sector Infracos to define a maintenance and improvement programme that is virtually beyond the control of the Underground managers responsible for providing the service. In the typical PFI, the construction period provides ample time for the contractor to organise its ongoing maintenance and support programme. Here the Infraco-contractor will inherit the entire spectrum of activities on day one. While real world experience tells us that it takes years to build a smoothly functioning business operation, here it is simply assumed that three such businesses, building only from the management of the LUL that the Government discredits, will spring intact from the ground before the ink is dry on the contracts. This is unrealistic.

Finally, there is the matter of scale. If one excludes the Channel Tunnel Rail Link, where the principal government involvement is the guarantee of private sector debt, the LUL PPP probably represents a larger financial commitment by the Government than all of its other PFIs combined. Just as a supermarket cannot be compared to a corner shop even if they carry the same range of goods, so here the quantitative difference, with its accompanying increases in complexity and responsibility, means a fundamental difference in the nature of the project.

In short, despite the Government's claims, the LUL PPP is anything but a mere extension of existing practice. It is a radical, dangerous and prohibitively expensive experiment, using the core of the capital's infrastructure as the guinea pig.

Specific Concerns with the PPP

Unified Management Control. As indicated, this issue was the primary barrier to an agreement with the Government. Precluding LUL from having any material role in the management of the infrastructure was a fundamental tenet of the Government's position. Therefore, needless to say, the PPP as we found it provided no mechanisms for LUL management control. Instead, the PPP provided that the Infracos would be "managed" by the aforementioned output specifications and by the complex performance incentives embedded in the PPP contracts: neither of which can be relied upon to produce decisions in the best interests of the passengers.

Simply stated, TfL's definition of management control is the ability in LUL to organise and direct Infraco management and staff; to take action or desist from an action within broadly defined areas relating to the infrastructure under the Infraco's jurisdiction; and to require reporting on the progress of capital projects, with the power to hire managers to perform the work and to remove managers who fail to perform. Without such authority, TfL and LUL management would be unable to carry out its overall responsibility to the

GLA to improve the level of service on the Underground and restore the system to a state of good repair. Inconsistencies could develop amongst the Infracos, leading to duplication of effort and other inefficiencies. Conflicts would emerge between operations, maintenance and investment activities.

Scope and Complexity of the Infracos. As indicated above, the Government assumes these large business organisations will be fully operational on the day of the handover. Unlike a single-project PFI where each member of the consortium simply works on the project in its area of expertise, the LUL PPP anticipates that each Infraco will be a freestanding self-sufficient business, capable of establishing priorities and allocating limited financial resources over a wide spectrum of potential needs. This is a much different role than would be assumed by a typical construction contractor. We have seen little in the way of evidence that the consortia contemplate developing the capacity to perform such functions, much less the ability to carry them out on day one. If instead the Infracos contemplate simply parcelling out construction projects, primarily to their shareholders, it is doubtful that the decisions as to which projects to pursue will be based on the real needs of the Underground.

Indeed, LUL's shadow running of the Infracos over the past year provides a basis for concern about the effect of the arbitrary division of the Underground system on operating performance. In the last 13 measurement periods under shadow running, train cancellations during peak periods have increased by 43%. Most of this serious decline in performance is due to procedural changes in the assignment train operators mandated by the new Infraco-dominated restructuring of the Underground. For example, before the Underground was divided, the Bakerloo line experienced 28 cancellations per four-week period due to a lack of crews. By the last calculated period, cancellations had reached 133. Overall, cancellations due to lack of crews increased from 152 to 444, a 192% increase.

LUL is attempting to solve this particular problem and may do so soon. But it is an indication of the kind of unforeseen problems that are likely arise if the PPP is fully implemented. It also gives fair warning that much of the additional costs that will result from the divided management structure will be borne by LUL and therefore ultimately by riders and taxpayers.

Eliminating Financing Risk and Increasing Returns through Manipulation of Scope and Timing of Projects. During briefings by the Government's financial advisor, we were advised that relatively modest increases in project costs (the precise amounts are subject to confidentiality restrictions) would potentially place the Infracos in a loss making position, thus eroding the equity. This was cited as a positive: as evidence of the toughness of the Government's negotiation and an example of risk transfer at work. But the reality is that LUL cannot effectively restrict the Infracos' ability to defer work, and therefore costs, on "non-performance-related assets" (such as bridges or structures) both within and between the 7 ½ year periods. This is significant for two reasons. The first is that cost overruns in one particular project may be offset by "re-engineering", or down-sizing other projects, and, when needed, by deferring work with respect to non-performance assets. In effect, this allows the Infracos to manage their work plans and therefore their overall costs to a budgeted figure they can establish themselves. If expenses can thus be controlled through manipulation, and revenues are essentially stable and secure due to LUL's contractual obligation to pay, there is no realistic possibility of operating loss and virtually all risk to lenders is eliminated during the 7 ½ year period. This conclusion is essentially confirmed by PricewaterhouseCoopers, the Government's financial advisors, who for purposes of their analyses assume only a 1 percent risk of Infraco financial default.

Secondly, shifting a project, particularly into the next 7 ½ year period, allows the Infraco to renegotiate the price of the project. The PPP may theoretically require that these costs be held to "economic and efficient levels", but virtually all the operational and financial information relevant to such a determination is controlled by the Infracos. A tenet of management accounting is that accounting systems can be employed in the interest of the counting party; thus the "economic and efficient" determination will not take place with perfect information, nor with both parties committed to full and unbiased disclosure. Rather, the Infraco, like any monopolist, will use its position to manipulate the figures in its own interest.

Destruction of TfL's Credit. Although the Infraco has the ability to manipulate its costs and thereby eliminate its financial risk, ironically, the dogmatic effort to assert that substantial risk is being transferred from the taxpayers to the private sector only serves to increase the Government's costs. The TfL credit has been estimated by the rating agencies as "AA". In addition, the Government will provide the PPP lenders with written assurances that LUL will have the funds to make the ISC payments. Yet because of the Government's disproportionate emphasis on risk transfer and the complex and convoluted nature of the PPP contracts themselves, all the consortia contemplate pricing the Infraco debt at "BBB" levels. The wasted cost resulting from the degraded financial structure will amount to billions over the life of the PPP, as much as 25 percent over and above the financed amounts actually invested in the Underground. These "inefficiency" costs are more than 60% higher than the total proposed equity placed "at risk" by the respective bidding consortia.

Absence of Meaningful or Appropriate Risk Transfer. In the PPP ideology, no concept is more central than that of risk transfer. We are dubious whether effective risk transfer ever really takes place if the underlying project is important to the public sector, but such doubts aside, it is clear no such transfer is occurring under the LUL PPP. Among the limitations to risk transfer are the following:

> --*Limited Equity Exposure*. A substantial portion of the equity is actually in the form of high coupon subordinated debt or similar arrangements. Since there is limited downside exposure in the early years, all of this portion of the "equity" commitment will be returned in the form of tax advantaged interest payments on the debt. Any return thereafter is in effect a free ride. In short, the Government

subsidy will pay to insure the "equity" is made whole before it faces real exposure.

--*High Cost of Transfer*. As we have shown, careful evaluation of even the most aggressive bids reveals that in each case, the incremental cost of Infraco funding above any reasonable assessment of the public sector bond alternative is higher than the amount of equity being invested. This is the same as paying an insurance premium that is actually higher than the amount of the policy itself.

--*Limited Scope of Risk*. At the end of the day, the success or failure of a programme of improvement for the Underground will be measured by how many people use the facility. But if ridership declines, the Infracos, and their bankers, will continue to insist on the full ISC. Since revenues will fall with passenger levels, the shortfall will have to be made up by an even higher Government subsidy or, more probably, by increased local support in the form of higher fares or higher GLA subsidies funded through taxes.

Perverse Contract Provisions. Embedded within the proposed PPP contract terms are a myriad of complex provisions which either undercut the Government's principal objective of risk transfer, or which expose LUL to extraordinary risk at the time of repricing or in the event of inadequate performance by an Infraco. While our discussions with the Government certainly suggested a willingness on its part to revisit these provisions, we have no comfort these concerns will be addressed in the absence of a comprehensive agreement with TfL. Among the particularly troublesome provisions were the following:

--Significant limitations on LUL's ability to withhold disputed funds;

--Severe limitations on LUL's to change the work being performed by the Infracos;

--Inadequate assurance that Infraco would maintain within its own employee ranks all necessary skills to perform essential infrastructure maintenance;

--Absence of any requirement that the Consortia competitively bid contracts or restrict self-dealing with member Companies, even after expiration of initial term in which the contract at least purports to provide fixed pricing;

--Constrained audit rights limiting the information available to LUL to evaluate the few decisions it retains the right to make and to assess repricing at 7 ½ year mark

--Inadequate protections to assure LUL that it will have all necessary intellectual property rights to operate the system if Infraco fails to perform;

--No provision whatsoever for financial security to assure LUL that Infraco will perform any post termination obligations, including the obligation to repair system assets which it neglected or abused;

--Provisions which expressly subordinate LUL's operational interests to Infraco's interest in cost containment;

--Provisions requiring LUL to indemnify the Infracos and limitations on the types of damages LUL can collect, but without appropriately reciprocal indemnities or limitations on Infraco obligations to LUL; and, most perversely,

--Provisions which entitle the Infraco to a lower financial liability in the circumstance of termination for a safety breach than the liability it would incur in other breach circumstances.

Monopoly Position. The Government's PPP manifesto of last year points to customer service as a benefit of private sector involvement: "The need for private sector businesses to generate a return, means that they are forced to look for ways to enhance the service they offer their customers… .Unless they do, the customers will go elsewhere." Yet the LUL PPP, both by giving the Infracos a 30 year monopoly and by in effect mandating that LUL give up its in-house infrastructure capability, insures that Londoners will be denied the right to "go elsewhere". What is a bad deal for the public for the first 7 ½ years will become an even worse deal thereafter when the contracts are renegotiated. At least today, before the contracts are let, there are competing bidders. Seven years from now the

Infracos will be the only game in town: there will be no competing bidders and LUL will have lost the ability to manage its infrastructure on its own.

Concerns of Oversight Agencies. The National Audit Office has expressed extensive and serious reservations about the Government's construction of the Public Sector Comparator for purposes of applying the requisite "value for money" standard. (We would also note that even by the Government's private sector-based PSC, all of the bids fail to meet the standard during the first 7 ½ year period, the only period for which PPP costs are fixed.)The Health & Safety Executive has noted that LUL "post PPP" Safety Case fails to address even the most fundamental safety issues. Yet the Government and LUL have rather dismissed our queries on these matters and have given no indication they are taking substantive actions to address these very real concerns.

Adverse Impact on TfL. There is significant risk that the PPP will push the problem of uncertain annual funding for infrastructure into other parts of the Transport *for* London system or onto London itself. Shortfalls within the operating budget of the Underground have historically been remedied by reducing its capital expenditures within the year. Fixing payment for capital, whether under PPP or any other financial plan, will remove this source of flexibility. TfL management agrees with LUL that this practice reduces efficiency, delays improvements, and ultimately increases costs.

If payments to the Infracos are fixed, then when passenger levels fall or costs rise within the operating budget of the Underground, the burden to balance TfL's budget will fall on the more flexible parts of the TfL system. Buses and the Docklands Light Railway are governed by contracts almost as rigid as the PPP. Thus, a small portion of London's transport infrastructure will have to bear the entire burden unless the funds are generated by substantially raising fares and/or the precept on the council tax. It most be most unfair for certain parts of TfL to bear the full cost of shortfalls, especially when the problem is caused by the part of TfL over which it has the least control.

The Way Forward

It is TfL's intention to introduce fundamental structural changes in the way the Underground is funded and managed. In our December proposal, we made clear that a long-term funding plan, agreed by both the national government and the GLA, was essential. While the commitments of government may not be legally binding, a good faith statement of intention, comparable to those regularly used in PFI transactions, will be sufficient to produce the productivity benefits of stable funding that are available to other mass-transit agencies around the world, but are currently lost within the British system of public finance. Indeed, the PPP bids confirm that even the tightly circumscribed ability to make long-term commitments available to the Government is adequate to attract large-scale long-term financing.

A long-term funding and planning horizon will allow the Underground to break out of the counterproductive maneuvering required to manage complex projects with uncertain funding. It would also eliminate the need for pervasive confidentiality in its operations and finance. Full and open public disclosure serves as a discipline comparable in effectiveness to the profit motive in private corporations. This is a dynamic that has been embraced by the Mayor, and is consonant with the goals of devolution that have been promoted by the Government.

This discipline of open disclosure has proven itself in North American citiesa. In fact, this discipline is amplified by the additional disclosure that is required in accessing low-cost capital from the public markets.

The management system TfL proposes is highly structured and tightly disciplined. It is both pervasive and simple, in stark contrast to the complicated regimes needed for the blind management of the PPP. Moreover, unlike the PPP, it has been proven in the marketplace, having been used to turn around systems in Boston, Philadelphia, New York City, and Toronto. In essence, the system involves the following 10 elements:

1. Dedicated, management oriented, leadership at the Board level.
2. The agreement of Government to fund a long-term capital investment programme. Capital funding is a top priority in the financial system and is segregated from operating budgets.
3. Annual operating plans are prepared, along with multi-year (5- to 10-year) capital plans and budgets. The segregation of capital funds means that they will be protected from serving as a reserve to pay for revenue shortfalls or operating budget overruns.
4. Management consists of transportation specialists, not generalists or management consultants.
5. Management establishes and articulates goals, relating to service, maintenance and capital projects. These goals are reflected in capital and operating budgets, which match inputs to specific outputs. These goals and budgets are monitored monthly to compare actual performance against schedules and budgets.
6. A detailed organization chart creates not only a chain of command, but also personal responsibilities for achieving goals and objectives.
7. The various functional units have responsibility for developing their workplans and budgets in coordination with senior management, creating a sense of ownership for the goals and their respective budgets.
8. Each management level faces regular public scrutiny. Actual results in meeting goals and budgets are available for further inquiry.
9. Managers who fail without cause to keep within their plans are replaced or moved to other positions. While this approach may seem severe, the discipline within the system leads to relatively low turnover, once the management culture changes.
10. Private sector contractors manage large-scale, resource intensive projects; but they are held to task by a tightly disciplined management that maintains its responsibilities of directing the overall transportation system. Management skills, including certain project skills are retained in house, and used to manage consultants as partners, rather than leaving them to run delegated, independent operations.

While one could comment that many of these components have been attempted by the Underground in the past, it is clear that the combination of clear structure, public disclosure, and stable long-term financing has not been present. This approach has succeeded with systems in far worse shape that the Underground and in equally politicized environments. The robustness of this approach is reflected in the endurance of the rapid transit systems it has served through changes in management personnel, changes in political party and transportation policy, and even the levels of funding commitments by stakeholders. Its endurance is not based on a certain political or cultural philosophy. Rather it is a testament to its value as a powerful and flexible tool. Its strength is in the management system itself, not the actions of specific managers, and is flexible enough to meet changing public goals and objectives over expended periods.
It projects clarity, conciseness, clear deliverables, and a track record of decades of success in difficult public management environments.